



## Über dieses Buch

Dies ist ein digitales Exemplar eines Buches, das seit Generationen in den Regalen der Bibliotheken aufbewahrt wurde, bevor es von Google im Rahmen eines Projekts, mit dem die Bücher dieser Welt online verfügbar gemacht werden sollen, sorgfältig gescannt wurde.

Das Buch hat das Urheberrecht überdauert und kann nun öffentlich zugänglich gemacht werden. Ein öffentlich zugängliches Buch ist ein Buch, das niemals Urheberrechten unterlag oder bei dem die Schutzfrist des Urheberrechts abgelaufen ist. Ob ein Buch öffentlich zugänglich ist, kann von Land zu Land unterschiedlich sein. Öffentlich zugängliche Bücher sind unser Tor zur Vergangenheit und stellen ein geschichtliches, kulturelles und wissenschaftliches Vermögen dar, das häufig nur schwierig zu entdecken ist.

Gebrauchsspuren, Anmerkungen und andere Randbemerkungen, die im Originalband enthalten sind, finden sich auch in dieser Datei – eine Erinnerung an die lange Reise, die das Buch vom Verleger zu einer Bibliothek und weiter zu Ihnen hinter sich gebracht hat.

## Nutzungsrichtlinien

Google ist stolz, mit Bibliotheken in partnerschaftlicher Zusammenarbeit öffentlich zugängliches Material zu digitalisieren und einer breiten Masse zugänglich zu machen. Öffentlich zugängliche Bücher gehören der Öffentlichkeit, und wir sind nur ihre Hüter. Nichtsdestotrotz ist diese Arbeit kostspielig. Um diese Ressource weiterhin zur Verfügung stellen zu können, haben wir Schritte unternommen, um den Missbrauch durch kommerzielle Parteien zu verhindern. Dazu gehören technische Einschränkungen für automatisierte Abfragen.

Wir bitten Sie um Einhaltung folgender Richtlinien:

- + *Nutzung der Dateien zu nichtkommerziellen Zwecken* Wir haben Google Buchsuche für Endanwender konzipiert und möchten, dass Sie diese Dateien nur für persönliche, nichtkommerzielle Zwecke verwenden.
- + *Keine automatisierten Abfragen* Senden Sie keine automatisierten Abfragen irgendwelcher Art an das Google-System. Wenn Sie Recherchen über maschinelle Übersetzung, optische Zeichenerkennung oder andere Bereiche durchführen, in denen der Zugang zu Text in großen Mengen nützlich ist, wenden Sie sich bitte an uns. Wir fördern die Nutzung des öffentlich zugänglichen Materials für diese Zwecke und können Ihnen unter Umständen helfen.
- + *Beibehaltung von Google-Markenelementen* Das "Wasserzeichen" von Google, das Sie in jeder Datei finden, ist wichtig zur Information über dieses Projekt und hilft den Anwendern weiteres Material über Google Buchsuche zu finden. Bitte entfernen Sie das Wasserzeichen nicht.
- + *Bewegen Sie sich innerhalb der Legalität* Unabhängig von Ihrem Verwendungszweck müssen Sie sich Ihrer Verantwortung bewusst sein, sicherzustellen, dass Ihre Nutzung legal ist. Gehen Sie nicht davon aus, dass ein Buch, das nach unserem Dafürhalten für Nutzer in den USA öffentlich zugänglich ist, auch für Nutzer in anderen Ländern öffentlich zugänglich ist. Ob ein Buch noch dem Urheberrecht unterliegt, ist von Land zu Land verschieden. Wir können keine Beratung leisten, ob eine bestimmte Nutzung eines bestimmten Buches gesetzlich zulässig ist. Gehen Sie nicht davon aus, dass das Erscheinen eines Buchs in Google Buchsuche bedeutet, dass es in jeder Form und überall auf der Welt verwendet werden kann. Eine Urheberrechtsverletzung kann schwerwiegende Folgen haben.

## Über Google Buchsuche

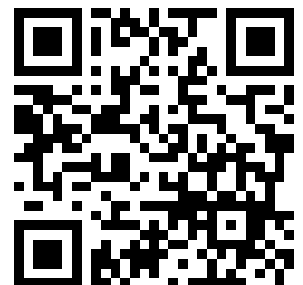
Das Ziel von Google besteht darin, die weltweiten Informationen zu organisieren und allgemein nutzbar und zugänglich zu machen. Google Buchsuche hilft Lesern dabei, die Bücher dieser Welt zu entdecken, und unterstützt Autoren und Verleger dabei, neue Zielgruppen zu erreichen. Den gesamten Buchtext können Sie im Internet unter <http://books.google.com> durchsuchen.

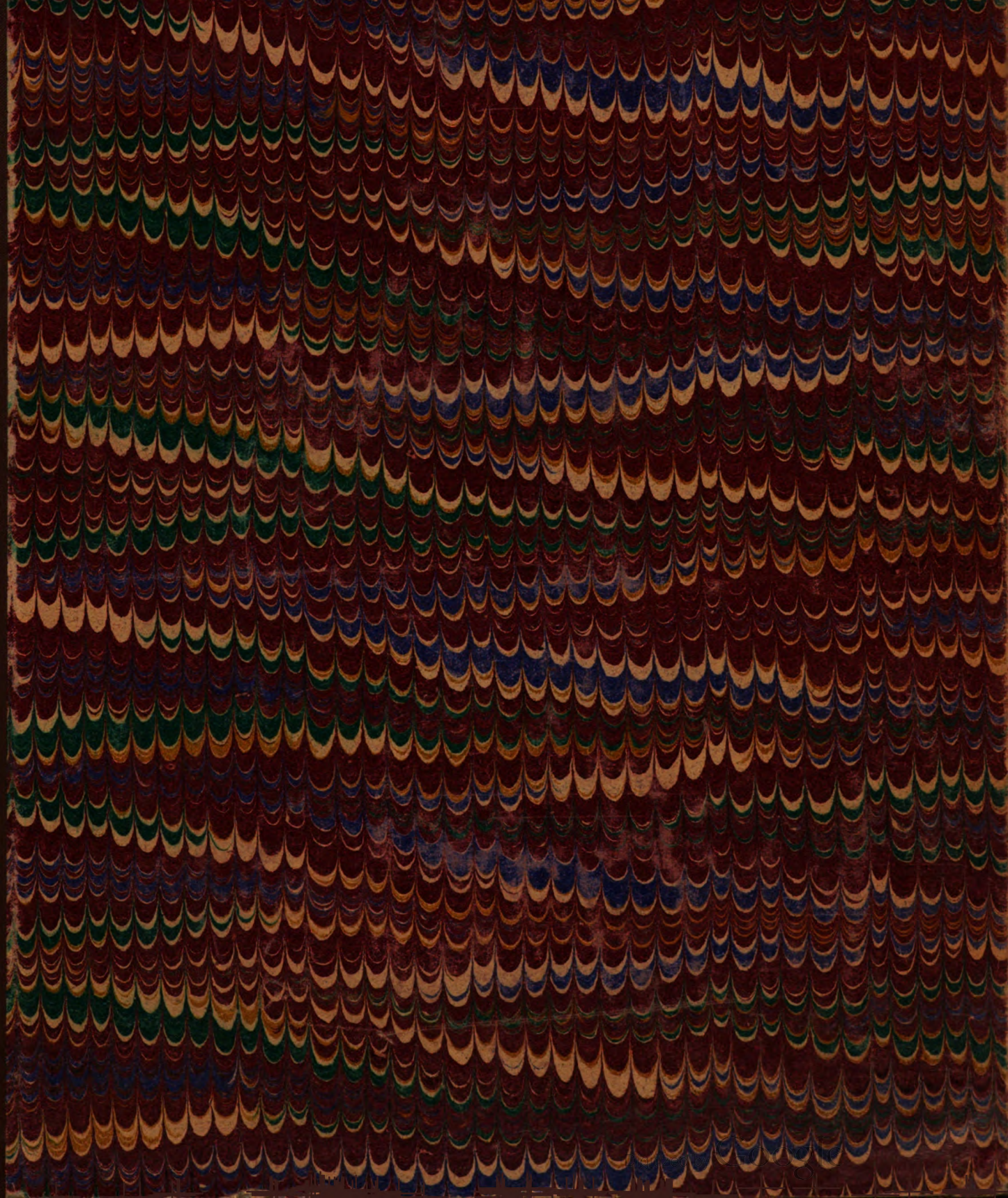
---

This is a reproduction of a library book that was digitized by Google as part of an ongoing effort to preserve the information in books and make it universally accessible.

Google™ books

<https://books.google.com>





ANNEX  
LIBRARY

C

015208

**Cornell University Library**

BOUGHT WITH THE INCOME  
FROM THE  
SAGE ENDOWMENT FUND  
THE GIFT OF  
**Henry W. Sage**  
1891

A 231391

12/2/09

3513-1

**The date shows when this volume was taken.**

To renew this book copy the call No. and give to the librarian.

**HOME USE RULES.**

**All Books subject to Recall.**

Books not used for instruction or research are returnable within 4 weeks.

Volumes of periodicals and of pamphlets are held in the library as much as possible. For special purposes they are given out for a limited time.

Borrowers should not use their library privileges for the benefit of other persons.

Books not needed during recess periods should be returned to the library, or arrangements made for their return during borrower's absence, if wanted.

Books needed by more than one person are held on the reserve list.

Books of special value and gift books, when the giver wishes it, are not allowed to circulate.

Readers are asked to report all cases of books marked or mutilated.

**Do not deface books by marks and writing.**





THE  
EDUCATIONAL TIMES,

AND

*Journal of the College of Preceptors.*

VOL. LXI

*From January to December, 1908.*

LONDON :  
FRANCIS HODGSON, 89 FARRINGDON STREET, E.C.

1908.

T

12/21/09

A.231390

LONDON:  
PRINTED BY C. F. HODGSON & SON,  
2 NEWTON STREET, KINGSWAY, W.C.



# INDEX.

## ARTICLES, &c.

Adams, Prof., on the Teacher's Imperfections, 483.  
 Adamson, Prof., on Practice and Prejudice in Education, 165, 217.  
 Adamson, Prof., on the Experimental Study of Instruction, 523.  
 America, Suggestions from, 130.  
 Appointments and Vacancies, 23, 64, 128, 173, 214, 255, 296, 336, 394, 438, 481, 522.  
 Armstrong, Prof., on the Teaching of Classics, 26.  
 Assistant Masters' Association, 55.  
 Assistant Mistresses' Association, 56.  
 B&E, Salaries at, 434.  
 Belgian Technical Schools, 123.  
 Berthon, H. E., on *Dunus Fils*, 297.  
 Biss, Dr., on School Life and Healthy Growth, 256.  
 British Association—Educational Science Papers, 429, 486.  
 Busk, Sir Edward, on Moral Education, 315.  
 Cambridge Summer Meeting, 330.  
 Charles, F., on Suggestions from America, 130.  
 Church and the Adolescent, 473.  
 Classics, Teaching of, 26.

## COLLEGE OF PRECEPTORS.—

Evening Meetings: see below.  
 General Meetings, 69, 340.  
 Meetings of Council, 24, 69, 138, 167, 206, 248, 290, 342, 440, 486, 528.  
 Pass Lists:—  
 Teachers' Diploma Examination.—Christmas, 1907, 133; Midsummer, 1908, 476.  
 Certificate Examination.—Christmas, 1907, 87, 135, 207; Midsummer, 1908, 365, 401, 439.  
 Professional Preliminary Examination.—March, 1908, 168; September, 1908, 440.  
 Lower Forms Examination.—Christmas, 1907, 99, 137; Midsummer, 1908, 365, 439.  
 Certificate of Ability to Teach, 168, 290, 528.  
 Winter Meetings, 65, 131.

College of Preceptors Library, 209.  
 Conférences Françaises, 72, 248, 297, 339, 475, 527.

## CORRESPONDENCE:—

Appeal for Educational Peace: I. Gregory Smith, 124.  
 Arithmetic of the Olden Time: J. Vine Milne, 124.  
 College Library: H. W. Eve, 17.  
 Council of the College: W. D. Roberts, 518.  
 Modern Languages in Secondary Schools: Assistant Master, 332.  
 Moral Education Congress, 396.  
 Moral Instruction: H. Johnson, 468.  
 State and Secondary Education: J. O. Bevan, 60.  
 Couillaud, G., on "Les Métamorphoses de Paris," 72.  
 Current Events, 21, 63, 127, 171, 213, 253, 293, 333, 393, 437, 479, 521.  
 Curricula in Secondary Schools, 25.  
 Dumas, F., 297.  
 Educational Institute of Scotland, 59.  
 Educational Ladder, 17, 120, 163, 208, 248, 289, 327, 369, 471.  
 Endowments and Benefactions, 22, 64, 128, 172, 214, 254, 294, 334, 394, 437, 480, 522.  
 English Association, 59.

EVENING MEETINGS at the College of Preceptors, Papers read at:—  
 Suggestions from America for English Educationists: F. Charles, 130.  
 Science in correlation with Geography and Mathematics: Dr. T. Percy Nunn, 175.  
 School Life and Healthy Growth: Dr. Hubert E. J. Biss, 256.

## EVENING MEETINGS at the College of Preceptors, Papers read at (continued):—

The Teacher's Imperfections, and how to deal with them: Prof. John Adams, 483.  
 The Experimental Study of Instruction: Prof. J. W. Adamson, 523.  
 Experimental Study of Instruction, 523.  
 Federal Council, 261.  
 Femme, La, dans l'Histoire, 339.  
 Femme Poète, 527.  
 Fixtures, 21, 63, 127, 171, 213, 253, 293, 333, 393, 437, 479, 521.  
 Franco-British Exhibition—Educational Section, 296.  
 French, J. S., on the Successful Teacher of Mathematics, 164.  
 Gachet, Mlle., on "La Femme Poète," 527.  
 German Continuation School, 339.  
 German in Public Secondary Schools, 517.  
 Graveline, M., on "La Femme dans l'Histoire," 339.  
 Gray, Dr., on Scholarships, 26.  
 Hannan, T., on the German Continuation School, 338.  
 Head Masters' Association, 54.  
 Honours, 22, 63, 127, 172, 213, 253, 293, 333, 393, 437, 480, 521.  
 Huguenet, A. P., on the Mexican Expedition, 475.  
 International Art Congress, 396.  
 Kelvin, Lord, 13.

## LEADING ARTICLES:—

Attempts at Advance, 241.  
 Education versus Decadence, 113.  
 Educational Peace, 201.  
 Examination and Inspection, 383.  
 German in the Schools, 511.  
 Meetings of the Month, 53.  
 Moral Education, 423.  
 Moral Education Congress, 465.  
 Poser for the Moral Congress, 157.  
 Registration, 321.  
 Suggestions from America, 281.  
 "When Greek meets Greek," 11.  
 Literary Items, 24, 64, 129, 174, 215, 255, 296, 337, 396, 438, 482, 523.  
 L.C.C. Inducements to Teachers, 124.  
 London Mathematical Society, 38, 82, 147, 190, 270, 310, 539.  
 London Scholarships, 400.  
 London Secondary Education, 443.  
 London Teachers' Conference, 57.  
 London University Developments, 219.  
 Mannheim, School System of, 260.

## MATHEMATICAL QUESTIONS AND SOLUTIONS:—

Aiyar, S. N., 37, 79, 80, 146, 187, 228, 230, 307; Aiyar, V. Ramaswami, 38, 267, 308, 410, 536; Anderson, Rev. W., 451; Arnold, I., 38, 452; Arunachalam, M. V., 34, 229, 349; Ball, W. W. Rouse, 268; Bateman, H., 453; Beard, W. F., 80, 187, 229, 350, 410, 451, 497; Bell, A. H., 536; Biddle, D., 79, 146, 453; Blackwood, E., 497; Blaikie, J., 34, 38, 189, 269, 451; 452; Blythe, W. H., 497; Bromwich, T. J. I. A., 496; Brown, F. G. W., 269, 536; Carr, G. S., 349; Catalan, Prof., 79; Charbonnier, A. R., 80; Churtres, R., 497; Christie, R. W. D., 34, 38, 229, 498; Cochez, Prof., 36, 80, 188; Cunningham, Lt.-Col., 34, 36, 80, 145, 188, 189, 228, 229, 268, 348, 411, 412, 452, 537; Dallas, R. J., 451; Daniel, V., 187, 350, 451; Davis, R. F., 38, 144, 268, 269, 410, 496, 536; Dick, Hon. G. E., 79, 228, 229, 269, 349, 350; Dudeney, H. E., 268; Eldon, E. J., 307; Echols, Prof., 228; Edwardes, D., 269; Erdberg, Mark J., 268; Escott, E. B., 36, 188, 230, 267, 411, 496; Fenn, L. A., 410; Gallatly, W., 308, 410, 452, 498; Ganguli, S., 38, 229, 411, 498; Genese, Prof., 36, 38, 144, 228, 349; Gillson, A. H., 269, 451; Greenstreet, W. J., 38, 188, 229, 497; Hay, T. W., 536; Hernandez, Prof. E., 38, 228, 268, 349, 497; Hudson, Prof., 269; Isserlis, L., 80, 411, 536; Jackson, Rev. F. H., 307, 536; Joss, C., 230; Kalkar, D. M., 229, 497; Kuppaswami, N., 188; Lucas, Prof., 537; McVicker, C. E., 144; Madhavaram, V., 267; Morrice, G. G.,

## MATHEMATICAL QUESTIONS AND SOLUTIONS (continued):—

497; Morrison, Edith, J. D., 536; Muir, T., 38, 80; Nanson, Prof., 36, 38, 79, 81, 145, 146, 228, 269, 410, 412, 453, 496, 536; Naraniengar, M. T., 188, 228, 229, 267, 268, 269, 308, 348, 349, 411, 496, 498; Narayanan, S., 36, 188, 309; Nath, M., 79, 80, 189, 411; Nesbitt, A. M., 34, 38, 228, 309, 348, 410, 411, 451, 497, 536, 538; Neuberger, Prof., 36, 38, 79, 188, 229, 307; Orchard, Prof. L., 188; Pal, Jagat Chandra, 411; Patrachan, K. S., 80; Prossland, A. J., 350; Reeves, F. W., 34; Riddell, H., 36, 80, 146, 269, 349, 536; Rigby, W., 144, 187; Robb, A. A., 145; Ross, C. M., 36, 37, 80, 145, 188, 230, 268, 451, 497, 536; Sanjána, Prof., 34, 38, 189, 228, 230, 269, 309, 348, 412, 498, 536, 537, 538; Satyanarayana, M., 308; Scott, G., 350; Shovelton, S. T., 34, 36, 144, 307, 349, 451; Sireom, Prof. S., 497; Soal, S. G., 496; Solidus, 36, 38, 145, 187; Stogdall, Prof., 269; Stuart, T., 38, 145, 189; Trachtenberg, H. L., 36, 411, 536; Vadamadajan, D. P., 452; Venkataraman, T. K., 188, 461; Wallis, B. C., 268; Watson, G. N., 79, 228; Whitaker, R. J., 349; Whitehead, E. F., 34, 38, 145; Youngman, C. E., 36, 38, 188, 268.

Mathematics, The Successful Teacher of, 164.  
 Modern Language Association, 58.  
 Modern Languages in Secondary Schools, 299.

Moral Education, 215.  
 Moral Education Congress, 289, 440, 472.  
 North of England Education Conference, 58.  
 Notes, 12, 54, 114, 158, 202, 242, 282, 322, 384, 424, 466, 512.

Nunn, Dr., on Science in correlation with Geography and Mathematics, 175.  
 Open Court—The Richmond Case: G. J. Pass, 18; The Training of Teachers: J. O. Bevan, 122.  
 Paris, Métamorphoses de, 72.  
 Personation at Examinations, 138.  
 Practice and Prejudice in Education, 165, 217.

Pressland, A. J., on the School System of Mannheim, 260.  
 Private Initiative in Education, 121.  
 Private Schools Association, 56.  
 Prudhomme, Sully, 248.  
 Public Schools Science Masters, 57.  
 Ramette, Pasteur, on Sully Prudhomme, 248.

Registration in Scotland, 25.  
 Religious Education, 25.  
 Sadler, Prof. M. E., on the Church and the Adolescent, 475.

Scholarships and Prizes, 23, 64, 128, 173, 214, 254, 295, 335, 394, 482, 521.  
 Scholarships in Secondary Schools, 26.  
 School Life and Healthy Growth, 256.  
 Science and Geography and Mathematics, 175.

Secondary Schools, Board of Education Circular, 331.  
 Summary of the Month, 14, 115, 159, 204, 244, 283, 324, 386, 426, 468, 514.  
 Teacher's Imperfections, 483.  
 Teachers' Register, 220, 297, 399.  
 Teachers' Registration Council, 527.  
 Thornton, J., on Private Initiative in Education, 121.

Transition from Primary to Secondary Schools, 210.  
 Universities and Colleges, 16, 119, 162, 205, 246, 286, 327, 388, 428, 469, 516.  
 University Training of Teachers, 249.  
 University Women Teachers, 56.

## REVIEWS, NOTICES, &c.

### REVIEWS.

Adamson's Practice of Instruction, 529.  
 Baker's Algebraic Geometry, 301.  
 Balfour's Decadence, 139.  
 Beale, Dorothea (E. Raikes), 444.  
 Branford's Mathematical Education, 489.  
 Cambridge English Literature, Vol. I., 74; Vol. II., 262.

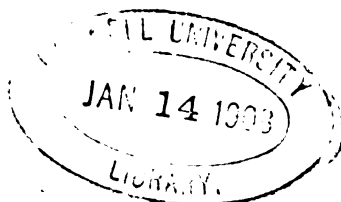
Cambridge Modern History, Vol. V.—Louis XIV., 221.

Carslaw's Fourier's Series, 27.  
 Davison and Richards's Plane Geometry, 222.  
 Dunbar's Poems (Baildon), 300.  
 Fagnat's Literary History of France, 528.  
 Ferrero's Greatness and Decline of Rome, 180.  
 Hawkins's Elementary Trigonometry, 262.  
 Hayward's Education, 343.  
 Historians' History of the World, 73, 139.  
 Humphrey, Duke of Gloucester (Vickers), 342.  
 Low's Reign of Queen Victoria, 221.  
 Mair's Mathematics, 344.  
 Makers of British Art (Wilson), 222.  
 Mill's International Geography, 262.  
 Norwood's Riddle of the "Bacchae," 402.  
 Pollard's Factors in Modern History, 402.  
 Ravenhill's Practical Hygiene, 27.  
 Rawson, Robert (Harley), 182.  
 Sadler's Continuation Schools, 138.  
 Shakespeare Library, 181.  
 Spitta's Microscopy, 222.  
 Stratton's Letters from India, 301.  
 Thucydides Mythistoricus (Cornford), 300.  
 Tolstoy, Life of (Maude), 488.  
 Whitehead's Descriptive Geometry, 139.  
 Whittaker's Optical Instruments, 445.  
 Woman and the Sword, 489.

## GENERAL NOTICES.

Ackerman's Popular Fallacies, 30.  
 "A. D. Infinitum" Calendar, 531.  
 Adventures among Wild Beasts, 492.  
 Aeschylus (Golden Treasury Series), 301.  
 Aeschylus Agamemnon (Conington), 140.  
 Aeschylus' Eumenides (Headlam), 140.  
 Aeschylus' Prometheus Bound (White-tow), 140; (Headlam), 140.  
 Aeschylus' Seven against Thebes (Tucker), 404.  
 "A. L." Cuttings from the Press, 78.  
 "A. L." Methodic Arithmetic, 490.  
 Alice in Wonderland (Rountree), 494.  
 Apelt's Deutsche Aufsatz, 302.  
 Aristotle De Anima (Hicks), 140.  
 Armbuster's Initia Amharica, Part I., 224.  
 Arnold's Effective Arithmetics, 490; Home and Abroad Readers, 224.  
 Arnold's Guías para Maestros, 183.  
 Ashton's Weighing and Measuring, 530.  
 Augustine's Confessions (Gibb), 301.  
 Back to Back, 534.  
 Bain's Slavonic Europe, 224.  
 Baker's Key to Dynamics, 141.  
 Baker and Bourne's First Geometry, 140.  
 Barbara's Heroes, 534.  
 Barnard's Earning a Living, 304.  
 Bars's Writing Latin, 344.  
 Bausor's Chemistry, 223.  
 Bell's Concise Latin Course, Part II., 76.  
 Belles-Lettres Series, 406.  
 Beresford's Student's Esperanto, 302.  
 Betty's First Term, 29.  
 Between Two Crusades, 492.  
 Bevan's Battle of Trafalgar, 531.  
 Bibliotheca Romanica, 141, 183.  
 Black's Literary Readers, 76.  
 Blackie's "Adaptable" Arithmetic, 446; Animal Picture Books, 494; Children's Annual, 494; English Classics, 225; Red Letter Library, 32; Red Letter Shakespeare, 32.  
 Blaikie's The Farm, 534.  
 Book of Soldiers, of Sailors, &c., 534.  
 Bo-Peep, 494.  
 Borchardt's Junior Arithmetic, 27.  
 Bravest Gentleman in France, 492.  
 Brés' Mes Premiers Coloriages, 32.  
 Breul's Students' Life at Cambridge, 531.  
 Brown's History of Scotland, 446.  
 Bryant's New Self-Help, 531.  
 Byron in Italy (McMahan), 183.  
 Cambridge Devotional Series, 530; Easy Reference Bible, 33; Greek Testament, 303; Patristic Texts (Augustine), 301.  
 Cape Education Report, 447.  
 Captain Swing, 29.  
 Carey's Solid Geometry, 265.

- Cassell's Cyclopædia of Mechanics, 531.  
 History of England, 531; People's Library, 32, 142, 184, 264, 302.  
 Century Bible—Ezekiel, 78.  
 Chambers's Continuous Readers, 78; Narrative Readers, 78.  
 Chapman's Hindustani Vocabulary, 224.  
 Chitto and Windus's Mediaeval Library, 302.  
 Children's Bookcase, 30.  
 Christabel, 543.  
 Church's Children's Aeneid, 494.  
 City of London Directory, 266.  
 Classical Association Proceedings, 182.  
 Collins's Modern Fiction, 184; Pocket Classics, 184; Stories of Noble Lives, 30.  
 Compayre's Pioneers in Education, 184.  
 Cornett's French Commercial Correspondence, 76.  
 Country Home, 447.  
 Courage, True Hearts!, 533.  
 Courageous Girl, 533.  
 Cousin Sara, 533.  
 Cunningham's Industrial Revolution, 142.  
 Dame Joan of Pevensey, 492.  
 Daughters of the Dominion, 533.  
 Del Lungo's Women of Florence, 29.  
 Dent's Everyman's Library, 184.  
 Disputed V.C., 533.  
 Dolmaç's Astronomy of To-day, 493.  
 Dorothy's Little Tribe, 30.  
 Douglas's Laws of Health, 78.  
 Doyle's Through the Magic Door, 29.  
 Drawbridge's Religious Education, 303.  
 Drawing Congress Exhibition, 408.  
 Druidess, The, 531.  
 Dudeney's Canterbury Puzzles, 30.  
 Duncan's Denizens of the Deep, 493.  
 Dutchie Doings, 494.  
 Dwindleberry Zoo, 534.  
 Edwardes's Elements of Plane Geometry, 405.  
 Eggar's Manual of Geometry, 140.  
 Enchanted Egg, 534.  
 Enfant de Saint-Marc, 32.  
 Evans' How to Study Geology, 223.  
 Evelyn's Diary (Dobson), 491.  
 Exodus and Daniel (Blackburn), 406.  
 Fairies—of Sorts, 534.  
 Fairy Tales from South Africa, 494.  
 Fenwick's Geometry for Schools, 446.  
 Fille de l'Aiguilleur, 32.  
 Fingerpost, 304.  
 Finn and his Companions, 32.  
 Finn's Wild Beasts of the World, 491.  
 Fire, Snow and Water, 492.  
 Fish out of Water, 533.  
 Fletcher's History of England, Vol. II., 491.  
 Foot's Science through Stories, 78.  
 For his Father's Honour, 534.  
 For the Sake of his Chum, 532.  
 Form III, B, 532.  
 Fraser's Famous Fighters, 33.  
 Fraser's Romance of the Navy, 29.  
 Frode's Select English Classics, 264; World's Classics, 32, 183.  
 Furniss's Pen and Ink Drawings, 264.  
 Gallon of Torbay, 492.  
 Gambier's Links in my Life, 533.  
 Gauthier and Deschamps' Petits Tableaux, 32.  
 Geographical Journal, 491.  
 Gibson's Scientific Ideas of To-day, 493.  
 Gildersleeve-Lodge Latin Series, 344.  
 Gill's King's Writer, 28.  
 Gilliat's Heroes of Modern Crusades, 492.  
 Girls' School Yearbook, 266.  
 Glasgow Ballad Club Ballads, 183.  
 Glazebrook's Bible Lessons, 447.  
 Goethe, Life of (Düntzer), 226.  
 Goethe's Torquato Tasso (Cour), 406.  
 Gordon's Handbook of Employments, 304.  
 Gorgeous Isle, 533.  
 Graham's Foreign Traders' Dictionary, 28.  
 Graham's Foreign Traders' Handbook, 28.  
 Graham's French, German, and Spanish Commercial Practice, 28.  
 Granville and Rice's Arithmetic, Part I., 140.  
 Greenstreet's Methodical Arithmetic, 183.  
 Grew's Romance of Modern Geology, 493.  
 Grey Fox of Holland, 492.  
 Grimm's Fairy Tales (Monsell), 493.  
 Guerber's Myths of Greece and Rome, 301.  
 Gulick's The Efficient Life, 226.  
 Gulliver's Travels (Herbertson), 494.  
 Gummere's Popular Ballad, 345.  
 Guy's Ordeal, 495.  
 Hall's Our English Towns, 223.  
 Hanfstaengl's Scholars' Cartoons, 491.  
 Happy Annual, 32.  
 Harding's Dorset, 223.  
 Harris's St. Agnes, 186.  
 Harrison's Freedom of Women, 304.  
 Hartog's Writing of English, 302.  
 Hawkins's Elementary Geometry, 405.  
 Hayward's First Stage Steam, 490.  
 Hazell's Annual, 29.  
 Headlam's Greek Verse, 74.  
 Hearty Gray, 495.  
 Heath's Beginner's Arithmetic, 263.  
 Heine's Son's (Todhunter), 141.  
 Heinemann's Every Child's Library, 30; Favourite Classics, 184.  
 Heroine or I, 533.  
 Hight's English as Colonizers, 303.  
 Hill that Fell Down, 534.  
 Hiron's In Nature's Storyland, 78.  
 His Father's Son, 495.  
 Holland's Concrete Algebra, 183.  
 Holroyd's Hindustani, 224.  
 Homer (Allen), Vols. III. and IV., 344.  
 Hope's The World, 492.  
 Horace's Odes (Marshall), 140.  
 House of Aiden, 534.  
 How Canada was Won, 532.  
 Hugo's Poems (Eve), 183.  
 Humarian Exhibition Brochures, 406.  
 Hungry Forties, 446.  
 In Empire's Cause, 532.  
 In the Pury Rink, 494.  
 Inchbold's Lisbon and Cintra, 29.  
 Innes's History of England, 446.  
 International, 28.  
 Island Traders, 532.  
 Jack's Children's Heroes Series, 30; Golden Poets, 33; National Gallery Pictures, 531; Reference Book, 531; Stories from History Series, 30; Shown to the Children Series, 30; Told to the Children Series, 30.  
 James's German Dictionary, 406.  
 Jamieson's Arithmetics, 490.  
 Janie Christmas, 534.  
 Jaques-Dalroze's Children's Songs, 184.  
 Jeans's Theoretical Mechanics, 223.  
 Jeans's Theory of Electricity, 302.  
 Jebb's Essays and Addresses, 182.  
 Jefferies's After London, Amaryllis, and Bevis (Duckworth), 494.  
 Jefferies's Life of the Fields (Chatto), 33.  
 Johnson's Shakespeare Lantern Slides, 492.  
 Jones's Roman Empire, 224.  
 Jonson's London, 142.  
 Joyce's Ancient Ireland, 530.  
 Joyce's Ancient Irish Civilization, 530.  
 Juliette the Mail Carrier, 30.  
 Keats's Works (Forman), 141.  
 Kelly's Lays of Helias, 490.  
 Kelmán's Trees shown to the Children, 493.  
 King of the Air, 29.  
 King's Classics, 264.  
 King's Signet, 533.  
 Knott's Earthquake Phenomena, 490.  
 Knowles and Howard's Arithmetics, 446.  
 Kolbe's Electricity, 263.  
 Krause's Deutsche Grammatik, 302.  
 Lacombe's Petite Histoire, 32.  
 Lad of Grit, 532.  
 Lang's Book of Princes, 493.  
 Lang's Origins of Religion, 304.  
 Langlois' Questions d'Histoire, 226.  
 Len's Romance of Bird Life, 493.  
 Leighton's Elementary Mathematics, 405.  
 Lett's Diaries, 531.  
 Lewis's Inorganic Chemistry, 140.  
 Liber Psalmorum (Bright), 406.  
 Libraries of London, 346.  
 Lillo's London Merchant (Ward), 406.  
 Lindley's East Coast Holidays, 346.  
 Lindley's Holidays in Belgium, 492.  
 Linville and Kelly's Zoology, 264.  
 Little Duke (Blackie), 533.  
 Little Robinson Crusoes, 494.  
 Little's Land of the Blue Gown, 533.  
 Lockyer's Education, 184.  
 Lodge's Modern Views of Electricity, 141.  
 Long's Whose Home is the Wilderness, 30.  
 Longman's Complete Arithmetics, 76.  
 Love's Passage, 533.  
 Lowest Rung, 533.  
 Lydon's Blackboard Drawing, 264.  
 MacConnell's Real Sistema Britanico, 345.  
 McDougall's Suggestive Arithmetics, 76.  
 McGimley's Profit of Love, 447.  
 Mackenzie's Moral Instruction, 303.  
 McKnight's Recollections (Thomson), 447.  
 MacLaurin's Theory of Light, Part I., 345.  
 Macmillan's Cranford Series, 32; Prize Library, 142; Shilling Series, 494.  
 McNaught's School Band Music, 184.  
 McPherson and Henderson's Chemistry, 490.  
 Madden's Classical Learning in Ireland, 445.  
 Magic Water, 30.  
 Margery Redford, 494.  
 Marsh's German Commercial Correspondence, 76.  
 Marshall's Our Empire Story, 532.  
 Marshall's Story of Napoleon, 534.  
 Martha Wren, 534.  
 Martin's Arithmetic Examples, 490.  
 Martin's Teaching of Arithmetic, 446.  
 Meldrum's Avocado and Dalton, 302.  
 Menagerie Book, 494.  
 Mercer's Trigonometry for Beginners, 405.  
 Middy in Command, 532.  
 Midgley's Life and Leaf Drawing Cards, 28.  
 Mr. Midshipman Glover, 532.  
 Mitchell's Significant Etymology, 446.  
 Modern Language Quarterly, 141.  
 Moliere, The Temple, 183.  
 Mon Journal, 32.  
 Montague's Tales from the Talmud, 184.  
 Montgomery's American History, 446.  
 Moulton's Latin Course, 344.  
 Mystery of the Squire's Pew, 495.  
 Navy League Annual, 531.  
 Need of the Nations, 142.  
 Nelson's Library, 32, 183; New Drawing Course, 264; New Reading Books, 30; Scotch Code, 266; Sixpenny Classics, 142; Sixpenny Guides, 266.  
 New Quarterly, 28.  
 Ogilvie's English Dictionaries, 446.  
 Oldham's Complete School Chemistry, 345.  
 Omond's English Metrists, 183.  
 Out of Doors, 494.  
 Oxford Book of French Verse, 141; Elementary Arithmetics, 490; Higher French Series, 141, 264; Modern French Series, 141; Poets, 223; Translations—Tacitus, 301; Treasury of English Literature, Vol. III., 302.  
 Oxvrynchus Unconventional Gospel, 305.  
 Parker's Practical Zoology, 223.  
 Parrott's Precursor of British History, 492.  
 Paton's Continental Schools, 266.  
 Paton's List of Schools, 406.  
 Paulsen's German Education, 406.  
 Payen-Payne's French Dictionary, 264.  
 Peace of the Church, 494.  
 Peaker's British Citizenship, 142.  
 Peep-in-the-World, 534.  
 Peeps at Many Lands, 492.  
 Peggy's Travels, 494.  
 Pendlebury and Robinson's Arithmetic, 183.  
 Pendleton Twins, 29.  
 Percival's Practical Integration, 530.  
 Perkin's Metric System, 536.  
 Pestalozzi (Holman), 446.  
 Phillips' Meteorological Calendar, 304.  
 Pitman's Local Readers, 142; Year-Book, 531.  
 Plato's Republic (Lindsay), 344.  
 Playne and Fawdry's Trigonometry, 76.  
 P.K.A. Annual, 531.  
 Pratt's The Licensed Trade, 303.  
 Pratt's Vertebrate Zoology, 264.  
 Preissig's History of the Old World, 78.  
 Public Schools Yearbook, 184.  
 Quiller-Couch's Romance of Everyday Life, 29.  
 Quinet's France et Allemagne, 406.  
 Rabbit's Day in Town, 494.  
 Rankin's Popes (York Library), 78.  
 Ratio Co-ordinates, 530.  
 Rawson's Instructions in Drawing, 28.  
 Ray's Euclid Simplified, 490.  
 Ray and Fairy, 32.  
 Red Light, 495.  
 Rentoul's Race Culture, 142.  
 Richardson's Magnetism and Electricity, 345.  
 Right Stuff, 534.  
 Rivington's Handbooks to the Bible, 266.  
 Robeson's Graded French Exercises, 405.  
 Robin of Sun Court, 495.  
 Robin's Heritage, 30.  
 Rolf the Rebel, 492.  
 Rooper, T. G., Selected Writings from, 226.  
 Rough Riders of the Pampas, 532.  
 Rue, 534.  
 Ruth Ravelstan, 29.  
 Schilling's Don Basilio (Zugel), 28.  
 Schmedel's Jesus in Modern Criticism, 78.  
 Schoolmasters Yearbook, 184.  
 Scott's Abbot (Corstorphine), 78.  
 Seignobos' Ancient Civilization, 303.  
 Septima, 533.  
 Severus (Hopkins), 491.  
 Sewell's Electrical Engineering, 141.  
 Shakespeare, The Elizabethan, 406.  
 Shakespeare, Apocrypha (Brooke), 490.  
 Shakespeare's Julius Caesar (Hudson), 406.  
 Shakespeare's Love's Labour Lost (Hudson), 406.  
 Shakespeare's Merchant of Venice (Hudson), 406.  
 Sharp's English Folk-Song, 491.  
 Sharp and Murson's Somerset Folk-Songs, 491.  
 Shorto's Story of Exeter, 224.  
 Sikes's Cadets' March Song, 184.  
 Silver Hand, 532.  
 Simmons's Electrical Engineering, 531.  
 Sir Sleep-Awake, 531.  
 Sisley's Biography Books, 302.  
 Smiles's Physical Hygiene, 78.  
 Smith's Victorian Poetry, 223.  
 Some Kiddies, 494.  
 Sophocles' Trachiniae (Jebb and Davies), 405.  
 Sorciere du Vésuve, 32.  
 Sporting and Athletic Register, 226.  
 Spyridis' Living Greek, 264.  
 Stainer's Practical Arithmetic, 344.  
 Stainer's Practical Mathematics, 76.  
 Stephens's Annals of the Cymry, 76.  
 Stevenson's Edinburgh (Seeley), 533.  
 Stewart's Light, Heat, and Sound, 141.  
 Stories of Beowulf, 494.  
 Stories of the Flemish and Dutch Artists, 532.  
 Stories of the Vikings, 494.  
 Tacitus (Fyfe), 301.  
 Tales and Talks in Nature's Garden, 494.  
 Tertullian De Baptismo (Lupton), 490.  
 Teubner's Mathematical Catalogue, 346.  
 That Girl, 494.  
 Third Class at Miss Kaye's, 532.  
 Thomas's Cambrensia, 223.  
 Thomas's Methodical Arithmetic, 344, 490.  
 Thompson's Alphabet of Beasts, 32.  
 Thompson's Syntax of Attic Greek, 76.  
 Thornton and Nicholson's Arabic Reader, 224.  
 Thouaille and Whitfield's Commercium Franci, 76.  
 Three Jovial Puppies, 494.  
 Tiny Tots, 494.  
 Treasury of Verse, 30; of Ballads, 30.  
 Trought's Correlated Arithmetic, 446.  
 Tucker's Foreign Debt of English Literature, 345.  
 Tucker's Romance of the Army, 29.  
 Twin Brothers, 30.  
 Types of English Literature, Ballad, 345.  
 Under the Chilian Flag, 532.  
 United States Education Report, 492.  
 University College Calendar, 531.  
 University of London Students' Handbook, 504.  
 Unluckey Family, 30.  
 Van den Berg's Per Istrade Aperte, 345.  
 Van der Heyden's Algebraic Examples, 446.  
 Van der Heyden's Calculus, 27.  
 Vaughan's Types of Tragic Drama, 223.  
 Verba Christi Testament, 303.  
 Victoria, Queen, Letters of, 530.  
 Virgil (Jackson), 490.  
 Virgil's Aeneid (Conington), 182.  
 Vivian's Churches and Modern Thought, 78.  
 Warren's English Literature, Parts I. and II., 142.  
 Weber and Kaiser's German and English Commercial Correspondence, Part I., 76.  
 Wells's Oxford Degree Ceremony, 186.  
 Wentworth's Elementary Algebra, 263.  
 Westell's Animals at Home, 534.  
 Weston's Prayer Book in the Making, 447.  
 White's Microscope, 531.  
 Wickremasinghe's Tamil Grammar, 224.  
 Wilamowitz-Moellendorf's Greek Historical Writing, 301.  
 Wilkinson's "Alert" Arithmetic, 446.  
 Williams's How it is Made, 29.  
 Wisdom of the East Series, 264.  
 With Moore at Corunna, 533.  
 Wizard's Wand, 532.  
 Wood's From Midshipman to Field-Marshal, 33.  
 Woodburn's "Thorough" Arithmetic, 27.  
 Wright's Old English Grammar, 362.  
 Yates's Stories of Animals, 78.  
 Year's Work in Classical Studies, 76.  
 Yesterday's Children, 494.  
 Young's Geometry and Physics, 345.  
 Youxall and Gray's Red Code, 1908, 447.  
 Zimmerman's Gods and Heroes, 533.  
 Zoo Babies, 32.  
 FIRST GLANCES, 142, 186, 226, 266, 304, 346, 408, 447, 495.



# THE EDUCATIONAL TIMES,

AND  
Journal of the College of Preceptors.

Vol. LXI.] New Series, No. 561.

JANUARY 1, 1908.

{Published Monthly, price, to Non-Members, 6d.; by Post, 1d. Annual Subscription, 7s.

## COLLEGE OF PRECEPTORS. (INCORPORATED BY ROYAL CHARTER.)

### GENERAL MEETING.

The Half-Yearly General Meeting of the Members of the Corporation will be held at the College, Bloomsbury Square, W.C., on Saturday, the 25th of January, 1908, at 3 p.m.

### MEMBERS' DINNER.

The Members' Dinner will take place at the Gaiety Restaurant, Strand, W.C., on Saturday, the 25th of January, at 6.30 p.m. Tickets (not including wine), 6s. each. Members who intend to be present are requested to send early notice to the SECRETARY. Members may obtain tickets for their friends.

### EXAMINATIONS.

**Diplomas.**—The next Examination of Teachers for the Diplomas of the College will commence on the 31st of August, 1908.

**Practical Examination for Certificates of Ability to Teach.**—The next Practical Examination will be held in February.

**Certificate Examinations.**—The Midsummer Examination for Certificates will commence on the 30th of June, 1908.

**Lower Forms Examinations.**—The Midsummer Examination will commence on the 30th of June, 1908.

**Professional Preliminary Examinations.**—These Examinations are held in March and September. The Spring Examination in 1908 will commence on the 3rd of March.

**Inspection and Examination of Schools.**—Inspectors and Examiners are appointed by the College for the Inspection and Examination of Public and Private Schools.

The Regulations for the above Examinations can be obtained on application to the Secretary.

### WINTER MEETING FOR TEACHERS.

January 6th to 15th, 1908.

The Fifth Winter Meeting for Teachers will take place at the College of Preceptors from the 6th to the 15th of January, 1908.

The programme will include Lectures on general principles of education, and on methods of teaching various school subjects, as well as visits to Educational Institutions.

The Fee for the whole Meeting is 15s.

Tickets may be obtained from the SECRETARY of the College of Preceptors. Tickets (not transferable) will also be issued at half fees (*i.e.*, 7s. 6d. for the whole Meeting) to members of the following Teachers' Societies:—The Teachers' Guild (Central Guild and Branches), The Birmingham Teachers' Association, The Liverpool Teachers' Guild, The Training College Association, The Head Masters' Conference, The Incorporated Association of Head Masters, The Private Schools' Association, The Assistant Masters' Association, The Association of Assistant Mistresses, The Froebel Society, The National Union of Teachers, The Welsh County Schools Association, The Preparatory Schools Association, The Association of Head Masters of Roman Catholic Schools, The Modern Language Association, The Child Study Association, and any other organized association of Teachers. Tickets at half fees will also be issued to candidates at the Diploma Examination of the College of Preceptors.

Members of the College of Preceptors will be admitted free of charge.

Tickets, price 1s. for any single Lecture, may also be had at the College on the day of the Lecture, if the available seats are not already occupied.

The detailed Programme may be obtained from the SECRETARY of the College.

C. R. HODGSON, B.A., Secretary.  
Bloomsbury Square, W.C.

## COLLEGE OF PRECEPTORS. (INCORPORATED BY ROYAL CHARTER.)

### LECTURES FOR TEACHERS.

A.—The First Course of Lectures (Thirty-sixth Annual Series), by Prof. J. ADAMS, M.A., B.Sc., F.C.P., on "The Application of Psychology to the Work of the School," will commence on Thursday, February 13th, at 7 p.m.

The Course is meant to meet the needs of Teachers who wish to improve their acquaintance with what underlies the principles of their profession, whether they have any examination in view or not. The reading of the students will be guided, and problems set for their exercise. Every opportunity will be taken of making practical applications of psychological principles to the work of the class-room. The Fee for the Course is Half-a-Guinea. The Lectures will be delivered on Thursday Evenings at 7 o'clock, at the College, Bloomsbury Square, W.C.

C. R. HODGSON, B.A., Secretary.  
Bloomsbury Square, W.C.

## Diploma Correspondence College, Ltd.

Principal—J. W. KNIPE, L.C.P., F.R.S.L.  
Vice-Principal—S. H. HOOKE, B.A. Hons. Lond.

Specially arranged Courses for  
**LONDON MATRICULATION,  
B.A., B.D., B.Sc.,  
A.C.P., L.C.P., &c.**

### FREE GUIDES

on application to the  
SECRETARY, Dip. Corr. Coll., Ltd.,

**WOLSEY HALL, OXFORD.**

## UNIVERSITY OF ST. ANDREWS.

### L.L.A. DIPLOMA FOR WOMEN.

The attention of Candidates is drawn to the Ordinary and Honours Diplomas for Teachers, which are strongly recommended as suitable for those who are or intend to be teachers.

Examinations are held at Aberdeen, Birmingham, Blackburn, Brighton, Bristol, Cardiff, Croydon, Devonport, Edinburgh, Glasgow, Hull, Inverness, Leeds, Liverpool, London, Manchester, Newcastle-on-Tyne, Norwich, Nottingham, Oxford, St. Andrews, Sheffield, Swansea, and several other towns.

Information regarding the Examinations may be obtained from the SECRETARY, L.L.A. Scheme, The University, St. Andrews.

## UNIVERSITY OF LONDON.— UNIVERSITY COLLEGE.

FACULTIES OF ARTS AND LAWS OF SCIENCE.  
AND OF MEDICAL SCIENCES.

The Second Term will begin on Tuesday, January 14th, 1908.

The Department of Fine Arts (Slade School) will open on Monday, January 6th, 1908.

ENTRANCE SCHOLARSHIPS in the Faculties of Arts and Laws, and of Science (including Engineering) will be awarded on Examinations to be held in May. Entries must be received on or before May 1st.

Special Courses of Lectures for Teachers will be given during the Second Term.

For prospectus and other particulars of Scholarships apply to

WALTER W. SETON, M.A.,  
Secretary.

## NOTICE.—"THE EDUCATIONAL TIMES" for February will contain the CLASS LISTS OF CANDIDATES who have passed at the recent CHRISTMAS EXAMINATIONS of the College of Preceptors.

The Volume for 1907 is now ready, price 7s. 6d. Cases for binding the Volume may also be had, price 1s. 6d.; by post, 1s. 8d.

## LONDON COLLEGE OF MUSIC. (Incorporated.)

GREAT MARLBOROUGH STREET, LONDON, W.

Patron: HIS GRACE THE DUKE OF LEEDS.  
Dr. F. J. KERN, Mus. Bac. Cantab., Principal.  
G. AUGUSTUS HOLMES, Esq., Director of Examinations.  
EXAMINATIONS, 1908.

The NEXT EXAMINATION in PIANOFORTE PLAYING, SINGING, THEORY, and all branches of Music will be held in London and 400 Provincial Centres in APRIL, when Certificates will be granted to all successful candidates.

The Higher Examinations (Practical and Theoretical) for Diplomas of Associate (A.L.C.M.), Licentiate (L.L.C.M.), the Teachers' Diploma, L.C.M., and Fellowship (F.L.C.M.) take place in JUNE, JULY, and DECEMBER.

Gold and Silver Medals and Book Prizes are offered for competition according to the Regulations.

LOCAL SCHOOL CENTRES.—Full particulars with reference to the formation of these Centres will be forwarded to Principals of Schools upon application.

SYLLABUS for 1908, together with Annual Report, is now ready, and may be had of the SECRETARY.

In the Educational Department students are received and thoroughly trained under the best Professors at moderate fees. The College is open 10 a.m. to 9.30 p.m.

A COURSE of TRAINING in Pianoforte and Singing for Teachers is held at the College.

VACATION LESSONS for Teachers and others are given at Easter, August, and Christmas.

T. WEEKES HOLMES, Secretary.

AT

## LONDON UNIVERSITY EXAMINATIONS

DURING THE YEAR 1907

# 1052

## University Correspondence College

STUDENTS PASSED.

## FREE GUIDES

TO

### MATRICULATION AND THE HIGHER EXAMINATIONS

Post free, from THE SECRETARY,

Burlington House, Cambridge,

or from the London Office of the

University Correspondence College,

32 Red Lion Square, Holborn, W.C.



**THE ASSOCIATED BOARD**  
OF THE R.A.M. AND R.C.M.  
FOR LOCAL EXAMINATIONS IN MUSIC.  
PATRON: HIS MAJESTY THE KING.  
PRESIDENT: H.R.H. THE PRINCE OF WALES, K.G.

**LOCAL CENTRE EXAMINATIONS (Syllabus A).**  
Examinations in Theory at all Centres in March and November; in Practical Subjects at all Centres in March-April, and in the London District and certain Provincial Centres in November-December also. Entries for the March-April Examinations close Wednesday, February 5th, 1908.

**SCHOOL EXAMINATIONS (Syllabus B).**  
Held three times a year, viz., March-April, June-July, and October-November. Entries for the March-April Examinations close Wednesday, January 29th, 1908.

Specimen Theory Papers set in past years (Local Centre or School) can be obtained on application. Price 3d. per set, per year, post free.

Syllabuses A and B, entry forms, and any further information, will be sent post free on application to—

**JAMES MUIR, Secretary.**

15 Bedford Square, London, W.C.

Telegrams: "Associa, London."

**KING'S COLLEGE, LONDON.**  
(UNIVERSITY OF LONDON.)  
DEPARTMENT FOR TRAINING TEACHERS FOR SECONDARY SCHOOLS.

*Theory, Practice, and History of Education:*  
**J.W. ADAMSON, B.A., Professor (Head of the Department).**

*Ethics:*

**Reverend A. CALDECOTT, D.Lit., D.D., Professor.**

*Psychology:*

**C. S. MYERS, M.A., M.D., Professor; W. BROWN, B.A., Lecturer.**

The Department is recognized by the Board of Education as a Training College for Secondary Teachers under the Teachers' Registration Regulations. The Course, which includes practical work in Secondary Schools, extends over one academical year, beginning in October or January. It is suitable for those who are preparing to take the Teachers' Diploma, University of London, and for the Certificate of the Teachers' Training Syndicate, University of Cambridge.

The fee is £20 for the year, if paid in advance, or 8 guineas per term (three terms in the year).

Application should be made to Prof. ADAMSON, King's College, Strand, W.C.

**KING'S COLLEGE, LONDON.**  
(UNIVERSITY OF LONDON.)

**EVENING CLASS DEPARTMENT.**

Courses are arranged for the Intermediate and Final Examinations for the B.A. and B.Sc. Degrees of the University of London. Students taking the full Course pay Composition Fees and rank as Internal Students of the University. There are also Classes in Architectural and Engineering Subjects.

For full information and Prospectus apply to the Dean (Mr. E. W. K. EDWARDS), or to the SECRETARY, King's College, Strand, London, W.C.

**KING'S COLLEGE, LONDON.**

**CLASSES FOR THE LONDON UNIVERSITY MATRICULATION AND PROFESSIONAL PRELIMINARY EXAMINATIONS.**

Individual Tuition in all subjects required for the Examinations. Fee for Half-yearly Course £3. 3s. Students may join at any time at proportional fees.

Apply to the SECRETARY, King's College, Strand, W.C.

**INVALUABLE TO SCHOOLS.—**

Schoolmasters should use the **BLACK AUTOCOPYIST**—most perfect, simplest, and cleanly Copyist invented—for reproducing Examination Papers, Diagrams, Circulars, Music, &c. Original written or drawn on ordinary paper. Write for Price List and Specimens, or call and see apparatus in operation.—**AUTOCOPYIST Co., No. 3 Dept., 64 Queen Victoria Street, London, E.C.**

**BADGES,  
HAT BANDS, CAPS**

**AT WHOLESALE PRICES.**

Write—SCHOOLS AGENT, 1 Arundel Villas, Chelmsford Road, South Woodford, N.E.

**BEDFORD COLLEGE FOR WOMEN**

(UNIVERSITY OF LONDON).

YORK PLACE, BAKER STREET, LONDON, W.

*Principal*—Miss M. J. TUCKER, M.A.

The Lent term begins Thursday, January 16th. Lectures are given in preparation for all Examinations of the University of London in Arts, Science, and Preliminary Medicine, for the Teachers' Diploma (London) and for the Teachers' Certificate (Cambridge) and for the Cambridge Higher Local Examination. Entrance Scholarships.

Special Course of Scientific Instruction in Hygiene, recognised by the Sanitary Inspectors' Examination Board.

Six Laboratories are open to Students for Practical Work.

A single Course in any subject may be attended.

Regular Physical Instruction is given free of cost to Students who desire it, by a fully qualified Woman Teacher.

Students can reside in the College.

Full particulars on application to the PRINCIPAL.

**DEPARTMENT FOR PROFESSIONAL TRAINING IN TEACHING.**

*Head of the Department*—Miss MARY MORTON, M.A.

Students are admitted to the Training Course in October and January. Entrance Scholarships. Applications should be sent to the HEAD OF THE DEPARTMENT.

**THE CAMBRIDGE TRAINING COLLEGE FOR WOMEN TEACHERS.**

*Principal*—Miss H. L. POWELL, late Scholar of Newnham College (Hist. Tripos, Class I.), late Head Mistress of the Leeds Girls' High School.

A residential College providing a year's professional training for Secondary Teachers.

The course includes preparation for the Cambridge Teacher's Certificate (Theory and Practice), and for the Teachers' Diploma of the London University. Ample opportunity is given for practice in teaching science, languages, mathematics, and other subjects in various schools in Cambridge.

Students are admitted in January and in September. Full particulars as to qualifications for admission, scholarships, and bursaries may be obtained on application to the PRINCIPAL, Cambridge Training College, Wollaston Road, Cambridge.

**THE INCORPORATED**

**FROEBEL EDUCATIONAL INSTITUTE,**

TALGARTH ROAD, WEST KENSINGTON, LONDON, W.

Recognized by the Board of Education as a Training College for Secondary Teachers.

*Chairman of the Committee*—Sir W. MATHER.

*Treasurer*—Mr. C. G. MONTEFIORE, M.A.

*Secretary*—Mr. ARTHUR G. SYMONDS, M.A.

**TRAINING COLLEGE FOR TEACHERS.**

*Principal*—Miss E. LAWRENCE.

**KINDERGARTEN AND SCHOOL.**

*Head Mistress*—Miss A. YELLAND.

Students are trained for the Examinations of the National Froebel Union and other Examinations.

TWO SCHOLARSHIPS of £20 each, and two of £15 each, tenable for two years at the Institute, are offered annually to Women Students who have passed certain recognised Examinations.

Prospectuses can be obtained from the PRINCIPAL.

**ST. GEORGE'S TRAINING COLLEGE FOR WOMEN TEACHERS,**

EDINBURGH.

This College provides a year's Professional Training for well educated women who intend to become Teachers in Secondary and High Schools.

The College is recognized by the Edinburgh Provincial Committee for the Training of Teachers under the sanction of the Scotch Education Department, by the English Board of Education, and by the Teachers' Training Syndicate of the University of Cambridge.

Prospectus and further particulars from the Principal, Miss M. R. WALKER, 6 Melville Street, Edinburgh.

**CHURCH EDUCATION CORPORATION.**

**CHERWELL HALL, OXFORD.**

Training College for Women Secondary Teachers.

*Principal*—Miss CATHERINE I. DODD, M.A. (late Lecturer in Education in the Manchester University).

Students are prepared for the Oxford, the Cambridge, and the London Teacher's Diploma. Special arrangements made for Students to attend the School of Geography.

Exhibitions and Scholarships awarded in December and July.—Apply to the PRINCIPAL.

**The Tutorial Institute,**  
39 BLOOMSBURY SQUARE, LONDON.

**Principal:**

**J. F. EWHEN, M.A.,**

*Honours in Mathematics and Physics.*

(Founder and for ten years Principal of The London and Northern Tutorial College.)

The Principal has had over 12 years' successful experience in preparing by Correspondence and Orally for the Higher Examinations qualifying Secondary Teachers. Over 2000 successes have been officially credited to his students, who have completed over 300 Diplomas and Degrees. Strong staff of Tutors, all University Graduates, mostly in Honours. A special feature is made of Education and subjects bearing upon it for Teachers' Diplomas.

**CORRESPONDENCE INSTRUCTION.**

*All Fees payable by instalments.*

**A.C.P.**—Full Course in Education, £2. New Classes now forming for August. All subjects, £4. 4s.

**L.C.P.**—Graduates exempt from all subjects except Education. Full Course £2. 12s. 6d. A.C.P.'s can complete extra work for L.C.P. for Composition Fee £4. 14s. 6d. Education alone £1. 11s. 6d.

*Diploma Guide Free.*

**Inter. Arts.**—Full Courses for July. 20 lessons each subject, £1. 11s. 6d.

**B.A.**—Thorough Tuition by Honours Graduates.

**Inter. Science.**—Special attention to Mathematics and Physics. Full Course £2. 2s. each subject.

**B.Sc.**—Expert help by eminent specialists.

**Matriculation.**—Full Preparation in usual subjects 10s. 6d. monthly.

**R.U.I.**—The Degrees of the Royal University of Ireland are in some respects more feasible for private students than the London Exams.

**Higher Locals.**—Fullest and most successful help. Usual Subjects £1. 11s. 6d. each.

**FROEBEL CERTIFICATES.**—Thoroughly practical instruction by highly qualified Teachers.

*Froebel Guide Free.*

**ORAL TUITION**

in Class and Individually for L.L.A., Matriculation, Professional Preliminaries, Entrance, and all the Higher Examinations.

**The Best TONIC.**

For the restoration of energy and vitality; the relief of mental and physical exhaustion, impaired digestion or appetite, there is no remedy so beneficial as

**HORSFORD'S Acid Phosphate**  
(Non-Alcoholic.)

It is a scientific and carefully prepared preparation of the phosphates that provides the tonic and nerve food needed to improve the general health.

If your chemist does not have it in stock he can obtain it from Bovril, Ltd., 152 Old Street, London, E. C.

## University Tutorial College

(Affiliated to University Correspondence College).



### Day and Evening Classes

FOR

## MATRICULATION

AND OTHER

## LONDON UNIVERSITY EXAMINATIONS

COMMENCE

Monday, January 27th, 1908.

At each of the last four Matriculation Examinations the official Pass Lists of the University credit University Tutorial College with many more Successes than any other institution, and at three of these Examinations University Tutorial College is credited with twice as many Successes as any other institution.

Prospectus, with full particulars of Day and Evening Classes for Matriculation, Inter. Science and Arts, B.Sc. and B.A. and Prelim. Sci. (M.B.), may be had, post free, from

THE PRINCIPAL,  
University Tutorial College,  
Red Lion Square, Holborn, W.C.

**PROFESSIONAL PRELIMINARY EXAMINATIONS, LONDON MATRIC., INTER. and FINAL B.A. and B.Sc.**—Private and Class Tuition or the above, and in Science and Advanced Mathematics, by ALEXANDER W. BAIN, B.A., B.Sc. (Lond.), A.I.C., F.C.S., Anglo-Saxon and Early English Text Society's Prizeman (Univ. Coll., Lond.), Silver Medal and Exhibition in Chemistry and Prizeman in Organic Chemistry (Univ. Coll., Lond.), Honours in Chemistry at B.Sc. and at Board of Education Exams. Nearly 2,000 successes in 16 years.

Mr. BAIN is the Head of the Chemical Department, Tottenham Polytechnic, also a Sub-Examiner to the University of London and to the College of Preceptors. He has prepared the sons of leading public and professional men for the Universities and Professional Entrance Examinations.

Address—Mr. A. W. BAIN, B.A., B.Sc., A.I.C., Central Tutorial Classes, 207 Gray's Inn Road, London.

## CORRESPONDENCE TUITION,

Classes or Private Lessons in all Subjects for all Examinations, &c., at moderate fees. Special tuition for MEDICAL Prelims. and DIPLOMA Exams. Many recent successes.—F. J. BORLAND, B.A., L.C.P. (Science and Math. Prizeman), Victoria Tutorial College, 87 Buckingham Palace Road, S.W.; and Stalheim, Brunswick Road, Sutton, Surrey.

Schools visited and Examinations conducted.

## UNIVERSITÉ DE RENNES (France). FRENCH COURSE for FOREIGNERS

OF BOTH SEXES.

WINTER TERM: From 15 Nov. 1907 to 15 Feb. 1908.  
SUMMER TERM: From 1 March to 8 June, 1908.

DIPLOMAS.

Diplômes de Langue et Littérature Françaises; Doctorat. Reduction of 50% on railway fares from Dieppe or Calais to Rennes. Apply for Prospectus to Prof. FEULLERAT, Faculté des Lettres, Rennes.

## DENMARK HILL GYMNASIUM AND PHYSICAL TRAINING COLLEGE FOR TEACHERS.

Full preparation for Public Examinations. British College of Physical Education: English and Swedish systems.

Board of Education: Science, Swimming and Sports.

For particulars apply—Miss E. SPELMAN STANGER, Trevana, Sunray Avenue, Denmark Hill, London, S.E.

## CARLYON COLLEGE.

55 AND 56 CHANCERY LANE.

### LONDON UNIVERSITY EXAMINATIONS.

LONDON MATRICULATION, INTER. ARTS and SCIENCE, B.A., and B.Sc. Classes (small) Day and Evening, M.A. Classes, B.A. Honours Classes, Elementary Greek Class.

Classes and Tuition for Legal and Medical Preliminaries, Accountants', Scholarship Examinations, Previous, Responsions, and General.

Papers Corrected for Schools. Vacation Tuition. Private tuition for all Examinations. Prospectus and full details on application to R. C. B. KERIN, B.A. Lond., First of First Class Classical Honours, Editor of "Phaedo," "Pro Plancio," &c.

### SUCCESSSES.

1892-1906.—London Matric., 144; Inter. Arts, Sc., and Prel. Sci., 140, 6 in Hons.; B.Sc., 1896-1906, 25; B.A., 1891-1905, 95, 14 in Hons.; Medical Prelim., 249; Responsions and Previous, 60; Law Prelim., 62; other Successes, 400.

B.A. (LOND.), 1906, 14. M.A., 8.  
INTER. ARTS, 1907, 6 out of 8.

## FREE.

The Principals of the Normal Correspondence College have, through the courtesy of the College of Preceptors, issued the following

### FREE GUIDES.

1. A.C.P.	100 pages.
2. L.C.P.	84 "
3. F.C.P.	75 "
And have also published the following Guides.	
4. PREL. CERT.	120 pages.
5. CERTIFICATE.	92 "
6. MATRICULATION.	84 "
7. IRISH UNIVERSITY.	60 "
8. OXFORD & CAMBRIDGE LOCALS	100 "

These Guides are supplied gratis to all who mention this paper and state they intend sitting for examination.

"They are written by experts whose advice is the best procurable."—*Educational News*.

"Will undoubtedly help greatly towards success."—*Schoolmistress*.

### NORMAL CORR. COLLEGE,

47 MELFORD ROAD, EAST DULWICH, S.E., and  
110 AVONDALE SQUARE, LONDON, S.E.

## A LANGUAGE CORRESPONDENCE COURSE.

An entirely new, practical, Psychological Course in Language Teaching by Correspondence. Scenes, lessons, full instructions, pronunciation, grammar reading.

Subscription 2s. 6d. a month.

Send addressed envelope for prospectus and reprint of two most interesting Articles on "THE SELF STUDY OF FRENCH" by HOWARD SWAN.

Address—Swan-Bétis Self Study,  
1 Albemarle Street, Piccadilly, W.

## BIRKBECK COLLEGE,

BREAMS BUILDINGS, CHANCERY LANE, E.C.  
Principal—G. ARMITAGE-SMITH, D.Lit., M.A.

SECOND TERM commences Monday, 13th January.

### DAY AND EVENING CLASSES.

UNIVERSITY OF LONDON.—The College provides Courses of Instruction in subjects in the Faculties of ARTS, SCIENCE, LAWS, and ECONOMICS, under Recognised Teachers of the University.

Well appointed Laboratories. Facilities for Research. Twenty Studentships open to free competition. Particulars on application to the SECRETARY.

## Messrs. TRUMAN & KNIGHTLEY,

Educational Agents,

6 HOLLES ST., CAVENDISH SQUARE,  
LONDON, W.

Telegrams—"TUTORESS, LONDON."  
Telephone—No. 1167 Mayfair.

This Agency is under distinguished patronage, including that of the Principals of many of our leading Schools.

### A.—EMPLOYMENT DEPARTMENT.

#### (i.) ASSISTANT MASTERS & TUTORS.

MESSRS. TRUMAN & KNIGHTLEY introduce well qualified and other qualified ENGLISH and FOREIGN MASTERS and TUTORS to Schools and Private Families.

#### (ii.) ASSISTANT MISTRESSES.

MESSRS. TRUMAN & KNIGHTLEY introduce University Trained, and other qualified ENGLISH and FOREIGN LADY TEACHERS to Girls' and Boys' Schools.

#### (iii.) LADY MATRONS AND HOUSE-KEEPERS.

MESSRS. TRUMAN & KNIGHTLEY introduce well qualified and experienced LADY MATRONS, HOUSEKEEPERS, and HOUSE MISTRESSES to Boys' and Girls' Schools.

No charge is made to Principals, and no charge of any kind is made to candidates unless an engagement be secured through this Agency, when the terms are most reasonable.

### B.—SCHOOL TRANSFER DEPARTMENT.

A separate Department, under the direct management of one of the Principals, is devoted entirely to the negotiations connected with the Transfer of Schools and Introduction of Partners.

MESSRS. TRUMAN & KNIGHTLEY, being in close and constant communication with the Principals of nearly all the chief Girls' and Boys' Schools in the United Kingdom, to many of whom they have had the privilege of acting as Agents, and having on their books always a large number of thoroughly genuine Schools for Sale and Partnerships to negotiate, as well as the names and requirements of numerous would-be purchasers, can offer unusual facilities for satisfactorily negotiating the TRANSFER of SCHOOLS, and arranging PARTNERSHIPS.

No charge is made to Purchasers, and there is no charge to Vendors unless a Sale or Partnership be effected through this Agency.

All communications and enquiries are treated in the strictest confidence.

### C.—PUPILS' DEPARTMENT.

MESSRS. TRUMAN & KNIGHTLEY have a carefully organized Department for the introduction of Pupils to Schools and other Educational Establishments. No charge is made for registration.

Any negotiations entrusted to MESSRS. TRUMAN & KNIGHTLEY receive prompt and careful attention, every effort being made to save clients as much time and trouble as possible.

Prospectus, References, and full particulars will be forwarded on application.

## SOCIÉTÉ NATIONALE DES PROFESSEURS DE FRANÇAIS EN ANGLETERRE.

### LA PRONONCIATION FRANÇAISE.

Cours pratique et raisonné  
de

PHONÉTIQUE FRANÇAISE,

Théorique et expérimentale, avec appareils,

pour

Professeurs, Institutrices,  
Candidats aux Examens, &c.

CORRECTION DES VICES DE PRONONCIATION,  
LECTURE, DICTION, DICTÉE, CONVERSATION.

CLASSES DE JOUR ET DE SOIR.

Pour les renseignements, écrire à

**M. Stéphane Barlet,**

SACKVILLE HOUSE, 8A RED LION SQUARE, LONDON, W.C.

#### Failures in Arithmetic

and other subjects may be avoided by using

### THE SIMPLEX EXERCISE BOOK.

No other method equal to this! Try it in your own class at the trifling cost of a few shillings!

Parts 1-14 Now Ready, 3d. each.

*Specimen copies on application.*

D. R. DUNCAN & CO., EASTBOURNE.

#### JOINT AGENCY FOR WOMEN TEACHERS.

(Under the management of a Committee appointed by the Teachers' Guild, College of Preceptors, Head Mistresses' Association, Association of Assistant Mistresses, and Welsh County Schools' Association.)

Address—74 GOWER STREET, LONDON, W.C.

Registrar—Miss ALICE M. FOUNTAIN.

This Agency has been established for the purpose of enabling Teachers to find work without unnecessary cost. All fees have therefore been calculated on the lowest basis to cover the working expenses.

Head Mistresses of Public and Private Schools, and Parents requiring Teachers, or Teachers seeking appointments, are invited to apply to this Agency.

Many Graduates and Trained Teachers for Schools and Private Families; Visiting Teachers for Music, Art, and other special subjects; Foreign Teachers of various nationalities; Kindergarten and other Teachers are on the Register, and every endeavour is made to supply suitable candidates for any vacancy.

School Partnerships and Transfers are arranged.

Hours for interviews (preferably by appointment):—

11 a.m. to 1 p.m., and 3 to 5 p.m.

Saturdays, 11 a.m. to 1 p.m., and 2 to 3 p.m.

#### SECONDHAND BOOKS AT HALF PRICES! NEW BOOKS AT 25% DISCOUNT!

BOOKS for A.C.P., L.C.P., F.C.P., Matric, University, Certificate, Scholarship, L.L.A., B.A., and ALL other Examinations supplied. State wants; send for List. Books sent on approval. **BOOKS BOUGHT**, good prices given.—W. & G. FOYLE, 135 Charing Cross Road, W.C.

#### THE JOINT SCHOLASTIC AGENCY.

23 Southampton Street, Bloomsbury Square, W.C.

Managed by a Committee of Representatives of the following Bodies:—

HEAD MASTERS' CONFERENCE.

INCORPORATED ASSOCIATION OF HEAD MASTERS.

COLLEGE OF PRECEPTORS. TEACHERS' GUILD.

INCORPORATED ASSOCIATION OF ASSISTANT MASTERS.

ASSOCIATION OF TECHNICAL INSTITUTIONS.

ASSOCIATION OF PREPARATORY SCHOOLS.

WELSH COUNTY SCHOOLS.

Registrar: Mr. E. A. VIRGO.

The object of this Agency is to render assistance at a minimum cost to Masters seeking appointments.

The lowest possible fees are therefore charged.

A PROSPECTUS will be sent ON APPLICATION.

Interviews (preferably by appointment) 12 p.m.—1.30 p.m., and 3 p.m.—5.30 p.m. Saturdays, 12 p.m.—1 p.m.

CAN any Head Mistress recommend a young Lady as NURSERY GOVERNESS, who has just completed High School training; must have tact and common sense, and a love for children. Good Home, no Menial work.—Mrs. BAKER, Winterton, Doncaster.

#### THE ONLY EFFECTIVE METHOD

OF "WEIGHTING" AND LAYING THE

## DUST

(See the Official Memorandum on the Cleansing and Disinfecting of Schools)

Is to **USE FLORIGENE** (Regd.)

(Awarded BRONZE MEDAL of the ROYAL SANITARY INSTITUTE)

On all Wood, Linoleum, and other Floors in  
**SCHOOLS, LABORATORIES,**

Art Galleries, Libraries, Museums, &c.

**DURING EACH VACATION**

(THREE TIMES A YEAR ONLY IS NECESSARY).

"FLORIGENE" also Purifies the Atmosphere, Preserves Floors, Saves Labour, etc.

"FLORIGENE" is a fluid which can be easily and quickly used by the unskilled, and each application is generally effective for 2 to 4 months, or longer, according to the wear.

It is not sticky, but the dust and dirt absorb the "FLORIGENE" from the unimpregnated floors and thus become "weighted," so that when the floors are brushed in the usual manner, the sweepings do not rise, but roll in front of the broom.

**No Scrubbing or Sprinkling of Floors.**

**BOOKS, FURNITURE, APPARATUS, etc.,** seldom require dusting or cleaning.

"FLORIGENE" is an aid to the Prevention of Throat Irritations and School Epidemics.

The Cost is inconsiderable in relation to the HYGIENIC AND OTHER IMPORTANT ADVANTAGES.

For particulars, Reports, and Testimonials, write

**THE "DUST-ALLAYER" CO.,**

165 QUEEN VICTORIA ST., E.C. Contractors to H.M. Government, &c.

### IDOLA PULPITORUM: PITFALLS OF THE PRACTICAL TEACHER.

For this series of Articles, see "THE JOURNAL OF EDUCATION."

**INTRODUCTORY ARTICLE**, by Professor ADAMS [November, 1906]; **CLASSICS**, by H. G. HART [December, 1906]; **ENGLISH**, by ARTHUR BURRELL [January, 1907]; **FRENCH**, by CLOUDESLEY BRERETON [February and March, 1907]; **SCIENCE**, by T. PERCY NUNN [April, 1907]; **NATURE STUDY**, by T. RAYMONT [May, 1907]; **HISTORY**, by S. S. F. FLETCHER [June, 1907]; **PHYSICAL TRAINING**, by Colonel MALCOLM FOX [July, 1907]; **DRAWING**, by W. E. SPARKES [August, 1907]; **DOMESTIC SCIENCE**, by ALICE RAVENHILL [October, 1907]; **GEOMETRY**, by H. WINIFRED STURGE [December, 1907]; **GEOGRAPHY**, by Dr. A. J. HERBERTSON [January, 1908].

Subscription is 7s. per annum; single numbers, 8d. post free.

Offices: 3 BROADWAY, LUDGATE HILL, E.C.

#### Books at less than half-price!!!

Most carefully selected and arranged Stock of Recent Second-hand Educational Books in London.

**HIGHEST PRICES GIVEN FOR ALL EDUCATIONAL BOOKS.**

R. G. RUTHERFORD, A.C.P., Inter.B.A. (late with W. & G. Foyle),

1 BLOOMSBURY COURT (15 Seconds from Museum-Tube), High Holborn, W.C.

**TO THE SCHOLASTIC PROFESSION.**—TO LET ON LEASE, detached, commodious and well arranged Premises, for many years used as a high-class Gentleman's School, with accommodation for from 70 to 80 Boarders; Schoolroom, 2 Class Rooms, Head Masters Private Apartments; Playing Fields, Gardens and recreation grounds 11 acres. Overlooking Sea. Vacant Xmas. Rent £190. Strongly recommended.—SPARKES, Estate Agents, Littlehampton.

**TO BE LET**, at a low rent, an attractive, detached, double-fronted Residence, conveniently situated in a most healthy suburb of London, near Streatham Hill and Tulse Hill Stations, and well adapted for a Private School. It contains 8 Bedrooms, 2 Reception Rooms, large Room suitable for School Room, and excellent Offices. Extensive Gardens, with Stabling. Apply to Messrs. HERRING, SON, & DAW, Auctioneers, 312 Brixton Hill, S.W., and 12 Old Jewry Chambers, Old Jewry, E.C.

## A GOOD ADVERTISEMENT

is not of much use unless you have a good Prospectus to send to Enquiring Parents, and

## A GOOD PROSPECTUS

is of no use unless Parents see it.

## LET US PREPARE

you a good Prospectus, and give your School a

## GOOD ADVERTISEMENT

in our

## PATON'S LIST OF SCHOOLS AND TUTORS

which now has a World-wide Circulation.

---

**The Eleventh Edition is now in hand  
for Press.**

---

## WRITE US,

with copy of your present Prospectus, and we will send you (without any charge) Specimens and Full Particulars, with proof of value.

## OUR GOLD MEDALLIST

Photographs Schools within reasonable distance of London—expert work only.

---

**J. & J. PATON,**  
EDUCATIONAL AGENTS,  
143 CANNON STREET, LONDON, E.C.

Telephone—5053 Central.

## The Oxford and Cambridge Edition.

*Recommended in the Regulations for the  
Diploma Examinations of the College of Preceptors.*

### Hygiene and Public Health:

A Manual of Personal and Public Health;

Containing Chapters on Dietetics, Trade Nuisances, Tuberculosis, Disinfectants, and Vital Statistics.

BY

ARTHUR NEWSHOLME, M.D., F.R.C.P. Lond.,

Medical Officer of Health, Brighton;

Examiner to the Universities of Oxford, Cambridge, London, and Victoria.

Price 4s. 6d.

*Set for the Oxford Local  
Examinations, 1908.*

### North's Translation of Plutarch's Life of Julius Caesar.

Printed in modern type and orthography from the Original Edition of 1595 (which was the Edition probably consulted by Shakespeare in writing his Tragedy bearing this title); with

INTRODUCTION, MAPS, NOTES,

AND AN

APPENDIX OF PARALLEL PASSAGES.

BY

STANLEY WOOD, M.A., and R. H. ALLPRESS, M.A.

Price 1s.

*Prepared and adapted to meet the latest  
Requirements of the Public Examinations.*

### Modern Book-keeping in Theory and Practice.

BY

ANDREW SARLL, A.K.C.

The work consists of four Courses of Graduated Exercises—Introductory, Theory, Practice, Trial Balances—followed by a selection of Examination Papers set by the leading Examining Bodies, accompanied by fully-worked or outline Keys.

Price 3s. 6d.

### Studies of Shakespeare's Characters,

As revealed in Twelve Representative Plays.

BY

STANLEY WOOD, M.A.

The Author has provided for the Student material for a most comprehensive study of the characters of Shakespeare, supplemented by the views of commentators and critics.

Crown 8vo. Full Cloth, Gold. 314 pp. Price 2s. 6d.

### Guides

*To the Oxford and Cambridge Locals and College of Preceptors' Examinations, and Specimen Pages of the Prescribed Books contained in*

The Oxford and Cambridge Edition,

Post free.

London: GEORGE GILL & SONS, Ltd., 13 Warwick Lane, E.C.

# THE BEST BOOKS FOR 1908

**Higher English.** By F. J. RAHTZ, M.A., Lecturer in English at Merchant Venturers' Technical College, Bristol. Second Edition. Crown 8vo, 3s. 6d.

A Text-book for the English section of the London Matriculation Examination.

**The Complete School Chemistry.** By F. N. OLDHAM, B.A., With 126 Illustrations. 4s. 6d. [*Text-Books of Science.*]

The object of this book is to provide a progressive but complete course in Practical and Theoretical Chemistry up to the standard of the London Matriculation.

In use at Bedford Grammar School, Dulwich College, Durham School, Loretto School, Nottingham High School, Wellington College.

**Nouvelle Grammaire Française.** By J. G. ANDERSON, B.A., Examiner to London University, the College of Preceptors, and the Welsh Intermediate Board. Crown 8vo, 2s.

**Exercices de Grammaire Française.** By J. G. ANDERSON, B.A. Crown 8vo, 1s. 6d.

A course for Matriculation Candidates who have been taught by the reform method.

**A Junior French Prose.** By R. R. N. BARON, M.A. Second Edition. Crown 8vo, 2s.

"We like this book very much; it is so sane and practical. The author has wisely avoided giving too much assistance, as is too often the case, by putting the notes in such a form as to leave practically nothing for the learner to do; altogether a really excellent book for the class or for the private student."—*Teachers' Times.*

**French Prose Composition.** By R. R. N. BARON, M.A. Crown 8vo, 2s. 6d. Key, 3s. net.

An advanced course on the same lines as the above.

**Easy Exercises in Algebra.** By W. S. BEARD. Containing 3,500 problems. Crown 8vo, with Answers, 1s. 9d.; without Answers, 1s. 6d.

**A Junior Geometry.** By NOEL S. LYDON, of Owen's School, Islington. With 276 Diagrams. Fifth Edition. Crown 8vo, 2s.

**An Easy Poetry Book.** Selected and arranged by W. WILLIAMSON, B.A., Author of "Dictation Passages." Crown 8vo, 1s.

[*The Beginners' Books.*]

A little book for pupils of twelve or thereabouts. It is believed that all the selections are as good as poetry, healthy and invigorating in thought, and suited to the capacity of beginners.

## METHUEN'S SIMPLIFIED FRENCH TEXTS

Edited by T. R. N. CROFTS, M.A., Modern Language Master at Merchant Taylors' School, London. Fcap. 8vo, 1s. each.

**L'Histoire d'une Tulipe.** Founded on "La Tulipe Noire," by A. DUMAS. Adapted by T. R. N. CROFTS, M.A.

**Abdallah;** ou, le Trèfle à Quatre Feuilles. By EDOUARD LABOULAYE. Adapted by J. A. WILSON.

**La Chanson de Roland.** Adapted by H. RIEU, M.A., Merchant Taylors' School, London.

**Mémoires de Cadichon.** Founded on "Mémoires d'un Âne," by Madame de SÉGUR. Adapted by J. F. RHOADES, Fettes College, Edinburgh.

**L'Equipage de la Belle Nivernaise.** Founded on "La Belle Nivernaise," by ALPHONSE DAUDET. Adapted by T. R. N. CROFTS, M.A.

**Le Docteur Mathéus.** Founded on "L'Illustre Docteur Mathéus," by ERCKMANN-CHATRIAN. Adapted by W. P. FULLER, M.A., University College School.

"An excellent idea and well carried out."—*Journal of Education.*

**A Junior Greek History.** By W. HORTON SPRAGGE, M.A., Assistant Master at the City of London School. With Maps and Illustrations. Crown 8vo, 2s. 6d. [*Methuen's Junior School Books.*]

This book describes the main features of the History of Greece down to the time of its absorption into the Roman Empire.

**A First History of Greece.** By E. E. FIRTH. With 7 Maps. 1s. 6d.

A History of Greece for Beginners, with Questions and Summaries.

**Stories from Roman History.** By E. M. WILMOT-BUXTON, Author of "Makers of Europe." Crown 8vo, 1s. 6d.

**Revision Notes on English History.** By F. WALLACE-HADRILL. Crown 8vo, 1s.

A chronological account of the leading events of English History, with general notes and genealogical tables on each reign.

METHUEN & CO., 36 Essex Street, London, W.C.

## THE School World.

A MONTHLY MAGAZINE OF EDUCATIONAL  
WORK AND PROGRESS.

EACH NUMBER CONTAINS EIGHTY COLUMNS  
OF READING MATTER.

PRICE 6D. VOLUME IX., 1907, 7s. 6d. NET.

The aim of THE SCHOOL WORLD is to provide information of practical and permanent value to Schoolmasters and Schoolmistresses. To this end all important changes and developments affecting any branch of the work of teachers in secondary and other schools are dealt with by leading authorities and experienced teachers.

The Magazine has become indispensable to all who desire to keep in touch with modern and effectual methods of education.

MACMILLAN & CO., Ltd., LONDON.

## GEOMETRY: PLANE AND SOLID.

By JOHN S. RAWLE, F.S.A.,  
LATE EXAMINER TO THE SCIENCE AND ART DEPARTMENT.

More than 600 Diagrams.

Over 280,000 copies sold.

INDISPENSABLE TO ALL TO WHOM A KNOWLEDGE OF  
GEOMETRY IS A NECESSITY.

Paper bound, 1s. Cloth bound, 2s.

Adapted to the requirements of all Science and Art Classes, Public Schools, &c.; also a reliable Text-book for the Examinations of the Science and Art Department, the Army and Navy, &c., &c.

For use in conjunction with the above:—

CLASS-SHEETS FOR PRACTICAL GEOMETRY ..... 1s.  
PRACTICAL GEOMETRY TEST-PAPERS ..... 4d.

Also:—  
FREEHAND DRAWING TEST-PAPERS ..... 1s.  
ARTIST'S SIGHT-MEASURE ..... 2s. 6d.

LONDON:  
SIMPKIN, MARSHALL, HAMILTON, KENT, & CO., LIMITED.

## EXAMINATION PAPER AS USED BY THE COLLEGE OF PRECEPTORS.

In strict accordance with the College requirements, and each Sheet  
bears their Watermark.

Packed in Reams of 480 Sheets ... .. per Ream, 2s.

" " 960 " " " " " 4s.

Bookkeeping Paper, ruled for Ledger, Cash Book, and Journal, 1s. per 100 Sheets.

Music Paper, 1s. per 100 Sheets.

Remittance should accompany Order.

F. W. SHELBOURNE & CO., Wholesale and Retail Stationers,  
63 HIGH HOLBORN, LONDON, W.C.



OPPOSITE THE BRITISH MUSEUM.

# THACKERAY HOTEL

GREAT RUSSELL STREET, LONDON.

NEAR THE BRITISH MUSEUM.

# KINGSLEY HOTEL

HART STREET, BLOOMSBURY SQUARE, LONDON.

These well-appointed and commodious **TEMPERANCE HOTELS** will, it is believed, meet the requirements, at moderate charges, of those who desire all the conveniences and advantages of the larger modern Licensed Hotels. These Hotels have

**PASSENGER LIFTS, ELECTRIC LIGHT THROUGHOUT, BATHROOMS ON EVERY FLOOR, SPACIOUS DINING, DRAWING, WRITING, READING, BILLIARD, AND SMOKING ROOMS, HEATED THROUGHOUT.**

Fireproof Floors.

Perfect Sanitation.

Telephones.

Night Porters.

Bedrooms, including attendance, from 8s. 6d. to 6s. Full Tariff and Testimonials on application.

Inclusive Charge for Bedroom, Attendance, Table d'Hôte Breakfast and Dinner, from 8s. 6d. to 10s. 6d. per day.

ALSO UNDER THE SAME MANAGEMENT.

# ESMOND HOTEL

1 MONTAGUE STREET, RUSSELL SQUARE, LONDON.

This Temperance Hotel adjoins the British Museum, and is exceptionally quiet and economical.

Bedrooms, including attendance, from 8s. to 4s. 6d. per night. Full Tariff and Testimonials on application. Night Porter.

Telegraphic Addresses:

THACKERAY HOTEL,  
"THACKERAY, LONDON."KINGSLEY HOTEL,  
"BOOKCRAFT, LONDON."ESMOND HOTEL,  
"AGROUP, LONDON."

## From WILLIAMS & NORGATE'S LIST OF SCHOOL BOOKS.

"Books to be strongly recommended."—*Educational Times*.

### EUGENE'S GRAMMAR, EXERCISES, and METHOD.

The Student's Comparative Grammar of the French Language. With an Historical Sketch of the Formation of French. For the Use of Public Schools. With Exercises. By G. EUGENE FARNACHT, late French Master, Westminster School. Twenty-first Edition, thoroughly revised. Square crown 8vo, cloth, 5s. Or separately, Grammar, 3s.; Exercises, 2s. 6d.

"The appearance of a grammar like this is in itself a sign that great advance is being made in the teaching of modern as well as of ancient languages. . . . The rules and observations are all scientifically classified and explained. Mr. Eugene's book is one that we can strongly recommend for use in the higher forms of large schools."—*Educational Times*.

French Method. Elementary French Lessons. Easy Rules and Exercises preparatory to "The Student's Comparative French Grammar." By the same Author. Seventeenth Edition. Crown 8vo, cloth, 1s. 6d.

"Extremely well done."—*Educational Times*.

### HUGO'S LES MISÉRABLES.

Les Misérables. Les Principaux Episodes. Edited, with Life and Notes, by J. BOÏLLE, B.A., late Senior French Master, Dulwich College. Two Vols. Crown 8vo, cloth, each 3s. 6d.

"A worthy addition to our stock of French reading books, which will be welcomed by numberless masters. M. Boïlle's notes are full and to the point, his philology is sound, and his translations idiomatic."—*The Journal of Education*.

"Make an admirable school book."—*Scotsman*.

### HUGO'S NOTRE-DAME.

Victor Hugo.—Notre-Dame de Paris. Adapted for the use of Schools and Colleges, by J. BOÏLLE, B.A., late Senior French Master, Dulwich College. Two Vols. Crown 8vo, cloth, each 3s.

READY. Crown 8vo, cloth, 3s.

### SCHOOL TEACHING AND SCHOOL REFORM.

By Sir OLIVER LODGE, Principal of the University of Birmingham.

"We heartily commend Sir Oliver Lodge's book to the teaching profession as a valuable, thoughtful, and inspiring contribution to the recent discussions on education."—*School*.

Boards, 6s. Twelfth Edition. Maps on Guards.

### NEW ATLAS ANTIQUUS.

Twelve Maps of the Ancient World for Schools and Colleges. By H. KIEPERT.

### MEDICAL INDOOR GYMNASTICS.

A System of Hygienic Exercises for Home Use. To be practised anywhere without Apparatus or Assistance. By D. G. M. SCHREIBER, M.D. Translated from the Twenty-sixth German Edition. Invaluable to both Teachers and Scholars. Demy 8vo, 3s. net. With large Plate and numerous Illustrations in the Text.

### WEISSE'S SHORT GUIDE TO GERMAN IDIOMS.

Being a Collection of the Idioms most in use. With Examination Papers. 8vo, cloth, 2s.

### FRENCH CLASSICS.

French Classics for English Students. Edited, with Introduction and Notes, by LEON DELBOS, M.A., of H.M.S. "Britannia," Dartmouth, late of King's College. Price per volume, paper boards, 9d.; cloth, 1s.

- |  |   |
|--|---|
| 1. Racine. Les Plaideurs.  | 9. Lafontaine. Fables.  |
| 2. Corneille. Horace.  | 10. Molière. Misanthrope. By G. H. CLARKE. 1s.  |
| 3. Corneille. Cinna.   | 11. Molière. Fourberies de Scapin. By G. H. CLARKE. 1s.   |
| 4. Molière. Le Bourgeois Gentilhomme.                              | 12. Chanson de Roland. Historical, Critical, and Grammatical Introduction. Three Passages with Explanatory Notes and an English Translation. By CLAUDE F. CONDELL. Sewed, 9d. |
| 5. Corneille. Le Cid.  |   |
| 6. Molière. Les Précieuses Ridicules.                              |   |
| 7. Chateaubriand. Voyages en Amérique.                             |   |
| 8. Xav. de Maistre. Prisonniers du Caucase, et Le Lépreux d'Aoste. |   |

### DELBOS. THE STUDENT'S GRADUATED FRENCH READERS for the Use of Public Schools.

- I.—First Year. Anecdotes, Tales, Historical Pieces. Edited, with Notes and a complete Vocabulary, by LEON DELBOS, M.A., late of King's College, London. Thirteenth Edition. 166 pages. Crown 8vo, cloth, 2s.
- II.—Second Year. Historical Pieces and Tales. Edited, with Notes, by LEON DELBOS, M.A., late of King's College, London. 180 pages. Fifth Edition. Crown 8vo, cloth, 2s.

"This is a very satisfactory collection from the best authors, selected with great care and supplied with adequate notes."—*Journal of Education*.

# Messrs. LONGMANS & CO.'S HISTORICAL LIST

## LONGMANS' HISTORICAL SERIES.

*This Series has been written, on the Concentric System, by T. F. TOUT, M.A., Professor of Mediæval and Modern History in the University of Manchester.*

**Book I.—A First Book of British History.** From the Earliest Times to the Death of Queen Victoria. With 85 Illustrations, 13 Tables, and 25 Maps and Plans. 264 pages, 2s. 6d.

**Book II.—A History of Great Britain.** From the Earliest Times to the Death of Queen Victoria. With 146 Portraits and other Illustrations, 8 Tables, and 35 Maps and Plans. 464 pages, 3s. 6d.

**Book III.—An Advanced History of Great Britain.** From the Earliest Times to the Death of Queen Victoria. With 29 Tables and 63 Maps and Plans. 798 pages, 5s. BOOK III. is also issued in Three Parts, 2s. each.

By **SAMUEL RAWSON GARDINER, D.C.L., LL.D.**

## A STUDENT'S HISTORY OF ENGLAND.

Vol. I.: B.C. 55—A.D. 1509. With 173 Illustrations. Crown 8vo, 4s.

Vol. II.: 1509—1689. With 96 Illustrations. Crown 8vo, 4s. Vol. III.: 1689—1901. With 109 Illustrations. Crown 8vo, 4s.

COMPLETE IN ONE VOLUME. With 378 Illustrations. Crown 8vo, 12s.

## A SCHOOL ATLAS OF ENGLISH HISTORY.

With 66 Maps and 22 Plans of Battles, &c. Fcap. 4to, 5s.

## OUTLINE OF ENGLISH HISTORY.

B.C. 55—A.D. 1901. With 96 Woodcuts and Maps. Fcap. 8vo, 2s. 6d.

By **CYRIL RANSOME, M.A.**

## A SHORT HISTORY OF ENGLAND.

FROM THE EARLIEST TIMES TO THE DEATH OF QUEEN VICTORIA.

With Tables, Plans, Maps, Index, &c. Crown 8vo, 3s. 6d.

Or in Two Parts, 2s. each. Part I.: To 1603; Part II.: 1603 to 1901.

SECOND EDITION. NOW READY.

## OUTLINES OF EUROPEAN HISTORY.

By **ARTHUR J. GRANT, M.A.,**

*King's College, Cambridge; Professor of History in Leeds University.*

With 17 Maps and Plans and 96 Illustrations. Crown 8vo, 3s. 6d.

### EPOCHS OF ENGLISH HISTORY.

**YORK POWELL'S EARLY ENGLAND** to the NORMAN CONQUEST. 1s.

**CREIGHTON'S (Mrs.) ENGLAND** A CONTINENTAL POWER, 1066-1216. 9d.

**BOWLEY'S RISE of the PEOPLE** and the GROWTH of PARLIAMENT, 1214-1485. 9d.

**CREIGHTON'S (Bishop) TUDORS** and the REFORMATION, 1485-1603. 9d.

**Epochs of English History.** Complete in One Volume, with 27 Tables and Pedigrees and 23 Maps. Fcap. 8vo, 5s.

### EPOCHS OF ANCIENT HISTORY.

10 Vols., with Maps, 2s. 6d. each.

**BEESEY'S GRACCHI, MARIUS, and SULLA.**

**CAPE'S EARLY ROMAN EMPIRE.**

**CAPE'S ROMAN EMPIRE** of the SECOND CENTURY.

**COX'S GREEKS AND THE PERSIANS.**

**COX'S ATHENIAN EMPIRE.**

**GARDINER'S (Mrs.) STRUGGLE** against ABSOLUTE MONARCHY, 1603-1688. 9d.

**ROWLEY'S SETTLEMENT** of the CONSTITUTION, 1689-1784. 9d.

**TANCOCK'S ENGLAND** during the AMERICAN and EUROPEAN WARS, 1765-1820. 9d.

**BROWNING'S MODERN ENGLAND,** 1820-1897. 9d.

**CURTEIS'S RISE** of the MACEDONIAN EMPIRE.

**IHNE'S ROME** to its CAPTURE by the GAULS.

**MERIVALE'S ROMAN TRIUMVIRATES.**

**SANKEY'S SPARTAN AND THEBAN SUPREMACIES.**

**SMITH'S (BOSWORTH) ROME** AND CARTHAGE.

### EPOCHS OF MODERN HISTORY.

19 Vols., with Maps, 2s. 6d. each.

**AIRY'S ENGLISH RESTORATION** and LOUIS XIV. 1648-1678.

**CHURCH'S BEGINNING** of the MIDDLE AGES.

**COX'S CRUSADES.**

**CREIGHTON'S AGE** OF ELIZABETH.

**GAIRDNER'S HOUSES** OF LANCASTER AND YORK.

**GARDINER'S THIRTY YEARS' WAR.**

**GARDINER'S FIRST TWO STUARTS.**

**GARDINER'S (Mrs.) FRENCH REVOLUTION,** 1789-1795.

**HALE'S FALL** OF THE STUARTS, and WESTERN EUROPE, from 1678 to 1697.

**JOHNSON'S NORMANS** in EUROPE.

**LONGMAN'S FREDERICK** the GREAT and the SEVEN YEARS' WAR.

**LUDLOW'S WAR** OF AMERICAN INDEPENDENCE, 1775-1783.

**MCCARTHY'S EPOCH** OF REFORM, 1830-1850.

**MOBERLY'S THE EARLY TUDORS.**

**MORRIS'S AGE** OF ANNE.

**MORRIS'S THE EARLY HANOVERIANS.**

**SEEBOHM'S PROTESTANT REVOLUTION.**

**STUBBS'S THE EARLY PLANTAGENETS.**

**WARBURTON'S EDWARD** THE THIRD.

# Messrs. LONGMANS & CO.'S CLASSICAL LIST

By **BENJAMIN HALL KENNEDY, D.D.,**

*Late Regius Professor of Greek in the University of Cambridge.*

## THE REVISED LATIN PRIMER.

Crown 8vo, 2s. 6d.

## A SHORTER LATIN PRIMER.

Crown 8vo, 1s.

## EXERCISES ON THE SHORTER LATIN PRIMER.

By M. G. and J. KENNEDY and H. WILKINSON, M.A. Crown 8vo, 1s. 6d.

*A KEY, for the use of Masters only. 2s. 9d. net post free.*

**NEW EDITION, REWRITTEN (1907).**

Just Published. xxiv + 556 pages. Crown 8vo, 12s. 6d.

## A SYNTAX OF ATTIC GREEK.

By **F. E. THOMPSON, M.A.,**

*Formerly Scholar of Lincoln College, Oxford; late Assistant Master at Marlborough College; Author of "Homeric Grammar," "Elementary Greek Syntax," &c.*

By **F. RITCHIE, M.A.**

**Preparatory Caesar: De Bello Gallico.** With Illustrations, Maps, and Plans. Crown 8vo. Book II., 1s.; Book III., 1s.; Books II. and III., 1s. 6d.

\* \* **Caesar: De Bello Gallico,** Books II. and III. are set for the Cambridge Local Examinations for 1908.

**First Steps in Caesar: The Expeditions to Britain, De Bello Gallico, IV. 20-38; and V. 8-23.** Crown 8vo, 1s. 6d.

**Fabulae Faciles.** A First Latin Reader. Containing Detached Sentences and Consecutive Stories. With Notes and Vocabulary. Crown 8vo, 2s. 6d.

**First Steps in Latin.** Crown 8vo, 1s. 6d.

*A KEY, for the use of Masters only. 3s. 8½d. net, post free.*

**Second Steps in Latin.** Crown 8vo, 2s.

**Imitative Exercises in Easy Latin Prose.** Based on "Fabulae Faciles." Crown 8vo, 1s. 6d.

**Exercises in Latin Prose Composition.** Crown 8vo, 2s. 6d.

*A KEY, for the use of Masters only. 3s. 8½d. net, post free.*

**Easy Continuous Latin Prose.** Crown 8vo, 2s. 6d.

**First Latin Verse Book.** Crown 8vo, 2s.

**Easy Latin Passages for Translation.** Small 8vo, 2s.

**Latin Grammar Papers.** Fcap. 8vo, 1s.

**First Steps in Greek.** Crown 8vo, 2s.

**A Practical Greek Method for Beginners.**

By F. RITCHIE, M.A., and E. H. MOORE, M.A. Crown 8vo, 3s. 6d.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

**Easy Greek Grammar Papers.** Fcap. 8vo, 1s. 6d.

By **FRANCIS DAVID MORICE, M.A.**

**Stories in Attic Greek.** With Notes and Vocabulary. Crown 8vo, 3s. 6d.

By **H. G. LIDDELL, D.D., and ROBERT SCOTT, D.D.**

**Greek-English Lexicon.** 4to, 36s.

**Greek-English Lexicon.** Abridged from the above. Revised throughout. Square 12mo, 7s. 6d.

By **H. R. HEATLEY, M.A., and H. N. KINGDOM, M.A.**

**Gradatim.** An Easy Latin Translation Book for Beginners. With Vocabulary. Fcap. 8vo, 1s. 6d.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

**Exercises on Gradatim.** By H. R. HEATLEY, M.A., and the Rev. A. SLOMAN, M.A. Fcap. 8vo, 1s. 6d.

**Excerpta Facilia.** A Second Latin Translation Book. Containing a Collection of Stories from various Latin Authors. With Notes at end, and a Vocabulary. Crown 8vo, 2s. 6d.

*A KEY, for the use of Masters only. 5s. 3d. net, post free.*

By **ARTHUR SIDGWICK, M.A.**

**A First Greek Writer.** Crown 8vo, 3s. 6d.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

**Introduction to Greek Prose Composition.** With Exercises. Crown 8vo, 5s.

*A KEY, for the use of Masters only. 5s. 3d. net, post free.*

**Scenes from Greek Plays.** Rugby Edition. Abridged and Adapted for the use of Schools. Fcap. 8vo, 1s. 6d. each.

**Aristophanes.**—The Clouds. The Frogs. The Knights. Plutus.

**Euripides.**—Iphigenia in Tauris. The Cyclops. Ion. Electra. Alceste.

**Bacchae. Hecuba. Medea.**

**An Introduction to Greek Verse Composition.** By ARTHUR SIDGWICK, M.A., and F. D. MORICE, M.A. With Exercises. Crown 8vo, 5s.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

By **G. G. BRADLEY, D.D., formerly Dean of Westminster.**

**Aids to Writing Latin Prose.** Containing 144 Exercises. With an Introduction comprising Preliminary Hints, Directions, Explanatory matter, &c. Edited and arranged by T. L. PAPHLON, M.A. Crown 8vo, 5s.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

# BLACKIE & SON'S LIST

Masters and Mistresses, wishing to attain efficiency in their Pupils, cannot afford to neglect the following Series and Books:—

## BLACKIE'S ENGLISH TEXTS.

6d. each. Blue limp cloth covers. 72 Volumes. To be used in correlation with the study of **English Literature** and **History**.

Among the leading Authors are:—

Malory.	Gibbon.	Drake.	Thucydides.	Dickens.
Froissart.	Macaulay.	Raleigh.	Plutarch.	Charles Lamb.
Bacon.	Carlyle.	Anson.	Livy.	Kingsley.
Burke.	Prescott.	Hawkins.	Marcellinus.	Swift.
Ruskin.	Josephus.	Cook.	Lucian.	Borrow.

## READINGS IN ENGLISH HISTORY.

From Original Sources. Edited by R. B. MORGAN, B.Litt. and E. T. BALLELY, B.A.

*Vol. I., Caesar to Stephen, 2s.; Vol. II., Henry II. to Richard III., 2s. 6d.; Vol. III. (1485 to 1688) 2s. 6d.*

## TOWNSHEND WARNER'S BRIEF SURVEY OF BRITISH HISTORY.

1s. 6d. The best Junior and Middle School History in existence. In use in all Public Schools, and the Text-Book of the Royal Naval College, Osborne.

## EUROPEAN HISTORY.

### HEROES OF EUROPEAN NATIONS.

By A. R. HOPE MONCRIEFF. Crown 8vo, 1s. 6d.

### LANDMARKS OF EUROPEAN HISTORY.

By E. H. M'DOUGALL, M.A. Crown 8vo, 3s. 6d.

### BRIEF SURVEY OF EUROPEAN HISTORY.

By A. HASSALL, B.A. Crown 8vo, 4s. 6d.

## SMALLER ENGLISH CLASSICS.

Edited with Biographical Sketch and Explanatory Notes. Each, paper, 2d.; cloth, 3d.

All leading English Poets, clearly printed. Among the Authors are:—

Chaucer.	Old Ballads.	Goldsmith.	Byron.	M. Arnold.
Spenser.	Cowper.	Gray.	Shelley.	Tennyson.
Milton.	Crabbe.	Coleridge.	Keats.	Browning.

## COMBINED COURSE OF LITERARY READING AND COMPOSITION.

Illustrated from Famous Pictures. Edited by LEWIS MARSH, M.A. 2s.

## THE PLAIN TEXT SHAKESPEARE.

The greater Plays. Text only. No notes. In limp cloth cover. Price 4d. each.

## OGILVIE'S SMALLER ENGLISH DICTIONARY.

A Pronouncing, Etymological, and Explanatory Dictionary at 1s. net.

## ENGLISH POETRY FOR THE YOUNG.

Selected by S. E. WINBOLT, M.A. A chronological selection of English poetry, clearly printed and well bound in cloth, 1s.

## PRECIS-WRITING.

By H. LATTER, of Cheltenham College. Cloth, 3s. 6d.

## PRECIS-WRITING.

By H. LATTER. Second Series. Cloth, 3s. 6d.

## MODERN LANGUAGES.

**THE LONGER FRENCH TEXTS.** Printed in large type, cloth limp, 8d. each. Brief Notes, Questionnaire, Memory List of useful Phrases, and Vocabulary. Among the Volumes now ready are:—

*Deslys.—Le Zouave. Moreau.—Contes à ma Sœur. Chateaubriand.—Le Dernier Abencerage.*

**THE LITTLE FRENCH CLASSICS.** Price 4d. each Book. All French Authors in Prose and Verse, from the Chansons de Geste to Daudet and Paul Bourget.

**RÉCITS TIRÉS DES CLASSIQUES FRANÇAIS.** 6d. each. Edited by Mme. C. BAGNALL, of Clapham High School, and Mlle. VIVIER. The Stories of the Great Dramatists told in Simple French. Suitable for Lower and Middle Forms.

*Cornelle.—Le Cid et Horace. Molière.—L'Avare et Les Femmes Savantes. Racine.—Athalie et Andromaque. Hugo.—Hernani et Ruy Blas.*

**THE LITTLE GERMAN CLASSICS.** Price 6d. each Volume. The leading German Authors in Poetry, Story, and Drama.

Write for full particulars to BLACKIE & SON, Ltd., 50 Old Bailey, E.C.

## CONTENTS.

	Page		Page
Leader: "When Greek meets Greek" .....	11	College of Preceptors:	
Notes .....	12	Meeting of the Council .....	24
The British Association's Committee on the Curricula of Secondary Schools—The Position of the Training Colleges under the New Regulations: Divergent Views—Shall the Training College be Local or National?—A Working-man Mayor's View of Evening Continuation Classes.		Registration in Scotland ( <i>Educational News</i> ) .....	25
The late Lord Kelvin of Largs .....	13	Religious Education in Elementary Schools: Resolution of the Friends' Guild of Teachers .....	25
Summary of the Month .....	14	Curricula of Secondary Schools: British Association's Committee's Report:	
Universities and Colleges .....	16	Scholarships in Secondary Schools. By Dr. H. B. Gray... ..	26
Correspondence: The College Library (H. W. Eve) .....	17	The Teaching of Classics. By Prof. Armstrong .....	26
The Educational Ladder .....	17	Reviews .....	27
Open Court: The Richmond Case—Stray Thoughts suggested by it. By Gilbert J. Pass, Craufurd College, Maidenhead .....	18	Lessons in Practical Hygiene for Use in Schools (Alice Ravenhill)	
Current Events .....	21	—Introduction to the Theory of Fourier's Series of Integrals, and the Mathematical Theory of the Conduction of Heat (Carslaw).	
Fixtures—Honours—Endowments and Benefactions—Scholarships and Prizes—Appointments and Vacancies.		General Notices .....	27
		New Year Gift-Books .....	29
		Mathematics .....	34
		London Mathematical Society .....	38

## The Educational Times.

"When Greek meets Greek."

THE Greek question is always with us and will not be put aside. It was the chief item on the agenda of the Head Masters' Conference held last week at Oxford, and, as Dr. James, of Rugby, who is prepared to die in the last ditch for Greek, complained, no sooner has he cut off one head of the Hydra of Philistinism than another springs up in its place. "One year it was from the side of the Universities that Greek was assailed; it was attacked last winter from the side of the entrance examinations, and now it was being attacked afresh from the side of scholarships." Do these repeated and hitherto unavailing assaults prove, as Dr. James would persuade us, the innate vitality of Greek, its indispensability as a factor of a liberal education; or do they rather show that tradition is deeply rooted, and that, though the axe is laid to the root of the tree, the topmost branches will be the last to feel the effect?

The Oxford debate does not assist us to answer the question. It leaves things *in statu quo*, and, so far, may be said to maintain the prerogative of Greek; but that is the invariable issue when any burning question is before the Head Masters' Conference. Like the Chancellor in Tennyson's "Princess," the Head Master "dangles with his chain, and smiling puts the question by." In this case he did not even think it worth while to refer it to a Committee.

Nor can Dr. James this time boast a signal victory. Ten head masters voted in favour of Dr. Burge's resolution, and sixteen voted against it. We know not how many masters abstained from voting, but the paucity of votes recorded can create no surprise. The resolution was a compromise, a sop thrown to the preparatory masters, and it can have pleased neither the thoroughgoing Greeks nor the thoroughgoing Trojans. It recommended in Entrance Scholarship examinations "lowering materially the standard of knowledge required in the Greek language," and this was interpreted by the proposer as an examination in Dr. Rutherford's Greek Primer, with translations from Greek into English and from English into Greek based on the textbook. It was objected by subsequent speakers that the remedy would be worse than the disease; that it would mean

a return to the old vicious classical method—the teaching of grammar and composition before reading; the dreary declensions and paradigms of the last century. Dean Colet was a better pedagogue than Dr. Burge when he wrote in the Introduction to his Latin Grammar: "Latin speech was before the rules, and not the rules before the Latin speech."

But the surprising thing in the debate is that no speaker (as far as reported) seems to have heard of the "reformed" system of classical teaching in Prussian schools—and that though two of the members were specially commissioned by the Board of Education to report upon its working. Had they studied these Reports they would have learnt that in the Frankfort Gymnasium, on the reformed plan, Greek is not begun before the fourth class from the top, that is, before the fifteenth year, while in the Realgymnasium Greek is not taught at all. Mr. Lyttelton, who seconded Dr. Burge, had an inkling of the truth when he spoke of the impossibility of learning three languages at once; but Dr. James in replying said he did not know what Mr. Lyttelton meant. The impossible had been achieved by Rugby scholars, and they loved their Latin and Greek on which they feasted at their preparatory school better than their French of which they had *quantum suff.* What these infant Mezzofantis knew of their mother tongue, of English history and geography, of the world around them, Dr. James did not tell us; but he opposed Mr. Lyttelton's proposal to substitute Greek history and geography at the public school to redress the balance of less Greek at the preparatory school.

The Oxford debate does not help us to answer the question we proposed at starting. It is a case of Greek meeting Greek—an intestine wrangle, not the tug of war. We are neither Greeks nor Trojans, but, as indifferent spectators, we may venture to arbitrate in the particular point at issue. The preparatory-school masters, who ought to know best, have almost with one voice pleaded for the abolition of Greek in entrance scholarships and examinations. We absolutely refuse to believe that the cause of Greek would suffer by the postponement of the study. And no half measures will serve. A little Greek is indeed a dangerous thing. Who is to define the little? Suppose the study of mathematics limited to arithmetic, it would be quite possible to set an arithmetic paper that would puzzle a wrangler. The one mortal sin of the public schools, as

Mr. Cotterill has lately reminded us, is their exclusiveness. So long as Greek wins scholarships it will be studied in the preparatory schools, and none but parents who can afford to send their sons to these expensive schools will win scholarships. It is a strange fortune that Greek, which first taught the world the virtue of isonomy, of free and equal citizenship, should have become the symbol of exclusiveness, the pass-word of an aristocracy of educators.

Strange, too, that such power should be vested in some half-dozen clerical head masters. Supposing the triumvirate who rule Eton, Winchester, and Rugby to agree that henceforward Greek should not be set in scholarship examinations, they would (as Dr. Hawkins said of Arnold when he was a candidate for Rugby) change the face of English education: they would have taken the first step towards democratizing our public schools.

### NOTES.

THE report of the British Association Committee on the Curricula of Secondary Schools derives importance from the names of the members of the Committee. Moreover, "the fact that the report is drafted in collaboration between teachers of classics and teachers of science, between representatives of Ancient schools and representatives of Modern ones," as Sir Oliver Lodge, the chairman, says, "ought to give it some value." Undoubtedly. The conclusions submitted by the Committee may be regarded as a first draft for further consideration, if educationists would but take it as a basis to build upon, instead of dispersing their energies in independent directions. On some points there will be hardly any disposition to disagree; on other points there will be a demand for ampler explanation and justification. The most fundamental point is placed last in the series, and it is a question, not of debate, but chiefly of ways and means: the affirmation that it is "urgent and imperative" that "teachers of learning and force of character" should be attracted to the profession "by conditions of appointment, by scale of salaries, and by retiring allowances." If it were a first-class battleship the money would be found in a moment; unhappily, the importance of a first-class intellectual fleet is not so readily grasped. All the same, it remains an inexorable fact that the teacher is the school, that the supply of adequate teachers depends upon the provision of adequate inducements, and that the intellectual efficiency of the country needs to be secured and maintained no less than the material interests, which are indeed essentially dependent upon the brains and sinews of the citizens.

Of course we need different types of secondary schools with different curricula or combinations of curricula, and the line of cleavage is marked by the ulterior objects of the pupils and the length of time they remain at school. The broad general course up to twelve years of age, which the Committee desiderate, requires exposition in some detail; probably the Committee found difficulty in proceeding beyond generalities; certainly the details are open to much discussion. "The most serious factor in secondary education at the present time" they find to be the crowding of subjects,

as if "the curriculum should be an abstract of all modern knowledge"; and Latin and Greek they regard as the worst obstructionists, at any rate "in many schools." Latin they would postpone till the age of twelve, as a "systematic" and "ordinary school subject"; what the "incidental" teaching of Latin before that age would amount to, even when given "by such means as will naturally occur to a fully qualified teacher of young boys," we do not essay to assess. There is much to be said for this postponement of Latin, as well as for the early commencement of one modern foreign language; and perhaps it is better not to specify one such language to the exclusion of others. The first tussle of importance must take place on the entrance examinations at the great public schools. There is room for difference also upon the subject of examinations; but probably there will be considerable sympathy with the Committee in deprecating "any uniform or centrally administered examinations applied to the schools of the country" as well as "anything like State-imposed rigidity in the organization and studies of secondary schools." On second thoughts we will repeat once more that the pressure so largely attributed to Latin and Greek may be greatly relieved by improved organization and methods, and to these the more progressive teachers have already begun to give active attention.

A REPRESENTATIVE of the *Morning Post* has interviewed the Rev. H. Wesley Dennis, Principal of St. John's College, Battersea, on the position of the Training Colleges under Mr. McKenna's new regulations. Mr. Dennis sets forth the following contrast between the effects of the regulations and of the Church's proposals:—

#### MR. MCKENNA'S REGULATIONS

1. Remove a supposed grievance by creating another far more real.
2. Do not add a single place to the accommodation for students in residential colleges, because for every Nonconformist admitted a Churchman is displaced.
3. They weaken, if not destroy, the unity and family life of the existing denominational colleges.
4. They introduce the elements of religious discord and seriously affect the internal arrangements and discipline.

#### THE CHURCH'S OFFER

1. Meets the grievance of the Nonconformist by the provision of hostels as described.
2. Adds at once to the accommodation for the training of students throughout the country.
3. Maintains the present unity and family life of the colleges, which have been proved to be so valuable for their highest work.
4. Offers a generous and peaceful solution of the difficulty while safeguarding existing arrangements and discipline.

"The late Minister of Education," adds Mr. Dennis, "frankly recognized these facts, and, as is known, expressed his approval of the solution proposed. We therefore feel that these regulations are peculiarly hard and unjust, because they are a complete reversal of the policy of the Board and of successive Governments, because they amount practically to a summons to the Church Training Colleges to break (or alter) their trusts or close their doors, and because they destroy the confidence in a public department, on the strength of which these colleges, especially in the last few years, have spent enormous sums of money in improving and extending their buildings." Mr. Dennis protests that he has every sympathy with the desire of Nonconformist students to enter a residential college, but does not think it

just "to call upon the Church to fling open the doors of her Colleges to these young people to the exclusion of those for whom she built her Colleges": "the remedy surely is to encourage the building of more Nonconformist or undenominational Colleges."

THE *Westminster Gazette*, on the other hand, commenting on the publication of the legal opinions in regard to the trust deeds of the National Society's Training Colleges, says they "are a most puzzling manifestation, both in their purpose and in their effect." Assuming the opinions to be good law, the situation is this:—

The managers, according to this opinion, enjoy full legal possession and control of these training colleges, and the Government is not entitled to lay down conditions in giving them grants, unless, of course, it passes an Act of Parliament overriding their trust deeds. But how have they grown up and at whose cost have they been carried on? . . . [Dr. Macnamara's] return shows us the proportion of public grants and subscriptions in Church of England colleges in two periods—first from 1839-62, second from 1863-1905. In the first period £165,668 was raised from voluntary subscriptions, £76,562 from students' fees, and £368,301 from Exchequer grants. In addition to these sums, £443,401 came from scholarships and capitation grants. Thus in this period only £165,668, out of a revenue of more than a million, came from voluntary subscriptions. In the second period £508,000 came from subscriptions, £19,000 from endowments, £488,000 from students' fees, and no less than £3,418,000 from Exchequer grants. By an overwhelming proportion, then, these colleges, to which the managers now tell us they cannot admit undenominational students, and for which they cannot even erect hostels, have been founded and carried on by public money. Yet their managers and the ecclesiastical authorities generally stand on their legal rights to confine residence in them to Church of England students, to keep the door shut as far as possible on other students, and to make it an act of grace when they even admit them from outside hostels and consent to provide for them from funds not their own.

Neither side, unfortunately, meets the other quite fully and squarely, yet both are fairly representative of the opposing attitudes. It seems but too obvious that the quarrel is less likely to be composed than to become further embittered.

On the practical side of the question of new Training Colleges, some criticisms made by Prof. Mark R. Wright, of Newcastle-on-Tyne, in his Presidential address at the annual meeting of the Training College Association, seem to be very well worth attention. Prof. Wright is reported (in summary) as follows:—

A reasonable system of education involved that the majority of teachers should be trained, and there must be an increase in training colleges. He regretted that colleges were rising in a sporadic way, and were due more to importunities of certain educational authorities and sects rather than to the needs of the country in particular areas. It was an error, and one which would be found increasingly difficult, to place the provision of the training colleges in the hands of the Local Authorities. He looked forward with some concern to the time when they might have some areas congested with training colleges while other areas would show a marked deficiency. It was the one piece of work which could have been done more efficiently by a central body.

Presumably each Local Authority will wish to retain the services of the teachers it trains, and no doubt this may be effected for a brief period by specific stipulations; but there appear to be probabilities of not a little difficulty and friction. The arrangement tends to postpone the establishment of a truly national system.

MR. WILLIAM CARTWRIGHT, the new Mayor of Lough-

borough, who started work at six years of age, who "never saw the inside of an elementary school," and is (as he says) "just an ordinary workman, working a machine that makes ladies' stockings," is well entitled to a hearing on the subject of continuation classes. An interviewer from *Lloyd's Weekly News* reports him thus:—

Everything depends on educating the workman. I think there ought to be compulsory attendance at evening schools and technical schools for boys and girls after leaving the elementary schools. As it is, the workman's child is generally taken away from school just as he is really beginning to learn and to make something of himself. The average child that I meet who has passed the sixth standard I find in a year or two after he has left school has forgotten most of what he knew. If all these boys and girls had to go to evening school three times a week I don't think it would press too hardly on them.

Mr. Cartwright learnt to read at a Sunday School, and then diligently taught himself. The Notts Manufacturing Company, his employers, gave a reception and entertainment at the Town Hall in honour of his mayoralty—a credit to themselves as well as an honour to their workman.

### LORD KELVIN.

LORD KELVIN OF LARGS (Sir William Thomson) died on December 17 in his eighty-fourth year. He was born in Belfast, where his father was teacher of mathematics in the Royal Academical Institution, on June 26, 1824; studied at Glasgow University; entered at Peterhouse, Cambridge, in 1839; was Second Wrangler and First Smith's Prizeman in 1845, and was at once made a Fellow of his college; was appointed Professor of Natural Philosophy in Glasgow University in 1846, and occupied the chair till 1899 (fifty-three years); and in 1904 was made Chancellor of the University. He published some three hundred important papers on scientific subjects, and several volumes of lectures and addresses. He collaborated with the late Prof. Tait of Edinburgh in the production of a "Treatise on Natural Philosophy" (1867) and of "Elements of Natural Philosophy" (1872). On every department of Physics, theoretical or applied, Lord Kelvin has left his mark: mathematics, mechanics, sound, light, heat, thermo-dynamics, magnetism, electricity, elasticity, telegraphy, electrical engineering, geology, astronomy, chemistry, and navigation; and notably the dynamical theory of heat, the doctrine of the dissipation of energy, the theory of the electric telegraph, and electrical and magnetic science generally, and navigation. His scientific conduct of the laying of the Atlantic Cables (1858 and 1866) included a number of most valuable inventions; and it may be said of his siphon recorder (1867) that it has made submarine telegraphy a commercial possibility, and that his depth-recorder revolutionized the methods of deep-sea sounding. His re-invention of the mariner's compass, his tide-predicting machine, and his set of tables (improving Sumner's) for finding the position of a ship at sea, are signal contributions to practical navigation. His electric balances for weighing electric currents, electrostatic voltmeters for measuring electrical potential differences of pressure, electric wattmeters for measuring electric power, and electric ergmeters for measuring electric energy—are they not to be found in every laboratory, electrical workshop, and electric station, monuments of genius in the application of mechanical and electrical principles to instruments of precision? And these are but samples of the fruitful activity of one of the most extraordinary of human brains. Orders and degrees are of no moment in such a case. Lord Kelvin was knighted in 1866, and elevated to the House of Lords in 1892. He was a Privy Councillor; an original member of the Order of Merit; President of the British Association in 1871; President of the Royal Society 1890-95; a member of many foreign orders and academies, and an honorary graduate of a dozen Universities. He leaves no successor to the title. He was buried in Westminster Abbey on December 23.

## SUMMARY OF THE MONTH.

THE ARCHBISHOP OF CANTERBURY has forwarded to Mr. McKenna a letter in which he intimates the conclusions to which the National Society has come in respect to the new Regulations for Training Colleges. These conclusions have been arrived at in consequence of legal opinion obtained regarding the admission of students to the training colleges of the Church of England under the new conditions. The legal opinion was obtained from Sir Robert Finlay, K.C., Mr. R. Younger, K.C., and Mr. E. W. Martelli. Counsel answered the questions put to them in respect to the National Society's training colleges to the following effect:

1. The admission of extra day students as to whose religious faith no questions are asked, and who do not avail themselves of the religious education or services of the college, would not involve a breach of duty of the Society.

2. In all cases where funds have been applied for providing boarding houses or hostels for undenominational students in connexion with colleges bound to teach the doctrines of the Church, this would be a misapplication of the funds of the college and in the nature of a breach of trust.

On receipt of these opinions, a meeting of those interested in the National Society's training colleges was held, and the following resolutions, amongst others, were passed, with a view to communicating them to Mr. McKenna:

That, even apart from fundamental questions of principle, the Church of England training colleges, having regard to the opinion of counsel, find it impossible to observe the new regulations as they stand without committing a breach of the obligations contained in the Trusts and Trust Deeds under which the colleges are held.

It is respectfully urged that the denominational character of the Church of England training colleges should be freely recognized by the Regulations of the Board of Education as heretofore so far as resident students are concerned.

THE Council of the Churchmen's Union has passed the following resolution:

That the Council of the Churchmen's Union, while duly appreciating the importance of denominational instruction, views with concern the disparagement of simple Bible teaching, and desires to emphasize the great value it attaches to the maintenance of this form of Christian instruction in the schools.

At a full meeting of the staff of Trinity College, Dublin, (December 14) summoned by the Provost, the following resolution was passed unanimously:

That, fully realizing the importance of a settlement of the University question, this meeting of the Staff of Trinity College and members of the Academic Council think it undesirable to express any opinion on proposals which have not yet been formulated as a Government Bill; but they think it right to reaffirm the declaration contained in the statement issued by the Executive Committee of the Dublin University Defence Committee in March, 1907, viz.: "Should the Government determine to introduce a measure which, while leaving to Trinity College and the University of Dublin their present independent and unsectarian character, would at the same time be acceptable to our Roman Catholic fellow-countrymen, it would be a matter of supreme satisfaction to all who are interested in higher education in Ireland and who desire a final settlement of the whole question. We for our part have confined ourselves to working out our own solution. We have not thought it our duty either to advocate or oppose any scheme for the satisfaction of the reasonable claims of Roman Catholics which does not interfere with our own development along undenominational lines."

MR. BIRRELL, speaking at Belfast, is reported to have described the existing system of Intermediate Education in Ireland as "a system of cram, cram, cram." Archbishop Walsh has since contended strongly that Mr. Birrell has been misinformed.

THE EARL OF CREWE, chairman of the governing body of the Imperial College of Science and Technology, has authorized the publication of the following communication:—"The governing body of the Imperial College of Science and Technology have appointed three standing committees—a Finance Committee (chairman, Sir Francis Mowatt), an Education Committee

(chairman, Mr. Arthur Acland), and a General Purposes Committee (chairman, Lord Halsbury). In addition, they have appointed two temporary committees—a Transfer Committee (chairman, Mr. Arthur Acland) and an Organization Committee (chairman, Mr. Gerald Balfour; vice-chairman, Sir William White). Matters relating to the transfer to the Imperial College of the constituent institutions, which, it has been arranged, shall take effect as from January 1 next, and to the transfer of land from the Exhibition Commissioners, have been referred to the Transfer Committee. The Organization Committee, to which have been referred matters relating to the future organization of the Imperial College, have appointed four sub-committees to consider questions arising under this head in relation to the following sciences or groups of sciences, viz.:—(1) Mining and metallurgy (chairman of the sub-committee, Sir Julius Wernher); (2) other branches of engineering (chairman, Sir John Wolfe Barry); (3) biological sciences (chairman, Sir Archibald Geikie); and (4) other pure and applied sciences (chairman, Sir Arthur Rücker). The governing body have authorized the appointment of persons, not members of the governing body, who are specially conversant with the sciences in question or with their industrial applications, as additional members of these sub-committees, which are now engaged in considering the questions referred to them. The governing body have also approved in principle the appointment of a principal officer of the Imperial College, and have referred the question of his title and functions to the Organization Committee."

A CONFERENCE of representatives of the London Chamber of Commerce, the University of London, and the Higher Education Committee of the London County Council, was held at the Education Offices of the Council, Victoria Embankment, to consider the advisability of approaching conjointly the Board of Education to obtain its greater recognition of commercial subjects in the regulations for higher elementary and secondary schools. The objects of the conference were discussed by Sir Albert K. Rollit, ex-president of the London Chamber of Commerce and chairman of its Commercial Education Committee; Sir A. W. Rücker, Principal of the University of London; Prof. H. J. Mackinder, Director of the London School of Economics and Political Science; Dr. Walmsley, Principal of the Northampton Institute; Dr. H. J. Spencer, Head Master of the University College School; Mr. G. N. Hooper, Mr. R. L. S. Tomalin, Mr. R. S. Fraser, members of the council of the London Chamber of Commerce and of its Commercial Education Committee; Mr. C. E. Town, secretary of the Commercial Education Department of the London Chamber of Commerce. There were also present in addition the members of the Higher Education Committee of the London County Council.

At the December meeting of the Manchester Education Committee, the following report was read:—

In order to ascertain how far the business firms of the city are co-operating with the committee in the work of the evening schools, inquiry has been made in all departments outside the Municipal School of Technology and Art as to the number of students in attendance whose fees have been paid by their employers. The result shows that, in all, thirty-five separate firms are paying the fees of one hundred and seventy-three employees during the present session. In order to sustain this co-operation of the employers, monthly reports are being furnished to the firms as to the attendance, progress, and conduct of each student whose fees they have paid. Monthly reports are also forwarded in respect of one hundred and ninety-two students in the employ of twenty-five separate firms which have not paid the fees of their employees, but which are desirous of being acquainted with their progress. In several cases the annual advances of salary of these employees are to a considerable extent dependent on their progress in the schools.

THE difficulty of dealing with the employment of children and young people in London has been brought before the London County Council by a report from the Representative Managers of the Elementary Schools. They say:—

The Representative Managers have been deeply concerned to see the wastage of our educational efforts, and the demoralization of many thousands of our young people, owing to the absence of any authoritative assistance and advice at the critical point of their lives, when they leave school. Many cannot find permanent employment; many drift into most unsuitable employments. There is a ready



market at good wages for the youth of both sexes between fourteen and eighteen, but in occupations which leave them stranded at the latter age, without any permanent employment, without a trade or profession, and thoroughly demoralized and spoilt as citizens. . . . We know it is the desire of managers and teachers to do all they can to help parents in placing their children in suitable employment; and many perform this service most satisfactorily, but even these often feel the need for the services of a wider organization to which cases could be referred. . . . The neglected problem is in 70,000 or 80,000 ordinary children of average ability, who leave school every year, drift into the first casual employment that is offered, and return on our hands at thirty-five or forty as "unemployed and unemployable," without a trade and without either the mental or physical stamina for real profitable work.

The report suggests that Associations should be formed, in every suitable area, of managers, teachers, employers and others, who should collect information and be able to advise as to suitable vacancies.

THE Joint Matriculation Board which directs and controls the Matriculation Examination of the Universities of Leeds, Liverpool, Manchester, and Sheffield, has issued its report for the year 1907. The Matriculation Examination was held twice, beginning on July 2 and September 10. The number of candidates in July was 1,294, of whom 705 passed; and in September was 438, of whom 179 passed. The corresponding figures in 1906 were 1,079 (with 573 passes); and 454 (with 188 passes). In July the Matriculation Examination was held as a form examination at twenty-five schools, which provided 264 of the 1,294 candidates for the Matriculation Examination. In July, 1906, the number of schools was 25, presenting 255 candidates. The Board has recommended for the award of scholarships for a number of Education Committees and for the award of various university (entrance and matriculation) scholarships. There has been a considerable increase in the number of candidates who take papers at the higher standard, and the Board has decided to allow persons who already hold a Matriculation Certificate, and have not yet entered one of the universities, to enter in a future examination for a limited number of subjects at the higher standard and to grant supplementary certificates to candidates who satisfy the examiners. The Board has appointed a Committee to draft a scheme for the inspection and examination of schools, and it has been assured by the Universities of their general approval of the objects of the proposal.

THE Conference of Head Masters of Secondary Schools was held at Magdalen College, Oxford (December 20, 21), Mr. C. E. Brownrigg, President. The Richmond case was discussed, on a motion by Dr. Gray, seconded by Dr. Gow, "suggesting to the Board of Education that, in the interests of the profession, they should take such steps as will give to assistant masters a more secure tenure of their positions." The motion was adopted. On the motion of Dr. Rendall, a resolution was carried, "deploring the action of the Board of Education in attempting, by way of administrative regulations and by differentiation of grants, to place all secondary schools under the direct control and management of county or municipal authorities, and to extinguish or supersede all governing bodies, whether constituted by scheme or otherwise, not subject to such control." On another motion by Dr. Rendall, "deploring the action of the Board of Education as tending, by way of administrative regulations and by differentiation of grants, to narrow the methods of religious teaching and worship in secondary schools within undenominational limits," sharp differences of opinion were manifested, but the resolution was carried by 34 votes to 6. A resolution moved by Dr. Burge and seconded by Canon Lyttelton, to the effect "that undue pressure is put upon boys at preparatory schools by the requirements of scholarship examinations at the public schools, and that, in the interests of education, the best remedy lies in lowering materially the standard of knowledge required in the Greek language," was defeated by 16 votes to 10. The abstentions from voting are significant. The British Association's report on Secondary Curricula was referred to the Committee with instructions to obtain the opinions of individual members, with a view to full discussion at next year's Conference.

THE Training College Association held its annual conference (Dec. 17) at the National Society's House, Westminster, under the chairmanship of Prof. Mark Wright (Newcastle-on-Tyne), the president. There was a large attendance. The con-

ference was attended on behalf of the Board of Education by Mr. Barnett (Chief Inspector for the Training of Teachers), Dr. Airy (Inspector of Training Colleges), Dr. Newman (Chief Medical Officer), and Dr. Eichholz (Assistant Medical Officer). The President, in the course of his address, referred to the General Report on the Instruction and Training of Pupil Teachers, 1903-7. Full of defects and limitations, the old system for more than half a century had supplied English schools with teachers, and it was for the succeeding years to settle whether the more liberal method as regards intellectual equipment outlined in the Bursar plan (involving a delay in beginning practical work) would compensate for the characteristic masterfulness and capacity in managing large classes so frequently seen among pupil teachers. He thought the figures as regards future supply would need revising. The conclusion he came to was, that a much smaller number of pupil teachers would supply the needs of the schools than the annual 21,000 estimated in the report, unless a definite step forward were taken in reducing the maximum number of scholars allowed to adult teachers. Reduction in the size of classes was the most urgent of school needs, especially in large towns. There must be an increase in training colleges; but it was an error, surely, to place the provision of training colleges in the hands of local authorities. It was the one piece of work which could have been done more efficiently by a central body. A discussion took place on "The Simplification and the Strengthening of the Training College Curricula." A motion by Prof. Adamson, "that this association earnestly deprecates any endeavour on the part of the Board of Education to impose a uniform system upon the training colleges, and respectfully emphasises the necessity, in the present experimental stage of training and under the great diversity of conditions, of allowing as much liberty and elasticity as possible to the various colleges," was carried unanimously without discussion. Sir Lauder Brunton gave an address on "Training Colleges and National Health."

THE first of the "Occasional Lectures" for the session at Bedford College for Women was given on November 28 by Dr. Walter Leaf on "Some Impressions of Persian Poetry." Dr. Leaf touched briefly on the main features of Persian literature, its saturation with Arabic thought and language, its vast extent, and its fullness of rhythm and music. Every Persian aims at being something of a poet, and, as prolixity is the national vice, it is not surprising to find that the number of their works, even of the first class only, is numbered by hundreds. To most English-speaking people Persian poetry is represented only by Omar Khayyam, who in his native land is known rather as an astronomer and mathematician than as a poet, and who owes his fame in the West to the matchless translation of FitzGerald. But the great national epic of Persia, the "Shahnama," is of a different character. It embodies the national consciousness and aspirations, and was written in the tenth century by Firdausi, at the command of an Afghan sultan, the Mahmud of whom Omar sings. Firdausi, like Homer, collected the scattered traditions of his nation and wove them into verse. To this task he devoted thirty-six years, and found sixty thousand couplets not too long. The thirteenth and fourteenth centuries were the golden age of Persian poetry, the representative names of the period being Sadi, Jalal-ud-Din, and Hafiz. Sadi was a student of men, Jalal-ud-Din a mystic, Hafiz first and foremost an artist; but all are penetrated with Sufi mysticism. The lecturer gave some account of the main features of Persian poetry, and of the difficulty of reconciling the sensuous extravagance of its tenets with the dry realism of the faith of Islam. In Persian thought intoxication of the senses is often sought as a path to spiritual exaltation, and the student of the West must be prepared to face this incongruity in the midst of much lyrical beauty. In conclusion, Dr. Leaf sketched the life of a Persian poetess of the nineteenth century, a martyr for the Bab religion, which arose in the early 'forties in Persia. The key of Persian poetry is mystical self-abandonment, "the pensive passion of the absolute"; and Persian poets are among the most consummate artists in words that the world has ever produced.

ON the eighty-fourth anniversary of the Birkbeck College, Lord Alverstone, President, in the chair, the prizes were distributed by Lord Collins. The Principal, Dr. G. Armitage-Smith, gave a brief account of the work of the session, which, he said, had been very satisfactory. There was a considerable increase in the number and attendances of students, and a great advance

had been shown in the standard of work and in examination results. During the session there were 2,066 students. A steady diminution had taken place in the classes of an elementary order, and students came better prepared than in former years and demanded a higher class of education. A healthy and vigorous tone pervaded the whole College. In conclusion, he stated that the College needed more accommodation, its usefulness being restricted on that account. On the motion of Sir Philip Magnus, M.P., seconded by Mr. Stuart Sankey, it was unanimously agreed:—"That this meeting records its satisfaction at the continued progress of the College and its numerous successes in the University and other examinations, and congratulates the council and staff thereon; it expresses the hope that the efforts now being made for the extension of the College buildings may be successful, so that the usefulness of the College may be no longer restricted, as at present, by inadequate accommodation."

THE prizes and certificates to students at the Northampton Polytechnic Institution (formerly "the Northampton Institute"), Clerkenwell, were distributed by the Duke of Connaught. Dr. R. Mullineux Walmsley (the Principal) read an abstract of the annual report, which showed that in the past year the work of the Institution had continued with increasing success. The chief development of the session has been the transfer of the technical optics department to the rooms of the British Horological Institute in Northampton Square. This has had the double effect of increasing the accommodation for the technical optics department and also of relieving the pressure, by further increased accommodation, in the electrical engineering department. With regard to the technical optics department, the new building provides an increased number of laboratories and workshops as well as class and lecture rooms; but the total accommodation so provided still falls very much short of the needs of the department, and therefore the necessity for the new building which has been under discussion for so long is still very urgent. The question of increased accommodation for the general work of the Institution is also very pressing.

THE feeling is growing among those connected with educational administration (says the *Aberdeen Free Press*) that the time has come for an examination of the various educational endowments and trusts which exist in different parts of Scotland. Twenty-five years ago the Educational Endowments (Scotland) Act was passed, and under that measure Commissioners were appointed who visited various towns and conducted inquiries into the local charities and trust funds of an educational nature. Reports were drawn up, and upon them were based schemes of amalgamation and reform. The Educational Trust in Aberdeen is the outcome of this inquiry, and it represents a consolidation of various small endowments, some of which had grown obsolete because of changed conditions. The Technical College in Glasgow was formed in the same way upon a scheme drawn up by the Commissioners. It embraces five separate endowments or institutions—Anderson's College, the "Young" Chair of Technical Chemistry in connexion with Anderson's College, the College of Science and Arts, Allen Glen's Institution, and the Atkinson Institution. The schemes prepared by the Commissioners were fitted to the circumstances of the time, and they undoubtedly effected much needed reforms and put a stop to much needless or out-of-date expenditure. In the twenty years or more, however, which have elapsed since the Commissioners made their investigations, many changes and developments have taken place in education. There are new Government grants, new schools, and new colleges of various kinds, and many are of opinion that the time has come for a new review of the educational endowments of the country. This view, it is understood, is held strongly by the authorities at the Scotch Education Office, and it is not unlikely that steps will shortly be taken to institute an inquiry, either by a Departmental Committee or otherwise, into the resources which are available for education, and into their proper correlation with the expenditure from public funds.

THE Dean of Christ Church has been unanimously elected Chairman of the Council of Lady Margaret Hall, Oxford, the office falling vacant owing to the recent resignation of the Warden of New College. The building fund which has been opened for the provision of a new library and dining-hall and more students' rooms now reaches £2,900. The council have decided that, if £4,000 can be raised by Easter, the work may be

begun, though at least £7,000 will be required in order to complete it. Extra space is urgently needed for both common rooms and students' rooms, applications for admission being now so numerous that students are already being accommodated in rooms near.

In a Memorandum on the teaching of History, the Scottish Education Department say:—

While urging the importance of introducing, from the very beginning of the systematic study of history, some idea not merely of sequence, but also of causal relation, we must never forget that the child's first interest in history arises from vivid and picturesque detail, and this system of attraction should never be lost sight of all through school life. There is a second line of historical study to which some little time should be given in the supplementary course, wherever possible, namely, the history of our principal colonies and of the footing gained by the Anglo-Saxon race in various parts of the world. The scope and to some extent the method of history teaching in any particular class of school must be ultimately determined by the normal leaving age of its people. If they cease attending at fourteen years of age, all considerations lead to the conclusion that Scottish history must form the main subject of systematic historical study. In conclusion, the memorandum states there are two main sides to historical study in schools. There is, first, that aspect which is most fully exemplified in the preparatory stage, the making acquaintance—for the most part in literary form, and as part of the study of literature—with the materials of history. The other side is the systematic treatment of history so as to exhibit events in their due proportion and proper connexion, with the view of approximating more and more closely as the study progresses to an adequate comprehension of the general movement of history.

#### UNIVERSITIES AND COLLEGES.

(From our own Correspondent.)

**Cambridge.** HISTORY repeats itself. A certain member of Caius was sent down for reasons which appeared to the authorities sufficient to justify the sentence.

The undergraduate portion of the College thought differently, and practically every available member of the institution turned out to swell the funeral procession which, in a dismally orderly fashion, escorted the victim to the station. Some colleges are lax, others are strict; but one thing is abundantly clear, and that is the fact that most colleges are dependent upon the pollman for the appearance of their balance-sheet, and any measure which alters the flow of freshmen from the greater schools requires the most careful thought.

Curiously enough, we have seen another example of a proctor becoming unpopular. Several years ago a proctor, who was also a Dean, incurred the wrath of men for his doings, but the unpopularity was hardly deserved. Those who knew the victim of the popular fury were convinced that the man was right and the mob was wrong; at any rate, some of his most active persecutors formed themselves into a body-guard to protect the official from the violence of the mob, which at one time looked dangerous. Nowadays a sense of humour seems to have arisen in the undergraduate breast, and Mr. West Watson has been escorted to church and elsewhere by a huge mob of well-behaved youths, who silently march alongside their victim, and compel him to read between the lines. Mr. Gardiner, the other proctor, has chivalrously put forward a defence of his colleague, and matters will probably straighten themselves out next term.

Archdeacon Cunningham is always original, always amusing, and generally convincing. His latest scheme is to utilize what he would probably consider as the "waste products of the polls." His idea, put into homely language, is that there is much room in the pollman, and that we put the wrong stuff into it. A few facts first. The pollman has to pass the General, which, as its name implies, exacts the minimum standard of "General" knowledge requisite for the Poll degree; this may be passed as early as the fourth term, though more usually the whole of the first two years is absorbed in getting up the work and getting through the ordeal. This leaves from five terms as a maximum to three or less as a minimum for "special"—i.e., directly useful or professional subjects.

The Archdeacon is bold. He says: "Make men attend a considerable number of lectures framed on the model of those delivered by the 'Extensionists.'" Perhaps one of these may kindle in the young mind some interest or intelligence, and then see what happens! The idea is that some one subject may stimulate the youth to further development, and then we are to

prepare a "special" to take him deeper still. It is a pretty idea, but, like many another pretty idea, it presupposes the moral perfection of man in general and the University man in particular. If attendance at lectures is to count, a somnolent mood will be cultivated; if knowledge is to be tested, we shall soon come back to the old examination system. And think of the lectures and the lecturers! At present, have we half-a-dozen men who can attract an audience without resorting to compulsory methods? Why do the coaches flourish if lecturers are all capable? And the fallacy of it all is to postulate that the passive reception of a prepared lecture, the blotting-paper method of getting in your facts, is any intellectual exercise whatever.

The great fallacy which seems to underlie the Cambridge system is founded on the maxim, "Knowledge is power"; rather, "Knowledge"—crude and undigested—"is weakness." Knowing how to know is all that is worth knowing.

But the Archdeacon is a wise person, and knows how to tickle the public; his semi-humorous proposal may bring into prominence many things which we make believe not to exist because our eyes cannot see them.

The announcement that the prize for Latin Essay is awarded to J. R. M. Butler does not look much in cold print; but when we reflect that the undergraduate in question was born late in the year 1890, was head boy of Harrow when others are satisfied with being in the lower fifth, won a major scholarship at Trinity two years before other people would think of trying for a minor one, then we feel inclined to congratulate the Master of Trinity and Mrs. Butler on giving a very practical example of the doctrine of heredity. Mr. Butler was grounded at a rising Cambridge school, under Mr. R. S. Goodchild, whose successes in public-school scholarships are known to all educationists.

Prof. Ridgeway, with his usual polemic erudition, on December 4 maintained the thesis that Sergi's theory of "the Mediterranean race" is untenable. The professor is quite unique. He is cleverer and more quarrelsome, more peacemaking and more human, than anybody else. No one wants to change him.

A new diploma in Anthropology is to be instituted. Qualifications: To have received instruction under the Board of Anthropological Studies for three terms and to have written a dissertation on the subject. Those whose who hunger for letters after their name rejoice in the opportunity of adding two more.

The Livingstone meeting on December 4 was a success. Time did not permit of the various speakers giving full rein to their eloquence. The Vice-Chancellor made an apt allusion when he suggested to the boys in the gallery that they should, fifty years hence, tell the future generation how the doings of fifty years ago were now being celebrated. Our coming Vice-Chancellors will do justice to the chair: Dr. Mason, Mr. Donaldson, Mr. Fitzpatrick, Colonel Caldwell, and, lastly, Prof. Howard Marsh. We shall not do badly.

We were sorry to lose the football match. In spite of the fact that we possess in Kenneth McLeod and R. McCosh probably the finest three-quarter and forward players of to-day, we were beaten by a better team.

THE annual report of King's College records a large increase in the number of graduates during the year. Degrees have been awarded to 56 students, while 107 passed the intermediate examinations. More students are reading for higher degrees, and the amount of research and advanced work is extending. The number of students who enter as internal students of the University continues to increase. The total number of students attending the College amounted to 2,593, while in the two schools and other departments there were 3,620 pupils. The evening class department has been reorganized and the staff strengthened; there are full courses in arts and science and classes in engineering, affording every opportunity to students who are unable to attend day classes to work for University degrees. The classes for teachers, carried on in conjunction with the London County Council, continue to be very largely attended, and prove of great value to the students. Some further accommodation has been provided for certain departments, and a considerable sum has been spent in renewing and adding to the equipment of the laboratories. The scheme for the incorporation of the College in the University of London has reached a further stage, and the draft of the Bill has been agreed upon. The appeal for funds has been issued, and some £21,000 has been raised, including £5,000 each from the Goldsmiths', the Clothworkers', and the Drapers' Companies.

## CORRESPONDENCE.

### THE COLLEGE LIBRARY.

To the Editor of "The Educational Times."

SIR,—May I appeal to members of the College on behalf of the Library? It is not that money is wanted: there is still some voted but unspent. The real difficulty is to find out what books are desired by members. There is a fair supply of works on history and geography calculated to meet the wants of teachers who wish to read beyond the limits of the text-books they are using in school.

Suggestions as to a similar extension of the Library in other departments would be welcome. Possibly some branches of science might be taken in hand. I should also be glad to know if there is any effective demand for extensive editions of Greek and Latin classics.—I am, Sir, &c.,  
H. W. EVE.

### THE EDUCATIONAL LADDER.

ABERDEEN UNIVERSITY.—Fullerton Scholarship in Mental Philosophy (£100 for two years): Cecil B. Simpson, M.A., Monquhitter.

CAMBRIDGE UNIVERSITY.—Jeremie Septuagint Prizes: (1) E. C. Dewick, B.A., St. John's; (2) A. E. Talbot, B.A., Emmanuel. Carus Greek Testament Prizes: For Bachelors, not awarded; for Undergraduates, L. S. Thornton, Emmanuel. Whewell Scholarships: (1) D. W. Ward, B.A., St. John's; (2) C. K. Webster, B.A., King's. N. de M. Bentwich, B.A., Trinity, has been re-elected to a Scholarship of £100. Members' Prizes: Latin Essay, James Ramsay Montagu Butler, Scholar of Trinity; English Essay, William N. Ewer, B.A., Scholar of Trinity. Crosse Scholarship: Fred Shipley Marsh, B.A., Selwyn. Clothworkers' Company's Exhibitions (£30 a year for three years, for non-collegiate students): W. Harvey and R. L. Hussey. Censor's Exhibition (Day Training College): I. R. Swallow.

CANTERBURY, KING'S SCHOOL.—Junior King's Scholarships: R. E. L. Beardsworth (for Mathematics), C. W. Kidson, F. L. Goad, all of the King's School. Probationer King's Scholarships: E. F. Smart (Miss Baker, Folkestone), K. Lawson-Williams (Mr. Hayman, Abbey School, Beckenham), R. G. Crosse (Grammar School, Faversham), H. N. Kerr (Mr. Faulkner, Purley), A. Sargent, Junior King's School, G. W. A. Todd (Mr. Brooksbank, Aysgarth), H. G. Kain (Miss Speare, Richmond Hill). Entrance Scholarships: E. J. Hodgson, for Mathematics (Rev. A. Hodgson, Astley Abbotts), H. J. Denham (Rev. C. Wood, Brighton), H. Spence (Junior King's School), K. Lawson-Williams (Abbey School, Beckenham), H. G. Kain (Miss Speare, Richmond Hill), A. B. Forsyth (King's School), R. C. Crowley (Junior King's School). House Scholarships: G. W. A. Todd (Mr. Brooksbank, Aysgarth), H. N. Kerr (Mr. Faulkner, Purley).

DURHAM UNIVERSITY.—Diploma in Theory and Practice of Teaching: Lillie Ditchburn, Elizabeth Dowsen, Laurence A. C. Edwards, Elsie C. Halford, Mirian Oliver, Olive L. Watson, (Armstrong College).

LONDON UNIVERSITY.—*University College*.—Slade Prize for Figure Composition (£25): Mark Symons.

*London School of Economics*.—Martin White Scholarships (£35 a year for two years): Percy Anstey and William C. Nixon. Hutchinson Medals for the best research of the year at the London School of Economics have been awarded to Miss V. M. Shillington, D.Sc. (Econ.) London, formerly of Girton College, Cambridge, for her thesis on "Anglo-Portuguese Relations, A.D. 1200-1509," and to Miss A. B. Wallis Chapman, D.Sc. (Econ.) London, formerly of Oxford, for her thesis on "Anglo-Portuguese Relations, 1509-1807."

*Bedford College for Women*.—Training Department Scholarship (£15): Miss P. Davison, B.A.

MANCHESTER UNIVERSITY.—Teachers' Certificates: Class I.—Stephen Butterworth, Frederick T. Cheetham, Tom P. Coleclough, Henry T. Coleclough, Allin Cottrell, Esther Crosland, Edith D. Johnson, Edith M. Kershaw, Eveline Oddie, Harriet N. Ormrod, Margaret A. Smith, Nellie Snape, Dora Southerst, Frank Thornley. Class II.—Arnold Allcott, Jesse Anderson, Alfred E. Bancroft, Ward A. Batley, Harold Bennett, John Broadbent, James F. Dawson, Thomas J. Dyke, John H. Hawkes, James S. Hill, Winifred Jackson, Ruth H. Jenkins, Alice Kenyon, Benjamin Llewellyn, Marion R. Longbottom, Mabel E. Marsh, Willy Mitchell, Bertha Moorfield, Florence Nightingale, Mary Riley, Harriet C. Rogers, Frederick Sanderson, Mary Viner, George

Williams, Norman M. Young, Winifred Wilson, Hugh B. Borland, Class III.—Harwood Butterworth, Henry Gorrard, Annie Isgorve, Evelyn G. Jones, John W. Jones, Ethel Kershaw, Ada Lee, Thomas Shaw, Mabel W. Stephens, Gertrude M. Walsh. The regulations prescribe that no student is awarded a First Class unless he obtains a high standard for practical teaching, and no name appears in the list unless the student has passed the examinations qualifying for a Manchester University Degree in Arts or Science.

OXFORD UNIVERSITY.—Senior Kennicott Scholarship: H. Segal Moses, B.A., non-collegiate; *proxime accessit* G. V. George Stonehouse, M.A. Exeter.

### OPEN COURT.

*Thay haif said . . .  
Quhat say thay?—Lat thame say!*

#### THE RICHMOND CASE: STRAY THOUGHTS SUGGESTED BY IT.

By GILBERT J. PASS, Craufurd College, Maidenhead.

The result of the Richmond Grammar School case must come as an unpleasant eye-opener to those teachers who have hitherto been living in a fool's paradise. The fact that they may be sent about their business without even the notice accorded to a domestic servant—that, indeed, a head master may, if it so please him, dismiss his assistant without any formal notice—is difficult to realize. It has been said that this is a matter which cuts both ways, and that if the principal need not give the assistant notice, the assistant, in his turn, may leave when he pleases. But a little reflection shows that this is not so. The head master, as the testimonial- and reference-giver, undoubtedly holds the whip hand. Two questions naturally arise out of this lawsuit. The first is: "Who are the responsible persons who have made such a position possible?" and, secondly: "How may such a state of affairs be rendered impossible in the future?"

The answers to both questions are simple: (1) "The assistants themselves," and (2) "By all teachers uniting together in one representative body."

One cannot fail to hold the mass of secondary teachers responsible for the present position, since their branch of the profession exhibits a chaotic muddle of disorganization. The elementary teachers, it is true, have their own organization in the National Union of Teachers, numbering some fifty thousand members, but the secondary teachers have no such body. There is, of course, the Incorporated Association of Assistant Masters—which in commendable fashion supplied the funds to take the Richmond case through the Courts—but unfortunately its membership is comparatively small and by no means representative of the great bulk of secondary teachers. Now it is this absence of a properly organized trade union that has allowed the present position to arise, and until some form of union comes into being these injustices are bound to happen.

The whole teaching profession ought to be welded into one composite whole; or, if this is impossible, owing to lack of sympathy between elementary and secondary teachers, then the secondary teachers should form their own union somewhat upon the lines of the N.U.T. Yet even here there is much difficulty, owing to the nonchalance of many of the teachers and the cliquishness of others. The masters in the big public schools—our "aristocracy," as it were, and to whom we look for our leaders—in a large number of cases stand aloof and hold out no helping hand to their less fortunate brethren in the smaller grammar and private schools; and until this clannishness is overcome, and all secondary teachers combine together to help one another, little or nothing can be accomplished. Members of other learned professions—solicitors, barristers, doctors—all have their trade unions, but the poor secondary teacher has none. Now the reasons for this are clearly (i.) the selfish aloofness of the great mass of teachers, (ii.) the lack of interest displayed by many who simply enter the profession *en passant*, to fill up a gap in the hopes of soon leaving it "to do something better"; (iii.) the fact that this is practically the only profession open to all comers.

The Registration scheme was to have removed these last two difficulties, but we all know what a conspicuous failure Column B has been. If a new scheme arise unlike the old one, and some equitable standard of qualifications be required, and if there is a trade union to fix the standard of wages according to these qualifications and experience, and to demand fair and proper

treatment for assistants—then we shall have the unwonted spectacle of the average assistant not only obtaining just enough to exist on in bachelor state, but (*mirabile dictu!*) earning a marrying wage, instead of having to take a tacit vow of celibacy as binding as that required on entering a monkish order, as many have to do on becoming members of our calling.

Yet this much-to-be-desired state of affairs can only be reached by union; best of all, a union of the whole profession, but it seems probable that this is an impossible counsel of perfection: for if the assistants in the larger schools show a dislike to combining with their brethren in the same boat—albeit they are travelling first class, while the smaller fry go steerage—how much more will they be offended at the thought of working in a common cause with elementary teachers, who are not, as a general rule, of the same social class as they? Indeed, the whole position from A to Z is disheartening, and, until it is bettered, we have nothing to hope for, except to sit down meekly with folded arms and submit to treatment that an ordinary domestic servant would not tolerate for a moment.

One other glimmer of hope remains to us in spite of past experience, and it is the new Registration Council. Perhaps the new body may have learnt the necessary lessons from the failure of the old, and may give to us a scheme which will meet with general approval: for this Council—if truly representative of all classes—will have an unique opportunity of uniting the entire profession.

But a good comprehensive scheme is absolutely essential: no "thing of shreds and patches" will do. It cannot be hoped that a scheme will be made which will at once clear the profession of all flotsam and jetsam: this must be a process which takes time, and what must be carefully avoided is doing injustice to those teachers who possess no so-called qualifications and yet have proved their competence in the past. By all means close the gate in the future to such as these by stating that, after a certain date, no one may enter the profession without certain minimum qualifications, which will tend to make ours a learned profession in fact as well as in name. And, at the same time, some attraction should be held out so that the average assistant may reasonably hope on entering the calling that, at no distant time and while still an assistant, he may be earning a marrying wage. This can be done in two ways: (1) by the Registration Council—instead of the proposed Trade Union—fixing the minimum wage according to qualifications, experience, and the arduousness of the work to be performed; (2) by forming some pension scheme, so that assistants may have hopes of a small competence in their old age, instead of the constant dread of having to spend the winter of their days in poverty.

This pension scheme is of great importance. Other countries, by taking a graduated percentage of the teachers' salaries, are able to grant small pensions to them when they retire; and it seems a great pity that England, the richest of all, cannot formulate some such scheme. Indeed, one cannot help thinking that the registration arrangements to come will be incomplete unless a plan of this kind is devised. Moreover, when one considers the old age endowment and pension scheme offered to teachers by a private insurance company, it seems strange that the country itself cannot introduce old-age pensions for members of our profession when the would-be pensioners subscribe the necessary capital.

But one great drawback to any far-reaching change such as this is the extraordinary apathy which the general public exhibit with regard to matters educational so long as no political-religious point arises. The average parent is blissfully ignorant as to the competence of the individual teachers who have charge of his children's upbringing; and it is no exaggeration to say that teachers—and especially those in boarding schools, where the home influence does not come in to any extent—have the power to make or mar the future lives of those left in their charge for any length of time. So that the matter of selecting competent men, of attracting the best material to the profession, is one of grave national importance, and every effort should be made to obtain the best and weed out the incompetent ones; for teachers, of all people, have a large share in the making of good or bad citizens and thus moulding the future welfare of the country.

It is apparent, then, that we can hope for no lasting improvement in the condition of our profession except by unity of action, whether this be brought about by our own efforts, backed up by public opinion, or by the new registration scheme: for of our calling there is no truer saying than "United we stand, divided we fall."

# CLERGY MUTUAL ASSURANCE SOCIETY,

2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

[FOUNDED 1829.]

Patrons—THE ARCHBISHOP OF CANTERBURY; THE ARCHBISHOP OF YORK.  
 President—THE BISHOP OF LONDON. Vice-President—THE LORD HARRIS.  
 Chairman—THE DEAN OF CANTERBURY. Deputy-Chairman—SIR PAGET BOWMAN, BART.  
 Secretary—W. N. NEALE, Esq. Actuary and Manager—FRANK B. WYATT, Esq., F.I.A.

The Society offers the **BENEFITS** of **MUTUAL LIFE ASSURANCE** without personal liability on highly favourable terms to

## THE CLERGY AND THEIR RELATIVES.

ALL PROFITS BELONG TO THE MEMBERS.

Accumulated Fund, **£4,242,820.**

Annual Income, **£453,897.**

Bonuses Distributed, **£4,256,464.**

**LOW PREMIUMS.  
LARGE BONUSES.**

Notwithstanding the lowness of the Premiums charged, the **BONUSES** are on an **EXCEPTIONALLY HIGH SCALE.**

**NEW AND SPECIAL POLICIES.**

Application is invited for the **PRO-SPECTUS**, and Leaflets explaining two new Policies, with valuable Options.

**1. WHOLE-LIFE CONVERTIBLE ASSURANCES.** Very Low Premium—about one-half the usual rate—during first ten years.

**2. PENSION POLICIES.** Premiums returnable with compound interest in case of death or surrender before pension age. Option to commute for cash.

Assurances without profits, at low rates of premium, may be effected, and Life Annuities on favourable terms may be purchased, by any person irrespective of any special qualification by relationship to the Clergy.

**SPECIMEN OF RATES FOR £1,000, WITH PROFITS.**

Age next Birthday.	£1,000 Payable at Death.			£1,000 Payable at Age 60 or earlier Death.		
	£.	s.	d.	£.	s.	d.
25	20	1	8	27	3	4
30	23	3	4	32	10	10
35	26	10	0	40	1	8
40	31	1	8	51	5	0

NOTE.—Under the Reduced Premium System (explained in Prospectus) four-fifths only of these Premiums need be paid, the other one-fifth remaining a charge to be repaid out of Bonus.

No Agents employed and no Commission paid for the introduction of business, whereby £10,000 a year is saved to the Members.

Assurances can be effected by direct communication with the Office, 2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

**Cassell's Recent Works.**

---

**BOOK-KEEPING.**

By CALDER, MARSHALL, SON & IBOTSON, Chartered Accountants. Containing 380 pp. Crown 8vo. Price **2s. 6d.** net.

"The book contains a mass of information, which is very clearly and concisely given, and the illustrations explaining the principles of book-keeping are short and to the point, and very effectively set forth. Two very valuable appendices are included, the first being a glossary of important definitions, and the second a series of questions, any one of which can be answered by reference to the text. We cannot too highly recommend this book."—*The Students' Telephone.*

**A FIRST GERMAN COURSE.**

By J. B. JOERG, B.A. Lond., and Bonn Universities, Army Class Master and Chief Modern Language Master at Dulwich College, and J. A. JOERG, Head of the Modern Side, Dulwich College. 192 pp., crown 8vo. Illustrated. Price **1s. 6d.**

This book for beginners is divided into three parts, so as to cover the work of one year of three terms. Each part again consists of ten lessons, each of which provides sufficient material for one week. The lessons contain Grammar with Exercises, Translations, Reading and Conversation Exercises. The Conversation Exercises are illustrated so as to furnish material for further conversation.

**A NEW FRENCH GRAMMAR.**

By R. H. ALLPRESS, M.A., Master of the Modern Side of the City of London School, and J. LAFFITTE, B. ès L., Principal French Master at the City of London School. Price **1s. 6d.**

"Admirable pictures are to be found in 'A New French Grammar,' by R. H. Allpress and J. Laffitte, who have taken pains to make the book interesting, combining a 'Reader' with 'Exercises.'"—*The Athenæum.*

"The book has been compiled with the utmost care; no points of elementary grammar have been omitted, and the series of exercises are practical and thorough. . . . The volume is illustrated, and its low price is remarkable. It is a work of very high merit."—*The Teacher.*

*Cassell's Educational Catalogue will be sent post free on application.*

**CASSELL & COMPANY, Ltd., La Belle Sauvage, LONDON, E.C.**

LARGEST STOCK  
of SECOND-HAND  
School, Classical,  
Mathematical,  
Scientific Books  
in London.

ESTABLISHED  
1854.

Keys and Translations.

BOOKS  
BOUGHT.

**J. POOLE & CO.,**  
104 Charing Cross Rd.,  
AND  
2 Manette Street, Soho,  
LONDON, W.C.

NEW AND SECOND HAND. WRITE TO US FOR A QUOTATION.

EDUCATIONAL BOOKSELLERS

# CAMBRIDGE UNIVERSITY PRESS

**Inorganic Chemistry.** By E. I. LEWIS,  
B.A., B.Sc., Assistant Master at Oundle School.

Demy 8vo, 5s.

"As stated in the preface, this volume being designed to meet the requirements of a class of pupils, some of whom have been promoted from a lower chemistry class, and some of whom are beginners, is partly a revision and partly an introduction. Accordingly the elements of the subject are treated in a more advanced manner than is usual in chemistry text-books; and this is, at any rate, a strong justification for the issue of another book on a subject already well written up. . . . The book probably goes further than most schoolboys would go, but it has this distinct advantage—that it could well stand as an authority in the event of a pupil continuing the study of the subject at a technical college or university."—*Aberdeen Journal*.

**Electricity and Magnetism.** An Elementary Text-book, Theoretical and Practical. By R. T. GLAZEBROOK, M.A., F.R.S., Director of the National Physical Laboratory.

Crown 8vo, 6s.

"Every schoolmaster and teacher who has under consideration the selection of a text-book for his better students should most certainly look into this book. The information is everywhere absolutely sound and reliable."—*Guardian*.

**Mechanics and Hydrostatics.** An Elementary Text-book, Theoretical and Practical. By R. T. GLAZEBROOK, M.A., F.R.S.

Crown 8vo, 6s.  
Or in 3 Parts—  
Part I. Dynamics, 3s.  
Part II. Statics, 2s.  
Part III. Hydrostatics, 2s.

It has now come to be generally recognized that the most satisfactory method of teaching the Natural Sciences is by experiments which can be performed by the learners themselves. In consequence many teachers have arranged for their pupils courses of practical instruction designed to illustrate the fundamental principles of the subject they teach. The portion of this book designated "Experiments" was for the most part in use for some time as a Practical Course for Medical Students at the Cavendish Laboratory at Cambridge. The rest of the book contains the explanation of the theory of those experiments, and an account of the deductions from them. It is with the hope of extending some such system as this in colleges and schools that the author has undertaken the publication of the present book and others of the Series.

**Heat and Light.** An Elementary Text-book, Theoretical and Practical. By R. T. GLAZEBROOK, M.A., F.R.S.

Crown 8vo, 5s.  
Or in 2 Parts—  
Heat, 3s.  
Light, 3s.

"Mr. Glazebrook's volumes on Heat and Light deal with these subjects from the experimental side, and it is difficult to admire sufficiently the ingenuity and simplicity of many of the experiments without losing sight of the skill and judgment with which they are arranged."—*Saturday Review*.

## College of Preceptors Examinations, Midsummer and Christmas, 1908.

### The Pitt Press Shakespeare for Schools.

With Introduction, Notes, and Glossary by A. W. VERITY, M.A.

**Shakespeare.—The Merchant of Venice.** Seventh Edition. 1s. 6d.

**Shakespeare.—Julius Caesar.** Ninth Edition. 1s. 6d.

"A perfect schoolboy's edition."—*School Guardian*.

"Another of Mr. Verity's admirable school editions of Shakespeare's plays."—*Guardian*.

### The Cambridge School History of England.

**History of England for use in Schools.** By ARTHUR D. INNES, M.A., formerly Scholar of Oriel College, Oxford. In One Volume with 13 Maps and 8 Plans. Also in Three Parts: Part I., to 1509 A.D.; Part II., 1509–1714; Part III., 1689–1901.

Crown 8vo.  
Complete, 4s. 6d.  
Parts, 2s. each.

"A work of conspicuous merit and unquestionable value. . . . Though intended for the advanced forms of schools, it is well adapted for the private use of all manner of students, and, while never losing sight of the necessity of passing examinations, Mr. Innes has endeavoured to interest and guide the student rather than to cram him. His aim is comprehensive; for he seeks not merely to give an accurate chronicle, but to present history in its various aspects, constitutional, social, international, and biographical."—*Scotsman*.

### The Pitt Press Series, &c.

AUTHOR.	WORK.	EDITOR.	PRICE. s. d.
Scott	Marmion	J. H. B. MASTERMAN	2 6
Milton	Comus and Lycidas	A. W. VERITY	2 0
"	Sonnets	"	1 6
Caesar	De Bello Gallico, Book I.	A. G. PESKETT	1 6
"	" " Bks. II. & III.	"	2 0
Vergil	Aeneid, Books I. and X.	A. SIDGWICK	1 6
Cicero	Orations against Catiline	J. C. NICOL	2 6
Horace	Odes, Book III.	J. GOW	2 0
Euripides	Hecuba	W. S. HADLEY	2 6
Xenophon	Anabasis, Book I.	A. PRETOR	2 0

### The Cambridge Series for Schools and Training Colleges.

The following editions have Complete Vocabularies:—

AUTHOR.	WORK.	EDITOR.	PRICE. s. d.
Caesar	Books I., II.	F. S. SHUCKBURGH	each 1 6
Vergil	Aeneid, Books I. and X.	A. SIDGWICK	each 1 6
Xenophon	Anabasis, Book I.	G. M. EDWARDS	1 6

### Cambridge Bible for Schools.

BOOK.	EDITOR.	PRICE. s. d.
Book of Joshua	Rev. G. F. MACLEAR	net 2 0
Book of Judges	Rev. J. J. LIAS	net 2 0
Books of Ezra and Nehemiah	Rt. Rev. H. E. RYLE	net 3 0
Book of Esther	Rev. A. W. STREANE	net 1 6
Gospel according to St. Mark	Rev. G. F. MACLEAR	net 2 0
Acts of the Apostles	Rev. J. R. LUMBY	net 3 0

### The Smaller Cambridge Bible for Schools.

Book of Joshua	Dr. J. S. BLACK	1 0
Book of Judges	Dr. J. S. BLACK	1 0
Books of Ezra and Nehemiah	Rt. Rev. H. E. RYLE	1 0
Gospel according to St. Mark	Rev. G. F. MACLEAR	1 0
Acts of the Apostles	Rev. J. R. LUMBY	1 0

### The Revised Version—School Edition.

**St. Mark: The Revised Version.** Edited by Sir A. F. HORT, Bart., M.A., and MARY DYSON HORT (Mrs. George Chitty). With 2 Maps. Fcap. 8vo, 1s. 6d. net.

"Altogether helpful, suggestive, clear, and valuable."—*School World*.  
"Sir A. F. Hort's little book on St. Mark is a model of what such books should be."—*Glasgow Herald*.

# The University Tutorial Press.

General Editor: WM. BRIGGS, LL.D., M.A., B.Sc., F.C.S., F.R.A.S.

## SOME TEXT-BOOKS ISSUED

### DURING THE YEAR 1907.

*A Course in German, written with a view to enabling Candidates for London University B.Sc. Examination and other Science Students to acquire a working knowledge of German.*

**SCIENCE GERMAN COURSE.** By C. W. PAGET-MOPFATT, M.A. Lond., M.B., B.C. Camb. 3s. 6d.

*A Text-Book of Elementary Botany, arranged for Modern Methods of Teaching.*

**PLANT BIOLOGY.** By F. CAVERS, D.Sc. Lond., F.L.S., A.R.C.S., Professor of Botany at the Hartley University College, Southampton. 3s. 6d.

*A full and complete Course of Practical Work in Physics for use in Secondary Schools, Technical Schools, and Colleges.*

**PRACTICAL PHYSICS.** By W. R. BOWER, A.R.C.S., Fellow of the Physical Society, Head of the Department of Physics and Electrical Engineering, Technical College, Huddersfield, and JOHN SATTERLY, B.Sc. 4s. 6d.

*Suitable for general use in Training Colleges, Secondary Schools, and the higher standards of Elementary Schools.*

**AN ANTHOLOGY OF ENGLISH VERSE.** Edited with Introduction and Glossary, by A. J. WYATT, M.A., and S. E. GOGGIN, B.A. Lond. 2s.

*An account of the structure and use of the Vocal Organs, and the means of acquiring Distinct Articulation.*

**VOICE TRAINING IN SPEECH AND SONG.** By H. H. HULBERT, M.A. Oxon., M.R.C.S., L.R.C.P., Lecturer on Voice Production and Physical Education at the London Day Training College. 1s. 6d.

*A Complete Course of Instruction in the Theory and Practice of Perspective Drawing, arranged to meet the requirements of the Syllabus of the Board of Education, and of similar Examinations.*

**PERSPECTIVE DRAWING.** By S. POLAK, Lecturer in Art under the London County Council. 5s.

*Suitable for the Examinations of the City and Guilds of London, and the Board of Education, &c.*

**TECHNICAL ELECTRICITY.** By Prof. H. T. DAVIDGE, B.Sc., and R. W. HUTCHINSON, B.Sc. 4s. 6d.

*An edition for School use of the "Tutorial Arithmetic," the portions dealing with the "Higher Theory of Arithmetic" being omitted.*

**THE SCHOOL ARITHMETIC.** By W. P. WORKMAN, M.A., B.Sc. Second Edition. In One Volume, 3s. 6d. Part I, 2s.; Part II, 2s.

*A Complete School Course of Coordinated, Theoretical, and Practical Work in Physics.*

**THE NEW MATRICULATION HEAT; THE NEW MATRICULATION LIGHT; THE NEW MATRICULATION SOUND.** By R. W. STEWART, D.Sc. In three Vols. 2s. 6d. each.

The course of work is arranged in accordance with the best modern methods. Wherever possible the theory is developed from experiments which require only simple apparatus and can be performed by the students themselves. The diagrams, which are clear, instructive, and easily reproduced, form a distinctive feature of the books.

*Containing the "Salient Facts" of English History, as required in the English paper at London Matriculation.*

**GROUNDWORK OF ENGLISH HISTORY.** By M. E. CARTER, Somerville College, Oxford. First Class Honours in Modern History. 2s.

*Specially written for Stages I. and II. of the latest Syllabus of the Board of Education for Subject XI. P.*

**SYSTEMATIC PRACTICAL ORGANIC CHEMISTRY.** By G. M. NORMAN, B.Sc., A.R.C.Sc., F.C.S., Head of the Chemical Department, Technical School, Bury, Lancs. 1s. 6d.

London: W. B. CLIVE, University Tutorial Press,  
157 Drury Lane, W.C.

## ADVERTISEMENT SCALE

Whole Page—Ordinary	£4 10 0	.....	Position	£5 10 0
Half Page	" 2 10 0	.....	"	3 0 0
Quarter Page	" 1 10 0	.....	"	1 15 0
Per inch in broad column (half width of page)	"	...	"	0 7 0
Narrow Column (one-third page)	.....			2 0 0

General Scholastic Advertisements (Colleges, Schools, Classes, Tuition, &c.). 3s. 6d. for 6 lines, or 4s. 6d. the inch.

Situations Vacant and Wanted—30 words or under, 2s.; each additional 10 words, 6d. (For 1s. extra, Replies may be addressed to the Publishing Office, and will be forwarded post free.)

## CURRENT EVENTS.

**Fixtures.** THE Sixth Winter Meeting for Teachers, conducted by the College of Preceptors, will be held at the College on January 6 to 15. The programme includes lectures on the principles and practice of education and on methods of teaching various school subjects, as well as visits to educational institutions.

THE Half-yearly General Meeting of the members of the College of Preceptors will take place on Saturday, January 25.

THE Annual General Meeting of the Incorporated Association of Head Masters of England and Wales will be held at the Guildhall, London, on January 10.

THE Annual General Meeting of the Incorporated Association of Assistant Masters in Secondary Schools will be held at Merchant Taylors' School, Charterhouse Square, E.C., on January 10. A paper will be read by Prof. M. E. Sadler, entitled, "Should Secondary Teachers be Civil Servants?" Open to members of all educational associations.

THE Annual General Meeting of the Incorporated Association of Assistant Mistresses in Public Secondary Schools will be held on January 11 at Dr. Williams's Library, Gordon Square, W.C.

THE Annual General Meeting of the Private Schools Association will be held at the College of Preceptors on January 10.

THE Annual General Meeting of the Modern Language Association will be held in London on January 7 and 8.

THE Annual General Meeting of the English Association will be held at University College, London, on January 10 and 11.

THE Annual Meeting of the Geographical Association will be held at University College, London, on Wednesday, January 8.

A COURSE of lectures on "The Historical Study of the English Language" will be given by Mr. P. G. Thomas, M.A., on Saturdays at 10.30 a.m., beginning January 18. Free to teachers in London schools. Apply, for permission to attend, to the Executive Officer, Education Offices, Victoria Embankment, W.C.

THE Lees and Raper Memorial Lecture, 1908, will be delivered in the Town Hall, Oxford, by Mr. William McAdam Eccles, M.S., F.R.C.S., on February 4, at 8 p.m. Subject: "The Relation of Alcohol to Physical Deterioration and National Efficiency."

THE second term of the year's special courses for foreign students at the University of Rennes commences on March 1. Apply to the Secretary to L'Entente Cordiale, 6 Fig Tree Court, Temple, E.C.

THE Nobel Prizes (£7,620 each) have been awarded as follows: Literature, Mr. Rudyard Kipling; Physics, Prof. Michelson (Chicago); Chemistry, Dr. Buchner (Berlin); Medicine, Dr. Laveran (Paris); Peace, Signor Ernesto Theodoro Moneta (Italy) and M. Louis Renault (France).

THE Prince of Wales has been elected an honorary member of the Royal Irish Academy.

LORD CURZON has been elected to an honorary Fellowship at Balliol College, Oxford.

OXFORD UNIVERSITY has conferred the honorary degree of M.A. upon Mr. F. H. Wright, Registrar of University College, Reading.

THE University of Cambridge has conferred the honorary degree of M.A. upon Mr. Sidney Herbert Ray, Assistant Master at St. Olga Street Council Schools, Bethnal Green, in recognition of his study of Oceanic languages. The Public Orator introduced him as an expert in the languages of New Guinea and North Australia, and of the Melanesian and Polynesian Islands.—Also upon Mr. H. D. Hazeltine, Reader in English Law.

THE University of St. Andrews has resolved to confer the honorary degree of LL.D. upon the following scholars on February 16:—Lord Avebury; Mr. Francis Darwin, President-Elect of the British Association; Mr. Philip Norman, Treasurer of the Society of Antiquaries; Sir E. J. Poynter, Bart., President of the Royal Academy; Mr. Charles Hercules Read, Past President of the Anthropological Institute; and Principal MacAlister, Glasgow.

THE Baly Medal of the Royal College of Physicians for Physiological Research has been awarded to Prof. Starling, University of London, University College.

THE Munich Academy of Science has elected as corresponding members Prof. J. J. Thomson, Cambridge, and Prof. Gibbert, of the Geographical Survey, Washington.

DR. J. A. H. MURRAY, the lexicographer, has been elected an Honorary Fellow of the Royal Society of Edinburgh.

It is proposed to present his portrait to Dr. Selwyn, the retiring Head Master of Uppingham. Contributions are received by Mr. R. H. Lloyd, Trinity College, Oxford.

DR. ARTHUR J. EVANS, Keeper of the Ashmolean Museum, Oxford, has been presented with his portrait. The portrait, which was painted by Sir William Richmond, R.A., has been accepted by the University.

THE MOST REV. WILLIAM ALEXANDER, D.D., Archbishop of Armagh and Primate of All Ireland, has been elected an Honorary Fellow of Brasenose College, Oxford.

THE status of Emeritus Professor has been conferred upon Mr. Louis C. Miall, D.Sc., F.R.S., and Mr. Charles J. Wright, M.Sc., M.R.C.S., by the University of Leeds, on their retirement from the chairs of Biology and Midwifery.

THE Lalande Prize has been awarded by the French Academy to Mr. Thomas Lewis, F.R.A.S., of the Royal Observatory, Greenwich, and one of the secretaries of the Royal Astronomical Society, for his great work on the measures of double stars, which forms the fifty-sixth volume of the "Memoirs" of the Royal Astronomical Society. The last time this medal was given to an Englishman was in 1880, when it was awarded to Stone for his Cape General Catalogue.

THE late Prof. Barker has bequeathed to the University of Manchester his microscope and all his botanical works and herbarium for use in the Botanical Department; all his mathematical and general scientific works, and all his other property (subject to certain life annuities and a few personal bequests) upon trust (1) to found a Professorship of Cryptogamic Botany, and (2) to found bursaries or scholarships in the departments of Mathematics and Botany. On the falling in of the several annuities, and after payment of the legacy duty, a net sum of about £36,000 will be available.

By the death of Lady Pearce on Christmas Eve, the fortune of the late Sir W. G. Pearce—some £400,000—passes to Trinity College, Cambridge.

LORD NEWLANDS has given £10,000 to provide additional income for the Snell Exhibitioners from Glasgow University at Balliol College, Oxford.

MRS. ANNIE FULTON, widow of the late Alderman Fulton, Cardiff, has left over £30,000 for charities, education, and religious purposes; and a considerable part of the sum will go to the buildings and professorships of Cardiff University College.

MR. HENRY RUTSON, of Newby Wiske, Northallerton, has given £1,000 to the University of Leeds to found a scholarship in memory of his late brother, Mr. John Rutson.

LORD CALTHORPE has given the University of Birmingham a valuable piece of land for a recreation ground (say £15,000). He previously gave the land on which the Bournbrook buildings stand (27 acres, worth £20,000).

MR. EDRIC BAYLEY, late Chairman of the Governing Body, has given £5,000 to clear off the debt on the building extensions at the Borough Polytechnic Institute.

THE late Mr. Mark Stirrup, of Bowdon, has left £1,500 for a Scholarship in Palæontology at Manchester University.

MRS. PHILLIPS, of St. Leonards-on-Sea, has given £1,000 to Burnley Grammar School to found a scholarship at Manchester University in memory of her late husband, who had attended the school as a boy and became one of its governors.

MR. H. A. FRANKLIN, of Ladbroke Grove, Notting Hill, W., has left £1,000 to the Jews' College for a Franklin Scholarship, and directed that after his wife's death £1,000 shall go to the Jews' College to found another Franklin



Scholarship. He has also left £1,000 to the London Jews' Free School, and £1,000 to the Manchester Jews' Free School.

\* \* \*

MR. ALEXANDER GILLANDERS, a late Custom House officer, has left £500 to Aberdeen University for a medical bursary or medal.

—•••—

**Scholarships  
and Prizes.**

At Oxford University, scholarships, exhibitions, &c., are offered in Classics at Jesus College, January 14; at Exeter, Jesus, and Pembroke, February 5; and at New, Magdalen, and Corpus Christi, March 17. In Mathematics, at Magdalen, Brasenose, Christ Church, and Worcester, March 3. In Natural Science, at Jesus, January 14; Keble, March 10; Merton, New, and Corpus Christi, March 17. In History, at Merton and Brasenose, January 11; Jesus, January 14; Exeter, March 17.

\* \* \*

At Cambridge University, 6 Stewart of Rannoch Scholarships, £25 each for 3 years, will be offered in May to natives of the counties of Wilts, Somerset, and Gloucester (including the city and county of Bristol)—2 for Hebrew, 2 for Greek and Latin, 2 for Sacred Music. Also open scholarships—2 in Hebrew and 2 in Sacred Music. Age limit, twenty-one or twenty-two. Regulations from the Registry.

Magdalene College offers 4 scholarships (£80 to £40 a year) and 2 or more exhibitions (say £30 a year, £25 for organist) for Classics, Mathematics, Modern History, and Mechanical Sciences. Examination, March 17 and 18. Age, under nineteen. Certificates of age and character to the Master or the tutor (Mr. A. G. Peskett) by March 1.

Downing College offers minor scholarships in Law, History, and Natural Science, not exceeding £50 for one year (after which holders can compete for foundation scholarships, £50 to £80). Age, under nineteen; but no age limit in Law and History. Subjects and certificates of character to Mr. Henry Jackson, the tutor, by February 25.

Selwyn College offers Entrance Scholarships and Exhibitions for Classics, Mathematics, and Natural Sciences, on March 17. Particulars from the Master.

\* \* \*

L'ENTENTE CORDIALE offers two scholarships, £20 each, to candidates (of either sex) from University colleges. Examination, May 16, conducted by the Society of French Professors in England.

\* \* \*

THE Royal Meteorological Society offers three prizes (£5, £3, £2) to "elementary teachers and others" for "essays in the form of an original Nature-study Lesson on weather or climate not exceeding 1,500 words in length), together with a brief synopsis of five other Lessons to cover the whole subject of climate and weather." Essays to reach Mr. William Marriot, Assistant Secretary to the Society, 70 Victoria Street, S.W., by January 31.

—•••—

**Appointments  
and Vacancies**

THE REV. ARTHUR H. JOHNSON, M.A., Fellow of All Souls College, Oxford, has been appointed Ford's Lecturer in English History for 1908-9.

\* \* \*

THE REV. CANON SCOTT HOLLAND, M.A., D.Litt., has been appointed Romanes Lecturer at Oxford for 1908.

\* \* \*

MR. W. BATEMAN, M.A., Fellow of St. John's, has been appointed Reader in Zoology, Cambridge University.

MR. E. T. CAMPAGNAC, M.A., H.M.I.S., has been appointed to the Chair of Education in Liverpool University.

\* \* \*

MR. C. E. D. DAVIES, B.A. Cantab., has been appointed Lecturer in Constitutional and Comparative Law in the University College of Wales, Aberystwyth.

\* \* \*

DR. WILFRID PERRETT, B.A., Ph.D., has been appointed Reader in German in the University of London.

\* \* \*

MR. RICHARD H. WALTHER has been appointed to the Professorship of Music at Queen's College, London, vacant by the death of Prof. Henry Gadsby.

\* \* \*

MR. D. H. MACGREGOR, M.A., has been appointed Assistant in Political Economy at the University of London, University College.

\* \* \*

MR. JULIUS FREUND, M.A., Ph.D., Lecturer in German Language and Literature, University of St. Andrews, has been appointed Professor of German in the University of Sheffield.

\* \* \*

MR. W. ALLAN, M.A., B.Sc. Edin., has been appointed Vice-Principal of the Elsenberg Agricultural College, Cape Colony.

\* \* \*

MR. T. S. PATTERSON, B.Sc., Ph.D., has been appointed Lecturer in Organic Chemistry in Glasgow University.

\* \* \*

MR. E. J. THOMAS, M.A., Lecturer in Greek and Latin, Bangor University College, has resigned his post to accept an appointment on the editorial staff of the Cambridge University Press.

\* \* \*

THE Morton-Summer Lectureship in Geology and Geography at Bedford College for Women (University of London) has been offered to Miss C. Raisin, D.Sc. A Lecturer in Botany, who will be head of the Department, will be appointed in February.

\* \* \*

MISS ALICE PATERSON, M.A. Edin., Ph.D. Jena, assistant mistress St. Paul's Girls' School, Hammersmith, has been appointed Lady Assistant Lecturer and Tutor to the Women Students in the Day Training Department, University College, Bangor.

\* \* \*

MR. ALBERT W. PRIESTLEY, M.A., B.C.L., B.Sc., Inspector of Elementary Education for the East Riding County Council, has been appointed Director of Education for the Worcester County Council.

\* \* \*

MR. ANDREW JOHNS has been appointed Secretary to the Gillingham Education Committee.

\* \* \*

MR. STEPHEN R. N. BRADLY, M.A. Cantab., Bedford Modern School, has been appointed Head Master of Fareham School.

\* \* \*

MR. HARALD STEPHEN CHURCH, B.A. Cantab., St. Michael's School, Westgate, has been appointed Head Master of Eilerslie School, Fremington.

\* \* \*

THE REV. HORACE GRAY, M.A. Cantab., Head Master of the Kendal Grammar School, has been appointed Head Master of the Grammar School, Warrington.

MR. WILLIAM STEVENS LEE, M.A. Oxon., Dover College, has been appointed Head Master of Cranbrook Grammar School.

\* \* \*

MR. WALTER ROBERT LEWIS, B.A. Cantab., and Francis H. Simpson, M.A. Oxon., Dulwich College Preparatory School, have become joint Head Masters of St. John's House School, Rosslyn Hill, N.W.

\* \* \*

MR. GEORGE LINDLEY, B.A. Irel., Simon Langton School, Canterbury, has been appointed Head Master of Spilsby Grammar School.

\* \* \*

MR. S. A. MOOR, M.A. Cantab., Head Master of Nantwich Grammar School, has been appointed Head Master of Kendal Grammar School.

\* \* \*

MR. EDGAR T. S. TADMAN, B.A. Lond., Second Master, King Edward VI. Modern School, Macclesfield, has been appointed Head Master.

\* \* \*

DR. W. H. ECCLES, head of the joint Mathematical and Physical Departments at the South Western Polytechnic, has been appointed Head of the Department of Mathematics; and Mr. Louis Lownds, B.Sc., Ph.D., has been appointed Head of the Department of Physics.

\* \* \*

THE Rectorship of Kilmarnock Academy is vacant through the death of Mr. David Murray, M.A., B.Sc.

\* \* \*

DR. A. B. YOUNG, M.A. Cantab. and Cape, Ph.D. Freib., has been appointed an Assistant Master at Christ's College, Finchley, N.

\* \* \*

MR. G. R. H. NICHOLSON, B.A., has been appointed Assistant Master at Kingswood School, Bath.

—•••—

**Literary Items.** A LIFE of Lord Kelvin, by Prof. Silvanus Thompson, will be published in the course of the year by Messrs. Macmillan. Lord Kelvin himself furnished numerous biographical details and other matter.

\* \* \*

THE Board of Education has issued a pamphlet, "How to become a Teacher in a Public Elementary School," giving complete particulars as to the conditions of recognition of teachers in all capacities, and supplying information on all the points that are most frequently raised by teachers or intending teachers in letters they address to the Board (4d., Wyman).

\* \* \*

THE *Preparatory Schools Review* for December, with much other excellent matter, furnishes an instructive "record of the physical examination of one thousand boys at their entrance on public-school life," by Dr. Dukes, Physician to Rugby School.

—•••—

**General.** THE director of the municipal Friedrichs Gymnasium has obtained the authorization of the Berlin Common Council to make English a compulsory subject for "Obersecunda," corresponding to the fourth form in an English public school, from next year. French, which has hitherto been compulsory, will take the place of English as a facultative subject.

HERR GUSTAV SPILLER (Spandauer Strasse, 40 Schmargendorf, bei Berlin) is organizing, on behalf of the International Union of Ethical Societies, an International Moral Education Congress, to be held in London in September.

\* \* \*

THE "Famulus" of Terence, the Westminster play of the year, has been performed with great success. It is some fifty years since its previous performance at Westminster.

\* \* \*

MORE HOUSE, the first of the collegiate halls or residences for students attending the University of London, which has been erected in the remnant of Sir Thomas More's garden, at Cheyne Walk, Chelsea, was opened (Dec. 11) by Sir Arthur Rucker, the Principal of the University.

### MEETING OF THE COUNCIL OF THE COLLEGE OF PRECEPTORS.

A MEETING of the Council was held at the College, Bloomsbury Square, on December 14. Present: Dr. Wormell, President, in the chair; Prof. Adams, Prof. Adamson, Dr. Armitage Smith, Mr. E. A. Butler, Mr. Easterbrook, Mr. Eve, Mr. Hawe, Mr. Kelland, Mr. Ladell, Miss Lawford, Dr. Maples, Mr. Millar Inglis, Dr. Moody, Mr. Morgan, Miss Punnett, Mr. Rule, Mr. Rushbrooke, Mr. Starbuck, Mr. Vincent, and Mr. White.

The minutes of the last meeting were read and confirmed.

The Secretary reported that the Christmas Certificate and Lower Forms Examinations had been held on December 3 to 6, and that the number of candidates was about 7,600. For the Christmas Examination of Teachers for Diplomas the number of entries was about 540.

The Diploma of Associate was granted to Mr. G. C. Rogers, who had satisfied the prescribed conditions.

Mr. Millar Inglis was appointed to serve as one of the representatives of the College on the Federal Council in place of Mr. Kelland, resigned.

Prof. J. Adams was appointed to deliver the Psychology Course of Lectures to Teachers in 1908.

Saturday, January 25, was fixed as the date of the next Ordinary General Meeting of the members of the College.

The representatives of the College presented a report of the proceedings of the Federal Council at a special meeting held on December 11, at which the question of registration had been considered. At this meeting resolutions had been adopted recommending that the Registration Council to be formed under the provisions of the Education (Administrative Provisions) Act of 1907 should be constituted in equal proportions of nine representatives of Elementary, Secondary, and Technological Education, respectively, and nominees of the Crown, and that one third of each of the four groups should consist of women. The representatives of the College felt themselves obliged to dissent from the detailed proposal with regard to the method of the composition of the Council, but concurred on other points.

The Draft Report of the Council to the General Meeting was considered, and was referred to the President, Vice-Presidents, and Dean for final revision.

The following persons were elected members of the College:—

Mr. W. Cosgrave, A.C.P., Westbourne House, Beverley Street, Port Talbot.

Mr. J. Powlesland, Wallingbrook School, Chulmleigh, North Devon.

Mr. W. F. F. Shearcroft, A.C.P., The Grammar School, Scorton, Yorks.

The following books had been presented to the Library since the last Meeting of the Council:—

By DR. A. E. C. DICKINSON.—Sweet's Anglo-Saxon Reader.

By the AUTHOR.—Harley's Brief Biographical Sketch of Robert Rawson.

By G. BELL & SONS.—Ashton's Mason's Junior English Grammar; Guthkelch's Coleridge's Ancient Mariner, and other English Ballads; Hampshire's Hawthorne's Wonder Book and Tanglewood Tales (Selected).

By the CAMBRIDGE UNIVERSITY PRESS.—Eve's Selected Poems of Victor Hugo; Lewis's Inorganic Chemistry; Winstanley's Spenser's Fowre Hymnes.

By MACMILLAN & CO.—Fowler's English Essays.

By the OXFORD UNIVERSITY PRESS.—Bridge's Hugo's La Légende des Siècles; Chaytor's Bollet's Voyage aux Mers Polaires; Freeman's De Vigny's Servitude et Grandeur Militaire; Garnier's Barbier's Lances and Poemes; Heutsch's Marmier's Les Fiancés du Spitzberg; Michell's Merimee's Contes et Nouvelles.

By G. PHILLIP & SOX.—Childe-Pemberton's Chart of the Centuries; Dickens's Simple Object Lessons from Nature.

By W. RICE.—Journal of Education, 1907. Calendar of University College, Nottingham.

**REGISTRATION IN SCOTLAND.**

“THE WHOLE MOVEMENT IS A MISTAKE.”

THE movement for Registration of Teachers, as initiated by the Scotch Education Department (says the *Educational News*), has stirred the teaching profession of Scotland as probably no other movement has done for many years past. Everywhere it was felt that the matter was of almost vital importance to the schools, and especially to individual teachers.

The various steps which have led up to the present position are worthy of note. Let us first look to the schools themselves. During the last ten years, more particularly during the last five years, there has been a steady development in the organization of the public schools into something resembling a system, until at last we now have them pretty well divided into primary, intermediate, and secondary schools, the division depending mainly upon length of curricula. There has also been quietly going on a grouping of teachers into these several categories. School Boards with Higher Grade or Intermediate Schools were steadily transferring their most highly qualified teachers to these schools, and were searching the country for others similarly qualified as vacancies occurred. The same held good for secondary schools. To a logical mind it might, therefore, appear quite natural that the teachers should be separated into corresponding groups, and should be labelled in some corresponding way. This, at any rate, seems to have been the dominating idea in the Scotch Education Department. It is not unnatural that those responsible for the official working of that great Department should desire to see a nice cut-and-dried system, with everything and everybody properly pigeon-holed and classified.

The Regulations for the Training, &c., of Teachers, issued in June, 1906, may be said to have initiated the steps which have culminated with the present proposals. Article 42 of these Regulations offers “Recognition” to qualified teachers holding recognized positions on the staff of intermediate or secondary schools. At that time, and until recently, these expressions were interpreted to mean that a person who, at the specified date, held a position on the staff of an intermediate or secondary school, and whose appointment had been notified to the Department, could claim “Recognition” as a matter of course. But in the autumn of this year there appeared a Departmental Circular (406), with an accompanying Form (49 T), defining more clearly the meaning which the Department wished to give to Article 42. Recent interviews between Mr. Struthers and representatives from teachers’ associations helped to throw light on the intentions of the Department. It cannot be said that the increased light thus thrown gave much satisfaction to teachers. Recognizing the good intentions of the Department towards both Scottish Education and the teaching profession, they felt that there was great possible danger in the policy to be pursued. Nothing has so far happened to show that this mistrust is unfounded. We can only hope that the result will turn out quite contrary to anticipations.

The Educational Institute, speaking through its Special and Higher Education Committees, has determined to recommend all teachers, if they have claims for “Recognition” under Article 42 or Article 45, to apply to the respective authorities for that recognition. At the same time these Committees express the conviction that the whole movement is a mistake, and will not effect the very purposes which it is intended to accomplish.

**RELIGIOUS EDUCATION IN ELEMENTARY SCHOOLS.****RESOLUTIONS OF THE FRIENDS’ GUILD OF TEACHERS.**

IN view of the still unsettled position of the religious education problem in elementary schools—the claims of denominationalists on the one hand, and the trend towards a secular solution on the other—and in view of the very varying and ill-defined ideas included under this phrase, “secular solution,” the Friends’ Guild of Teachers desires to urge the following points:—

1. That no education will be worthy of the name which fails to provide for the best moral and spiritual growth of the child.

2. That the suggestion that the secular solution may be supplemented by the concession of universal right of entry to ministers of all denominations is radically unsound: it destroys the unity of the school; it emphasizes divisions at a most inappropriate

age; it takes away the highest teaching from those who know the child best, and who are competent teachers by training and experience; and it involves the classification of the school, not according to age, capacity, or attainments, but according to the religious beliefs of the parents.

3. That, in order, therefore, to preserve right organization and educational method, and to ensure a unified ideal in life and a practical conception of religion as concerned with the whole of life, this provision (for moral and spiritual needs) ought to be an integral part of the work of the school under the school staff.

4. That, while great importance must be attached to the indirect influence of the spirit of the school, the quality of the work, and the personality of the teacher, it is right that definite opportunities should also be set apart for these purposes of highest import.

5. That this education should not be with the object of inculcating dogma; not only because this is no function of the State, but because dogmatic instruction is entirely and inevitably uneducational; it is unfitted to the minds of children; it is largely meaningless to them; it forestalls the experience which can alone give significance to the dogma, and it stiles that spirit of independent search for truth which is even more important here than in any other sphere.

6. That, within the limits of this practical and undogmatic purpose, great freedom should be given to the teacher; for thus only can the best be hoped for from him; there is good reason to believe that he will justify the confidence placed in him, will rise to his responsibility and be enabled to work under conditions of sincerity and progress.

7. That it is essential that this religious education should be given on the best and most intelligent lines, by men and women competent by training and knowledge to give it; it is therefore very desirable that the increased provision which is urgently demanded for the adequate training of teachers should allow of their qualifying themselves in this direction also: the tests applied will then be those of character, capacity and equipment—the only tests compatible with self-respect and intelligence.

**CURRICULA OF SECONDARY SCHOOLS.****BRITISH ASSOCIATION COMMITTEE’S REPORT.**

FOLLOWING is the Report of the Committee, consisting of Sir Oliver Lodge (chairman), Mr. C. M. Stuart (secretary), Mr. T. E. Page, Profs. M. E. Sadler, H. E. Armstrong, and J. Perry, Sir Philip Magnus, Principal Griffiths, Dr. H. B. Gray, Prof. H. A. Miers, Mr. A. E. Shipley, Prof. J. J. Findlay, and Sir William Huggins, appointed at the York meeting of the British Association in 1906, to consider and to advise as to the curricula of secondary schools—in the first instance, the curricula of boys’ schools:

The Committee submit for consideration the following conclusions which they have reached as the result of their debates:—

1. There is need for secondary schools of different types, with different curricula or combinations of curricula: because (a) all boys are not suited to the same course of study; (b) the requirements of the various callings upon which the boys will subsequently enter differ considerably; (c) the needs of the schools differ in a considerable degree according to the economic conditions of the districts in which they are situated. Broadly speaking, however, the secondary schools fall into two different types—viz., those in which the majority of boys remain till eighteen or nineteen, and then continue their education at places of University rank; and those in which the majority leave at fifteen or sixteen and proceed to business. There is, however, no sharp line of demarcation between the two.

2. The Committee consider that one modern foreign language should in all cases be begun at an early age; but are of opinion that it would be a wise educational experiment to postpone the systematic teaching of Latin as an ordinary school subject till twelve years of age, and that such a change will prove sufficiently successful to warrant its adoption. On the other hand, they are of opinion that such absence of systematic teaching by no means precludes its incidental teaching before the age of twelve by such means as will naturally occur to a fully qualified teacher of young boys. The Committee also desire to record their opinion that the continued teaching of either of the two dead languages to boys who after serious trial have shown little or no progress in, or capacity for, such linguistic study has little or no educational value; and that, though the mental training afforded by such study is of great value in the case of many boys, yet in the case of others such study not only produces no good results, but does positive harm to their mental and moral progress by reason of

their incapacity to grapple with its difficulties. The Committee go further, and express their doubt whether the authorities in some secondary schools have sufficiently recognized this fact or have provided sufficient alternatives to such linguistic study.

3. The Committee deprecate any form of early specialization in the education of children, and therefore regard with grave concern the fact that the entrance examinations at the great English public schools give undue prominence to the study of Latin (and Greek) in the course of education at the preparatory schools, the result being that too little time is available for (a) the teaching of the mother tongue, (b) manual training, (c) science and mathematics.

4. The Committee would deprecate anything like State-imposed rigidity in the organization and studies of secondary schools. But the Committee are led to the conclusion that up to twelve years of age there might be a broad general course of education for all. It would in all cases include careful preliminary training in the use of the mother tongue, so that it could be used in speaking and writing correctly on ordinary occasions, and would further comprise the following divisions:—(1) literary, (2) mathematical, (3) scientific, (4) manual training. They consider that a school week of twenty-six hours might be divided as follows:—Literary work, thirteen hours; mathematical and scientific work, nine hours; drawing and manual training, four hours; while for those who after twelve years of age commence the study of Latin the division of time should be—Literary work, sixteen hours; other subjects, ten hours.

5. The Committee are of opinion that the curriculum in secondary schools suffers gravely from the number of subjects which have been crowded into it, and they regard this as the most serious factor in secondary education at the present time. They are of opinion that this "overcrowding" is due to two causes:—(1) The disproportionate amount of time bestowed in many schools on the two ancient languages, which leaves only a small residuum for each of the other subjects now increasingly regarded as essential items of education, the result being that the pupil obtains only a smattering of the knowledge of such subjects. (2) The ill founded belief that the curriculum should be an abstract of all modern knowledge.

6. The Committee desire to see a great simplification in the arrangement of examinations for secondary schools, and they strongly recommend that examination and teaching should go hand in hand, the examiners co-operating with the teachers and acting in conjunction with them in order to further the interests of real education.

The Committee would urge upon the Universities and professions to accept as qualifying for entrance the Leaving Certificates granted by each University to the schools which submit to its inspection.

The aim should be to examine in accordance with the teaching, and to pay special attention to the special peculiarity of each school, or group of schools; and it would be a great relief, and at once improve the teaching of the higher forms, if the results of such examination were accepted by Universities and professional bodies without further entrance test.

The Committee particularly deprecate any uniform or centrally administered examination applied to all the schools of the country. For a uniform State examination, if it were made the door of entrance to all higher courses of study and to the professions and Civil Service, would do much evil, focussing the efforts of teachers and pupils upon those parts of the school curriculum in which alone examination is possible. Further, the rivalry between schools would cause the standard of attainment steadily to rise, until the over-pressure became serious and intellectual vigour and independent thought were killed.

7. The Committee feel that no scheme of secondary education can be satisfactory unless it is carried out by teachers of learning and force of character, and they would urge that every effort should be made, by conditions of appointment, by scale of salaries, and by retiring allowances, to attract a high class to the teaching profession, which should be regarded as a very laborious, but very honourable, form of public service. Prompt action in this matter is urgent and imperative; for, unless something is done without delay, the best interests of the schools, and especially of boys' day schools, will be sacrificed to a false and disastrous economy.

Accompanying the Report are the following two communications by Dr. Gray and Prof. Armstrong. "These," says Sir Oliver Lodge, "were not submitted to, or agreed upon by, the Committee: they represent individual rather than collective views." They may, however, be usefully appended here:

## SCHOLARSHIPS IN SECONDARY SCHOOLS.

By Dr. H. B. GRAY.

The present system of awarding scholarships at secondary schools is open to certain grave objections.

### (A) ENTRANCE SCHOLARSHIPS.

(i.) With regard to the qualification for candidature, the examination should be open to all candidates not exceeding the appointed age; but before accepting the emoluments of a scholarship the parent or guardian of the successful candidate should make a declaration that he requires assistance in order to send the boy to the school.

(ii.) With regard to the subjects of examination the following subjects should be *obligatory*:—(a) English, (b) Latin, (c) French, (d) elementary science, (e) mathematics, up to a fixed but not high standard. Each of these subjects should be marked equally.

The following subjects should be *optional*:—(a) advanced Latin, (b) advanced French, (c) advanced mathematics, (d) advanced science, (e) Greek. But no candidate should be allowed to take up more than *two* of these optional subjects.

(iii.) The age of candidature should be twelve to fourteen.

(iv.) Industry and good behaviour being assured, a boy should be permitted to enjoy his scholarship till the end of the term during which his seventeenth birthday occurs; but the scholarship should not be continued unless the head master certify in writing that he is likely to win a scholarship at one of the Universities or to do himself and his school credit academically at such University.

### (B) LEAVING SCHOLARSHIPS.

(i.) With regard to the qualification for candidature the same conditions should apply as for entrance scholarships. With regard to subjects of examination:—For literary scholarships—(a) English, including *précis* and essay work, (b) at least one ancient language, (c) at least one modern language. For scientific scholarships—(a) English, including *précis* and essay work, (b) mathematics, (c) at least one branch of natural science.

## THE TEACHING OF CLASSICS.

By PROF. ARMSTRONG.

Prof. Armstrong desires definitely to raise the grave question whether classical teaching, not mere neglect of modern subjects, be not largely responsible for the present situation—for the lack of interest and the failure to appreciate progress which seems too often to characterize those who have received what is called a classical education. He is of opinion that we need to consider whether the teaching of Latin and Greek in the conventional way has not a directly detrimental effect in hindering the broad development of mental faculties. Some explanation is required of the fact that those who have been thoroughly trained in classics often prove themselves to be unresponsive to new ideas, unimaginative, and unprogressive. There are men of experience as classical teachers who question whether the classical system fortifies the mind. Helmholtz, too, has pointed out that "linguistics fail to lead us to the true source of knowledge, nor do they bring us face to face with the reality we seek to know . . . knowledge is transmitted to the individual of the origin of which he has no right conception."

He would not advocate the omission of Latin, however, but that it should be taught always together with other subjects, which would afford the necessary corrective to its baneful influence. Thorough experimental work should be most insisted upon probably in the case of those who are earnest classical students.

It seems to him that it should be the chief aim of schools to give training in method and to excite interest, and that the difficulty of including subjects in the curriculum would be less felt if this were more clearly recognized.

The right teaching of the mother tongue, so that it may be used properly in speaking and writing on ordinary occasions, as well as the real use of books as sources of information, need far more attention than they have received in the past. The teaching of history and geography as specific subjects is probably much overdone, and knowledge of such subjects might be acquired more by systematic reading.

Mathematics should always be dealt with from the practical standpoint, so that it may become a useful weapon to the learner; and science must be taught practically and, at first, mainly from the point of view of method, so as to develop powers of observa-

tion and of logical thought. The results of scientific inquiry must also be brought broadly home to the minds of scholars, in so far as they bear on the world in which we live and on our work in it. At the later stage a broad course, in which biology figures as well as physical science, is required; but details must be avoided and methods of honest, thorough work inculcated.

Lastly, the intellectual value of manual training has to be appreciated. The results already obtained at Osborne and Dartmouth show that such training probably has a high value as mental discipline, and that it should be made an essential element of school work for all scholars.

## REVIEWS.

### THE COMPLETE GUIDE TO HYGIENE.

*Lessons in Practical Hygiene, for Use in Schools.* By Alice Ravenhill, F.R.San.I., Lecturer to the University of London Extension Board, late Lecturer on Hygiene and Inspector under the West Riding of Yorkshire County Council. With Preface by Prof. M. E. Sadler, M.A., LL.D. (5s. net. E. J. Arnold & Son, Leeds.)

Miss Ravenhill needs no introduction to wideawake teachers much less to the sanitary experts. Not only has she proved her qualities in the class-room, but she has also investigated in America as well as in England the methods and processes of the teaching of hygiene, and is in close contact with the organizations whose object is to spread the light upon this increasingly important subject. The present volume might easily have borne a more ambitious title. Part I. treats generally of the phenomena, characteristics, requirements, and influencing conditions of life and the characteristics of air and water. Part II. describes in relation to hygienic considerations the human body, its systems and their functions, its general constituents, the digestive processes, and the organs of sensation. Part III. deals with proximate food principles—tests, methods, and effects. Part IV. discusses personal hygiene—care of the person, clothing, cleanliness, and so forth. Part V. surveys the dwelling—soil, building materials, ventilation, warming, lighting, sanitation, &c. Appended are bibliography, glossary, and index. The disposition of the multifarious subjects is thoroughly systematic, and the handling is intensely practical and entirely experimental. Teacher and pupil have simply to attend to the orderly and lucid directions and to follow them out. Explanatory matter and more advanced points are put into smaller type under the different sections. The work is comprehensive, and it has been executed in detail with conscientious elaborateness: moreover, for absolute security, the various sections have been submitted to the careful criticism and revision of specialists. There are 139 figures in illustration. It is only too true, as Prof. Sadler says in his commendatory preface, that "much remains to be done before the teaching of hygiene on practical lines can be regarded as an effective part of our national education." But, if this book were substantially taught in the spirit in which it is written, the efficiency of the teaching of hygiene would no longer admit of question. It just occurs to us that a more elementary and less extensive book, containing the main points of the subject in a popular form, would be invaluable not only as an introduction to the present volume, but as a guide to such pupils as cannot overtake the full course here prescribed.

### FOURIER'S SERIES.

*Introduction to the Theory of Fourier's Series and Integrals, and the Mathematical Theory of the Conduction of Heat.* By H. S. Carslaw, M.A., D.Sc., F.R.S.E. (14s. net. Macmillan.)

Although the volume must be classed as a treatise of special rather than general character, yet the interest of its pages is so many-sided that it necessarily gives the work a claim on the attention of a large section of the general body of mathematicians. As a matter of course, the student of the mathematical theory of heat will benefit by reading the volume from cover to cover, and by endeavouring to master its contents thoroughly. But the worker in the field of Pure Mathematics will find in Part I. a rich store of information helpful to him also, in his own labours—a scholarly discussion of the entire system of real numbers viewed by the light of both geometry and arithmetic; a detailed investigation of the subjects of "aggregates," of "sequences," and of infinite series; a special consideration of the theory of "convergence" and its relation to the problem of the summation

of series; an inquiry into the "convergence" of infinite definite integrals; and, as the name of the volume indicates, an introduction to Fourier's Series and Integrals, in which rigorous proofs of the expansions are given, based by the writer on the methods of which Neumann and Weber laid down the lines. That all this work in the region of Pure Mathematics should be included in a treatise of which the ultimate object would seem to be the consideration of the application of Fourier's expansions to an important physical problem, bears ample testimony to the spirit underlying the author's work, namely, the devotion of one truly striving to advance knowledge and animated by a desire to sound his subject to the very depths. That such is the motive power at work, is further evident from the Introduction, in which the author clearly expresses in words the primary difficulty which besets the student of Fourier's Series, and traces step by step the course to be followed—the one actually adopted in the subsequent discussion—in order to overcome it. But the classes of readers to whom the treatise affords valuable information are not yet exhausted; for the student of the History of Mathematics may derive much useful knowledge from the introductory historical chapter. We learn there the period at which there first arose a question as to the possibility of expanding an arbitrary function of a *real variable* in a series of sines and cosines; we obtain an insight into the cause of the discussion—namely, the bearing which the point raised has on the problem of the vibrations of strings. The parts taken by D'Alembert, Euler, and Bernoulli in the attempt to obtain a solution of the fundamental equation are clearly indicated. The contributions of Lagrange are noted, and the ease with which this last named mathematician might have taken the further steps whose importance, as forming the completion of the work, is pointed out in order to prove the reality and the magnitude of our debt to Fourier. There is unquestionable pleasure as well as benefit to be derived from tracing with Dr. Carslaw the various stages in the growth of the theory. And there is the labourer in yet another field of work who will be ready to acknowledge his indebtedness to the present text-book: the bibliographer will meet in the appendixes with lists (giving the dates) of treatises, memoirs, and papers dealing with the matter discussed in both Parts of the text. The value and importance of Dr. Carslaw's work, as may be gathered from the above brief notice, cannot but speak for themselves to the reader.

## GENERAL NOTICES.

### MATHEMATICS.

*First Steps in the Calculus.* By A. F. Van der Heyden, M.A. (3s. Edward Arnold.)

Addressed principally to the students of evening classes who possess a knowledge of geometry, algebra, and trigonometry up to the standard of Stage III. of the Board of Education, this little work is necessarily rather restricted both as to size and scope. Within its prescribed limits, however, it will greatly commend itself, owing to the breadth with which the author treats his subject and to the effort made throughout to convey first principles clearly and to fix the ideas of the beginner by the consideration of some of the simple practical applications of which such principles are capable. The course followed in the text-book includes all that is expected in the Calculus from students qualifying themselves in the mathematics required for Stage V. by the syllabus of the Board of Education. In addition, it may be reasonably anticipated that the work will prove of value in the classes of secondary day schools.

*"Thorough" Arithmetics (Scheme B).—Teacher's Book, No. III.* By W. Woodburn. (9d. net. Chambers.)

We noticed favourably some time ago the series of which the above is a specimen volume. It may be well, however, to recall to our readers the usefulness of the publication and to mention one or two valuable features of the Teacher's edition. For example, the volume designed for use with the pupils of a particular "Standard" contains a statement of the Code requirements affecting them. Again, the method adopted in arranging the question and answer material offers great facilities for rapid reference, and young teachers will probably find many of the notes very helpful.

*Junior Arithmetic.* By W. G. Borchardt, M.A., B.Sc. (2s. Rivingtons.)

The writer has arranged a useful volume. Although it consists mainly of a large number of exercises, still it contains a certain proportion of text, which takes the form of numerous notes and fully worked illustrative examples. On the whole, instruction in the theory of the subject and the explanation of processes are left to the teacher. The answers to the unworked questions give satisfactory results when

tested at random for accuracy. The work has been compiled both for the junior student in general and as an aid to the candidate preparing for junior examinations, to whom it will afford much scope for acquiring skill in the treatment of elementary arithmetical problems.

#### FOREIGN COMMERCIAL CORRESPONDENCE.

"Hooper and Graham Series."—(1) *French Commercial Practice connected with the Export and Import Trade* to and from France, the French Colonies, and the countries where French is the recognized language of commerce. Part II. (4s. 6d.) (2) *German Commercial Practice connected with the Export and Import Trade* to and from Germany, the German Colonies, and the countries where German is the recognized language of commerce. Part II. (4s. 6d.) (3) *Spanish Commercial Practice connected with the Export and Import Trade* to and from Spain, the Spanish Colonies, and the countries where Spanish is the recognized language of commerce. Part II. (4s. 6d.) (4) *The Foreign Traders' Correspondence Handbook*. (3s. 6d.) (5) *The Foreign Traders' Dictionary of Terms and Phrases in English, German, French, and Spanish*. (3s. 6d.) All by James Graham, Secretary for Higher Education, City of Leeds, formerly Inspector of Commercial Subjects and Modern Languages for the West Riding County Council, and George A. S. Oliver. (Macmillan.)

(1)–(3) are the advanced books, following three corresponding introductory books, and dealing (as, of course, the introductory books also deal) with the three several languages as they are applied in actual commerce, "and practically the whole of the matter contained in the books is drawn from real business, the series of letters and documents having been used in actual foreign trade transactions." The student needs all the three (or six) books, because any one set cannot be used for all the three countries by simply turning the one language into the others: the differences are material, and not merely linguistic. The advanced books introduce the student to importing and exporting transactions of considerable difficulty, and furnish ample illustration, explanation, and exercises, together with a number of facsimiles of actual documents. The general framework is this: (a) model letters—correspondence with agents, correspondence relating to transactions in goods, forwarding packages for shipment, claims, &c.; correspondence relating to payments, drafts, accounts current, dunning, &c.; correspondence relating to inquiries made about firms, and information supplied, correspondence relating to suspension of payment, letters of introduction and of credit, applications for situations, &c.; (b) notes on vocabulary of model letters; (c) questions for conversational exercises (relating to the model letters); (d) exercises to be rendered into French (German or Spanish), being supplements to the model letters; (e) abbreviations used in French (German or Spanish) correspondences. The treatment is most capable and thoroughgoing.—(4) presents, in English, French, German, and Spanish, the matter contained in the introductory books of the series, arranged side by side, in four vertical columns, and is intended for ready reference by traders.—(5) is "a comprehensive, systematic, and alphabetical vocabulary of commercial and financial terms, titles, articles of trade, and special phrases used in the home, import, and export trades, and in financial, shipping, and accountancy work generally, for the use of British firms and commercial students." The phrases and terms are given in each of the four languages in parallel columns. The series is far beyond anything else of the kind that we have seen; and the student that works through it faithfully will find a great reward.

*Prof. Schilling's Don Basilio*. A Practical Guide to Spanish Conversation and Correspondence. Translated and edited by Frederick Zagel. (2s. 6d. F. Hodgson, 89 Farringdon Street, E.C.)

This volume was written by Prof. Schilling as a companion reading-book to his excellent "Spanish Grammar." The first Part (89 pages) consists of a series of dramatic dialogues in which Don Basilio, "a bachelor and professor of languages" on holiday, figures variously enough to exemplify conversation under all ordinary circumstances. The talk is always bright—there is not a dull page in the Part; and any student that works through it carefully is bound to acquire an excellent working command of Spanish conversation. The second Part (66 pages) gives 100 examples of private and business letters and forms, together with lists of abbreviations, styles of address, modes of concluding a letter, &c., and a vocabulary. The volume is an admirable *multum in parvo*. The selection and disposition of materials must have been a prolonged and exacting labour, by which the student will largely profit.

#### ART—DRAWING—WRITING.

*Instructions to Teachers of Drawing*. Prepared by W. W. Rawson, A.R.C.A. (1s. Department of Public Education, Colony of the Cape of Good Hope.)

After a general introduction, Mr. Rawson lays down rules to be observed in teaching drawing, and sets forth methods of drawing and materials to be used. Then he deals with the several Standards of the Elementary Stage, the scheme of Manual Training in connexion with the Drawing Syllabus, the syllabus for High School Standards C and D, examinations, and inspection, with plentiful illustration

throughout. The "Instructions" are evidently the result of prolonged and varied experience. They develop and co-ordinate the teaching in the most careful manner, and keep sight of principle through all the details. An excellent practical syllabus.

*The King's Writer*, by Reginald Gill, F.R.G.S., consists of (1) a series of four books corresponding to four stages and providing "a complete course of instruction in English script characters . . . engraved upon the Normal System of writing" (12s. net per gross); and (2) five books upon special subjects—business transactions, lettering, map-drawing, &c. (18s. net per gross). The books are progressive and sufficiently varied, and the characters are bold and clear. Messrs. George Gill & Son are the publishers.

*The Life and Leaf Set of Drawing and Design Cards*, by W. Midgley, A.R.C.A. Lond. (2s. net, Chapman & Hall), are disposed on ten sheets, 9½ in. x 11½ in., on the left half of each sheet being a "study" of some animal, leaf, or other object, and on the right half an "exercise" of adaptation of more or less of the "study" in a decorative design. The idea is a very practical one, and it is worked out with much ingenuity and care. The printers (the *Midland Counties Herald*, Limited) deserve a word of recognition.

#### MISCELLANEOUS.

The first number of *The New Quarterly* (2s. 6d. net, Dent), "a Review of Science and Literature," edited by Desmond MacCarthy, produces a very favourable impression. The articles are ably written, as well as varied in subject and treatment; and the spacious type is agreeable. Lord Rayleigh discourses on the puzzling question, "How do we perceive the direction of sound?" and his son, the Hon. R. J. Strutt, inquires "Can we detect our drift through space?" The Hon. Bertrand Russell contributes a weighty, but very readable, paper on "The Study of Mathematics." Literature, English and French, is handled agreeably and capably by Mr. G. L. Strachey, Mr. Arthur Symonds, and Mr. T. Sturge Moore. Mr. G. A. Paley indicates a few points at which modern theoretical writers on politics have been directly influenced by the conclusions of biologists." And the rest of the contents have their special interest. The magazine makes an excellent start, and we wish it every success in its progress.

*The International* (1s. net, monthly, Fisher Unwin) also makes its first appearance with omens of success. It is "a Review of the World's Progress," edited by Dr. Rodolphe Broda. The editor, we learn, "has been travelling through the five continents for several years, and has now secured a permanent staff of about 250 correspondents scattered all over the globe." We shall thus have news of what is going on, news "dealing with essential events and tendencies," and on receipt "examined by the editor from the point of view of elucidating the trend of human affairs." The editor does not propose for himself a sinecure. The December number—the first—offers eight articles of a varied and important character by competent writers of various nationalities: "Sweating and the Minimum Wage" (Sir Charles Dilke), "The Spirit of Modern Germany" (Prof. Lamprecht), "The Situation in South Africa" (H. L. Outhwaite), "Liberal Catholics and the Encyclical" (Abbé Naudet), "Imperial Federation" (Sir John Cockburn), "The Welding of Nations" (Frédéric Passy), "The Hague Conference" (Francis de Pressensé), and "The Awakening of Danish Small-Holders" (C. Münch). Finally, the Editor's Review of the Month, and Correspondents' Reports from all points of the compass. A very instructive and agreeable number, promising a successful career.

The December number of *The Irish Educational Review*—the third issued and the first that has come our way (6d. net, Brown & Nolan)—has at least the merit of outspokenness. Not that every contributor comes up to the standard of the Very Rev. George Canon Richardson, who, in a paper on "The Present Position of Education in England," has the courage to say this: "My conclusion naturally is that the less a man believes in God, and therefore the more immoral he is, the sooner will he be embraced by Mr. McKenna as the only true teacher of the youth of this country." The writer of "Educational Notes," however, does not lag far behind. He says: "It is not very complimentary to his Majesty's Ministers to assume that they are playing a game of vulgar bluff, but charity itself compels the assumption." One is glad that it will increase. Some reasonable apprehension of the facts would not be amiss, and some practice of clear thinking would be an advantage. There is good matter and reasonable criticism in some of the other articles. We hope the editor (the Rev. Andrew Murphy) will get his team more firmly in hand by and by, for the magazine might be made very useful under a little stronger control.

*The R.P.A. Annual*, formerly "The Agnostic Annual" (6d. net, Watts), opens with an extremely interesting article on "The Home Life of Thomas Henry Huxley," by the Hon. John Collier, son-in-law of Huxley, and contains a dozen other papers, more or less controversial on the rationalistic side, as well as two poems (by Eden Philpotts and Harold Johnson). The origin and growth of the R.P.A. is sketched by Mr. Charles E. Hooper; the message of Positivism is ably presented by Mr. S. H. Swinny; the lesson of evolution is enforced by Mr. Joseph McCabe; and Mr. F. J. Gould, forecasting the

educational future, prophecies that "secular education will be practically realized within the next few years." Prof. Haeckel argues, in a Note, that "all the objections that are urged against Darwin and Huxley on account of their theory of man's simian descent must apply also to Linné" (Linnæus). In spite of narrowness and perversity, there is much matter worth sober consideration in this issue of the Annual.

#### AN INDISPENSABLE ANNUAL.

*Hazell's Annual* for 1908, edited by W. Palmer, B.A. Lond. (3s. 6d. net), has just been published by Messrs. Hazell, Watson, and Viney. The revision comes down to December 2. The concise accounts of the main matters of more immediate interest, domestic and foreign, are presented with all the usual care and judgment; and some of the more technical articles have been furnished by experts. Acts of Parliament and Blue Books have been boiled down into intelligible and manageable form. New biographies, chiefly foreign, have been added. Every effort has been made, obviously, to provide the information that is likely to be wanted by politicians, journalists, commercial people—anybody and everybody. This is the twenty-third year of issue. The work is indispensable for reference.

#### NEW YEAR GIFT-BOOKS.

##### ROMANCE OF FACT.

*The Romance of the King's Navy*, by Edward Fraser (5s., Henry Frowde and Hodder & Stoughton), is intended to give boys of to-day an idea of some of the notable events that have happened under the White Ensign within living memory—from the Crimean War downwards. An early chapter tells how the Navy's V.C.'s have been won, in a connected narrative of the heroic deeds; and other chapters narrate again a number of stirring incidents in the history of the Navy. A companion volume is *The Romance of the King's Army*, by A. B. Tucker (5s., Henry Frowde and Hodder & Stoughton). It recalls many of the more inspiring incidents in the history of our land forces—the charge of the 21st Lancers at Omdurman, the capture of the heights of Dargai, the saving of the guns at Maiwand, &c.—with chapters on the V.C., the colours, regimental pets, "women who followed the drum," Chelsea Hospital and other institutions for veterans, and so forth. Both volumes are of extreme interest; they are brightly written; and they are illustrated from photographs and famous pictures.

*The Romance of Every Day*, by Lilian Quiller-Couch (5s., Henry Frowde and Hodder & Stoughton), makes an exceedingly interesting "bookful of brave deeds," not merely on the battlefield or on the sea, but also in the mine, on the railway line, in the burning house, in the midst of the plague, &c.—deeds of men, of women, and even of children—twenty-five stirring chapters of the most varied incidents. They are "chiefly brave romances, without much hint of the less worthy side; but in them," says the author, "I have tried to show that romance is a quality which can be called neither ancient nor modern, which belongs exclusively neither to rich nor to poor, but is a bright thread running through all periods and all classes." Six illustrations by James Durden.

*How it is Made*, by Archibald Williams (3s. 6d., Nelson), "describes in simple language how various machines and many articles in common use are manufactured from the raw materials"—the processes of making coins, paper, matches, pianos, watches, pens, pins, needles, &c., and of the manufacture of glass, cotton goods, rubber goods, iron and steel, armour plates and big guns, motors, &c. The description is plain and lucid; and there are 198 illustrations, besides a coloured frontispiece. The volume will make the reader "realize what ingenuity and toil are devoted to the manufactures which render living comfortable and the country prosperous." It is based on personal observation in the course of a tour of inspection among our industrial centres. An admirable volume to put into the hands of a boy.

##### HISTORICAL AND DESCRIPTIVE.

*Lisbon and Cintra*, "with some account of other cities and historical sites in Portugal," written by A. C. Inchbold and illustrated after water colours by Stanley Inchbold (10s. 6d. net), belongs to the handsome series of new volumes in large foolscap quarto, with coloured illustrations after original drawings, published by Messrs. Chatto & Windus. There are thirty full-page illustrations, representing the most important objects and the most varied sights. The characteristics of the people and of the country, as well of the greater cities and the more famous sites, are depicted in an agreeable way; and the outstanding events of Portuguese history are interwoven with the descriptions. Much attention is given to art, and notably to the many fine examples of architectural design. The work is extremely interesting as well as handsome.

*Women of Florence*, by Isidoro del Lungo, translated by Mary C. Stegmann and prefaced by Guido Biagi (7s. 6d. net), is also published by Messrs. Chatto & Windus. Prof. del Lungo is an Italian historian of distinction, and, in his exploration of archives for his history of the times of Dante, he "found himself brought into con-

tinual and direct contact with documents relating to the life of ancient Florence, documents wherein he discovered records and traces of many obscure women, who thus unconsciously revealed to him the secret of their forgotten existence"—women glorified in poetry, women regarded as saints, legendary heroines, and many representatives of other feminine ideals. The examples are taken from the period between the Rise of the Commune of Florence and the Cinquecento (eleventh to sixteenth century). The work is adapted rather than translated, the Professor's somewhat sonorous, verbose, and detailed narrative being recast in a plain and readable English form. The interest is vivid throughout; and it is not confined to the heroines but extends to the general social facts of the period. The work is generously illustrated: there are two coloured plates and twenty-five half-tone plates, while the binding design is after a Cinquecento original.

##### VARIOUS.

*Captain Swing*, by Harold Avery (5s., Nelson), is a capital "tale of the 1830 riots." The Rev. William Eldridge, incumbent of the vicarage of the little village of Rutingdon, in Southshire, eked out his very poor living by taking pupils; his two pupils at the time—one of whom had got expelled from a public school for an incautious exhibition of high spirits—are the heroes of the story. The missives of Captain Swing and the visits of his myrmidons disturb the placidity of the good vicar and the comfort of his youthful daughter, but the boys enter into the successive incidents with great verve. Moreover, there is a mystery about Duncroft—a place belonging to the vicar, but believed to be haunted and so unlettable; and the boys naturally want to come to close quarters with the ghost—which they do. The story is briskly evolved, and the tone is admirable.

*King of the Air; or, To Morocco on an Airship*, by Herbert Strang (2s. 6d., Henry Frowde and Hodder & Stoughton), is a very up-to-date story and might seem to be based on incidents of the other day. The eighteen-year-old son of a village blacksmith develops a strong mechanical turn, and, in conjunction with a rich man whose motor he had set going again on the road years before, elaborates an aeroplane. A son of the Prime Minister comes to know of the invention, which is utilized to relieve the Prime Minister's anxiety for Sir Mark Ingleton, who has been captured on a diplomatic mission to Morocco and carried off to the hills by the tribesmen. The adventures are sufficiently picturesque, and the amusement is heightened by the idiosyncrasies of Herr Schwab, the indefatigable "representative of ze Schlagintwert Gombany of Düsseldorf." A bright and bustling story, with four illustrations in colour by W. E. Webster.

*The Pendleton Twins*, by E. M. Jameson (5s., Henry Frowde and Hodder & Stoughton), continues the history of the Pendleton family already developed in two or three volumes. The present adventures commence on the start for the Christmas holidays; the train is snowed up and the journey delayed. Their Christmas is a merry one really; and then there is a midnight chase of a burglar, and a cave with hidden treasure, and accidents and search parties, and so forth. But all ends happily. The story is written with much resource and humour, and the children will be delighted with it. Six illustrations in colour by S. B. Pearse.

*Through the Magic Door*, by Sir Arthur Conan Doyle (5s., Smith, Elder, & Co.), is a series of charming causeries upon the writers of books on his library shelves, with no less interesting divagations suggested by the subjects in hand. "If I had to choose the one book out of all that line from which I have had most pleasure and most profit," he says, "I should point to yonder stained copy of Macaulay's 'Essays.'" "Reading is made too easy nowadays, with cheap paper editions and free libraries. A man does not appreciate at its full worth the thing that comes to him without effort." It is useless to indicate disagreement with judgments of the author or to signalize hasty opinions or prejudices, though on many points we should find reason for not following him: it is enough that the chapters read smoothly and are full of interest, and that the general effect is inspiring. It will do a boy good to read the volume. Sixteen illustrations.

*Betty's First Term*, by Lilian F. Wevill (3s. 6d., Blackie), is a school story, fresh and bright, with a long succession of amusing incidents. Betty is the only daughter of the vicar of a small town in Cheshire, and her first term at a boarding school, where she chums with three other girls of her own age, furnishes abundant scope for scrapes, squabbles, and various excitements. The characterization is good and the style is vigorous. Young readers will like Betty, and be interested in her novel experiences. Six illustrations by Arthur H. Buckland.

*Ruth Ravelstan, the Puritan's Daughter*, by E. Everett Green (5s., Nelson), is a delightful story of the Commonwealth times, the heroine's father being one of Cromwell's major-generals. Rupert Lorimer, an enthusiastic Royalist boy, lives near the house where the Major-General has sent his wife and child from London, just over the Middlesex border; and the two children become friends. Anthony Lorimer, of the younger branch of the family, who lives near, has gone over to the Roundheads, and Rupert alone stands between him and the broad lands of the elder line. In time

Rupert fights for the King, and is as willing to kill Anthony as Anthony could be to kill him. Here is plenty of material for developing an exciting private history with the political and military bustle of the bigger world. The story is ably worked out and nicely written; and there are six good illustrations in colour.

*The Unlucky Family*, by Mrs. Henry de la Pasture (6s., Smith, Elder, & Co.), is the story of a worthy suburban couple with eleven children, who come into a fortune (with a fine country place). Being kind-hearted folks, they set about entertaining their neighbours, calling and receiving calls, visiting the poor people, and so forth. The best intentions, however, do not always yield the most satisfactory results; and in this case they lead to adventures and mishaps of an amusing character. The book, we are told, "is best described as a farcical story for children, which is also likely to amuse their elders." We agree, with the proviso that the children know a good many big words. About thirty illustrations by E. T. Reed.

*Robin's Heritage*, by Amy le Feuvre (2s., Henry Frowde and Hodder & Stoughton), tells in a simple and agreeable way about a little boy that was a cripple for life from having fallen from a tree he had climbed. What the heritage was we will not disclose; but the story has a quietly and strenuously religious tone, influenced by Robin's mother. Then there are Muffet, and Poppet, and Twinkles, who help Robin to make incidents of varied and continuous interest to little ones. A delightful story. Illustrations by Gordon Browne.

*Juliette the Mail Carrier*, by Bessie Marchant (Collins' Clear-Type Press), takes to the American coast—Caplin Sound, not far from Cape Race. Juliette, a fine girl of eighteen, had to carry the mails when her father was laid up by a bad dint on the head received in connexion with a wreck, which had been occasioned by a false light hung out on the neighbouring Pinnacle Rock. But was this her father? For, when found, he was locked in the arms of a dead man bearing a remarkable resemblance to him. There is some villainy about, probably. A little brother, Neal, and a little sister, Nancy, are prominent personages in the development of the story. "Juliette is a brick," says Neal; and we will say the same for Neal himself. A fine story, illustrated by Richard Tod, handsomely got up.

*Twin Brothers*, by Frances Palmer (1s. 6d., Blackie), recounts "the adventures of two little runaways"—Raymond, a strong lad, and Cyril, a delicate lad. Their parents are in India and the children are at school at home. Cyril gets into trouble, and Raymond, fearing for the effects of punishment on the health of his brother, with whose care he was specially charged by his mother, arranges for running away. Then their adventures and difficulties begin. An interesting and suggestive little story, with illustrations by Murray Urquhart.

*Whose Home is the Wilderness*, by William J. Long (5s. net, Ginn), is yet another of the author's nature books describing the life and habits of the wild animals and birds. "It aims to do two things," says Mr. Long: "first, to show some of the unrecorded facts of animal life exactly as I have seen them; and second, to reproduce as far as possible the spirit of the place and the hour, and to let you also feel something of that gladness and peace which I have always found in the silent places." We need not tell those that have read Mr. Long's previous books how interesting it is, and how charmingly written, or how attractively it is got up. Besides the frontispiece, there are ten full-page illustrations by Charles Copeland, who has illustrated sympathetically and beautifully all the volumes of the series, with marginal sketches on every page.

*A Treasury of Verse for Boys and Girls* (2s. 6d. net), and a smaller volume, *A Treasury of Ballads* (1s. 6d. net), selected and arranged by M. G. Edgar, are admirable collections, published by Messrs. Harrap.

*Popular Fallacies*, by A. S. E. Ackermann, B.Sc. Eng. Lond. (6s., Cassell), is a most interesting and curiously instructive volume. Hundreds of popular notions on all sorts of subjects—domestic, historical, technical and scientific, legal, musical, statistical, &c.—are exploded, and, wherever possible, the probable cause of the fallacy is suggested. Incidentally, of course, a great mass of knowledge on the different points is brought together, and the interest is fresh with every new subject examined. There are eight full-page illustrations.

*The Canterbury Puzzles*, and other curious problems, by Henry Ernest Dudeney, is a collection of well over a hundred examples of the most varied character. "It is extraordinary," says Mr. Dudeney, "what fascination a good puzzle has for a great many people"; and so to a great many people this book ought to be very fascinating. "There is really a practical utility in puzzle-solving," he also says; and, indeed, in his introduction he discourses instructively and persuasively on the varieties and virtues of puzzles. Solutions are appended. There are numerous illustrations by Paul Hardy, the author, and others. It is a book of remarkable ingenuity and interest.

*Dorothy's Little Tribe*, by Joan White (3s. 6d., Collins' Clear-Type Press), describes the summer holiday of the young Hamiltons in North Devon, and exhibits the views of a vivacious girl of sixteen.

The story circles round Dorothy (Billy for short) and Dick, a twin-brother; but a step-sister of a somewhat perverse turn, Dorothy's governess, and Mrs. Hamilton's aunt—to say nothing of the young man that would not marry the lady that some other persons wanted him to marry—contribute to the development of the story, which is amply provided with fun and incident. "This is the best holiday we ever had." Four coloured illustrations by F. Elphick.

Collins' Clear-Type Press also publish *Two Princes of Science* (1s. 6d.) in their "Stories of Noble Lives" series—very interesting, full, and well written biographies of Edison and Marconi—with eight illustrations; and, in their "Imperial Library," *Comin' thro' the Rye* (Helen Mathers), with 4 illustrations by A. A. Dixon, and decorative boards, frontispiece, and end papers in colour (2s.)

#### FOR CHILDREN.

"Every Child's Library" (cloth, 1s. net; leather, 2s. net, each volume) is opportunely issued by Mr. Heinemann. We have four volumes to begin with:—(1) *The Old, Old Myths of Greece and Rome*, with 8 coloured pictures copied from the National and Dulwich Art Galleries, and numerous insets; (2) "*One for Wod and one for Lok*," or, *Asgard, Midgard, and Utgard*—myths of the North—with 8 coloured pictures by Wilson Patten, and numerous insets; (3) *Sigurd the Dragon-slayer*, and an outline of the "Nibelungenlied," with 8 coloured pictures and numerous insets; and (4) *The Seven Champions of Christendom*, with 8 coloured pictures by Wilson Patten and numerous insets. The stories are charmingly told by Thomas Cartwright, and the volumes are beautifully printed and liberally and attractively got up.

Messrs. Jack's very popular series are sure to be in busy request (1s. 6d. net and 1s. net each volume). There is the "Told to the Children Series," of which we have several new volumes:—(1) *Stories of Three Saints* (Francis, Columba, and Cuthbert), told by Mary Macgregor, with pictures by Mrs. P. A. Traquair; (2) *Undine* (De la Motte Fouqué), retold by Mary Macgregor, with pictures by Katherine Cameron; (3) *Stories of Roland*, told by H. E. Marshall, with pictures by L. D. Luard; and (4) *Simple Susan* (Maria Edgeworth), retold by Louey Chisholm (the general editor of the series), with pictures by Olive Allen.—In "The Children's Heroes Series" we have *The Story of Cromwell*, by H. E. Marshall, with 8 pictures by Allan Stewart and 5 maps (1s. 6d. net and 1s. net).—In the "Stories from History Series" we have *Stories from Greek History*, told by Ethelwyn Lemon, with 8 pictures by Paul Woodroffe, both in the usual full-dress (1s. 6d. net and 1s. net) and in limp cloth (8d.).—In the "Shown to the Children Series" (2s. 6d. net each) we have *The Sea-Shore*—48 coloured plates, by Janet Harvey Kelman, with descriptions by the Rev. Theodore Wood—a very instructive and suggestive as well as attractive volume. The preceding volumes—(1) *Beasts*, (2) *Birds*, (3) *Flowers*—we have already noticed with approval.—All these series are admirably adapted for children, beautifully printed, and substantially and artistically got up.

"The Children's Bookcase" (1s. 6d. net each volume, Henry Frowde and Hodder & Stoughton) is a delightful series, charmingly written, beautifully printed, liberally illustrated, and daintily got up. There is (1) *The Old Nursery Stories*—nine of them—retold by E. Nesbit and furnished with twelve illustrations by W. H. Margetson; (2) *Cap-o'-Yellow, and other Stories for Children*—a dozen in all—told by Agnes Grozier Herbertson and furnished with twelve illustrations in colour by F. V. Poole; and (3) *Granny's Wonderful Chair and its Tales of Fairy Times*, by Frances Browne, with twelve illustrations in colour by W. H. Margetson.

Messrs. Nelson have begun to issue "a New Series of carefully graduated Reading Books designed to form a Ladder to Literature." While admirable for schools they are attractive enough as New Year gifts. Part I., *Doors of Gold* (10d.), presents in simple language select fairy tales and familiar rhymes and verses. Part II., *Fairy Favours* (1s.), contains imaginative tales from good literary sources, select folk tales of a romantic and humorous character, and snatches of fairy poetry. Part III., *The Hall of Heroes* (1s. 3d.), gives tales of early heroes of the chief European nations, with narrative poetry, chiefly simple ballads. Four more Parts are in preparation. The volumes are beautifully printed and effectively illustrated with numerous full-page pictures in colour and in black and white and with marginal drawings. So far the series is most attractive.

Another delightful series of Messrs. Nelson's contains (1) *Sir Thomas Thumb, or The Wonderful Adventures of a Fairy Knight*, the Courts of King Oberon and King Arthur being gaily mixed up; and (2) *Knights of the Grail—Lohengrin and Galahad*, by Norley Chester. The stories are capitally told and will engage the undivided interest of the children. Each volume has eight illustrations in colour.

*The Magic Water* consists of a connected series of over a score of "stories about children and animals," by Elise H. Delépine (3s. 6d. net, Methuen). They are simply and interestingly told, with instruction incidentally suggested. Besides four plates in colour, there are



# OXFORD UNIVERSITY PRESS.

## THE OXFORD GEOGRAPHIES.

By A. J. HERBERTSON, M.A., Ph.D.,

*Reader in Geography in the University of Oxford.*

Suitable for the Oxford and Cambridge Local Examinations, London Matriculation, the Board of Education's Preliminary Certificate Examination, and general school work.

1s. 6d.

### PRELIMINARY GEOGRAPHY

*Second Edition. 160 pp., with 72 Maps and Diagrams.*

*Nature.*—"An altogether admirable book, which should become the standard geography for schools."

2s.

### JUNIOR GEOGRAPHY.

*Second Edition. 288 pp., with 166 Maps and Diagrams.*

*Geographical Journal.*—"The human element is always to the fore; the why and the wherefore are never absent. The method is therefore generally educative. At the same time it is largely descriptive. The maps and diagrams also deserve high commendation."

2s. 6d.

### SENIOR GEOGRAPHY.

*Second Edition. 370 pp., with 117 Maps and Diagrams.*

*School World.*—"The relation of cause and effect is continually insisted upon, and the lesson driven home by the frequent insertion of educative maps and plans and cross-sections."

## RELATIONS OF GEOGRAPHY AND HISTORY.

By H. B. GEORGE.

*With 2 Maps. Third Edition. 4s. 6d.*

*Educational Review.*—"The volume is one of absorbing interest: to the schoolmaster who teaches English subjects it will prove a very mine of suggestions, and to the student it will prove indispensable."

## GREEK CLASSICS FOR ENGLISH READERS.

Edited by J. CHURTON COLLINS.

### MATTHEW ARNOLD'S MEROPE.

With the "Electra" of Sophocles translated by R. WHITELAW. Crown 8vo, 3s. 6d.

Extra fcap. 8vo, each 1s. net, with introduction and notes.

### EURIPIDES' ALCESTIS.

Translated by H. KYNASTON.

### SOPHOCLES' ANTIGONE.

Translated by R. WHITELAW.

### AESCHYLUS' PROMETHEUS.

Translated by R. WHITELAW.

### AESCHYLUS' AGAMEMNON.

Translated by J. CONINGTON.

## ELEMENTARY CHEMISTRY.

Progressive Lessons in Experiment and Theory. With many diagrams. By F. R. L. WILSON, M.A., Chemistry Master at Charterhouse, and G. W. HEDLEY, M.A., Head Science Master, Military and Civil Side, Cheltenham College. Part I, 3s.; Part II, 5s. Being a general introduction to Science on experimental lines.

*School World.*—"The authors must be congratulated on having produced a course of practical work which justifies the expectations raised by their introductory volume; their scheme of work is eminently sane, and will appeal to all teachers of the subject. . . . The book is splendidly printed and bound."

## THE WRITING OF ENGLISH.

By P. J. HARTOG, Academic Registrar of the University of London; and Mrs. AMY H. LANGDON.

*Crown 8vo, 2s. 6d.*

*Tribune* (Leading Article).—"A most suggestive and encouraging little treatise. . . . Mr. Hartog shows why examinations have a directly pernicious effect on sound and clear writing. . . . He has had valuable assistance from Mrs. Amy Langdon, who contributes a number of excellent typical exercises."  
*Manchester Guardian.*—"Mr. Hartog is not, of course, the first to combat this abuse. But few, if any, have brought to the task a combination of special qualifications so much to the point."

## THE KING'S ENGLISH.

By H. W. F. and F. G. F. *Second Edition. 5s. net.*

*Journal of Education.*—"An original work compiled by authors who can themselves write English."

## THE OXFORD BOOK OF FRENCH VERSE:

*Thirteenth Century to Nineteenth Century.*

Chosen and edited by ST. JOHN LUCAS, M.A. Fcap. 8vo, 6s. net; on Oxford India paper, 7s. 6d. net.

*Daily Telegraph.*—"This new anthology of French poetry, ranging from the thirteenth to the nineteenth century, is, in its way, a perfect gem, reflecting the highest credit on Mr. St. John Lucas, who has selected it, and on the University publishers who have made of the volume a 'thing of beauty.' It is, without doubt, the most complete representation of poetry that has been placed before the English public, and we even venture to go further, and assert that in France itself this little book ought to find a very large circle of readers, for it is incomparably better than any collection of the kind which is in vogue there at the present time."

## OXFORD LIBRARY OF TRANSLATIONS.

### HEINE'S BOOK OF SONGS.

Translated by J. TODHUNTER. Extra fcap. 8vo, 3s. 6d. net; on Oxford India Paper, 4s. 6d. net.

*Evening Standard.*—"We find here that rare achievement, 'the spirit of the original,' especially in the more slight and tender lyrics, and this little volume of verses and translations, or verses in translation, is a very pleasant thing."

## A HISTORY OF MUSIC IN ENGLAND.

By ERNEST WALKER, M.A., D.Mus. 8vo, cloth, 7s. 6d. net.

*Standard.*—"Worthy in every way to rank as the standard work on a most important subject."

## OXFORD TREASURY OF ENGLISH LITERATURE.

By G. E. HADGW, Tutor in English Literature, Lady Margaret Hall, Oxford; and W. H. HADGW, Fellow of Worcester College, Oxford. 3s. 6d. each.

**Vol. I—OLD ENGLISH TO JACOBÆAN.**

*Tribune.*—"The editors of this volume have performed a difficult task with admirable discrimination. . . . As an introduction to the study of literature, the book can be confidently recommended."

**Vol. II—GROWTH OF THE DRAMA.**

*Educational Times.*—"The historical and critical sketch prefixed to each play is always fresh and pointed, and will be most helpful to the student or the general reader. The plan has been carefully thought out and admirably executed."

**Vol. III—In preparation.**

## PALGRAVE'S GOLDEN TREASURY.

With 80 pages of additional poems to the end of the nineteenth century. From 1s. net.

## ENGLISH SONGS AND BALLADS.

Compiled by T. W. H. CROSLAND. From 1s. net.

## SELECTED ENGLISH ESSAYS.

Chosen and arranged by W. PEACOCK. From 1s. net.

## ENGLISH PROSE FROM MANDEVILLE TO RUSKIN.

Chosen and arranged by W. PEACOCK. From 1s. net.

SELECT LIST OF EDUCATIONAL WORKS (32 PAGES) AND COMPLETE CATALOGUE (144 PAGES) POST FREE.

London: HENRY FROWDE, Oxford University Press, Amen Corner, E.C.

fitting clever and humorous illustrations in the text. The type is strong and clear, and the get-up is bright and agreeable.

Messrs. Methuen also publish (1) *Little Mitchell*, "the story of a mountain squirrel told by himself"; and (2) *The Bee People*—both founded on works by Margaret Warner Morley. The stories are sympathetically told and are full of interest; and the illustrations are numerous and delightful.

*Ray and Fairy*, by L. E. Tiddeman (1s., S.P.C.K.), is a pleasant little story of two children—Raymond aged ten, and Frances aged eight. "They are good children, but they do require a little looking after," was their mother's verdict. Their particular adventures will be read with interest.

*The Whispering Winds and the Tales that they Told*, by Mary H. Debenham (1s. 6d., Blackie), appears in a new edition, with four full-page illustrations and sixteen pictures in the text, by Paul Hardy, and a pretty cover. There are four stories, all of them well worth reading and full of healthy interest.

We welcome cordially a third impression of *Finn and His Companions*, by Standish O'Grady, with a couple of fine illustrations by Jack B. Yeats (1s., Fisher Unwin). It is a charming and instructive volume of "The Children's Library," and is nicely printed and got up. The stories "are, for the most part, stories told to St. Patrick by Caelta, a cousin of Ossian," and are mainly quite new. "If all our Irish Ossianic stories and poems were published," says Mr. O'Grady, "I dare say they would fill a hundred volumes like the present." While these stories are delightful merely as stories, they also illustrate vividly the old times in Ireland and indicate the nature of the great influence exercised by Finn over the Irish mind. "Finn and his friends are believed to have flourished in the second and third centuries."

Collins' Clear Type Press publish, in a series of "Tales for the Children," *The Water Babies*, by Charles Kingsley, with ten illustrations, partly in colours and partly in black and white, by Frank Adams. The get-up is bright and attractive, and the volume is sure to be a favourite.

*The Alphabet of Beasts*, by Beatrice Thompson (2s. 6d. net, Gay & Bird), associates with each letter an animal whose name begins with such letter and pictures it in colours. An introductory "Talk with Children" gives some suitable information about each animal pictured. The children will like the pictures.

*Zoo Babies*—two dozen of them—are boldly and effectively pictured by Cecil Aldin, with "short interviews" (on the opposite page), by G. E. Farrow (3s. 6d., Henry Frowde and Hodder & Stoughton). A handsome book that will delight the children.

Mr. Heinemann publishes *The Happy Annual* (1s. net), some fifty big pages of broadly humorous sketches by Cecil Aldin and John Hassall. Even the advertisements contribute to the fun.

#### FRENCH LITERATURE (HACHETTE).

Messrs. Hachette provide, as usual, a liberal variety of instructive and entertaining volumes for young people. *Mon Journal*—the bound volume for 1906 (7 10 fr.)—is a vast collection of stories, &c., for children of eight to twelve, lavishly and effectively illustrated both in colours and in black and white. It would furnish capital home reading for pupils that have made a sound beginning in the study of French.—*Petite Histoire du Peuple Français*, par Paul Lacombe (5 fr.), gives a broad survey of the history of France in simple language, with eighty illustrations of varied interest.—*Petits Tableaux d'Histoire de France par l'Image*, par Gauthier et Deschamps (3 fr.), is a book of pictures, with brief letterpress—a panorama of French history—very interesting and attractive.—*Mes Premiers Coloriages*, by Mlle H. S. Brès (2 fr.), is an "album illustré de 381 gravures et de 4 planches en couleurs"—"des modèles amusants et variés, à propos desquels Bébé, intéressé et guidé par les textes, devra néanmoins beaucoup regarder les objets autour de lui, pour en imiter les nuances ou la décoration"—a charming volume, whether the lessons be worked out or not.

*La Fille de l'Aiguilleur*, par Pierre Mael (10 fr.), is a stirring story of a girl of thirteen, the scene being laid in the north of Italy. As she is taking home her goats one evening she finds a woman stretched across the railway track: hence a mystery to be elucidated. There are Englishmen in the story, and there is the contrast of crime and innocence. Whether the *dénouement* is probable, notwithstanding King Cophetua, we need not inquire: the events are brisk, the interest is maintained, and the heroine is charming.

*La Sorcière du Vésuve*, par Gustave et Georges Toudouze (6 fr.), is a story of the resistance made in 1808 to French troops by a band of independent Calabrians under the influence of an irreconcilable Italian Meg Merriees, whose husband and son had been killed by the French some years before. "Depuis, entre les Français et moi," she says, "le sang a coulé, le sang des miens, comme la lave du Vésuve entre la montagne et la mer." The French lieutenant possesses an "épervier d'or," which establishes ancient ties and has important bearings on the private story interwoven with the public events. The "Sorcière" is strongly drawn, and the interest is main-

tained by a succession of dramatic situations under the shadow of the burning mountain. Fifty-two illustrations by Ed. Zier.

*L'Enfant de Saint-Marc*, par B. A. Jeanroy (6 fr.), takes the reader back to the middle of the fifteenth century. Cosmo de Medici has just entered the monastery of St. Mark in Florence for a short retreat from the labours of State, when a *condottiere* comes and lays at his feet an infant, supposing him to be a Dominican friar, and not disclosing the relatives of the child. The boy develops a strong artistic faculty; but the main interest lies in the incidents leading to the recognition of his father. His relations with the friars, and especially with his artistic guides, are charmingly depicted; and, while matters of State are adumbrated, there are glimpses of social conditions, the plague intervening with special influence on the story. It is a pretty story, with thirty-six illustrations after drawings by H. Vogel.

The "Bibliothèque Rose Illustrée"—a charming series of simple and attractive stories (3.50 fr. each)—is represented by (1) *L'Oncle Cesar*, par Mme Chéron de la Bruyère, with forty-eight vignettes by Tofani, and (2) *La Famille Grinchu*, par Mlle G. du Planty, with fifty-four vignettes by E. Zier. Each of these authors has already contributed half-a-dozen volumes to this "Bibliothèque," and their new stories need no further commendation.

*L'Enfant Millionnaire*, a translation of Katharina Green's story by J. H. Rosay, with illustrations after drawings by M. Mahut, appears in the agreeable and attractive series "Petite Bibliothèque de la Famille."

All these volumes are spaciouly printed, lavishly illustrated, and handsomely got up; and they are all well written and entertaining. The language is quite simple, presenting no difficulty to English readers that have made a sound beginning in French.

#### OLD FAVOURITES IN NEW STYLES.

A beautiful and attractive issue of Mrs. Gaskell's charming story, *Cranford*, is the new edition with preface by Anne Thackeray Ritchie and illustrations in colour by Hugh Thomson (5s. net., Macmillan). The distinct ve points, we think, are the colouring of the admirable pictures and the new cover design, which is tasteful as well as gorgeous. A very delightful volume.

A similar volume in the "Cranford Series" is George Eliot's *Silas Marner*, with 45 full-page illustrations, 24 coloured, and 21 in black and white, by Hugh Thomson (6s.)—a very beautiful and delightful edition.—Messrs. Macmillan also issue a complete edition of *The Pleasures of Life*, by Lord Avebury (Sir John Lubbock), without illustrations (2s. net)—which should give wide circulation to a very instructive and charming volume.

Such as care less for a grand binding and lavish illustrations and more for good literature in a simple yet agreeable form will find an abundant choice at nominal prices in many excellent series of reprints. For example, here are five capital volumes of "The People's Library" (8d. net each, Cassell): (1) *Robinson Crusoe* (Defoe); (2) *Waverley* (Scott); (3) *Jane Eyre* (Charlotte Brontë); (4) *The Old Curiosity Shop* (Dickens); (5) *Essays*—First and Second Series (Emerson)—all well printed, nicely bound, and incredibly cheap.

Then there is "Nelson's Library" (7d. net each), containing excellent examples of the newer fiction of better quality. At the moment we have (1) *The God in the Car* (Anthony Hope); (2) *The Lady of the Barge* (W. W. Jacobs); (3) *The Odd Women* (George Gissing); and (4) *Matthew Austin* (W. E. Norris)—varied and interesting in treatment and style and very agreeably got up. Very similar, though more modestly bound and still cheaper (6d.), is a handy edition of *Pride and Prejudice* (Jane Austen), also issued by Messrs. Nelson.

"The World's Classics," too, offer ample variety. Even the half-dozen examples that happen to be on our table are varied as well as excellent: (1 and 2) *Gil Blas*, translated by Smollett, with introduction and notes by James Fitzmaurice-Kelly, F.B.A.; (3) *The Three Clerks* (Anthony Trollope), with introduction by W. Teignmouth Shore; (4) *Agnes Grey* (Anne Brontë), with a chronology of the Brontë family; (5) *The Life of John Sterling* (Carlyle), with introduction by Mr. Hale White; and (6) *The Poems of Samuel Taylor Coleridge*, with introduction by A. T. Quiller-Couch. Also, in the handy and agreeable "Pocket Edition," (7) *A Joy for Ever* and *The Two Paths* (Ruskin) in one volume. The publisher is Mr. Henry Frowde (Oxford University Press), and the price is but 1s. net each volume.

"The Red Letter Shakespeare" (1s. 6d. a volume, Blackie) is a very handy and charming edition of the several plays. Here is a chance group of four: (1) *Twelfth Night*, (2) *Cymbeline*, (3) *Antony and Cleopatra*, (4) *Troilus and Cressida*—all with scholarly introductions by E. K. Chambers, the editor of the series. With these we may place the delightful "Red Letter Library" (2s. 6d. net each, Blackie). *Poems by Thomas Hood*, with introduction by Sir F. C. Burnand, represent the poetical division; while *Information and Fancy* (Leigh Hunt), with introduction by Edmund Gosse, and

# DENT'S NEW EDUCATIONAL BOOKS

## DENT'S MODERN LANGUAGE SERIES.

Edited by Prof. W. RIPPMANN, M.A.

"Long recognized as one of the most advanced and enterprising of the day."  
—*Athenæum*.

### LATEST ADDITIONS.

#### SHORT FRENCH READERS.

Well graduated and suitably edited, with Footnotes in French and Reform Exercises on the Text.

SIX NEW VOLUMES.

YVON ET FINETTE. POUCKET.

UN EPISODE SOUS LA TERREUR. LE MONDE OÙ L'ON SE BAT.

Each 48 pp. 4d. each.

UN MERLE BLANC. TELEMAQUE. Each 64 pp. 6d. each.

List of Previous Volumes Post Free.

#### EASY FREE COMPOSITION IN FRENCH.

By Miss L. M. BULL. Extra fcap. 8vo., 1s. 4d.

#### FREE COMPOSITION AND ESSAY WRITING IN FRENCH.

By A. PHILIBERT and A. PRATT. Extra fcap. 8vo., 1s. 4d.

The *Athenæum* says:—"A judicious mixture of composition and vocabulary, and a worthy addition to the publishers' 'Modern Language Series.'"

#### FRENCH SPEECH AND SPELLING.

By S. A. RICHARDS, B.A.

A First Guide to French Pronunciation for the hand of the pupil. 8d.

#### DER GOLDENE VOGEL, and other Tales.

A Second Year German Reader, with Exercises. By WALTER RIPPMANN, M.A. 1s. 4d.

#### RIPPMANN'S PICTURE VOCABULARY.

The *School World* says:—"A splendid idea, well carried out."

French or German. First and Second Series of each now ready, 1s. 4d. per vol.

PLEASE WRITE FOR FULL LIST OF THIS SERIES.

ON THE LINES OF DENT'S MODERN LANGUAGE SERIES.

## DENT'S CLASSICAL SERIES.

Edited by Prof. W. RIPPMANN, M.A.

### DENT'S LATIN PRIMER.

By E. S. FORSTER, M.A. 1s. For children who commence Latin early. Fully Illustrated.

The *Educational Times* says:—"The graduation of the matter is very carefully worked out . . . the little book is excellently done."

### DENT'S FIRST LATIN BOOK. (Third Edition.)

By H. W. ATKINSON, M.A., and J. W. E. PEARCE. With 12 Coloured Illustrations. 3s.

The *Schoolmaster* says:—"A unique book . . . it represents a wonderful stride made in teaching Latin."

The *School World* says:—"A step in advance of the ordinary manuals."

NOTE.—Each of the above books contains a Phonetic Transcript of the Roman Pronunciation of the Reader portion.

The Phonetic Part of the First Latin Book is issued separately at 6d.

### DENT'S WALL PICTURES. For Teaching Latin.

Four Coloured Pictures enlarged from the First Latin Book. Size, 30 by 22 ins. Unmounted, 2s. net each; mounted on linen and eyeleted, 3s. net; mounted on linen, with rollers, 6s. net.

### FORUM LATINUM.

A First Latin Book. By Prof. E. VERNON ARNOLD, Litt.D. Fcap. 8vo., 3s. 6d.

### ÆNEÆ FATA ET FACTA.

A Stepping Stone to Virgil, for the use of Beginners. By Prof. E. VERNON ARNOLD. Small crown, 8vo., 2s.

### DENT'S CLASSICAL TEXTS. New Volume.

VIRGIL'S ÆNEID. Book X. Edited, with Introduction, Notes, and Glossary, by H. B. WIDDOWS, M.A. 1s. 4d.

Kindly write for DENT'S COMPLETE EDUCATIONAL CATALOGUE and for Specimen Copies of the above books.

J. M. DENT & CO., 3 Aldine House, Bedford Street, London, W.C.

*Eothen* (Kinglake), with introduction by A. T. Quiller-Couch, represent the prose division. Both the series are very daintily as well as substantially got up.

"The Golden Poets" should not be overlooked. The series by this time counts a dozen volumes, each with a portrait frontispiece and ornamental title-page (both in photogravure by A. S. Hartrick), and with eight illustrations in colour by well known artists (2s. 6d. a volume, Jack). The latest volume is *Poems by Wordsworth* selected by Prof. MacNeile Dixon, M.A., who also furnishes an instructive introduction.

Mr. Henry Frowde has added to his fine series of "Oxford Editions of Standard Authors" (2s. each volume), (1) *Quentin Durward* (Scott), with 16 illustrations, and (2) *Tom Brown's School-Days* (Hughes), with six drawings by H. M. Brock and six other illustrations. Both volumes are liberally furnished forth.

Messrs. Blackie, too, publish a spacious edition of *Quentin Durward*, with four illustrations by J. Jellicoe (2s.). Also, in their popular "Library of Famous Books," a very tastefully got-up edition of Kinglake's *Eothen* (1s.); and a very agreeable edition of Carlyle's *On Heroes, Hero-Worship, and the Heroic in History*, with four illustrations (2s.).

Messrs. Chatto & Windus republish, in the "St. Martin's Illustrated Library of Standard Authors," *The Life of the Fields*, by Richard Jefferies, with twelve illustrations in colours after drawings by Maud U. Clarke (5s. net). The papers furnish varied and delightful reading, full of observation freshly and delicately expressed. The get-up is liberal and artistic, in consonance with the contents.

Other series, of which we do not happen to have specimens at the moment, will recur to our readers as equally suitable for similar occasions.

*Hendricks the Hunter; or, The Border Farm*, by W. H. G. Kingston, appears in a new edition, with illustrations in colour by J. Finnemore (3s. 6d., Henry Frowde and Hodder & Stoughton). It is a stirring tale of Zululand, which should derive fresh interest from the present troubles in that quarter; but, apart from this, it is a capital story.

*The Old Lieutenant and His Son*, by the late Norman Macleod, D.D. (Collins' Clear Type-Press), is a delicious story, which we gladly welcome in a cheap and agreeable form, and with it a wide circulation among young folk.

Collins' Clear-Type Press also publish a handy and useful edition

of *The Poetical Works and Letters of Robert Burns*, with a substantial introduction, notes, and glossary by Robert Ford, and numerous illustrations.

*Famous Fighters of the Fleet*, by Edward Fraser (3s. 6d., Macmillan), shows "glimpses through the cannon smoke in the days of the old navy." It is a stirring record, brightly written and abundantly illustrated, and we are glad to welcome it in a new edition.

*Milly and Olly*, by Mrs. Humphry Ward (6s., Fisher Unwin), reappears in a new edition with a new preface at the psychological moment. It is a charming story for children, narrating the varied events of "a holiday among the mountains" in sunshine and in rain, and when it rains there is story-telling to pass the time pleasantly. There are 48 illustrations by Willy Pogany.

*Favourite Tales*, by Jakob and Wilhelm Grimm (Collins' Clear-Type Press), is a collection of some sixty stories, with many illustrations (some in colour) by T. H. Robinson. A delightful book for the children.

Messrs. Methuen present a fifth and cheaper edition of *From Midshipman to Field-Marshal* (7s. 6d. net)—the autobiography of Sir Evelyn Wood, F.M., D.C.L., V.C., G.C.B., G.C.M.G., &c., with 29 illustrations and maps. The personal record touches the more important events of the past sixty years, and is full of interest and charm, especially, of course, on the military side. It affords a fine example of a chivalrous spirit and of a laborious and useful career.

Mr. Fisher Unwin issues a third impression of *John Chinaman at Home*—"Sketches of Men, Manners, and Things in China"—by the Rev. E. J. Hardy, M.A., Chaplain to H.B.M. Forces, with 36 full-page illustrations (5s. net). Mr. Hardy is a shrewd observer, and he is well known also as a humorous and piquant writer. "Only the everyday celestial things that interested and puzzled me when I first came out," he says, "have been described. It is a book for unlearned visitors to China." And it will tell a great deal about China and the Chinese to those of us that stay at home. An extremely interesting, instructive, and vivid book.

Mr. Clay issues from the Cambridge University Press Warehouse *The Easy Reference Bible* (2s. 6d. net, in French, Yapp, Morocco grain)—a very handy edition, substantially and beautifully got up. The special feature of it is that, in addition to the usual numbering of the chapters of each book, all the chapters of the Bible are numbered consecutively from Genesis i. to Revelation xxii. (1 to 1,189). This additional method of numbering the chapters will facilitate reference. The idea is good.

**MATHEMATICS.**

**16295.** (Professor SANJANA, M.A.)—Prove that three nearly equal factors of the number  $150^{18} + 1$  are 11375447620501, 11390625000001, 11405822629501. Also further factorize these numbers. [See *Reprint*, New Series, Vol. x., pp. 36, 37.]

*Solutions* (I.) by Lt.-Col. ALLAN CUNNINGHAM, R.E.; (II.) by the PROPOSER and JAMES BLAIKIE, M.A.

$$(I.) (N) = \frac{150^{18} + 1}{150^6 + 1} \cdot \frac{150^6 + 1}{150^2 + 1} \cdot (150^2 + 1) = N_3, N_1, N_0 \text{ (suppose).}$$

Then  $N_0 = 150^2 + 1 = 22501$  (a prime).

Also, if  $N = (x^6 + y^6)/(x^2 + y^2)$ , where  $x = \xi^2$ ,  $y = b\eta^2$ .

Then  $N = L \cdot M$ , where  $L = P - Q$ ,  $M = P + Q$

$$P = (x^2 + 3xy + y^2), \quad Q = 6\xi\eta(x + y).$$

Now take  $x = 1$ ,  $y = 150 = 6 \cdot 5^2$ ; so that  $\xi = 1$ ,  $\eta = 5$ .

Then (for  $N_1$ );  $P_1 = 1 + 450 + 150^2 = 22951$ ;  $Q = 6 \cdot 5 \cdot 151 = 4530$ .

Hence  $N_1 = L_1 \cdot M_1 = 18421 \cdot 27481 = (13 \cdot 13 \cdot 109) \cdot (27481)$ .

Again, take  $x = 1$ ,  $y = 150^3 = 6 \cdot 750^2$ ; so that  $\xi = 1$ ,  $\eta = 750$ .

Then (for  $N_3$ );  $P_3 = 1 + 3 \cdot 150^3 + 150^6 = 11390635125001$ ,

$$Q_3 = 6 \cdot 750(1 + 150^3) = 15187504500.$$

Hence  $L_3 = 11375447620501$ ,  $M_3 = 11405822629501$ .

Hence  $L_3, N_1, N_0, M_3$  are the three large factors quoted by the Proposer.

The writer has compiled a table of solutions ( $y$ ) of the congruence

$$(y^2 + 1)/(y^3 + 1) \equiv 0 \pmod{p \text{ and } p^r}$$

for all moduli  $p$  and  $p^r > 10000$ . Taking  $y = 150^2$ , this table gives 37, 1297, 8461 as divisors of  $N_3$ , and no more divisors  $< 10000$ . Hence, by division into  $L_3, M_3$

$$L_3 = 1297 \cdot 8770584133, \quad M_3 = 37 \cdot 8461 \cdot 36433693.$$

Here, as  $N_3$  is now known to contain no more divisors  $< 10000$ , the large factor in  $M_3$  must be prime. The writer has no tables suitable for further testing the large factor in  $L_3$ .

Thus the last number ( $N$ ) (of 41 figures) has been resolved into prime factors, except for the 10-figure factor in  $L_3$ , which is doubtful.

(II.) If  $x$  be of the form  $6y^2$ , we have at once

$$\begin{aligned} x^{18} + 1 &= (x^6 + 1)(x^{12} - x^6 + 1) = (x^6 + 1)\{(x^6 + 3x^3 + 1)^2 - 6x^3(x^3 + 1)^2\} \\ &= (x^6 + 1)\{(x^6 + 3x^2 + 1)^2 - 36x^2y^2(x^3 + 1)^2\} \\ &= (x^6 + 1)(x^6 + 3x^3 + 1 - 6x^3y - 6xy)(x^6 + 3x^3 + 1 + 6x^3y + 6xy). \end{aligned}$$

Putting  $x = 150 = 6 \cdot 25$ , and consequently  $y = 5$ , we shall get the three numbers in the Question.

Of course  $x^6 + 1$  is similarly decomposable; so that we get

$$\begin{aligned} 150^{18} + 1 &= 22501 \cdot 18421 \cdot 27481 \cdot 11375447620501 \cdot 11405822629501 \\ &= 13^2 \cdot 109 \cdot 22501 \cdot 27481 \cdot 37 \cdot 308265476473 \cdot 11375447620501. \end{aligned}$$

**16282.** (R. F. WHITEHEAD, B.A.)—If  $(l, m, n, \lambda, \mu, \nu)$  be the six coordinates of a line so that  $(l, m, n)$  are its direction cosines,  $(x, y, z)$  any point on it, and  $ny - mz = \lambda$ ,  $lz - nx = \mu$ ,  $mx - ly = \nu$ , the line will be a generator of a quadric (1) similar and coaxial with

$$x^2/a + y^2/b + z^2/c = 1, \text{ if } a\lambda/l = b\mu/m = c\nu/n,$$

(2) confocal with the same quadric, if

$$[(b-c)l/\lambda + \lambda/l]^2 = [(a-c)m/\mu + \mu/m]^2, \dots,$$

three equations equivalent to two independent conditions. The latter is also the condition that the line  $(l, m, n, \lambda, \mu, \nu)$  is one of the focal lines to a tangent cone from some point to one of the system of confocals (Salmon, § 175). Both sets of conditions are satisfied if the line is a generator of the original quadric.

*Solution* by A. M. NESBITT, M.A.

If  $(x + lp, y + mp, z + np)$  lies on  $x^2/a + y^2/b + z^2/c = k$  for all values of  $p$  and some particular value of  $k$ , we have at once

$$l^2/a + m^2/b + n^2/c = 0, \quad lx/a + my/b + nz/c = 0,$$

whence  $(l/a)/(mz - ny) = \dots = \dots$  or  $l/a\lambda = m/b\mu = n/c\nu$ .

If the same point lies on  $x^2/(a + \theta) + y^2/(b + \theta) + z^2/(c + \theta) = 1$ , we get

$$l^2/(a + \theta) + m^2/(b + \theta) + n^2/(c + \theta) = 0, \quad lx/(a + \theta) + my/(b + \theta) + nz/(c + \theta) = 0.$$

whence  $l/[\lambda(a + \theta)] = m/[\mu(b + \theta)] = n/[\nu(c + \theta)] = -1/\phi$  say.

Eliminating  $\theta, \phi$ , we have

$$(b-c)l/\lambda + (c-a)m/\mu + (a-b)n/\nu = 0,$$

which is not the condition we are asked to establish.

The PROPOSER writes:—"I have to remark that the Solver has not, in the second part of the question, used the condition  $x^2/(a + \theta) + \dots = 1$ , so that he has, of course, obtained only one consequent condition instead of my two."

**16294.** (M. V. ARUNACHALAN, M.A.)—Prove that

$$R_1 - \frac{nR_2}{2!} + \frac{n(n-1)R_3}{3!} - \dots \text{ to } (n+1) \text{ terms} = \frac{1}{(n+1)^2},$$

where  $R_n = 1 + \frac{1}{2} + \frac{1}{3} + \dots + 1/n$ .

*Solutions* (I.) by S. T. SHOVELTON, M.A., and another; (II.) by F. W. REEVES, M.A.

$$(I.) \quad R_1x + R_2x^2 + R_3x^3 + \dots = \frac{x}{1-x} + \frac{1}{2} \frac{x^2}{1-x} + \frac{1}{3} \frac{x^3}{1-x} + \dots$$

$$= \frac{-1}{1-x} \log(1-x) \text{ (if } x < 1) \dots \dots \dots (1),$$

$$1 - (n+1)x + {}^{n+1}C_2x^2 - \dots + (-1)^{n+1}C_nx^n + (-1)^{n+1}x_{n+1} = (1-x)^{n+1} \dots \dots \dots (2).$$

By taking the coefficient of  $x^{n+1}$  in the product of the left-hand sides of (1) and (2), we obtain

$$\begin{aligned} &(-1)^n [(n+1)R_1 - {}^{n+1}C_2R_2 + \dots \text{ to } (n+1) \text{ terms}] \\ &= \text{coefficient of } x^{n+1} \text{ in } -(1-x)^n \log(1-x) \\ &= \frac{1}{n+1} - \frac{1}{n} + \frac{1}{n-1} - \frac{n(n-1)}{2!} - \dots + (-1)^n \\ &= \frac{1}{n+1} [(1-1)^{n+1} - (-1)^{n+1}]; \end{aligned}$$

therefore, &c. (Rest in *Reprint*.)

**16297.** (Lt.-Col. ALLAN CUNNINGHAM, R.E.)—Show how to find any number ( $n$ ) of dissimilar right-angled triangles of equal perimeter with their sides  $a, b, c$  expressible in integers. Find the lowest solution when  $n = 2, 3, 4$ .

*Solutions* (I.) by R. W. D. CHRISTIE; (II.) by JAMES BLAIKIE, M.A.

(I.) Utilising the formula

$$[m(2n+m)]^2 + [2n(m+n)]^2 = [(m+n)^2 + n^2]^2,$$

or its more extended form, and taking small values of  $m, n$ , we get for the legs, hypotenuse, and perimeter:—

$$(1) \quad 3, 4, 5 = 12, \quad (2) \quad 5, 12, 13 = 30, \quad (3) \quad 8, 15, 17 = 40,$$

$$(4) \quad 7, 24, 25 = 56, \quad (5) \quad 12, 25, 37 = 84.$$

Now, bringing (1), (2) to their L.C.M., we get for  $n = 2$ ,

$$10, 24, 26 = 60, \quad 15, 20, 25 = 60.$$

Again, for  $n = 3$ , we may use (1), (2), (3). Thus

$$30, 40, 50 = 120, \quad 20, 48, 52 = 120, \quad 24, 45, 51 = 120.$$

Again, for  $n = 4$ , we may use (1), (2), (3), (5) or (1), (3), (4), (5), thus

$$\begin{array}{ll} 210, 280, 350 = 840 & 210, 280, 350 = 840, \\ 140, 336, 364 = 840 & \text{or } 168, 315, 357 = 840, \\ 168, 315, 357 = 840 & 105, 360, 375 = 840, \\ 350, 120, 370 = 840 & 350, 120, 370 = 840. \end{array}$$

This theorem may be extended in two ways either by the use of the more extended form or as follows:—

$$\text{Let } p^2 - 2q^2 = -1.$$

Here  $p_{2n+1} = 1, 7, 41, 239, \dots$  (law  $p_{2n+3} = 6p_{2n+1} - p_{2n-1}$ ),  
 $q_{2n+1} = 1, 5, 29, 169, \dots$  (same law).

Now, by laws which have been frequently proved in the *Educational Times* and elsewhere, we have

$$\left(\frac{p_{2n+1}-1}{2}\right)^2 + \left(\frac{p_{2n+1}+1}{2}\right)^2 = q_{2n+1}^2 \text{ perimeter.}$$

$$\text{Ex. } n = 1, \quad \left(\frac{7-1}{2}\right)^2 + \left(\frac{7+1}{2}\right)^2 = 5^2 = q_{2n}^2 = 12,$$

$$n = 2, \quad \left(\frac{41-1}{2}\right)^2 + \left(\frac{41+1}{2}\right)^2 = 29^2 = q_{2n+2}^2 = 70,$$

ad inf. ad inf.

v. Questions 16280, 15757, &c.

(II.) Let  $a = k(p^2 + q^2)$ ,  $b = k(p^2 - q^2)$ ,  $c = 2kpq$ , then  $a^2 = b^2 + c^2$  and  $a + b + c = 2kp(p + q)$ .

If, then,  $a + b + c = a' + b' + c'$ , we must have  $kp(p + q) = k'p'(p' + q')$ , when  $p > q$ . Thus, if  $n = 2$ , we may take

$$kp(p + q) = 5 \times 2 \times 3 = 2 \times 3 \times 5 = k'p'(p' + q'),$$

whence  $a = 25$ ,  $b = 20$ ,  $c = 15$ ;  $a' = 26$ ,  $b' = 24$ ,  $c' = 10$ ; perimeter = 60. If  $n = 3$ , we have the identities

$$10 \times 2 \times 3 = 3 \times 4 \times 5 = 4 \times 3 \times 5;$$

giving the triangles 50, 40, 30; 51, 45, 24; 52, 48, 20; perimeter = 120.

If  $n = 4$ ,  $6 \times 7 \times 8 = 7 \times 6 \times 8 = 4 \times 7 \times 12 = 1 \times 16 \times 21$ ;

(Continued on page 36.)

## COLLEGE OF PRECEPTORS, 1908, and OXFORD AND CAMBRIDGE LOCALS, 1908

MESSRS. J. M. DENT & CO. have pleasure in bringing before your notice their Editions of the following Books prescribed for the Oxford and Cambridge Local and the College of Preceptors' Examinations, 1908. Detailed Lists may be had post free on application:—

### LATIN AND GREEK.

- CÆSAR'S GALLIC WAR. Book I.** Edited by A. S. WILKINS, LL.D., Litt.D., late Professor of Latin, Victoria University, Manchester. 1s. 4d.  
[Oxford Junior and Senior and College of Preceptors.]
- CÆSAR'S GALLIC WAR. Books II. and III.** in One Volume. Edited by A. CROOM PATTERSON, M.A. (Edin. and Oxon.), Classical Master in the High School, Edinburgh. 1s. 4d.  
[Oxford Senior, Cambridge Junior, and College of Preceptors.]
- VIRGIL'S ÆNEID. Book I.** Edited, with Introduction, Notes, and Glossary, by Rev. H. KYNASTON, D.D. 1s. 4d.  
[Oxford Junior and Senior and College of Preceptors.]
- VIRGIL'S ÆNEID. Book II.** Edited, with Introduction, Notes, and Glossary, by R. J. HUGHES, M.A. 1s. 4d.  
[Oxford Senior.]
- VIRGIL'S ÆNEID. Book X.** Edited, with Introduction, Notes, and Glossary, by H. B. WIDDOWS, M.A. 1s. 4d.  
[Cambridge Junior and Senior and College of Preceptors.]
- THE ODES OF HORACE.** Edited by Dr. JOHN MARSHALL, M.A. Containing Introduction, Latin Text, interleaved page by page, with the English Translation, Notes, and Glossary, in One Volume. 2s. 6d. net.  
[Oxford Senior, Cambridge Senior.]
- PLATO.—THE APOLOGY OF SOCRATES.** Edited by F. M. STAWELL. Containing the Greek Text, interleaved, page by page, with the English Translation, Introduction, Notes, and Glossary, in One Volume. 2s. 6d. net.  
[Cambridge Senior.]

### MODERN LANGUAGES.

- GERMAN DAILY LIFE.** By Dr. R. KRON. Extra fcap. 8vo. 2s. 6d. net.
- FRENCH DAILY LIFE.** By Dr. R. KRON. Extra fcap. 8vo. 2s. 6d. net.
- (The above two books are prescribed by the College of Preceptors for the Oral Examination in French and German.)

### ENGLISH.

- SCOTT.—MARMION.** Edited by the Rev. E. P. DAVIDSON, M.A. (Oxon.), Assistant Master, Malvern College. With Biography, Topographical Drawings, Introduction, copious Notes, and Glossary. Crown 8vo. cloth. 1s. 4d.  
[Oxford Junior and Senior, Camb. Prelim. and Junior and C.P.]
- SCOTT.—QUENTIN DURWARD.** 1s. net.  
[Cambridge Junior.]
- SCOTT.—OLD MORTALITY.** 1s. 4d.  
[Oxford Junior and Senior.]
- KINGSLEY.—THE HEROES.** Edited by OLIPHANT SMEATON, M.A. With Introduction and Notes. 8 Illustrations by T. H. ROBINSON. Fcap. 8vo. cloth. 1s. 4d.  
[Cambridge Preliminary.]
- KINGSLEY.—WESTWARD HO!** With an Introduction by A. J. GRIEVE, M.A. 1s. net.  
[Oxford Junior.]
- SHAKESPEARE.—THE MERCHANT OF VENICE.** Edited by R. M. WILLIAM, M.A. With 8 Illustrations by DORA CURTIS. 1s. 4d.  
[Oxford Junior, Camb. Junior and Senior, and Coll. of Preceptors.]
- SHAKESPEARE.—CORIOLANUS.** (Temple Shakespeare.) Edited by Prof. GOLLANZ, M.A. 1s. 6d. net.  
[Cambridge Senior.]
- LAMB'S TALES FROM SHAKESPEARE.** With Illustrations by ARTHUR RACKHAM, A.R.W.S. 1s. net.  
[Oxford Preliminary.]
- DEFOE.—ROBINSON CRUSOE.** With Illustrations by AYTON SYMINGTON. 1s. net.  
[Oxford Preliminary.]
- LONGFELLOW.—THE SONG OF HIAWATHA.** Edited, with Introduction and Notes, by HENRY WILLIAMS, M.A. 1s.  
[Oxford Preliminary and College of Preceptors.]
- NORTH'S TRANSLATION OF PLUTARCH'S CÆSAR.** With Notes and Vocabulary. Edited by W. H. D. ROUSE, Litt.D. Cloth. 1s. 6d. net.  
(The Temple Plutarch, Vol. VII.) [Oxford Junior and Senior.]
- SHAKESPEARE.—JULIUS CÆSAR.** Edited by F. ARMYTAGE MORLEY, M.A., D.C.L. With Illustrations by T. H. ROBINSON. 1s. 4d.  
[Oxford Junior and Senior and College of Preceptors.]
- SHAKESPEARE.—RICHARD II.** Edited by W. KEATH LEASK, M.A. With Illustrations by DORA CURTIS. 1s. 4d.  
[Oxford Junior and Senior.]
- MILTON.—"COMUS," "LYCIDAS," "L'ALLEGRO," "IL PENNEROSO," and "SONNETS."** With a Glossary. 1s. 6d. net.  
[Oxford Senior and College of Preceptors.]
- BACON.—THE ESSAYS.** With an Introduction and Glossary by OLIPHANT SMEATON, M.A. 1s. net.  
[Oxford Senior.]

Principals are invited to apply for Dent's COMPLETE EDUCATIONAL CATALOGUE and for SPECIMEN COPIES of the above books.

J. M. DENT & CO., 3 Aldine House, Bedford Street, London, W.C.

## From GINN & COMPANY'S LIST.

- ELEMENTARY FRENCH.** A Text-Book for Beginners. By FRED D. ALDRICH and IRVING L. FOSTER. An outgrowth of "Foundations of French," by the same authors. The scope and the general arrangement of the earlier volume, which have met with general approval, have been retained in this book, and such incidental changes as class-room use has suggested have been made in the text. 350 pages. 4s. 6d.
- FÉVAL'S LA FÉE DES GRÈVES.** Edited by G. H. C. HAWTREY. An interesting story of Normandy in the fifteenth century. With Introduction, Notes, Re-translation Exercises, and Vocabulary. 266 pages. 3s.
- AN INTRODUCTION TO THE HISTORY OF WESTERN EUROPE.** By J. H. ROBINSON. Gives a clear and interesting account of the all-important movements, customs, institutions, and achievements of Western Europe since the German barbarians conquered the Roman Empire. 714 pages, with Maps and Illustrations. Price 7s. 6d. Also in Two Volumes, dividing at the sixteenth century. Price 4s. 6d. each.
- READINGS IN EUROPEAN HISTORY.** Selections follow chapter by chapter the history given above, and are culled from all sources—chronicles, memoirs, letters, as well as State papers—thus giving the liveliest sense of reality to current events and personages. Vol. I., 582 pages, price 7s. Vol. II., 660 pages, price 7s. Abridged Edition, in One Volume, 607 pages, price 7s.
- THE DEVELOPMENT OF MODERN EUROPE DURING THE LAST TWO HUNDRED YEARS.** An Introduction to Current History. By JAMES HARVEY ROBINSON and CHARLES A. BEARD. This volume will meet the demand for a history of recent times which shall explain the social and economic as well as the political development of our own age, and shall also prepare the student to understand the great problems of the world in which he finds himself. 374 pages. 6s. 6d.
- ELEMENTS OF GEOLOGY.** By W. H. NORTON. The essentials of Geology treated with fulness and ample illustration for beginners. Illustrated. 461 pages. 6s. 6d.
- A TEXT-BOOK IN GENERAL ZOOLOGY.** By HENRY R. LINVILLE and HENRY A. KELLY. An exposition of the Science of Zoology, presented without the interpolation of a Laboratory Guide. Fully illustrated. 462 pages. 7s. 6d.
- THE HUMAN MECHANISM: its Physiology and Hygiene, and the Sanitation of its Surroundings.** By T. HUGH and W. T. SEDGWICK. In this work prominence is given to Hygiene and the Elements of Sanitation—a subject of the first importance in all wholesome modern living. Illustrated. 564 pages. 8s. 6d.
- HOW TO KEEP WELL.** By A. F. BLAISDELL. Simple, teachable, and replete with suggestions for Teachers. Illustrated. 271 pages. 2s.
- PHYSICAL GEOGRAPHY.** By WILLIAM MORRIS DAVIS. A scholarly, practical Text-book, emphasising man's physical environment as determinant of man's social and political modes of life. 428 pages. Contains many Illustrations and Maps. Price 5s. 6d.
- ELEMENTARY PHYSICAL GEOGRAPHY.** By WILLIAM MORRIS DAVIS. Based on the Author's "Physical Geography," with the addition of Practical Exercises and more space devoted to the Atmosphere. 401 pages. Fully Illustrated. Price 5s. 6d.

COMPLETE CATALOGUE POST FREE ON APPLICATION. BOOKS SENT ON APPROVAL TO TEACHERS.

GINN & COMPANY, ST. MARTIN'S STREET, LONDON, W.C.

giving triangles 300, 288, 84; 280, 224, 168; 296, 280, 96; 281, 231, 160. Observe that when  $n$  is 8, we reject  $k = 1, p = 5, p + q = 6$ , as that would give the same triangle as  $k = 2, p = 3, p + q = 5$ , though in a reversed position; similarly, when  $n = 4$ , we reject  $k = 3, p = 8, p + q = 14$ , as that gives the same triangle as  $k = 6, p = 7, p + q = 8$ .

[Rest in Reprint.]

**16308.** (Professor R. W. GENESE, M.A.)—The moment of inertia of a thin rod, the density at any point of which varies as the product of its distances from the ends, about any line in space is equal to that of three particles, one at each end of  $\frac{1}{10}$  of the whole mass and one in the middle of  $\frac{2}{5}$ .

Solutions (I.) by "SOLIDUS"; (II.) by Professor NANSON.

(I.) This is an extreme case of the well known equimomental point-system for a solid tetrahedron, viz.,  $\frac{1}{4}$  of the mass at the centroid, and  $\frac{1}{20}$  at each corner. If two opposite edges be mutually perpendicular, and also perpendicular to the line joining their mid-points, and if they are then made to diminish indefinitely while the other edges remain finite, there results a thin rod whose cross-sectional area is proportional to the product of its distances from the ends, and this rod is equivalent to that of the Question.

(II.) From the ordinary formulæ for the principal moments of inertia of a homogeneous ellipsoid, it is obvious that that solid is equimomental with seven particles, one of  $\frac{1}{10}$  of its mass at each extremity of each principal diameter, and one of  $\frac{2}{5}$  of its mass at the centre. Now taking two of the said diameters indefinitely small, we get a fine rod in which the density varies as the product of the distances from the ends, and the result stated therefore follows.

**16286.** (H. L. TRACHTENBERG, B.A.)—If A, B are two given points, prove that there are four points P such that PA, PB are each bisected by a given conic.

Solution by HENRY RIDDELL, M.E.

The enunciation of this theorem can be very widely extended, but even at its greatest extension is almost self-evident.

If there be any two points A and B, there exist  $mn$  points P such that PA is divided in any fixed ratio  $1/k$  by a given  $n$ -ic curve, while PB is divided also in a fixed ratio  $1/l$  by a given  $m$ -ic.

It is evident that the locus of the extremity of AP is a curve similar and similarly placed to the given curve, and in like manner for the extremity of BP.

But these curves intersect in  $mn$  points, which may be all real, all imaginary, or part real and part imaginary. Where only one curve is used, as in the Question set, the two loci are similar and similarly placed, so that the intersections cannot be all real. In the case of a conic it is possible to have two real and finite, and two are always the two points of intersection with the line at infinity of the two pairs of parallel asymptotes.

**16314.** (Professor E. B. ESCOTT.)—Show that

$$2^{n-1} - 1 \equiv 0 \pmod{n},$$

when  $n = 5.7.17.19.37.73.97.109.241.433.673.38737$ .

Are there any values of  $n$  satisfying the same congruence having more than twelve factors?

Solution by Lt.-Col. ALLAN CUNNINGHAM, R.E.

The Proposer has himself given the general rules for forming these numbers ( $n$ ) in a short paper on "The Converse of Fermat's Theorem," in *Messenger of Math.*, Vol. xxxvi., 1907, pp. 175, 176. The rules given are shortly that—

If  $n = p_1 p_2 p_3 \dots$  and  $2^{a_1} \equiv 1 \pmod{p_1}, 2^{a_2} \equiv 1 \pmod{p_2}, \dots$ , where  $a_1, a_2, \dots$  are Haupt exponents, i.e., the least possible in each case, then

- (1) every  $p$  must be prime to every  $a$ ,
- (2)  $n$  must  $\equiv +1 \pmod{\text{every } a}$ .

Fifty-four examples are given in that paper, including the very one here set. As the factors ( $p$ ) satisfy all the conditions above, no further proof is needed.

Let  $f(2^a \mp 1)$ , denote the algebraic prime factors of  $(2^a \mp 1)$ , where  $q$  is odd. Then  $n = f(2^a - 1) f(2^a + 1)$  is a number satisfying all the conditions. These often contain 5 or 6 factors.

Example.—  $q = 29, 47, 51, 53, 55, 59, 81, 105$ ,

Number of factors 5, 5, 6, 5, 6, 5, 6, 6.

When  $q = 83$ ,  $n$  has at least 7 factors.

It is not easy to find numbers ( $n$ ) containing more than 6 factors (the paper quoted gives 7 cases). But Fermat's numbers ( $F_r$ ) give an easy case of forming numbers ( $n$ ) with any number of factors.

Thus  $n = F_3 F_4 F_5 F_6 F_7$  has at least 7 factors,  $n = F_4 F_5 F_6 \dots F_{12}$  has

at least 14 factors,  $n = F_1 F_2 \dots F_{r+1}$  has at least  $(r+1)$  factors. Here the leading number ( $F_r$ ) must be such that

$$F_r = 2^{r-1} + 1 \equiv +1 \pmod{2^{r(r+1)}},$$

upon which all the conditions will be satisfied. Note that  $F_3, F_6$  are each known to have 2 factors each.

The PROPOSER solves the Question as follows:—

Let  $a$  represent the smallest exponent of 2 for which

$$2^a - 1 \equiv 0 \pmod{p},$$

then we have the following table of primes and exponents:—

$p$	$a$	$a$	$p$	$a$
5	4	37	241	24
7	3	73	433	72
17	8	97	673	48
19	18	109	38737	72

The lowest common multiple of the  $a$ 's is  $144 = 9.16$ . Since the product of the  $p$ 's is  $\equiv 1 \pmod{9}$  and  $16$ , it follows that

$$n = 5.7.17.19 \dots \equiv 1 \pmod{144};$$

and therefore  $n-1$  is a multiple of all the  $a$ 's. From this it follows that

$$2^{n-1} - 1 \equiv 0 \pmod{n}.$$

**16172.** (Professor COCHEZ.)—Trouver le maximum de  $\sin x - p \sin y$ , sachant que  $\tan \frac{1}{2}x \tan \frac{1}{2}y = p$ .

Solution by C. M. ROSS.

Let  $u = \phi(x, y) = \sin x - p \sin y$ ,  $f(x, y) = \tan \frac{1}{2}x \tan \frac{1}{2}y - p = 0$ , then

$$\frac{\partial \phi}{\partial x} = \cos x, \quad \frac{\partial \phi}{\partial y} = -p \cos y;$$

$$\frac{\partial f}{\partial x} = \frac{1}{2} \sec^2 \frac{1}{2}x \tan \frac{1}{2}y, \quad \frac{\partial f}{\partial y} = \frac{1}{2} \tan \frac{1}{2}x \sec^2 \frac{1}{2}y.$$

Now  $\frac{du}{dx} = (\partial \phi / \partial x) / (\partial f / \partial x) - (\partial \phi / \partial y) / (\partial f / \partial y)$ .

But the maximum and minimum values of  $u$  satisfy the equation  $du/dx = 0$ , hence the equations

$$f(x, y) = 0 \quad \text{and} \quad \partial \phi / \partial x \partial f / \partial y - \partial \phi / \partial y \partial f / \partial x = 0,$$

which reduce to

$$\cos x \tan \frac{1}{2}x \sec^2 \frac{1}{2}y + p \cos y \tan \frac{1}{2}y \sec^2 \frac{1}{2}x = 0 \dots \dots \dots (1),$$

$$\tan \frac{1}{2}x \tan \frac{1}{2}y - p = 0 \dots \dots \dots (2),$$

give maximum and minimum values.

From (2),  $\tan \frac{1}{2}y = p / \tan \frac{1}{2}x$ . Substituting this value in (1), it becomes

$$\tan^4 \frac{1}{2}x - (p^2 + 1) \tan^2 \frac{1}{2}x - 3p^2 = 0;$$

therefore  $\tan \frac{1}{2}x = \left\{ \frac{1}{2} [(p^2 + 1) \pm \sqrt{(p^4 + 14p^2 + 1)}] \right\}^{\frac{1}{2}};$

therefore  $\tan \frac{1}{2}y = p / \left\{ \frac{1}{2} [(p^2 + 1) \pm \sqrt{(p^4 + 14p^2 + 1)}] \right\}^{\frac{1}{2}}.$

$$\begin{aligned} \text{Now } u &= \sin x - p \sin y = \frac{2 \tan^2 \frac{1}{2}x (1 - p^2)}{(1 + \tan^2 \frac{1}{2}x) (p^2 + \tan^2 \frac{1}{2}x)} \\ &= \frac{2\sqrt{2} (1 - p^2) [p^2 + 1 + \sqrt{(p^4 + 14p^2 + 1)}]^{\frac{1}{2}}}{[p^2 + 3 + \sqrt{(p^4 + 14p^2 + 1)}] [3p^2 + 1 + \sqrt{(p^4 + 14p^2 + 1)}]} \end{aligned}$$

N.B.—The positive sign before the radical is taken, as it gives a maximum.

**16274.** (Professor NEUBERG.)—Intégrer l'équation

$$ap^3 + bp^2 = (3ay + 2bx + c)^2 \quad (y = dy/dx).$$

Solution by S. T. SHOVELTON, M.A.

$$ay^2 + by^2 = (3ay + 2bx + c)^2;$$

therefore  $(3ap^2 + 2bp) dp/dx = 2(3ay + 2bx + c)(3ap + 2b);$

therefore (1)  $3ap + 2b = 0$ , whence  $3ay + 2bx + c = 0$ . By substitution in the original equation  $\kappa$  is found to be  $c \pm \frac{2b}{3a} \sqrt{\frac{b}{3}}$ .

$$p(dp/dx) = 2(3ay + 2bx + c);$$

therefore  $p^2 (dp/dx)^2 = 4p^2 (ap + b);$

therefore  $(dp/dx)^2 = 4(ap + b)$  or  $ap + b = (ax - \kappa)^2,$

where  $\kappa$  is a constant; therefore

$$ay = \frac{1}{3} a^2 x^3 - a\kappa x^2 + (\kappa^2 - b)x + l,$$

where  $l$  is a constant. Substituting in the original equation it is found that  $al + \kappa^3 + ac = b\kappa$ ; therefore the solutions are

$$(1) \quad 3ay + 2bx + \kappa = 0,$$

$$(2) \quad 3a^2 y = a^2 x^3 - 3a^2 \kappa x^2 + 3(\kappa^2 - b)ax + (b\kappa - \kappa^3 - ac),$$

where  $\kappa$  is an arbitrary constant.

**16306.** (C. F. YOUNGMAN, M.A.)—Prove that in the hyperbola which subtends an angle of  $60^\circ$  at its centre no finite equilateral triangle can be inscribed. Is this an isolated case or part of a general theorem?

Solution by M. S. NARAYANA, M.A.

Let the equation to the hyperbola be  $xy = c^2$ , the axes being in-

# DENT'S NEW EDUCATIONAL BOOKS

## DENT'S MATHEMATICAL & SCIENTIFIC SERIES.

Edited by W. J. GREENSTREET, M.A., F.R.A.S.  
LATEST VOLUMES.

### SCHOOL HYGIENE.

By HERBERT JONES, D.P.H. Camb., Medical Officer of Health, Hereford Combined Sanitary District. 2s.  
A Handbook for every Teacher and School Manager.

### ELEMENTARY TRIGONOMETRY.

By CECIL HAWKINS, M.A. (Haileybury College, Hertford). 3s. 6d.  
With Answers, 4s.

Aims at supplying a practical training in Elementary Trigonometry. It is hoped that this book will not be unsuitable for grounding those who wish to study the subject in its higher branches, and that the mode of treatment may help to make the subject interesting.

### GERMAN SCIENCE READER.

Compiled by C. R. DOW, M.Sc. Part I. Mathematics, Physics, and Chemistry. 2s.

Consists of a number of passages on scientific subjects in German, by the translation of which the student will acquire a knowledge of the more commonly occurring scientific expressions.

### PRACTICAL BOTANY.

By E. H. DAVIES, B.Sc. (County School, Barry, Glam.). 2s.

An Introduction which aims at supplying the means of obtaining a knowledge of Plant Life, but not at supplying the knowledge itself. Actual specimens must be in the hands of the pupils. "Cordially recommended."—*School World*.

**LIGHT.** By F. E. REES, M.A., late Demonstrator of Physics, Bangor. 2s.  
"Covers a considerable amount of ground . . . exceedingly well done. It displays knowledge and thoughtful care on every page."—*Schoolmaster*.

### A FIRST STATIOS.

By C. S. JACKSON, M.A., and R. M. MILNE, M.A. With upwards of 200 Diagrams and numerous Examples. Crown 8vo., with or without Answers, 4s. 6d.

"The great variety of practical illustrations . . . differentiates it considerably from the older type of text-book. . . Thoroughly trustworthy as an introduction to the science of mechanics. Can be safely recommended."—*School World*.

Please write for Full List of the Series.

## DENT'S TEMPLE ENGLISH LITERATURE FOR SCHOOLS.

A SELECTION.

### LONGFELLOW'S EVANGELINE.

Edited, with Introduction and Notes, by JOHN W. COUSIN, F.F.A. Cloth boards, 8d.

### LONGFELLOW'S SHORTER POEMS.

Selected, with Introduction and Notes, by G. C. DENT, B.A. Limp cloth, 4d.

### VOYAGES OF FAMOUS BRITISH SEAMEN.

Selected from Dampier, Hakluyt, and Cook, by R. BRIMLEY JOHNSON. 1s.

### STORIES FROM CARLYLE.

By D. M. FORD. 1s.

### TALES FROM BROWNING.

By the Rev. G. LACEY-MAY, M.A. 1s.

### SOUTHEY'S LIFE OF NELSON.

With Introduction and Notes, by HENRY WILLIAMS, M.A. 1s.

### STORIES FROM SPENSER'S "FAERIE QUEEN."

By N. G. ROYDE SMITH. 1s.

### SIR ROGER DE COVERLEY PAPERS.

Edited by R. G. WATKIN, M.A. 1s.

### PRESCOTT'S CONQUEST OF MEXICO and PERU.

Selections, edited by OLIPHANT SMEATON, M.A. 1s.

### WORDSWORTH'S SIMPLER POEMS.

Edited by E. HUTTON.

### GRAY'S ELEGY.

With an Introduction and Notes, by E. BOLUS.

### GOLDSMITH'S TRAVELLER AND DESERTED VILLAGE.

With an Introduction and Notes, by W. LANGRIDGE.

### COLERIDGE'S ANCIENT MARINER.

Introduction and Notes, by R. MCWILLIAM.

The last four texts are issued separately in limp cloth at 4d. per Vol., or the four bound in one Vol., cloth boards, 1s.

Please write for a Full List of the whole Series

Please write for DENT'S COMPLETE EDUCATIONAL CATALOGUE, and for Specimens of the above books.

J. M. DENT & CO., 3 Aldine House, Bedford Street, London, W.C.

clined at 60°. Let P, Q, R, the angular points of the inscribed equilateral triangle, be  $t_1, t_2, t_3$  respectively. Equation to PQ is

$$x + yt_1t_2 = c(t_1 + t_2),$$

equation to PR is

$$x + yt_1t_3 = c(t_1 + t_3);$$

therefore

$$\tan \angle QPR \equiv \tan 60^\circ$$

$$= \frac{[-(1/t_1t_2 + 1/t_1t_3) \sin 60^\circ] / [1 - (1/t_1t_2 + 1/t_1t_3) \cos 60^\circ + 1/t_1^2t_2t_3];$$

therefore

$$t_1^2t_2t_3 - t_2 + 1 = 0 \dots \dots \dots (1).$$

Similarly

$$t_1t_2^2t_3 - t_3 + 1 = 0 \dots \dots \dots (2),$$

$$t_1t_2t_3^2 - t_1 + 1 = 0 \dots \dots \dots (3).$$

From (1), (2), (3), we have

$$(t_2 - t_3)/(t_3 - t_1) = (t_3 - t_1)/(t_1 - t_2) = (t_1 - t_2)/(t_2 - t_3) = 0/0.$$

Showing that  $t_1 = t_2 = t_3$  which is impossible, or that each is infinitely large. Hence no finite equilateral triangle can be inscribed in the hyperbola which subtends an angle of 60° at the centre.

16276. (C. M. Ross.)—If

$$\begin{vmatrix} \sin 2\theta & \cos \theta & \sin \theta & 1 \\ \sin 2\phi & \cos \phi & \sin \phi & 1 \\ \sin 2\psi & \cos \psi & \sin \psi & 1 \\ \sin 2\chi & \cos \chi & \sin \chi & 1 \end{vmatrix} = 0,$$

and if  $\theta, \phi, \psi, \chi$  are different positive angles each less than  $2\pi$ , prove that  $\theta + \phi + \psi + \chi = n\pi$  ( $n$  an odd integer).

Solution by the PROPOSER.

Subtracting the first row from each of the other rows,

$$\begin{aligned} \Delta &= \begin{vmatrix} \sin 2\phi - \sin 2\theta & \cos \phi - \cos \theta & \sin \phi - \sin \theta & 0 \\ \sin 2\psi - \sin 2\theta & \cos \psi - \cos \theta & \sin \psi - \sin \theta & 0 \\ \sin 2\chi - \sin 2\theta & \cos \chi - \cos \theta & \sin \chi - \sin \theta & 0 \end{vmatrix} \\ &= -8 \sin \frac{1}{2}(\phi - \theta) \sin \frac{1}{2}(\psi - \theta) \sin \frac{1}{2}(\chi - \theta) \\ &\quad \times \begin{vmatrix} \cos \frac{1}{2}(\phi - \theta) \cos(\phi + \theta) & \sin \frac{1}{2}(\phi + \theta) & \cos \frac{1}{2}(\phi + \theta) \\ \cos \frac{1}{2}(\psi - \theta) \cos(\psi + \theta) & \sin \frac{1}{2}(\psi + \theta) & \cos \frac{1}{2}(\psi + \theta) \\ \cos \frac{1}{2}(\chi - \theta) \cos(\chi + \theta) & \sin \frac{1}{2}(\chi + \theta) & \cos \frac{1}{2}(\chi + \theta) \end{vmatrix} \\ &= -8 \sin \frac{1}{2}(\phi - \theta) \sin \frac{1}{2}(\psi - \theta) \sin \frac{1}{2}(\chi - \theta) \\ &\quad \times [\cos \frac{1}{2}(\phi - \theta) \cos(\phi + \theta) \sin \frac{1}{2}(\psi - \theta) \cos(\psi + \theta) \sin \frac{1}{2}(\chi - \theta) \\ &\quad + \cos \frac{1}{2}(\chi - \theta) \cos(\chi + \theta) \sin \frac{1}{2}(\phi - \theta) \cos(\phi + \theta) \sin \frac{1}{2}(\psi - \theta)] = 0. \end{aligned}$$

Therefore, since  $\theta, \phi, \psi, \chi$  are all different,

$$\Sigma \cos \frac{1}{2}(\phi - \theta) \cos(\phi + \theta) \sin \frac{1}{2}(\psi - \chi) = 0 \dots \dots \dots (1).$$

Now let

$$\begin{aligned} a &= \cos \theta + i \sin \theta, & b &= \cos \phi + i \sin \phi, \\ c &= \cos \psi + i \sin \psi, & d &= \cos \chi + i \sin \chi; \end{aligned}$$

then

$$\begin{aligned} ab &= \cos(\theta + \phi) + i \sin(\theta + \phi) \dots, \\ a - b &= 2i \sin \frac{1}{2}(\theta - \phi) [\cos \frac{1}{2}(\theta + \phi) + i \sin \frac{1}{2}(\theta + \phi)], \\ a + b &= 2 \cos \frac{1}{2}(\theta - \phi) [\cos \frac{1}{2}(\theta + \phi) + i \sin \frac{1}{2}(\theta + \phi)], \\ \dots & \dots \dots \dots \end{aligned}$$

Again

$$a [b(a + b)(c - d) + c(a + c)(d - b) + d(a + d)(b - c)] = -a(b - c)(c - d)(d - b).$$

Hence, by substitution,

$$\begin{aligned} 4i \Sigma [\cos(\theta + \phi) + i \sin(\theta + \phi)] \cos \frac{1}{2}(\theta - \phi) \sin \frac{1}{2}(\psi - \chi) \\ \quad \times [\cos \frac{1}{2}(\theta + \phi + \psi + \chi) + i \sin \frac{1}{2}(\theta + \phi + \psi + \chi)] \\ = -(2i)^3 \Pi (\cos \theta + i \sin \theta) \sin \frac{1}{2}(\phi - \psi) [\cos \frac{1}{2}(\phi + \psi) + i \sin \frac{1}{2}(\phi + \psi)] \\ = 8i [\cos(\theta + \phi + \psi + \chi) + i \sin(\theta + \phi + \psi + \chi)] \sin \frac{1}{2}(\phi - \psi); \end{aligned}$$

Therefore

$$\begin{aligned} \Sigma [\cos(\theta + \phi) + i \sin(\theta + \phi)] \cos \frac{1}{2}(\theta - \phi) \sin \frac{1}{2}(\psi - \chi) \\ = 2 [\cos \frac{1}{2}(\theta + \phi + \psi + \chi) + i \sin \frac{1}{2}(\theta + \phi + \psi + \chi)] \sin \frac{1}{2}(\phi - \psi). \end{aligned}$$

Equating the real parts

$$\Sigma \cos(\theta + \phi) \cos \frac{1}{2}(\theta - \phi) \sin \frac{1}{2}(\psi - \chi) = 2 \cos \frac{1}{2}(\theta + \phi + \psi + \chi) \Pi \sin \frac{1}{2}(\phi - \psi).$$

Hence (1) may be written

$$2 \cos \frac{1}{2}(\theta + \phi + \psi + \chi) \Pi \sin \frac{1}{2}(\phi - \psi) = 0.$$

Therefore  $\cos \frac{1}{2}(\theta + \phi + \psi + \chi) = 0$ , since  $\Pi \sin \frac{1}{2}(\phi - \psi) \neq 0$ . Hence  $\theta + \phi + \psi + \chi = (2m \pm 1)\pi$ . Therefore  $\theta + \phi + \psi + \chi = n\pi$  (where  $n$  is odd.)

[Note.—Mr. S. NARAYANA AYYAR remarks:—If in the given determinant  $\cos 2\theta, \cos 2\phi, \dots$  take the place of  $\sin 2\theta, \sin 2\phi$ ; then, in a similar way, it can be shown that  $\theta + \phi + \psi + \chi$  is an even multiple of  $\pi$ . From these a geometrical property of a rectangular hyperbola passing through four fixed points can be inferred.]

### QUESTIONS FOR SOLUTION.

10800. (Professor HUDSON, M.A.)—Correction.—In last line of Question: for "greater than  $(\frac{2}{3})^n$ " read "equal to  $\sqrt{\frac{2}{3}}$ ." (See December, 1907, issue of *Educational Times*.)

16346. (T. MUIR, LL.D.)—If the determinant

$$\begin{vmatrix} a & b & c & d \\ b & a & d & c \\ c & d & a & b \\ d & c & b & a \end{vmatrix}$$

vanishes, then  $(ab - cd)(bc - da)(cd - ab)$  is a perfect square, and  $(a^2 - b^2)(a^2 - c^2)(a^2 - d^2) - (a^2 - b^2)(ab - cd)^2 - (a^2 - c^2)(ac - bd)^2 - (a^2 - d^2)(ad - bc)^2$

is the double of the said square. (Cf. Question 16298.)

16347. (T. STUART, M.A., D.Sc.)—Why is it that the factors of

$$N_1 = (x + y)^6 - 45x^4y^2 - 18x^2y^4$$

are always of the form  $M(18) \pm 1$ ? Prove rigidly for all values of  $x$  and  $y$ , the expression

$$N_2 = x^6 + 20x^3y^3 + y^6 - 3xy(x^4 + y^4) - \frac{1}{2}x^2y^2(x^2 + y^2)$$

is always composite, and find the form of the factors.

16348. (R. W. D. CHRISTIE.)—Let  $x^2 - py^2 = 1$ , where  $p$  is of form

$$4m + 3, \text{ then } \left(\frac{x}{z}\right)^2 - p \left(\frac{y}{z}\right)^2 = 1, \text{ } z \text{ being } = \frac{2py - p + 1}{p + 1},$$

ex. gr.,  $x = 8, y = 3, p = 7$ ;

$$\frac{8^2 - 7 \cdot 3^2}{(3^2)^2} = 1, \text{ } z = \frac{9}{2},$$

$$\left(\frac{8}{9/2}\right)^2 - 7 \left(\frac{3}{9/2}\right)^2 = 1.$$

Thus from every integral we obtain a fractional equation. Establish it for any prime whatever.

16349. (Professor F. HERNÁNDEZ.)—Si l'on désigne par  $a$  la chiffre des unités d'un nombre, et par  $s_1$  la somme des valeurs absolues des autres chiffres, et par  $s_2, s_3, \dots, s_n, \dots$  les sommes des valeurs absolues des tranches binaires, ternaires, etc. du nombre formé par ces autres chiffres, les sommes  $a + 4s_1, a + 4s_2, \dots, a + 4s_n, \dots$  seront congrues par rapport au module 6.

16350. (W. J. GREENSTREET, M.A.)—How many different coefficients may be found in the most general (possible) symmetrical homogeneous function of the  $n$ th degree in  $x, y, z$ ?

16351. (Professor SANJANA, M.A.)—Prove the following identity

$$4a^2p^2 - (b^2 + q^2 - c^2 - r^2)^2 + 4b^2q^2 - (c^2 + r^2 - a^2 - p^2)^2 + 4c^2r^2 - (a^2 + p^2 - b^2 - q^2)^2 - [4q^2r^2 - (q^2 + r^2 - a^2)^2] - [4r^2p^2 - (r^2 + p^2 - b^2)^2] - [4p^2q^2 - (p^2 + q^2 - c^2)^2] = 2a^2b^2 + 2b^2c^2 + 2c^2a^2 - a^4 - b^4 - c^4.$$

16352. (Professor NANSON.)—If

$$a/(b-c) + b/(c-a) + c/(a-b) = 0,$$

then

$$a/(b-c)^2 + b/(c-a)^2 + c/(a-b)^2 = 0.$$

16353. (A. M. NESBITT, M.A.)—The co-ordinates of points on a cubic are expressed in terms of a single parameter  $t$  by the equations

$$x/f_1(t) = y/f_2(t) = z/f_3(t),$$

where

$$f_i(t) = a_i t^3 + b_i t^2 + c_i t + d_i.$$

Prove that its inflexions lie on the line

$$\begin{vmatrix} x & y & z \\ a_1 & a_2 & a_3 \\ d_1 & d_2 & d_3 \end{vmatrix} = 3 \begin{vmatrix} x & y & z \\ b_1 & b_2 & b_3 \\ c_1 & c_2 & c_3 \end{vmatrix}.$$

16354. (C. E. YOUNGMAN, M.A.)—Show that the three-cusped epicycloid, referred to the triangle of its cusps, has for equation

$$27C^3(27C - 16L^2) = 64L^4(C^2 - 4a\beta\gamma L),$$

where

$$C \equiv \beta\gamma + \gamma\alpha + \alpha\beta \text{ and } L \equiv \alpha + \beta + \gamma.$$

16355. (R. F. WHITEHEAD, B.A.)—If a set of conics be taken passing through four points, then the quantity

$$[e^4/(1 - e^2)] \sin^2 \frac{1}{2}(\alpha + \beta + \gamma + \delta)$$

is invariant for the set,  $e$  being the eccentricity of, and  $\alpha, \beta, \gamma, \delta$  the eccentric angles of the four points for, any conic of the system. Find its value in terms of the elements of the quadrangle formed by the four points.

16356. (SARADAKANTA GANGULI, M.A.)—An ellipse, the distance between whose foci is constant, slides between two fixed intersecting straight lines inclined at an angle  $\omega$ . Find the envelope of the locus of the foci.

16357. (V. RAMASWAMI AIYAR, M.A. Suggested by Question 16250 of Mr. C. E. YOUNGMAN, M.A.)—In a conic of eccentricity  $e$  the circle on a focal vector SP as diameter cuts the curve again in A, B, C. Prove that the distance of X, the foot of the directrix, from BC, CA, AB, or from the pedal line of S in ABC is equal to SX/e. Also show that, if ABC be any inscribed triangle whose circum-circle passes through S, the pedal line of S in ABC touches the circle whose centre is X and radius SX/e.

16358. (Professor R. W. GENESE, M.A.)—From a variable point P two fixed straight lines  $l_1, l_2$  are projected on to two fixed planes  $\alpha_1, \alpha_2$ . If the projections meet in a point, the locus of P is a hyperboloid of one sheet passing through  $l_1, l_2$  and the intersection of  $\alpha_1, \alpha_2$ .

16359. (Professor NEUBERG.)—Diviser un triangle donné ABC par une droite AD, qui rencontre BC en D, en deux triangles ABD, ACD

tels qu'en tournant autour de AD ils engendrent des volumes qui soient dans un rapport donné  $m : n$ , ou tels que les surfaces engendrées par les lignes brisées ABD, ACD aient un rapport donné  $m : n$ .

16360. (JAMES BLAIKIE, M.A.)—If in an acute angled triangle a point is taken in each side the same distance from its mid-point as the foot of the altitude but in the opposite direction, prove that the perpendiculars drawn to the sides at these points are concurrent, and find the relation between the angles of the triangle in order that the point of concurrence may be within the triangle.

16361. ("SOLIDUS.")—Each vertex of a polygon is joined to the mid-point of the line joining its adjacent vertices. Prove that if all but one of these lines are concurrent, then all must be concurrent.

16362. (I. ARNOLD.)—Divide geometrically a given arc of a given circle into two parts, such that the rectangle under their sines may be equal to a given rectangle.

16363. (R. F. DAVIS, M.A.)—If  $\tan^4 \theta = 1 - \sin \theta$ , prove that either  $\tan \theta = \cos \theta$  or  $\tan^2 \theta = \operatorname{cosec} \theta$ .

OLD QUESTIONS AS YET UNSOLVED (IN OUR COLUMNS).

9442. (ARTEMAS MARTIN, LL.D.)—A point is taken at random in the surface of a given triangle; find the average area of the triangle cut off by a line passing through the random point.

9535. (Professor NEUBERG.)—On partage un nombre  $3a$  en trois parties. Quelle est la probabilité que le produit de ces parties soit compris entre  $na^3$  et  $pa^3$ ,  $n$  et  $p$  étant deux nombres donnés moindres que l'unité?

10918. (Professor CATALAN.)—Démontrer que

$$\int_{-1}^{+1} \frac{X_n Z_{n-1} - X_{n-1} Z_n}{Z - x} dz = -\frac{2}{n}.$$

11120. (J. J. WALKER, F.R.S.)—Prove the following construction for the centre of the involutions determined on any transversal cutting the three sides of the triangle ABC in A'B'C', and the three concurrent lines AO, BO, CO in A''B''C'', viz.:—Draw OD parallel to AB and meeting BC in A and the transversal in E; let EF parallel to CA meet AA' in F, and A''G meet FA'' in G; then AG determines the centre.

11244. (A. J. PRESSLAND, M.A.)—Prove that the median and the pedal triangles of any triangle have a common escribed parabola, whose focus is on the minimum ellipse of the median triangle.

11310. (J. GRIFFITHS, M.A.)—Show, by using isogonal co-ordinates  $x, y, z$ , that the Brocard circle  $bcr + cay + abz = a^2 + b^2 + c^2$  passes through four of the G-points of the nine-point circle, viz.  $x = 2 \cos A, y = a/c, z = a/b, \dots$ . Also that the orthocentroidal circle  $x \cos A + y \cos B + z \cos C = \frac{3}{2}$  passes through the four inverse G-points, viz.,  $x = \frac{1}{2} \sec A, y = c/a, z = b/a, \dots$ . [See p. 26 of the Proposer's *Notes on the Recent Geometry of the Triangle*.]

NOTICE TO CORRESPONDENTS.

It is requested that all Mathematical communications should be sent to the Mathematical Editor,

Miss CONSTANCE I. MARKS, B.A., 10 Matheson Road, West Kensington, W.

THE LONDON MATHEMATICAL SOCIETY.

Thursday, December 13th, 1907.—Prof. W. Burnside, President, in the Chair.

Messrs. G. N. Watson, D. G. Taylor, F. B. Pidduck, L. R. Line, W. E. Dalby were elected members.

Messrs. S. T. Shovelton and G. N. Watson were admitted into the Society.

The following papers were communicated:—

"A Formula in Finite Differences and its Application to Mechanical Quadrature," Mr. S. T. Shovelton.

"Weierstrass' E-Function in the Calculus of Variations," Prof. A. E. H. Love.

## THE NINE POINT CIRCLE.

With Notes on (1) Simson's Line, (2) The Radical Axis, (3) The Quadrilateral.

Contributed to the "Educational Times," "Mathematical Gazette," "Nouvelles Annales," "Mathesis," and "American Monthly."

By WILLIAM GALLATLY, M.A.

ELIJAH JOHNSON, 30 TRINITY STREET, CAMBRIDGE.

PRICE ONE SHILLING.

## CAREY'S "GRADUS AD PARNASSUM."

WITH THE ENGLISH MEANINGS.

Revised, Corrected, and Augmented by a Member of the University of Cambridge.

Post 8vo, cloth, price 7s.

THE STATIONERS' COMPANY, STATIONERS' HALL, LONDON.



# MESSRS. BELL'S NEW BOOKS

## MASON'S NEW ENGLISH GRAMMARS.

Revised in accordance with Modern Requirements by

**A. J. ASHTON, M.A.**

Senior English Master, Kelvinside Academy, Glasgow; and Examiner in English to the College of Preceptors.

Now ready. Crown 8vo. 125 pages. 1s.

### MASON'S JUNIOR ENGLISH GRAMMAR.

This new and revised edition of MASON'S ENGLISH GRAMMARS has been augmented and revised so as to embody the results of the advances that have been made in the teaching of English Grammar since these grammars were last revised by Mr. Mason. The new edition will consist of three courses—Junior, Intermediate, and Senior—and will be printed in good bold type and strongly bound in cloth. The Intermediate and Senior volumes are in active preparation.

Just Published. 1s. 6d.

**A JUNIOR HISTORY OF ENGLAND.** By E. NIXON, late Head Mistress of Junior School, Specialist in History, Ladies' College, Cheltenham. With numerous illustrations.

This History, which is intended to be a preparation for the study of much fuller books, aims at giving an idea of the development of the constitution and growth of the Empire, while telling of those who have lived, fought, and died for king and country. The illustrations have been limited to such as are contemporary, or in some measure authentic, and therefore have educational value.

Crown 4to, 6s. net.

**AN ATLAS OF EUROPEAN HISTORY.** By EARLE W. DOW, Junior Professor of History in the University of Michigan.

This work contains 32 double-page coloured maps and 18 smaller maps, plans, &c., in black and white. The maps cover the field of European History from the Ancient Eastern Empires to the Decline of Europe in the Americas and Contemporary Europe. It meets the need of a handy historical atlas in the English Language suitable for use in Schools and Colleges. The Full Index adds to its value.

Ready immediately. Crown 8vo, 1s. 6d.

**A THIRD YEAR'S COURSE IN PRACTICAL PHYSICS.** By JAMES SINCLAIR, M.A. (Glas.), B.Sc. (Lond.), Head Science Master in Shawlands Academy, Glasgow. With numerous Diagrams.

This volume, which deals with Light, continues the work of the "First and Second Year's Courses," already published, and which have been widely adopted.

Now completed. Crown 8vo, 2s. 6d.

**A FIRST YEAR'S COURSE IN GEOMETRY AND PHYSICS.** By ERNEST YOUNG, B.Sc., Head Master, Lower School of John Lyon, Harrow. Parts I. and II. are also issued separately, price 1s. 6d. Part III., 1s. Answers separately, 6d. net.

Part I. furnishes a combined course in Geometry and Physics. Part II. contains the second and third terms' work in Geometry. Part III. contains the second and third terms' work in Physics.

"The course of instruction in this book has been prepared with great care and on sound lines. The geometry is modern and the physics is practical. The book is from every point of view a suitable one for use in schools."—*Schoolmaster.*

## BELL'S ENGLISH TEXTS for SECONDARY SCHOOLS.

GENERAL EDITOR: **A. GUTHKELCH, M.A.**

Senior English Master, Bancroft's School; Lecturer in English (Evening Classes), King's College, London.

### FIRST YEAR.

**LAMB: TALES FROM SHAKESPEARE.** Selected by R. S. BATE, M.A. 10d.

**KINGSLEY: THE HEROES.** Edited by L. H. POND, B.A. With Two Maps. 1s.

**HAWTHORNE: SELECTIONS FROM THE WONDER BOOK AND TANGLEWOOD TALES.** Edited by H. HAMPSHIRE, M.A. 1s.

### THIRD YEAR.

**COLERIDGE: THE ANCIENT MARINER;** and selected old **ENGLISH BALLADS.** Edited by A. GUTHKELCH, M.A. 1s.

### SECOND YEAR.

**STORIES OF KING ARTHUR, FROM MALORY AND TENNYSON.** Edited by R. S. BATE, M.A. 1s.

**CHARLES READE: THE CLOISTER AND THE HEARTH.** Abridged and Edited by the Rev. A. E. HALL, B.A. [*Immediately.*]

**SCOTT: A LEGEND OF MONTROSE.** Abridged and Edited by F. C. LUCKHURST. [*Immediately.*]

### FOURTH YEAR.

**CHARLES LAMB: SELECTED ESSAYS AND LETTERS.** Edited by A. GUTHKELCH, M.A. With a Map of London in the time of Lamb. 1s. 4d.

## COLLEGE OF PRECEPTORS' CERTIFICATE EXAMS, 1908.

MESSRS. BELL'S EDITIONS OF BOOKS SET.

**SHAKESPEARE: MERCHANT OF VENICE.** Edited, with Introduction and Notes, by T. DUFF BARNETT, B.A. 2s. (*Bell's English Classics.*)

**Notes,** separately. 1s.  
**Text,** with Introduction and Glossary, by JOHN DENNIS. Illustrated. 1s. net. (*Chiswick Shakespeare.*)

**SHAKESPEARE: JULIUS CÆSAR.** Edited, with Introduction and Notes, by T. DUFF BARNETT, B.A. 2s.

**Notes,** separately. 1s.  
**Text,** with Introduction and Glossary, by JOHN DENNIS. Illustrated. 1s. net. (*Chiswick Shakespeare.*)

**EUTROPIUS.** Books I. and II. Edited, with Introduction, Notes, and Vocabulary, by J. G. SPENCER, B.A. With numerous Illustrations and Map. 1s. 6d. (*Bell's Illustrated Classics.*)

**Translation.** 5s. (*Bohn's Classical Library.*)

**CÆSAR: DE BELLO GALLICO.** Books I. and II. Edited, with Introduction, Notes, Exercises, and Vocabulary, by A. C. LIDDELL, M.A. With numerous Illustrations, Maps, and Plans. 1s. 6d. each. (*Bell's Illustrated Classics.*)

**Translation.** 1s. (*Bell's Classical Translations.*)

**VIRGIL: ÆNEID.** Book I. Edited, with Introduction, Notes, and Vocabulary, by the Rev. E. H. SWEET-ESCOTT, M.A., Assistant Master at Dulwich College. 1s. 6d. (*Bell's Illustrated Classics.*)

**Translation.** 1s. (*Bell's Classical Translations.*)

**VIRGIL: ÆNEID.** Book X. Edited with Introduction, Notes, and Vocabulary, by L. D. WAINWRIGHT. With numerous Illustrations. 1s. 6d. (*Bell's Illustrated Classics.*)

**Translation.** 1s. (*Bell's Classical Translations.*)

**HORACE: ODES.** Book III. Edited, with Introduction, Notes, and Vocabulary, by H. LATTER, M.A. With numerous Illustrations. 1s. 6d. (*Bell's Illustrated Classics.*)

**Translation.** 1s. (*Bell's Classical Translations.*)

**EURIPIDES: HECUBA.** Edited by the Rev. A. W. UPCOTT, M.A. With Introduction, Notes, Appendices, and Vocabulary, and numerous Illustrations. 2s. (*Bell's Illustrated Classics.*)

**Translation.** 1s. (*Bell's Classical Translations.*)

**XENOPHON: ANABASIS.** Book I. Edited, with Introduction, Notes, and Vocabulary, by E. C. MARCHANT, M.A. With Illustrations and Map. 1s. 6d. (*Bell's Illustrated Classics.*)

**Translation.** 1s. (*Bell's Classical Translations.*)

London: GEORGE BELL & SONS, York House, Portugal Street, W.C.

# FOR THE CAMBRIDGE LOCALS.

**Syllabus Requisites for Geometrical Drawing. Every Instrument is of English make and thoroughly reliable.**

## THE "CAMBRIDGE" BOXES OF INSTRUMENTS.

Containing every article required for Candidates entering for the above Locals as stipulated in the Schedules for Geometry.

**No. 10a.** A Strong Sliding Cloth-covered Box, containing—

- 1 Patent Brass Bow Pencil Compass, with Point Protector, to take any size of Pencil up to full size
- 1 Black Lead Pencil ("H") and 1 Compass Pencil.
- 1 Six-inch Boxwood Rule and Protractor combined, graduated in inches, tenths of an inch, centimetres, and millimetres.
- 1 Nickel Set Square (unbreakable), 45°. 1 Nickel Set Square (unbreakable), 60°.

Price 1s. 9d. per Box. { Price for orders of 6 dozen, 1s. 7½d. per Box.  
 " " " 12 " " 1s. 6d. "

**No. 11a.** Contains the same instruments as No. 10a, but in a Strong Polished Wood Box, with divisions.

Price 2s. 3d. per Box. { Price for orders of 6 dozen, 2s. 1½d. per Box.  
 " " " 12 " " 2s. "

Attention is also drawn to—

## "THE PREPARATORY SCHOOL" BOX OF INSTRUMENTS.

**No. 9a.** A Strong Sliding Cloth-covered Box, containing—

- 1 Patent Brass Pencil Compass, to take any size of Pencil up to full size.
- 1 Divider Point. 1 Brass Semi-circular Protractor.
- 1 Black Lead Pencil ("H"). 1 Compass Pencil.
- 1 Wooden Set Square, 45°. 1 Wooden Set Square, 60°.
- 1 Six-inch Boxwood Rule, graduated in inches, tenths of an inch, centimetres, and millimetres.

Price 1s. 4d. per Box. { Price for orders of 6 dozen, 1s. 3d. per Box.  
 " " " 12 " " 1s. 2d. "

Any article contained in these boxes can be had separately. Prices on application.

Boxes of Instruments of similar character prepared to meet different requirements kept in Stock. Apply for Illustrated Circular.

## SCIENCE NOTE BOOKS & PAPERS.

*The MOST COMPLETE and ACCURATE Series issued, of which the following is a selection.*

### GRAPHICAL NOTE BOOKS.

No.	Per	Gross.
	PUB.	NET.
	s. d.	s. d.
431	40 pages, size 9½ in. by 7½ in., ruled one inch, half-inch, and one-tenth-inch squares, stout printed cover	24 0 18 0
433	32 pages, size 8 in. by 6½ in., ruled one inch, half-inch, and one-tenth-inch squares, stout printed cover	12 0 9 0

### PHYSICS NOTE BOOKS.

The following books are printed from machine-engraved plates, consequently the ruling is accurate.

435	128 pages, size 8 in. by 6½ in., ruled alternately, right hand pages centimetre, half-centimetre, and millimetre squares, left hand pages exercise and margin, stiff cover, cloth back, round corners	72 0 54 0
437	128 pages, size 8 in. by 6½ in., ruled alternately, right hand pages one inch, half-inch, and one-tenth-inch squares, left hand pages exercise and margin, stiff cover, cloth back, round corners	72 0 54 0
441	48 pages, size 9½ in. by 7½ in., ruled alternately, right hand pages centimetre, half-centimetre, and millimetre squares, left hand pages exercise and margin, Nonpareil covers, round corners, and label for Pupil's name	36 0 27 0
442	48 pages, size 9½ in. by 7½ in., ruled alternately, right hand pages one inch, half-inch, and one-tenth-inch squares, left hand pages exercise and margin, Nonpareil cover, round corners, and label for Pupil's name	36 0 27 0

A Complete List of Science Books and Papers with Specimen Rulings will be sent free on application.

THE EDUCATIONAL SUPPLY ASSOCIATION would call attention to

# THE STANTON DESK.

as supplied for the use of

H.R.H. PRINCE EDWARD OF YORK and H.R.H. PRINCE ALBERT OF YORK,  
both at Marlborough House and Sandringham.

This Desk has many special features:—

1. It is made entirely of wood.
2. The Desk is fitted with chair seat.
3. The centre back rail is curved inwards and the upper back rail is curved outwards, so that the maximum of support is given to both the hollow of the back and the shoulders.
4. The Desk Locker is made to slide backwards and forwards, allowing the edge of the Desk to be vertically over the edge of the seat when the Pupil is writing, or leaving sufficient space for the Pupil to stand comfortably.

Strongly made, with dovetailed corners.

Length of top, 22 in.; width, 18½ in.; seat, 15 in.; height, 32 in., 30 in., and 28 in.; floor space, 31 in. to 35 in.

PITCH PINE, STAINED AND VARNISHED.

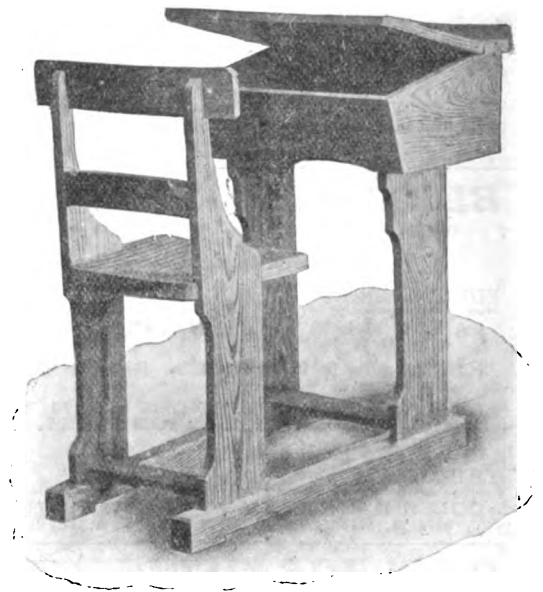
Price each, net, £1. 1s. 6d.

N.B.—This Desk can be supplied fitted with a sliding pad for the back (all other particulars as No. 143), and the price would then be

Price each, net, £1. 4s. 6d.

THESE DESKS PREVENT SCHOLARS  
ASSUMING ANY HARMFUL ATTITUDE.

The New School Furniture Catalogue, just published by the Educational Supply Association, contains particulars of above Desks, with those of many other Patterns of Desks, Apparatus, &c. and will be forwarded, post free, on application.



THE "STANTON" DESK. No. 143.

THE EDUCATIONAL SUPPLY ASSOCIATION supplies

## EVERY SCHOOL REQUISITE,

and would draw attention to its Catalogues as follows, any of which will be forwarded post free on application :

- CATALOGUE OF SCHOOL FURNITURE ;
- CATALOGUE OF SCHOOL STATIONERY AND REQUISITES ;
- CATALOGUE OF REWARD BOOKS AND PRIZES ;
- CATALOGUE OF KINDERGARTEN OCCUPATIONS ;
- CATALOGUE OF CHEMICAL APPARATUS, CHEMICALS, AND REAGENTS ;
- CATALOGUE OF THE HOLBORN SERIES OF PUBLICATIONS, &c., &c., &c. ;

any or all of which will be sent post free on application to the

**EDUCATIONAL SUPPLY ASSOCIATION, Ltd.,**  
42 HOLBORN VIADUCT, LONDON, E.C.

# THE EDUCATIONAL TIMES,

AND

Journal of the College of Preceptors.

Vol. LXI.] New Series, No. 562.

FEBRUARY 1, 1908.

{Published Monthly, price, to Non-Members, 6d.; by Post, 7d. Annual Subscription, 7s.

## COLLEGE OF PRECEPTORS. (INCORPORATED BY ROYAL CHARTER.)

### MEMBERS' MEETING.

The next Monthly Meeting of the Members will take place on Wednesday, the 19th of February, at 7.30 p.m., when F. CHARLES, Esq., B.A., will read a Paper on "Suggestions to English Educationists from America." A Discussion will follow the reading of the Paper. Members have the privilege of introducing their friends.

### EXAMINATIONS.

**Diplomas.**—The next Examination of Teachers for the Diplomas of the College will commence on the 31st of August, 1908.

**Practical Examination for Certificates of Ability to Teach.**—The next Practical Examination will be held in February.

**Certificate Examinations.**—The Midsummer Examination for Certificates will commence on the 30th of June, 1908.

**Lower Forms Examinations.**—The Midsummer Examination will commence on the 30th of June, 1908.

**Professional Preliminary Examinations.**—These Examinations are held in March and September. The Spring Examination in 1908 will commence on the 3rd of March.

**Inspection and Examination of Schools.**—Inspectors and Examiners are appointed by the College for the Inspection and Examination of Public and Private Schools.

The Regulations for the above Examinations can be obtained on application to the Secretary.

### LECTURES FOR TEACHERS.

A.—The First Course of Lectures (Thirty-sixth Annual Series), by Prof. J. ADAMS, M.A., B.Sc., F.C.P., on "The Application of Psychology to the Work of the School," will commence on Thursday, February 13th, at 7 p.m.

The Course is meant to meet the needs of Teachers who wish to improve their acquaintance with what underlies the principles of their profession, whether they have any examination in view or not. The reading of the students will be guided, and problems set for their exercise. Every opportunity will be taken of making practical applications of psychological principles to the work of the classroom. The Fee for the Course is Half-a-Guinea. The Lectures will be delivered on Thursday Evenings at 7 o'clock, at the College, Bloomsbury Square, W.C.

For syllabus, see page 47.

C. R. HODGSON, B.A., Secretary.

Bloomsbury Square, W.C.

## Diploma Correspondence College, Ltd.

Principal—J. W. KNIPE, L.C.P., F.R.S.L.

Vice-Principal—S. H. HOOKE, B.A. Hons. Lond.

Specially arranged Courses for

LONDON MATRICULATION,  
B.A., B.D., B.Sc.,  
A.C.P., L.C.P., &c.

### FREE GUIDES

on application to the

SECRETARY, Dep. Corr. Coll., Ltd.,

WOLSEY HALL, OXFORD.

## UNIVERSITY OF ST. ANDREWS.

### L.L.A. DIPLOMA FOR WOMEN.

The attention of Candidates is drawn to the Ordinary and Honours Diplomas for Teachers, which are strongly recommended as suitable for those who are or intend to be teachers.

Examinations are held at Aberdeen, Birmingham, Blackburn, Brighton, Bristol, Cardiff, Croydon, Devonport, Edinburgh, Glasgow, Hull, Inverness, Leeds, Liverpool, London, Manchester, Newcastle-on-Tyne, Norwich, Nottingham, Oxford, St. Andrews, Sheffield, Swansea, and several other towns.

Information regarding the Examinations may be obtained from the SECRETARY, L.L.A. Scheme, The University, St. Andrews.

## LONDON COLLEGE OF MUSIC.

(Incorporated.)

GREAT MARLBOROUGH STREET, LONDON, W.

Patron: HIS GRACE THE DUKE OF LINDSAY.  
Dr. F. J. KARN, Mus. Bac. Cantab., Principal.  
G. AUGUSTUS HOLMES, Esq., Director of Examinations.  
EXAMINATIONS, 1908.

The NEXT EXAMINATION in PIANOFORTE PLAYING, SINGING, THEORY, and all branches of Music will be held in London and 400 Provincial Centres in APRIL, when Certificates will be granted to all successful candidates.

The Higher Examinations (Practical and Theoretical) for Diplomas of Associate (A.L.C.M.), Licentiate (L.L.C.M.), the Teachers' Diploma, L.C.M., and Fellowship (F.L.C.M.) take place in JUNE, JULY, and DECEMBER.

Gold and Silver Medals and Book Prizes are offered for competition according to the Regulations.

LOCAL SCHOOL CENTRES.—Full particulars with reference to the formation of these Centres will be forwarded to Principals of Schools upon application.

SYLLABUS for 1908, together with Annual Report, is now ready, and may be had of the SECRETARY.

In the Educational Department students are received and thoroughly trained under the best Professors at moderate fees. The College is open 10 a.m. to 9.30 p.m.

A COURSE of TRAINING in Pianoforte and Singing for Teachers is held at the College.

VACATION LESSONS for Teachers and others are given at Easter, August, and Christmas.

T. WEEKES HOLMES, Secretary.



## THE ASSOCIATED BOARD OF THE R.A.M. AND R.C.M.

FOR LOCAL EXAMINATIONS IN MUSIC.

PATRON: HIS MAJESTY THE KING.

PRESIDENT: H.R.H. THE PRINCE OF WALES, K.G.

**LOCAL CENTRE EXAMINATIONS (Syllabus A).** Examinations in Theory at all Centres in March and November; in Practical Subjects at all Centres in March-April, and in the London District and certain Provincial Centres in November-December also. Entries for the March-April Examinations close Wednesday, February 5th, 1908 (or, with extra fee, February 13th).

**SCHOOL EXAMINATIONS (Syllabus B).** Held three times a year, viz., March-April, June-July, and October-November. Entries for the March-April Examinations close Wednesday, January 29th, 1908 (or, with extra fee, February 6th).

Specimen Theory Papers set in past years (Local Centre or School) can be obtained on application. Price 3d. per set, per year, post free.

Syllabuses A and B, entry forms, and any further information, will be sent post free on application to—

JAMES MUIR, Secretary.

15 Bedford Square, London, W.C.  
Telegrams: "Associa, London."

### MEDICAL SCHOOLS.

GUY'S HOSPITAL MEDICAL SCHOOL.  
WESTMINSTER HOSPITAL MEDICAL SCHOOL.  
UNIVERSITY OF EDINBURGH.  
CHARING CROSS HOSPITAL MEDICAL SCHOOL.  
ROYAL DENTAL HOSPITAL.  
ST. MARY'S HOSPITAL MEDICAL SCHOOL.  
MIDDLESEX HOSPITAL MEDICAL SCHOOL.

(For particulars of the above, see following pages.)

### TRAINING AND OTHER COLLEGES, &c.

CAMBRIDGE TRAINING COLLEGE.  
FROEBEL EDUCATIONAL INSTITUTE.  
ST. GEORGE'S TRAINING COLLEGE.  
CHERWELL HALL, OXFORD.  
TRAINING COLLEGE FOR TEACHERS OF THE DEAF.  
ST. MARY'S COLLEGE, PADDINGTON.  
UNIVERSITY COLLEGE, BRISTOL.  
UNIVERSITY TUTORIAL COLLEGE.  
CARLYON COLLEGE.  
NORMAL CORRESPONDENCE COLLEGE.  
BIRKBECK COLLEGE.  
BEDFORD COLLEGE FOR WOMEN.  
UNIVERSITY EXAMINATION POSTAL INSTITUTION.

TUTORIAL INSTITUTE.  
DENMARK HILL GYMNASIUM.  
LONDON AND NORTHERN TUTORIAL COLLEGE.

(For particulars of the above, see following pages.)

AT

## LONDON UNIVERSITY

DURING THE LAST SIX YEARS

# 6221

## SUCCESSES

HAVE BEEN GAINED BY

University  
Correspondence College  
Students.

Full Prospectus post free from THE SECRETARY, Burlington House, Cambridge, or from the London Office of University Correspondence College, 32 Red Lion Square, Holborn, W.C.

## UNIVERSITY COLLEGE, BRISTOL.

FAULTY OF ARTS AND SCIENCE.  
Faculty of Medicine.

Department of Engineering.  
Department of Public Health.  
Dental Department.  
Secondary Training Department.  
Day Training Colleges for Teachers (Men and Women).

Sessional Courses are organized for the Examinations in Arts, Science, Medicine, and Divinity of the University of London. Also for the Cambridge Higher Local Examinations.

Complete Three Years' Courses for Civil, Mining, Mechanical, and Electrical Engineering, and Courses for Students intending to become Architects and Surveyors.

Special Day and Evening Courses in all Departments are given by the Professors and Lecturers.

The work of the Women Students is under the supervision of a Lady Tutor.

All Courses are open to MEN and WOMEN Students. For full information see Prospectus, which will be forwarded free on application.

JAMES RAFTER,  
Registrar and Secretary.

## DENMARK HILL GYMNASIUM AND PHYSICAL TRAINING COLLEGE FOR TEACHERS.

Full preparation for Public Examinations.  
British College of Physical Education: English and Swedish systems.

Board of Education: Science,  
Swimming and Sports.

For particulars apply—Miss E. SPELMAN STANGER,  
Trevens, Sunray Avenue, Denmark Hill, London. S.E.

## ST. MARY'S COLLEGE, PADDINGTON, W.

TRAINING COLLEGE  
(attached to High School and Kindergarten).

Recognized by the Board of Education as a Training College for Secondary Teachers.  
In connexion with London University.

Principal—

Miss J. L. LATHAM, M.A. Dublin,  
Girton College, Cambridge, Mathematical Tripos,  
Oxford University Diploma in Teaching,

assisted by

Miss M. H. WOOD, M.A. (Lond.), D.Litt. Dublin,  
Girton College, Cambridge, Classical Tripos, Cam-  
bridge University Diploma in Teaching.

Students Prepared for the London or Cambridge  
Teacher's Diploma.

Practice in Secondary and Primary Schools.  
All London advantages. Hostel for Students at  
32 Warrington Crescent, W.

Fees Sixty Guineas per annum.  
Apply—PRINCIPAL.

## BIRKBECK COLLEGE, BREMS BUILDINGS, CHANCERY LANE, E.C.

Principal—G. ARMITAGE-SMITH, D.Lit., M.A.

SECOND TERM commenced Monday, 13th January.

DAY AND EVENING CLASSES.

UNIVERSITY OF LONDON.—The College provides  
Courses of Instruction in subjects in the Faculties  
of ARTS, SCIENCE, LAWS, and ECONOMICS,  
under Recognised Teachers of the Uni-  
versity.

Well appointed Laboratories. Facilities for Research.  
Twenty Studentships open to free competition.

Particulars on application to the SECRETARY.

## TRAINING COLLEGE FOR TEACHERS OF THE DEAF,

EATON RISE, EALING, LONDON, W.

The Training College affords a professional training as  
Teachers of the Deaf upon the Pure Oral System to  
young women, who are received as Resident or Non-  
resident Students. The Training College is recognized  
by the Board of Education for a Third Year Students'  
Course, and has a Practising School attached to it.  
Apply to the PRINCIPAL.

## UNIVERSITÉ DE RENNES (France). FRENCH COURSE FOR FOREIGNERS OF BOTH SEXES.

WINTER TERM: From 15 Nov. 1907 to 15 Feb. 1908.  
SUMMER TERM: From 1 March to 8 June, 1908.

DIPLOMAS.

Diplômes de Langue et Littérature Françaises; Doctorat.  
Reduction of 50% on railway fares from Dieppe or  
Calais to Rennes. Apply for Prospectus to  
Prof. FEUILLETAT, Faculté des Lettres, Rennes.

## BEDFORD COLLEGE FOR WOMEN

(UNIVERSITY OF LONDON).

YORK PLACE, BAKER STREET, LONDON, W.

Principal—Miss M. J. TUCKE, M.A.

The Half-term begins on Thursday, February 20th.  
Lectures are given in preparation for all Examinations  
of the University of London in Arts, Science, and Pre-  
liminary Medicine, for the Teachers' Diploma (London)  
and for the Teachers' Certificate (Cambridge) and for the  
Cambridge Higher Local Examination. Entrance  
Scholarships.

Special Course of Scientific Instruction in Hygiene,  
recognised by the Sanitary Inspectors' Examination  
Board.

Six Laboratories are open to Students for Practical  
Work.

A single Course in any subject may be attended.  
Regular Physical Instruction is given, free of cost, to  
Students who desire it, by a fully qualified Woman  
Teacher.

Students can reside in the College.  
Full particulars on application to the PRINCIPAL.

## DEPARTMENT FOR PROFESSIONAL TRAINING IN TEACHING.

Head of the Department—Miss MARY MORTON, M.A.

Students are admitted to the Training Course in  
October and January. Entrance Scholarships. Appli-  
cations should be sent to the HEAD OF THE DEPART-  
MENT.

## THE CAMBRIDGE TRAINING COLLEGE FOR WOMEN TEACHERS.

Principal—Miss H. L. POWELL,

late Scholar of Newnham College (Hist. Tripos,  
Class I.), late Head Mistress of the Leeds Girls'  
High School.

A residential College providing a year's professional  
training for Secondary Teachers.

The course includes preparation for the Cambridge  
Teacher's Certificate (Theory and Practice), and for the  
Teachers' Diploma of the London University. Ample  
opportunity is given for practice in teaching science,  
languages, mathematics, and other subjects in various  
schools in Cambridge.

Students are admitted in January and in September.  
Full particulars as to qualifications for admission,  
scholarships, and bursaries may be obtained on applica-  
tion to the PRINCIPAL, Cambridge Training College,  
Wollaston Road, Cambridge.

## THE INCORPORATED

### FROEBEL EDUCATIONAL INSTITUTE,

TALGARTH ROAD, WEST KENSINGTON, LONDON, W.

Recognized by the Board of Education as a Training  
College for Secondary Teachers.

Chairman of the Committee—Sir W. MATHER.

Treasurer—Mr. C. G. MONTEFIORE, M.A.

Secretary—Mr. ARTHUR G. SYMONDS, M.A.

## TRAINING COLLEGE FOR TEACHERS.

Principal—Miss E. LAWRENCE.

### KINDERGARTEN AND SCHOOL.

Head Mistress—Miss A. YELLAND.

Students are trained for the Examinations of the  
National Froebel Union and other Examinations.

TWO SCHOLARSHIPS of £20 each, and two of £15  
each, tenable for two years at the Institute, are offered  
annually to Women Students who have passed certain  
recognized Examinations.

Prospectuses can be obtained from the PRINCIPAL.

## ST. GEORGE'S TRAINING COLLEGE FOR WOMEN TEACHERS, EDINBURGH.

This College provides a year's Professional Training  
for well educated women who intend to become Teachers  
in Secondary and High Schools.

The College is recognized by the Edinburgh Provincial  
Committee for the Training of Teachers under the  
sanction of the Scotch Education Department, by the  
English Board of Education, and by the Teachers' Train-  
ing Syndicate of the University of Cambridge.

Prospectus and further particulars from the Principal,  
Miss M. R. WALKER, 5 Melville Street, Edinburgh.

## CHURCH EDUCATION COR- PORATION.

### CHERWELL HALL, OXFORD.

Training College for Women Secondary Teachers.

Principal—Miss CATHERINE I. DODD, M.A. (late  
Lecturer in Education in the Manchester University).

Students are prepared for the Oxford, the Cambridge,  
and the London Teacher's Diploma. Special arrange-  
ments made for Students to attend the School of Geo-  
graphy.

Exhibitions and Scholarships awarded in December  
and July.—Apply to the PRINCIPAL.

## The Tutorial Institute, 39 BLOOMSBURY SQUARE, LONDON.

Principal:

J. F. HWEN, M.A.,

Honours in Mathematics and Physics.

(Founder and for ten years Principal of  
The London and Northern Tutorial College.)

The Principal has had over 12 years' successful ex-  
perience in preparing by Correspondence and Orally  
for the Higher Examinations qualifying Secondary  
Teachers. Over 2,000 successes have been officially  
credited to his students, who have completed over  
300 Diplomas and Degrees. Strong staff of Tutors, all  
University Graduates, mostly in Honours.

CORRESPONDENCE INSTRUCTION.

All Fees payable by instalments.

A.C.P.—New Classes now forming for August. AH  
subjects, £4. 4s. Education, £1. 11s. 6d.

L.C.P.—Graduates exempt from all subjects except  
Education. Full Course, £2. 12s. 6d. A.C.P.'s can  
complete extra work for L.C.P. for Composition Fee,  
£4. 4s. Education alone, £1. 11s. 6d.

Diploma Guide Free.

Inter. Arts.—Full Courses for July. 20 lessons each  
subject, £1. 11s. 6d.

B.A.—Thorough Tuition by Honours Graduates.

Inter. Science.—Special attention to Mathematics  
and Physics. Full Course, £2. 2s. each subject.

B.Sc.—Expert help by eminent specialists.

Matriculation.—Full Preparation in usual sub-  
jects, 10s. 6d. monthly.

R.U.L.—The Degrees of the Royal University of  
Ireland are in some respects more feasible for private  
students than the London Exams.

Higher Locals.—Fullest and most successful help.  
Usual Subjects, £1. 11s. 6d. each.

FROEBEL CERTIFICATES.—Thoroughly  
practical instruction by highly qualified Teachers.

Froebel Guide Free.

### ORAL TUITION

in Class and Individually for L.L.A., Matriculation,  
Professional Preliminaries, Entrance, and all the Higher  
Examinations. Evening and Saturday Oral Classes.

# FREE.

The Principals of the Normal Correspondence  
College have, through the courtesy of the College  
of Preceptors, issued the following

## FREE GUIDES.

1. A.C.P.	100 pages.
2. L.C.P.	84 "
3. F.C.P.	75 "
And have also published the following Guides.	
4. PREL. CERT.	120 pages.
6. CERTIFICATE.	92 "
6. MATRICULATION.	84 "
7. IRISH UNIVERSITY.	60 "
8. OXFORD & CAMBRIDGE LOCALS	100 "

These Guides are supplied gratis to all who men-  
tion this paper and state they intend sitting for  
examination.

"They are written by experts whose advice is the  
best procurable."—*Educational News.*

"Will undoubtedly help greatly towards suc-  
cess."—*Schoolmistress.*

### NORMAL CORR. COLLEGE,

47 MELFORD ROAD, EAST DULWICH, S.E., and  
110 AVONDALE SQUARE, LONDON, S.E.

## BADGES, HAT BANDS, CAPS

AT WHOLESALE PRICES.

Write—SCHOOLS AGENT, 1 Arundel Villas, Chelmsford  
Digitized by Google

**University Tutorial College**

(Affiliated to University Correspondence College).



**Day and Evening Classes**

FOR

**MATRICULATION**

AND OTHER

**LONDON UNIVERSITY EXAMINATIONS**

may be taken up at any time at proportionate fees.

At each of the last four Matriculation Examinations the official Pass Lists of the University credit University Tutorial College with many more Successes than any other institution, and at three of these Examinations University Tutorial College is credited with twice as many Successes as any other institution.

Prospectus, with full particulars of Day and Evening Classes for Matriculation, Inter, Science and Arts, B.Sc. and B.A. and Prelim. Sci. (M.B.), may be had, post free, from

THE PRINCIPAL,  
University Tutorial College,  
Red Lion Square, Holborn, W.C.

**UNIVERSITY EXAMINATION POSTAL INSTITUTION.**

Manager: **Mr. E. S. WYMOUPE, M.A.**  
Assistant Manager: **Miss J. WATSON, M.A.**

17 RED LION SQUARE, HOLBORN, LONDON, W.C.  
(formerly 27 Southampton Street, Strand).

**POSTAL PREPARATION**

FOR

**UNIVERSITY EXAMINATIONS.**

**108**

U.E.P.I. Candidates have passed the M.D. (London) during the last seven years: six of these obtained the gold medal.

**1230**

U.E.P.I. Candidates have, during the last twelve years, passed various groups in the Cambridge Higher Local (132 in the First Class), gaining 254 marks of Distinction.

**114**

U.E.P.I. Candidates have passed the Oxford Higher Local during 1903-7.

**GUIDE TO THE CAMBRIDGE HIGHER LOCAL EXAMINATION** (42 pages) sent Gratis to Candidates: 1s. to Non-candidates.

**PRACTICAL SUGGESTIONS FOR WOMEN STUDENTS**, especially intending Teachers (26 pages), 1s. post free.

**CARLYON COLLEGE.**

55 AND 56 CHANCERY LANE.

**LONDON UNIVERSITY EXAMINATIONS.**

LONDON MATRICULATION, INTER, ARTS and SCIENCE, B.A., and B.Sc. Classes (small) Day and Evening, M.A. Classes, B.A. Honours Classes, Elementary Greek Class.

Classes and Tuition for Legal and Medical Preliminaries, Accountants', Scholarship Examinations, Previous, Responsions, and General.

Papers Corrected for Schools. Vacation Tuition. Private tuition for all Examinations.

Prospectus and full details on application to R. C. B. KERIN, B.A. Lond., First of First Class Classical Honours, Editor of "Phaedo," "Pro Plancio," &c.

**SUCCESSSES.**

1892-1907.—London Matric., 149; Inter. Arts, Sc., and Prel. Sci., 140, 6 in Hons.; B.Sc., 1896-1906, 25; B.A., 1891-1906, 95, 14 in Hons.; Medical Prelim., 249; Responsions and Previous, 60; Law Prelim., 62; other Successes, 400.

**B.A. (LOND.), 1906 and 1907, 15, 3 in Classical Honours. M.A., 8.**  
**INTER. ARTS, 1907, 6 out of 8.**

**LONDON & NORTHERN TUTORIAL COLLEGE,**

Principal:—S. DICKSON-BROWN, M.A., F.R.G.S., F.S.A. (Honoursman at B.A.).

Vice-Principal:—A. H. REID, B.A., I.S.O. (Recently of the Board of Education, Whitehall).

**SUCCESSFUL TUITION**

ON A

**PERFECTED POSTAL SYSTEM**

FOR

**A.C.P. AND L.C.P. HIGHER LOCALS**  
(CAMBRIDGE AND OXFORD.)

**L.L.A. UNIVERSITY OF ST. ANDREWS. MATRICULATION.**

Students of this College have gained over

**2,700**

Successes at University Examinations.

**ADVICE - - - - } FREE.**  
**GUIDE - - - - }**  
**SPECIMEN PAPERS - - }**

7 Southampton Street, Bloomsbury, LONDON.

**PROFESSIONAL PRELIMINARY EXAMINATIONS, LONDON MATRIC., INTER, and FINAL B.A. and B.Sc.**—Private and Class Tuition or the above, and in Science and Advanced Mathematics, by ALEXANDER W. BAIN, B.A., B.Sc. (Lond.), A.I.C., F.C.S., Anglo-Saxon and Early English Text Society's Prizeman (Univ. Coll., Lond.), Silver Medal and Exhibition in Chemistry and Prizeman in Organic Chemistry (Univ. Coll., Lond.), Honours in Chemistry at B.Sc. and at Board of Education Exams. Nearly 2,000 successes in 16 years.

Mr. BAIN is the Head of the Chemical Department, Tottenham Polytechnic, also a Sub-Examiner to the University of London and to the College of Preceptors. He has prepared the sons of leading public and professional men for the Universities and Professional Entrance Examinations.

Address—Mr. A. W. BAIN, B.A., B.Sc., A.I.C., Central Tutorial Classes, 207 Gray's Inn Road, London.

**CORRESPONDENCE TUITION,**

Classes or Private Lessons in all Subjects for all Examinations, &c., at moderate fees. Special tuition for MEDICAL Prelims. and DIPLOMA Exams. Many recent successes.—F. J. BORLAND, B.A., L.C.P. (Science and Math. Prizeman), Victoria Tutorial College, 87 Buckingham Palace Road, S.W.; and Stallheim, Brunswick Road, Sutton, Surrey. Schools visited and Examinations conducted.

**Messrs. TRUMAN & KNIGHTLEY,**

Educational Agents,

6 HOLLES ST., CAVENDISH SQUARE, LONDON, W.

Telegrams—"TUTORESS, LONDON."  
Telephone—No. 1167 Mayfair.

This Agency is under distinguished patronage, including that of the Principals of many of our leading Schools.

**A.—EMPLOYMENT DEPARTMENT.**

(i.) ASSISTANT MASTERS & TUTORS.

MESSRS. TRUMAN & KNIGHTLEY introduce University and other qualified ENGLISH and FOREIGN MASTERS and TUTORS to Schools and Private Families.

(ii.) ASSISTANT MISTRESSES.

MESSRS. TRUMAN & KNIGHTLEY introduce University, Trained, and other qualified ENGLISH and FOREIGN LADY TEACHERS to Girls' and Boys' Schools.

(iii.) LADY MATRONS AND HOUSE-KEEPERS.

MESSRS. TRUMAN & KNIGHTLEY introduce well qualified and experienced LADY MATRONS, HOUSEKEEPERS, and HOUSE MISTRESSES to Boys' and Girls' Schools.

No charge is made to Principals, and no charge of any kind is made to candidates unless an engagement be secured through this Agency, when the terms are most reasonable.

**B.—SCHOOL TRANSFER DEPARTMENT.**

A separate Department, under the direct management of one of the Principals, is devoted entirely to the negotiations connected with the Transfer of Schools and Introduction of Partners.

MESSRS. TRUMAN & KNIGHTLEY, being in close and constant communication with the Principals of nearly all the chief Girls' and Boys' Schools in the United Kingdom, to many of whom they have had the privilege of acting as Agents, and having on their books always a large number of thoroughly genuine Schools for Sale and Partnerships to negotiate, as well as the names and requirements of numerous would-be purchasers, can offer unusual facilities for satisfactorily negotiating the TRANSFER of SCHOOLS, and arranging PARTNERSHIPS.

No charge is made to Purchasers, and there is no charge to Vendors unless a Sale or Partnership be effected through this Agency.

All communications and enquiries are treated in the strictest confidence.

**C.—PUPILS' DEPARTMENT.**

MESSRS. TRUMAN & KNIGHTLEY have a carefully organized Department for the introduction of Pupils to Schools and other Educational Establishments. No charge is made for registration.

Any negotiations entrusted to MESSRS. TRUMAN & KNIGHTLEY receive prompt and careful attention, every effort being made to save clients as much time and trouble as possible.

Prospectus, References, and full particulars will be forwarded on application.

## THE MIDDLESEX HOSPITAL MEDICAL SCHOOL.

A SCHOOL OF THE UNIVERSITY OF LONDON.

The Medical School of the Middlesex Hospital has been largely rebuilt and equipped to meet the most recent educational requirements.

### HOSPITAL APPOINTMENTS.

In addition to Clerkships and Dresserships, Sixteen Resident Appointments are annually open to all General Students. Also Medical, Surgical, and Obstetric Registrars are appointed annually.

### SCHOLARSHIPS AND PRIZES.

Scholarships and Prizes to the value of £860 are awarded annually.

Full particulars may be obtained on application to

Mr. J. MURRAY, M.B., F.R.C.S.,  
Dean of the Medical School,  
Middlesex Hospital, London, W.

## CHARING CROSS HOSPITAL MEDICAL COLLEGE. (UNIVERSITY OF LONDON.)

The SUMMER SESSION, 1908, will be opened on Tuesday, April 28th.

The College is complete in all Departments.

### SPECIAL TEACHERS

for all Preliminary and Intermediate Subjects.

### EIGHT ENTRANCE SCHOLARSHIPS

are awarded annually of the aggregate value of £575.

Twenty-two Hospital and Teaching APPOINTMENTS are made yearly.

For Prospectus and details of fees apply to—

FREDERICK C. WALLIS, Dean.

## THE ROYAL DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, LEICESTER SQUARE, LONDON, W.C.

The SUMMER SESSION, 1908, will commence on Friday, May 1st.

The Royal Dental Hospital was founded in 1858 at Soho Square, and in March, 1874, was removed to Leicester Square. The increased demands made on it by the public and the rapid growth of the Medical School necessitated the erection of an entirely new building. The new Hospital was opened in March, 1901, and is complete in every detail with modern appliances, and the School portion of the building thoroughly equipped for teaching purposes. The clinic of the Hospital is unrivalled. In 1906 99,760 operations were performed.

The following SCHOLARSHIPS and PRIZES are open for competition:—

The ENTRANCE SCHOLARSHIP, of the value of £20, awarded in October.

The SAUNDERS SCHOLARSHIP, of the value of £20.

The STORER-BENNETT RESEARCH SCHOLARSHIP, of the value of £50.

The ALFRED WOODHOUSE SCHOLARSHIP, of £35.

The ROBERT WOODHOUSE PRIZE, of the value of £10.

### INSTRUCTION IN MECHANICAL DENTISTRY.

The instruction in Mechanical Dentistry as required for the Dental Curriculum can be obtained at this Hospital.

Further particulars concerning Fees, Scholarships, &c., can be obtained on application to

THE DEAN.

## GUY'S HOSPITAL MEDICAL SCHOOL. (UNIVERSITY OF LONDON.)

The SUMMER SESSION will begin on May 1st, 1908.

(Students who have recently passed the College of Preceptors' Examination are advised to enter forthwith to prepare for the Conjoint Examinations in July next.) The Hospital contains 608 Beds, which are in constant occupation.

**ENTRANCE SCHOLARSHIPS.**—Five Scholarships will be competed for in September, 1908. Two in Arts of the value of £100 and £50, and three in Science of the value of £150, £60, and £50. Students who enter in May, if otherwise eligible, are able to compete.

**APPOINTMENTS.**—Hospital appointments are made strictly in accordance with the merits of the Candidates, and without extra payment.

**DENTAL SCHOOL.**—A recognized Dental School is attached to the Hospital, which affords to Students all the instruction required for a Licence in Dental Surgery.

**PRIZES AND SCHOLARSHIPS** are awarded to Students in their various years, amounting in the aggregate to more than £660.

**RESIDENTIAL COLLEGE.**—The Residential College accommodates about 50 Students in addition to the Resident Staff of the Hospital. It contains a large Dining Hall, Reading Room, Library, and Gymnasium for the use of the Students' Club.

For Prospectus, particulars of the Scholarships, and further information, apply to the Dean, Dr. H. L. EASON, Guy's Hospital, London Bridge, S.E.

## WESTMINSTER HOSPITAL MEDICAL SCHOOL (UNIVERSITY OF LONDON.)

BROAD SANCTUARY AND CAXTON STREET, S.W.

The SUMMER SESSION will begin on April 23rd.

**SCHOLARSHIPS IN ARTS AND SCIENCE**, to the value of £260, will be offered for competition among Students entering then. The Examination takes place on April 13th and 14th.

The Hospital and School are close to Victoria, Charing Cross, and three Metropolitan District Railway stations.

For Prospectus and further particulars apply to the DEAN.

## ST. MARY'S HOSPITAL MEDICAL SCHOOL, PADDINGTON, W. (UNIVERSITY OF LONDON.)

The SUMMER SESSION will begin on April 28th.

The Medical School provides Courses of Instruction covering the ENTIRE MEDICAL CURRICULUM for the Degrees of the Universities and for the Diplomas of M.R.C.S., L.R.C.P. All Courses are recognized by the University of London for Internal Students.

**SIX ENTRANCE SCHOLARSHIPS**, value £145 to £52, 10s., competed for in September next. Candidates joining the School in January or April next are eligible.

Complete Handbook on application to the DEAN.

## ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, ROYAL COLLEGE OF SURGEONS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

Copies of Regulations for the Triple Qualification of this Board (L.R.C.P.E., L.R.C.S.E., and L.F.P. & S.G.), containing dates of Professional Examinations for year 1908, Curriculum, &c., may be had on application to JAMES ROBERTSON, Solicitor, 54 George Square, Edinburgh, Inspector and Treasurer for Edinburgh; or from ALEXANDER DUNCAN, B.A., LL.D., Faculty Hall, 242 St. Vincent Street, Glasgow, Inspector and Treasurer for Glasgow. In applying for copies, please state the date of commencement of medical study.

### JUST PUBLISHED.

A SHORT

**CLEARANCE LIST OF EDUCATIONAL BOOKS**  
Chiefly Classics; offered in numbers at very low prices.

### RECENTLY PUBLISHED.

**CATALOGUE OF SECOND-HAND BOOKS**  
recently purchased, classified under the headings—

Art & Architecture, Classics, English Literature, Modern History, Theology, &c.

Gratis and post free from—

**H. G. GADNEY,**  
UNIVERSITY BOOKSELLER,  
2 & 3 TURL STREET, OXFORD.

## Educational Handwork Association.

President—The Right Hon. A. H. DYKE ACLAND.

### Summer Courses

IN ALL BRANCHES OF

EDUCATIONAL HANDWORK

WILL BE HELD AT

### SOARBOROUGH

from July 27th to August 22nd, 1908.

Students are prepared for the Examinations of the BOARD OF EXAMINATIONS FOR EDUCATIONAL HANDWORK and the CITY AND GUILDS OF LONDON INSTITUTE by specially qualified Teachers.

Hotel accommodation provided.  
For particulars write to J. SPITTLE, Hon. Sec., 47 Spring Street, Huddersfield.

### COACHING FOR EXAMS.

Resident Students (Ladies or Gentlemen) prepared for University, Civil Service, &c., by MR. E. J. BUNNETT, M.A. (Cantab.); 20 years' successful experience.

Prospectus, &c., from Mr. or Mrs. BUNNETT, Aldford, Vicarage Road, Eastbourne.

### SECONDHAND BOOKS AT HALF PRICES! NEW BOOKS AT 25% DISCOUNT!

**BOOKS** for A.C.P., L.C.P., F.C.P., Matric., University, Certificate, Scholarship, L.L.A., B.A., and ALL other Examinations supplied. State wants: send for List. Books sent on approval. **BOOKS BOUGHT**, good prices given.—W. & G. FOYLE, 135 Charing Cross Road, W.C.

### INVALUABLE TO SCHOOLS.—

Schoolmasters should use the BLACK AUTOCOPYIST—most perfect, simplest, and cleanly Copyist invented—for reproducing Examination Papers, Diagrams, Circulars, Music, &c. Original written or drawn on ordinary paper. Write for Price List and Specimens, or call and see apparatus in operation.—AUTOCOPYIST Co., No. 3 Dept., 64 Queen Victoria Street, London, E.C.

## Nervous Disorders

The nerves need a constant supply of phosphates to keep them steady and strong. A deficiency of the phosphates causes a lowering of nervous tone, indicated by exhaustion, restlessness, headache or insomnia.

## Horsford's Acid Phosphate

(Non-Alcoholic.)

furnishes the phosphates in a pure and abundant form. It repairs waste; restores strength and induces restful sleep without the use of dangerous drugs.

An Ideal Tonic in Nervous Diseases.

If your chemist does not have it in stock he can obtain it from Bovril, Ltd., 152 Old Street, London, E. C.

# UNIVERSITY OF EDINBURGH.

**Chancellor:** The Right Hon. A. J. BALFOUR, M.P., D.C.L., LL.D., &c.

**Rector:** The Right Hon. R. B. HALDANE, K.C., M.P., LL.D., &c.

**Principal and Vice-Chancellor:** Sir WILLIAM TURNER, K.C.B., D.C.L., LL.D., D.Sc., M.B., &c.

**Secretary of Senatus:** Professor Sir LUDOVIC J. GRANT, Bart., B.A., LL.D.

The **Winter Session** begins about the middle of October, and closes about the end of March; the **Summer Session** extends from the beginning of May to the end of July.

The University embraces **Six Faculties**, viz.: **Arts, Science, Divinity, Law, Medicine and Surgery**, and **Music**, in all of which full instruction is given and Degrees are conferred. There are many different avenues to the **Arts Degrees**, the graduation subjects embracing English, History, Modern Languages, Science, &c., besides Ancient Languages, Philosophy, Mathematics, &c.; and it has been shown by successes of Edinburgh students in the Civil Service Examinations that it is possible to combine study for Degrees in Arts, Science, or Law with preparation for this and other Special Examinations. In addition to the Ordinary and Honours Degrees in Arts, the Higher Degrees of D.Litt., D.Phil., and D.Sc. are conferred. Education in Military subjects is given in connexion with the Scheme of allotment of Army Commissions to Graduates of the University. Degrees in **Science** (B.Sc. and D.Sc.) may be taken in **Pure Science, Engineering**, and in **Public Health**, and the Degree of B.Sc. in **Agriculture** and in **Forestry**. There are fully equipped Science Laboratories, and other necessary appliances, in all these Departments. The curriculum in **Divinity** affords a thorough training in Theological subjects, and in Hebrew, Arabic, and Syriac. The Degree of Bachelor of Divinity (B.D.) is conferred. The **Law Faculty**, besides furnishing the professional equipment necessary for those intending to practise in Scotland, contains Chairs in Jurisprudence and Public International Law, Constitutional Law and History, Roman Law, and Political Economy, and Lectureships in International Private Law and Administrative Law, and is thus adapted for students preparing for the Civil Service Examinations, and for legal, political, and administrative appointments generally. The Degrees of Bachelor of Laws (LL.B.) and Bachelor of Law (B.L.) are conferred. The Faculty of **Medicine** has a full curriculum in Medicine and Surgery, and is equipped with very extensive Laboratories and all other necessary appliances for Practical Teaching. Ample facilities are afforded for Clinical Instruction at the Royal Infirmary, Maternity Hospital, Royal Hospital for Sick Children, Hospital for Infectious Diseases, and Royal Asylum for the Insane. Four Degrees in Medicine and Surgery are conferred by the University, viz.: Bachelor of Medicine (M.B.), Bachelor of Surgery (Ch.B.), Doctor of Medicine (M.D.), and Master of Surgery (Ch.M.), and these Degrees qualify for practice throughout His Majesty's dominions, and for admission to the Naval, Military, and other Public Medical Services in the United Kingdom. A **Diploma in Tropical Medicine and Hygiene** (D.T.M. & H.) is conferred on Graduates in Medicine of the University, and a University **Certificate in Tropical Diseases** is also conferred on qualified Medical Practitioners who have attended Courses in the University on practical Bacteriology and Tropical Diseases. In **Music** there is a full course of study for graduation, and the Degrees of Mus.B. and Mus.D. are conferred.

The University Staff consists of 41 Professors, 49 Lecturers, and over 50 Assistants and Demonstrators. The annual amount available for Fellowships, Scholarships, Bursaries, Prizes, &c., is about £18,500. Facilities are afforded for research in scientific and other subjects.

Women may attend the Classes in Arts, Science, Divinity, Law, and Music, and they are admitted to graduation in Arts, Science, Law, Medicine, and Music, the training for Degrees in Medicine being afforded by well equipped extra-academical Schools.

Information regarding Matriculation, the Curricula of Study for Degrees, &c., the Examinations for Fellowships, Scholarships, &c., may be obtained from the DEANS OF THE FACULTIES, or from the CLERK OF SENATUS; and full details are given in the University Calendar, published by JAMES THIN, 55 South Bridge, Edinburgh—price 3s. 4d. by post. The Preliminary and Degree Examination papers in each of the Faculties are also published by Mr. JAMES THIN, viz.—Arts and Science Preliminary papers and Bursary papers, 1s.; Medical Preliminary papers, 6d.; Degree papers: Arts, 1s.; Science, 9d.; Divinity, Law, Medicine, and Music, 6d. each.

August, 1907.

By authority of the Senatus,

L. J. GRANT, *Secretary of Senatus.*

## EDUCATIONAL AGENCY.

(ESTABLISHED OVER 70 YEARS.)

*Proprietors:—*

Messrs. GRIFFITHS, SMITH, POWELL & SMITH.

OFFICES—34 Bedford Street, Strand;  
and 22 Henrietta Street, Covent Garden, London, W.C.

*Telegraphic Address:—*"Scholasque, London."

*Telephone:—*7021 Gerrard.

### Scholastic.

**Head Masters and Principals of Public and Private Schools** desirous of engaging qualified and well recommended English or Foreign Resident, Non-resident, or Visiting Assistant Masters, can have eligible Candidates introduced to them (free of charge) by stating their requirements to Messrs. GRIFFITHS, SMITH, POWELL & SMITH.

A List of **Baster, 1908, Vacancies** will be forwarded on application to Graduates and other well qualified **Assistant Masters** seeking appointments for next term.

**Schools Transferred and Valued, Partnerships arranged. No charge unless sale effected. List of Boys' and of Girls' Schools and School Partnerships for Sale, sent Gratis to intending Purchasers, TO WHOM NO COMMISSION IS CHARGED.**

### Assistant Mistresses.

**Head Mistresses and Principals of Public and Private Schools** requiring English or Foreign Assistant Mistresses or other Teachers can, on application to Messrs. GRIFFITHS, SMITH, POWELL & SMITH, have suitable Candidates placed in immediate communication with them free of charge.

A List of **Baster, 1908, Vacancies** will be forwarded to English and Foreign Assistant Mistresses and other Teachers on application. Liberal Salaries.

## JOINT AGENCY FOR WOMEN TEACHERS.

(Under the management of a Committee appointed by the Teachers' Guild, College of Preceptors, Head Mistresses' Association, Association of Assistant Mistresses, and Welsh County Schools' Association.)  
**Address—74 GOWER STREET, LONDON, W.C.**

*Registrar—*Miss ALICE M. FOUNTAIN.

This Agency has been established for the purpose of enabling Teachers to find work without unnecessary cost. All fees have therefore been calculated on the lowest basis to cover the working expenses.

Head Mistresses of Public and Private Schools, and Parents requiring Teachers, or Teachers seeking appointments, are invited to apply to this Agency.

Many Graduates and Trained Teachers for Schools and Private Families; Visiting Teachers for Music, Art, and other special subjects; Foreign Teachers of various nationalities; Kindergarten and other Teachers are on the Register, and every endeavour is made to supply suitable candidates for any vacancy.

School Partnerships and Transfers are arranged.

Hours for interviews (preferably by appointment):—

11 a.m. to 1 p.m., and 3 to 5 p.m.

Saturdays, 11 a.m. to 1 p.m., and 2 to 3 p.m.

## THE JOINT SCHOLASTIC AGENCY.

23 Southampton Street, Bloomsbury Square, W.C.

Managed by a Committee of Representatives of the following Bodies:—

**HEAD MASTERS' CONFERENCE.**

**INCORPORATED ASSOCIATION OF HEAD MASTERS.**

**COLLEGE OF PRECEPTORS. TEACHERS' GUILD.**

**INCORPORATED ASSOCIATION OF ASSISTANT MASTERS.**

**ASSOCIATION OF TECHNICAL INSTITUTIONS.**

**ASSOCIATION OF PREPARATORY SCHOOLS.**

**WELSH COUNTY SCHOOLS.**

*Registrar:—*Mr. E. A. VIRGO.

The object of this Agency is to render assistance at a minimum cost to Masters seeking appointments.

The lowest possible fees are therefore charged.

A PROSPECTUS will be sent ON APPLICATION.

Interviews (preferably by appointment) 12 p.m.—1.30 p.m., and 3 p.m.—5.30 p.m. Saturdays, 12 p.m.—1 p.m.

## KINDERGARTEN TEACHERS' AGENCY.

In connexion with the Froebel Society,  
4 BLOOMSBURY SQUARE, LONDON, W.C.  
(Next door to the College of Preceptors.)

The Froebel Society registers Trained Kindergarten Teachers, of whom the large majority hold the Higher Certificate of the National Froebel Union.

No fee is charged to employers until an engagement has been made through the Froebel Society.

Office hours: 11 to 4, Saturdays 11 to 1. Telephone: 8615 Gerrard. Miss TEMPLE ORME, LL.D.

*Secretary.*

**NUCLEUS** of Boys' School to be given away. No charge for goodwill. About £18 wanted for school desks, books, &c. Immediate possession if desired. Beautiful situation in small town on the Cotswolds. Splendid opportunity for energetic and capable man. No secondary school within a four-mile radius. Apply—C. Educational Times Office, 89 Farringdon Street, London, E.C.

## NEWCASTLE-UPON-TYNE EDUCATION COMMITTEE.

RUTHERFORD COLLEGE SECONDARY SCHOOL FOR GIRLS.

**WANTED.—A FORM MISTRESS** for the above-named school. A University degree, or equivalent, and some experience in a Secondary school essential. Chief subject required, French. Elementary Mathematics and general English desirable.

Salary, £90 per annum, rising by £5 annually to £120. Application forms (to be completed and returned not later than 4th February, 1908) may be obtained from the SECRETARY, Education Offices, Northumberland Road, Newcastle-upon-Tyne.

## Books at less than Half-price!!!

Most carefully selected and arranged Stock of Recent Second-hand Educational Books in London.

**HIGHEST PRICES GIVEN FOR ALL EDUCATIONAL BOOKS.**

R. G. RUTHERFORD, A.C.P., Inter.B.A. (late with W. & G. Foyle),  
1 BLOOMSBURY COURT (15 Seconds from Museum-Tube), High Holborn, W.C.

## SOCIÉTÉ NATIONALE DES PROFESSEURS DE FRANÇAIS EN ANGLETERRE.

### LA PRONONCIATION FRANÇAISE.

Cours pratique et raisonné  
de

PHONÉTIQUE FRANÇAISE,

Théorique et expérimentale, avec appareils,

pour

Professeurs, Institutrices,

Candidats aux Examens, &c.

CORRECTION DES VICES DE PRONONCIATION,  
LECTURE, DICTION, DICTÉE, CONVERSATION.

CLASSES DE JOUR ET DE SOIR.

Pour les renseignements, écrire à

**M. Stéphane Barlet,**

SACKVILLE HOUSE, 8A RED LION SQUARE, LONDON, W.C.

Have you written to ask for a Specimen Copy of

### The Great Aid to Memory, THE SIMPLEX EXERCISE BOOK P

IF NOT, WHY NOT? PARTS 1-14 NOW READY, 3d. EACH.

You are injuring yourself as well as your pupils by not writing at once for a Specimen Copy, post free, to

**D. R. DUNCAN & CO., EASTBOURNE.**

### CAREY'S "GRADUS AD PARNASSUM."

WITH THE ENGLISH MEANINGS.

Revised, Corrected, and Augmented by a Member of the University of Cambridge.

Post 8vo, cloth, price 7s.

THE STATIONERS' COMPANY, STATIONERS' HALL, LONDON.

## THE RUGBY PRESS

undertakes every description of Letterpress

PRINTING FOR SCHOOLS.

Estimates furnished. Enquiries solicited.

Address— **GEORGE OVER, Printer, Rugby.**

**THE Behnke Method of Voice**  
Training for **Speakers, Singers, and**  
**Stammerers.** Apply to Mrs. EMIL BEHNKE, 18  
Earl's Court Square, London.

"Pre-eminent success."—*Times*.

"Highly successful methods."—*Medical Times*.

"I have confidence in advising speech sufferers to  
place themselves under the instruction of Mrs. Behnke."  
—Editor, *Medical Times*.

"Mrs. Behnke is well known as a most excellent  
teacher upon thoroughly philosophical principles."—  
*Lancet*.

"Mrs. Behnke's work is of the most scientific des-  
cription."—*The Medical Magazine*.

"STAMMERING," (Cleft palate Speech, Lipping),  
1s. net, postage 1½d.

### REMEMBER EYE-GATE. CULTIVATE PUPILS' VISUAL MEMORY.

Artistic Teachers ought to use Hall's Crayon Cloth  
for Sketches, &c., and Ruled Sheets for  
Music, Graphs, &c.  
Send for Price List.

**R. M. HALL,**

**Williams Road, Moston, Manchester.**

New Edition, 18mo, price 9d.

**THE ELEMENTS OF BOOK-**  
**KEEPING,** by SINGLE and DOUBLE ENTRY,  
with Practical Explanations and Exercises on the most  
useful Forms for Business. By A. K. ISBISTER, M.A.  
LONDON: LONGMANS & Co., PATERNOSTER ROW, E.C.

## RYDE'S CORRESPONDENCE CLASSES.

New Section for **A.C.P.** commences at the half-  
quarter, February 19th. Also **Oxford Senior and**  
**Cambridge Senior Local Classes.**

Apply for Prospectus, Testimonials, Syllabus, &c., to

**Mr. PERCY W. RYDE,**

**70 Gresham Street, London, E.C.**

Just Published in Six Parts.

## THE LEADER ARITHMETIC.

A Series of very carefully Graduated Exercises in Arithmetic, with Rules,  
Explanations, and Worked Examples in the higher parts, suitable for all Elementary  
Schools, and the Lower Forms of Classes of other Schools, but specially intended  
for children who leave school when about 14 or 15 years old.

By **GEORGE MERCHANT.**

<b>Part 1.</b> The Simple Rules to Short Division	... ..	64 pp.	Price 3d.
<b>Part 2.</b> Long Division and the Money Rules	... ..	64 pp.	Price 3d.
<b>Part 3.</b> Weights and Measures, Practice, Bills of Parcels, Rule of Three by the Unitary Method	... ..	64 pp.	Price 3d.
<b>Part 4.</b> Vulgar and Decimal Fractions, Proportion	... ..	64 pp.	Price 3d.
<b>Part 5.</b> The Commercial Rules	... ..	56 pp.	Price 3d.
<b>Part 6.</b> Higher Rules and 500 Miscellaneous Examples	... ..	56 pp.	Price 3d.

"The explanations are simple and clear, and exemplified in adequate variety by  
worked examples. The exercises are very numerous and carefully graduated. A  
laborious and serviceable compilation."—*The Educational Times*.

**SIMPKIN, MARSHALL, HAMILTON, KENT & CO.,** and all Booksellers.

Post free from the AUTHOR, 10 Gorsey Road, Nottingham, at published prices.

## BOOKS! BOOKS!

When requiring new or Second-hand Books write us. Catalogues  
issued and post free on request. State subject. Books sent abroad in  
tin lined cases. We export Books to several Colonial Colleges and  
Institutions. Write for terms.

**GALLOWAY & PORTER, Booksellers,**  
**CAMBRIDGE, ENGLAND.**

## IDOLA PULPITORUM: PITFALLS OF THE PRACTICAL TEACHER.

For this series of Articles, see "THE JOURNAL OF EDUCATION."

**INTRODUCTORY ARTICLE,** by Professor ADAMS [November,  
1906]; **CLASSICS,** by H. G. HART [December, 1906]; **ENGLISH,**  
by ARTHUR BURRELL [January, 1907]; **FRENCH,** by CLOUDESLEY  
BRERETON [February and March, 1907]; **SCIENCE,** by T. PERCY  
NUNN [April, 1907]; **NATURE STUDY,** by T. RAYMONT [May,  
1907]; **HISTORY,** by S. S. F. FLETCHER [June, 1907]; **PHYSICAL**  
**TRAINING,** by Colonel MALCOLM FOX [July, 1907]; **DRAWING,**  
by W. E. SPARKES [August, 1907]; **DOMESTIC SCIENCE,**  
by ALICE RAVENHILL [October, 1907]; **GEOMETRY,** by H. WINIFRED  
STURGE [December, 1907]; **GEOGRAPHY,** by Dr. A. J. HERRBERT-  
SON [January, 1908].

Subscription is 7s. per annum; single numbers, 8d. post free.

Offices: **3 BROADWAY, LUDGATE HILL, E.C.**

**MATHEMATICAL MASTERSHIP**  
wanted by B.A. (R.U.I.). Fifteen years' experi-  
ence. Highest Mathematics, Pure and Mixed; also  
Physics, English, Classics, French, Shorthand, Singing,  
Philosophy. Salary £150 to £200 non-res. Highest refer-  
ences. Apply—C., *Educational Times* Office, 89 Far-  
rington Street, London, E.C.

Fourteenth Edition. 12mo, price 3s. 6d.

**XENOPHON'S ANABASIS, Books**  
**I. to III.** By A. K. ISBISTER, M.A., LL.B.  
With Notes, Vocabulary of all the Words in the Text,  
and a Series of Easy Reading Lessons for Beginners.  
Designed as a First Greek Reading Book in Schools.  
LONDON: LONGMANS & Co., PATERNOSTER ROW, E.C.



1908.

## COLLEGE OF PRECEPTORS.

(Incorporated by Royal Charter.)

BLOOMSBURY SQUARE, W.C.

## Lectures for Teachers

ON THE

## SCIENCE, ART, AND HISTORY OF EDUCATION.

THE APPLICATION OF PSYCHOLOGY TO THE  
WORK OF THE SCHOOL.

To be delivered by Professor J. ADAMS, M.A., B.Sc., F.C.P., Professor of Education in the University of London.

The First Course of Lectures (Thirty-sixth Annual Series) will commence on Thursday, February 13th, at 7 p.m.

The Course is meant to meet the needs of teachers who wish to improve their acquaintance with what underlies the principles of their profession, whether they have any examination in view or not. The lecturer will treat his subject in such a way as to fit in with the requirements of the College in connection with the examinations for the Associateship, the Licentiate, and the Fellowship. The reading of the students will be guided, and problems set for their exercise. Every opportunity will be taken of making practical applications of psychological principles to the work of the classroom.

## SYLLABUS.

I. (Feb. 13.) *Nature and scope of Psychology*: border-land between physiology and psychology; characteristics of consciousness: the psychological attitude of mind: the teacher's use of psychology: Professor Münsterberg's view: the intermediary between psychology and education: genetic psychology: experimental methods: child study.

II. (Feb. 20.) *Consciousness*: its fundamental character: its polarity: its insulation: "the general consciousness": the ego or self: the subjective and objective: the unity of individual consciousness: meaning of the subconscious: advantageous position of educator as external influence.

III. (Feb. 27.) *Manipulation of Consciousness*: the various modes of being conscious: the so-called faculties: concentration and diffusion of consciousness: interest and attention: interaction between them: interest as means and as end: relation between the interesting and the easy: kinds of attention: physiological mechanism of attention.

IV. (March 5.) *Sense-perception*: nature of pure sensation: the senses, general and special: the essential mark of perception: the respective contributions of sensation and perception to knowledge: nature and scope of observation: its relation to inference: the gaping point: danger underlying the phrase "the training of the senses."

V. (March 12.) *Mental content*: the unit of mental content: the idea: laws of the interaction and combination of ideas: apperception: presented content and presentative activity: gradual modification of presentative activity: transitive and intransitive elements of thought: the static and dynamic view of the concept: the logical and psychological aspect of the concept.

VI. (March 19.) *Habit*: habit based on the laws of association: these laws not limited to ideas: association a general principle of organic development: place and value of habits in education: accommodation and co-ordination: the elimination of consciousness: convergent and divergent association: the continuum: redintegration.

VII. (March 26.) *Retention and recall*: physiological basis of memory: plasticity: memory not limited to intellectual process: personal identity: question of the possibility of improving the quality of memory: educational applications of mnemonics: learning by rote: obliviscence: element of purpose in memory.

VIII. (April 23.) *Imagination*: place of imagery in thinking: limitations imposed by images: importance of clearly imaged ends in ordinary life: practical applications in the schoolroom: the aesthetic imagination: cause of general suspicion of the "busy faculty": scientific uses of the imagination: exact meaning of "picturing out": relation of the imagination to the ideal.

IX. (April 30.) *Judgment and reasoning*: relation between logic and psychology: concept, judgment, reasoning correspond generally to term, proposition, syllogism: essential meaning of thinking is an adaptation of means to ends on the ideational plane: the purposive aspect of apperception: distinction between mere redintegration and thinking: the laws of thought as thought: the fundamental condition of all mental process: what underlies fallacies.

X. (May 7.) *Human nature*: general tendency to over-estimate the cognitive aspect: relation of knowledge to character: temperament the physical basis of character: classification of temperaments and of character types: advantages and dangers of such classifications: personality: permanency of temperaments and means by which they may be modified: types of troublesome pupils: treatment of the different temperaments in school.

XI. (May 14.) *The emotions*: value of the emotions in human life: like sensations they are subject to the law of relativity: emotions are to be utilized, not eliminated: cause of popular depreciation of the emotions: emotions are to be regulated by ideas: classification of the emotions: their expression: Lange-James theory of relation between emotion and its expression: element of truth in the theory and its great practical importance to teachers.

XII. (May 21.) *The will*: relation of will to feeling on the one hand and knowledge on the other: the appeal of the motive: fallacy of "the strongest motive": resolution of the dualism implied in the process of making up one's mind: metaphysical excrescences obscuring the problem of the freedom of the will: the evolution of the will in its relation to desire: the possibility of the training of the will: fundamental importance of the time element in this training.

**The Fee for the Course of Twelve Lectures is Half-a-Guinea.**

\* \* The Lectures will be delivered on THURSDAY EVENINGS, at 7 o'clock, at the College, Bloomsbury Square, W.C.—Members of the College have free admission to the Course.

## GEORGE GILL &amp; SONS, LTD.,

A Selection of Publications from the

Oxford and Cambridge Edition

AND

Oxon. and Cantab. Edition

FOR THE

## COLLEGE OF PRECEPTORS EXAMINATIONS, 1908.

**Religious Knowledge.**

<b>THE OXFORD AND CAMBRIDGE EDITION ST. MARK.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	s. d.
... ..	1 6
<b>THE OXON. AND CANTAB. EDITION ST. MARK.</b> Edited by Rev. F. MARSHALL, M.A. <i>For Third Class Candidates</i> net	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION ACTS. Part I.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXON. AND CANTAB. EDITION ACTS. Part I.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	net 1 0
<b>THE OXFORD AND CAMBRIDGE EDITION ACTS. Part II.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXON. AND CANTAB. EDITION ACTS. Part II.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	net 1 0
<b>THE OXFORD AND CAMBRIDGE EDITION JOSHUA.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION JUDGES.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION EZRA.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION NEHEMIAH.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 0

**English.**

<b>THE OXFORD AND CAMBRIDGE EDITION MERCHANT OF VENICE.</b> Edited by STANLEY WOOD, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION JULIUS CÆSAR.</b> Edited by STANLEY WOOD, M.A., and A. SYMS-WOOD, B.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION MARMION. (Complete.)</b> Edited by Rev. F. MARSHALL, M.A. ... ..	2 6
<b>THE OXFORD AND CAMBRIDGE EDITION MARMION. Cantos I. and VI.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 0

In the above works the necessary "Notes" have been added to enable Candidates to answer questions set by the Examiners.

**GUIDE**

to the 1908 College of Preceptors Examinations, and Complete List, and Pages, of the "prescribed" Books contained in the

Oxford and Cambridge Edition,

Post free.

**THE NORMAL PREPARATION TEST MAPS.**

1d. each net. (Copyright.)

By REGINALD GILL, F.R.G.S., London Chamber of Commerce.

This New Series of Test Maps has been produced in order to provide a ready means of discovering the Geographical Knowledge of the Pupil. The form in which each Map is issued gives all Pupils, for the first time in Test Maps, an equal opportunity. In fact, the name list attached to every Map records the work attempted by the Pupil. *The Material upon which the Pupil is required to show his knowledge accompanies each Map in such a manner as to obtain the fullest results.*

**UNIFORM WORK BY EACH SCHOLAR.**

Instructions to Junior and Senior Students are provided, together with hints for suitably doing the work. Specimen lettering is included.

**COLOURED TEST MAPS.**

The Map is already coloured for the Student, so obviating this inconvenient process in School work.

**OUTLINE MAPS SUPERSEDED.**

Though not requiring the Pupil to complete the actual outline, the Normal Test Maps supply sufficient data in Art Colours to enable him to do the work. By this means the objection against all other Outline Maps that the Pupil has no practice in drawing the contour is removed.

**THE SERIES INCLUDE:**

**EUROPE:** British Isles and North Sea, England and Wales, Scotland, Ireland, France, German Empire, Italy, Balkan Peninsula, Russia.  
**ASIA:** India, AFRICA, N. AMERICA, UNITED STATES, AUSTRALIA.

*Specimen Map free to Teachers.*

A Key to the whole of these Test Maps is issued, entitled *The Sphere Atlas*, 1s. 6d.

*Complete Catalogue post free.*

London: GEORGE GILL & SONS, Ltd., 13 Warwick Lane, E.C.

# Messrs. LONGMANS & CO.'S LIST.

By **SAMUEL RAWSON GARDINER, D.C.L., LL.D.**

## A STUDENT'S HISTORY OF ENGLAND.

FROM THE EARLIEST TIMES TO 1901.

Vol. I.: B.C. 55-A.D. 1509. With 173 Illustrations. Crown 8vo, 4s.  
Vol. II.: 1509-1689. With 96 Illustrations. Crown 8vo, 4s. Vol. III.: 1689-1901. With 109 Illustrations. Crown 8vo, 4s.  
COMPLETE IN ONE VOLUME. With 378 Illustrations. Crown 8vo, 12s.

**PREPARATORY QUESTIONS ON THE ABOVE.** By R. SUMERVELL, M.A., Assistant Master at Harrow School. Crown 8vo, 1s.

## A SCHOOL ATLAS OF ENGLISH HISTORY.

With 66 Maps and 22 Plans of Battles, &c. Fcap. 4to, 5s.

## OUTLINE OF ENGLISH HISTORY.

B.C. 55-A.D. 1901. With 96 Woodcuts and Maps. Fcap. 8vo, 2s. 6d.

By **CYRIL RANSOME, M.A.**

## A SHORT HISTORY OF ENGLAND.

FROM THE EARLIEST TIMES TO THE DEATH OF QUEEN VICTORIA.

With Tables, Plans, Maps, Index, &c. Crown 8vo, 3s. 6d.

Or in Two Parts, 2s. each. Part I.: To 1603; Part II.: 1603 to 1901.

**A SUMMARY OF RANSOME'S SHORT HISTORY OF ENGLAND.** With 22 Maps and Plans, and 34 Genealogical Tables. 1s.

By the **Rev. D. MORRIS, B.A.**

*This Edition has received numerous Additions, and brings up British History to the Accession of King Edward the Seventh.*

## A CLASS-BOOK HISTORY OF ENGLAND.

The One Hundred and Ninth to One Hundred and Sixteenth Thousand.

With 24 Historical Maps and Plans of Battles, and 29 Illustrations engraved on Wood. Fcap. 8vo, 3s. 6d.

### EPOCHS OF ENGLISH HISTORY.

YORK POWELL'S EARLY ENGLAND to the NORMAN CONQUEST. 1s.

CREIGHTON'S (Mrs.) ENGLAND A CONTINENTAL POWER, 1066-1216. 9d.

ROWLEY'S RISE of the PEOPLE and the GROWTH of PARLIAMENT, 1214-1485. 9d.

CREIGHTON'S (Bishop) TUDORS and the REFORMATION, 1485-1603. 9d.

**Epochs of English History.** Complete in One Volume, with 27 Tables and Pedigrees and 23 Maps. Fcap. 8vo, 5s.

GARDINER'S (Mrs.) STRUGGLE against ABSOLUTE MONARCHY, 1603-1688. 9d.

ROWLEY'S SETTLEMENT of the CONSTITUTION, 1689-1784. 9d.

TANCOCK'S ENGLAND during the AMERICAN and EUROPEAN WARS, 1765-1820. 9d.

BROWNING'S MODERN ENGLAND, 1820-1897. 9d.

### EPOCHS OF ANCIENT HISTORY.

10 Vols., with Maps, 2s. 6d. each.

BEESELY'S GRACCHI, MARIUS, and SULLA.

CAPE'S EARLY ROMAN EMPIRE.

CAPE'S ROMAN EMPIRE of the SECOND CENTURY.

COX'S GREEKS and THE PERSIANS.

COX'S ATHENIAN EMPIRE.

CURTEIS'S RISE of the MACEDONIAN EMPIRE.

IHNE'S ROME to its CAPTURE by the GAULS.

MERIVALE'S ROMAN TRIUMVIRATES.

SANKEY'S SPARTAN and THEBAN SUPREMACIES.

SMITH'S (BOSWORTH) ROME AND CARTHAGE.

### EPOCHS OF MODERN HISTORY.

19 Vols., with Maps, 2s. 6d. each.

AIRY'S ENGLISH RESTORATION and LOUIS XIV. 1648-1678.

CHURCH'S BEGINNING of the MIDDLE AGES.

COX'S CRUSADES.

CREIGHTON'S AGE of ELIZABETH.

GAIRDNER'S HOUSES of LANCASTER AND YORK.

GARDINER'S THIRTY YEARS' WAR.

GARDINER'S FIRST TWO STUARTS.

GARDINER'S (Mrs.) FRENCH REVOLUTION, 1789-1795.

HALE'S FALL of the STUARTS, and WESTERN EUROPE, from 1678 to 1697.

JOHNSON'S NORMANS in EUROPE.

LONGMAN'S FREDERICK the GREAT and the SEVEN YEARS' WAR.

LUDLOW'S WAR of AMERICAN INDEPENDENCE, 1775-1783.

MCCARTHY'S EPOCH of REFORM, 1830-1850.

MOBERLY'S THE EARLY TUDORS.

MORRIS'S AGE of ANNE.

MORRIS'S THE EARLY HANOVERIANS.

SEEBOHM'S PROTESTANT REVOLUTION.

STUBBS'S THE EARLY PLANTAGENETS.

WARBURTON'S EDWARD THE THIRD.

## LONGMANS' GEOGRAPHICAL SERIES.

ARRANGED ON THE CONCENTRIC PLAN.

Book I.—**THE FIRST BOOK OF GEOGRAPHY.** With 17 Illustrations and 52 Maps (38 of which are coloured). Crown 8vo, 1s. 6d.

Book II.—**THE WORLD.** For Junior Students. With 35 Illustrations and 87 Maps (79 of which are coloured). Crown 8vo, 3s.

Book III.—**THE WORLD.** For Senior Students. With 42 Illustrations and 121 Maps (112 of which are coloured). Crown 8vo, 4s. 6d.

Book IV.—**THE BRITISH EMPIRE.** With 38 Illustrations and 78 Maps (71 of which are coloured). Crown 8vo, 3s. 6d.

Book V.—**A PRIMARY PHYSICAL GEOGRAPHY.** By JOHN THORNTON, M.A. With 135 Illustrations and 14 Maps. Crown 8vo, 2s.

LONGMANS, GREEN, & CO.. LONDON, NEW YORK, BOMBAY, AND CALCUTTA.

# Messrs. LONGMANS & CO.'S LIST.

By **BENJAMIN HALL KENNEDY, D.D.,**

*Late Regius Professor of Greek in the University of Cambridge.*

## THE REVISED LATIN PRIMER.

Crown 8vo, 2s. 6d.

## A SHORTER LATIN PRIMER.

Crown 8vo, 1s.

## EXERCISES ON THE SHORTER LATIN PRIMER.

By M. G. and J. KENNEDY and H. WILKINSON, M.A. Crown 8vo, 1s. 6d.

*A KEY, for the use of Masters only. 2s. 9d., net post free.*

By **FRANK RITCHIE, M.A.**

**First Steps in Greek.** Crown 8vo, 2s.

**A Practical Greek Method for Beginners.**

By F. RITCHIE, M.A., and E. H. MOORE, M.A. Crown 8vo, 3s. 6d.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

**Easy Greek Grammar Papers.** Fcap. 8vo, 1s. 6d.

**First Steps in Latin.** Crown 8vo, 1s. 6d.

*A KEY, for the use of Masters only. 3s. 8½d. net, post free.*

**Second Steps in Latin.** Crown 8vo, 2s.

**Fabulae Faciles.** A First Latin Reader. Containing Detached Sentences and Consecutive Stories. With Notes and Vocabulary. Crown 8vo, 2s. 6d.

**Imitative Exercises in Easy Latin Prose.**

Based on "Fabulae Faciles." Crown 8vo, 1s. 6d.

**Exercises in Latin Prose Composition.**

2s. 6d.

*A KEY, for the use of Masters only. 3s. 8½d. net, post free.*

**Easy Continuous Latin Prose.** Crown 8vo, 2s. 6d.

**First Latin Verse Book.** Crown 8vo, 2s.

**Easy Latin Passages for Translation.**

Small 8vo, 2s.

**Latin Grammar Papers.** Fcap. 8vo, 1s.

**Preparatory Caesar: De Bello Gallico.**

With Illustrations, Maps, and Plans. Crown 8vo. Book II., 1s.; Book III., 1s.; Books II. and III., 1s. 6d.

**\*\* Caesar: De Bello Gallico, Books II. and III.,** are set for the Cambridge Local Examinations for 1908.

**First Steps in Caesar: The Expeditions to Britain, De Bello Gallico, IV., 20-36; and V. 8-23.** Crown 8vo, 1s. 6d.

By **ARTHUR SIDGWICK, M.A.**

**A First Greek Writer.** Crown 8vo, 3s. 6d.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

**Introduction to Greek Prose Composition.**

With Exercises. Crown 8vo, 5s.

*A KEY, for the use of Masters only. 5s. 3d. net, post free.*

**Scenes from Greek Plays.** Rugby Edition.

Abridged and Adapted for the use of Schools. Fcap. 8vo, 1s. 6d. each.

**Aristophanes.**—The Clouds. The Frogs. The Knights. Plutus.  
**Euripides.**—Iphigenia in Tauris. The Cyclops. Ion. Electra. Alcesteis.  
**Bacchae. Hecuba. Medea.**

**An Introduction to Greek Verse Composition.**

By ARTHUR SIDGWICK, M.A., and F. D. MORICE, M.A. With Exercises. Crown 8vo, 5s.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

By **FRANCIS DAVID MORICE, M.A.**

**Stories in Attic Greek.** With Notes and Vocabulary. Crown 8vo, 3s. 6d.

By **H. G. LIDDELL, D.D., and ROBERT SCOTT, D.D.**

**Greek-English Lexicon.** 4to, 36s.

**Greek-English Lexicon.** Abridged from the above. Revised throughout. Square 12mo, 7s. 6d.

By **T. K. ARNOLD, M.A.**

**Arnold's Practical Introduction to Latin Prose Composition.** By G. GRANVILLE BRADLEY, D.D., formerly Dean of Westminster. 5s.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

By **G. G. BRADLEY, D.D., formerly Dean of Westminster.**

**Aids to Writing Latin Prose.** Containing 144 Exercises. With an Introduction comprising Preliminary Hints, Directions, Explanatory Matter, &c. Edited and arranged by T. L. PAPILLON, M.A. Crown 8vo, 5s.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

By **H. R. HEATLEY, M.A., and H. N. KINGDOM, M.A.**

**Gradatim.** An Easy Latin Translation Book for Beginners. With Vocabulary. Fcap. 8vo, 1s. 6d.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

**Exercises on Gradatim.** By H. R. HEATLEY, M.A., and the Rev. A. SLOMAN, M.A. Fcap. 8vo, 1s. 6d.

**Excerpta Facilia.** A Second Latin Translation Book. Containing a Collection of Stories from various Latin Authors. With Notes at end, and a Vocabulary. Crown 8vo, 2s. 6d.

*A KEY, for the use of Masters only. 5s. 3d. net, post free.*

LONGMANS, GREEN, & CO., LONDON, NEW YORK, BOMBAY, AND CALCUTTA.

# THE BEST BOOKS FOR 1908

**Higher English.** By F. J. RAHTZ, M.A., Lecturer in English at Merchant Venturers' Technical College, Bristol. Second Edition. Crown 8vo, 3s. 6d.

A Text-book for the English section of the London Matriculation Examination.

**The Complete School Chemistry.** By F. N. OLDHAM, B.A., With 126 Illustrations. 4s. 6d. [*Text-Books of Science.*]

The object of this book is to provide a progressive but complete course in Practical and Theoretical Chemistry up to the standard of the London Matriculation.

In use at Bedford Grammar School, Dulwich College, Durham School, Loretto School, Nottingham High School, Wellington College, Sutton Girls' High School.

**Nouvelle Grammaire Française.** By J. G. ANDERSON, B.A., Examiner to London University, the College of Preceptors, and the Welsh Intermediate Board. Crown 8vo, 2s.

**Exercices de Grammaire Française.** By J. G. ANDERSON, B.A. Crown 8vo, 1s. 6d.

A course for Matriculation Candidates who have been taught by the reform method.

**A Junior French Prose.** By R. B. N. BARON, M.A. Second Edition. Crown 8vo, 2s.

"We like this book very much; it is so sane and practical. The author has wisely avoided giving too much assistance, as is too often the case, by putting the notes in such a form as to leave practically nothing for the learner to do; altogether a really excellent book for the class or for the private student."—*Teachers' Times.*

**French Prose Composition.** By R. B. N. BARON, M.A. Crown 8vo, 2s. 6d. Key, 3s. net.

An advanced course on the same lines as the above.

**Easy Exercises in Algebra.** By W. S. BEARD. Containing 3,500 problems. Crown 8vo, with Answers, 1s. 9d.; without Answers, 1s. 6d.

**A Junior Geometry.** By NOEL S. LYDON, of Owen's School, Islington. With 276 Diagrams. Fifth Edition. Crown 8vo, 2s.

**An Easy Poetry Book.** Selected and arranged by W. WILLIAMSON, B.A., Author of "Dictation Passages." Crown 8vo, 1s.

[*The Beginners' Books.*]  
A little book for pupils of twelve or thereabouts. It is believed that all the selections are good as poetry, healthy and invigorating in thought, and suited to the capacity of beginners.

## METHUEN'S SIMPLIFIED FRENCH TEXTS

Edited by T. R. N. CROFTS, M.A., Modern Language Master at Merchant Taylors' School, London. Fcap. 8vo, 1s. each.

**L'Histoire d'une Tulipe.** Founded on "La Tulipe Noire," by A. DUMAS. Adapted by T. R. N. CROFTS, M.A.

**Abdallah; ou, le Trèfle à Quatre Feuilles.** By EDOUARD LABOULAYE. Adapted by J. A. WILSON.

**La Chanson de Roland.** Adapted by H. RIEU, M.A., Merchant Taylors' School, London.

**Mémoires de Cadichon.** Founded on "Mémoires d'un Âne," by Madame DE SÉGUR. Adapted by J. F. RHOADES, Fettes College, Edinburgh.

**L'Equipage de la Belle Nivernaise.** Founded on "La Belle Nivernaise," by ALPHONSE DAUDET. Adapted by T. R. N. CROFTS, M.A.

**Le Docteur Mathéus.** Founded on "L'Illustre Docteur Mathéus," by ERCKMANN-CHATRIAN. Adapted by W. P. FULLER, M.A., University College School.

"An excellent idea and well carried out."—*Journal of Education.*

**A Junior Greek History.** By W. HORTON SPRAGGE, M.A., Assistant Master at the City of London School. With Maps and Illustrations. Crown 8vo, 2s. 6d. [*Methuen's Junior School Books.*]

This book describes the main features of the History of Greece down to the time of its absorption into the Roman Empire.

**A First History of Greece.** By E. E. FIRTH. With 7 Maps. 1s. 6d.

A History of Greece for Beginners, with Questions and Summaries.

**Stories from Roman History.** By E. M. WILMOT-BUXTON, Author of "Makers of Europe." Crown 8vo, 1s. 6d.

**Revision Notes on English History.** By F. WALLACE-HADBILL. Crown 8vo, 1s.

A chronological account of the leading events of English History, with general notes and genealogical tables on each reign.

METHUEN & CO., 36 Essex Street, London, W.C.

## THE School World.

A MONTHLY MAGAZINE OF EDUCATIONAL  
WORK AND PROGRESS.

EACH NUMBER CONTAINS EIGHTY COLUMNS  
OF READING MATTER.

PRICE 6D. VOLUME IX., 1907, 7s. 6D. NET.

The aim of THE SCHOOL WORLD is to provide information of practical and permanent value to Schoolmasters and Schoolmistresses. To this end all important changes and developments affecting any branch of the work of teachers in secondary and other schools are dealt with by leading authorities and experienced teachers.

The Magazine has become indispensable to all who desire to keep in touch with modern and effectual methods of education.

MACMILLAN & CO., Ltd., LONDON.

LARGEST STOCK  
of SECOND-HAND

School, Classical,  
Mathematical,  
Scientific Books  
in London.

ESTABLISHED  
1854.

Keys and Translations.

BOOKS  
BOUGHT.

J. POOLE & CO.,

104 Charing Cross Rd.,

AND

2 Manette Street, Soho,

LONDON, W.C

NEW AND SECOND HAND. WRITE TO US FOR A QUOTATION.

Digitized by Google

## PROF. MEIKLEJOHN'S SERIES.

These Books are specially suitable for the Oxford and Cambridge Local and the College of Preceptors' Examinations.

**The Merchant of Venice.** With an Introduction and Notes. Edited by FRANCIS STORR, B.A. Crown 8vo, 200 pp. ... 1 6

"There is everything in this book which a student would want for the preparation for an examination. It is the most carefully prepared, exhaustive book on the play for school use we have seen."—*The Teachers' Aid.*

**Longfellow—Hiawatha.** With an Introduction and Notes. Edited by F. GORSE, M.A. *Fifth Edition.* Crown 8vo, 84 + viii pages. (*Orford and College of Preceptors*) ... 0 6

"The book contains a good vocabulary of the native words used in the poem, and the careful annotation will be found sufficient for ordinary purposes."—*The Practical Teacher.*

**The Art of Writing English.** A Manual for Students. With Chapters on Paraphrasing, Essay Writing, Précis Writing, Punctuation, and other matters. By J. M. D. MEIKLEJOHN, M.A. *Sixth Edition.* Crown 8vo, 340 pp. ... 2 6

**A Short Grammar of the English Tongue.** With Three Hundred and Thirty Exercises. *Nineteenth Edition.* 176 pp. ... 1 0

**A New Geography on the Comparative Method.** With Coloured Maps and Diagrams, and an Outline of Commercial Geography. By J. M. D. MEIKLEJOHN, M.A. *Thirty-sixth Edition. Revised.* Crown 8vo, 630 pp. ... 4 6

"For all that is best worth knowing, no better book than this could be studied."—*Educational News.*

**A School Geography.** With special references to Commerce and History. With Maps and Diagrams. By J. M. D. MEIKLEJOHN, M.A., and M. J. C. MEIKLEJOHN, B.A. *Fifth Edition. Revised.* Crown 8vo, 410 pp. ... 2 6

**A Short Geography.** With the Commercial Highways of the World. *Twenty-eighth Edition. Revised.* Cr. 8vo, 196 pp. ... 1 0

**Asia: Its Geography, Commerce, and Resources.** With Tables of Salient Distances, and a Double-page Map in Colour. By M. J. C. MEIKLEJOHN, B.A., F.R.G.S. *Second Edition. Revised.* Crown 8vo, 96 pp. (*Orford and Cambridge*) ... 0 6

**Europe: Its Physical and Political Geography.** With a Double-page Map in Colour. By M. J. C. MEIKLEJOHN, B.A., F.R.G.S. *Second Edition. Revised.* 96 pp. (*Orford and College of Preceptors*) ... 0 6

**Africa: Its Geography, Resources and Chronicles of Discovery up to 1898.** By M. J. C. MEIKLEJOHN, B.A., F.R.G.S. *Fifth Edition. Revised.* Cr. 8vo, 75 pp. (*Cambridge and College of Preceptors*) ... 0 4

**A New History of England and Great Britain.** With Maps and Tables. By J. M. D. MEIKLEJOHN, M.A. *Twenty-third Edition.* Crown 8vo, 740 pp. ... 4 6

*This book is also done in Three Periods—*  
FIRST PERIOD, B.C. 55-1485, 2s. SECOND PERIOD, 1485-1688, 2s.  
THIRD PERIOD, 1688-1901, 2s.

**A School History of England.** With Maps and Vocabulary of Historical Terms. By J. M. D. MEIKLEJOHN, M.A., and M. J. C. MEIKLEJOHN, B.A. *Fifth Edition.* Crown 8vo, 470 pp. ... 2 6

**A Short History of England and Great Britain.** B.C. 55 to A.D. 1890. *Twenty-first Edition.* Crown 8vo. Large Type Edition ... 1 6

A Complete Catalogue will be sent on Application.

London: MEIKLEJOHN & HOLDEN,  
11, Paternoster Square, E.C.

## HARRAP'S ANNOUNCEMENTS.

### PIONEERS IN EDUCATION.

A New Series of Monographs on the Great Educators. By GABRIEL COMPAYRÉ, Correspondant de l'Institut; Recteur de l'Académie de Lyon; Author of "Psychology Applied to Education," "A History of Pedagogy," &c. Crown 8vo, price 2s. 6d. net per volume.

Translated by M. E. FINDLAY, B.A.; J. E. MANSION, B. ès L.; and R. P. JAGO.

1. J. J. ROUSSEAU  
And Education by Nature.
2. HERBERT SPENCER  
And Scientific Education.
3. PESTALOZZI  
And Elementary Education.
4. HERBART  
And Education by Instruction.
5. MONTAIGNE  
And the Education of the Judgment.

### The Cave Boy

**Of the Age of Stone.** By MARGARET A. MCINTYRE. Profusely Illustrated. Crown 8vo, 1s. Uniform with **Days Before History.**

#### NEW SUPPLEMENTARY READERS.

17 Volumes now ready in this Series. Large crown 8vo, 1s. 6d. Each with 16 Illustrations.

### Stories from the Odyssey.

Retold by H. L. HAVELL, B.A.

### Stories from the Iliad.

Retold by H. L. HAVELL, B.A.

### Stories from Chaucer.

Retold by J. W. MCSPADDEN.

### Stories from the Old Testament.

Retold by S. PLATT. With a Chapter on the Story of the Old Testament, Map, &c.

### How to Make Our Girls Graceful.

A Manual of Deportment. With description of valuable Exercises, and Supplement consisting of a Programme of Exercises suitable for performing at a School Entertainment or Prize Distribution. By GWENDOLINE E. KELLY and LUCIE HENLEY-WHITE. With Numerous Explanatory Photographs. Stout paper covers 8 x 6 ins., 1s. net, post free 1s. 2d.

### Heath's Practical Elementary Latin Course.

By FRANK P. MOULTON, M.A. Revised, with the addition of Selections from Ovid, by J. T. PHILLIPSON, M.A., Head Master of Christ's College, Finchley.

### Easy German Stories.

By HEDWIG LEVI, Edited, with Notes and Vocabulary, by LOUISE DELP, Senior Grammar Mistress (Visiting) at the Sydenham and East Putney High Schools for Girls. Crown 8vo, 1s. 6d.

#### A NEW SERIES OF SCHOOL POETRY BOOKS.

This Series is characterized by a range and freshness which distinguish it from any other School Course.

### A Treasury of Verse for School and Home.

Part 1, 128 pages, sewed 6d., or cloth limp, 8d.

Part 2, 128 " " " " "

Part 3, 160 " cloth boards, 10d. "

Part 4, 192 " " " 1s.

Part 5 contains

#### A TREASURY OF ENGLISH BALLADS.

192 pages, cloth boards, 1s.

Special Prospectuses of any of the above will be sent Post Free.

GEORGE G. HARRAP & CO., 15 York St., Covent Garden, W.C.

# BLACKIE & SON'S LIST

## MODERN LANGUAGES.

**THE LONGER FRENCH TEXTS.** Printed in large type, cloth limp, 8d. each. Brief Notes, Questionnaire, Memory List of Useful Phrases, and Vocabulary. The following Volumes are now ready:—

*Deslys.*—**Le Zouave.** *Moreau.*—**Contes à ma Sœur.**  
*Chateaubriand.*—**Le Dernier Abencérage.** *About.*—**Le Rol des Montagnes.**

\* OTHER VOLUMES IN PREPARATION.

**THE LITTLE FRENCH CLASSICS.** Price 4d. each Book. All French Authors in Prose and Verse, from the Chansons de Geste to Daudet and Paul Bourget.

**RÉCITS TIRÉS DES CLASSIQUES FRANÇAIS.** 6d. each. Edited by Mme. C. BAGNALL, of Clapham High School, and Mlle. VIVIER. The Stories of the Great Dramatists told in Simple French. Suitable for Lower and Middle Forms.

*Cornelle.*—**Le Cid et Horace.** *Molière.*—**L'Avare et Les Femmes Savantes.**  
*Racine.*—**Athalie et Andromaque.** *Hugo.*—**Hernani et Ruy Blas.**

**THE LITTLE GERMAN CLASSICS.** Price 6d. each Volume. The leading German Authors in Poetry, Story, and Drama.

## A LATIN COURSE.

By E. H. SCOTT, B.A., and FRANK JONES, B.A.

First Course, cloth, 1s. 6d. Second Course, cloth, Illustrated, 2s. 6d.

The HEAD MASTER of an important Grammar School writes:—

"I am more than delighted with Scott and Jones's 'Latin Course.' It is one of the most craftsmanlike books that I have ever handled. My raw youngsters now using it may be said to LIKE their Latin Lessons."

## A FIRST LATIN GRAMMAR.

By E. H. SCOTT, B.A., late Head Master of the Boys' Secondary School, Barberton, Transvaal, and FRANK JONES, B.A., Assistant Master, King Edward's School, Aston, Birmingham.

Crown 8vo, cloth, 2s.

Great care has been given to the arrangement and typographical display of the matter, in order to secure the utmost clearness. Thus, use is made throughout of a synoptical arrangement of parallel columns which shows the various declensions and conjugations side by side, bringing out their differences and resemblances.

A special feature is the number of examples given. These are, for the most part, taken from the First and Second Courses, so that the student will have met the examples before in a connected passage.

## LATIN TEXTS.

Cloth, 6d. net. or 8d. net.

Edited by W. H. D. ROUSE, Litt.D., Prof. POSTGATE, Prof. REID, &c., &c.

The only Series that fulfils the conditions suggested by the Classical Association as to the improved teaching of Latin, and containing no notes.

## A GENERAL VOCABULARY TO VIRGIL.

Prepared under the Editorship of A. GRAHAM, M.A.

Crown 8vo. Cloth, 1s.

## A GENERAL VOCABULARY TO CAESAR'S GALLIC WAR.

Prepared under the Editorship of A. GRAHAM, M.A.

Crown 8vo. Cloth, 1s.

These vocabularies have been prepared for use in schools where the pupils are not at first provided with Latin Dictionaries of their own. They contain all the words that occur in the *Aeneid*, *Bucolics* and *Georgics* of Virgil, and *De Bello Gallico* of Caesar. The advantage of the vocabularies is that they can be used with any Edition of these Classics.

## ARITHMETIC.

By A. E. LAYNG, M.A., formerly Scholar of Sidney Sussex College, Cambridge.

Cloth, complete, 4s. 6d. In Two Parts, 2s. 6d. each.

EXERCISES ONLY, 1 Vol., complete, 2s. 6d. Part I., 5,000 Examples, 1s. Part II., 3,500 Examples, 1s. 6d.

In use at most Boys' Public Schools, and in EVERY Girls' School of importance, including Cheltenham, St. Paul's School, Colston's Girls' School, Bristol; and the High Schools at Clapham, Manchester, Notting Hill, Bedford, Sydenham, Shemeld, York, Liverpool, Newcastle-on-Tyne, Gloucester, Hull, Kensington, Exeter, Birkenhead, Baker Street, Dudley, &c., &c.

## BLACKIE'S ENGLISH TEXTS.

6d. each. Blue limp cloth covers. 72 Volumes. To be used in correlation with the study of **English Literature** and **History**.

Among the leading Authors are:—

Malory.	Gibbon.	Drake.	Thucydides,	Dickens.
Froissart.	Macaulay.	Raleigh.	Plutarch.	Charles Lamb.
Bacon.	Carlyle.	Anson.	Livy.	Kingsley.
Burke.	Prescott.	Hawkins.	Marcellinus.	Swift.
Ruskin.	Josephus.	Cook.	Lucian.	Borrow.

## COMBINED COURSE OF LITERARY READING AND COMPOSITION.

Illustrated from Famous Pictures. Edited by LEWIS MARSH, M.A. 2s.

## THE PLAIN TEXT SHAKESPEARE.

The greater Plays. Text only. No notes. In limp cloth cover. Price 4d. each.

## OGILVIE'S SMALLER ENGLISH DICTIONARY.

A Pronouncing, Etymological, and Explanatory Dictionary at 1s. net.

## ENGLISH POETRY FOR THE YOUNG.

Selected by S. E. WINBOLT, M.A. A chronological selection of English poetry, clearly printed and well bound in cloth, 1s.

Write for full particulars to BLACKIE & SON, Ltd., 50 Old Bailey, E.C.

CONTENTS.

	Page		Page
Leader : Meetings of the Month.....	53	Findlay)—History of Education in its relation to the Teacher (Prof. Foster Watson)—The School and Society (Prof. Findlay)—The Teaching of English (Prof. Adamson)—A Definition of English Literature (Mr. P. A. Barnett)—The Teaching of History (Prof. Pollard)—A Rational Comparative Method of Teaching Geography (Dr. A. J. Herbertson)—The Teaching of a Modern Foreign Language (Mr. S. Barlet)—The Teaching of Geometry (Mr. J. Harrison).	
Notes .....	54	Adjourned Meeting of the Council .....	69
The Position of the Private Schoolmaster—Inspection, Examination, and Tenure from the Standpoint of the Assistant Master.		Half-Yearly General Meeting .....	69
Important Educational Meetings .....	54	Conferences Françaises : Les Métamorphoses de Paris. Par M. G. Couillaud .....	72
Head Masters—Assistant Masters—Assistant Mistresses—Private Schools Association—University Women Teachers—Public-School Science Masters—London Teachers—North of England Education Conference—Modern Language Association—English Association—Educational Institute of Scotland.		Reviews .....	73
Correspondence: The State and Secondary Education (J. O. Bevan) .....	60	The Historians' History of the World, Vols. I., XII, and XXV. (ed. H. S. Williams)—The Cambridge History of English Literature: Vol. I., From the Beginnings to the Cycles of Romance.	
Proposed List of Recognized Secondary Schools .....	60	General Notices .....	74
Current Events .....	63	Mathematics .....	79
Fictures—Honours—Endowments and Benefactions—Appointments and Vacancies—Literary—General.		List of Candidates who have passed the Christmas Certificate and Lower Forms Examinations of the College of Preceptors .....	83
College of Preceptors :			
The Winter Meeting for Teachers.....	65		
Dr. Wormell (President)'s Inaugural Address—Psychological Bases of Education (Prof. Adams)—The Teacher in his Classroom (Prof.			

The Educational Times.

Meetings of the Month.

THE Christmas holidays have brought the usual series of meetings of schoolmasters and schoolmistresses, and the newspapers have faithfully reported their proceedings. The growth of such meetings is a healthy sign, and so is the increased interest taken in them by the public. There was a time when the College of Preceptors was the only society to bring members of the profession together, alike for what may be called educational politics and for the study of methods of teaching. On both lines the example of the pioneer society has been followed by many sectional associations, and London, as well as Rome and Florence, Grindelwald and Adelboden, has become a winter resort of the profession. The burning (or smouldering) question of registration, long the happy hunting ground of the College alone, has been advanced a stage by the Federal Council and by its various constituent bodies; but this belongs rather to the last term of 1907. The winter meeting of the College was inaugurated by an instructive paper by its President on the advantages to be gained by teachers from comparing notes and adding to their professional knowledge—an element of their work not adequately recognized by those who pay the piper and claim to call the tune. He was followed by Prof. Findlay with an interesting discussion of the means of developing corporate life and public spirit in day schools, showing how the subdivision of day boys into "houses," introduced by the present Bishop of Hereford at Clifton, had extended to them the benefits of the organization which had grown up naturally in connexion with boarding houses, and how it had been successfully carried out in day schools pure and simple. Many valuable lectures were given to appreciative audiences. Perhaps it is not unjust to particularize Prof. Adams's lucid exposition of some parts of the application of psychology to education, distinguished as it was by the popular treatment of a difficult subject and many apt illustrations.

At Sheffield Prof. Sadler dwelt on the duty of secondary schools to adapt themselves to the real needs of their scholars, to prepare boys for skilled industrial employ-

ment, girls for "housecraft," and both alike for citizenship. He had a good word for day continuation schools, with courses of study of a practical yet intellectually stimulating kind, and wound up with some remarks on the "eternal want of pence," pointing out how few teachers can look forward to a competence in middle life.

At the Head Masters' Association, Mr. Cary Gilson took rather a pessimistic line. On the one hand, in the multitude of counsellors by whom schoolmasters were surrounded, there was unwisdom; on the other, it was doubtful how far all our machinery and hard work produced in all cases the right results on the right boys: witness the number of them turned out fit for nothing but inferior clerkships.

The famous case of Wright v. Zetland, with the lurid light it throws on the position of the profession, was much to the fore, especially at the Associations of Assistant Masters and Assistant Mistresses. Prof. Sadler, speaking on the question whether the teachers in secondary schools should be "Civil Servants," doubted the expediency of such a solution, not only as involving many practical difficulties, but as tending to destroy the individuality of schools, and suggested a committee of appeal, with a legal chairman and some professional members, to which disputes might be referred.

The Modern Language Association took up a point of great importance discussed in our December issue—the decline of the study of German in English schools, and protested against a recent circular of the Board of Education insisting that when two foreign languages only are learnt Latin should be one of the two. An old subject of controversy was also revived—the place of translation in the teaching of modern languages. The advanced guard of the reformers, in common with many of their Continental colleagues, insist that in reading French or German texts difficulties should be met by questions asked and answered in the language studied rather than by translation into English. Their opponents dwell on the importance of translation as a training in clearness of thought and in the correct use of the mother tongue. At the English Association stress was laid by Mr. Mackail and Prof. Raleigh on the defective methods of teaching English literature generally practised in schools, where the annotated textbook is too much in evidence. They urged that the duty of

the teacher was to facilitate instead of hindering the direct contact of the pupil with literature—a counsel of perfection to which but few teachers, and still fewer examiners, conform.

Such are some of the outstanding points of immediate educational interest discussed at the numerous meetings. Many others were touched upon, and some of these are gathering strength to claim a foremost position in the near future; for example, the variety of questions connected with teaching of hygiene and the care of the health of pupils. The difficulties that press upon particular sections of the teaching body, though chiefly left to be grappled with by the individual groups, cannot but come to appeal strongly to the sympathies of the whole profession. We regret that it is impossible for us, within our limits, to report at anything like adequate length, not merely so many excellent papers, but even the general course of the multifarious discussions. The keenness of interest manifested throughout the various proceedings is a good omen for future progress and for sustained hope.

### NOTES.

IN all the programmes of all the educational associations whose meetings we chronicle—all too briefly—this month, there is no question of more urgent importance than the position that has to be faced by the private-school masters. They acknowledge frankly the demand that secondary education should be within the reach of all the children of the nation; but they contend justly, as well as naturally, that the suppression of their order is not necessary or justifiable in order to attain that end. At first it seemed as if Education Authorities were going to use their powers in the reasonable sense contemplated by Parliament—that is to say, to supply the local needs in the light of the local educational provision already made by private as well as by public enterprise; and some of the Committees have undoubtedly interpreted their duty in that sense. Unhappily, however, many Authorities have assumed the right to make complete provision under public control, so as to bear hardly upon, if not to squeeze out entirely, the local private schools. Apart from the particular hardships, which are entirely unjustifiable (and, we believe, entirely unintended by Parliament), this cruel procedure is a serious educational danger, as being a menace, or rather a stroke, at “the elasticity and variety of type which have hitherto been the grand feature of our educational system.” It is most important that this aggressive action should be arrested and limited. The Private Schools Association will have a wide and deep sympathy from the public as well as from all other branches of the teaching profession.

THE resolutions passed by the Association of Assistant Masters in Secondary Schools with regard to inspection and examination are perfectly reasonable, and they are applicable beyond the secondary range:—

- (1) That, in order to command the confidence of assistant masters, it is essential that the Inspectors and Examiners appointed should have had considerable and successful experience as schoolmasters.
- (2) That the inspections should be so arranged as to allow an oppor-

tunity for quiet personal conversation between the Inspector and the assistant master—not in the presence of the class, but where criticism can be candid, confidential, and sympathetic. (3) That the suggestions of the Inspector can be more freely offered and more freely considered if they are put forward in the first instance as recommendations only. (4) That, when possible, it would be convenient for the master to know at the beginning of the lesson whether the Inspector wishes to be merely a spectator or to intervene in the conduct of the lesson. (5) That the Inspector's formal report on the work of the staff should be placed in the hands of each master.

The essential thing is that Inspectors and Examiners should be not merely distinguished in some department of University studies, but men of practical experience in the particular field of work. All the rest follows as matter of reason and goodwill. The only remarkable element in the case is that at this time of day there should be any need for making such representations to a superior authority.

THE sympathetic treatment of the tenure of Assistant Masters by the Head Masters' Conference is one of the most pleasant episodes of the recent educational meetings. Dr. Gray's statement that “the position of the assistant master at the present time is scandalously unsafe” was not a bit too strong. The fact that “the difficulty of securing good assistant masters is becoming greater” is no doubt a telling practical argument, and the welfare of the assistant master is closely associated with the welfare of the school and with the smooth and efficient working of the organization; but the moral argument goes still deeper. Dr. Gray pointed to the claim of the assistant masters that, after a certain period of probation, they should be considered somehow or other as part of the institution. The claim is right: length of service identifies the servant with the institution, and that in ways not represented by salary. It is to be hoped that the joint meeting of the committees of the executives of the two Associations will succeed in formulating proposals acceptable to the Board of Education, who are understood to be very favourable to an equitable rearrangement.

### IMPORTANT EDUCATIONAL MEETINGS.

#### THE ASSOCIATION OF HEAD MASTERS.

The Annual Meeting of the Incorporated Association of Head Masters was held at the Guildhall, London, on January 9 and 10, Mr. R. Cary Gilson (Birmingham), President, in the chair. Mr. Gilson advocated “Two unpopular reforms.” The first reform was a “muzzling order”—a protest against the clamorous and discordant racket about education. About the second reform he was far less sanguine. How was it possible to feel satisfied that, with all their machinery and expenditure and enthusiasm and hard persevering work, they were producing the right results upon the right boys in their schools—in any of their schools, from the village elementary to Eton College itself? In the past fifty years was there not an almost entire disappearance of apprenticeship and a completely altered view taken by the majority of parents of the nature and extent of their obligations to the rising generation? Granted that free education had produced many of the good results anticipated for it, were these things a complete compensation, even in the present, for the loss of that sturdy resolve to see the children launched in the world which was formerly characteristic of the humblest class of British parent? And what of the future? That sturdy resolve, that entirely laudable and desirable assumption that the children's careers were the parents' business, which had almost quitted the strata where education had now been free for close on forty years, was steadily receding from the lower middle class, whose education, thanks to multiplied scholarships, maintenance allowances, and other facilities, was, to all appearances, in process of becoming



free at no distant date. What were the results? In the first place the unwillingness—he did not mean inability—to pay for education; and this tendency to put the whole responsibility for the children's future on the school, the municipality, or the State was a deplorably bad and alarming sign of the times—bad for the rate and tax payer, bad for the parent, and worst of all for the children, with whom the strongest of all incentives was the knowledge that their parents were making sacrifices on their behalf. Secondly, it meant that we were turning out in hundreds of thousands from our elementary schools—but, alas! also in considerable numbers from our secondary schools as well—boys of no special aptitude for anything useful and no particular views as to what they were going to be, who found employment only too easily as boys because of the low wages, but learnt no trade, and too often drifted, through the successive stages of hopelessness represented by the words “unskilled,” “casual,” “out of work,” and “unemployable,” to mere social wreckage and destruction. Now, if history taught anything, it was that this was a most serious symptom in the body politic—a symptom so dangerous, indeed, that it could not develop far or continue long without killing the patient outright. He was democrat enough to wish to see the right son of collier or chimney sweep sent to Eton and Oxford and into Parliament at twenty-three; but our present system did very little in this direction, while it turned innumerable good artisans and domestic servants into very inferior and wretchedly paid clerks. This was the problem into which he would like to divert some of that energy of discussion which was at present expended on details of the curriculum and fantastic proposals about hygiene.

Mr. F. H. Chambers (Lincoln) moved the preamble to the first resolution, which ran: “That this Association welcomes the new regulations for secondary schools, so far as they remove restrictions and limitations which have been found detrimental to educational progress under the previous regulations; but it respectfully submits, &c.”—Mr. White (Boston) seconded.

The Rev. W. Madeley (Woodbridge) moved as an amendment the addition of the words, “but deprecates the employment of financial pressure as a substitute for legislation,” after the words “previous regulations.”—Mr. Taylor (Raine's School, London) seconded the amendment, which, after a short discussion, was carried by 58 votes to 35.—Mr. Chambers then proposed the following section (a) of Resolution I.:—“That care should be taken to prevent the use of such regulations as a means to transform the constitution and character of secondary schools already established under schemes.”—Mr. A. E. Holme (Dewsbury) seconded, and the section was carried *nem. con.*—The Rev. J. R. Wynne-Edwards (Leeds) moved section (b):—“That in schools established under scheme, the composition and rights of governing bodies should be carefully safeguarded in respect of regulations issued from time to time by the Board of Education, and of action taken by Local Education Authorities.”—Mr. R. W. Hinton (Cricklewood) seconded, and the section was carried *nem. con.*—Mr. Martin (Bath College) moved section (c):—“That it is inexpedient to lay down a fixed general rule as to the proportion of free places that should be reserved for pupils from elementary schools.”—The Rev. W. E. Catlow (Bridgwater) seconded.—Mr. R. W. Hinton (Cricklewood) moved as an amendment the substitution in section (c) of the words, “who are qualified in subjects of elementary education,” for the words “from elementary schools”; but the amendment was withdrawn.

Mr. W. Caldecott (Wolverhampton) moved the following rider to section (c):—“And that free places in public secondary schools hitherto reserved to pupils from public elementary schools should be open to all duly qualified candidates, irrespective of their place of previous education.”—Canon Swallow seconded.—Section (c) was then carried *nem. con.*, and the rider was afterwards also carried.

Dr. Rendall (Charterhouse) moved section (d):—“That, in estimating the percentage of free places granted to boys attending elementary schools, only the number of day boys admitted should be taken into account, and that schools largely or wholly dependent upon boarders should not be placed on the same footing as schools of a more purely local character.”—After considerable discussion, the section was eventually carried.

Mr. W. W. Vaughan (Giggleswick) moved:—“That, having regard to the case of Wright v. Zetland, this Association approves of the action of the Council in the appointment of a Committee to consider, with a similar Committee of the Incorporated Association of Assistant Masters, the best means of giving to assistant masters a more secure tenure of office.”—Mr. S. R. Hart (Handsworth) seconded.—The Rev. W. Madeley

(Woodbridge) moved as an amendment:—“That this Association, having regard to the case of Wright v. Zetland and to the refusal of the Board of Education to receive assistant masters' appeals, empowers the Council (1) to appoint a Committee to consider *de novo*, with a similar Committee of the Incorporated Association of Assistant Masters, the best means of giving the assistant masters a more secure tenure of office; and (2) to take action on the Committee's report.”—Mr. R. H. Elliott (Rishworth) seconded the amendment, which was lost; and the motion was then carried *nem. con.*

The Rev. W. Madeley (Woodbridge) moved a resolution expressing the opinion that the possession of a degree of some recognized University or its equivalent should be made a condition of admission to the new register. In the course of his remarks he said that he had on his own staff a man with an Oxford Honours Degree, who, in order to qualify himself as a practical teacher, served for five years in a London elementary school. That man could not get on the secondary teachers' column of the old register because he had not gained his experience in a secondary school. That example would help them to realize the great grievance which the National Union of Teachers had about “Column B.”—Several members urged that the requirement of a Degree would be far too rigid, and Dr. Gow (Westminster) moved to add a proviso that the new Council should, within twelve months of their first meeting, have power at their discretion to admit to the register persons not qualified under the conditions named.—The resolution was carried, with the addition of Dr. Gow's proviso.

The Rev. C. J. Smith (Hammersmith) moved a resolution expressing the opinion that the recent tendency of the Board of Education to urge the employment of a greatly increased proportion of specialist teachers was not beneficial.—Dr. A. E. Salter seconded the motion, and, after some discussion, it was carried.

Mr. Gutteridge's motion for the introduction of the metric system into secondary schools was lost.

#### ASSOCIATION OF ASSISTANT MASTERS.

The Annual General Meeting of the Incorporated Association of Assistant Masters in Secondary Schools was held at Merchant Taylors' School on January 10, Mr. R. F. Cholmeley (St. Paul's), Chairman of the Association, presiding. The report dealt mainly with the Richmond School case as marking a definite stage in the history of tenure. The membership was stated to exceed 2,000, a third of whom came from Conference schools.

Mr. T. E. Page (Charterhouse) moved:—“That, in view of the intolerable position created by the judgment in the Richmond School case, whereby secondary teachers are liable to instant dismissal, without appeal and without redress, the Board of Education should be called upon to promote legislation for the purpose of securing to teachers (a) reasonable notice in case of dismissal, or salary in lieu of notice, and (b) an appeal to some public authority before whom the dismissed teacher should have the right of urging his case in person.” He said assistant masters were, under this judgment, advertised to the world as men who could be wronged with impunity, and they had to make it clear that they were determined to find out a remedy for what was at present an intolerable wrong. The Board of Education, which had certainly been lukewarm in the past, assured them that they had its sympathy, and they could only hope that that official sympathy might be changed into vigorous assistance. The Association had not fought the struggle merely to claim such rights as a private servant had at the hands of a private master. They claimed to be doing public work and to be public servants, and that they were not liable to dismissal except for just cause and after a full hearing by some proper and publicly appointed tribunal.—Mr. C. H. Greene (Berkhamsted) seconded the resolution, which, having been amended by the addition of the words “or by his representative” after the word “person,” was unanimously carried.

Prof. Sadler read a paper on “Should Secondary Teachers be Civil Servants?” Speaking, first, of the advantages which would be likely to follow from the organization of the teaching staff of secondary schools as a branch of the Civil Service, he said the change, if it ensured to every qualified teacher a reasonably progressive salary, with a pension at sixty years of age, would undoubtedly remove a grave element of weakness from English secondary schools. The improved prospects opened would increase the supply of competent men, and maintain the supply of competent women candidates. The change would be accompanied, or quickly followed, by the enforcement of some

form of professional training in the duties of teaching, and by enhanced requirements as to intellectual preparation. It would involve an alteration in the conditions of the tenure of assistant teachers—a tenure which was now precarious in many secondary schools—and entail financial readjustment which would lessen any unfair disproportion which existed between the salaries of the head master and his assistants. The change would, on the other hand, have great disadvantages. It would increase Government control over the inner life of secondary schools at a time when experiment and free development were especially necessary in English secondary education. It would impair the individuality of character of different schools and would lessen the variety of their tone and influence. It would curtail the teachers' freedom of utterance and power of independent association. The conditions likely to be imposed upon those wishing to become secondary-school teachers might, in laying special stress upon intellectual fitness, take too little account of the other qualifications which were necessary for what was essentially a pastoral office. But the central difficulty of the situation seemed to him to lie in the fact that the teaching profession was, by the nature of its duties, on the border line between private employment and public service. Opportunities for experiment and free development were as indispensable to its welfare as was a due measure of public supervision. There would also be special difficulties in England. It would be found, he thought, almost impossible to draw a satisfactory line between elementary and secondary education. A further difficulty was presented by the existence of the great endowed schools which, in English education, enjoyed a dignified semi-independence of State control. The future of many efficient proprietary and private schools would also be affected by the change. Nor could the position of secondary teachers be treated alone. The case of the elementary teachers, and possibly of the University teachers, would come up for corresponding treatment. His own conclusion was that, in present circumstances at any rate, the best interests of higher education in England would not be served by making secondary teachers Civil servants.

#### ASSOCIATION OF ASSISTANT MISTRESSES.

The twenty-fourth Annual General Meeting of the Association of Assistant Mistresses was held at Dr. Williams's Library, Gordon Square, on January 11, the President, Miss M. A. Hodge (Notting Hill), in the chair. Miss E. M. Bancroft (Redland High School, Bristol) was elected President for 1908, and Miss K. Andrews was re-elected Honorary Treasurer. The report stated that the progress which had taken place was due rather to the gradual formation of a sound public opinion than to any special decisions respecting educational legislation. A strong side in the direction of unity seemed gradually to be sweeping all before it, head masters and head mistresses, and assistant masters and mistresses, having sunk all petty differences and exhibiting now a strong tendency to act in unison.

Miss Hodge gave an account of the work done by the Association during the past year, referring especially to the Removal of Disabilities (Women) Act and the Education (Administrative Provisions) Act. Several resolutions on school curricula were then brought forward. After discussion, the following were adopted:—(1) "This meeting is of opinion that there is a need for secondary schools for girls of different types, with different curricula or combinations of curricula—*e.g.*, one type in which the curriculum is planned for a majority of girls leaving at the age of eighteen or nineteen, and then, it may be, continuing their education at places of University rank; secondly, another type in which the majority of girls leave at the age of sixteen; thirdly, a type in which there is a post-school course, chiefly for training either in domestic science or in art. In many cases all three types, or, at any rate, the first and second, might be advantageously combined in the same school." (2) "That up to the age of twelve—*i.e.*, practically in the lower school—the general course of education should be the same in all types of secondary schools." (3) "That the fewer the subjects taught in the lower school the better for the mental development of the child. The curriculum in this part of the school should consist mainly of English; four and a half hours, exclusive of geography and history, being the minimum. Only one language, other than English, should be taught. Practical geometry should be the only mathematical subject in addition to arithmetic, and it should not be introduced till the last year of the lower school course." (4) "In the middle school the curriculum should include in some part or other: (i.) a survey of general history that will be a

foundation for the more detailed work of the upper school in English and European history; (ii.) a course of elementary practical science. The curriculum of the upper school should be very elastic, certain subjects being alternative in order to avoid overpressure and to allow of specialization. For this reason, the Association welcomes the new regulations for secondary schools in so far as they allow of greater elasticity."

With regard to the new register, the following resolutions were passed, after discussion:—(1) "That the Association of Assistant Mistresses feels strongly that it should have a representative on the new Registration Council." (2) "That at least one-fifth of the Registration Council should be women." (3) "That the Registration Council should be composed of representatives of secondary, elementary, and technical education and of the Universities, together with some Crown nominees." (4) "That, while the Association desires that high academic qualifications should ultimately be required for admission to the register, they think that temporary regulations should be made, as in the case of the present Register."

Miss Lee (City of London School for Girls) gave some interesting criticisms of the modern methods of teaching geometry. In the discussion certain advantages of the modern method were emphasized.

#### THE PRIVATE SCHOOLS ASSOCIATION.

The Annual General Meeting of the Incorporated Association of Private Schools, representing about a thousand of the largest and most efficient private schools and having branches in every part of the country, was held at the College of Preceptors on January 10. Sir Henry Kimber, M.P., was re-elected President. —The annual report, which was adopted, commemorated another successful year. They could not, it stated, fail to be impressed with the growing tendency to bring under State control the whole, or the greater portion, of secondary and higher education. This tendency the Association must endeavour to arrest. Secondary education should be within the reach of all, but the multiplication of rate-maintained or rate-subsidized secondary schools (which had by unfair competition done so much to bring ruin to private enterprise) was not necessary, as an extension of the scholarship system was preferable to the policy of free, or nearly free, secondary and higher education in institutions under direct public control, which would prevent the elasticity and variety of type which had hitherto been the grand feature of their educational system. Already in municipal schools the head master was tending to become a mere executive official. The Bill promised for the coming year was looming large and fearful before them. In reference to the position of Local Authorities and private schools, and the persecution to which the latter were liable, it was stated that if private schools refused to co-operate when invited to do so with the Local Education Authorities they cut themselves off from all hope of further consideration, and added to the difficulties of those who were fighting for the recognition of private enterprise as an integral part of the national system of education. It was announced that the General Secretary, Mr. H. R. Beasley, would next week commence a visitation of every part of the country.

#### UNIVERSITY WOMEN TEACHERS.

The Annual Meeting of the Association of University Women Teachers was held in University Hall, Gordon Square, on January 3, Miss Clough, Vice-Principal of Newnham College, in the chair. The report showed that there are now 1,780 members, 244 new members having joined during the year. There had been 622 applications for teachers and 231 appointments made, great difficulty having been found to meet the demand for highly qualified teachers to whom large salaries were offered. A discussion took place upon the rules regarding membership, in which the view was generally taken that the qualification which should be possessed by women teachers admitted to membership was a University degree or its equivalent.

Prof. Sadler gave an address on "Comenius: his Influence on Modern Education." He outlined the salient facts of the life of Comenius, and said his two fundamental principles were—(1) that all instruction must be carefully graded; and (2) that, in imparting knowledge to children, the teacher must to the utmost appeal to the faculties of sense perception. First, there was the home school up to six years of age, then the vernacular school up to twelve years, then the Latin or secondary school to

eighteen years, and finally the University for another six years. Comenius believed that everything depended on education in childhood. Four hours a day was his ideal of school work, and many of his ideas were taken from the excellent and stimulating example of the Jesuit schools. The vernacular school curriculum was to be very wide—in fact, he might be charged with being the author of that modern evil, the overcrowded curriculum. The flaws in the work of Comenius were that he failed to realize the immense range of knowledge and to foresee the development of science; he laid far too much stress upon the epitomized textbook; he did not make proper allowance for the stupid boys; and he always assumed the identity of religious belief among all the pupils. But in many ways Comenius had had a profound influence on modern educational thought. No one more than he stood out for equality of educational opportunity for girls as well as boys; no one saw more than he the educational importance of the earliest years of life; and no one saw much earlier than he the value and the necessity of bringing the study of Nature into the work of the schools, though he was so bookish that he thought you could bring the study of Nature into the form of pictures in a book. For his own part, he thought Comenius was not very discriminating in his judgment, and in a country like our own great care should be observed in attempting to apply, without much qualification and exception, his theories to the educational problems before us. But he was one who was fired with unconquerable faith in the power of education, and his own words were his best epitaph—"I thank God that I have been a man of aspiration."

#### PUBLIC SCHOOL SCIENCE MASTERS.

The Annual Meeting of the Association of Public School Science Masters was held at Westminster School on January 14, Dr. Henry A. Miers, F.R.S., Waynflete Professor of Mineralogy, Oxford, presiding.—Prof. Miers took as his subject, "The Order in which Scientific Ideas should be presented (a) in Public Schools; (b) at the Universities." He strongly deprecated any too rigid demarcation of science into subjects, and said that he had far too firm a belief in the individuality of the teacher to suggest that any one method should be prescribed for the teaching of science. However, while he thought that individual experiments in method might be encouraged, he felt that it was in the matter of order that scientific teaching lacked system and was placed somewhat at a disadvantage with other subjects in which there was a recognized order based upon prolonged experience, and that what they had to secure was that science should form an integral part of any liberal education and should stand upon the same level as languages and mathematics. What he counselled was the presentation of the ideas, freed, it might be, from the old nomenclature and expressed in modern phraseology; illustrated by new and better examples, but laid before the pupil in the historical order, so as to allow the science to unfold itself before his mind in a natural sequence. He believed that the spirit of inquiry should be the real inspiration of all scientific teaching, and that there was absolutely nothing that could be compared with experimental work as a means of promoting that spirit. He advocated Nature study as the beginning of scientific training; but in Nature study he would include the intelligent observation of anything and everything that was going on around, and not merely the processes of Nature familiar to those who led a country life. If only ordinary boys could, early in life, get into their heads the notion that science was but the intelligent study of ordinary things, they would cease to regard it as a mere educational task. In school teaching there was a great want of continuity. Observational work should come very early in the teaching of a child, just as it came before experiment in the history of science, and should be accompanied by some teaching in physiography or the sort of science that involved reading and exercise of the imagination, introducing examples of the chief laws of physics and chemistry. If this could begin before a boy came to a public school, he would then be prepared for experimental science with some information upon which it could be based. The systematic teaching at a public school should be, from the outset, experimental, and the spirit of experimental inquiry should be cultivated as soon as it was possible to begin systematic instruction. But he thought that a good deal of scientific information could well be absorbed by a child, and that the spirit of intelligent inquiry might be awakened before the learner began systematically to weigh and to measure. There was a danger, he thought, lest scientific training too systematically confined might lead to the very fault which experimental

science was expected to avoid—namely, scientific dogmatism. As to the order in which scientific ideas might best be presented to students at the University, he said that here, even more easily than at school, the teacher should be able to steer his course by the history of science; for it ought to be possible to carry on the scientific training as a whole and not by one subject after another, even for a student who was only beginning science seriously for the first time at the University. Scientific education at a University should be designed for students whose minds were formed, and they should be put as far as possible in the position of intelligent inquirers really approaching scientific problems with a desire for achievement. Here the spirit of research should absolutely dominate the teaching, and the ideas should be presented as they presented themselves to the original discoverer.—Prof. Armstrong, Sir Archibald Geikie, Mr. C. E. Ashford (Royal Naval College, Dartmouth), Mr. F. W. Sander-son (Head Master of Oundle School), the Rev. J. C. Fitzpatrick (Queens' College, Cambridge), and Dr. T. J. Baker (King Edward's School, Birmingham) joined in the discussion.

Mr. C. F. Mott (Giggleswick) read a paper on "The Educational Value of Mechanics," and Mr. H. Wilkinson (Durham) a paper on "The Teaching of Practical Mathematics." Mr. L. Cumming (Rugby) delivered an address on "A Scheme of Laboratory Work in Physics"; Mr. W. E. Cross (Aldenham) contributed a paper on "A Suitable Curriculum for the First and Second Years," and Mr. J. M. Wadmore dealt with the subject, "The Compulsory Teaching of Elementary Physics to Junior Forms."

In connexion with the meeting there was an interesting exhibition of scientific apparatus, the principal feature of which was a number of Leyden jars which belonged to and were used by Henry Cavendish, but which were only recently discovered at Chatsworth by Mr. Douglas Berridge, the honorary secretary of the Association.

#### CONFERENCE OF LONDON TEACHERS.

A three-day Conference of Teachers in Elementary and Secondary Schools and Technical Institutes, called by the London County Council, was opened on January 2 at the Medical Examination Hall, Victoria Embankment.—Dr. Baxter Forman, Vice-Chairman of the Education Committee of the Council, presided.—Dr. Percy Nunn, Vice-Principal of the London Day Training College, in a paper on "The Place of Nature Study in the School Curriculum," said that the primary business of the educator was not to teach certain "useful subjects," but to cultivate a certain group of interests, and, further, in this group, the interest to which Nature study appealed held an important place. There was no difficulty in assigning Nature study to a definite group of school disciplines. Though it had very close relations with the aesthetic side of the curriculum, it had clearly to be considered on the whole as an integral part of the instruction in science. Science of the higher type could not be a completely healthy growth unless it sprang out of a foundation of Nature study.—Mr. H. E. Turner (Bellenden Road School) read a paper on "School Excursions," and Mr. J. T. Winkworth (Cable Street Higher-grade School) contributed a paper on "The Use of the School Museum in Nature Study."

The Chairman opened a discussion on the teaching of botany. He mentioned that in the ordinary Council Schools in London there were 16,841 pupils taking botany and 2,332 in the non-provided schools, though botany was not mentioned in the Government Code as a subject which should be included in the elementary-school curriculum. The lesson should be a demonstration rather than a lecture—a luxury to be enjoyed rather than a task to be imposed. In the year ending March, 1907, the County Council had supplied 7,500 boxes, containing over five and a half millions of botanical specimens, for the use of the schools.—Miss Lullam (Lecturer on Botany in King's College) delivered an address on "Nature Study as a Preparation for the Study of Botany"; and Miss Von Wyss, Lecturer on Nature Study and Art in the London Day Training College, offered suggestions for the practical teaching of botany to large classes in elementary schools.

The London Chamber of Commerce, said the Chairman, was the first public body in this country to organize a movement in favour of improved commercial education in our schools, with the result that some thirty-six Chambers of Commerce and thirty Education Authorities were to-day heartily aiding in the furtherance of that object. It was gratifying to know that, since the Chamber of Commerce had initiated its scheme of examinations, no fewer than

34,802 candidates had been presented from the various schools, of whom about 18,358 had secured certificates of proficiency. This work had been carried out at a cost of £27,000, towards which the business men of London had contributed £14,500, including a sum of about £3,500 from the Chamber's corporate funds. He might add that more than four hundred firms gave preference, in engaging employes, to the holders of the Chamber's certificates, while these same holders could obtain appointments without charge through the Chamber's employment department. —Papers were read by Mr. A. Kahn, on "Commercial Education in Day Schools"; by Mr. J. Sinclair, on "Commercial Education in the Evening Schools"; by Mr. B. Dumville, on "Higher Commercial Institutions in French Switzerland"; by Mr. Douglas Owen, on "The Need of Training for Business Men"; by Prof. L. W. Lyde, on "The Teaching of Geography as a Subject of Commercial Instruction"; and by Mr. A. Kahn, on "The Teaching of Modern Languages as a Subject of Commercial Instruction."

Sir John Cockburn said that manual training was of priceless value, and it was simply a recognition of the dictates of physiology in the development of the child.—Mr. J. C. Hudson, Director of Manual Instruction under the Hornsey Education Committee, said that in America manual training occupied a foremost place in the curriculum of the schools, and was developing in a most remarkable manner.—Discussing English elementary schools, Mr. P. R. Ballard, District Inspector of the London County Council, said that under fifty-five Education Authorities in England practically no hand-work was taught. Sixteen authorities seemed, however, to have some sort of systematic scheme of instruction. The most important of these were Kent, Middlesex, Liverpool, Leeds, and Nottingham. He did not think that they had sufficient hand-work in the London schools.

#### NORTH OF ENGLAND EDUCATION CONFERENCE.

The sixth Annual Meeting of the North of England Education Conference was opened at the University of Sheffield on January 3, under the presidency of Prof. M. E. Sadler. Prof. Sadler reviewed the change that had come over the spirit of English education during the last ten years, and touched upon the chief difficulties that now retard its progress. He said that the most important changes in our educational methods and outlook could be traced to the influence of modern science. Scientific psychology had thrown light upon the critical nature of the years of adolescence. Applied science had led to remarkable developments of technological training. Sociological inquiries suggested the need for special educational and industrial discipline for the feckless and the idle. Scientific analogy, by making men think of the community as a social organism, had strengthened the movement towards Government control over individual waywardness and inefficiency. The second group of changes were those connected with the rapid growth of State influence in English education. But the movement in favour of the intelligent public supervision of all schools from Eton to the kindergarten had been accompanied by a growing sense of the value of individuality in education. This had shown itself most clearly in the successful movement for the education of girls and women and in the increased value set upon art and poetry in education, because these cultivated the imagination and developed individuality of thought and feeling. Thirdly, there was the change in social outlook in English education. The old idea had been that each class in the community should have its own educational arrangements. But a new middle class was forming itself through the rise of the skilled artisans. The latter realized the value of education, and were seizing the opportunities offered to their children by the system of scholarships, upon which about £400,000 was now spent annually in England alone. But they felt that the schools should do more to train boys for skilled industrial employment and girls in housecraft, and both for the duties of citizenship. The chief defects in English elementary education were the large classes in many schools, which made individual teaching almost impossible; the overcrowded curriculum; the too early age at which the majority of the children left school; the half-time system in the textile districts; and the tendency in large schools to burden the head teacher with administrative and clerical duties. The intellectual vigour of our higher secondary education was impaired by premature specialization in classical scholarship, and especially by the too early beginning of Greek. The higher education of girls and women was disproportionately concerned with the recruiting of the teaching profession. But the welfare of any educational system depended chiefly upon the alert efficiency and pastoral gift of the teachers. The prospects of men teachers in

middle secondary schools were lamentable and called for immediate improvement.

Prof. Hicks, F.R.S. (Sheffield University), read a paper on "The Function of a Modern University." He pointed out that new Universities must chiefly serve local needs, and that one of their distinguishing features must be their specialization in some branch of applied science, in which it must be the ambition of each to be unique. It was also the duty of a local University to keep in close and sympathetic contact with the community and to extend the bounds of knowledge.—Dr. Forsyth (Leeds), who read a paper on the same subject, feared there was a danger in a University taking too local a view of its functions; and Mr. A. Mansbridge (secretary of the Workers' Educational Association), dealing with the subject from the point of view of the citizen, said he conceived one of the functions of a University to be to take her part in the maintenance of a great highway running through the schools to herself and to sweep away barriers to intellectual development.

Dr. R. H. Crowley (Bradford) and Dr. Dukes (Rugby) discussed "The Medical Inspection and Treatment of School Children in Primary and Secondary Schools." Among the other subjects dealt with were "The Teaching of History," by Mr. H. J. Snape (Sheffield) and the Rev. Prof. G. H. Godwin (Durham); "Holiday and Open-air Schools," by Mr. C. H. Wyatt (Manchester) and Mr. Ernest Gray; "Compulsory Attendance at Evening Schools," by Mr. J. Crowther (Halifax) and Principal J. H. Reynolds (Manchester), and others.

#### THE MODERN LANGUAGE ASSOCIATION.

THE Annual Meeting of the Modern Language Association was held at Queen's College, London, on January 7 and 8. The report stated that the Association during the past year had taken an important part, in co-operation with L'Entente Cordiale, in initiating the movement for the establishment and endowment of the *Guilde Internationale* at Paris, which was doing valuable work in furnishing facilities for the study of French by English-speaking people as well as in promoting the study of English by French men and women. The Association is now co-operating with the *Société d'Échange International des Enfants* in promoting the exchange of children between English and French families for the holidays or longer periods. The committee, which is inquiring into the training of modern language teachers, has secured the aid of the Rev. E. S. Roberts, Vice-Chancellor of the University of Cambridge, who will act as chairman. Lord Fitzmaurice has accepted the presidency of the Association for 1908. The general meeting of 1909 will be held at Oxford, and that of 1910 at Cambridge.

The President, Mr. F. Storr, delivered an address on "The Art of Translation." The Battle of the Books, he said, still raged. The extreme classicist still preferred to study natural history from Aristotle rather than from Darwin, and would sooner read Sophocles in Greek than Shakespeare in his native tongue. The extreme left of the modernists held that translation was the Ahriman of language teaching, or, like Mr. Cobden, thought that a single number of the *Times* contained more information than all the works of Thucydides. But these extremes would meet in acknowledging that by the transmitted wisdom of the ancients we are what we are, and that the transmitters of the lamp of life had been mainly the translators. It was only from a translation that we knew the very foundations of Christianity; it was in a translation that the arts of Greece were first introduced into rustic Latium. It was on translation that our "morning star of song," Chaucer, tried his prentice hand till he found himself and far outstripped his French originals. It was from a translation of a translation that Shakespeare quarried the materials for his "Coriolanus," "Julius Cæsar," and "Antony and Cleopatra"; and of Keats, with far more truth than of Shakespeare, it might be said that he knew small Latin and less Greek. Were they bound to accept Lewes's sweeping generalization, supported as it was by some convincing instances, that all verse translation was either a fraud or a failure? It was not the conclusion of the many, nor did he think it would convince the experts among his audience. It was obvious that no language could exactly reproduce the single words, let alone the connected phrases, the rhythm and harmony of another language. Each language had its own idiosyncrasies; words were like coins, each with its own image and superscription for which no exact equivalent in a foreign coinage existed. Even that metaphor was inadequate, for a word was a living organism, ever taking to itself new accretions and shedding part of its substance. The

translator knew, or ought to know, that to the commonest words in English and French, for instance, there clung a whole network of associations, to which he must attend at the risk of bathos. When he had considered the equivalents that would suit the context, the hardest part of the translator's task remained. He had so to rearrange or modify the words and phrases that the metre or rhythm or harmony of the whole passage at once satisfied the ear, and at the same time was an echo of the original or at least affected the foreigner in the same way as the original affected a native. The question could not be confined to poetry, but must embrace as well literary prose. Young and old alike read with delight Hans Andersen and Cervantes before they mastered Danish or Spanish, and it needed not a knowledge of Arabic to appreciate "The Arabian Nights"; and there was one Book that all, whether clerks or laymen, read and studied mainly in a translation. Translation was an art, but it had very slowly been recognized as such, and in no art had theory lagged so far behind practice. There was a plain issue between the literalist and the spiritualist schools, and he unhesitatingly took his stand on the text, "The letter killeth, but the spirit giveth life." If they would judge the two schools by their fruits, they could not select a more crucial instance for comparison than the Authorized and Revised Versions of the New Testament. He had often thought what a mistake the revisers made in not co-opting to sit with them two or three masters of English—J. H. Newman, Froude, Tennyson. How different would have been the result! To make a perfect translation required something more than exact scholarship; it needed the literary sense, the ear attuned to harmony, inspiration. There were the misses, more in number than the sands of the sea. But there was a long list of successes. They were justified, perhaps, in drawing the inference that poetry could be adequately rendered only by a poet. For fidelity, as opposed to literality, he cited Dryden's paraphrase of Horace, "Odes," l. 29. He considered that any attempt to naturalize a metre that was alien to the genius of the language was predestined to failure, and that any attempt to write quantitative verse in English was absurd, though in this he was not prejudging the vexed and intricate question of English hexameters. In conclusion, he held that verse must be rendered by verse, and he wholly dissented from Mr. Lang's dictum that a prose translation of the "Odyssey" must convey the meaning of Homer more faithfully than could any verse translation.

Mr. E. L. Milner-Barry moved the following resolution:—"That this meeting, considering it desirable that greater encouragement should be given to the study of German in schools, urges the Board of Education to reconsider its policy that where only two foreign languages are taught in a school one must be Latin, unless good reason can be shown for its omission." He said the resolution was framed with special reference to schools in receipt of a Board of Education grant. He found that in 119 of our secondary schools in receipt of public money, while 16,668 girls and boys were taught French, only 3,224 were taught German. And in 40 of the girls' schools, while 5,291 girls were taught French, only 765 were taught German. This showed what a parlous condition the teaching of German had reached. The Board of Education, it appeared, were wedded to Latin.—Mr. H. W. Eve, in seconding the resolution, said the policy of the Board of Education, in trying to cram Latin and Greek down the public throat, was a departure from the principle of allowing schools to develop freely and spontaneously. The controversy really was between German and Latin as a means of education, but as the real benefit of Latin educationally was found in its higher stages, which were not reached in these schools, he thought that German would be a superior educational instrument.—Dr. Breul strongly supported the resolution which, after some discussion, was carried, with three dissentients.

Considerable difference of opinion was evoked on the question of "The Place of Translation in Modern Language Teaching," which was introduced by Mr. F. B. Kirkman, and various other papers were read.

The resolutions on the age for beginning languages, which were passed at a Conference held in 1906 of representatives of the Assistant Masters' Association, the Classical Association, and the Modern Language Association, were then considered. Only the first of the five resolutions was agreed to, which was as follows:—"That before a scholar begins the study of a second language he should have developed some power of correct speaking and writing in English, and should have acquired some knowledge of the functions of words and of their grammatical relations to one another." In place of the remaining resolutions the fol-

lowing were unanimously adopted:—(1) "No age limit for beginning languages can be laid down which can be profitably applied to the various types of schools for boys and girls where one or more foreign language is taught." (2) "That in schools where a classical and modern language are both taught, the modern language should in all cases be begun first." (3) "That a second foreign language should not be begun till a sufficient standard has been attained in the first, which in most cases would require two years' study."

#### THE ENGLISH ASSOCIATION.

The Annual Meeting of the English Association took place at University College, London, on January 10 and 11. The report stated that the growth of the Association had been rapid and continuous. There were in all 558 full and 420 associate members, although it was little more than a year since the Association had been formed. The Executive Committee had decided that, for the present, the Association's publications should take the form chiefly of bulletins and leaflets. The bulletins were issued quarterly, and contained a record of the proceedings both of the central body and of the local branches, as well as other information of importance to all interested in the progress of English.

Canon Beeching delivered a lecture on "A Modern Critical Poet, William Watson."—Of wider practical interest was a keen discussion on "English in Secondary Schools," introduced by Mr. J. H. Fowler (Clifton). Mr. Fowler said the present moment marked the second opportunity offered to English schools for repairing their long neglect of the national literature. The first opportunity, given about thirty-eight years ago, was largely missed owing to the influence of methods adopted from the classical curriculum, of annotated editions and examinations, of a tendency to emphasize the study of the historical origins of the language whilst neglecting the vital elements of literature. The old mistakes were not likely to be repeated, but there were dangers in the present against which they should be on their guard—the dangers of impressionism, sentimentalism, specialization, and materialism. There was the danger of substituting for the old-fashioned study of books read at a painfully slow pace a mere hazy impression of the history of literature; the danger of a revolt against accurate and scientific study; the danger of isolating the study of English from other studies; and the danger of ignoring the spiritual side of literature.—Miss G. Clement, who read a paper on "English in Secondary Schools," laid stress on the disciplinary and moral value of the teaching of English in education.—A conference was also held upon the Association's provisional leaflet on the "Teaching of Shakespeare in Secondary Schools," in which Mr. Sidney Lee took part.

#### EDUCATIONAL INSTITUTE OF SCOTLAND.

The thirty-fourth Annual Congress of the Educational Institute of Scotland was held at Dumfries Academy on December 30 and 31. Mr. John M'Whan, F.E.I.S., President, in the chair. Mr. M'Whan remarked on three great drawbacks to educational progress: "(1) Our classes are too large and unwieldy; (2) our children are too closely packed; (3) our school furniture is clumsy and inconvenient." "In short, money is at the root of the question." A resolution—a hardy annual—" (a) That this Congress urges the Government to pass an Education Bill for Scotland during the ensuing session; (b) that this Congress is of opinion that no educational legislation will be satisfactory which does not provide for the administration of primary, intermediate, and secondary education over suitably large areas by a single authority elected for that purpose"—was unanimously carried. The preliminary education, training, and certification of teachers, the necessity for better terms of super-annuation, the question of tenure, and medical inspection of schools, formed subjects of considerable discussion. A very interesting address on "The Colour Characters of the School Children of Scotland" was given by Mr. J. F. Tocher, F.I.C., who acknowledged handsomely the indebtedness of himself and his Committee of inquiry to the teachers "for responding so magnificently to the invitation to provide the necessary data."

At London University, during the session 1906-7, 38 students submitted essays in candidature for the University Extension Sessional Certificate in Honours, as against 36 in the previous session. Of these 21 were approved for the Sessional Certificate in Honours, while 9, although not reaching the high standard required for the Honours Certificate, were "commended" by the lecturers and the examiners.

## CORRESPONDENCE.

## THE STATE AND SECONDARY EDUCATION.

To the Editor of "The Educational Times."

SIR,—It is to be hoped that all who are interested in any way in secondary education will carefully watch at this juncture the administrative activities of the Board of Education. Its action in this field includes the giving of grants for apparatus and teaching, making provision for the admission of scholars from public elementary schools, arranging for the partial education of intending teachers in such schools, and the like. It would also appear that certain of the functions of the Charity Commissioners in respect of school endowments may now be exercised by this Board. There is no doubt that its hold on secondary schools will tend gradually to become stronger and more autocratic.

The results will work out somewhat in the following manner:—

(1) In the personnel of the scholars. This will be materially changed when 25 per cent. or so is derived from public elementary schools. (2) In the character of the instruction. Such scholars would have to be dealt with separately in respect of such subjects as Latin, French, and mathematics, or it would come to pass that boys and girls of twelve or so would be put into classes with younger pupils. (3) In the character of the religious teaching. This would lose any distinctive and denominational character it may have possessed, and would tend towards the type that is sought to be imposed upon our primary schools.

It will be realized how much all this would avail to alter the character of our endowed grammar schools—(a) in respect of the class of scholar, (b) in respect of the limits of instruction, (c) in respect of guarantees of moral and religious training, (d) in respect of the lowering of their status. The consequence would be that such schools would become less popular with the class which has hitherto resorted to them; neither would this class be attracted by any lowering of the fee that may be brought about—but rather repelled.

Apparently there would follow a revival of interest in the private school, where the fee would be moderately high, where individual attention would be secured, and where the Head would

be free to impart moral and religious instruction in a definite form, without any limitation of his discretion or authority by indeterminate Imperial or Local Authorities.

I am not expressing any opinion as to the desirability or undesirability of such changes as may be induced by class feeling or the like, or as to the balance of advantage or disadvantage to the community; but a question having been addressed to me as to the trend of State action in the matter, I have tried to suggest an answer thus publicly, inasmuch as it is a matter of grave moment both to parents and teachers, so that all alike should hold a watching brief.

To the heads of private schools the moral of the situation would appear to be: "Trust in God and keep your powder dry. Do not be in a hurry to enter into embarrassing relations with Local Education Authorities."—I am, Sir, &c.

Chillenden Rectory, Dover.

J. O. BEVAN.

January 1, 1908.

THE Board of Education desire to call the attention of governing bodies and persons responsible for the management of secondary schools to the provisions of chapter viii. of the current Regulations for Secondary Schools, which deals with the proposed establishment of a list of those schools which are recognized by the Board as efficient. Schools recognized for the Board's grant will, as stated in the Regulations, be placed automatically upon this list, but this will not be done in the case of schools recognized by the Board only for the purposes of Sections 3 and 4 of the Teachers' Registration Regulations. The first list of recognised schools will probably be issued in the course of the summer, and the authorities of any school who seek inclusion in the list, and have not yet made the necessary application to the Board, are requested to do so with as little delay as possible. The Board cannot guarantee that all applications will be dealt with in time to admit of the inclusion of the school in the first list, but it is desirable that they should have applications before them by an early date, in order that the necessary arrangements for inspection may be made with reasonable notice to the schools and with due regard to the other engagements of the Board's Inspectors.

# CLERGY MUTUAL ASSURANCE SOCIETY,

2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

[FOUNDED 1829.]

Patrons—THE ARCHBISHOP OF CANTERBURY; THE ARCHBISHOP OF YORK.  
 President—THE BISHOP OF LONDON. Vice-President—THE LORD HARRIS.  
 Chairman—THE DEAN OF CANTERBURY. Deputy-Chairman—SIR PAGET BOWMAN, BART.  
 Secretary—W. N. NEALE, Esq. Actuary and Manager—FRANK B. WYATT, Esq., F.I.A.

The Society offers the BENEFITS of MUTUAL LIFE ASSURANCE without personal liability on highly favourable terms to

*THE CLERGY AND THEIR RELATIVES.*

ALL PROFITS BELONG TO THE MEMBERS.

Accumulated Fund, £4,242,820. Annual Income, £453,897.

Bonuses Distributed, £4,256,464.

LOW PREMIUMS.  
LARGE BONUSES.

Notwithstanding the lowness of the Premiums charged, the BONUSES are on an EXCEPTIONALLY HIGH SCALE.

NEW AND SPECIAL POLICIES.

Application is invited for the PROSPECTUS, and Leaflets explaining two new Policies, with valuable Options.

1. WHOLE-LIFE CONVERTIBLE ASSURANCES. Very Low Premium—about one-half the usual rate—during first ten years.

2. PENSION POLICIES. Premiums returnable with compound interest in case of death or surrender before pension age. Option to commute for cash.

Assurances without profits, at low rates of premium, may be effected, and Life Annuities on favourable terms may be purchased, by any person irrespective of any special qualification by relationship to the Clergy.

## SPECIMEN OF RATES FOR £1,000, WITH PROFITS.

Age next Birthday.	£1,000 Payable at Death.			£1,000 Payable at Age 80 or earlier Death.		
	£.	s.	d.	£.	s.	d.
25	20	1	8	27	3	4
30	23	3	4	32	10	10
35	26	10	0	40	1	8
40	31	1	8	51	5	0

NOTE.—Under the Reduced Premium System (explained in Prospectus) four-fifths only of these Premiums need be paid, the other one-fifth remaining a charge to be repaid out of Bonus.

No Agents employed and no Commission paid for the introduction of business, whereby £10,000 a year is saved to the Members.

Assurances can be effected by direct communication with the Office, 2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

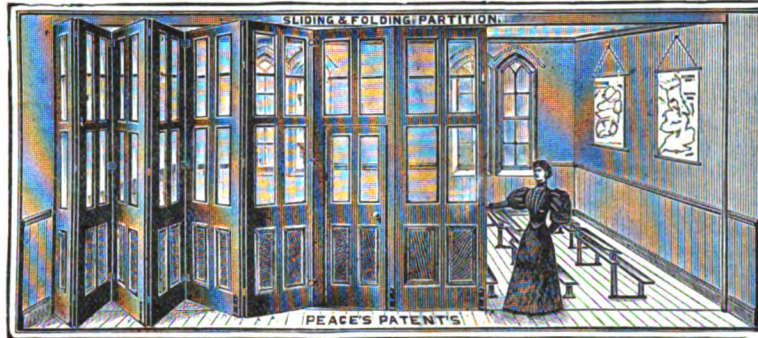
# PEACE & NORQUOY,

New Islington, Ancoats,  
**MANCHESTER.**

SOLE MANUFACTURERS OF THE PATENT  
**SLIDING AND FOLDING PARTITIONS**  
FOR SCHOOLS, &c.



By His  
Majesty's Royal  
Letters Patent.



Established 1870.

Telephone 3085.

Telegraphic Address:  
"Partitions,"  
Manchester.

The attention of Architects, Education Committees, and others is directed to these Sliding and Folding Partitions, which so successfully meet the most exacting requirements that they have been adopted by more than

**600 School Boards, Education Committees, and County Councils.**

**700 Leading Architects have used and recommended them. Fixed in**

**3,000 SCHOOLS, COLLEGES, LECTURE HALLS, HOTELS, &c.**

**OVER 4,500 AT PRESENT IN USE, Demand Increasing.**

HIGHLY APPROVED BY THE BOARD OF EDUCATION AND  
RECOMMENDED BY H.M. INSPECTORS OF SCHOOLS.

ILLUSTRATED CIRCULAR AND ESTIMATES  
FREE ON RECEIPT OF PARTICULARS.

## A SELECTION OF RELFE BROTHERS' BOOKS

FOR THE LOCAL AND COLLEGE OF PRECEPTORS' EXAMINATIONS, &c., 1908.

### SHORT FRENCH EXAMINATION PAPERS (110).

Each containing Six Idiomatic Sentences to render into French.

Very useful for Oral Work. Second Edition. Price 2s. 6d., cloth.

"A very useful set of questions."—*Modern Language Quarterly*.

"We noticed at the time of its appearance this very useful collection of test papers, and need only here add that the key is full and accurate save for some obvious misprints and one or two slips that we have noticed."—*Journal of Education*.

A KEY, issued to Teachers and Private Students only, can be obtained from the Publishers, 6s. net. (A list of errata is issued with this.) By H. R. LADELL, M.A., F.R.G.S., late Head Master of the London International College, Isleworth.

### THE PUBLIC SCHOOL SPELLING CARD.

Fiftieth Thousand. Price 6d. By the same Author.

Containing nearly 1,000 words (in which actual mistakes have frequently been made, as collected from Dictations, Essays, Examination Papers, &c., during a period of more than fifteen years), with Rules.

Also, in Book Form, "HOW TO SPELL AND SPEAK ENGLISH." Third Edition. Price 1s.

This also embodies most of the errors in the sentences set for correction in the Examination Papers of the London Matriculation, the Oxford and Cambridge Locals, the College of Preceptors, &c.

### FRENCH ESSENTIALS AND FRENCH CONVERSATION SENTENCES.

Third Edition. Price 2s. cloth. By the same Author.

"This short grammar is compiled by a master who knows his business. The type is good, the arrangement is good, and there is nothing superfluous."—*Journal of Education*.

### EXAMPLES IN PRACTICAL PHYSICS.

By R. C. BRIDGETT, M.A., B.Sc., F.C.S. Price 6d.

A collection of carefully graduated examples of moderate difficulty on Mensuration, Hydrostatics, and Heat which will be found of great service in supplementing the work of Science classes.

Ezra, Nehemiah, and Esther (1 Vol.)

St. Mark.

St. Luke.

Kings II.

Acts of the Apostles.

Full Notes on both Versions by  
G. CARTER, M.A.

Maps, Historical Tables, &c.

Crown 8vo, cloth, 1s. 6d. each.

These books are all done on the same admirable plan, and are in use in nearly all Schools that prepare for Examinations.

### KINGSLEY'S HEROES. Illustrated.

With Notes by F. GORSE, M.A. Cloth gilt, 1s. 6d.

### SPELLING, DICTATION, & COMPOSITION EXERCISES.

For Preliminary Forms, 3d.; Junior Forms, 3d.; Middle Forms, 6d.;  
Upper Forms, 6d.

Invaluable for Spelling and Composition—always weak subjects.

### OUTLINES OF ENGLISH LITERATURE.

By H. E. EVANS, B.A., L.C.P.

With Biographical Sketches, Chronological Tables, Index, and full Historical Appendix. Cloth, 1s. 6d.

### MILTON'S L'ALLEGRO, IL PENSEROSO, AND LYCIDAS

With Notes by F. GORSE, M.A. 8d.

### THE LOCAL EXAMINATION PHYSIOGRAPHY.

By W. J. PERRY, M.A., LL.D.

A Special Edition to meet every point in the new Geography Syllabus except Political. With Illustrations, Diagrams, and Maps. Cloth gilt, 2s. 6d.

### JUNIOR PHYSICAL GEOGRAPHY.

By the same Author. 1s.

RELFE BROTHERS, LTD., 6 CHARTERHOUSE BUILDINGS, ALDERSGATE, LONDON, E.C.

## COLLEGE OF PRECEPTORS' CERTIFICATE EXAMINATIONS, 1908.

**Caesar.—Gallic War, Books I., II.** By A. H. ALLCROFT, M.A., and others. 1s. 6d. each. Vocabulary. 1s. each.

"A clearly printed text, a good introduction, and an excellent set of notes go to make up a very good edition."—*Schoolmaster*.

**Cicero.—In Catilinam, I.-IV.** By J. F. STOUT, B.A. Camb. 2s. 6d. [In the press.]

"The notes are worked up with the minuteness and care usual in this series, and with full historical references" (Cicero.—"In Catilinam, III.")—*Practical Teacher*.

**Euripides.—Hecuba.** By T. T. JEFFERY, M.A. Camb. 3s. 6d.

"We are inclined to think that this is one of the best volumes of the University Tutorial Series which have yet appeared. The notes are clear and helpful."—*School World*.

**Horace.—Odes, Book III.** By A. H. ALLCROFT, M.A. Oxon., and B. J. HAYES, M.A. Camb. 1s. 6d. Vocabulary. 1s.

"A straightforward serviceable edition."—*Journal of Education*.

**Vergil.—Aeneid, Books I., X.** By A. H. ALLCROFT, M.A. Oxon., and others. With complete Alphabetical Lexicon. 1s. 6d. each.

"The notes are clear and scholarly."—*Journal of Education*.

**Xenophon.—Anabasis, Book I.** By A. H. ALLCROFT, M.A.

Oxon., and F. L. D. RICHARDSON, B.A. 1s. 6d. Vocabulary. 1s.  
"The notes are all that could be desired. We desire to record our high opinion of this edition."—*Schoolmaster*.

**Shakespeare.** Edited by Prof. W. J. ROLFE, D.Litt. Merchant of Venice. 2s. Julius Caesar. 2s. 6d.

**Arithmetic, The Junior.** Adapted from "The Tutorial Arithmetic." By R. H. CHOPE, B.A. With or without Answers. 2s. 6d.

"Excellent."—*Educational Times*.

**Book-keeping, Junior.** By THOMAS CHALICE JACKSON, B.A., LL.B., Lond., Barrister-at-Law. 1s. 6d.

"The book is an excellent one."—*Accountants' Magazine*.

**French Course, Junior.** By ERNEST WEEKLEY, M.A. Lond. and Camb. Second Edition. 2s. 6d.

"The execution is distinctly an advance on similar courses."—*Journal of Education*.

**French Reader, Junior.** With Notes and Vocabulary. By ERNEST WEEKLEY, M.A. Second Edition. 1s. 6d.

"A very useful first reader, with good vocabulary and sensible notes."—*Schoolmaster*.

**Latin Course, Junior.** By B. J. HAYES, M.A. Second Edition. 2s. 6d.

"Better than most grammars that we have seen."—*Secondary Education*.

**Latin Reader, Junior.** By E. J. G. FORSE, M.A. Lond. 1s. 6d.

"A well graded and carefully thought-out series of Latin selections. The vocabulary is worthy of very high praise."—*Educational News*.

**Mechanics, Junior.** By F. ROSENBERG, M.A., B.Sc. 2s. 6d.

"The general style of the book is eminently calculated to teach in the clearest manner possible."—*Electrical Review*.

**Trigonometry, Junior.** By WM. BRIGGS, LL.D., M.A., B.Sc., F.R.A.S., and G. H. BRYAN, Sc.D., F.R.S. 2s. 6d.

"Is intended for students preparing for the College of Preceptors' examinations, but is suitable for any one of that standard."—*School World*.

### FRENCH COURSE, BARLET'S PRECEPTORS' JUNIOR.

By STEPHANE BARLET, B. ès Sc., Univ. Gall. 1s. 6d.

Full List of Books for COLLEGE OF PRECEPTORS' CERTIFICATES and OXFORD AND CAMBRIDGE LOCALS, post free on application.

University Tutorial Press, Ltd.,

W. B. CLIVE, 157 Drury Lane, London, W.C.

## A GOOD ADVERTISEMENT

is not of much use unless you have a good Prospectus to send to Enquiring Parents, and

## A GOOD PROSPECTUS

is of no use unless Parents see it.

## LET US PREPARE

you a good Prospectus, and give your School a

## GOOD ADVERTISEMENT

in our

## PATON'S LIST OF SCHOOLS AND TUTORS

which now has a World-wide Circulation.

**The Eleventh Edition is now in hand for Press.**

## WRITE US,

with copy of your present Prospectus, and we will send you (without any charge) Specimens and Full Particulars, with proof of value.

## OUR GOLD MEDALLIST

Photographs Schools within reasonable distance of London—expert work only.

**J. & J. PATON,**  
EDUCATIONAL AGENTS,

143 CANNON STREET, LONDON, E.C.

Telephone—5053 Central.  
Digitized by Google



# University Tutorial Press.

## THE BEST BOOKS FOR LONDON UNIVERSITY MATRICULATION

- English.** *Matriculation English Course.* Containing Grammar, Analysis, Composition, Precise Writing and Paraphrase. By W. H. LOW, M.A. Lond., and JOHN BRIGGS, M.A. Camb., F.Z.S. 3s. 6d.  
"Candidates may take this book as a trustworthy guide."—*Schoolmaster.*
- Groundwork of English History.* By M. E. CARTER, First Class Honours in Modern History, Oxford. With Coloured Maps. 2s.  
Contains the "salient facts" required by the University Regulations.
- Mathematics.** *The Tutorial Arithmetic.* By W. P. WORKMAN, M.A., B.Sc. With or without Answers. *Second Edition.* 4s. 6d.  
"Takes first place among our text-books in arithmetic."—*Schoolmaster.*
- The New Matriculation Algebra.* With a Section on Graphs. By RUPERT DEAKIN, M.A. Lond. and Oxon. *Fourth Edition.* 3s. 6d.
- Matriculation Geometry.* By W. P. WORKMAN, M.A., B.Sc., and A. G. CRACKNELL, M.A. 3s. 6d.
- Latin.** *Matriculation Selections from Latin Authors.* By A. P. WATT, M.A. Oxon., and B. J. HAYES, M.A. Lond. *Second Edition.* 2s. 6d.  
"It is quite an interesting selection, and well done."—*School World.*
- French.** *The Matriculation French Course.* By Prof. E. WEEKLEY, M.A. *Third Edition.* 3s. 6d.  
"An excellent preparation for the London Matriculation Examination."—*Secondary Education.*
- The Matriculation French Reader.* Containing Prose, Verse, Notes, and Vocabulary. By J. A. PERRET, Examiner in French at the University of London. 2s. 6d.  
"This book is the outcome of scholarship combined with ripe experience in tuition. The notes are succinct and informative."—*Westminster Review.*
- Mechanics.** *The Matriculation Mechanics.* By W. M. BRIGGS, LL.D., M.A., B.Sc., F.R.A.S., and G. H. BRYAN, Sc.D., F.R.S. *Second Edition.* 3s. 6d.  
"Altogether it is an excellent book."—*School Guardian.*
- The Matriculation Hydrostatics.* By WILLIAM BRIGGS, LL.D., M.A., B.Sc., F.R.A.S., and G. H. BRYAN, Sc.D., F.R.S. *Second Edition.* 2s.  
"Upholds the high reputation of its authors for painstaking and thoroughly accurate work."—*Educational News.*
- Chemistry.** *The New Matriculation Chemistry.* By G. H. BAILEY, D.Sc. Edited by WILLIAM BRIGGS, LL.D., M.A., B.Sc., F.C.S. *Third Edition.* 5s. 6d.  
"Contains everything that a candidate at Matriculation is likely to require."—*Nature.*
- Physics.** *The New Matriculation Heat. The New Matriculation Light. The New Matriculation Sound.* By R. W. STEWART, D.Sc. Three Volumes, each 2s. 6d.  
"It is in every way suitable for its purpose" (*New Matriculation Light*).—*Schoolmaster.*
- The School Magnetism and Electricity.* By E. H. JUDE, M.A., D.Sc. 3s. 6d.  
"A useful text-book, that seems much sounder as regards fundamental conceptions than most elementary works on electricity."—*Oxford Magazine.*
- Botany.** *The New Matriculation Botany.* By A. J. EWART, D.Sc., Ph.D., F.L.S. 3s. 6d.

### ADVERTISEMENT SCALE

Whole Page—Ordinary	£4 10 0	.....	Position	£5 10 0
Half Page	" 2 10 0	.....	"	" 3 0 0
Quarter Page	" 1 10 0	.....	"	" 1 15 0
Per inch in broad column (half width of page)	"	...	"	" 0 7 0
Narrow Column (one-third page)	"	.....	"	" 2 0 0

General Scholastic Advertisements (Colleges, Schools, Classes, Tuition, &c.), 3s. 6d. for 6 lines, or 4s. 6d. the inch.  
Situations Vacant and Wanted—30 words or under, 2s.; each additional 10 words, 6d. (For 1s. extra, Replies may be addressed to the Publishing Office, and will be forwarded post free.)

### CURRENT EVENTS.

At the Members' Meeting of the College of Preceptors on February 19, Mr. F. Charles will read a paper entitled, "Suggestions from America to English Educationists."

ON February 13, Prof. Adams will deliver at the College of Preceptors the first of a course of twelve lectures to teachers on "The Application of Psychology to the Work of the School." The course will be helpful to students who are preparing for the Diploma Examinations of the College.

PROF. A. V. SALMON will address the Société Nationale des Professeurs de Français en Angleterre on "Denis Diderot, 1713-1784," at the College of Preceptors on February 29, at 4 p.m.

THE *London University Gazette* (December 25) gives a preliminary list of University Extension Courses arranged for the Lent Term.

THE public lectures on Dante's "Paradiso" will be given by the Rev. Dr. Moore at University College, London, on February 5, 6, 12, 13, 19, and 20, at 3 p.m.

THE Geographical Association's Lectures on the Teaching of Geography will be delivered at University College, London: February 14, "Scientific Method in the Teaching of Geography," by Prof. R. A. Gregory, F.R.A.S.; February 28, "Physical Geography an essential part of School Geography," by Mr. T. Alford Smith, B.A. 8 p.m. Non-members may obtain tickets from Mr. J. F. Unstead, 5 Wiverton Road, Sydenham, S.E.

AT Bedford College for Women (University of London) Mr. H. R. Hall, M.A., British Museum, will lecture on "New Discoveries in Crete," on February 13; Miss Adelaide Anderson, H.M.I., on "The Progress of the Factory Acts," on February 17; and Prof. L. C. Miall, F.R.S., on "Bird Study in 1555 and Subsequently," on February 27. Hour, 5.15 p.m. Open to the public.

THE Royal Sanitary Institute's course of lectures on "Hygiene in its bearing on School Life" will begin on March 2, at 7 p.m. (Parkes' Museum, Margaret Street, W.).

THE University of Dublin has conferred the degree of D.Litt. upon Mr. H. F. Berry, of the Record Office, Dublin; Mr. Harold Littledale, Professor of English Literature, University College, Cardiff; Miss Maud Sellers, and Miss M. H. Wood.

OXFORD UNIVERSITY has conferred the honorary degree of M.A. upon Mr. E. S. Dodgson, of Jesus College.

THE HON. SIR A. T. LAWRENCE, Judge of the High Court, and Lieut.-Colonel Sir Richard C. Temple, C.I.E., formerly

University Tutorial Press, Ltd.,  
W. B. CLIVE, 157 Drury Lane, London, W.C.

Chief Commissioner of the Andaman Islands, have been elected Honorary Fellows of Trinity Hall, Cambridge.

THE Symons Memorial Gold Medal of the Royal Meteorological Society has been awarded to M. Léon Tesserenc de Bort, of Paris, "in consideration of the distinguished work which he has done in connexion with meteorological science, especially the study of the upper air."

DR. JOSEPH OGILVIE, who recently retired from the Rectorship of the Aberdeen Training College, has been presented with his portrait in oils on his attainment of his educational jubilee.

MR. H. O. WILLS has promised £100,000 towards the endowment of a University for Bristol and the West of England, provided that a charter be obtained within two years. £250,000 is required before application for a charter, and £197,000 has been given or promised.

MANCHESTER UNIVERSITY is, after all, to receive £12,000 by way of special grant from the Treasury for the current year, instead of the reduced sum of £10,000.

A REDUCED copy in bronze of Mr. Goscombe Jones's statue of the seventh Duke of Devonshire, late Chancellor of the University of Cambridge, has been accepted by the University.

AN anonymous donor has given £20,000 to Columbia University to found a "Humane" Chair, "in order that special attention may be directed to the study of means by which cruelty to animals may be better prevented."

EXETER COLLEGE, Oxford, offers a scholarship in Modern History, £60 a year, and one or two Exhibitions, £30 a year. Candidates for the scholarship to be under nineteen on March 24; no age limit for the Exhibition. Examination begins March 17. Certificates of birth and character to the Rector as early as possible.

MR. W. WARDE FOWLER, Fellow of Lincoln College, Oxford, has been appointed Gifford Lecturer in Glasgow University, as from October, 1909.

THE RIGHT HON. SIR ALFRED WILLS, late a Judge of the High Court, has been elected President of Hartley University College, Southampton.

MR. DAVID K. PICKEN, M.A., chief assistant to the Professor of Mathematics, Glasgow University, has been appointed Professor of Mathematics in Victoria College, Wellington, N.Z.

THE REV. J. B. MCCLELLAN, M.A., has resigned the Principalship of the Royal Agricultural College, Cirencester, after more than a quarter of a century's service.

MR. L. BREBANT, M.A. Oxon., has been appointed Assistant to the Professor of Moral Philosophy in the University of St. Andrews.

MR. W. H. PORTER, B.A., T.C.D., has been appointed Lecturer in Greek and Latin at University College, Bangor.

DR. GEORG SCHAFFS, Ph.D. Gött., Assistant Lecturer in German Language and Literature, Liverpool University, has been appointed Lecturer in German Language and Literature and Teutonic Philology in the University of St. Andrews.

MISS JULIA BELL has been appointed assistant in the Department of Applied Mathematics in University College, London.

THE Secretary of State has made the following appointments to the Indian Education Service:—Mr. Alfred Charles Bray, B.A., of Jesus College, Cambridge, to be Professor of English at the Morris College, Nagpur; Mr. Henry Lambert, B.A., of Trinity College, Cambridge, to be an Inspector of Schools in Bengal; Miss Mary Elizabeth Honeyburne, M.A., Victoria University, Liverpool, to be Junior Inspectress of Schools in Bengal; and Mr. W. S. Holloway to be Superintendent of the Madras School of Arts.

THE REV. PREBENDARY H. W. MOSS, M.A., proposes to resign the Head Mastership of Shrewsbury School in the present year.

MR. ALLAN R. SMITH, M.A. Oxon., H.M.I.S., has been appointed Head Master of Loretto School, in succession to Mr. Tristram. Mr. Smith is an ex-captain of the Oxford University Rigger team, and has played for Scotland.

MR. WALTER G. GUILLEMARD, M.A., Senior Classical Master at Harrow, has retired after twenty-eight years' association with the school.

MR. W. W. WALLACE has been appointed Head of the Department of Applied Mechanics in Liverpool University. Mr. Wallace has been a Whitworth Scholar (Crewe Mechanics' Institute), a trooper in the South African War, Professor of Science at Victoria College, Stellenbosch, Examiner in Mathematics in the Cape University, and Engineer to the technical staff of the Kimberley diamond mines.

MR. G. ST. L. CARSON, M.A., has been appointed Head Mathematical Master at Tonbridge School, in succession to Mr. H. Hilary, who is retiring after thirty-eight years' service. Mr. Carson was Second Wrangler in 1896, and has been Reader in Mathematics at Sheffield University and Chief Mathematical Instructor at the Battersea Polytechnic.

MR. THOMAS A. LAWRENSON, Head Master of the Runcorn Institute County Secondary School, has been appointed Head Master of the South Shields Municipal Secondary School. He is succeeded by Mr. Luther Gledhill, of Sir John Dean's Grammar School, Northwich.

MR. O. H. T. DUDLEY, M.A. Oxon., has been appointed Head Master of the High School, Poona.

MR. FISHER UNWIN is reissuing the thick paper edition of the "Mermaid Series" in the original style and bindings.

PROF. SADLER's address to the Assistant Masters' Association on the question, "Should Secondary Teachers be Civil Servants?" will, we understand, be fully reported in the February issue of the *A.M.A.*

THE inaugural meeting of the Classical Association of Ireland was held in Dublin on January 14. Dr. S. H. Butcher, LL.D., M.P., the first President, and others delivered addresses.

## THE WINTER MEETING FOR TEACHERS

### AT THE COLLEGE OF PRECEPTORS.

THE fifth of the winter meetings for teachers conducted by the College of Preceptors took place at the College on January 6 to 15. The meeting opened with a reception and an inaugural address by Dr. Wormell, President of the Council. The programme comprised short courses of lectures on "The Psychological Bases of Education," by Prof. Adams: on "Method and School Management," and on "The School and Society," by Prof. Findlay; on "The Use of the Voice," by Dr. Aikin; on "Preventable Physical Defects of School Children," and on "Healthy and Unhealthy Brain Action," by Dr. R. J. Collie; on "The Teaching of English," by Prof. Adamson; on "The Teaching of History," by Prof. Pollard; on "The Teaching of Geography," by Dr. Herbertson; on "The Teaching of a Modern Language," by Mr. Barlet; a lecture on "English Literature Teaching," by Mr. Barnett; one on "The Teaching of Geometry," by Mr. J. Harrison; and one on "Plato," by Mr. Morshead. The lectures throughout were attended by numerous audiences, who gave evident tokens of their appreciation. On five afternoons visits were paid to the London Day Training College, to the new University College School, Hampstead, to University College, to Pitman's Metropolitan School, and to the Clapham High School of the Girls' Public Day School Trust. We append the President's inaugural address and summaries of several of the lectures, and propose to publish the remainder, and one of the lectures *in extenso*, in future numbers of this journal.

#### DR. WORMELL'S INAUGURAL ADDRESS.

It is my privilege to bid you welcome to this the fifth Winter Meeting at the College of Preceptors. I offer this welcome, on behalf of the Council, to the gentlemen who are to lecture, to the members of the College, and the visitors who come to listen to them. I do not intend to detain you long, but there are three reflections respecting our present proceedings that I wish to put before you.

1. In promoting these courses the College is following its best traditions and doing work which at its foundation it was designed to do. The Charter lays down its chief *raison d'être* as follows: "For the purpose of promoting sound learning and of advancing the interests of education, more especially among the middle classes, by affording facilities to the teacher for acquiring a sound knowledge of his profession." The College has recognized that the most successful of successful teachers and leaders of teachers have been the most ardent and diligent students of both the theory and practice, the science and the art of education. In this combination the College resembles a scientific institution, with lecture room, reading room, library, and social room. One of the best and most renowned of these institutions is Count Rumford's Royal Institution in Albemarle Street, which has been presided over by Prof. Young, Sir Humphry Davy, Faraday, Tyndall, and Dewar. The statement of the Count's aim in founding it might have been used by our founders and foster parents. By introducing a word here and there to define the science, the statement would read as follows:—"The objects and aims of the Institution are to prosecute scientific and literary research (bearing on education), to illustrate and diffuse the principles of science and record observations and experiments (in mental development), to promote social intercourse between lovers of the work (of education), and to afford opportunities for collective and individual study."

2. I wish to affirm that there never was a time when such aid to teachers as is looked for in these lectures was more needed or was more important to the country. In England lately the attention of the authorities has been almost entirely engrossed by the development of the administrative machinery. There has been little recognition, on the part of County Education Committees, of the need for continuous study of methods and experiments, of observations of the working and the results obtained by these methods. London is almost the only one that has made any attempt to foster aspirations towards the professional spirit or to afford information concerning the operations of mind which would make the labour of the teacher easier and more effective. The London County Council is doing something, but even as regards London this College is called on to make provision for professional studies of those actually engaged in secondary schools, particularly in secondary private schools. There is a difference between the tendencies in America and England at the present moment in this respect, the mention of which will make the point clear. Recently an American pro-

fessor affirmed that "in whatever sphere of education their functions may lie, there is to be seen among the teachers in the States a really inspiring amount of searching of the heart about the highest concerns of their profession. The earnestness which they at present show in striving to enlighten and strengthen themselves is an index of the nation's possibility of advance in all ideal directions. The State school systems give a diversity and flexibility, with opportunities for experiment and keenness of competition, and from these happy features the most sanguine augury can be drawn." How different here! The Authorities—thinking, as they pay the piper, they have the right to call the tune—take no note of the genius of the piper or of the efforts he may make to become more skilful with his pipe. So the tune remains the same as in the beginning. They admit that teachers must be trained at the beginning, must gain certificates or degrees at the beginning; but after that there is no recognition of further study and practice. The opposite tendencies of England and America in this respect are very marked and easily observable. This temporary defect in the English system must right itself in time, and due credit will be given to the scientific investigator; but, in the interim, while Local Authorities are feeling their way to efficiency, this College must be to the fore in keeping alive the professional spirit.

3. My third point may be expressed by a question: Why should we, who have long since enlisted in the ranks of acting teachers, be now listening to professors? Is it not enough to have qualified for enlistment? Those who think so, and begrudge the time required for investigations and studies of theory, will never make good teachers. The science of education, like all true sciences, is infinite. There is no limit to the possible capacities of human intelligence, and no limit to the achievements of the educator. There are the correlated sides of his work, the science and the art; and, with a view to put before you the best reward you can expect for your zeal in attending these lectures, let me say if they only enable you to talk of educational theories they will fail. The science of logic never made a man reason rightly. The science of ethics never made a man behave rightly. The sciences of psychology and physiology never taught how to teach well. The science lays down the lines within which the best forms of the art must fall, but, at the same time, within those lines leaves ample scope for individual genius. One will do his work well and succeed in one way, another in quite a different way, yet neither transgress the laws laid down and demonstrated by the science. The art of teaching grows up in the schoolroom out of invention, discovery, and observation combined with practice. In looking for information concerning the mind's operations, which may enable you to labour more easily and effectively, you will learn from the science and the theories it builds up by reasoning what are the limits between which you must work and you will know in advance that certain methods will be right and others will be wrong. So the science of pedagogics will save you from mistakes. You will gain confidence in any method you are using as soon as you find out that it has theory as well as practice to back it. A knowledge of the pupil at once intuitive and analytic is the knowledge on which the teacher can most safely build. On our part we hope that you will enjoy these lectures and be both cheered and strengthened by them, so that at the end we may apply to both lecturers and listeners, teachers all, some words written by Matthew Arnold. He said of those from whom he had learned most:—

Beacons of hope ye appear,  
Languor is not in your heart,  
Weakness is not in your words,  
Weariness not on your brow.

Strengthen the wavering line,  
'Stablish, continue our march,  
On to the bound of the waste,  
On to the City of God.

#### THE PSYCHOLOGICAL BASES OF EDUCATION.

This subject was dealt with by Professor J. ADAMS, Principal of the London Day Training College, in a course of four lectures under the headings of (1) Consciousness, (2) Sensation and Perception, (3) Memory and Imagination, and (4) Judgment and Reasoning.

The lecturer began with the statement that as the blacksmith is a worker in iron so is the teacher a worker in consciousness. A knowledge of the nature and manipulation of consciousness, therefore, was of the first importance to the teacher. Consciousness could not be defined, but

this was the less to be regretted, as every one knows what consciousness is: it is a part of our very being, and carries its own explanation with it. The teacher, however, must not only know what consciousness is, but must be able to manipulate it both in his own person and in that of his pupil. There could be no intermingling of consciousnesses, but the very fact that the teacher-consciousness must remain for ever outside the pupil-consciousness was an advantage for the teacher, as it gave him that external standpoint that enabled him to exercise a decided influence on the pupil-consciousness. The prayer that was denied to Archimedes was granted to the teacher. Sensation was the meeting-point of the physiological and the psychological. Pure sensation was practically an abstraction, and could never be experienced, unless under very exceptional circumstances, by the adult. What we usually understood when we spoke of the training of the senses was the training of perception. The trouble of distinguishing between sensation and perception was sometimes met by using the compromise sense-perception. The real distinction, however, was that perception included sensation, and might be roughly defined as sensation plus sense, or sensation plus meaning. Perception was sometimes even defined as the cognitive aspect of sensation. It was quite possible to train perception at the expense of sensation—that is to say, after a course of what was called sense training the result might be that the pupil was able to perceive better than he did before, and at the same time his sense organs as such had been injured.

The application of perception to the ordinary affairs of life was commonly called observation, which was, indeed, sometimes defined as regulated perception. Teachers must not make the mistake of thinking that observation meant the taking note of everything that appealed for attention. This all-round observation came to be nothing else but gaping. True observation was dominated by a purpose; we observed within certain limits in order to serve some definite end. There was a point, however, at which regulated perception ceased to help us, and we had then to fall back upon general observation, in the hope of being able to utilize whatever might turn up, and so give meaning to what would otherwise be unintelligible. This point the lecturer called *the gaping point*. This point varied with every individual, and of course was much higher in the case of the teacher than it was in the case of the pupil: that is to say, the pupil much sooner reached his gaping point than did the teacher. The transition from the presentative to the representative functions was made by the process of conception. Sensation and perception dealt with presentations; conception, imagination, and memory dealt with representations. In rising order, they had first the percept of an object here and now present; then they had an image which represented more or less accurately the very object previously perceived but no longer present; next they had what might be called a generalized image or type; and finally they had the concept, which is the most abstract form of all. The newer view of the concept was not so much the power of defining or describing the unit of thought as the power of dealing intelligently with the objects represented by the concept. They had mastered the concept *table* not so much when they were able to define it as when they were able to behave intelligently in respect of all tables that might come their way. They had, in fact, passed from the static to the dynamic.

Memory and imagination had a good deal in common. Imagination had, in fact, been called an inverted memory, doing for the future what memory does for the past. It was probable that the capacity for memory as a natural gift could not be increased, though that capacity could be used with greater or less effect according to the training given to the memory. The *memoria technica* was legitimate only in so far as it confined itself to fields in which it was impossible to form rational combinations of elements. The training of the imagination had only recently begun its positive work in schools. Hitherto it had been regarded with suspicion, and the main object had been rather to restrain than to cultivate it. The danger of over-exercise of the imagination was real, but could be easily avoided. Further, the place of the ideal in the training of the imagination had been very generally neglected and not infrequently misunderstood.

The final lecture of the course was given up to judgment and reasoning, though the lecturer would have preferred to deal rather with the affective and the volitional. His reason, however, for selecting the subjects actually treated was that teachers, as a rule, were so intensely interested in the cognitive side of psychology that a course that did not include judgment and reasoning might be regarded as essentially incomplete. The subjects, however, were treated from the psychological standpoint rather than from the logical, and considerable stress was laid on the process of thinking as a fitting of means to ends, so long as the process was carried on in terms of ideas.

## THE TEACHER IN HIS CLASSROOM.

### I. METHOD.

Prof. FINDLAY'S lectures, under the title of "The Teacher in his Classroom," aimed to offer a comprehensive review of principles underlying professional practice, and also indicate directions in which progress and research are likely to lead. It was pointed out that the problem of method assumes the selection of material (curriculum or syllabus), and considers how the scholar is to be engaged upon it, and how the teacher, in anticipation, is to prepare himself to aid the scholar. Thus two separate questions were raised: (a) considerations arising from

the mental processes involved in the various school exercises; (b) those due to external conditions. The practical difficulty of method sprang from the necessity for attending to both these points at once. Taking, first, the psychology of method, we notice (a) various types of teaching corresponding to the predominant mental process. Of these, the Herbartian scheme is an example (the heuristic lesson is only a variation of the Herbartian type); a second type may be called deductive; a third type is illustrated in acquiring a practical art (learning to do things); music and other fine arts that appeal to sentiment suggest yet another typical form (learning to enjoy things). (b) We see that all these types should share in two features: the pursuit should have direct personal meaning for the scholar, and hence should be related closely to his past experience. The lecturer then directed his attention to external conditions, such as time-tables, home-lessons, use of text-books, &c. The scholar must himself "work" and produce the result—each scholar for himself. Hence, in practice, much of our teaching gets divided under three heads: the task is "set" or "assigned"; it is done or practised or studied; it is "heard" or "examined" (parallel terms used in American schools: assignment, seat-work, recitation). The third head is not logically necessary, but in practice usurps the chief place. The lecture concluded with advice to teachers engaged in regular school work, based on the foregoing analysis. The teacher's preparation of lessons has to be thought out *before* he enters the classroom, in order to concentrate his attention on management (Lecture II.).

### II.—MANAGEMENT.

In the second lecture, the audience were invited to set on one side considerations both of material and method, and to consider separately the conditions arising out of the teaching of numbers at one time in a class. The subject was treated under the following heads:—(1) The definition of a class leads at once to the central principle of *unity*. It is a meeting of persons who, for the time being, are animated by one purpose, engaged in the same mental acts. (2) As a corollary we recognize the need for *uniformity* in matters of detail. The value of routine, an illustration of the laws of habit. (3) Hence management is essentially a problem of the focus and margin of attention. The further study of management is an application of these primary considerations. (4) The art of questioning. Every scholar should make the question and think the answer. (5) Attention, from its nature, is liable to distraction, for we attend in spurts. The teacher's task is concerned with the control of these distractions. (6) Attention in individual, practical work, where the class is broken up. (7) Attention when the class is joined in co-operative exercises. (a) Distractions due to external causes, physical surroundings, interruptions from visitors, &c. (b) Distractions due to stimulus by rewards. What claim can a scholar make to be rewarded? Rewards must aid moral and intellectual progress. (c) Distractions due to disorder—the unity of the class being disturbed by an offender. The nature and end of punishment.

Among useful literature special attention was called to Tompkins' "School Management" (Ginn & Co.), and Ragley's "Class Management" (Macmillan).

## THE SCHOOL AND SOCIETY.

In his third lecture Prof. Findlay invited the audience to leave for the time the consideration of more practical problems centering round daily practice, and to consider the influence of some deeper issues involved in the planning of school curricula. He pointed out that theories of education, until recently, had concerned themselves mainly with the *individual* scholar and had paid little attention to *social* experience. And yet the scholar himself, in his inner life, had withstood this treatment, and a conflict had always been recognized. The social instincts of the young ran counter to the individualistic theory which had controlled the plans for their upbringing in schools. And this tendency could be traced in three directions. (a) Efforts have been made, especially in England, to reconcile this conflict; the play of corporate life in many schools, both elementary and secondary; distinctive features of the public school; similar plan of organization in secondary day schools. (b) Of recent years, educational theory has begun to recognize the basis of the conflict and to take advantage of the contributions of psychology. (c) The school is thus seen to be a most powerful factor in fostering social ideals—*e.g.*, the growth of municipal socialism may be connected with the collectivist spirit which controls the elementary school in contrast to the individualism of the home. Now this same conflict can be traced, from a wholly different point of view, in the divergence of the ideals of the professional teacher from those fostered by the adult society outside the school. The one seeks a curriculum governed by general ideals of development; the other requires the practical needs of adult life to be anticipated by the school curriculum. The one is, once more, individualistic; the other has been mainly social in its outlook. Having indicated the nature of the opposing forces in the conflict, the lecturer proceeded to indicate one direction in which an effort was being made to bridge the gulf. The materials for a reconciliation are to be sought in a more thorough study of human nature and especially of child nature. The contribution of the newer psychology helps us to realize the importance of motive, purpose, behaviour in the entire life of the young. Many illustrations are afforded from recent reforms in school practice: the most significant is to be found in the work of John Dewey. A description of his experimental work in Chicago concluded the lecture.

### THE HISTORY OF EDUCATION IN ITS RELATION TO THE TEACHER.

Professor FOSTER WATSON (University College of Wales, Aberystwyth), dwelt on the unity and continuity of history in all studies of human activities. The comparative historical method had been so fruitful of results as almost to revolutionize some departments of study. Theology as a study had been transformed by research into comparative religion. There was a new school of law teaching which was based on historical aspects, which brought law into touch with the social organism. The history of medical development occupied a larger share of attention than formerly. But especially in the sociological sciences, with the attention more directed than ever to origins, history had assumed a position antecedent logically to the development of theories. The latest German writer on the theory and practice of education, Dr. Barth, had pointed out that educational theory must base itself on a sociological foundation, and that the next step was to build up a criticism of education upon a historical survey of the development of education which would preserve the correlation of education with progressive changes in society. As with the theory, so with methods. All sorts of fads, misconceptions, and prejudices of the present day were due to ignorance of the experiments which had been made both on a large and on a small scale in the past. The newer plan of dealing with the method of teaching any subject was to review previous methods before the writer stated his resultant view. Thus Mr. Hartog, in his book on the teaching of English, actually traced the history of the teaching of composition in France for two hundred years, because he recognized that composition teaching had reached a higher stage in France than in England. The teaching of classics, mathematics, and even science in England had had a long experience. It was wiser to see into the results of methods of teaching those subjects before trusting to individual faddists. Old methods were much more varied and fruitful than was supposed, for the simple reason that teachers do not inquire into them. The teacher of law largely draws upon case-law in teaching the legal student. Educational case-book teaching needed development for the purpose of the practical teacher and must be founded on history. Finally, a knowledge of the history of education was necessary for the classroom teacher, so that he might enter intelligently into the continuity of national educational progress; secondly, that, as far as possible, disinterestedly, he might have material for judgment for comparing and judging the different present-day ends and co-ordinating them; thirdly, that, entering into his work with human ends, he might strengthen his manhood by imbibing something of the nobility of aim and endeavour which has characterized the efforts of educators in all ages and all climes.

#### PRACTICE AND PREJUDICE IN EDUCATION.

[This lecture will be given *in extenso* in a future number of *The Educational Times*.]

#### THE TEACHING OF ENGLISH.

Professor J. W. ADAMSON (King's College, London) dealt with this subject in two lectures under the headings of "Composition and Individuality" and "Grammar in its relation to Composition."

##### "COMPOSITION" AND INDIVIDUALITY.

The reciprocal influence of thought and its expression in a vernacular entitled the Mother Tongue to a place amongst educational instruments which, judged by results, had not yet been accorded to it in schools generally. The main reasons for the want of success in teaching "composition" to children seemed to be failure to begin its study early with *speech*, and failure to observe the rule that a composition expresses the thoughts of the writer or speaker, not those of another person. Topics, content, arrangement were all made to follow a uniform practice which might permit much labour in common, but which stultified the position of the individual writer. In order of difficulty the stages of writing were as follows: (1) Narration; (2) Description; (3) Invention; (4) Reflective writing, or "essays." The first principle of rhetoric, that a composition has a beginning, a middle, and an end, should be insinuated in the first stage, and must be made explicit in the second; at a later stage the lesson was driven home by the study and writing of paragraphs and the making of *précis*. The first two stages were the region of plain prose. Requiring a pupil to fill blanks (prepositions, conjunctions, epithets) and following this by a discussion, by the class, of differences between the pupil's suggestions and the original, or varying the mode of expression employed in a piece of uninspired prose (as turning active into passive or indirect speech into direct, or the converse), were imitative exercises free from the objection which is fatal to most paraphrases—viz., that they induce a belief that expression itself is indifferent. It was a suspicious circumstance that paraphraes is peculiarly favoured by examiners, inspectors, and other *ex-officio* Philistines. Critical discussion by the class of a classmate's writing (his identity need not be disclosed) was a profitable exercise within due measure at all stages. From that of oral practice onwards pupils should have opportunities for invention—as, adding an episode to a tale, narrating a dream, making a story. The choice of adjectives should be scrutinized, and the merely conventional and meaningless rejected. The term "essay" was more fittingly applied to such reflec-

tive writing as one would expect from pupils of seventeen to nineteen. Such pupils should study examples of style, not for direct imitation, but to become conscious that style exists. Reading, learning by rote, and translation were practices which, over and above their own specific offices, might be made auxiliaries to the teaching of composition.

##### GRAMMAR IN ITS RELATION TO "COMPOSITION."

The subject-matter of vernacular grammar and the method of teaching it were determined by the considerations: (1) that it is taught to those who are learning to write the language; (2) that the aims are—practice in analysing thought, and the attainment of a standard which would facilitate criticism of the pupils' attempts at composition. Grammarians were as prone to worry words as cats are to worry mice. Throughout the history of grammar as a school-study, matter had been sacrificed to form, definition and classification had been needlessly elaborated, and terms used to favour logic-chopping and needless subtlety. The grammarian was ever straying beyond his rightful territory; naturally the English grammarian was a confirmed trespasser. Such divagations were excused on the ground that they afford "mental training." Historical grammar should be familiar to the teacher of English grammar; the study of Latin was also necessary to foster a sound grammatical instinct in the instructor. But only those pupils who had the taste and capacity for "scholarship" should take up the study of grammar on the historical side. Most boys and girls had neither the taste nor the capacity; but all English boys and girls were capable of expressing themselves intelligibly in English, and grammar might be made subsidiary to the attainment of that purpose. Formulas and rules should not be laid down prescriptively, but should be reached inductively through exercises in reading and writing. Grammar lessons and composition lessons should move along paths almost parallel, the latter ruling the direction. Thus exercises in writing compound and complex sentences would be accompanied by a fuller study of the relative pronoun or conjunction and by the appropriate grammatical analysis. Predication was the essence of language and the unit of thought was the sentence; hence grammatical analysis would precede parsing, but the latter would find its place in the teaching of syntax. Whatever form of analysis was used, whether tabular or not, it should show clearly to the eye the relations of the different members of the sentence to each other; it should also respect the individuality of sentences. The table usually employed did neither. Parsing should involve no superfluous or illogical classifications, and should use the minimum of technicalities.

##### A DEFINITION OF ENGLISH LITERATURE:

FOR SCHOOL USE ONLY.

In dealing with this subject Mr. P. A. BARNETT said:

It was not necessary, for the practical purposes of the teacher, that he should have a definition of poetry which would satisfy the philosopher; but he must be clear enough about its effects and its modes of operation to be able to use poetry as a food and discipline for the young. What was excellent as poetry might be highly unsuitable for the school and the teacher as discipline for the young. As an integral and purposed product of man's intelligence, poetry was an art. Since, however, it belonged to a larger *genus*, literature, they could best arrive at a definition of poetry for school purposes through a definition of literature as conceived for school purposes. Speech, language, and literature were a sort of ascending scale, literature having the largest element of humanity in it. Speech might be unintelligent, but language could not; and literature implied a steady purposiveness and integral conception which language need not necessarily combine. So also it was easier—or appeared to be easier—to connect the "laws" governing speech with physical concomitants than so to connect the "laws" governing language; and, except in a very large and general way, there was very little in "physical" law to explain literature. For school purposes they should think of literature as that part of training in language, written or spoken, which was coloured by *feeling*. Books which were not conceived in emotion and did not produce an emotional effect were not *for school purposes* literature. All language was meant either to inform or persuade, even though the auditor or reader were imaginary. Mere ordered language, even if meant to inform or persuade, was not, however, literature. To make language into literature, there must be rhythm (or music) and feeling, and the feeling must not be of a kind which is peculiar and individual. It must be *generalized*; it must be such as could be communicated to all persons of a certain intelligence. Literature, as distinguished *for school purposes* from science, must be language deliberately ordered for the purpose of raising primarily emotional ideas, similar to those which are present to the writer, in all minds of a certain intelligence. It was not easy, in the case of some of the greatest writers, to say whether their work was more scientific than literary; but that did not matter to the teacher. He asked merely, if the literary discipline was in his mind, whether they were literature. If the writer's mood was a mean mood, or otherwise charged with unfit suggestion, the teacher must not use it for teaching. The teacher, therefore, must have large reading himself in order to be qualified to judge. For the teacher the difference between prose literature and poetic literature was one of degree, not kind. Verse, although poetry tends to be written in verse, was not itself poetry, and, indeed, might set forth the most unmistakable non-poetry. Rhythm

and emotion beautifully presented were essential marks of poetry. A simple rhythm repeated mechanically might produce extraordinary nervous or emotional effects; but poetry must be organic and coherent, not merely repetitive, not a mad chant. And the matter presented by the rhythm must not only be organic and coherent, but it must have worth in itself, and it must be presented with colour and individuality—it must be “sensuous” as well as “passionate.” Poetry, therefore, as the teacher was to conceive it, was rhythmical and coherent language, designed to convey emotional ideas by a free use of sensuous suggestion. This conception of poetry implied the condemnation of much of the poetry presented to children as more than mischievous. The poetry given to children should be free from suggestions of hopelessness, misery, ignoble or maudlin sentiment, and certainly should not be erotic. The moods which it should reproduce and rouse were Ruskin’s cardinal moods: admiration, hope, and love. If the poetry was really good, the teacher should present it, first of all and most emphatically, as the poet left it; it ought not to be presented for analysis, if at all, before the poet’s point of view had been, at all events, attempted. The first effect that the teacher should try to produce, in dealing with poetry as an educational discipline, was *delight*; this might well come before critical or even correct *understanding*.

### THE TEACHING OF HISTORY.

This subject was dealt with in two lectures by Professor A. F. POLLARD, University College, London.

#### THE CHILD’S VIEW OF HISTORY.

The principal difficulty in teaching history, especially to young children, was the gulf which separated the child’s mind from that of the adult—a gulf which could only be bridged by imagination, sympathy, and the faculty of putting oneself in the mental attitude of the child. In the first place, children were incapable of grasping abstract ideas; they could only comprehend concrete things which were familiar to them. Hence it was useless to attempt to teach them anything about political or constitutional principles. History must appeal to them firstly as a story, something like a fairy story, much of the fascination of which consisted in the absence of dates. Lists of dates were for the most part useless mental lumber; they were only valuable as supplying the sequence of events, and sequences could be taught by asking such questions as Whom did William I. conquer? What did he conquer? And why did he conquer? This suggested teaching history backwards—from the present to the past, and, for some reasons, this was the better plan, though not easy to carry out in practice. It was better to proceed from the known to the unknown—*e.g.*, from Edward VII. and Victoria back to the Georges, from railways back to coaches—than to attempt to project the child’s mind straight away to the strange conditions of the earliest periods of history, in which the child could not find his bearings. This progress backwards should be facilitated by the use of stories like those of Dick Whittington, Robin Hood, and Alfred and the cakes; even though they were not literally true, they could be used as illustrations, and they helped to recreate the atmosphere of the past which it was more necessary to realize than it was to know any particular date or fact of history. So, children should be encouraged to read ballads like those of “Chevy Chase” and “Flodden Field,” and, later on, historical novels and Shakespeare’s plays. It was the story which first interested the child; the next interest was that of hero-worship, and children should be allowed to specialize a little on their favourite characters, such as Mary Stuart, Strafford, or Oliver Cromwell. In no case should they be confined to the dreary text-book which some examinations seemed to require. Next there was developed the combative instinct, which might also be utilized in teaching history: pupils of fifteen years and upwards might be required to write short essays and read them aloud in class for the others to criticize; this developed their faculty of expression, and accustomed them to use their voice; it also encouraged the critical faculty. This, in turn, should encourage a scientific spirit: pupils were made to listen patiently to criticisms of their own views and to hear the views of others. This the adult rarely did; he only read newspapers which retailed to him his own prejudices, and he only went to public meetings to hear smooth things prophesied. Hence it was all the more necessary to teach children to hear both sides and seek the truth. Without this capacity to see both sides of a question, the student could never understand history, nor the adult politics. The two were closely connected, and no citizen could be regarded as efficient unless he knew something of the causes which have made him, his country, and the world what they are to-day.

#### THE EQUIPMENT OF THE TEACHER.

Could history be taught at all? Yes; provided that the teaching consisted in bringing out and developing the pupil’s mind, and not in cramming into it a mass of undigested facts and dates. Could it be taught by every one? No; because it required a sense of the complexity of human affairs and a capacity to realize conditions totally different from the present. A classical head master once said that any classical scholar could teach history if given a week’s notice, and an undergraduate remarked that history required no thinking. Neither of these authorities had any notion of what history is or should be; and Mr. Bryce had laid it down that while classics can be taught tolerably by teachers but slightly in advance of their class, the same could not be done in

history, because it required a mind historically trained. This did not necessitate a specialist in every school who should teach nothing but history, because the historical student must have studied other subjects than history. If he taught ancient history, or even modern Byzantine history, he must know Greek; he must in any case know Latin and some modern languages, French or German, or preferably both. Nor could he know history without a considerable acquaintance with English literature, from which English history could often best be taught. He must also know geography and some economics, and the historian should be able to teach some of these in the lower forms of schools while he taught history in the highest. He should, if possible, have taken history as part, at any rate, of his course of study at a University; and the ideal teacher of history should always attempt a little post-graduate study on his own account; unless he continued to be learning himself he ceased to be a good teacher. And a little research no more narrowed the mind of the historical teacher than the use of the telescope did that of the astronomer. It was true that he concentrated his attention for the time on a narrow range, but he saw much further than he otherwise could, and he could turn his historical method, when once acquired, in whatever direction he pleased. Thus he would be enabled to supplement and criticize the books he had to use. This post-graduate work was now rendered more feasible by the newer Universities, which arranged such courses for the convenience of teachers, and by the newer conception that a University should not represent a mere episode in a man’s career, but should be a source of inspiration with which teachers of all grades should be continually in touch. Even for teachers who cannot undertake such courses of study, various associations provided some means of keeping in contact with the progress of the subjects which they taught. Thus the Historical Association, with its local branches, published leaflet bibliographies for historical teachers and held meetings for the discussion of methods of teaching history; some County Councils provided lectures for teachers of history, and at some Universities there were public lectures on the subject. No teacher of history need be without help in improving his mental equipment.

#### A RATIONAL COMPARATIVE METHOD OF TEACHING GEOGRAPHY.

Two lectures on the above subject were given by Dr. A. J. HERBERTSON, Reader in Geography, University of Oxford.

The lecturer pointed out the difficulty the ordinary teacher met with in the infinite detail of topography. In an ordinary gazetteer there were over 100,000 place-names. How was a teacher to select from them? The rule must be that no place-name should be learned without some definite reason. In looking closely into the topography of various regions, it was found possible to classify it into different types, and the knowledge of the characteristics of the chief types was of the greatest possible value. It permitted the teacher and the pupil to concentrate attention on the significant forms in any region. Hence a study of land forms was an essential part of the training of a teacher of geography. Taking a map of Central Europe, the lecturer showed that with a properly hill-shaded map it was possible to pick out at a glance different types of land form—such as (1) the Alps and Jura, (2) Black Forest and Vosges, (3) the more plateau-like Rhine-Schist Highlands, (4) the Scarplands of Franconia and Swabia, (5) the conical Vogelsberg, and the various types of plain represented by the Alpine foreland, middle Rhine plain, and the Rhine delta. After discussing the main characteristics of the Scarplands he pointed out how the heights of the Seine and of the Thames basins were of this type, and showed that the succession of plain and scarped ridge passing north-westerly from London resembled that encountered running easterly from Paris. In the case of older pupils he pointed out how this topography could be correlated with structure, and showed from the geological map that the structural sequence north-west of London resembled that eastwards from Paris. He then dealt with the distribution of the main types of land forms—(a) mountain systems with parallel ridge and valley, (b) denudated highlands in regions with contorted strata, (c) table-lands with horizontal strata, (d) the lower platforms of similar strata, such as are found in European Russia, and lastly (e) of plains of recent alluvial. As an example of the value of such a study of land forms, he instanced the various types of coast which were found where these bordered an ocean, and traced the effect of the different forms in determining the ease or difficulty of access to the harbours.

In the second lecture the lecturer pointed out the inadequate treatment of climate and vegetation in many text-books. Climate was as important a part of geography as topography. The great detail of the ordinary climatic maps, however, was apt to confuse beginners, and it was well to select special lines of temperature, pressure, and rainfall for careful study and almost to neglect the rest. He suggested the lines of 0°, 10°, 20° Centigrade for the coldest and warmest months as the most important temperature lines. These divided the world into belts roughly parallel to the lines of latitude. Owing to the atmospheric circulation, to a certain extent, rainfall divisions could also be traced in parallel belts, but owing to the unequal division of land and water there were also rainfall belts parallel to the meridian where the coast-line had that trend. The result was the divisions of the world into climatic regions. Rough indications of these were to be found on vegetation maps, for vegetation was an expression of the general effect of climatic conditions in the first place, and only secondly of the character of the soil. Hence

it was well to study a vegetation map at an early stage, and to pass from the vegetation map to the climatic interpretation of it. On the other hand, the vegetation map could be made the starting-place for the study of human geography, different types of vegetation determining different kinds of occupation, and those in their turn influencing the numbers and the organizations of man. The geographer might be regarded as a man who, looking on the Earth as a whole, asks himself, "What are the bigger natural units into which this Earth can be divided?" Land and water were obvious divisions and even the belts of different types of land. But that was not enough, and the major natural region was to be recognized not merely by a uniformity of its skeleton, but by a similarity in the character of its atmosphere, of its water supply, and of its plant and animal life. Taking these into account, it was possible to divide the world into some sixty or seventy major natural regions, and to reduce these into a little over a dozen types. Of course, innumerable subdivisions could be made, but for ordinary school purposes the characters of these major regions should first be examined. Here, again, the careful study of a type was of much value, not merely because it saved time, but also because it gave the means of true comparison between different parts of the world which were comparable. The teaching of geography was not merely a teaching of facts: it was a discipline of a very high order, and for that, more than for utilitarian reasons, the subject deserved a more important place in the ordinary curriculum than it usually had.

#### THE TEACHING OF A MODERN FOREIGN LANGUAGE.

This subject was treated by Mr. S. BARLET in two lectures under the headings of: (1) Method, (2) Pronunciation.

##### METHOD.

The lecturer contrasted briefly the old methods and the new. What the new methods lacked he tersely expressed by the word "bottom": their "educative" value was artificial; they afforded little scope for thought, and involved a mechanical rather than a mental effort. They might, indeed, be somewhat showy in their immediate result—the practical use of the tongue for trivial purposes; but that did not satisfy the aims of school teaching. If lasting benefit was to be derived from the study of a modern language, it must be used essentially to train the mind. To that end, after the pupil had acquired a certain fluency of tongue in the lower stages, ability of hearing and discriminating sounds, and, above all, a thorough mastery of the *verb* in all its intricacies of moods and tenses and voices, the lecturer advocated a reversion, partial at least, to more literary or classical methods—with this difference from the old methods that, the pupil being able to use the language practically, the lessons would be given wholly in the language taught. For this purpose he divided the further study into three parallel cycles, running concurrently and reaching up to the highest form: viz., *conversation*, but on a higher level than could be reached with wall-pictures, &c.; the *reading of authors*, which would gradually develop into a study of literature; and *construction*—i.e., translation from the vernacular into the foreign tongue, including *free composition*. Each cycle was briefly sketched out. The lecturer said he regarded translation from the foreign tongue into English as an excellent mental gymnastic, provided it were well done; and he emphatically advocated translation into the foreign tongue as most conducive to the intelligent and ready use of one's own vernacular and that of the foreign tongue. The equipment necessary for the teacher was developed at some length.

##### PRONUNCIATION.

The lecturer pointed out the apparent difficulties of French pronunciation and how these difficulties could be overcome. He explained how one vowel sound followed regularly from the other. Speaking of the apparent lack of accent in French, he affirmed that spelling—that is, the proper division of words into their syllabic components—was the key to the mastery of French pronunciation. He touched upon the mute *e* and *liaison*, a sound knowledge of which could only be acquired by constant practice, and without which harmonious fluency was not obtainable. He advocated a sound practical knowledge of phonetics as a necessary equipment of the teacher, but considered that the phonic notation of French, being constant and easy to learn, did not require to be taught by means of so-called phonic symbols. He accordingly deprecated the use, and especially the abuse, of phonetism in the French classes, as it required very skilful handling and knowledge beyond the capacity of the average teacher. He considered it better to learn from the very beginning the actual notation universally adopted, rather than arbitrary symbols. Phonetism could not teach the true pronunciation; it was the master in front of the class who must do this—if he knew how.

#### THE TEACHING OF GEOMETRY.

The lecturer, Mr. J. HARRISON, pointed out some of the benefits that have already accrued from the important reform in the teaching of elementary mathematics—viz., (a) artificial barriers had been removed, with recourse to some overlapping and a more natural relationship between the various branches; (b) the use of text-books other than Euclid had permitted the inclusion of modern geometrical conceptions in the school course; and (c) the introduction of experimental and practical

work had put the teaching on a scientific basis, recognizing that, as in other sciences, so in geometry, induction and a knowledge of the concrete must precede deduction. So far all were in practical agreement, but differences became manifest when deciding on the continuance and relative importance of the practical work in the scheme of instruction. The lecturer condemned the practice of limiting the scale-drawing to a few preliminary Euclidean problems, often badly executed with insufficient tools and with little interest, and urged that graphics should become an integral and important part of the work, and should continue, along with theory, throughout the entire course, the experimental drawing gradually giving way to applied geometry. To find time for this, all theorems except the fundamentals might be excluded from the recognized book work, while leaving ample material for a full training in deductive logic. And, in order to make the graphical work successful, teachers should consult the expert draughtsman, and not Euclid, as to the choice of instruments, and should in all cases add a drawing board and tee-square to the usual meagre equipment; and, as is done in arithmetic, the practical illustrations and applications should be drawn, not merely from Euclid, but from every suitable available source, including practical work in the laboratory; the operations of the land surveyor; mechanisms such as the pantograph, made, say, in sheet celluloid; geometrical patterns and designs, and architectural features, like mouldings, &c. Typical examples of these were given. Finally, it was suggested that the very important modern conception of vectors, with practice in vector addition, subtraction, and resolution, might fittingly be included in the elementary drawing course; and also that boys should not leave school without having had to do some accurate thinking in three-dimensional geometry, not by the study of Euclid XI., but by the drawing of plans and elevations, and the measurement of lines and of angles between lines and planes, using simple geometrical models for the purpose.

[Summaries of Dr. Aikin's lectures on "The Use of the Voice," of Dr. Collie's and Dr. Biss's lectures on "Preventable Physical Defects of School Children," of Dr. Collie's lecture on "Healthy and Unhealthy Brain Action," and of Mr. Morshead's lecture on "Plato" are unavoidably postponed.]

#### ADJOURNED MEETING OF THE COUNCIL OF THE COLLEGE OF PRECEPTORS.

AN adjourned meeting of the Council was held on January 25. Present: Mr. E. A. Butler, Vice-President, in the Chair; Prof. Adams, Prof. Adamson, Dr. Armitage Smith, Mr. Barlet, Rev. J. O. Bevan, Rev. J. B. Blomfield, Rev. A. W. Boulden, Mr. Charles, Mr. Eve, Mr. Hawe, Mr. Kelland, Prof. Lyde, Dr. Maples, Dr. Moody, Miss Punnett, Mr. Rule, Mr. Starbuck, Mr. Vincent, and Dr. Wormell.

The Secretary reported that the Christmas Examination for Diplomas had been held on December 30 to January 4 and had been attended by 514 candidates. The names of those entitled to Diplomas would be submitted to the Council at their next meeting.

He reported the steps that had been taken to prosecute the offenders in a case of personation at a recent Certificate Examination.

He reported the death of Mr. G. M. Atkinson, one of the Examiners to the College in Drawing.

#### COLLEGE OF PRECEPTORS.

##### HALF-YEARLY GENERAL MEETING.

THE ordinary half-yearly General Meeting of the members of the Corporation was held at the College on Saturday, January 25.

THE SECRETARY having read the advertisement convening the meeting, Dr. WORMELL was appointed Chairman.

THE Report of the Council was laid before the meeting, and was taken as read, a copy having previously been sent to every member. It was as follows:—

##### REPORT OF THE COUNCIL.

The Council beg to lay before the members of the College the following Report of their proceedings during the past half-year:—

1. The Thirty-fifth Annual Series of Lectures to Teachers, which commenced on the 14th of February, ended on the 12th of December. It included a Course of Twelve Lectures on "The Psychological Bases of Teaching and Education," and a Course of Twelve Lectures on "Practical Problems of the Schoolroom," both by Prof. J. Adams, M.A., B.Sc., F.C.P.—The Fifth Winter Meeting for Teachers will be held at the College on January 6–15, and will be opened with a Reception and an inaugural address by the President of the Council. The Programme includes lectures on the principles and practice of education, and on methods of teaching some of the principal subjects of instruction in schools, as well as visits to educational institutions. Four lectures on Psychology in relation

to Education will be given by Prof. Adams; two on the Teacher in his Classroom, by Prof. Findlay; two on the Teaching of English, by Prof. Adamson; one on the practical bearing of the History of Education by Prof. Foster Watson; two on the Teaching of History, by Prof. Pollard; two on the Teaching of Geography, by Dr. Herbertson; one on Literature Teaching, by Mr. P. A. Barnett; two on the Teaching of a Modern Foreign Language, by Mr. S. Barlet; one on the Teaching of Geometry, by Mr. J. Harrison; three on the Use of the Voice, by Dr. Aikin; three on Preventable Physical Defects of School Children, and on Healthy and Unhealthy Brain Action, by Dr. Collie. In addition, "The School and Society" will be dealt with by Prof. Findlay, and "Practice and Prejudice in Education" by Prof. Adamson; while Mr. E. D. A. Morshead will give a lecture on Plato. Arrangements have also been made for visits to the London Day Training College, University College, the new University College School, Pitman's Metropolitan School, and the Clapham School of the Girls' Public Day School Trust. It is hoped that a large number of teachers from all parts of the country will attend the meeting.

2. At the Summer Examination of Teachers for the College Diplomas, which was held in the last week in August, the number of candidates who presented themselves was 336; while for the Christmas Examination, to be held in the first week in January, 540 candidates have entered their names. During the past half-year the Diploma of Licentiate has been conferred on 30 candidates, and that of Associate on 97, who had satisfied the prescribed conditions.

3. For the Christmas Certificate and Lower Forms Examinations, which were held in the first week in December, the number of entries was 7,593. The Professional Preliminary Examination for Certificates recognized by the Board of Education and a number of professional bodies was held in the first week in September, and was attended by 212 candidates.

4. The Council have conducted during the past half-year the examination of four schools by Visiting Examiners.

5. At the members' meetings held during the past half-year the following lectures have been given:—"On Moral Instruction in Schools," by Harrold Johnson, B.A.; "Why Boys go to School: the Boys' own Ideas on the Subject," by J. L. Paton, M.A. Reports of these lectures have been published, as usual, in *The Educational Times*.

6. During the past twelve months about 1,650 volumes have been issued to members. Substantial additions have been made to the library by purchase and by gift.

7. During the past half-year twelve new members have been elected, and notice has been received of the withdrawal of six. The Council regret to have to report the death of the following members:—Rev. T. Dallison, Miss M. E. Dorman, A.C.P., Mr. I. Macqueen, A.C.P., and Mr. H. V. McClelland.

8. The Council have been enabled, out of the surplus income accruing from the regular operations of the College during the past year, to place the sum of £400 to the credit of the reserve fund, in accordance with the resolution passed at the general meeting in July, 1906.

9. By the Education (Administrative Provisions) Act, which was passed at the end of the last Session of Parliament, provision is made for the constitution by Order in Council of "a Registration Council representative of the teaching profession, to whom shall be assigned the duty of forming and keeping a register of such teachers as satisfy the conditions of registration established by the Council for the time being, and who apply to be registered." The register is to "contain the names and addresses of all teachers in alphabetical order in one column," and "such further statement as regards their attainments, training, and experience as the Council may from time to time determine that it is desirable to set forth." The Council believe that the initiative taken by the College in promoting the registration of teachers, and its continued efforts to secure for teachers a recognized professional status, as well as the work of its representatives on the first Registration Council, justify the expectation that the College will be directly represented on the new Registration Council to be created under the above Act.

10. During the past half-year the Federal Council have held two meetings, and have discussed important matters, including the registration of teachers.

In reference to paragraph 9, Mr. SOUTHEE said he considered it most important that the College, which had always taken a most active part in the question of registration, should assert its right to direct representation on the proposed Registration Council.

Mr. BARROW RULE said he had much pleasure in supporting the Council in this matter. He looked back over a long period of time—some forty-eight years—when, at a special meeting convened for the express purpose, he himself had the honour of proposing that an attempt should be made to secure the passing of an Act of Parliament for the registration of teachers, analogous to that for

the registration of members of the medical profession, and the establishment of a Council for Registration analogous to the Medical Council. The College of Preceptors worked diligently, and the Scholastic Education Association, its ally, had also worked diligently, and now they were witnessing some fruit of their labours. Nine separate Bills for the registration of teachers had been introduced into Parliament, four of them promoted by this College. He wished to emphasize the point that in all these Bills it was proposed that the College should be directly represented on the Registration Council. The College had now been at work for sixty-two years, and had been the pioneer in every movement for the advancement of education and the improvement of the status of the teacher. They were the first to establish examinations of teachers and of pupils in secondary schools and to provide means for the training of teachers in such schools. They had pursued their work unremittingly; they had been faithful to the terms of their Charter, and it could hardly be questioned that there was no institution in the country more worthy of representation on any Council that might be formed to carry out the registration of teachers. The Medical Council consisted of 34 members—5 nominated by the Crown, 15 representing the Universities, 9 the professional bodies, while 5 represented registered practitioners. Thus, 26 per cent. of the members of the Medical Council were representatives of professional bodies. He thought they ought still to adhere to the principle laid down in the constitution of the Medical Registration Council, and not hesitate to demand that the College should be adequately represented on the Council to be formed under the Act of last year. There were, of course, many other educational associations in the country, and they wished them all success; but they were all of them but mushroom institutions compared with the College of Preceptors. It might be confidently affirmed that not one of them, nor all of them together, had done as much to advance the cause of education and the interests of the profession as the College of Preceptors had done. He would conclude his remarks by reading an extract from an official, historical, and authoritative document:—"The movement for the registration of teachers first arose within the teaching profession itself, with the aim of protecting the public from the incompetent teacher and thereby promoting the interests of the competent. The aim which formed the *raison d'être* of the College of Preceptors finds distinct expression in the first resolution adopted on the establishment of the College in the year 1846." The Charter was obtained in 1849, and the resolution referred to was as follows:—"That, in the opinion of this meeting, it is desirable for the protection of the interests both of the scholastic profession and the public that some proof of qualification, both as to the amount of knowledge and the power of conveying it to others, should be required, from and after a certain time to be hereafter specified, of persons who may be desirous of entering the profession." In that resolution they had a strong and good foundation, for, although the word "registration" was not actually used in the resolution, a register was undoubtedly pointed at, and the subsequent formation of the "Scholastic Registration Association Alliance," affiliated to the College of Preceptors, only made explicit a proposal which had been always implied. From 1860 onwards the formation of a Teachers' Register was persistently advocated by the College as a means of protecting the public and raising the qualifications of the teachers both in knowledge and in technical skill, and forming them into a compact and influential profession.

Mr. EVE said they had been very much interested in hearing Mr. Barrow Rule's account of a movement in which he had taken so large a part. The statement in the report was simply a statement of pious opinion, and what was wanted was that a memorial should be drawn up by the Council to be sent in to the Board of Education in that sense, and if the report were adopted it would strengthen the hands of the Council. It was fair to say that they were not singular in this matter. The College had representatives on the Federal Council, and the Federal Council had drawn up a scheme, which, however, the representatives of the College thought somewhat too elaborate, for the representation of the profession on the future Registration Council. He understood that a meeting was to be convened at which certain bodies would be represented—viz., the Federal Council, the Associations of Technological Institutes, the National Union of Teachers, and others—to endeavour to come to an agreement as to the kind of Council that should be constituted. The conference would be without authority, but probably its deliberations would influence the authorities who would have to settle the question. He thought they could not be wrong if, on behalf of the College



of Preceptors alone, they were to present from the Council a memorial in the sense indicated.

Mr. RADFORD thought they ought to bear in mind that this matter did not come within the scope of the report that was before them, and that it ought rather to be dealt with separately. But, assuming that the College were to be represented on the proposed Registration Council, the question for them to consider was the more practical one of the policy their representative should advocate when the conditions of registration came to be considered by that Council. If the Register was not to be a class Register, but to comprise all competent teachers, whether with or without University degrees, the College ought to insist that the conditions of registration should be such as would provide for the inclusion of such teachers. The College was founded in order to help such teachers forward, and as a member of the College he wanted to know what his representative was going to do for them. He trusted that he would not merely sit still and allow himself to be overborne by the majority of representatives of conflicting interests on such a Council as was suggested.

Mr. STORR thought the last speaker had not noticed the open door. All teachers were to be classified in alphabetical order in one column. What did he want more? That was the contention which he himself had always been fighting for. Perhaps the Dean, as one of their representatives on the Federal Council, would tell them what action that body had already taken. They were informed at the meeting of the Head Masters' Association that certain resolutions had been passed. He did not imagine that these resolutions were in any way confidential, and they would be a guide as to their future action. He did not think it would need any special advocacy to make certain that the College of Preceptors would be represented on the new Registration Council.

The DEAN, replying as to what had been done by the Federal Council, said the Council at their last meeting drew up a scheme for the constitution of the Registration Council. According to that scheme, it was to consist of thirty-six members, one-fourth to be nominated by the bodies forming the Federal Council, one-fourth by the Technological Branch, one-fourth by the Elementary Branch, and one-fourth by the Crown. It so happened that the representatives of the College of Preceptors voted against this particular motion, because they thought it was too elaborate and too much in detail to submit to the Government. They thought it would be better to lay down something on more general lines; but they were, on the whole, in harmony with the desire to press the Government to provide for a pretty wide representation of secondary teachers.

In reply to Mr. KAHN, the DEAN stated that the Council had not as yet considered what should be the qualifications for registration.

The Report of the Council was then adopted.

The DEAN then presented his Report, which had been printed and circulated among the members attending the meeting. It was as follows:—

#### THE DEAN'S REPORT.

In addition to the general statement of the examination work of the College during the past half-year, which has been embodied in the Report of the Council, I have now to submit to you, in detail, the statistics and results of the various examinations.

The Christmas Examination of candidates for Certificates took place on the 3rd to the 7th of December at 191 Local Centres and Schools. In the United Kingdom the Examination was held at the following places:—Aldershot, Ashton-in-Makerfield, Aylesbury, Bamford, Bangor, Bath, Beckington, Bewdley, Bideford, Biggleswade, Birmingham, Blackpool, Bognor, Bournemouth, Braunton, Brentwood, Brighton, Bristol, Cardiff, Carlisle, Carmarthen, Cheltenham, Cheadle Hulme, Chopstow, Chiswick, Clapham, Coleford, Congleton, Cork, Cowes, Crewe, Croydon, Devizes, Doncaster, Dublin, Durham, Ealing, Eastbourne, Edinburgh, Exeter, Fakenham, Fareham, Farnworth, Folkestone, Fraserburgh, Frome, Grantham, Gravesend, Harlow, Harrogate, Hastings, Hayle, Herne Bay, Hereford, Holsworthy, Huddersfield, Hulme, Hutton (Preston), Inverurie, Jersey, King's Lynn, Kirkby Stephen, Leeds, Lincoln, Liskeard, Liverpool, Llandudno, London, Longton, Lytham, Maidstone, Malton, Manchester, Margate, Market Drayton, Morecambe, Newcastle-on-Tyne, Newport (Mon.), Newton Abbot, Northampton, Norwich, Nottingham, Ongar, Penketh, Peterborough, Plymouth, Portsea, Portsmouth, Reading, Redditch, Richmond-on-Thames, Ripley (Surrey), Saham, St. Annes, St. Leonards-on-Sea, Sale, Sandwich, Scarborough, Selby, Sevenoaks, Sheffield, Shirley, Shoreham, Southampton, Southend, South Molton, Southport, Southsea, Spalding, Stamford (Lincs), Stokesley, Sunderland, Swindon, Taplow, Taunton, Thrapston, Tor-

quay, Towcester, Tuxford, Walton (Liverpool), Wellington (Salop), West Norwood, Weston-super-Mare, Weymouth, Whalley, Whitchurch (Salop), Wimbledon, Winchester, Winslow, Wisbech, Woodford, Workington, Worthing, Yarmouth, and York. The Examination was also held at Batticaloa and Colombo (Ceylon); Stewart Town (Jamaica); Georgetown and New Amsterdam (British Guiana); St. George's (Grenada); St. Lucia and St. Vincent (B.W.I.); Nassau (Bahamas); Port of Spain (Trinidad); Bulawayo, Cala, Grahams-town, Irene, Johannesburg, Klerksdorp, Ladysmith, Oakford, Port Elizabeth, Potchefstroom, Pretoria, Queenstown, Uitenhage, Um-tata, and Umzinto (South Africa); Freetown (Sierra Leone); Lagos; Rangoon (Burma); Allahabad (India); and Lomas de Zamora (Argentine Republic).

The total number of candidates examined (not including 554 examined at Colonial and Foreign Centres) was 4,871, of whom 3,438 were boys and 1,433 girls.

Taking the Christmas and Midsummer Examinations together, the total number of candidates examined for Certificates during the year (not including those who attended the Supplementary Examinations in March and September) was 9,704.

The following table shows the proportion of the candidates at the recent Examination who passed in the class for which they were entered:—

	Entered.	Passed.	Percentage.
First Class (or Senior).....	437 ...	236 ...	54
Second Class (or Junior).....	1,952 ...	1,088 ...	56
Third Class .....	2,102 ...	1,663 ...	79

The above table does not take account of those candidates who obtained Certificates of a lower class than that for which they were entered, nor of those (380 in number) who entered only for certain subjects required for professional preliminary purposes.

The number of candidates entered for the Lower Forms Examination (not including 294 examined at Colonial and Foreign Centres) was 1,692—1,008 boys and 684 girls. Of these 1,492 passed, or 88 per cent.

At the Supplementary Examination for First and Second Class Certificates, which was held on the 3rd to 5th of September in London and at the following Provincial Centres, viz., Birmingham, Bristol, Leeds, Liverpool, and Manchester, 212 candidates presented themselves. The number of candidates examined at these Supplementary Examinations during the year was 520.

The Summer Examination of Teachers for the College Diplomas took place on the 26th of August and five following days in London and at the following Local Centres:—Birmingham, Blackburn, Bristol, Leeds, Liverpool, Manchester, Newcastle-on-Tyne, Plymouth, Stornoway; and at Bombay and Bhusawal (India); and Berbice (British Guiana). It was attended by 336 candidates—198 men and 138 women. On the results of this Examination, 28 candidates obtained the Diploma of Licentiate and 97 that of Associate.

The Christmas Examination of Teachers for the College Diplomas took place on the 30th of December and five following days in London and at the following Local Centres:—Banchory, Birmingham, Bristol, Dublin, Edinburgh, Leeds, Liverpool, Manchester, Newcastle-on-Tyne, Plymouth; and at Calcutta, Lucknow, and Rawal Pindi (India); and Anking (China). It was attended by 514 candidates—316 men and 198 women.

Practical Examinations to test Ability to Teach were held in February, May, and October. At these Examinations 15 candidates presented themselves, and 13 obtained Certificates.

The number of schools examined and inspected during the year under the Visiting Examination and Inspection Schemes (A), (B), and (C) was 8.

The Report was adopted.

The meeting then proceeded to the election of twelve members of the Council to fill the places of the twelve retiring by rotation, and three auditors.

The Chairman having appointed Mr. CHANDLER and Mr. RINGWAY to act as scrutators, the voting papers were distributed and the election was proceeded with. On the scrutators presenting their report, the following were declared to be duly elected:—

#### MEMBERS OF THE COUNCIL.

Rev. Canon Bell, M.A., F.C.P., 19 Cowley Street, S.W.

Rev. A. W. Boulden, M.A., L.C.P., Christ Church Vicarage, Erith, Kent.

W. Campbell Brown, M.A., F.C.P., Tollington School, Muswell Hill, N.

R. F. Charles, M.A., 12 St. Albans Villas, Highgate Road, N.W.

Miss M. Crookshank, L.L.A., 36 Granada Road, Southsea.

R. Howe, High School for Boys, Croydon.

Miss S. Jebb, 9 Clyde Road, St. Leonards-on-Sea.

Miss F. Lawford, Camden School for Girls, Prince of Wales Road, N.W.

Prof. L. W. Lyde, M.A., F.R.G.S., Manor House, Hayes, Middlesex.

A. Milne, B.A., University School, Hastings.

Barrow Rule, F.C.P., Glion, Moreton Road, Croydon.

J. Walmsley, B.A., Grammar School, Eccles, Manchester.

#### AUDITORS.

J. Bell, LL.D., M.A., 4 Beatrice Avenue, Norbury, S.W.

H. Chettle, M.A., Stationers' School, Hornsey, N.

A. E. C. Dickinson, M.A., LL.D., L.C.P., Grove House, Highgate.

The DEAN said he now rose to discharge what was ordinarily regarded as a mere matter of routine at the end of one of these meetings, viz., to propose a vote of thanks to the Chairman. Dr. Wormell's term of office as President had now come to an end by his own wish, though as a past President he would still be eligible to preside if necessary. In 1879 Dr. Wormell was elected a Vice-President of the Council, and from that time to this he had presided over nearly all the half-yearly general meetings, and those who had been present at some of them would know that this was sometimes by no means an easy task; but whether the work was rough or smooth, there could be but one opinion, that Dr. Wormell had carried it through with unflinching good temper, and had won the confidence of every member of the College.

Mr. BARROW RULE, speaking in support of the proposal, said he had been a member of the College since 1859, and he could affirm that the meetings of the present day, notwithstanding their occasional animation, were very different from those of earlier years. As a member of the Council since 1863 he had had an opportunity of watching what took place there, and no Council, he was sure, had its business conducted in a more courteous, orderly, and gentlemanly manner. He also spoke with affectionate regret of those who had passed away or whom increasing infirmity of health had compelled to retire from active work for the College.

Dr. WORMELL, in acknowledging the compliment, said there were two reasons which had led him to decide to retire. It was not desirable that the President should be re-elected as a matter of course for a long series of years, and, as Mr. Barrow Rule suggested, there came a time when nature reminded those holding responsible positions that it was right for them to withdraw. He remembered well the character of some of the meetings referred to by Mr. Barrow Rule, when it was not an unusual thing for a member to stand up and declare that he defied the authority of the Chair. There were great fights over and over again, and he remembered on one occasion being in the chair for five hours continuously. He had always held it to be the Chairman's duty on these occasions to be strictly impartial. He would always cherish the most pleasant remembrances of the College of Preceptors, having learned in the College how many men there are with a large capacity for friendship.

The vote of thanks was passed by acclamation, and the proceedings terminated.

In the evening fifty members and friends of the College dined together at the Gaiety Restaurant, under the presidency of Dr. Wormell. The company included Prof. Adamson, Miss Allworthy, Mr. Barlet, Rev. J. B. Blomfield, Sir William Bousfield, Mr. and Mrs. Campbell Brown, Mr. E. A. Butler, Mr. Chalmers, Mr. and Miss Charles, Rev. A. J. Church, Dr., Mrs. and Misses Dickinson, Mr. and Mrs. Eve, Miss Gavin, Mr. and Mrs. Harris, Miss E. M. Harrison, Mr. Hawe, Mr. and Miss Hodgson, Mr. T. T. Hodgson, Mr. Kelland, Mr. and Mrs. Longsdon, Sir Philip Magnus, M.P., Dr., Mrs. and Miss Maples, Mr. Mardling, Dr. Marx, Mr. Mathieson, Dr. and Mrs. Moody, Mr. Morshead, Mr. Nicol, Mr. Ruf, Mr. C. G. Sadler, Mr. Barrow Rule, Dr. Armitage Smith, Captain Speeding, Mr. Starbuck, Mr. White, Mr. Eric Williams, and Mr. Wilson. Sir Philip Magnus proposed the toast of "The College of Preceptors," which was responded to by the Chairman; and Mr. Eve proposed the toast of "The Visitors," which was responded to by Sir William Bousfield. Songs were given during the evening by Miss Elsie Dickinson, Miss Hodgson, and Mr. Sadler, and recitations by Mr. Eric Williams.

MESSRS. CASSELL are publishing a new Nature Reader by Richard Kearton, F.Z.S.—"The Fairyland of Living Things," with illustrations from photographs taken direct from wild, free Nature by Cherry Kearton.

## CONFÉRENCES FRANÇAISES.

SOCIÉTÉ NATIONALE DES PROFESSEURS DE FRANÇAIS EN ANGLETERRE.

### LES MÉTAMORPHOSES DE PARIS.

Par M. G. COUILLAULT.

Le 30 novembre dernier, M. G. Couillaault a fait une conférence sur Paris. L'histoire de Paris (nous dit le conférencier) présente des phases uniques dans l'histoire des grandes villes. Paris a connu les plus grands malheurs; il a connu aussi les plus grandes joies. A toutes les périodes de son histoire, Paris a joué un rôle héroïque.

Vers l'an 350 avant Jésus-Christ, quelques familles nomades fuyant la persécution, la misère, plantèrent leurs tentes sur la rive gauche de la Seine, alors un fleuve large et profond s'épandant sur ses deux rives et y formant des marécages. Le site enchanteur que présentait le bassin de la Seine attira ces premiers habitants qui, craignant d'être attaqués, s'établirent sur le plus grand des sept îlots que la Seine baignait alors et qui aujourd'hui n'en forment plus que deux—l'île de la Cité et l'île Saint-Louis. Ces îlots étaient boisés. Les deux rives de la Seine étaient couvertes de forêts et de pâturages. Les Sénonais appelèrent ces nomades, descendant de peuplades belges, Parises, et ceux-ci donnèrent à leur campement le nom de Lutèce ou île des corbeaux. Les mœurs des Parises étaient douces. Ils jouissaient des bienfaits de la paix depuis 300 ans quand parut le premier ennemi de Lutèce, Jules César. Une race de pasteurs et de pêcheurs n'était pas capable de lutter contre des guerriers de profession; la bourgade fut conquise et ses habitants passèrent sous le joug des Romains. Ceci se passait vers l'an 54 avant Jésus-Christ. Les Parises avaient emprunté aux Gaulois, leurs voisins, leur religion, leurs mœurs, leurs us et coutumes; ils empruntèrent aux Romains leurs arts et leur civilisation.

Plusieurs empereurs romains firent de Lutèce leur séjour favori. Constance Chlore fit construire le Palais des Thermes, qui fut le premier monument important de Lutèce. Sous l'empereur Julien, la population s'élevait à 12,000 habitants. L'île de la Cité n'était défendue que par le cours de la Seine et quelques tours de bois. La plupart des maisons étaient en bois et, à plusieurs reprises, la ville naissante fut détruite par des incendies. La première enceinte fortifiée ne fut construite que vers le cinquième siècle par les Romains pour protéger la ville contre toute invasion.

Dès le troisième siècle, Saint-Denis avait transformé la ville païenne en ville chrétienne. L'église Saint-Etienne fut érigée sur l'emplacement occupé actuellement par Notre-Dame. Un nouvel ennemi mit la ville en danger—Attila, vomi par l'Asie, ravagea l'Europe et menaça Lutèce, une simple gardeuse de moutons, Geneviève, animée de l'amour de la patrie et d'un saint zèle, sauva la ville. Les habitants reconnaissants la prirent pour patronne. L'abbaye Saint-Germain-des-Près date du règne de Childébert. A part les ruines romaines, tous les monuments de Paris sont postérieurs au douzième siècle. Clovis fit de Lutèce sa capitale. Charlemagne préféra le séjour d'Aix-la-Chapelle à celui de Lutèce, qui sous ses successeurs cessa d'être capitale et redevint simple bourgade. Sous le comte Eudes la ville devint plus importante; les comtes de Paris habitaient une tour fortifiée sur l'emplacement occupé par le Palais de Justice.

Le neuvième siècle vit de nouveaux malheurs fondre sur la ville—les Normands s'emparèrent trois fois de Lutèce et la pillèrent; mais en 885, après un siège mémorable qui dura treize mois, les Normands furent repoussés. En l'an 978, Paris eut un autre ennemi à combattre, l'empereur Othon, qui s'avança sous ses murs, mais dut fuir à la hâte poursuivi par Hugues Capet.

La municipalité parisienne fut définitivement constituée sous Louis le Gros. Les *navtes*, ou marchands de l'eau, avaient le monopole de la navigation de la Seine, moyennant certaines redevances au roi. Sous Philippe Auguste la capitale prit un grand développement et s'appela définitivement Paris. La ville fut entourée d'une forte muraille et de 68 tours. Au moyen-âge, la ville était divisée en trois parties distinctes: (1) la Cité, dans l'île du même nom; (2) l'Université, sur la rive gauche; et (3) la Ville, sur la rive droite.

L'Université fut fondée sous Louis IX; elle jouissait de grands privilèges. Les jeunes gens de tous les pays tenaient à honneur d'y venir faire leurs études. Les examens de cette époque étaient difficiles. Le *trivium* comprenait la grammaire, la logique et la rhétorique; le *quadrivium*, l'arithmétique, l'astronomie, la géométrie et la musique. Pour devenir docteur en Sorbonne, il fallait, de 6 heures du matin à 7 heures du soir, sans boire, ni manger, et sans quitter la chaire, répondre avec succès à toutes

les questions posées, après dix ans d'études. L'Université s'appela d'abord *pauvre maison*, parce qu'elle abritait les basochiens qui étaient pauvres et sortaient de la classe des *vilains*. La promenade favorite des étudiants était le Pré-aux-Clercs. Les commerçants se réunissaient sur la place de Grève, où ils discutaient leurs affaires, ce qui a donné naissance à l'expression *faire la grève*. Les armoiries de la ville de Paris sont fort anciennes; les détails en ont été modifiés, mais on y voit toujours figurer le vaisseau équipé des *Nautes* et la fière devise latine: *Fluctuat nec mergitur*. Les couleurs de la ville de Paris sont le rouge et le bleu, La Fayette y ajouta le blanc, l'emblème royal, et en forma le tricolore. Notre-Dame est probablement le plus beau monument que le génie de l'homme ait conçu: il date de 1163.

L'Hôtel-Dieu a remplacé la *maison des pauvres*, fondée au septième siècle par St Landri. Le Louvre, qui renferme nos trésors nationaux, fut bâti par Philippe Auguste; c'était un groupe de murs épais flanqués de 14 tours. François Ier fit raser le château féodal et le remplaça par un palais dont l'ensemble constitue une merveille d'architecture. La Bastille, qui a joué un rôle si sinistre dans l'histoire, fut construite en 1370 et prise et rasée en 1789. Les rues de Paris portent le nom de grands hommes qui ont illustré la France, de victoires, de villes, de corporations et de faits qui s'y sont passés. On a donné aux églises le nom de saints dont elles possèdent des reliques.

L'histoire de Paris comprend les plus belles et les plus terribles pages de notre histoire. La capitale fut assagée, prise, incendiée, décimée par la maladie, la peste, la misère, la famine. Les diverses factions s'y entretinrent à maintes reprises. Elle fut occupée par les Anglais de 1420 à 1436, par les Alliés en 1814 et, en partie, par les Allemands en 1871. Les premiers canons qui furent placés sur ses remparts servirent aux Anglais à repousser les troupes de Charles VII. La première maison où se réunit la municipalité était située près du Panthéon, monument relativement moderne où reposent les cendres de quelques-uns des hommes illustres de la France. La Conciergerie date de 1418. C'est une sombre histoire que celle de ce monument; sa crypte a vu les scènes de torture les plus horribles; on y *questionnait* les prisonniers et prisonnières à l'aide de tenailles, de scies, de marteaux, d'entonnoirs, de brodequins, de chevalets, de roues, etc. Le Jardin des plantes fut créé par le médecin de Louis XIII. Les Invalides sont l'œuvre de trois grands monarques—Henri IV, Louis XIV et Napoléon Ier.

Sous Louis XIV, Paris s'embellit considérablement et un grand nombre de monuments féodaux disparurent. Les Cours des Miracles, qui ont fait le bonheur des romanciers de toutes les époques et dont la description est au-dessous de la vérité, furent supprimés à la même époque. On les appelait ainsi parce que c'était miracle d'y voir hommes, femmes, enfants y pénétrer en guenilles, aveugles, boiteux, bossus, perclus et en sortir parfaits de corps et d'habits. Le Paris moderne est l'œuvre de Napoléon III. Le baron Haussmann fut le génie transformateur de la ville: ses avenues, ses boulevards furent agrandis, les abords de ses monuments furent dégagés. Sous la IIIe République les embellissements de Paris se sont continués. La grande muraille qui entoure la capitale et qui a fait dire à Victor Hugo: "Le mur murant Paris rend Paris murmurant," a coûté 500,000,000 de francs.

Les principaux monuments de la capitale comprennent les églises, les palais, les musées, l'université et les écoles: c'est le patrimoine béni de la France et de l'étranger, car Paris appelle à lui l'humanité entière, avide de liberté et d'instruction. Les cimetières, les catacombes, les halles et marchés, les jardins, les parcs, les industries nationales sont intéressants à visiter. Si l'on veut se rendre compte de la grandeur, de la beauté de la capitale, qu'on se transporte par une belle matinée d'été sur la terrasse de Saint-Cloud et l'on verra se dérouler devant soi le magnifique panorama de la ville lumière avec ses dômes dorés, ses clochers élégants, ses campaniles multiples.

La vie parisienne présente des phases nombreuses et variées; elle convient à tous les goûts et peut les satisfaire. Paris est devenu le centre intellectuel du monde. Ce ne sont pas seulement les monuments qui se transforment, mais encore les mœurs des habitants. Les chercheurs qui veulent se rendre compte des métamorphoses de Paris, des mœurs de ses habitants, de leurs us et coutumes aux différentes époques de son histoire, doivent visiter le musée Carnavalet et y consulter la magnifique bibliothèque de 70,000 volumes, dans lesquels ils trouveront les détails les plus circonstanciés sur les événements qui se sont déroulés dans Paris depuis les premières migrations jusqu'à nos jours.

## REVIEWS.

## A COMPREHENSIVE HISTORY.

*The Historians' History of the World.* Edited by Henry Smith Williams, LL.D., with the collaboration of many specialists and with contributions by more than thirty living historical scholars. Vols. I. to XII., and XXV. (7s. 6d. each. London: the Times.)

Here is an enterprise of a very remarkable character: "a comprehensive narrative of the rise and development of nations as recorded by the great writers of all ages," digested into two dozen volumes (with an index volume), containing some 17,000 pages and over 3,000 illustrations, and, in sheer bulk, claiming to rank among the half-dozen largest books in existence. The scope of the subject necessarily requires a large space for anything like adequate treatment, and mere bigness gives value to the work only in so far as the quality maintains the modern standard of historical narrative. A reasonably extended test of the first half of the work now before us is very reassuring; the results fairly justify the anticipations suggested by the sources admittedly drawn upon and by the names of the scholars that have furnished contributions. The subjects are handled in tolerably just proportion as well as in ample variety. The work, as is stated in an elaborate accompanying booklet of explanation, "is a book of heroes, a record of wars and conquests; but it is also a record of peoples and governments, a story of the growth of civilization—it is as broad, as varied, as life itself." The get-up is in every way substantial, and the price is strikingly suggestive.

The first volume contains the history of Egypt to the Thirty-first Dynasty, and of Babylonia and Assyria to the fall of Babylon, with a very interesting introduction by the editor (especially interesting where he describes the method of procedure in the compilation of the work), a glimpse into the Prehistoric Period, and a chart of Human Progress (by Mr. Mackinder). The second volume gives the history of Israel, Phœnicia, the minor kingdoms of Western Asia, ancient India, and ancient Persia. The third and fourth volumes are occupied with the history of Greece; the fifth, sixth, and seventh with the history of Rome. The eighth is divided between the Parthians, Sassanids, and Arabs on the one hand, and the Crusades and the Papacy (together with a chapter on Feudalism) on the other. The ninth treats of mediæval and modern Italy, from A.D. 476 to the present time; the tenth, of Spain and Portugal; and the eleventh and twelfth bring the history of France down to the abdication of Napoleon (1815). Prefixed to each large division is a concise, but important, article on some relative topic by an acknowledged master in the particular department of historical scholarship; appendixes of considerable extent deal with outstanding matters that are more conveniently exhibited apart; and there are select bibliographies and biographical notices of historical writers. The index volume is very full; besides an extremely comprehensive general index, it furnishes also a bibliographical index, naming all the authors contributing, quoted, or used as authority for editorial statements, with explicit reference to their works and to their contributions to this history. The chronological summaries following the history of each separate country will be found exceedingly useful.

Why the apparently tautological title, "The Historians' History"? "The name is intended to express very clearly the editorial sense of indebtedness to a host of historians, living and dead." The fact is that the writings of all the best historians in all the languages have been freely adopted as the raw material to be worked up or digested. "At any given point so much is taken verbatim from some unquestionable authority as fits in with the trend of the story and carries it on—just so much and not any more. Then the editors take up the story in their own words, and, a little later, a convenient and approved authority, the same or another, again states in his own language the best that can be said at that particular point." The editors skim the cream of the world's historical literature. "The statement that about eight thousand separate historical works—comprising perhaps thirty thousand volumes, in many languages—were carefully examined and discussed with regard to their probable usefulness to the 'Historians' History' conveys a more or less definite sense of the work accomplished. The same idea is emphasized by the fact that specific citations from these works were selected, analysed, and criticized to the extent of perhaps ten or twelve times the bulk of matter that ultimately went to the making of the entire twenty-five volumes of the 'Historians' History'."

History." "As a practical illustration of the attention paid to details," says the editor, "it may be mentioned that of the many hundreds of translations made from divers languages for use in the 'Historians' History' scarcely one is presented precisely as it came from the hands of the first translator. It was the uniform custom to have a second translator go over each manuscript quite independently, comparing it with the original. In any case that presented peculiar difficulties a third expert made yet another independent comparison; after which the style of the translation was polished—with the most careful regard to the retention of its original meanings—by literary critics." All such excerpts are woven into the text of the consecutive story of world history.

We quote further what the editor says about "the ruling motives which have dominated the conception" of the work. "These ruling motives," he says, "are two. First, the hope of attaining a high standard of historical accuracy in the most critical acceptance of the term; secondly, the desire to retain as much as possible of human interest in the broadest and best sense of the words. To attain the first of these ends it is necessary to be free from prejudice, to have unflinching zeal in collecting testimony, to have scientific and critical acumen in weighing evidence; to attain the second end it is essential that kindred faculties should be applied not only to the facts of history, but to the literary presentation of these facts, that the good and true story may not be spoiled in the telling. The desire to be free from all prejudice in the judgment of historical facts is, then, the key-note of all our philosophy of historical criticism, and the desire to retain interest—human interest—is the key-note of our philosophy of historical composition. To attain either end, what perhaps is most required is catholicity of sympathies. . . . In a word, there must be freedom from prejudice in every field—except, indeed, that prejudice in favour of the broad principles of right, regarding which all civilized nations of every age have been in virtual agreement."

Given the general conception, the work has been executed with conspicuous ability. At the same time, it is to be observed that the conception does not embrace inquiry into the archives of history, to bring forth fresh views that have not already found their expression in print; and, indeed, we can by no means agree with the editor's grudging estimate of the value of specialist research in these latter times. At points, too, one cannot but question the validity of transcripts from volumes that had well merited fame in their day, and that not always a remote day. But in view of the general excellence of the enormous mass of matter comprised in these volumes, one is rather inclined to lay stress on the positive merits of the performance. The work will at least bring the general reader down to a much later date than he has been accustomed to, and the style of the book will probably attract his interest to a wider, and perhaps a deeper, study. Indeed, for all but specialists the narrative will prove highly instructive. The thought and labour expended upon the work, to say nothing of the enormous cost of production, undoubtedly deserve a liberal recognition.

#### THE CAMBRIDGE ENGLISH LITERATURE.

*The Cambridge History of English Literature.* Edited by A. W. Ward, Litt.D., F.B.A., Master of Peterhouse, and A. R. Waller, M.A., Peterhouse. Vol. I., *From the Beginnings to the Cycles of Romance.* (9s. net (buckram). Cambridge University Press.)

The first volume of another great literary enterprise of the Cambridge University Press gives large promise of another great success. The scale is ample: the present instalment brings us down to the fourteenth century; it will take another to see us clear of the Middle Ages; and there will be a dozen more volumes to follow. The writers have been selected from specialists at home and abroad, and the lines have been laid down for them by the accomplished editors. The aim is to give a connected account of the successive movements of English literature, both main and subsidiary, secondary writers as well as principal authors receiving appropriate treatment, and the action and reaction between English and foreign literatures being adequately signalized. As in the case of the "History," sufficient bibliographies are to be furnished, with critical hints for the student. The editors have had the good sense and the courage to clear the decks for fresh and independent investigation, so that the story may unfold itself "unfettered by any preconceived notions of artificial eras or controlling dates." Hence it may happen "that some of the subjects which may seem

to have been omitted may prove to have been deliberately reserved for later treatment." "Thus, the editors have thought it simpler to defer an inquiry into the first glimmerings of the English drama and an account of the miracle plays until the close of the second volume, and to deal, on broad lines, with the progress of the English language as the vehicle of English literature, with changes in English prosody, and with the work of Universities and scholarship, towards the end of successive periods, rather than piecemeal at successive stages of each." Allied subjects that are more or less interwoven with literature pure and proper will be handled in due proportion:

Such are the literature of science and philosophy, and that of politics and economics; parliamentary eloquence, the work of schools and Universities and libraries, scholarship, the pamphlet literature of religious and political controversy, the newspaper and the magazine, the labours of the press and the services of booksellers, homely books dealing with precept and manners and social life, domestic letters and street songs, accounts of travel and records of sport—the whole range of letters, in its widest acceptation, from the "Cambridge Platonists" to the "fraternity of vagabonds." And, since the literatures of the British Colonies and of the United States are in the main the literature of the Mother-country produced under other skies, it is intended to give in their proper place some account of these literatures also.

The treatment, then, is to be on the largest scale—a scale hitherto unattempted; and it is to be executed by some of the best equipped and most capable of modern literary critics.

The first volume makes an excellent start. Though a considerable proportion of the contributors are but little known to fame, and in some cases betray lack of familiarity with original documents, they nevertheless, on the whole, justify their selection; and it is but seldom that the well known experts have neglected to bring their knowledge up to the standard of the latest scholarship. A sober level style prevails, suitable to the general reader and usually satisfying to the more exacting stylist; yet there are occasional instances where excellent matter is somewhat loosely presented. Knowledge and style do not always keep company, and experts are an *irritabile genus*, we know; but we should encourage the editors to exercise their just authority at all hazards. Down to the end of the fourteenth century English literature is embodied in runes—we may say runes—Latin, Anglo-Norman, and Welsh, as well as in English. Miss Anna C. Puaes, Ph.D. Upsala, tells us something about runes. The Latin writings are capably discussed in three chapters, and the Welsh writings are skimmed, but there is not a little Anglo-Norman literature, fairly claimable as English, that has been omitted—or shall we say postponed? There is occasional overlapping, perhaps not always readily avoidable; but there seems to have been some unfortunate confusion of a major character in the treatment of the Metrical Romances in chapters xiii. and xiv. In chapter xiii. Prof. Ker handles the subject in his usual masterly fashion, with profound knowledge, insight, and precision; and in chapter xiv. Mr. J. W. H. Atkins takes another turn at the subject, amplifying Prof. Ker's exposition at points, putting forward some divergent opinions, and, of course, extending the scope of the treatment. Why Prof. Ker should be supplemented by Mr. Atkins is not in the least intelligible. However, the general impression remains that the work has been very capably accomplished, and that it presents a comprehensive, fresh, and most instructive survey of the literature in the earlier periods. The final chapters deal with the prosody of Old and Middle English (Prof. Saintsbury), changes in the language to the days of Chaucer (an extremely able sketch by Mr. Henry Bradley), and the Anglo-French language (a reprint of a paper by the late Prof. Maitland). The select bibliography and the index are very full and most serviceable.

## GENERAL NOTICES.

### CLASSICS.

*A Book of Greek Verse.* By Walter Headlam, Litt.D., Fellow of King's College, Cambridge. (6s. net. Cambridge University Press.)

Dr. Headlam translates a considerable number of representative specimens of Greek poetry from the earliest surviving lyric of the seventh century B.C. down to its latest accents in the sixth century A.D., and intersperses translations into Greek of more or less allied passages from English and other modern languages. Half-a-dozen choral lyrics selected from Aeschylus and Sophocles, and "The Magic Wheel" and "Harvest Home" of Theocritus, are extended and conspicuously successful tests of his skill and taste in rendering the Greek into

(Continued on page 76.)

# DENT'S MODERN LANGUAGE SERIES.

Edited by WALTER RIPPMMANN, M.A.

## FRENCH SECTION.

**Dent's New First French Book.** By S. ALGE and WALTER RIPPMMANN. *Nineteenth Edition.* Extra fcap. 8vo, **2s.**

"We know of no better book to start French on."—*Journal of Education.* The Phonetic Part of the "First French Book" is also issued separately at **6d.**

**Supplementary Exercises to Dent's First French Book.** By H. C. NORMAN, B.A. Price **6d.**

**Hints on Teaching French.** With a Running Commentary to "Dent's New First French Book" and "Second French Book." By WALTER RIPPMMANN. *Fourth Edition, Enlarged and Revised.* Extra fcap. 8vo, **1s. 6d.** net.

**Dent's Wall Pictures of the Four Seasons.** From Drawings specially prepared by J. A. SYMINGTON. Printed in Colours. Size 55 by 35 inches. Unmounted, **2s. 6d.** net each; Mounted on Linen and Eye-letted, **3s. 6d.** net each; Mounted on Linen, with Rollers, **6s.** net each.

**Dent's New Second French Book.** By S. ALGE and WALTER RIPPMMANN. *Seventh Edition (completing 38,000 copies).* Extra fcap. 8vo, **2s.**

**Première Grammaire Française.** By H. E. BERTHON. *Fourth Edition, Revised.* Extra fcap. 8vo, **2s.**

Will be found to contain all that pupils are likely to require during the first three or four years of teaching. It is entirely written in French, and is already recognized as the standard "reform" French Grammar.

## GERMAN BOOKS.

**Dent's New First German Book.** By WALTER RIPPMMANN, S. ALGE, and S. HAMBURGER. *Eighth (English) Edition.* Extra fcap. 8vo, **2s. 6d.**

**Dent's First German Book.** (Based on the Hölzel Pictures of the Four Seasons.) By S. ALGE, S. HAMBURGER, and WALTER RIPPMMANN. Extra fcap. 8vo, **2s. 6d.**

"An excellent book . . . will be found well worth introducing into schools."—*Athenæum.*

**Dent's German Reader.** By S. ALGE and WALTER RIPPMMANN. *Fourth Edition.* Extra fcap. 8vo, **3s.**

The same principles underlie the "German Reader" as the "First German Book"; it can, however, quite well be taken with pupils who have not worked through the easier volume.

**Der goldene Vogel, and other Tales.** A Second Year German Reader. Edited by WALTER RIPPMMANN, M.A. Extra fcap. 8vo, **1s. 4d.**

**German Daily Life.** By DR. KRON. *Fourth Edition, Revised.* Extra fcap. 8vo, **2s. 6d.** net.

"Distinctly useful . . . well up to date . . . it will also be useful to the many young people who spend a few months in Germany after leaving school."—*Educational Times.*

**Rippmann's Picture Vocabulary.** French or German. **1s. 4d.** per vol. The First and Second Series of both French and German are now ready.

## NEW SHORT FRENCH READERS. *Ready Shortly.*

Second Year French Readers. Each 48 pages. **4d.** per vol.

*Yvon et Finette. Poucinet.*

Third Year. Each 48 pages. **4d.** per vol.

*Un Episode sous la Terreur. Le Monde où l'on se Bat.*

Fourth Year. Each 64 pages.

**6d.** per vol. *Un Merle Blanc. Télémaque.*

## DENT'S MATHEMATICAL AND SCIENTIFIC SERIES.

Edited by W. J. GREENSTREET, M.A., F.R.A.S., Head Master of the Marling School, Stroud, and Editor of "The Mathematical Gazette."

### LATEST ADDITIONS:

**A FIRST STATICS.** By C. S. JACKSON, M.A., and R. M. MILNE, M.A. With upwards of 200 Diagrams and numerous Examples. Crown 8vo, with or without Answers, **4s. 6d.**

**CARTESIAN PLANE GEOMETRY.** Part I. Analytical Conics. By C. A. SCOTT. **5s.**

*School World* (In "The Most Notable School Books of 1907"):—"The two books above possess so much originality and interest that they should be on the shelves of every teacher on this subject."

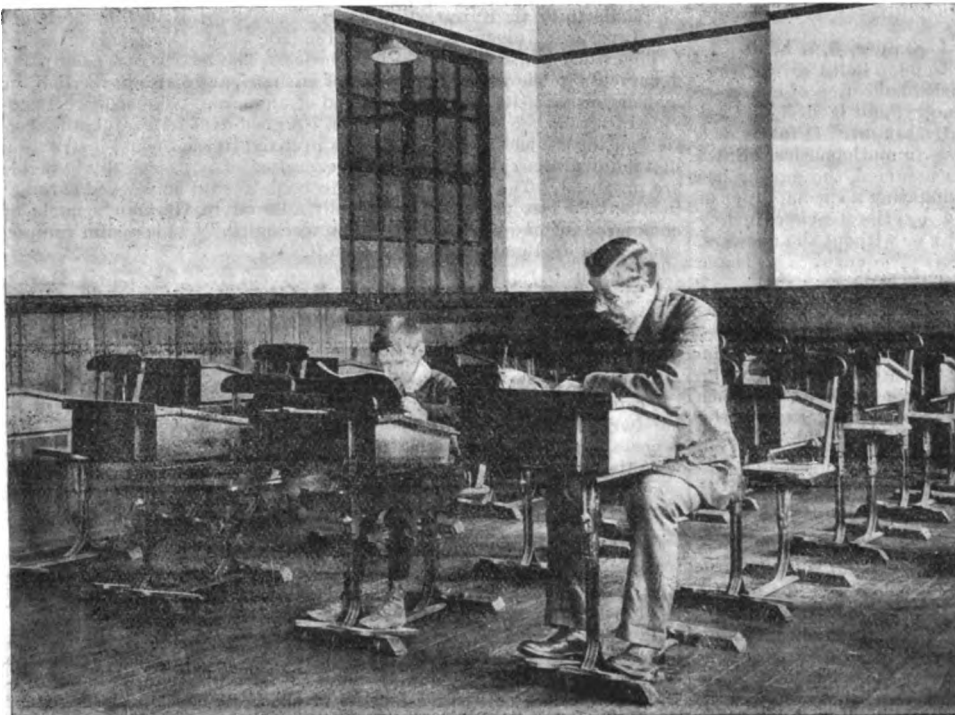
**SCHOOL HYGIENE.** By HERBERT JONES, D.P.H. (Camb.), Fellow and Hon. Secretary to the Incorporated Society of Medical Officers of Health; Fellow of the Royal Sanitary Institute, &c. Small crown 8vo, **2s.**

A Handbook for every Teacher and School Manager.

**ELEMENTARY TRIGONOMETRY.** By CECIL HAWKINS, M.A., Mathematical Master at Haileybury College, Hertford. Small crown 8vo, without Answers, **3s. 6d.**; with Answers, **4s.**

Kindly write for DENT'S NEW AND COMPLETE EDUCATIONAL CATALOGUE, post free, from  
**J. M. DENT & CO., 2 Aldine House, Bedford Street, London, W.C.**

# The North of England School Furnishing Co., Ltd., DARLINGTON (LONDON OFFICE: 55 Holborn Viaduct, E.C.),



Showing adaptability of the "Glendenning" Desk. Every desk is equally adaptable to the adult and the child.

**Are Makers of all classes of  
Desks and School Furniture.**

Sole Makers of

**Wilks's Patent Sliding Partition.**

The

**"Glendenning" Patent  
Adjustable Desk**

is the best single desk procurable.

It is recommended by Dr. BERNARD ROTH, the eminent specialist in spinal complaints, and is used largely in many of the best public and private schools in the country.

Sole Makers of the well known

**DARLINGTON SLATEBOARD,**

which is without a rival as a Black-board. It is guaranteed for 10 years, and is always a pleasure to teachers and a comfort to the class.

Catalogues and Prices free on  
application.

English verse. The shorter pieces, and especially the epigrams, are attempted with varying success, but nearly always with remarkable spirit and resource. The translations into Greek hexameters and tragic verse are nothing less than masterly; and the rendering of Victor Hugo's "Guitare," like the original, might well be claimed by Theocritus himself. The variety of the examples lends a special interest to the collection. A considerable preface deals piquantly with points of theory of translation, on which opinions will differ; but Dr. Headlam is always at least very suggestive. Some fifty pages of notes are appended, full of scholarly interest. The volume will take rank with the very best of its class. It will delight the experts, and it will be most instructive as well as interesting to young students. It will certainly, as Dr. Headlam modestly hopes, "please those who care for poetry, whether they know Greek or not, and at the same time help to give a truer notion of what Greek poetry was like."

*A Syntax of Attic Greek.* By F. E. Thompson, M.A., formerly Scholar Lincoln College, Oxford, and late Assistant Master at Marlborough College. (12s. 6d. Longmans.)

This is a second edition, taking account of the great mass of writings on the subject of Greek philology and syntax that have appeared since the publication of the first edition in 1883. The work "is entirely based on the writer's private study of the Greek authors, modified by deference due to the views of great scholars." It has been rewritten and considerably enlarged. The treatment is thoroughly systematic and lucid, and the illustrations are abundant and pointed. The workmanship is scholarly and sound. Some important discussions are placed in appendixes, and there are ample indexes, Greek and English, as well as a table of references. A thoroughly good book.

*Bell's Concise Latin Course.* Part II. By E. C. Marchant, M.A., Fellow of Lincoln College, Oxford, and S. E. Winbolt, M.A., Assistant Master at Christ's Hospital. (2s. 6d. Bell.)

A brief summary of accidence works in the harder points which were omitted in Part I., and a fuller summary of syntax presents in logical and lucid order the matters of main importance. Then follow 58 Latin exercises, with occasional preparatory explanations, recapitulating the materials of Part I., and 58 English exercises involving the matter of the preceding Latin series in fresh forms. There is a vocabulary for each Latin exercise, so far as needed; and general vocabularies, Latin-English and English-Latin. Long quantities are marked. The two Parts provide work for the first two years' study of Latin. Thoughtfulness, experience, and care have been unsparingly bestowed upon the work, and the interest of the pupil is attracted by the matter and the treatment. An admirable course for beginners.

Mr. Murray publishes *The Year's Work in Classical Studies*, 1907, edited by W. H. D. Rouse, M.A., Litt.D., Head Master of the Perse Grammar School, Cambridge (2s. 6d. net). The field is covered, in nineteen sections, by competent specialists. This is the second annual issue, and we hope the series will be permanent: it furnishes a handy summary of current work, which classical students would now greatly miss.

#### MATHEMATICS.

*Junior Practical Mathematics.* By W. J. Stainer, B.A. Lond. (Complete, 3s.; with Answers, 3s. 6d. Bell.)

The compilation furnishes a large and varied collection of exercises in elementary arithmetic, algebra, and geometry, and is designed for use in classes where the subjects are orally taught. It forms as a whole the practical portion of a junior course in mathematics. Since concurrent study in the various branches is assumed, the author has not arranged the contents with any idea of dictating a special order of work, the best sequence must be decided by the teacher in any individual case. The student may obtain, with or without the answers, either the complete work or its separate parts. The answers also have been brought out by themselves in book form.

*Practical Trigonometry.* By H. C. Playne, M.A., and R. C. Fawdry, M.A. (2s. 6d. Edward Arnold.)

A usefully planned and well executed little volume, dealing with the practical side of elementary trigonometry and giving effect to the modern ideas of reform in mathematical teaching. The book furnishes an excellent first course in the subject. It is refreshing to find the authors not only expressly admitting, but also acting on, the principle that it is well from the beginning to teach so that the foundations of knowledge need not be disturbed later. The volume supplements the treatment of the trigonometry of plane triangles by a brief introduction to the methods of dealing with solid angles and figures. Amongst the examples, there are questions involving equations, familiarity with which will prove valuable to the pupil when he proceeds to the study of more advanced mathematical subjects.

*McDougal's Suggestive Arithmetics.*

A double series—Pupil's and Teacher's Books—each series containing seven volumes in large clear type. Exercises mostly constitute the contents of the pupils' books, but some explanatory text is added. The teacher's volumes reproduce on any left-hand page the exercises on the similarly numbered page of the corresponding scholars' book, whilst on the right-hand side are to be found the answers to the

problems set and a number of supplementary exercises and notes. A large proportion of the problems are of a practical character, and provision is made for practice in measurement. The series will probably prove a valuable one.

*Longmans' "Complete" Arithmetics. Scheme B.* (Without answers, 9d.; with answers, 1s. Longmans.)

Book VIII. makes the series complete, and has been prepared for senior pupils and for the classes of evening schools. It will be valuable principally as supplying a large quantity of material for practice in both oral and written work.

#### FOREIGN COMMERCIAL CORRESPONDENCE.

*First Steps in Commercial French.* By Albert Thouaille, Principal of the Gouin School at Manchester, and E. E. Whitfield, M.A. Oxon., sometime Lecturer at the School of Commerce, University College, Liverpool. (2s. Blackie.)

The sub-title explains the contents as "everyday scenes of business life described in colloquial language, with exercises, letters, synopsis of grammar, and vocabulary." The object is to give the student a mastery of the most essential terms used in commerce, and to enable him to speak the language and to compose business letters in it. The first part deals with matters of business in some seventy lessons, arranged in a certain progressive order, and working in vocabulary and grammar as they proceed. A reading passage sets out the subject of the lesson; next a group of "phrases incidentes" naturally enlarge the scope of the situation; and "exercices" and "grammaire" follow. After a few lessons, a series of questions on the group are introduced, and by-and-by we have "exercices de revision" and "exercices d'application." The second part consists of 13 well-selected "lettres commerciales," with exercises upon each. Then a careful outline of the main points of grammar, and a French-English vocabulary. The work represents a vast amount of labour in selection and in presentation, and, if the methods expounded by the authors be followed, the student cannot but be extremely well grounded in the subject.

*French Commercial Correspondence and Technicalities, &c.* By W. N. Cornett, Foreign Correspondent, Modern Language Master, City of Liverpool Higher Evening Commercial Classes at Central and North Y.M.C.A. Institutes. (2s. net. Hirschfeld.)

The work follows the plan of the author's previous books on Spanish and Portuguese correspondence. The aim is to provide an easy and rapid means of acquiring a good style of correspondence in French, "and with this view short letters only are given, and these well varied and annotated, so that they may be conveniently and profitably used as translation exercises." All the usual business transactions are represented; the letters, forms of accounts, and various commercial documents are framed on models of actual business practice; there are moneys, weights, &c., and an extensive vocabulary of trade products. The book has been compiled with much knowledge and care, and it will be extremely useful as an introduction to the subject.

*German and English Commercial Correspondence for Commercial Colleges.* Compiled by B. Weber, Professor of Economics, Mannheim, and C. Kaiser, Professor at the School of Commerce in Liverpool University. Part I., English. (2s. Nutt.)

This work is part of a German series. The letters and exemplary documents in the various branches of business, are given in English for translation into German, with the aid of an ample "phraseology" provided towards the end of the volume. A good deal of useful information on the subject of each section is prefixed to the formal instruction in technicalities; and numerous exercises of a practical character are proposed. The authors think the book should be worked through in about 80 lessons, "the time usually allowed in German schools of commerce for one year of instruction in English." It is a slim volume, but a good deal may be learned from it.

*Elementary German Commercial Correspondence.* By Lewis Marsh, B.A. Cantab., Special Instructor in French and German to the London County Council. (Pitman.)

Part I. consists of 25 lessons on business subjects, each lesson containing a German and an English exercise, preceded by the necessary vocabulary. Part II. is devoted to correspondence—12 lessons on the same principle, together with several facsimile letters in German handwriting. Parts III. to V. deal with advertisements and commercial reports, and furnish examination papers. Abbreviations, money, and weights, &c., are placed in appendixes; and several documents are given by way of illustrations. The work has been very laboriously and thoughtfully compiled, and will do substantial service.

#### ENGLISH READERS—VARIOUS.

*Annals of the Cymry*, from 1000 B.C. to 1282 A.D., by T. Stephens, B.A. (8d. Jack), is a simple and attractive narrative of the facts, very clearly printed, and most liberally and effectively illustrated.

*Black's Literary Readers*, written and edited by John Finnemore, have as their "special feature" this: "that in all books above the Second an attempt is made to show how Britain came by her world-wide Empire." Yet "three-fourths of the prose consists of lessons of general interest," so that the books are not "over-weighted with the

(Continued on page 78.)

# DENT'S NEW EDUCATIONAL BOOKS

## The Temple English Literature Series for Schools

In view of the Board of Education's Regulations for the teaching of English Literature and Language in Secondary Schools, Messrs. Dent & Co. are publishing a large proportion of the books mentioned in the scheme, and they will add a certain number of the volumes each year according to the demands and needs of teachers.

VOLUMES NOW READY.

### ENGLISH POETRY.

Selected, with an Introduction and Notes, by ARTHUR BURRELL, M.A., Principal of Borough Road Training College, Isleworth. 1s. per volume.

I. Lyrical. II. English Heroic Verse. III. Selections from Shakespeare.

### BALLADS ANCIENT AND MODERN.

Selected, with Introduction and Notes, by OLIPHANT SMEATON, M.A. 1s.

### MAOULAY'S LAYS OF ANCIENT ROME.

With Introduction and Notes by OLIPHANT SMEATON, M.A. 1s.

### LONGFELLOW'S HIAWATHA.

With Introduction and Notes by HENRY WILLIAMS, M.A. 1s.

### LONGFELLOW'S EVANGELINE.

Edited, with Introduction and Notes, by JOHN W. COUSIN, F.F.A. Cloth boards, 8d.

### LONGFELLOW'S SHORTER POEMS.

Selected, with Introduction and Notes, by G. C. DENT, B.A. Limp cloth, 4d.

### STORIES FROM SPENSER'S FAERIE QUEENE.

By Miss N. G. ROYDE-SMITH. 1s.

### STORIES FROM LE MORTE D'ARTHUR AND MABINOIGION.

By Miss BEATRICE CLAY. 1s.

### THE ADVENTURES OF ODYSSEUS.

By J. G. MAYOR, F. S. MARVIN, and F. M. STAWELL. 1s.

### TALES FROM BROWNING.

By the Rev. G. LACEY MAY, M.A. 1s.

### STORIES FROM OARLYLE.

By D. M. FORD. 1s.

### VOYAGES OF FAMOUS BRITISH SEAMEN.

Selected from Dampier, Hakluyt, and Cook, by R. BRIMLEY JOHNSON. 1s.

Suitable for the Lower Forms of Secondary Schools.

## Stories from Shakespeare's Plays for Children.

RETOLD BY ALICE HOFFMAN.

School Edition, 6d. net each.

As You Like It. Midsummer Night's Dream.  
The Tempest. Henry V.  
Richard II. The Merchant of Venice.

PRESS NOTICES.

"Recommended without hesitation."—*Spectator*.  
"For boys and girls we can imagine—within the scope of practical possibility—no better means of introduction to dramatic literature than the admirable little books of this new series of 'Stories from Shakespeare.'"—*School Government Chronicle*.

## Classical Series.

On the Lines of "THE MODERN LANGUAGE SERIES."

### DENT'S FIRST LATIN BOOK.

By HAROLD W. ATKINSON, M.A., Sometime Head Master of the Boys' High School, Pretoria, and J. W. E. PEARCE, M.A., Head Master, Merton Court School, Sidecup. With 12 Illustrations by M. E. DURHAM. Small crown 8vo, cloth, 3s.

The *Schoolmaster* says:—"A unique book . . . it represents a wonderful stride made in teaching Latin."

### DENT'S LATIN PRIMER.

By E. S. FORSTER, M.A. 1s.

"The graduation of the matter is very carefully worked out . . . the little book is excellently done."—*Educational Times*.

NOTE.—Each of the above books contains a Phonetic Transcript of the Roman Pronunciation of passages in the Reader.

### FORUM LATINUM. A First Latin Book.

By Dr. E. VERNON ARNOLD, Professor of Latin at the University College of North Wales. Small crown 8vo, 3s. 6d.

### ÆNEÆ FACTA ET FATA. A Stepping Stone to Virgil.

With Notes and Exercises on the text by Dr. E. VERNON ARNOLD. With numerous Illustrations. Small crown 8vo, cloth, 2s.

Principals are invited to apply for DENT'S COMPLETE EDUCATIONAL CATALOGUE and for Specimen Copies of the above books.

J. M. DENT & CO., 2 Aldine House, Bedford Street, London, W.C.

# SOLID GEOMETRY THROUGH THE STEREOSCOPE.

A new departure in the teaching of this subject prepared by

**EDWARD M. LANGLEY, M.A.,**

of Bedford Modern School.

By this important work it is possible to teach many of the more difficult theorems by GRAPHIC REPRESENTATION IN SPACE of the figures illustrating them—theorems which, owing to the usual flat text-book figures, are such stumbling-blocks to the ordinary pupil.

When the student sees the figure in SOLID RELIEF he CANNOT FAIL to understand it, and the demonstration becomes clear.

Says the late Professor H. I. SMITH, of Oxford:—"The épures of descriptive Geometry do not offer much assistance to the imagination in conceiving complicated geometrical figures. Such assistance, however, is abundantly afforded by Stereoscopic representation."

This assistance may now be yours. Send for free Prospectus to—

**UNDERWOOD & UNDERWOOD, Publishers, 104 High Holborn, London, W.C.**

# EDUCATIONAL WORKS by A. K. ISBISTER, M.A., LL.B.

(LATE DEAN OF THE COLLEGE OF PRECEPTORS.)

Tenth Edition. 12mo, price 3s. 6d.

**THE ILLUSTRATED PUBLIC SCHOOL SPEAKER AND READER**, based on Grammatical Analysis, comprising a choice Selection of pieces for Reading and Recitation, annotated for Expression, Emphasis, and Pauses, and illustrated by Diagrams and Figures exhibiting to the eye the appropriate gestures and positions; to which is added a selection of Greek, Latin, French, and German Extracts, suitable for "Speech Days" at Public Schools.

New Edition. 12mo, price 1s. 6d.

**LESSONS IN ELOCUTION AND EXPRESSIVE READING FOR BOYS**, based on Grammatical Analysis; with a choice Selection of Extracts for Reading and Repetition, classified, of Goldsmith's "Deserted Village," set out into Principal and Subordinate Sentences, illustrating the theory of Emphasis and Pauses.

New Edition. 12mo, price 1s. 6d.

**LESSONS IN ELOCUTION AND EXPRESSIVE READING FOR GIRLS**, based on Grammatical Analysis; with a choice Selection of Extracts for Reading and Repetition, classified, under heads for practice in various styles of Reading, and annotated for Expression, Emphasis, and Pauses, and the Analysis of Sentences, with the figure [of a Girl] showing the proper attitude in Reading.

Eleventh Edition. 12mo, price 1s. 6d.

**FIRST STEPS IN READING AND LEARNING:** a Reading-Book for Beginners, designed to utilize the time of those learning to read, by presenting, in a series of Easy Reading and Writing Lessons, a First Course of Scripture and English History, Geography, English Grammar, Spelling, and Arithmetic, interspersed with Moral Lessons and Simple Poetry for Repetition.

LONDON: LONGMANS & CO., PATERNOSTER ROW, E.C.

special feature." However, as yet we have only Books I. and II. (10d. and 1s.), each with 8 full-page illustrations in colour, and 35 or 40 in black and white in the text. The lessons are simple, varied, and interesting, and the type and get-up are excellent.

*The Abbot*, with Introduction and Notes by H. Corstorphine, Senior English Master in Arbroath High School, is the new volume of the "Sir Walter Scott Continuous Readers" (1s. 6d. Black). The text is judiciously abridged, and the editorial matter is helpful and adequate.

*Chambers's Narrative Readers* (2d. each) consist each of a complete story, divided into chapters or parts of various lengths according to the stage of the pupil. They appear to be "supplementary" readers, though not expressly named so. (1) *Beauty and the Beast* is "for the class corresponding to Standard I." (2) *The Wild Swans* (Andersen) and (3) *The Two Brothers* (Grimm) are "for the class corresponding to Standard II." (4) *The King of the Golden River* (adapted from Ruskin) is "for the classes corresponding to Standards III. and IV." (5) *The Young Australian*, (6) *The Story of Seeyah, the Red Boy*, and (7) *The Young Canadian*, all three by J. Finnemore, are "for the class corresponding to Standard IV." The stories make attractive reading, the type is good, and there are some illustrations.

To the useful and agreeable series of *Chambers's Continuous Readers* has been added a delightful collection of *Selected Poems from Longfellow* (4d.), with concise life of the poet, and some notes and explanations.

*The A.L. Cuttings from the Press*, edited by Alfonzo Gardiner (1½d. E. J. Arnold & Son, Leeds), is an excellent collection of 71 extracts from daily and weekly papers and magazines of current literature, intended for use as reading and dictation tests in the upper classes. The more difficult words are singled out for special notice, and brief notes follow the extracts. The selection is varied and instructive. A very interesting experiment, judiciously executed.

#### STORY READERS.

We are glad to see a second edition of *In Nature's Storyland*, by Edith Hiron—"a book of Nature stories to tell with Nature lessons" (2s. 6d. Philip). The volume has been revised and enlarged, and the 24 stories are characteristically illustrated by E. K. Reader, while the Hon. M. Cordelia Leigh furnishes a preface. The stories are admirably told, and coordinated with the appropriate Nature lesson.

*Stories of Animals*, by M. T. Yates, LL.D. (Religious Tract Society), are simply narrated and amply illustrated. There are two dozen of them, widely varied, and all interesting to young readers.

Miss Anna Sewell's famous book *Black Beauty*, "the Up and Downs of a Horse's Life, told by himself," has been slightly abridged as a supplementary reader, and included in "The Empire Educational Series of Continuous Readers" published by Messrs Jarrold & Sons (1s. 6d.). A composition exercise has been added to each chapter. The story itself is delightful, and will be keenly relished by readers of the upper standards. It is, we believe, recommended by the Royal Society for the Prevention of Cruelty to Animals as the best animal story ever written.

*Science through Stories*, by Constance M. Foot, is included in Messrs. Charles & Dible's "Charlotte Series of Publications" (1s. 6d. net.). The scientific element is just enough to hang the story on, and to spice the amusement with instruction. There are ten stories, ingeniously devised and attractively told. The volume is simply and nicely got up.

#### HISTORY.

*The History of the Popes during the last Four Centuries*. By Leopold Von Ranke. In Three Volumes. The York Library. (2s. net each. Bell.)

Messrs. George Bell & Sons have placed historical students and readers under a deep debt of gratitude by the issue of Ranke's classical work in their charming and low-priced York Library. It is unnecessary to say anything about the work itself. The present translation is that of Mrs. Foster (in Boin's Standard Library), "revised and brought into accordance with the latest German edition by the inclusion of the new sections and the incorporation of various additions and alterations made since the book was first published. This work of translation and revision has been carried out by G. R. Dennis." The volumes are very handy, though none of them has fewer than five hundred pages; and the get-up is substantial as well as agreeable.

*Notes on the History and Political Institutions of the Old World.*

By Edward Preissig, Ph.D. (10s. 6d. Putnam.)

Dr. Preissig disclaims originality and sets out a list of his guides, acknowledging special indebtedness to familiar works by President Woodrow Wilson and Prof. Myers. In some 700 pages of large type he deals with Ancient, Medieval, and Modern History, mainly in Europe. The treatment lacks grip and precision, and the style is poor even for "Notes." A "strange characteristic" of Chinese "is the possibility of using one and the same word in one instance as a verb, in another as a noun, &c."—"strange" to a writer that presumably knows something of English. The paragraphs on the Roman Law appear to be a compilation without understanding: the treatment is far from satisfactory. "Diocletian," we read (page 321), "associated

with himself three co-rulers, and invested them with the title of 'Augustus.' Each of these 'Caesars' was to take up his residence in a separate portion of the Empire. . . ." Can Dr. Preissig intend his readers to understand that "Augustus" and "Caesar" were interchangeable titles? When he says presently that Diocletian "established his court at Nicomedia," he may possibly blame the printer for not setting up "Nicomedia." And so when he speaks of "Troezen, the ancient Poseidonia, a copy of the Peloponnesus" (page 98), a "copy" should possibly be a "city." There are ten useful maps, some of them similarly marred by misprints. The work needs to be drastically revised.

#### RELIGIOUS AND MORAL.

"The Century Bible."—*Ezekiel*. By W. F. Lofthouse, M.A., Tutor in Hebrew Language and Literature, Handsworth College, Birmingham. (2s. 6d. net. Jack.)

The Book of Ezekiel is extremely interesting and important: "it is not too much to say that Ezekiel holds the Old Testament together," and "he, of all Old Testament writers, binds the old dispensation most closely to the new." But it is also an extremely difficult book. Mr. Lofthouse has done his work admirably, with ample knowledge and sound judgment. In the introduction he deals with Ezekiel's work and character, the conditions of the Exile and Ezekiel's attitude, the prophet's place in the history of Hebrew prophecy, his "Utopia" or sketch of the future constitution of the Jewish Church (in his last nine chapters), his conception of God ("really the most important part of our consideration of Ezekiel"), and questions of date, canonicity, and text. This preliminary essay, with the summary notes to sections and large special points of the text, furnishes most valuable help to the lay reader and student, and will undoubtedly foster a fresh interest in the book. There is a serviceable map, seven plans to illustrate Ezekiel's temple (from the fortieth chapter onwards) the usual chronological tables, and an index.

*Jesus in Modern Criticism*. By Dr. Paul W. Schmiedel, Professor of Theology in Zürich. Translated by Maurice A. Canney, M.A. (6d. net. Black.)

This is a lecture setting out in popular manner the more important results of the author's studies on the life of Jesus. It forms a very useful supplement, or rather collateral exposition, to his articles in the "Encyclopaedia Biblica." The historical spirit is markedly cautious, and the tone is sympathetic. The lecture deserves careful study.

*The Churches and Modern Thought*. By Philip Vivian. Second and Revised Edition. (3s. 6d. Watts.)

Mr. Vivian has introduced a little fresh matter into this edition, transferred the longer footnotes to an appendix, and verified his statements generally; but substantially the work is the same as it was at first. The sub-title explains that it is "an inquiry into the grounds of unbelief and an appeal for candour." The inquiry is comprehensive, systematic, and strenuous; though vigorously destructive, it is also, to some extent constructive; it is earnest and thoughtful, temperate, and based on much knowledge; in a word, it is very capable and honestly serious, and has little or nothing in common with the methods of vulgar iconoclasm. Mr. Vivian does not convince us. He often overthrows feeble defenders of orthodoxy, but the overthrow of Christianity is quite another affair. He points rightly to the vast increase of knowledge of nature; he appreciates in a less degree the significance of the enormous gaps that still remain in our knowledge. Nor is knowledge everything. But the work is well worth patient perusal, especially by official defenders of the faith. Honest questionings should be carefully appreciated and frankly met.

#### HYGIENE.

*Physical Education of the Young*. By Samuel Smiles. Edited, with additions, by Sir Hugh Beevor, Bart., M.D., F.R.C.P. (2s. 6d. Walter Scott Publishing Company.)

It is fully three-quarters of a century since the first publication of this charming work, and "the reason for re-editing it is that it gives a very good sketch of what one believes to be the best practices in physical education." The sub-title is: "The Nature and Management of Children, founded on the study of their nature and constitution"; and the reference is to very young children rather than to children in their teens. The work thus appeals mainly to mothers, women, and girls charged with the care of children before and about the usual school age. The editor's name guarantees the scientific quality of the book up to date.

*The Laws of Health: a Handbook of School Hygiene*. By Carstairs C. Douglas, M.D., D.Sc. (Public Health), F.R.S.E., Lecturer on the Laws of Health to King's Students in Training, Glasgow University, Professor of Medical Jurisprudence and Hygiene, Anderson's College Medical School, &c. (3s. net. Blackie.)

Dr. Douglas intentionally abbreviates the anatomical and physiological exposition, assuming that this will be sought in some special manual, and concentrates his forces upon the hygienic applications. The treatment is systematic, lucid, and very full on all important points, and the style is simple and agreeable. There are 72 pertinent illustrations. A solid and sensible work.



**MATHEMATICS.**

**11042.** (Professor CATALAN.)—Démontrer que

$$X_n \frac{dX_{n-1}}{dx} - X_{n-1} \frac{dX_n}{dx} = -\frac{n}{1-x^2} (X_n^2 - 2xX_nX_{n-1} + X_{n-1}^2).$$

Solutions (I.) by Hon. G. R. DICK and S. NARAYANA AIYAR;  
(II.) by G. N. WATSON, B.A.

(I.) This result is easily deduced from the well known recurrence formulae  $(x^2-1) \frac{dP_n}{dx} = n x P_n - n P_{n-1}$ ,  $\frac{dP_{n-1}}{dx} = x \frac{dP_n}{dx} - n P_n$ ,

whence  $(x^2-1) \frac{dP_{n-1}}{dx} = n P_n - n x P_{n-1}$ ;

therefore

$$(x^2-1) \left( P_n \frac{dP_{n-1}}{dx} - P_{n-1} \frac{dP_n}{dx} \right) = n (P_n^2 - 2n P_{n-1} P_n + P_{n-1}^2).$$

The Q functions obey the same law; thus the property is true not only for the Legendrian polynomials, but also for  $P_n$  and  $Q_n$ , where  $n$  is arbitrary.

(II.) If  $u = x + (x^2-1)^{1/2} \cos \phi$ ,  $v = x - (x^2-1)^{1/2} \cos \phi$ , Laplace's integrals may be written

$$X_n = \frac{1}{\pi} \int_0^\pi u^n d\phi = \frac{1}{\pi} \int_0^\pi v^{-n-1} d\psi;$$

and therefore

$$X_n \frac{dX_{n-1}}{dx} - X_{n-1} \frac{dX_n}{dx} = \frac{1}{\pi^2} \int_0^\pi \int_0^\pi \left( -n u^{n-1} v^{-n-1} \frac{dv}{dx} - n u^{n-1} v^{-n} \frac{du}{dx} \right) d\phi d\psi$$

$$= -\frac{n}{\pi^2} \int_0^\pi \int_0^\pi u^{n-1} v^{-n-1} \left( u \frac{dv}{dx} + v \frac{du}{dx} \right) d\phi d\psi \dots (1).$$

Also  $-\frac{u+v}{(x^2-1)^2} = -\frac{2x}{(x^2-1)^2} - \frac{\cos \phi}{(x^2-1)^2} - \frac{\cos \psi}{(x^2-1)^2}$

$$= \frac{d}{dx} \left( \frac{x^2}{x^2-1} + \frac{x \cos \phi}{(x^2-1)^{3/2}} + \frac{x \cos \psi}{(x^2-1)^{3/2}} + \cos \phi \cos \psi \right)$$

$$= \frac{d}{dx} \left( \frac{uv}{x^2-1} \right);$$

i.e.,  $-\frac{u+v}{(x^2-1)^2} = \frac{1}{x^2-1} \left( u \frac{dv}{dx} + v \frac{du}{dx} \right) - \frac{2xuv}{(x^2-1)^2} \dots (2).$

Substituting in (1) from (2),

$$X_n \frac{dX_{n-1}}{dx} - X_{n-1} \frac{dX_n}{dx} = -\frac{n}{(1-x^2)} \frac{1}{\pi^2} \int_0^\pi \int_0^\pi u^{n-1} v^{-n-1} (u-2xuv+v) d\phi d\psi$$

$$= -\frac{n}{1-x^2} (X_n^2 - 2xX_nX_{n-1} + X_{n-1}^2).$$

**16802.** (Professor NANSON.)—If a body be homogeneously strained so that there is no change in the volume of any portion, show there exists a family of cubic surfaces each of which is transformed into itself, and extend the theorem to a space of any dimensions.

Solution by MAHENDRA NATH, D.E., M.A., B.Sc.

If the surface be transformed by the substitutions  $x = ax'$ ,  $y = by'$ ,  $z = cz'$ , subject to the condition  $dx dy dz = dx' dy' dz'$  (the value of any portion remaining unchanged), we must have

$$abc dx' dy' dz' = dx dy dz \text{ or } abc = 1.$$

Any surface of the system  $xyz = k$  is then transformed into

$$abcx'y'z' = k \text{ or } x'y'z' = k,$$

which is the surface itself.

More generally, the equation  $xyz \dots = k$  is transformed into itself by the substitutions  $x = ax'$ ,  $y = by'$ ,  $z = cz'$ ,  $u = du'$ , ..., subject to the condition  $dx dy dz du \dots = dx' dy' dz' du' \dots$ .

*A Method of Factorizing Composite Numbers by the aid of adjoining Numbers whose Factors are known.*

By D. BIDDLE, M.R.C.S.

All primes above 3 are of form  $6n \pm 1$ , and all composite numbers that present any difficulty in being factorized are of the same form. Let  $N$  be such a number, regarded as the product of two primes. Thus  $N = 6n \pm 1 = (6p \pm 1)(6q \pm 1)$ . Then  $N+1$  and  $N-1$  are both even, and one of them is divisible by 4, to a certainty. One of them also is divisible by 3. In the majority of cases other factors speedily follow, by trial of the smaller primes, until the remaining trunk of  $N+1$  or  $N-1$  is reduced within the limits of the excellent factor tables of

Dr. J. W. L. Glaisher and others. Let us then consider  $N+1$  and  $N-1$  to be fully factorized, whilst the factors of  $N$  are unknown.

(1) In most cases it is possible to arrange the two sets of factors in known pairs,  $G.L$  and  $K.M$ , where  $G < K$  and  $L > M$ . Thus  $G.L$  represents one of the initial numbers adjoining  $N$  and  $K.M$  the other, and, of course, it is known which; otherwise, whether it be  $N+1$  or  $N-1$  is a matter of indifference.  $G$  is the smallest in value of the four bundles of factors and  $L$  is the largest, each of the four letters generally, though not necessarily, representing a number more or less composite. They must be chosen such that  $G+K < \sqrt{N}$ , and of form  $6n \pm 1$  when together; only one of them can possibly be of that form when apart. In the class of cases now under consideration,  $G+K$  figures as the smaller factor of  $N$ , and quite a few trials will suffice to show which selection from the given groups of factors is the correct one; and that without needless division of  $N$ . If  $G$  and  $K$  be rightly chosen, we shall have  $(G+K)M + G(L-M) = 2N$ , and, in addition,  $G(L-M) = m(G+K)$ . Thus  $2N = (G+K)(M+m)$ , where  $G+K$ , a prime, is one of the two factors of  $N$ , and  $M+m$  is twice the other (which, indeed, may be composed of supernumerary factors of  $N$ , to be found by further, but similar, investigation).

It is a help to know that  $G.M \pm 1$  and  $K.L \mp 1$  are divisible by  $G+K$ . It is also convenient on occasion to take  $G=1$ , whilst  $L=N+1$  or  $N-1$  en masse. For instance, let  $N=1829$ . Then  $N+1=2.3.5.61$ , and  $N-1=2^2.457$ . By taking  $G.L=1.1828=N-1$  and  $K.M=30.61=N+1$ , we obtain  $2N=(30+1)(61+57)$ , where

$$57=(1828-61)/31. \quad N=31.59.$$

(2) In some cases, however, the choice of  $G$  and  $K$  is so limited that  $G+K$  cannot be made of form  $6n \pm 1$  or, even if so, does not respond properly to the stated tests. Under these circumstances, taking  $G$  and  $K$  as before, let  $G(L-M) = P.Q$ , such that  $G+K+P$  be a prime, and  $(G+K)(M-Q) = m(G+K+P)$ . Then we have

$$2N = (G+K+P)(Q+m),$$

where  $G+K+P$  and  $\frac{1}{2}(Q+m)$  are the factors of  $N$ .

As an instance of the first kind of case, take  $N=50693$ , where  $N+1=2^2.19.23.29$  and  $N-1=2.3.7.17.71$ . We have  $G.L=71.714$  and  $K.M=92.551$ , for  $G+K=163$ , a prime, and  $G(L-M)=71.163$ , a multiple of  $G+K$ ; therefore  $2N=163(551+71)$  and  $N=163.311$ . Of course it is a mere accident in this instance that  $m=G$ ; but, in this class of case,  $m$  is almost always a multiple of  $G$ , even when  $G$  is not a prime. As an instance of the second kind of case, let  $N=1843$ , where  $N+1=2^2.461$  and  $N-1=2.3.307$ . We can take  $G+K$  = either  $2+3$  or  $2^2+3$ , each being a prime  $< \sqrt{N}$ , but evidently neither is a factor of  $N$ . Let us, however, take  $G.L=2.922$ ,  $K.M=3.614$ , giving us

$$(G+K)M = 5.614 \text{ and } G(L-M) = 2.308 = 14.44 = P.Q.$$

Then, finding that  $(G+K)(M-Q) = 150(G+K+P)$ , we have

$$2N = (2+3+14)(44+150) \text{ and } N=19.97.$$

Selection of  $G+K$  among possible values is as necessary here as in the former class, for  $2^2+3$  does not work.

N.B.—Where  $N+1$ ,  $N-1$  fail utterly to fulfil our requirements, before we decide that  $N$  is falsely regarded as composite,  $N+a$ ,  $N-a$  may be found to serve, where  $a$  is of any value affording suitable factors to work with.

**11626.** (Professor NEUBERG.)—Si le foyer F d'une parabole P est fixe et que la tangente au sommet roule sur une courbe donnée Δ, l'enveloppe de P est l'antipodaire de F par rapport à Δ.

Solution by the PROPOSER.

Soient  $d, d'$  les directrices de la parabole P dans deux de ses positions, et M le point d'intersection des deux courbes. En abaissant les perpendiculaires ML sur  $d$  et  $ML'$  sur  $d'$ , on a  $MF = ML = ML'$ ; M est donc le centre d'une circonférence passant par F et tangente à  $d$  et  $d'$ : il est situé sur la bissectrice de l'angle LIL'. La directrice  $d$  de P enveloppe une courbe Δ' homothétique de Δ par rapport à F. Lorsque

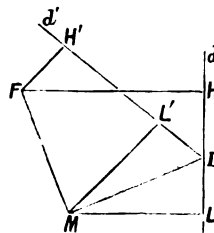


Fig. 1.

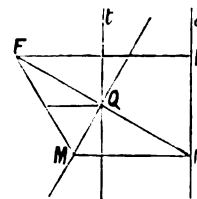


Fig. 2.

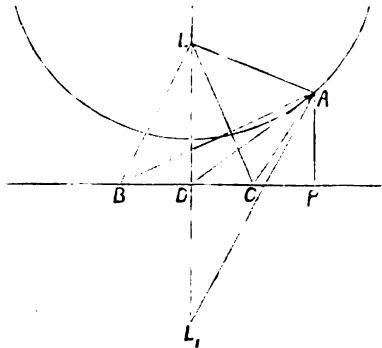
$d'$  en roulant sur Δ' se rapproche indéfiniment de  $d$ , le point I a pour limite (Figure 2) le point de contact N de  $d$  avec Δ', IM a pour limite la normale en N à Δ', et la perpendiculaire QM élevée au milieu de FN coupe cette normale au point M, centre d'un cercle passant par F et touchant  $d$ . Donc M est le point de contact de P avec son enveloppe.

Or Q est un point de  $\Delta$  et la parallèle  $t$  à  $d$  par Q est la tangente au sommet de P; QM est en même temps la tangente en M à P et à son enveloppe; par suite M décrit l'antipodaire de F par rapport à  $\Delta$ .

**16309.** (Professor COCHEZ.)—Lieu du sommet A des triangles ABC pour lesquels BC est fixe et tels que  $(a^2 + b^2 + c^2)/\text{surf. ABC} = K$ .

Solutions (I.) by HENRY RIDDELL, M.E.; (II.) by W. F. BEARD, M.A.; (III.) by S. NARAYANA AIYAR; (IV.) by C. M. ROSS and MAHENDRA NATH, D.E., M.A., B.Sc.

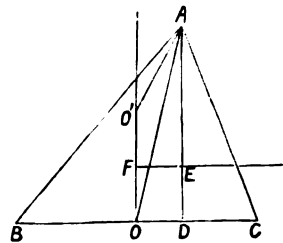
(I.) We have  $a^2 + b^2 + c^2 = K \cdot \frac{1}{2} a \cdot AP$ , where AP is the perpendicular on BC from A. Hence, if D be the middle point of BC, we have  $\frac{3}{2} a^2 + 2AD^2 = K \cdot \frac{1}{2} a \cdot AP$ . On BC describe the equilateral triangle BLC, and take  $L_1$  on opposite side of BC symmetrical with L. Then  $LD^2 = \frac{3}{4} a^2$ , and we have at once  $AL^2 + AL_1^2 = K \cdot \frac{1}{2} a \cdot AP$ , also we see that  $AL_1^2 - AL^2 = 2LL_1 \cdot AP$ .



Hence  $(AL_1^2 + AL^2)/(AL_1^2 - AL^2) = (K \cdot \frac{1}{2} a)/(4 \cdot \frac{3}{4} a) = K/4 \cdot \sqrt{3}$ , and  $AL^2/AL_1^2 = \text{constant} = (K - 4\sqrt{3})/(K + 4\sqrt{3})$ .

The locus is then a series of co-axial circles varying with K, and having L and  $L_1$  for limiting points, and BC for axis. The limiting value of K for real locus is  $K \geq 4\sqrt{3}$ .

(II.) Let ABC be any position of the triangle. Bisect BC at O, draw AD perpendicular to BC, then  $a^2 + b^2 + c^2 = 2OA^2 + \frac{3}{2} a^2$ , and  $\Delta = \frac{1}{2} a \cdot AD$ ; therefore  $2OA^2 + \frac{3}{2} a^2 = \frac{1}{2} a K \cdot AD$ ; therefore



$OA^2 = \frac{1}{4} a K (AD - 3a/K)$ . Draw OF perpendicular to BC, and equal to  $3a/K$ . Draw FE parallel to BC, and produce OF to  $O'$ , so that  $FO' = OF$ ,  $OA^2 - O'A^2 = 2OO' \cdot AE$ ; but  $OA^2 = \frac{1}{4} a K \cdot AE$ ; therefore  $O'A^2 = (\frac{1}{4} a K - 2OO') AE$ ; therefore OA : O'A is constant; therefore locus of O is a circle.

[Rest in Reprint.]

**16277.** (Lt.-Col. ALLAN CUNNINGHAM, R.E.)—Find a series of numbers expressible in two ways in the form  $N = (x^6 + y^6)/(x^2 + y^2)$ , and show that this cannot be done in three ways. Show how to resolve them algebraically into two factors (say L, M); and express these factors algebraically in their three 2-ic forms. Give two examples, one the lowest possible, and one of at least fourteen figures resolved into its prime factors.

Solution by the PROPOSER.

Let  $N = (x^6 + y^6)/(x^2 + y^2) = (x^6 + z^6)/(x^2 + z^2)$ , with same  $x$ , if possible. Then  $N = x^4 - x^2 y^2 + y^4 = x^4 - x^2 z^2 + z^4$ , which requires

$$x^2 = y^2 + z^2 \text{ (since } y \neq z \text{)} \dots \dots \dots (1)$$

The general solutions of (1) are  $x = t^2 + u^2$ ,  $y = t^2 - u^2$ ,  $z = 2tu$ , where  $t, u$  are any integers one odd, one even. Every such pair of  $t, u$  give values of N expressible in two ways as above, and only in two ways, because only two pairs  $(x, y), (x, z)$  can be thus formed.

Also, from the twin forms  $N = (y^6 + z^6)/(y^2 + z^2)$ ; therefore  $N = (y^2 - yz + z^2)(y^2 + yz + z^2) = (x^2 - yz)(x^2 + yz) = L, M$  (suppose), so that the dimorph N is always factorizable into two factors.

Ex. 1.—N a minimum; this is given by  $5^2 = 3^2 + 4^2$ ,  $N = (5^6 + 3^6)/(5^2 + 3^2) = (5^6 + 4^6)/(5^2 + 4^2) = 18.37$ .

Ex. 2.— $N > 10^{13}$ . Take  $t = 54$ ,  $u = 1$ ; whence  $x = 2917$ ,  $y = 2915$ ,  $z = 108$ ,

$$N = (2917^6 + 2915^6)/(2917^2 + 2915^2) = (2917^6 + 108^6)/(2917^2 + 108^2) = (2917^6 - 2915 \cdot 108)(2917^2 + 2915 \cdot 108) = (13.61.10333)(8823709)$$

Here M is just < 9 million, so that this number (N) is about the largest completely resolvable by the existing factor tables.

It will be found that L, M are expressible (algebraically) in the same

three 2-ic forms as the original N, viz.,

$$\begin{aligned} L &= [\frac{1}{2}(x+y-z)]^2 + [\frac{1}{2}(x-y+z)]^2 = a^2 + b^2 \\ &= (y - \frac{1}{2}z)^2 + 3(\frac{1}{2}z)^2 = A^2 + 3B^2 \\ &= [\frac{1}{2}(3x-y-z)]^2 - 3[\frac{1}{2}(x-y-z)]^2 = A'^2 - 3B'^2. \end{aligned}$$

Those of M may be found by changing  $z$  into  $-z$ .

**11814.** (T. MUIR, M.A., F.R.S.E.)—Given

$$u \equiv (a, b, c, d \sqrt{x, y})^3 + c = 0.$$

Show that  $(d^2y/dx^2)(du/dx)^3 = 2e \begin{vmatrix} a & b & c \\ b & c & d \\ y^2 & -xy & x^2 \end{vmatrix}$ , and generalize.

Solution by MAHENDRA NATH, D.E., M.A., B.Sc.

The Question as it stands seems to be wrong; it should be

$$(d^2y/dx^2)(du/dy)^3 = -54e \begin{vmatrix} a & b & c \\ b & c & d \\ y^2 & -xy & x^2 \end{vmatrix}$$

(see Ex. 8, p. 150, Williamson's *Diff. Calc.*, 8th edition).

If  $p, q, r, s, t$  stand for  $du/dx, du/dy, d^2u/dx^2, d^2u/(dx dy), d^2u/dy^2$ , we have

$$d^2y/dx^2 (du/dy)^3 = -(q^2r - 2pqs + p^2t) \dots \dots \dots (1)$$

(see p. 125, Edwards' *Diff. Calc.*).

$$\begin{aligned} \text{Now } p &= 3(ax^2 + 2bxy + cy^2), & q &= 3(bx^2 + 2cxy + dy^2), \\ r &= 6(ax + by), & s &= 6(bx + cy), & t &= 6(cx + dy). \end{aligned}$$

Also  $rx + sy = 2p, sx + ty = 2q$ ;

therefore  $(ps - qr)x = (qs - pt)y$ ;  
therefore  $(ps - qr)/y = (qs - pt)/x = [p(qs - pt) + q(ps - qr)]/(px + qy)$   
 $= -(q^2r - 2pqs + p^2t)/(px + qy)$   
 $= (q^2r - 2pqs + p^2t)/3e$ ;

therefore  $q^2r - 2pqs + p^2t = 3e(ps - qr)/y = 3e/y \begin{vmatrix} p & r \\ q & s \end{vmatrix}$ ,

$$\begin{aligned} 3e/y \begin{vmatrix} p & r \\ q & s \end{vmatrix} &= 3e/2y \begin{vmatrix} rx + sy & r \\ sx + ty & s \end{vmatrix} = 3e/2y \begin{vmatrix} sy & r \\ ty & s \end{vmatrix} \\ &= -\frac{3}{2}e(rt - s^2) = -\frac{3}{2}e \cdot 36 \begin{vmatrix} a & b & c \\ b & c & d \\ y^2 & -xy & x^2 \end{vmatrix} \\ &= -54e \begin{vmatrix} a & b & c \\ b & c & d \\ y^2 & -xy & x^2 \end{vmatrix}. \end{aligned}$$

More generally, if  $u = (a, b, c, d, \dots \sqrt{x, y})^n + c = 0$ , we can prove by an exactly similar method that

$$d^2y/dx^2 (du/dy)^3 = -[n(n-1)]e(rt - s^2) - [n(n-1)]e \times (\text{the Hessian of the function } u).$$

**16818.** (L. ISSERLIS, B.A.)—Show that

$$(1-x^n)(1+x) - 2nx^n(1-x) - n^2x^n(1-x)^2,$$

where  $n$  is a positive integer, is divisible by  $(1-x)^3$ .

Solutions (I.) by C. M. ROSS, A. R. CHARBONNIER, and others; (II.) by Lt.-Col. ALLAN CUNNINGHAM, R.E., and K. S. PATRACHARI.

(I.) The expression may be written

$$f(x) = 1 + x - x^n(1+n)^2 - x^{n+1}(1-2n-2n^2) - n^2x^{n+2} \dots \dots \dots (1),$$

then  $f'(x) = 1 - n(1+n)^2x^{n-1} - (n+1)(1-2n-2n^2)x^n - n^2(n+2)x^{n+1} \dots \dots \dots (2),$

and  $f''(x) = -n(n-1)(1+n)^2x^{n-2} - n(n+1)(1-2n-2n^2)x^{n-1} - n^2(n+1)(n+2)x^n \dots \dots \dots (3).$

Put  $x = 1$  in (3), then  $f''(1) = 0$ , which shows that  $f''(x)$  is divisible by  $(1-x)$ . Hence  $f(x)$  is divisible by  $(1-x)^3$ . Hall and Knight's *Higher Algebra*, § 560.

(II.) Let N denote the given quantity. Then

$$\begin{aligned} N/(1-x) &= (1-x)(1+x+x^2+\dots+x^{n-1}) - 2nx^n - n^2x^n(1-x) \\ &= (1+2x+2x^2+\dots+2x^{n-1}+x^n) - 2nx^n - n^2x^n(1-x) \\ &= \{(1-x^n) + 2(x-x^n) + 2(x^2-x^n) + \dots + 2(x^{n-1}-x^n)\} \\ &\quad - n^2x^n(1-x), \\ N/(1-x)^2 &= \left\{ \begin{aligned} &1 + x + x^2 + x^3 + \dots + x^{n-2} + x^{n-1} \\ &+ 2x + 2x^2 + 2x^3 + \dots + 2x^{n-2} + 2x^{n-1} \\ &+ 2x^2 + 2x^3 + \dots + 2x^{n-2} + 2x^{n-1} \\ &\vdots \\ &+ 2x^{n-2} + 2x^{n-1} \end{aligned} \right\} - n^2x^n \\ &= \{1 + 3x + 5x^2 + 7x^3 + \dots + (2n-3)x^{n-2} + (2n-1)x^{n-1}\} \\ &\quad - \{x^n + 3x^n + 5x^n + 7x^n + \dots + (2n-3)x^n + (2n-1)x^n\} \\ &= (1-x^n) + 3(x-x^n) + 5(x^2-x^n) + 7(x^3-x^n) + \dots \\ &\quad + (2n-1)(x^{n-1}-x^n). \end{aligned}$$

Every term is obviously divisible by  $(1-x)$ , so that  $N$  is divisible by  $(1-x)^3$ , and the quotient is easily seen to be

$$N/(1-x)^3 = 1 + 4x + 9x^2 + 16x^3 + \dots + n^2x^{n-1}.$$

**16080.** (Professor NANSON.)— $R$  is a point on a line which passes through a fixed point  $O$  and cuts two given intersecting lines in  $P, Q$ . Having given any homogeneous relation between  $OP, OQ, OR$ , find the equation of the locus of  $R$ : for example, let  $OR$  be a mean, arithmetic, geometric, or harmonic, between  $OP$  and  $OQ$ .

*Solution by the PROPOSER.*

Taking the fixed lines as axes, and  $a, b; x, y$  as the co-ordinates of  $O, R$ , we have by parallels

$$OR/OQ = 1-x/a, \quad OR/OP = 1-y/b.$$

Hence, if the given relation is  $F(OR/OQ, OR/OP) = 0$ , the required equation is  $F(1-x/a, 1-y/b) = 0$ . In the three examples we have obviously  $a \cdot x + b/y = 2, 1, \text{ or } 0$ .

**QUESTIONS FOR SOLUTION.**

**16346.** (T. MUIR, LL.D. See *The Educational Times*, January, 1908.)—A correspondent points out that evidently for

$$(ab - cd)(bc - da)(cd - ab),$$

we should read " $(bc - ad)(ca - bd)(ab - cd)$ ."—EDITOR.

**16364.** (H. STANLEY REDGROVE, F.C.S.)—Four rods are hinged together, one end of each rod being free. The rods are of length  $l$  and are identical. The rods repel one another, and the force of repulsion between any particle of any one rod and any particle of any other rod equals  $k/d^2$ , where  $k$  is constant, and  $d$  is the distance between the particles. The position of equilibrium will be such that, if the hinged ends of the rods are situated at the centre of gravity of a regular tetrahedron, the other ends will be at its four corners respectively. Find the work done (neglecting gravity, &c.) in the two following cases:—(i.) Two of the rods are moved, each through an angle  $\theta$ , towards one another in the plane containing them. (ii.) Three of the rods are moved until coincident and in one straight line with the fourth rod.

**16365.** (Professor NANSON.)—Show from the relative situation of the real roots of the cubics  $(abcd)(x1)^3, (bcde)(x1)^3$ , that the roots of the quartic  $(abcde)(x1)^4$  are all imaginary, if  $b^2 - ac, d^2 - ce$  are negative and  $c^2 - bd$  is positive.

**16366.** (R. W. D. CHRISTIE.)—Give a geometrical solution of the equation  $x^2 - yy^2 = \pm 1$ , and show that there are two solutions of  $x$  and  $y$ .

**16367.** (T. STUART, M.A., D.Sc.)—Are there any formulæ by which if we know one solution of the equation  $aX^4 + bY^4 = cZ^4$  we can obtain another? Obtain solutions other than (1, 1, 1) of the equations

$$11X^4 + 3Y^4 = 14Z^4, \quad 47X^4 + 14Y^4 = 61Z^4 \dots\dots\dots(1, 2).$$

**16368.** (Professor E. B. ESCOTT.)—Solve in integers  $x^2 + y^2 + z^2 = u^4 + v^4 + w^4, \quad x^4 + y^4 + z^4 = u^8 + v^8 + w^8$ , and find a general formula for the solutions. Example:  $5^2 + 19^2 + 24^2 = 3^4 + 4^4 + 5^4, \quad 5^4 + 19^4 + 24^4 = 3^8 + 4^8 + 5^8$ .

**16369.** (Lt.-Col. ALLAN CUNNINGHAM, R.E.)—Factorise completely (into prime factors)  $N = (80401^6 + 80400^6)$ ; [this has 30 figures].

**16370.** (W. J. GREENSTREET, M.A.)—Prove the inequalities

- (1)  $\Sigma (a^3b^3c^3) > a^3b^3c^3d^3e^3 (ab^2c + bc^2d + cd^2e + de^2a + ea^2b)$ , where  $a, b, c, d, e$  are all positive.
- (2)  $2\Sigma a^2 \Sigma a < \Sigma a^3 + 15abc$ .
- (3)  $a(x^2 + y^2) + b(z^2 + u^2) + 2h[(xz + yu) \cos a + (xu - yz) \sin a] > 0$ , if  $a > 0, ab > h^2$ .

**16371.** (M. S. NARAYANA, M.A.)—Show that  $5^n - \frac{n \cdot 5^{n-2} \cdot 6}{1!} + \frac{n(n-3) \cdot 5^{n-4} \cdot 6^2}{2!} - \frac{n(n-4)(n-5) \cdot 5^{n-6} \cdot 6^3}{3!} + \dots = 2^n + 3^n$ .

**16372.** (V. MADHAVARAO, M.A.)—The circle of curvature at any point  $P$  of a curve cuts a right line  $PQ$  in  $U$ .  $OY$  is the perpendicular from  $O$ , the mid-point of  $PQ$  on  $PY$ , the tangent at  $P$  of the curve.  $YC$  is drawn bisecting  $OP$  at  $K$ , so that  $CK : KY = PU : UQ$ . Show that  $C$  is the centre of curvature at  $Y$  of the first positive pedal of the curve with respect to  $O$ .

**16378.** (Professor R. W. GENESE, M.A.)—Disprove the old exercise (*Smith's Solid Geometry*, p. 90): "A plane moves so that the sum of the squares of its distances from  $n$  fixed points is constant; show that it always touches an ellipsoid."

**16374.** (Professor SANJANA, M.A.)—(a) From a variable point  $P$  in the side  $AB$  of a triangle  $ABC$  two straight lines are drawn in fixed directions, one meeting  $BC$  in  $Q$  and the other  $CA$  in  $R$ . Prove that

the envelope of  $QR$  is a conic, and examine its form and position. (b) Through  $C$ , an angular point of a triangle  $ABC$ , a variable straight line is drawn to meet two fixed straight lines in  $Q$  and  $R$ , and  $AQ, BR$  are drawn intersecting in  $P$ . Prove that the locus of  $P$  is a conic, and examine its form and position.

**16375.** (C. JOSS, M.A.)—Prove geometrically that the envelope of the sides of the triangles in a given circle with a common orthocentre is an ellipse.

**16376.** (L. ISSERLIS, B.A.)—Prove that the equations  $x = a + b \sec^2(2\theta) \cos(\theta - k), \quad y = c + b \sec^2(2\theta) \cos(\theta + k)$ , in which  $a, b, c, k$  are constants, represent a point on a conic, and that by varying  $k$  a set of confocal conics is obtained.

**16377.** (A. M. NESBITT, M.A.)—Given the straight lines  $OXA, CQA, CPB, C, O$ , and  $B$  being fixed points, draw two parallel straight lines  $OP, BNQ$  so that  $PQ$  may be parallel to  $OA$ .

**16378.** (Professor NEUBERG.)—Sur les hauteurs  $AA', BB', CC'$  d'un triangle  $ABC$  comme côtés, on construit trois triangles dont les deux autres côtés sont parallèles aux deux autres hauteurs. Soient  $S, S_a, S_b, S_c$  les surfaces de ces triangles, et  $S$  la surface du triangle  $ABC$ . Démontrer la relation  $4/S = 2[1/\sqrt{(S_b S_c)} + 1/\sqrt{(S_c S_a)} + 1/\sqrt{(S_a S_b)}] - (1/S_a + 1/S_b + 1/S_c)$ .

**16379.** (W. F. BEARD, M.A. Suggested by Question 16271.)—If any two regular  $n$ -sided polygons  $A_1A_2 \dots A_n, B_1B_2 \dots B_n$  have the same centroid, then  $A_1B_1, A_2B_2, \dots, A_nB_n$  taken in order form a regular polygon with the same centroid.

**16380.** (V. DANIEL, B.Sc.)—Two triangles (of given areal modulus  $\lambda^2 \equiv 1/\lambda'^2$ ) have

$$\cot A + \cot A' = \cot B + \cot B' = \cot C + \cot C' = r \sqrt{3}.$$

If the relations of circumscription and inscription ( $A$  on  $a', A'$  on  $a, \dots$ ) are mutually interchangeable by rotation of either triangle through an angle  $\theta$  about the same point, show that

$$(x^2 - \lambda^2)(x^2 - \lambda'^2) = 4 \cos^4 \frac{1}{2} \theta \quad \text{or} \quad 4 \sin^4 \frac{1}{2} \theta.$$

**16381.** (E. J. ERDEN, B.A.)— $ABC$  is any plane triangle. (a) Through  $A, B, C$  lines are drawn trisecting the angles  $CAB, ABC, BCA$  respectively. Let  $(A, B)$  denote that trisector of the angle  $CAB$  which is nearest to the side opposite the angle  $B, \dots$ ; show geometrically (or otherwise) that the triangle determined by the points

$$(B, A), (C, A); (C, B), (A, B); (A, C), (B, C) \dots\dots(1, 2, 3)$$

is equilateral.

(b) Let the exterior angles be trisected. Let  $AB, AC$  be produced, and let the trisectors of the exterior angle at  $B$  nearest to  $BC$ , and to  $AB$  produced be denoted by  $(B', A)$  and  $(B', C)$  respectively; then the triangle determined by the points

$$(A, C), (B', C); (A, B), (C', B); (B', A), (C', A)$$

is equilateral. So also the triangles determined by producing  $BA, BC; CA, CB$  respectively, and applying the same construction, are equilateral.

(c) The triangle determined by the points

$$(B', A), (C', A); (A', B), (C', B); (A', C), (B', C)$$

by producing  $AB, AC; BA, BC; CA, CB$  respectively is equilateral.

(d) The property (a) holds good when one vertex is at infinity, and the triangle degenerates into a finite straight line and two parallels drawn in the same direction through its extremities.

The lines trisecting the vertical angle at infinity are represented by two lines drawn parallel to the infinite sides from the points of trisection of the finite side.

**OLD QUESTIONS AS YET UNSOLVED (IN OUR COLUMNS).**

**10580.** (D. BINDLE.)—The centroids of an equilateral triangle and of a square in the same plane coincide, and the relative sizes of the two figures are such that the in-circle of one does not exceed the circum-circle of the other. Find the mean coincident areas (1) for particular relative sizes, (2) for all relative sizes within the given limits.

**11050.** (The late Professor CLIFFORD, F.R.S.)—If  $s$  and  $z$  are connected by the equation  $As^2 + Bs + C = 0$ , where  $A, B, C$  are quadratic functions of  $z$ , (1) describe the Riemann's surface which will represent  $s$  as a complex function of  $z$ , and (2) prove that, without tearing, it may be transferred into the surface of a body with one hole in it; also, (3) find a rational function of  $s$  and  $z$  whose integral is finite for all values of the variables, and (4) show that this integral has two periods.

**11164.** (Professor STEGGALL, M.A.)—Find (1) the temperature at every point of an infinite solid of which a spherical portion of radius  $a$  was initially heated to temperature unity, the rest being at temper-

ature zero; also (2) the equation giving the time at which the temperature at any point reaches its maximum; and show what this becomes when the quantity of heat in the given spherical portion remains constant, while its radius becomes infinitely small.

11250. (Professor CROFTON, F.R.S.)—Prove that

$$(x^{-1}D)^r e^x = e^x (1 + \frac{1}{2}D)^{r-1} x^{-r}.$$

Hence, show that the  $r$ -th differential coefficient of  $\exp(x^2)$  is

$$\exp(x^2) 2^{-r} x^{-2r} \left( 1 - \frac{r(r-1)}{2} x^{-4} + \frac{(r+1)r(r-1)(r-2)}{2.4} x^{-8} - \frac{(r+2)(r+1)r(r-1)(r-2)(r-3)}{2.4.6} x^{-12} + \dots \right).$$

11402. (Professor SCHOUTE.)—Given a cubic in space, find the degrees of the surfaces enveloped by the planes that intersect the cubic in the vertices of (1) an isosceles triangle, (2) an equilateral triangle.

11448. (Professor ORCHARD, M.A., B.Sc.)—Find the locus of the vertex of an isosceles spherical triangle, of which each base angle equals  $A$ .

NOTICE TO CORRESPONDENTS.

It is requested that all Mathematical communications should be sent to the Mathematical Editor,

Miss CONSTANCE I. MARKS, B.A., 10 Matheson Road, West Kensington, W.

Vol. XII. (New Series) of the "Mathematical Reprint" is now ready, and may be had of the Publisher, FRANCIS HODGSON, 89 Farringdon Street, E.C. Price to Subscribers, 5s.; to Non-Subscribers, 6s. 6d.

THE LONDON MATHEMATICAL SOCIETY.

Thursday, January 9th, 1908.—Prof. W. Burnside, President, in the Chair.

Mr. T. J. Garstang was elected a member.

Prof. A. E. H. Love spoke on "The Distinctive Character of Lord Kelvin's Mathematical Investigations," and moved a resolution of condolence with Lady Kelvin. This was seconded by Sir W. D. Niven, and carried unanimously.

The following paper was communicated:—

"A Formula of Interpolation," Mr. C. S. Jackson.

Informal communications were made as follows:—

"Hilbert's Invariant Integral in the Calculus of Variations," Mr. T. J. P.A. Bromwich.

"An Operator related to  $q$ -Series," Rev. F. H. Jackson.

JUST PUBLISHED.

THE NINE POINT CIRCLE.

With Notes on (1) Simson's Line, (2) The Radical Axis, (3) The Quadrilateral.

Contributed to the "Educational Times," "Mathematical Gazette," "Nouvelles Annales," "Mathesis," and "American Monthly."

By WILLIAM GALLATLY, M.A.

ELIJAH JOHNSON, 30 TRINITY STREET, CAMBRIDGE.

PRICE ONE SHILLING.

Thirty-first Thousand. Crown 8vo, 4s. 6d.

ENGLISH LESSONS FOR ENGLISH PEOPLE. By the Rev. EDWIN A. ABBOTT, D.D., and Sir J. R. SEELEY.

By the Rev. A. E. ABBOTT, D.D.

VIA LATINA. A First Latin Book. 181st Thousand. 3s. 6d.

HOW TO WRITE CLEARLY. 70th Thousand. 1s. 6d.

HOW TO PARSE. 34th Thousand. 3s. 6d.

HOW TO TELL THE PARTS OF SPEECH. 37th Thousand. 2s.

LATIN PROSE THROUGH ENGLISH IDIOM. 49th Thousand. 16mo, 2s. 6d.

SCHOOL EDITIONS. With Illustrations after Flaxman.

Crown 8vo, cloth, 1s. each. Sewed, 6d. net.

By Rev. A. J. CHURCH, M.A.,

Sometime Professor of Latin in University College, London.

THE STORY OF THE ILIAD.

THE STORY OF THE ODYSSEY.

LONDON: SEELEY & CO., LTD., 38 GREAT RUSSELL STREET.

Now Ready. A New and Revised Edition of DE FIVAS' NEW GRAMMAR OF FRENCH GRAMMARS.

ENLARGED BY THE ADDITION OF CAREFULLY CHOSEN GRADUATED FRENCH TEXTS FOR PREPARATORY READING AND TRANSLATION.

Foolscap 8vo, 474 pages, price 2s. 6d., cloth. (KEY, 3s. 6d.)

"This is perhaps the best known French Grammar in the country. Having used it ourselves, we can speak in the highest terms of its all-round excellence."—Teachers' Aid.

BOOKS FOR TECHNICAL STUDENTS.

PRACTICAL CHEMISTRY FOR ARMY AND MATRICULATION CANDIDATES, AND FOR USE IN SCHOOLS. By GEOFFREY MARTIN, B.Sc., Ph.D. With 74 Illustrations. Crown 8vo, cloth. Net 2/-

THE ELEMENTS OF ELECTRICAL ENGINEERING. A First Year's Course for Students. By TYSON SWELL, A.M.I.E.E., Lecturer and Demonstrator in Electrical Engineering at the Polytechnic, Regent Street, London. 4th Edition, Revised, with Additions. 460 pp., with 278 Illustrations. Large crown 8vo, cloth. Net 5/-

ELEMENTARY ELECTRICAL ENGINEERING. In Theory and Practice. A Class-book for Junior and Senior Students, and Working Electricians. By J. H. ALEXANDER, M.B., A.I.E.E. With 181 Illustrations. Crown 8vo, cloth. Net 3 6

PRACTICAL COAL-MINING. An Elementary Class-Book for the use of Students preparing for Examinations, or Qualifying for Colliery Managers' Certificates. By T. H. COCKIN, Lecturer on Coal-Mining at Sheffield University College. With Map of the British Coal-fields and over 200 Illustrations. 440 pp., crown 8vo, cloth. Net 4/6

ORIENTAL MANUALS AND TEXT-BOOKS. — Messrs. CROSBY LOCKWOOD & SON will forward on application a Catalogue of Text-Books and Manuals for Students in Oriental Languages, many of which are used as Text-Books for the Examinations for the Indian Civil Service and the Indian Staff Corps; also as Class-Books in Colleges and Schools in India.

London: CROSBY LOCKWOOD & SON, 7 Stationers' Hall Court, E.C., & 121a Victoria Street, S.W.

GEOMETRY: PLANE AND SOLID.

By JOHN S. RAWLE, F.S.A.,

LATE EXAMINER TO THE SCIENCE AND ART DEPARTMENT.

More than 600 Diagrams.

Over 280,000 copies sold.

INDISPENSABLE TO ALL TO WHOM A KNOWLEDGE OF GEOMETRY IS A NECESSITY.

Paper bound, 1s. Cloth bound, 2s.

Adapted to the requirements of all Science and Art Classes, Public Schools, &c.; also a reliable Text-book for the Examinations of the Science and Art Department, the Army and Navy, &c., &c.

For use in conjunction with the above:—

CLASS-SHEETS FOR PRACTICAL GEOMETRY ..... 1s.  
PRACTICAL GEOMETRY TEST-PAPERS ..... 4d.

Also:—

FREEHAND DRAWING TEST-PAPERS ..... 1s.  
ARTIST'S SIGHT-MEASURE ..... 2s. 6d.

LONDON:

SIMPKIN, MARSHALL, HAMILTON, KENT, & CO., LIMITED.

EXAMINATION PAPER

AS USED BY THE

COLLEGE OF PRECEPTORS.

In strict accordance with the College requirements, and each Sheet bears their Watermark.

Packed in Beams of 480 Sheets ... per Beam, 2s.

" " 960 " " " " 4s.

Bookkeeping Paper, ruled for Ledger, Cash Book, and Journal, 1s. per 100 Sheets.

Music Paper, 1s. per 100 Sheets.

Remittance should accompany Order.

F. W. SHELBORNE & CO., Wholesale and Retail Stationers, 63 HIGH HOLBORN, LONDON, W.C.

## WHITTAKER'S EDUCATIONAL BOOKS.

**FIRST FRENCH BOOK (Direct Method).** With 22 Illustrations. 1s. net.

**SECOND FRENCH BOOK (Direct Method).** With 37 Illustrations. 1s. 6d. net.

By D. MACKAY, M.A., and F. J. CURTIS, Ph.D.

"Provides the most complete set of apparatus for the practice of the 'New Method' that we have yet seen in a single text-book."—*Guardian*.

**GERMAN FOR BEGINNERS:** A Reader and Grammar on the *Direct Method* of Teaching German. By L. HARCOURT. With numerous Illustrations. In Two Parts. Part I., 1s. 6d. net. Part II., 2s. net.

"We can commend this beginner's book most heartily as a wise, simple, practical, and interesting one, worthy of introduction into schools where German is taught for use and enjoyment rather than show or cram."—*Educational News*.

**SCHOOL GEOGRAPHY.** By CHARLES BIRD, B.A., F.G.S., Head Master of the Mathematical School, Rochester. With Sketch Maps and Diagrams. 2s. 6d.

*This book is based upon the Scheme of Geographical Teaching drawn up by the Head Masters' Association.*

"Mr. Bird possesses the first requisite for success—a plain and straightforward style."—*Journal of Education*.

**HEAT, LIGHT, AND SOUND.** An Introductory Course of Practical Exercises. By J. REGINALD ASHWORTH, D.Sc., F.Phys.S. 2s. net.

**TEXT-BOOK OF BOTANY. Part I. The Anatomy of Flowering Plants.** For Students preparing for the Oxford and Cambridge Locals, London University, and other Examinations. By M. YATES. With 413 Illustrations. 2s. 6d.

**ZOPF UND SCHWERT.** Lustspiel von Karl Gutzkow. Edited, with Notes, by F. LANGE, Ph.D. 2s.

**EKKEHARD.** Von Victor von Scheffel. With Introduction and Notes by H. HAGER, Ph.D. 2s.

**DIE JOURNALISTEN.** Von Gustav Freytag. Edited, with Notes, by F. LANGE, Ph.D. 2s.

*Educational Catalogue post free.*

WHITTAKER & CO., 2 White Hart Street, Paternoster Sq., London, E.C.

## SARLL'S EXAM. BOOK-KEEPING.

SARLL'S Text-book Sales nearly 250,000.

### SARLL'S MODERN BOOK-KEEPING.

Founded on Sarll's DOUBLE ENTRY. Consists of four GRADUATED COURSES—Introductory, Theory, Practice, Trial Balances—followed by forty EXAM. PAPERS with full or outline KEYS. An Elementary and Intermediate Text-Book for ALL EXAMS. The results of a LIFETIME. 410 pp., 3s. 6d. [Now ready.]

### SARLL'S BOOK-KEEPING FOR NEW CODE.

Stage I., Introductory; II., Practical; III., Theory or Journalising. Each 48 pages. Price 4d. Outline Keys. MS. Books, 2d. each.

### SARLL'S PRACTICAL BOOK-KEEPING.

Fourteenth (greatly improved) Edition. *Teachers' Aid* says: "There is no cheaper and safer guide." Consists of GRADUATED EXERCISES with full, and Exam. Papers with outline, Keys. 128 pages, 1s. MS. Books, superior, 1s. Cheap, 4d.

### SARLL'S DOUBLE-ENTRY BOOK-KEEPING.

Fifteenth Edition. 256 pages. 2s. Consists of GRADUATED EXERCISES with full, and Exam. Papers with outline, Keys. *Practical Teacher* says: "We heartily recommend it as the best and cheapest manual we have seen." A School Edition, without Keys. 128 pages, 1s. Superior MS. Books, 1s. Cheap, 4d.

### SARLL'S TWENTIETH CENTURY EXAM. BOOK-KEEPING.

Containing Papers by the leading Examining Boards, with outline Keys. In Two Parts, at 6d. each. Part I., Junior Papers, College of Preceptors, University Local, Scotch Leaving Certificates, &c. Part II., Senior Papers, Society of Arts, London Chamber of Commerce, Lancashire and Cheshire Union, West Riding, &c.

*Sarll's Supplementary Keys.*

#### 1. TO SARLL'S PRACTICAL.

Exercises fully worked, 2s.

#### 2. TO SARLL'S DOUBLE-ENTRY.

Exercises fully worked, 3s.

\*.\* Specimen Copies at one-third off, or Teachers can have Parcels for inspection, post free, from A. SARLL, A.K.C., 62 Oakley Road, London, N.

Lessons by Correspondence and School Exams. conducted.

LONDON: GEORGE GILL & SONS, 13 WARWICK LANE, E.C.

## EVERY SECONDARY SCHOOL

submitting a Scheme of Geography for approval requires Maps, Globes, and Atlases. These are supplied by G. W. BACON & CO., LTD., in great variety.

Among their Maps are

### BACON'S EXCELSIOR MAPS.

"Large, clear and up-to-date." Size, about 4 ft. by 5 ft. 20 in the Series, with 20 Test Maps, same size and price to correspond. Price 15s. each.

The best notions of Physical Geography can be obtained by the use of

### BACON'S RELIEF WALL MAPS.

They show in photographic relief "the disposition of highlands and lowlands and the chief river valleys," as recommended in Circular 561. They can be had with or without the principal town spots marked in red, and are as effective as Models, at one sixth the price. 36 ins. by 48 ins. Price 7s. 6d.

A perfect teaching Map can be obtained in

### BACON'S RELIEF and POLITICAL MAPS

Mounted side by side. Size, 62 ins. by 42 ins. Price 13s. each. Europe and North America are ready, others are in preparation.

### BACON'S ELEMENTARY MAP OF THE WORLD

is indispensable in the Preliminary Course. Size, 60 ins. by 40 ins. Price 12s.

### BACON'S ATLASES

are adapted to all classes of Secondary Schools.

### BACON'S RELIEF ATLAS

has 16 of the finest Relief Maps ever published, with 16 corresponding Political Maps, "not overburdened with detail of any kind." Price 6d., 3d., and 1s. net.

### BACON'S MEMORY MAP ATLAS AND TEXT-BOOK,

price 3s. 6d., is in use in a large number of Secondary Schools, and

### BACON'S UPPER CLASS ATLASES,

sections of the Memory Map Atlases price 4d., have had an extraordinary sale.

Catalogues, &c., free.

G. W. BACON & CO., LTD., 127 STRAND.

WILL BE READY IN MARCH.

Demy 8vo, cloth, price 2s. 6d., free by post.

To Members of the College the price is 1s., or 1s. 6d. free by post.

## THE CALENDAR OF THE COLLEGE OF PRECEPTORS

FOR THE YEAR 1908:

CONTAINING

All information respecting the objects and operations of the College, Lists of Officers, Examiners, and Members, the Regulations of the various Examinations, &c., with an Appendix containing the following Examination Papers:—

1. Papers set at Examination of Teachers for Diplomas, Midsummer, 1907.
2. Do. do. do. Christmas, 1907.
3. Papers set at Examination of Pupils for Certificates, Midsummer, 1907.
4. Do. do. do. Christmas, 1907.
5. Papers set at Professional Preliminary Examination, March, 1907.
6. Do. do. do. September, 1907.
7. Papers set at Lower Forms Examination ... .. Midsummer, 1907.
8. Do. do. ... .. Christmas, 1907.

\*.\* Nos. 3, 4, 5, and 6 may be had separately, price, free by post, 7d. each set. Nos. 7 and 8, price, free by post, 4d. each set.

The Diploma Papers are to be had only in the "Calendar."

FRANCIS HODGSON, 89 FARRINGTON STREET, LONDON, E.C.

# OXFORD UNIVERSITY PRESS.

## OXFORD MODERN FRENCH SERIES.

EDITED BY LEON DELBOS,

Formerly Senior Instructor in French to Royal Naval Cadets.

*Educational Times*.—"An excellent and welcome series. The variety, the interest, and the excellence of the matter are obvious from the mere enumeration."  
*Le Français*.—"Les volumes déjà publiés ont été édités avec un grand soin, et les ouvrages choisis ont le plus grand honneur aux connaissances littéraires de M. Leon Delbos."

### LATEST VOLUMES.

21. **Souvenirs de la Vie Militaire.**  
By Comte PIERRE DE CASTELLANE. Edited by W. G. HARTOG. 2s.
22. **Le Colonel Chabert.**  
By BALZAC. Edited by H. W. PRESTON. 2s.
23. **Louis XI et Charles le Téméraire.**  
By MICHELET. Edited by E. BENAULT. 2s. 6d.
24. **La Jeunesse de Bonaparte.**  
By DE BOURRIENNE. Edited by A. CANIVET. 2s.
25. **Mélanges Littéraires.**  
By T. S. ANDRIEUX. Edited by E. C. JONES. 2s.
26. **La Jeunesse de Chateaubriand.**  
Edited by GERALD GOODRIDGE. 3s.
27. **Le Roman d'un Jeune Homme Pauvre.**  
By OCTAVE FÉCILLET. Edited by J. LAFFITTE. 2s. 6d.
28. **Servitude et Grandeur Militaire.**  
By ALFRED DE VIGNY. Edited by C. L. FREEMAN. 2s. 6d.
29. **Journal d'un Voyage aux Mers Polaires.**  
By Lieut. RENÉ BELLOT. Edited by H. J. CHAYTOR. With a Map. 184 pp., 2s. 6d.
30. **Les Fiancés du Spitzberg.**  
By XAVIER MARMIER. Edited by A. A. HENTSCH. 3s.
31. **Marignan: Conquête et Perte du Milanais.**  
By J. C. L. SIMONDE DE SISMONDI. Edited by A. WILSON-GREENE. 2s.

## OXFORD HIGHER FRENCH SERIES.

EDITED BY LEON DELBOS. Extra fcap. 8vo.

*Journal of Education*.—"The series marks a new departure. The volumes have been chosen for their literary merit, and the annotation is mainly on literary lines."  
*Educational Times*.—"In every respect the series attains to excellence."

### LATEST VOLUMES.

- Contes et Nouvelles.**  
By PROSPER MÉRIMÉE. Edited by J. E. MICHELL. 2s. net.
- lambes et Poèmes.**  
By AUGUSTE BARBIER. Edited by CH.-M. GARNIER. 2s. net.
- Eugénie Grandet.**  
HONORÉ DE BALZAC. Edited by H. E. BERTHON. 2s. 6d. net.

SELECT LIST OF EDUCATIONAL WORKS (32 PAGES) AND COMPLETE CATALOGUE (144 PAGES) POST FREE.

London: HENRY FROWDE, Oxford University Press, Amen Corner, E.C.

London: Printed by C. F. HODGSON & SON, 2 Newton Street, Kingsway, W.C.; and Published by FRANCIS HODGSON, 89 Farringdon Street, E.C.  
[Entered at the New York Post Office as Second Class matter.]

## New Books for School Prizes & Libraries.

### Oxford Treasury of English Literature.

By G. E. HADOW, Tutor in English Literature, Lady Margaret Hall, Oxford; and W. H. HADOW, Fellow of Worcester College, Oxford. 3s. 6d. each.

**Vol. I—OLD ENGLISH TO JACOBÆAN.** [Second Edition.]  
*Tribune*.—"The editors of this volume have performed a difficult task with admirable discrimination."

**Vol. II—GROWTH OF THE DRAMA.**  
*Journal of Education*.—"There is originality not only in the conception, but in the choice of materials. The introductions prefixed to the extracts are models of literary criticism."

**Vol. III—In preparation.**

### The Writing of English.

By PHILIP J. HARTOG, Academic Registrar of the University of London; sometime Bishop Berkeley Fellow of the Owens College, and Lecturer in the Victoria University, Manchester. With the assistance of Mrs. AMY H. LANGDON. Crown 8vo, 2s. 6d.

*Athenæum*.—"If parents and schoolmasters will pay heed to the good counsel and practical suggestions in this handy and valuable little work, no future writer on literary studies in our schools will, we think, be able to begin his first chapter—as Mr. Hartog begins his—with the discouraging statement, 'The average English boy cannot write English.'"

### The Oxford Book of French Verse.

**Thirteenth Century to Nineteenth Century.**  
Chosen and edited by ST. JOHN LUCAS. Second Impression. Fcap. 8vo, 6s. net; on Oxford India paper, 7s. 6d. net.

*Athenæum*.—"The best selection that has been printed in England. The Introduction, in fewer than thirty small pages, gives a rapid and brilliant survey of French poetry from the thirteenth century to the nineteenth."

### A Historical Geography of the British Colonies.

**Vol. VI.—AUSTRALASIA.**

By J. D. ROGERS, Barrister-at-Law. Formerly Stowell Fellow of University College, Oxford. Crown 8vo, cloth, with 22 Maps, 7s. 6d. Also separately, Part I (Historical), 4s. 6d.; Part II (Geographical), 3s. 6d.

*British Australasian*.—"As a complete and compendious history of the Australasian Colonies from their beginnings up to the present day, the volume is an authoritative and unique handbook."

### The Rise of the Greek Epic.

Being a Course of Lectures delivered at Harvard University. By GILBERT MURRAY, Fellow of New College, Oxford; formerly Professor of Greek in the University of Glasgow. Demy 8vo, 6s. net.

*Tribune*.—"Philology, archaeology, anthropology, comparative mythology, and higher criticism of every kind are combined with the scholarship, the acute detective faculty, the splendid darning, and the humour of an exceptionally brilliant man."

### The Attic Theatre.

A Description of the Stage and Theatre of the Athenians, and of the Dramatic Performances at Athens. By A. E. HAIGH, late Fellow of Corpus Christi College, Oxford. THIRD EDITION, Revised, and in part Rewritten, by A. W. PICKARD-CAMBRIDGE, Fellow of Balliol College. 8vo, with Illustrations, 10s. 6d. net.

*Cambridge Review*.—"The third edition contains a considerable quantity of new matter without omitting anything essential."

### A History of Music in England.

By ERNEST WALKER, M.A., D.Mus., Balliol College, Oxford. 8vo, cloth, 7s. 6d. net.

*Standard*.—"Worthy in every way to rank as the standard work on a most important subject."

### Sidney's Apologie for Poetrie.

Edited, with Introduction, Notes, and Index, by J. CHURTON COLLINS, Professor of English Literature in the University of Birmingham. Crown 8vo, with a Facsimile Title-Page, price 2s. 6d.

*Birmingham Gazette*.—"Prof. Collins's introduction is an interesting and scholarly piece of work."

# MACMILLAN & CO.'S TEXT-BOOKS

SUITABLE FOR THE COLLEGE OF PRECEPTORS' EXAMINATIONS, MIDSUMMER AND DECEMBER, 1908.

**THE INTERNATIONAL GEOGRAPHY.** By SEVENTY AUTHORS. Edited by H. R. MILL, D.Sc. With 489 Illustrations. New Edition, 8vo, complete, 12s. net.

The following Sections are issued separately with Exercises and Examination Papers in the Text:—I. BRITISH ISLES, 1s.; II. EUROPE, 2s. 6d.; III. ASIA, 2s.; IV. AUSTRALIA, 1s. 6d.; V. NORTH AMERICA, CENTRAL AMERICA, and the WEST INDIES, 2s.; VI. SOUTH AMERICA, 1s. 6d.; VII. AFRICA, 2s. \* \* \* Please write for detailed Prospectus.

**AIDS TO THE STUDY AND COMPOSITION OF ENGLISH.** By J. C. NESFIELD, M.A. 4s. 6d. KEY, 4s. 6d. net.

LATIN AND GREEK.		s. d.
Caesar's Gallic War. J. BOND and A. S. WALPOLE. (First, Second, and Third Class)	4	6
— Gallic War. Book I. A. S. WALPOLE. (First, Second, and Third Class)	1	6
— Gallic War. Books II. and III. W. G. RUTHERFORD. (First and Second Class)	1	6
Virgil.—Aeneid. Book I. A. S. WALPOLE. 1s. 6d. T. E. PAGE. 1s. 6d. Book X. S. G. OWEN. (First and Second Class)	1	6
Horace.—Odes. Book III. T. E. PAGE. 1s. 6d. Edited by the same. (First Class)	2	6
Cicero.—Catiline Orations. A. S. WILKINS. Litt.D. (First Class)	2	6
Xenophon.—Anabasis. Book I. A. S. WALPOLE. 1s. 6d. With Exercises. E. A. WELLS. (First and Second Class)	1	6
Huripides.—Hecuba. J. BOND and A. S. WALPOLE. (First Class)	1	6
Eutropius. Books I. and II. W. WELCH and Rev. C. G. DUFFIELD. (Third Class)	1	6

ENGLISH LANGUAGE, HISTORY, AND GEOGRAPHY.		s. d.
Shakespeare.—The Merchant of Venice. K. DEIGHTON. (First and Second Class)	1	9
Julius Caesar. K. DEIGHTON. (First and Second Class)	1	9
* * * Also Eversley Edition, with Notes, 1s. each		
Tennyson.—Poetical Works. Globe Edition. (This volume contains "The Marriage of Geraint," "Geraint and Enid," "The Coming of Arthur," "The Passing of Arthur.") (First Class)	2	6
— School Edition of Tennyson's Works. Part III. (This volume contains "The Marriage of Geraint," "Geraint and Enid," "The Coming of Arthur," "The Passing of Arthur.") (First Class)	2	6
— Idylls of the King. (This volume contains "The Marriage of Geraint," "Geraint and Enid," "The Coming of Arthur," "The Passing of Arthur.") (First Class)	2	0
— Geraint and Enid and The Marriage of Geraint. G. C. MACAULAY. (First Class)	2	6
— The Coming of Arthur and The Passing of Arthur. F. J. ROWE. (First Class)	2	6
Milton.—Comus. W. BELL. (First Class)	1	3
— L'Allegro, Il Penseroso, Arcades, Lycidas, Sonnets, &c. W. BELL. (First Class)	1	9
Scott.—Marmion. M. MACMILLAN. 2s. 6d. (Second and Third Class)	3	0
— Marmion. Cantos I. and VI. M. MACMILLAN. (Third Class)	1	0
Poems of England. H. B. GEORGE and A. SIDGWICK. (Third Class and Lower Forms)	2	6
Longfellow.—Hiawatha.—H. B. COTTERILL. (Lower Forms)	1	6
Saintsbury's Short History of English Literature	8	6
Wesfield's Outline of English Grammar	1	6
KEY, 2s. 6d. net. (Adapted to the Second and Third Classes.)		
— Oral Exercises in English Composition. (Third Class.)	1	6
— Junior Course of English Composition. (Adapted to the Second and Third Classes)	1	6
— Senior Course of English Composition	3	6
KEY, 1s. net. (Adapted to the First Class)		
— Manual of English Grammar and Composition	2	6
KEY, 2s. 6d. net. (Adapted to the First Class)		
Brooksbank's Essay and Letter Writing. With Models and Outlines	2	6
Buckley's History of England for Beginners	3	6
Green's Short History of the English People	8	6
Thompson's History of England	2	6
Tout's Short Analysis of English History	1	0
Mill's Class Book of General Geography	3	6
Sime's Geography of Europe. (Second and Third Class.)	2	0
Simmons and Richardson's Practical Exercises in Geography	3	6
KEY, 3s. 6d.		
Bosworth's Short Geography of the World. 1s. 6d. Summaries. In Three Parts—Part I. British Isles and Europe; Part II. Asia and Africa; Part III. America, Australia, &c.	0	4
Huxley and Gregory's Physiology	4	6

FRENCH AND GERMAN.		s. d.
Siepmann and Pellissier's Public School French Primer	3	6
Siepmann's Primary French Course. Comprising a First Reader, Grammar, and Exercises, with Questions for Oral Practice, and an Alphabetical Vocabulary. Part I., 2s. 6d. Part II., 2s. 6d. Word and Phrase Book, 6d.		
— Primary French Course. (First Term.) Lessons in Colloquial French based on the Transcript of the Association Phonétique, with a Chapter on French Sounds and their Phonetic Symbols, List of Words for Practice in Pronunciation, and Complete Vocabulary	1	6
— Short French Grammar. Comprising Essentials of Accidence and Syntax, with a Chapter on French Sounds, Lists of Words for Practice in Pronunciation and Spelling, and Notes on French Vulgarization and Etymology	2	6
Macmillan's Progressive French Course. G. E. FASNACHT. First Year, 1s.; KEY, 4s. 6d. net. Supplementary Exercises, 1s. Second Year, 2s.; KEY, 4s. 6d. net. Third Year, 2s. 6d.; KEY, 4s. 6d. net.		
Foiré's French Course. First Year, 1s. Second Year, 1s. 6d.		
Perry and Baum's New French Course for Schools. Part I., 1s. 6d. Part II., 3s. 6d.		
Siepmann's Public School German Primer	3	6
KEY, 4s. 6d. net.		
Macmillan's Progressive German Course. G. E. FASNACHT. First Year.	1	6
KEY, 4s. 6d. net.		

SCRIPTURE HISTORY.		s. d.
Acts of the Apostles. Authorized Version. With Notes. By T. E. PAGE and Rev. A. S. WALPOLE	2	6
— The Greek Text. With Notes. By T. E. PAGE	3	6

BOOK-KEEPING.		s. d.
Thornton's First Lessons in Book-keeping	2	6
KEY, 10s. 6d.		
— Exercise Books to First Lessons in Book-keeping. No. 1, for Lessons I.-IX., 9d. No. 2, for Test Exercises, 9d. No. 3, for Test Exercises, 1s. 6d. No. 4, for Lessons XIII. and XIV., 1s. 6d. Case to contain all the above, 6d. Complete Set with Case, 5s. No. 5, Condensed Edition for Working out a Selection on all the Lessons, 2s. No. 6, Journal, 6d. Examination Papers in Book-keeping, 9d.		
— KEY to Examination Papers, 2s.		
— Easy Exercises in Book-keeping	1	0
KEY, 5s. net.		
— A B C D Series of Book-keeping Exercise Books. In 4 Parts, 3d. each, or the set	1	0
Ireson's Text-Book of Book-keeping	3	6
Macmillan's Book-keeping Exercise Books. Set A, containing Journal, Ledger. Price 10d. Set B, containing Cash Book, Journal, Ledger. Price 1s.		
Adgie's Modern Book-keeping and Accounts. 5s.; or Part I., 1s. 6d. Part II., 2s. Part III., 2s. 6d.		
KEYS, 2s. 6d. net each.		
Macmillan's Facsimile Worked Exercises from Modern Book-keeping and Accounts. By W. ADGIE	0	6

ARITHMETIC AND ALGEBRA.		s. d.
Palmer's Arithmetic—chiefly Examples	3	6
Sidney Jones's Modern Arithmetic. Part I. Without Answers, 2s. 6d. With Answers, 3s.		
Loney's Arithmetic for Schools. With and without Answers, 4s. 6d. Or, in Two Parts, 2s. 6d. each. Answers, 6d. Examples, 3s.		
Smith and Hudson's Arithmetic for Schools	4	6
Lock-Turnbull's Arithmetic for Schools	4	6
Hall and Knight's Elementary Algebra for Schools. Containing a full treatment of GRAPHS. Without Answers, 3s. 6d. With Answers	4	6
KEY, 8s. 6d. Answers, 1s.		
Hall's Easy Graphs	1	0
KEY, 3s. 6d.		
— Introduction to Graphical Algebra	1	0
KEY, 3s. 6d.		
Gibson's Elementary Treatise on Graphs	3	6
Todhunter and Loney's Algebra for Beginners. With a Chapter on GRAPHS. Without Answers, 3s. 6d. With Answers	4	6
KEY, 8s. 6d. net.		
Charles Smith's Elementary Algebra. With a Chapter on GRAPHS	4	6
KEY, 10s. 6d.		

GEOMETRY.		s. d.
Hall and Stevens's Lessons in Experimental and Practical Geometry	1	6
Hall and Stevens's School Geometry. Part I. (containing the substance of Euclid, Book I., 1-34), 1s. Part II., 6d. Parts I. and II. (containing substance of Euclid, Book I.), 1s. 6d. Parts I. and II., with Introductory Course, 2s. 6d. Part III. (containing substance of Euclid, Book III., 1-34, a part of Book IV.), 1s. Parts I.-III., 2s. 6d. Part IV. (containing the substance of Euclid, Book II., and Book III., 35-37), 6d. Parts III. and IV., 1s. 6d. Parts I.-IV., 3s. Part V. (containing the substance of Euclid, Book VI.), 1s. 6d. Parts IV., V., and VI., 2s. 6d. Parts I.-VI., 4s. 6d. KEYS to Parts I. and II., 3s. 6d.; Parts I.-IV., 6s.; Parts I.-VI., 8s. 6d.		
Eggar's Practical Exercises in Geometry. With Answers	2	6
— Manual of Geometry. An Experimental Treatment of Geometry in which Theorems are taken along with the practical work	3	6
Barnard and Child's New Geometry for Schools (containing the substance of Euclid, Books I.-VI.). (First Class)	4	6
— New Geometry for Junior Forms (containing the substance of Euclid, Books I., III. 1-31, the easy parts of Book IV., and a description of the forms of the simpler Solids)	2	6
This volume contains all the Practical and Theoretical Geometry required for Second and Third Class Candidates.		
— New Geometry for Middle Forms (containing the substance of Euclid, Books I.-IV., with additional matter)	3	6
— New Geometry for Senior Forms (containing the substance of Euclid, Books II., VI., and XI., and parts of IV., together with a complete Treatise on Elementary Solid Geometry)	3	6
Alcock's Theoretical Geometry for Beginners. Part I. (containing the substance of Euclid, Book I.) Part II. (containing the substance of Euclid, Book III. 1-34 and Book IV. 1-9.) Part III. (containing the substance of Book II. 1-14, Book III. 35-37, Book IV., 10-16.) Part IV. each	1	6

# CAMBRIDGE UNIVERSITY PRESS

**Slavonic Europe: a Political History of Poland and Russia from 1447 to 1796.** By R. NISBET BAIN, Assistant Librarian, British Museum, Author of "Scandinavia," "The First Romanovs," "Gustavus III. and his Contemporaries," &c.

Cambridge Historical Series.  
Crown 8vo, 5s. 6d. net.

This book is, the author believes, the only existing compendium, in English, of the political history of Poland and Russia, from the middle of the fifteenth to the end of the eighteenth century, when the Polish Republic disappeared from the map of Europe and the Russian Empire took its place as the head and right arm of the Slavonic World. In nineteen necessarily brief chapters, the author presents a clear and connected outline of the whole panorama of events, omitting nothing essential, giving due prominence to the human element which, after all, must ever be the determining factor of history, and throwing into clear relief, by the light of the most recent criticism, many murky and nebulous districts of this immense and hitherto but partially explored region.

**The Modern Language Review.** A Quarterly Journal devoted to the Study of Medieval and Modern Literature and Philology. Edited by Prof. JOHN G. ROBERTSON, with the assistance of an Advisory Board.

**Contents of Vol. III., No. 2, January, 1908.**—  
The Influence of Dante in Spanish Literature. By W. H. HUTTON.  
The Date of Chapman's "Bussy D'Ambois." By T. M. PARROTT.  
Notes on some English University Plays. By G. C. MOORE SMITH.  
Dante and the "Gospel of Barnabas." By LONSDALE RAGO.  
The Missing Title of Thomas Lodge's Reply to Gosson's "School of Abuse." By J. DOVER WILSON.  
**MISCELLANEOUS NOTES:**—A Note on Bishop Hall's Satires, "Vindemiae." V. i., 65-72. By E. BENSLY.—An Unrecorded Reading in "Piers Plowman." By C. TALBOT ONIONS.—Middle English "Coveise." By C. TALBOT ONIONS.—Shakespeareana. By W. H. WILLIAMS.—Reviews.—Minor Notices.  
"The Modern Language Review" appears four times a year—in October, January, April, and July. The annual subscription is 8s. net (post free 8s. 6d.), payable in advance.  
Vol. I. (1905-6) and Vol. II. (1906-7) may be had, bound in buckram, at 10s. net each.

Vol. III., No. 2  
2s. 6d. net.

Subscription Price.

**Modern Electrical Theory.** By NORMAN ROBERT CAMPBELL, M.A., Fellow of Trinity College, Cambridge.

Demy 8vo, pp. xii + 332.  
7s. 6d. net.

The author has attempted to expound the subject in its logical order, to analyse the arguments by which the various phenomena are correlated, to draw special attention to the assumptions that have been made, and to show which of these assumptions are fundamental in the modern theory of electricity, and which may be expected to be abandoned in the further progress of investigation. In the selection of the material to be treated, subjects have been selected not for their intrinsic importance or for the interest of the accessory studies with which they are connected, but for the light which they throw upon the central problem, the relation of electricity and matter.

**Electricity and Magnetism.** An Elementary Text-book, Theoretical and Practical. By R. T. GLAZEBROOK, M.A., F.R.S., Director of the National Physical Laboratory.

Crown 8vo, 6s.

"Every schoolmaster and teacher who has under consideration the selection of a text-book for his better students should most certainly look into this book. The information is everywhere absolutely sound and reliable."—*Guardian*.

**Mechanics and Hydrostatics.** An Elementary Text-book, Theoretical and Practical. By R. T. GLAZEBROOK, M.A., F.R.S.

Crown 8vo, 6s.  
Or in 3 Parts—  
Part I. Dynamics, 3s.  
Part II. Statics, 2s.  
Part III. Hydrostatics, 2s.

The portion of this book designated "Experiments" was for the most part in use for some time as a Practical Course for Medical Students at the Cavendish Laboratory at Cambridge. The rest of the book contains the explanation of the theory of those experiments, and an account of the deductions from them. It is with the hope of extending some such system as this in colleges and schools that the author has undertaken the publication of the present book and others of the Series.

## College of Preceptors Examinations,

*The Pitt Press Shakespeare for Schools.*

With Introduction, Notes, and Glossary by A. W. VERITY, M.A.

**Shakespeare.—The Merchant of Venice.** Seventh Edition. 1s. 6d.

"A perfect schoolboy's edition."—*School Guardian*.

**Shakespeare.—Julius Caesar.** Ninth Edition. 1s. 6d.

"Another of Mr. Verity's admirable school editions of Shakespeare's plays."—*Guardian*.

### The Pitt Press Series.

AUTHOR.	WORK.	EDITOR.	PRICE. s. d.
Scott	Marmion	J. H. B. MASTERMAN	2 6
Milton	Comus and Lycidas	A. W. VERITY	2 0
"	Sonnets	"	1 6
Caesar	De Bello Gallico, Book I.	A. G. PESKETT	1 6
"	" Bks. II. & III.	"	2 0
Vergil	Aeneid, Books I. and X.	A. SIDGWICK	each 1 6
Cicero	Orations against Catiline	J. C. NICOL	2 6
Horace	Odes, Book III.	J. GOW	2 0
Euripides	Heccuba	W. S. HADLEY	2 6
Xenophon	Anabasis, Book I.	A. PRETOR	2 0

## Midsummer and Christmas, 1908.

*The Cambridge School History of England.*

**History of England for Use in Schools.**

By ARTHUR D. INNES, M.A., formerly Scholar of Oriol College, Oxford. In One Volume with 13 Maps and 8 Plans. Also in Three Parts: Part I., to 1509 A.D.; Part II., 1509-1714; Part III., 1689-1901.

Crown 8vo.  
Complete, 4s. 6d.  
Parts, 2s. each.

"A work of conspicuous merit and unquestionable value. . . . Though intended for the advanced forms of schools, it is well adapted for the private use of all manner of students, and, while never losing sight of the necessity of passing examinations, Mr. Innes has endeavoured to interest and guide the student rather than to cram him. His aim is comprehensive; for he seeks not merely to give an accurate chronicle, but to present history in its various aspects, constitutional, social, international, and biographical."—*Scotsman*.

### The Cambridge Series for Schools and Training Colleges.

"We heartily commend these books to the notice of teachers of elementary classics in whatever kind of school. It will be a long time before any more suitable edition will appear."—*School Guardian*.

The following editions have Complete Vocabularies:—

AUTHOR.	WORK.	EDITOR.	PRICE. s. d.
Caesar	Books I., II.	E. S. SHUCKBURGH	each 1 6
Vergil	Aeneid, Books I. and X.	A. SIDGWICK	each 1 6
Xenophon	Anabasis, Book I.	G. M. EDWARDS	1 6

London: CAMBRIDGE UNIVERSITY PRESS WAREHOUSE, Fetter Lane. C. F. Clay, Manager.



# CLASS LISTS

## OF CANDIDATES WHO HAVE PASSED THE CERTIFICATE EXAMINATION OF THE COLLEGE OF PRECEPTORS.—CHRISTMAS, 1907.

The list of successful candidates at the Colonial Centres will be published in the March number of "The Educational Times."

[Throughout the following Lists, bracketing of names implies equality.]

### PRIZES.

#### General Proficiency.

**FIRST CLASS [OR SENIOR].**  
Wellington College, Salop.

1. Hughes, A. G. (*Isbister Prize.*)
  2. Dodson, F. N. (*Pinches Prize.*)
  3. Allinson, A. P.
  4. Frazer, R. F.
- Hutton Grammar School, nr. Preston.
- Wellington College, Salop.  
Oakes Institute, Walton, Liverpool.

**SECOND CLASS [OR JUNIOR].**

1. Gieve, Miss G. M.
  2. Curtis, S. J.
  3. Hughes, R. G.
  4. Meadows, J.
- Crouch End High School, Hornsey.  
Kendrick Boys' School, Reading.  
Wilsford House School, Devizes.  
St. Olave's Grammar School, S.E.

**THIRD CLASS.**

1. Nokes, Miss C. M.
  2. Hitching, W. W.
  3. Goodchild, A. T.
  4. Winters, Miss D.
- Crouch End High School, Hornsey.  
Manchester Warehousemen and Clerks' Orphan Schools, Cheadle Hulme.  
St. John's College, Finsbury Park, N.  
St. Michael's School, Malton.

#### English Subjects.

1. Vickers, Miss K.
  2. Stott, Miss M.
- Westmorland Road School, Newcastle-on-Tyne.  
Girls' Grammar School, Levenshulme, Manchester.

#### Mathematics.

Oakes Institute, Walton, Liverpool.  
Oakes Institute, Walton, Liverpool.

#### Modern Foreign Languages.

Wellington College, Salop.  
The High School for Boys, Croydon.

#### Classics.

#### Natural Sciences.

Wellington College, Salop.  
Wellington College, Salop.

#### Taylor Jones Prize for Scripture History.

1. Bennell, Miss M.
  1. Brown, A.
  1. Hews, R.
- Crouch End High School, Hornsey.  
The High School for Boys, Croydon.  
Kendrick Boys' School, Reading.

#### Pitman Medals for Shorthand.

1. Keyse, C. C. (*Pitman Silver Medal.*)
  2. Sargent, Miss B. F. (*Pitman Bronze Medal.*)
- Bradley High School for Boys, Newton Abbot.  
Royal Masonic Institution for Girls, Clapham Junction.

The following is a List of the Candidates who obtained the FIRST and SECOND PLACES in each Subject on FIRST CLASS PAPERS. (Only those who obtained Distinction are included.)

#### Scripture History.

1. Bennell, Miss M.
  1. Brown, A.
  1. Guthrie, Miss E.
  1. Hews, R.
- Crouch End High School, Hornsey.  
The High School for Boys, Croydon.  
Ellerker College, Richmond Hill.  
Kendrick Boys' School, Reading.

#### English Language.

1. Bennell, Miss M.
  2. Davis, J. O.
- Crouch End High School, Hornsey.  
Monkton House, Cardiff.

#### English History.

1. Hughes, A. G.
  1. Pryor, H. L. L.
- Wellington College, Salop.  
Wilsford House School, Devizes.

#### Geography.

1. Vickers, Miss K.
  2. Roseby, R.
  2. Stott, Miss M.
- Westmorland Road School, Newcastle-on-Tyne.  
Eversley School, Stamford.  
Girls' Grammar School, Levenshulme, Manchester.

#### Arithmetic.

1. Dodson, F. N.
  2. Frazer, R. F.
- Hutton Grammar School, nr. Preston.  
Oakes Institute, Walton, Liverpool.

#### Algebra.

1. Graham, G. S.
  2. Blackman, W.
- Oakes Institute, Walton, Liverpool.  
Oakes Institute, Walton, Liverpool.

#### Geometry.

1. Jones, G.
  1. Frazer, R. F.
  2. Morris, A.
- Municipal Technical Institute, Portsmouth.  
Oakes Institute, Walton, Liverpool.  
The High School for Boys, Croydon.

#### Mechanics.

1. Frazer, R. F.
  2. Bates, J.
- Oakes Institute, Walton, Liverpool.  
The High School for Boys, Croydon.

#### Book-keeping.

1. Bennell, Miss M.
  1. Chester, D.
- Crouch End High School, Hornsey.  
Grammar School, Shoreham.

#### Mensuration.

1. Hughes, A. G.
  1. Bennell, Miss M.
  2. Luce, R. W.
- Wellington College, Salop.  
Crouch End High School, Hornsey.  
Jersey Modern School, St. Heliers.

#### French.

1. Arnaud, Miss C.
  2. Townson, C. H.
- Private tuition.  
Hutton Grammar School, nr. Preston.

#### German.

1. Seifert, J. H.
  2. Meyer, W. A.
- St. John's College, Finsbury Park.  
Wellington College, Salop.

#### Dutch.

1. Vogel, Miss F.
- Convent of the Holy Cross, Cala.

#### Latin.

1. Cooper, A. H.
  1. Nowill, J. C. F.
- Warner's College, Richmond.  
Wellington College, Salop.

#### Light and Heat.

1. Hughes, A. G.
  2. Allinson, A. P.
  2. Morris, H.
- Wellington College, Salop.  
Wellington College, Salop.  
Wellington College, Salop.

#### Magnetism and Electricity.

1. Dodson, F. N.
- Hutton Grammar School, nr. Preston.

#### Chemistry.

1. Coope, G. M.
  2. Hughes, A. G.
  2. Lyell, H. R.
- Hutton Grammar School, nr. Preston.  
Wellington College, Salop.  
Private tuition.

#### Natural History.

1. Belmar, Miss M.
  1. Godfrey, Miss N. G.
- St. Joseph's Convent, Castris, St. Lucia.  
The Red Maids' School, Bristol.

#### Drawing.

1. Gieve, Miss G. M.
  2. Allinson, A. P.
  2. Dodson, F. N.
- Crouch End High School, Hornsey.  
Wellington College, Salop.  
Hutton Grammar School, nr. Preston.

#### Political Economy.

1. Davis, B. L.
- Penistone Grammar School.

#### Shorthand.

1. Keyse, C. C.
  2. Sargent, Miss B. F.
- Bradley High School for Boys, Newton Abbot.  
Royal Masonic Institution for Girls, Clapham Junction.

#### Domestic Economy.

1. Stott, Miss M.
- Girls' Grammar School, Levenshulme, Manchester.

CLASS LIST — BOYS.

N.B.—The small italic letters denote that the Candidate to whose name they are attached was distinguished in the following subjects respectively:—

- |                         |                 |                                |                             |                           |
|-------------------------|-----------------|--------------------------------|-----------------------------|---------------------------|
| a. = Arithmetic.        | e. = English.   | h. = History.                  | ms. = Mensuration.          | sc. = Elementary Science. |
| al. = Algebra.          | f. = French.    | he. = Hebrew.                  | mu. = Music.                | sh. = Shorthand.          |
| b. = Botany.            | g. = Geography. | i. = Italian.                  | nl. = Natural History.      | sp. = Spanish.            |
| bk. = Bookkeeping.      | ge. = German.   | l. = Latin.                    | p. = Political Economy.     | tr. = Trigonometry.       |
| ch. = Chemistry.        | geo. = Geology. | ll. = Light and Heat.          | ph. = Physiology.           | w. = Welsh.               |
| d. = Drawing.           | gm. = Geometry. | m. = Mechanics.                | phys. = Elementary Physics. | z. = Zoology.             |
| do. = Domestic Economy. | gr. = Greek.    | ma. = Magnetism & Electricity. | s. = Scripture.             |                           |

The small figures <sup>1</sup> and <sup>2</sup> prefixed to names in the Second and Third Class Lists denote that the Candidates were entered for the First and Second Classes respectively.

In the addresses, Acad. = Academy, C. or Coll. = College, Coll. S. = Collegiate School, Comm. = Commercial, Conv. = Convent, Elem. = Elementary, End. = Endowed, Found. = Foundation, H. = House, Hr. = Higher, Inst. = Institute, Int. = International, Inter. = Intermediate, Poly. = Polytechnic, Prep. = Preparatory, P.T. = Pupil Teachers, S. = School, Sec. = Secondary, Tech. = Technical, Univ. = University.

FIRST CLASS [or SENIOR].

Honours Division.

- Hughes, A.G. *ch. gm. ms. ft. ch.*  
Wellington Coll., Salop
- Dodson, F.N. *a. al. f. ma. d.*  
Hutton Gram. S., nr. Preston
- Allinson, A.P. *a. f. ge. lt. ch. d.*  
Wellington Coll., Salop
- Davis, B.L. *s. e. al. l. p.*  
Penistone Gram. School
- Frazier, R.F. *a. al. gm. m. ch.*  
Oakes Inst., Walton, Liverpool
- Graham, G.S. *a. al. gm. m. ms.*  
Oakes Inst., Walton, Liverpool
- Brown, A. s. High S. for Boys, Croydon
- Mercer, F. *a. al. gm. ms.*  
Oakes Inst., Walton, Liverpool
- Coope, G.M. *gm. m. ch.*  
Hutton Gram. S., nr. Preston
- Wright, N. a. St. Helen's Coll., Southsea
- Oldham, E. *gm. ch.* Wellington Coll., Salop
- Pryor, H.L.L. *s. h. bk. ms.*  
Wilsford H., Devizes
- Mogue, J.C. Mercers' S., Holborn, E.C.
- John, C.T.R. Wellington Coll., Salop
- Roberts, L.D. *ch.* Wellington Coll., Salop
- Blackman, W. *a. al. m.*  
Oakes Inst., Walton, Liverpool
- Ford, R. *gm. f.* High S. for Boys, Croydon
- Nowill, J.C.F. *ft.* Wellington Coll., Salop
- Morris, H. *ms. lt. ch.*  
Wellington Coll., Salop
- Higson, R. *f. ch.*  
Hutton Gram. S., nr. Preston
- Miles, H.A. *al. sh.*  
Mercers S., Holborn, E.C.
- Jones, G. *a. gm.*  
Municipal Tech Inst., Portsmouth
- Thiemann, H. a. Highbury High S., N.
- Townson, C.H. *a. f. ch.*  
Hutton Gram. S., nr. Preston
- Wall, A.C. Mercers' S., Holborn, E.C.
- Baudains, G. La C. a.  
Jersey Modern S., St. Heliers
- Hughes, W.O. *gm. ch. d.*  
Wellington Coll., Salop
- Arnold, H.J. *gm.* Brentwood High School
- Dowsett, E.F. *f. sh.*  
Mercers' S., Holborn, E.C.
- Luce, R.W. *ms.*  
Jersey Modern S., St. Heliers
- Rogers, W.T. *gm. bk.*  
Brentwood High School
- Woodhouse, R.A.  
Hutton Gram. S., nr. Preston
- Davis, J.O. *s. e.* Monkton H., Cardiff
- Seifert, J.H. *bk. ge.*  
St. John's Coll., Finsbury Park, N.
- Doidge, H.F. Greystones S., Scarborough
- Hews, R. s. Kendrick Boys' S., Reading
- Neill, F.A. Wellington Coll., Salop
- Whyte, C.C. f. St. Mary's Coll., Harlow

FIRST CLASS [or SENIOR].

Pass Division.

- Bates, J. *a. gm. m.*  
High S. for Boys, Croydon
- Dowell, A.W.  
St. John's Coll., Finsbury Park, N.
- Litchfield, J.B. f.  
Winchester H., Redland Road, Bristol
- Jones, L. d. High S. for Boys, Croydon
- Morris, A. *a. al. gm.*  
High S. for Boys, Croydon
- Mayell, E. *a. d. sh.* Private tuition
- Baker, A.G. s. Brentwood High School
- Chester, D. *bk.* Gram. S., Shoreham
- Ishtkens, G.A. *gm.* Gram. S., Shoreham
- Bennett, H.N. *gm. l.* Eltham College
- Cook-Watson, S.C. d. Newcastle Modern S.

- Montgomery, W.G.  
Hutton Gram. S., nr. Preston
- Kendrick, H.M. d. Wellington Coll., Salop
- Barton, T. Grosvenor Coll., Carlisle
- Curtis, W.G. *gm.* Brentwood High School
- Roseby, R. s. g. Eversley School, Stamford
- Allison, C.M. Wellington College, Salop
- Hobbs, R.W. Whitechurch Gram. S.
- Morgan, R.C. al. Wellington Coll., Salop
- Smith, S. l. High S. for Boys, Croydon
- Pullen, R.E. e.  
Winchester House, Redland Rd., Bristol
- Burgess, R.W.A. Private tuition
- Simpson, J.B. *ch.* Wellington Coll., Salop
- Lasham, F.W. Kendrick Boys' S., Reading
- Cullimore, R.T. *bk.* Gram. S., Ongar
- Bateman, F. Mercers' S., Holborn, E.C.
- Cunningham, L. *ch.*  
Hutton Gram. S., nr. Preston
- Slater, W.M. Ellesmere S., Harrogate
- Stewart, W.G. Private tuition
- Dodson, H. d. Hutton Gram. S., nr. Preston
- McLarny, J. Catholic Gram. S., St. Helens
- Chapman, W.B. *al. gm.*  
Winchester House, Redland Rd., Bristol
- Huddy, G.P.B. Wadhams School, Liskeard
- Sandford, E.T.  
Oakes Inst., Walton, Liverpool
- Brittan, S.V. St. Leonards Coll. School
- Goodwin, S.E.  
High S., Liverpool Inst., L'pool
- Hillier, J.S.  
Hillmartin Coll., Busby Place, N.W.
- Williams, J.H. Wellington Coll., Salop
- Archibald, H. Hutton Gram. S., nr. Preston
- Bell, F.A. *sh.* Mercers' S., Holborn, E.C.
- Mallinson, E. Ellesmere S., Harrogate
- Mercer, E.D. *a. ch.*  
Oakes Inst., Walton, Liverpool
- Seggie, A. Kendrick Boys' S., Reading
- Taylor, T.T. Wadhams S., Liskeard
- Honywill, S.J. *sh.*  
Bradley High S., Newton Abbot
- Brown, E.J. High S. for Boys, Croydon
- Heyes, W. Southport Modern School
- Perkins, B.St.G. *bk.* Colebrook H., Bognor
- Wahn, W.H. Oakes Inst., Walton, Liverpool
- Ferguson, G. Oakes Inst., Walton, Liverpool
- Hickin, W.J. Private tuition
- Speeding, C. High S. for Boys, Croydon
- Bray, T. a. Eversley S., Stamford
- Ingram, R.S. Wilsford H., Devizes
- Wright, R.W.M. *ch. d.* Private tuition
- Ward, J. s. Brentwood High School
- Robinson, F. Hutton Gram. S., nr. Preston
- Sutton, R. *gm.* Private tuition
- Dent, G.R. d. Ellesmere S., Harrogate
- Stone, E. Brentwood High School
- Dipnall, A.H.F. Mercers' S., Holborn, E.C.
- Jones, R.W.T. Wellington Coll., Salop
- Saggerson, E.J. *gm.*  
Canning St. Council S., Newcastle-on-T.
- Mellor, J. Private tuition
- Swindell, J.G. *bk.* Gram. S., Shoreham
- Handley, A.P. Private tuition
- Huntley, H.E. d.  
The College, Weston-s-Mare
- Blackmore, F.R.  
Kendrick Boys' S., Reading
- Newbery, B. St. Leonards Coll. S.
- Richards, C.T. Gram. S., Newton Abbot
- Burge, G.A.  
Winchester H., Redland Rd., Bristol
- Gill, E.L. Private tuition
- Bell, S.J. Hutton Gram. S., nr. Preston
- Brown, W.J. Hutton Gram. S., nr. Preston
- Keyse, C.C. *sh.*  
Bradley High S., Newton Abbot
- Pletts, J.St.V. a. Private tuition
- Bairsto, A. Oakes Inst., Walton, Liverpool
- Heald, T.P. *ms.* Sandwich School
- Lloyd-Williams, I.H. Private tuition
- Williams, H. Oakes Inst., Walton, Liverpool

- Jacob, C. Boys' Coll. S., Aldershot
- Balling, L. Dunheved Coll., Launceston
- Cooper, A.H. l. Warner's Coll., Richmond
- Stockley, C.I. High S. for Boys, Croydon
- Anderson, C. Private tuition
- Field, O.E. a. Private tuition
- Trafford, F. Private tuition
- Milner, F.E. Private tuition
- Allman, F.G.  
Gram. S., Chorlton-cum-Hardy
- Bateman, L. Farnworth Gram. S.
- Gill, H.W. Castle Hill S., West Ealing
- Hollidge, A. Tollington Park College, N.
- Bunker, S.W. e. Private tuition
- Hamilton, D.J. M. Oakes Inst., Walton, Liverpool
- Rogerson, W.A.  
Hutton Gram. S., nr. Preston
- Grainger, G.H. Private tuition
- Taverner, L.  
St. John's Coll., Finsbury Park, N.
- Aikenhead, R. Schorne S., Winslow
- Humphris, J.H. Bristol Gram. School
- Kauenhoven, C.T. Warner's Coll., Richmond
- Woodhill, H. s. Gram. S., Chorlton-cum-Hardy
- Fletcher, G.H. P.T. Centre, Brierley Hill
- Soar, V.D. Gram. S., Shoreham
- Harrison, F. Gram. S., Wallington
- Moore, I.S. Hutton Gram. S., nr. Preston
- Forsyth, F.L. d. High S. for Boys, Croydon
- Marland, W.R. Bourne College, Quinton
- Stack, J.M. Private tuition
- Vinicombe, L. f. Private tuition
- Cotton, W.M.V. Gram. S., Shoreham
- Lyell, H.R. *ch.* Private tuition
- Nias, R.D. High S. for Boys, Croydon
- Roberts, J.C. Cliftonville Coll., Margate
- Copplestone, T.S. Bible Christian Coll., Shebbear
- Shillitee, R.J. Private tuition
- Cross, J.R. Wadhams School, Liskeard
- Cundall, H.W. Grammar School, Ongar
- Pulling, R.J.C. *bk.*  
St. John's Coll., Finsbury Park, N.
- Wignall, R.M. Hutton Gram. S., nr. Preston
- Cochrane, R.  
St. John's Coll., Finsbury Park, N.
- Lloyd, J. Whitechurch Gram. S.
- McGeer, J.F. Private tuition
- Moore, H.W. The Philological S., Southsea
- Sewell, R. Grosvenor Coll., Carlisle
- Whipp, W.A.S. *bk.* Gram. S., Shoreham
- Anderson, E.H. d. High S. for Boys, Croydon
- Cornelissen, L.S. Ripley Comm. School
- Keyes, E.T. Private tuition
- Frampton, W.J. Gram. S., Worthing
- Nixon, J.B. Newcastle Modern School
- Evans, B.J. Private tuition
- Mainhood, A.E. s. Winchmore Hill Coll. Schools
- Marshall, L.E. J. Cliftonville Coll., Margate
- Scott, H. s. Private tuition
- Antill, W.S. St. Dunstan's Coll., Margate
- Grice, H.G. Colebrook H., Bognor
- Turner, T. Private tuition
- Coleman, R.J. Leigh Hall Coll., Leigh-on-Sea
- Graham, A.W. Hutton Gram. S., nr. Preston
- Hill, W.G. *sh.* Private tuition
- Humphreys, L. *ms.*  
Oakes Inst., Walton, Liverpool
- Day, A. Hillmartin Coll., Busby Place, N.W.
- Edwards, A.T. Monkton House, Cardiff
- Giddens, F.C. Private tuition
- Markham, C.G. Chaloner's S., Braunton
- Watkins, G.S. Grammar S., East Finchley

- Cave, C.F. Private tuition
- Cleveland, F.H. Bedford Gram. School
- Davies, T. Private tuition
- Duncan, C.E. Ellesmere S., Harrogate
- Le Gresley, E.F. f. St. James' Coll. S., St. Heliers
- Archbold, K. Castle Hill S., West Ealing
- Eastham, L. Hutton Gram. S., nr. Preston
- Holloway, E.C. Broomy Hill Acad., Hereford
- Jones, L.E. Holloway Coll., Holloway
- Goode, J.W. Grammar S., Shoreham
- Greenland, R. Oakes Inst., Walton, Liverpool
- Radford, S.D. d. Ripley Comm. School
- Skey, C.H. Cliftonville Coll., Margate

SECOND CLASS [or JUNIOR].

Honours Division.

- Allinson, B.P. *gm. m. f. ge. ch. d.*  
Wellington Coll., Salop
- Curtis, S.J. *f. ch.* Kendrick Boys' S., Reading
- Hughes, R.G. *h. g. bk. phys.*  
Wilsford H., Devizes
- Meadows, J. *e. g. gm. ch. d.*  
St. Olave's Gram. S., S.E.
- Hinxman, A.J. *g. f. ch.* Devizes Secondary S.
- Chiverton, E.F. a. Buckingham Place Acad., Landport
- Counce, A.E. *a. ch.*  
Oakes Inst., Walton, Liverpool
- Shaw, C. *ch. d.* Wellington Coll., Salop
- Marshall, W.L. *gm. f.* Argyll H., Sunderland
- Colver, E.W. *a. gm. phys. ch. d.*  
Wellington Coll., Salop
- Stevens, J.G. f. Private tuition
- Bartlett, A.F. Colebrook H., Bognor
- Smith, H.C.E. *phys. ch. d.*  
Portsmouth Council Secondary S.
- Speed, A.V. *f. d.* Croad's S., King's Lynn
- Johns, W.A. Private tuition
- Boyce, A.J. *lt. d.*  
Portsmouth Council Secondary S.
- Rhodes, N. *a. f. ch.* Wellington Coll., Salop
- Thompson, T.H. *gm. ch.*  
Training College Model S., York
- Bolton, H.A. *a. al. d.*  
West Jesmond S., Newcastle-on-T.
- Millard, J. *h. f.* Private tuition
- Mynott, A.F. *al. gm.* Brentwood High S.
- Watson, W.H. *g. bk. phys.*  
Wilsford H., Devizes
- Joy, P. a. Private tuition
- Bell, A. g. Chillingham Rd. S., Heaton
- Lillywhite, H. *al. f.* St. Mary's Coll., Harlow
- Davies, H. a. *ms.*  
Training College Model S., York
- Naylor, V. *gm. f. ch.*  
Gram. S., Ashton-in-Makerfield
- Oat, P.W. *m.* Wellington Coll., Salop
- Grimwade, S.A. *gm. ch.*  
Wellington Coll., Salop
- Arnold, L.M. St. Helen's Coll., Southsea
- Lane, H.D. *gm.* Private tuition
- Wright, T.R. a. Canning St. Council S., Newcastle-on-T.
- Atkinson, H. *ch. d.* Devizes Secondary S.
- King, S.C. *gm.* Fitzroy S., Crouch End
- Garrett, J.G. *f. ch.*  
Gram. S., Ashton-in-Makerfield
- Le Breton, T. Jersey Modern S., St. Heliers
- Pryor, J.W. *g. phys.* Wilsford H., Devizes
- Bernstein, D.C. King Edward VI. High S., Birmingham
- Ridley, W.W. *al. gm.*  
Canning St. Council S., Newcastle-on-T.
- Williams, E.R. f. 55 Tavistock Pl., Plymouth
- Stevens, W.T. *g. St. Olave's Gram. S., S.E.*
- Brooks, F.T. *g.* Wilsford H., Devizes
- Burgess, N.E. *ch.* Whitechurch Gram. S.

BOYS, 2ND CLASS, HONS.—Continued.
Lessey, W. Private tuition
Stubbs, E.E. ch. d. Technical S., Stalybridge
Bradbury, C.H. m. ch. Wellington Coll., Salop

Hart, G.J. a. King Edward VI. Middle S., Norwich
Lee, J.H. gm. High S. for Boys, Croydon
Pickering, J. ch. Gram. S., Ashton-in-Makerfield
Whitten, M.G. gf. Private tuition
Carr, R.N. a.d. Westmorland Rd. S., Newcastle-on-T.

Peel, C.P. T. Xaverian Coll., Manchester
Wallis, M.J.T. St. Olave's Gram. S., S.E.
Barry, E.H. Gram. S., Shoreham
Bolton, H.F. Hutton Gram. S., nr. Preston
Carte, A.S. bk. Cranbrook Coll., Ilford

Edwards, J.H. ch. Gram. S., Ashton-in-Makerfield
Gruse, F. St. Olave's Gram. S., S.E.
Packham, A.L. bk. Bedford H., Folkestone
Wilson, S. a.d. Jersey Modern S., St. Heliers
Chatfield, S.C. Esplanade H., Southsea
Jenkins, P. ch. d. Gram. S., Ashton-in-Makerfield

Logan, J. Westmorland Rd. S., Newcastle-on-T.
Lunn, P.R. St. Olave's Gram. S., S.E.
Burrill, W.E. al. Chillingham Road S., Heaton
Haworth, A.H. Hutton Gram. S., nr. Preston
Marshall, J.L. f. Argyle H., Sunderland
Pearson, H.W.R. bk. f. Weymouth Modern S.

Tidswell, F.H. a.d. Christ Church Higher Elem. S., Southport
Ware, F.H. Brunswick H., Maidstone
Wooster, C.D.H. ch. St. Paul's S., W. Kensington
Bertram, G.W. Oxenford H., St. Lawrence, Jersey
Gosling, F.H. al. gm. Gram. S., Coleford
Olive, W. f. Penketh School

Cook, E. Gram. S., Ashton-in-Makerfield
Fawcett, S.H. d. Westmorland Rd. S., Newcastle-on-T.
Gaverick, R.H. Gunnersbury S., Chiswick
Rumsey, F. a. Buckingham Pl. Acad., Landport
Seymour Jones, D. ch. d. Wellington Coll., Salop

Barnes, J.N. Alderman Norman's Endowed S., Norwich
Cockrell, F. St. Mary's Coll., Harlow
Reckitt, C.R. f. Private tuition
Banks, E. Avenue H., Sevenoaks
Berry, S.H. Pannal Ash Coll., Harrogate

1Tiffen, T.W. Grosvenor Coll., Carlisle
1Tanner, E.A. Esplanade H., Southsea
1Ailams, H.A. bk. Commercial Coll., Acton
1Mackenzie, F.L. Jersey Modern S., St. Heliers
1Logie, R. University S., Southport
1Williams, W.P. ms. Ardington Park Coll., Chiswick
1Watkinson, H.L. Farnworth Gram. S.
1Grant, S.T. High S. for Boys, Croydon
1Brown, L.N.F. gm. St. Helen's Coll., Southsea
1Buckell, W.D.W. a.gm. St. Helen's Coll., Southsea
1Percival, J.B. Private tuition
1Howarth, W. Hutton Gram. S., nr. Preston
1Smith, S. Bourne College, Quinton
1Aston, T.F. Grammar S., Coleford
1Morris, J.H.C. Oxford House, Thame
1Ritchie, H.V.O. a.sh. Croad's S., King's Lynn
1Starkey, J.B.C. Private tuition
1Van Beers, J.F.a. Mercers'S., Holborn, E.C.
1Lamond, J. Skerry's Coll., Newcastle-on-Tyne

1O'Neill, T.F. Private tuition
Boatswain, T.O. Weymouth Modern S.
1Boughton, F. Tollington Park College, N.
1Marden, W. Private tuition
Halsey, F.W. St. Aubyn's, Woodford Green
Harris, C.J.P. Brighton Gram. School
Lockton, J.H. gm. Dulwich College
1Metzner, R.E. Richmond Hill School
Newton, R.C. Barton S., Wisbech
Procter, H.J. Private tuition
Williams, A.G. The College, Weston-s-Mare

1Clarke, J.H.P. sh. Cambridge H., Camden Rd., N.
1Compton, W.W. Grammar S., Shoreham
Harris, W.S. f. Private tuition
Pond, C.F. Colebrook H., Bognor
Powell, S.J. It. Stationers' Co.'s, Hornsey
Symons, H.J.H. Blundells School, Tiverton
1Jamieson, R.M. Westmorland Rd. S., Newcastle-on-T.
1Jones, C.V.H. Private tuition
Martin, C.F. f. Mercers' S., Holborn, E.C.
Russell, B.E. ms. Brentwood High School

Broom, F.J. Castle Hill S., West Ealing
Lee, H. Weymouth Modern School
Lyon, N. f. St. Mary's Coll., Harlow
1Millard, J.E. Private tuition
1Bush, D. ma. ch. Hutton Gram. S., nr. Preston
Evans, N.D. Private tuition
Morjan, N.F. Castle Hill S., West Ealing
Paget, C. ch. Devizes Secondary S.
Shefford, A.D.E. Private tuition
Stevens, S.G. d. Kendrick Boys' S., Reading
Stubbs, C.A. Gram. S., Shoreham
1Stubbs, W. Oakes Inst., Walton, Liverpool
Trigg, C.T. Westmorland Rd. S., Newcastle-on-T.

1Barnard, E.J. St. John's Coll., Finsbury Park, N.
Bramble, J. Canning St. Council S., Newcastle-on-T.
1Humphreys, A.J. ms. Private tuition
Loyde, H.E. a. Steyne School, Worthing
Minett, H.G. Wilton Grove S., Taunton
Vaisey, C.N. Schorne S., Winslow
Bell, A. ch. Oakes Inst., Walton, Liverpool
1Bickerstaff, R. Oakes Inst., Walton, Liverpool
1Burt, J.L. g. bk. Lawn H., Clapham Rd., S.W.
Challacombe, W.V. St. Olave's Gram. S., S.E.
Hancock, A.G. St. Olave's Gram. S., S.E.
1Harte, J. Private tuition
Turner, E.P. Private tuition
Wolley, T.W.M. Wellington Coll., Salop

1Brook, E.A. Aldenham S., Elstree
1Clarke, T.P. Cambridge H., Camden Rd., N.
Clennens, E.W.S. sh. Cambridge H., Camden Rd., N.
Evans, L.C. gm. d. Gram. S., Coleford
Hopper, R.F. Private tuition
Housden, C.H. Private tuition
O'Sullivan, P.J. Private tuition
Sequeira, H.C. St. John's Coll., Finsbury Park, N.
Sharples, J.D. ch. Hutton Gram. School, nr. Preston
Thompson, W.G. f. Private tuition
Aubin, J.F.G. d. Easingwold Gram. S.
Chick, A.F. Brentwood High School
Green, J. Gram. S., Ongar
Lipinski, A.J. Private tuition
1Marsh, J.B. Catholic Gram. S., St. Helens
Newth, F.D. High S. for Boys, Croydon
Paul, A.N. Private tuition
Phillips-Jones, J.M. Private tuition
Ries, H.F. Oakes Inst., Walton, Liverpool
1Street, R. The Western College, Harrogate
White, C.L.B. f. Old College School, Carmarthen

1Bowly, G.E.L. ch. St. Paul's School, West Kensington
Day-Lewis, A.K. f. Private tuition
1Essex, E.B. Stationers' Co.'s S., Hornsey
Grammer, D. Brunswick H., Maidstone
1Jackson, F.K. The Western Coll., Harrogate
Lewis, S.R. Private tuition
Peak, N. Private tuition
Scott, J.D.S. ch. Private tuition
Stickland, H.J. St. Paul's School, West Kensington
Williaison, T.H. ch. Oakes Inst., Walton, Liverpool
1Ireland, A. Farnworth Gram. School
Mazinke, C.F.P. Mercers' S., Holborn, E.C.
McEwan, D. Private tuition
Outwin, S.G. bk. Commercial Coll., Acton
Place, T.K. Sandbach School
Poppy, T.R. Brentwood High School
Sutton, J.S. f. Modern School, Salisbury

1Davis, J.C. The College, Weston-s-Mare
Davis, T.W. High S. for Boys, Croydon
Green, J.N. d. Sandyford Rd. S., Jesmond
1Hadfield, E. Oakes Inst., Walton, Liverpool
Hancock, T.W. Private tuition
Makinson, J. Oakes Inst., Walton, Liverpool
1Thomas, A.E. Bourne College, Quinton
1Gillbanks, C.C.P. Lancaster Coll., W. Norwood
Middle, G.F. Oakes Inst., Walton, Liverpool
Pegler, H.J. f. Private tuition
Fridham, A.G. D. Private tuition
Salsbury, A.F. Private tuition
Smith, W.A. Grammar S., Ongar
1Stubbs, H.R. Grammar S., Worthing
Wilson, R.W.L. gm. High S. for Boys, Croydon
Young, J.A.C. Brentwood High School
Dale, F.C. d. Private tuition
Hatfield, M.B. a. Anerley College, S.E.
Jones, T.H. Mercers' S., Holborn, E.C.
Richards, L.H.P. f. Grammar School, Steyning
Taylor, K.G. Private tuition
1Thuan Ngammuang Private tuition
Tixley, H. Royal Gram. S., Whalley
Woodroffe, S.W. f. Steyne School, Worthing
Carruthers, F.C. f. Stoke Newington Gram. S.
1Hogben, F.L. Sandwiche School
Hutt, E.S. ch. Kingsholme S., Weston-s-Mare
Shoosmith, H.P. Private tuition
Swann, H.S. Private tuition
White, R.W. Private tuition
Cottam, T.E. a. Argyle H., Sunderland
Fox, R.A. Stonyhurst Coll., Blackburn
Harris, L.E. Mercers' S., Holborn, E.C.
1Horsburg, A.L. Oakes Inst., Walton, Liverpool
1Milroy, N.A. Oakes Inst., Walton, Liverpool
1Mytton, J. Grammar S., East Finchley
Page, S.G. Mercers' S., Holborn, E.C.
Rose, G.J.S. Private tuition
Salman, C. Kendrick Boys' S., Reading
Walker, T. d. Bailey School, Durham
1Whalley, T. Hutton Gram. S., nr. Preston
Chester, S.P. Private tuition
Cooper, T.J. Private tuition
Darrington, C.P. bk. Sandwiche School
1Dyke, W.A. Blue Coat S., Hereford
Faulkner, R.O. Grammar S., Shoreham
1Hutchinson, L.R. Cliftonville Coll., Margate
Maddock, D.W. a.f. Wellington Coll., Salop
1Manaton, G.A. s. Chaloner's S., Braunton
Smallwood, R.W. d. Oakes Inst., Walton, Liverpool
Truscott, J.H. Froebel H., Devonport
Whiston, L.A. ch. Queensberry S., Longton
Wilson, C.H. Private tuition
Brown, H.V. Private tuition
Bubb, I.W. Mercers' S., Holborn, E.C.
Chambers, A.V. al. Brunswick H., Maidstone
Coleman, J.H. d. Gram. S., Newton Abbot
Farbrother, E.S. Private tuition
Howey, H. ms. Chillingham Rd. S., Heaton
Kaufman, S.H. Mercers' S., Holborn, E.C.
Orr, F. a. Worlington Secondary S.
Ritchie, J.F. Winchester H., Redland Rd., Bristol
Short, J. Farnworth Gram. School
Wainwright, L.A. Grammar S., Shoreham
1Wilson, H.J. Private tuition
1Baskcomb-Harrison, H.W. Private tuition
Bell, G.F. Hutton Gram. S., nr. Preston
1Helliwell, H.C. Farnworth Gram. S.
Savage, P. f. Dulwich College
1Stock, W.H. Littleton H., Knowle, Bristol
1Chennells, C.A. ms. Ripley Comm. School
Forrest, A.G. ge. Private tuition
Heal, W.C. Brunswick H., Maidstone
Turner, F.W. bk. Grammar S., Worthing
Ambrose, L.G. bk. Bedford House, Folkestone
Dunford, L.B. Newcastle Modern School
Green, R.W. King Edward VI. Middle S., Norwich
Hughes, S.W. d. Sandyford Rd. S., Jesmond
Matthews, C.H. Broomy Hill Acad., Hereford
Moss, H.G. New College, Worthing
Owen, H.R. Sandbach School
Poulton, H.M. Grammar S., Coleford
1Prain, S.D. Jersey Modern S., St. Heliers
1Walker, H.L. Cunack Institute, Moorfields, E.C.
Whitworth, L. f. Grammar School, Hyde
Zozopulo, M. P. Grammar School, Shoreham

1Boraston, J.P.S. Grammar School, Sale
Clarke, R.S. The Philosophical S., Southsea
1Crosby, W.N. Modern College, Harrogate
1Fletcher, R.K. High S. for Boys, Croydon
Henwood, R.J. The College, Weston-s-Mare
Hoyle, F.W. Oakes Inst., Walton, Liverpool
1Hughes, J. Whitcheur Gram. School
Le Rongetel, J.H. f. d. Gunnersbury S., Chiswick
Plimmsoll, C.T. Private tuition
Tirrell, W. d. The Academy, Crews
1Botting, S.H. Ripley Comm. School

Brunning, A.E. f. Grammar S., Steyning
Egleton, C.E. Mercers' S., Holborn, E.C.
Jordan, G. Private tuition
Jones, J.A. Wellington Coll., Salop
Murphy, E.F. High S. for Boys, Croydon
Thomson, J.S. Mercers' S., Holborn, E.C.
Baines, C.J.D. King's School, Worcester
1Mosse, C.H. Private tuition
1Shaw, L. Huddersfield College Modern S.
Catmur, H.A. a. Cliftonville Coll., Margate
Craven, H.D. d. Wellington Coll., Salop
Drew, A.J. ch. Eastbourne College
Edwards, A.V. St. Olave's Gram. S., S.E.
Gordon, N. a. Ellesmere S., Harrogate
Gray, W.S. Castle Hill S., West Ealing
Howcroft, R.S. Hutton Gram. S., nr. Preston
1Johnson, W.L. The Western Coll., Harrogate
1Keen, A.E. Castle Hill S., West Ealing
Lacey, S.F. Oxenford H., St. Lawrence, Jersey
Milner, L. Hutton Gram. S., nr. Preston
Robb, W.A. Barton School, Wisbech
Swire, F. Private tuition
Anderson, A.D. Private tuition
Denny, V.E.G. Ellesmere S., Harrogate
Fisher, C.F. f. Licensed Victuallers' S., Lambeth
Golledge, V.H. Crewkerne Gram. School
1Hewitson, W.A. Bailey School, Durham
Jessop, J. Edgkaba Acad., Birmingham
1Seabrook, C.A. Private tuition
Carr, C.M.L. Charlton Academy, Bath
Finlow, L.W. Sandbach School
Laurens, S. Jersey Modern S., St. Heliers
Moss, J. d. Private tuition
Nicholls, G.H. Buckingham Place Acad., Landport
Start, A.G. Colebrook House, Bognor
Townend, B.R. Southport Modern School
Castle, G. Sandwiche School
Davies, S.H. bk. Grammar S., Ongar
Dickson, A. bk. Grammar S., Shoreham
Percy, A. F. The School, Wellington Rd., Taunton
Pritchard, G.P. Private tuition
Rymer, R. Hutton Gram. S., nr. Preston
Thomas, C.E. Simon Langton S., Canterbury
Aldred, A. Kettle House, Blackpool
Beaver, R.P. ch. d. King Edward VI. Middle S., Norwich
Butler, M.K. Private tuition
Carrick, F. Kirkby Stephen High S.
Cope, C.E. Grammar S., Coleford
DeWinton, K. St. Mary's Coll., Harlow
1Fox, H.D. Private tuition
Goulbourn, A.J. Oakes Inst., Walton, Liverpool
Kiddle, T.W. Wingfield College, Dover
Long, J. gm. Canning St. Council S., Newcastle-on-T.
McDonald, R.W.A. Westgate Hill Council S., Newcastle-on-T.
Mitchell, R. d. Queensberry S., Longton
Napier-Ford, G.S. Dulwich College
Partridge, W.L. St. Olave's Gram. S., S.E.
Patterson, K.S. Canning St. Council S., Newcastle-on-T.
1Roberts, J. Bradley High S., Newton Abbot
Stiell, W.F. ch. Manor House, Clapham
Stone, H.E. Grammar S., Worthing
1Treasure, C.W. Private tuition
Wharrier, J. Canning St. Council S., Newcastle-on-T.
Baines, T.H. bk. Mossley Halls, Congleton
1Bolton, J.N. Grammar S., Shoreham
Brasher, W. f. Cliftonville Coll., Margate
Brett, J.W. King Edward VI. Middle S., Norwich
Fox, W. Private tuition
Harcastle, D.N. Taunton House, Brighton
Huntington, N.J. Maida Vale School, W.
Jones, L.M. Private tuition
Mason, J.E. Kendrick Boys' S., Reading
Norris, A.V. ch. Private tuition
Pinder, T.D. Grammar S., Shoreham
Storey, A. Chillingham Rd. S., Heaton
Swan, W. Newcastle Modern School
Arthur, R. Barnmouth County School
1Brumit, J.R. Private tuition
Cassidy, C.M. Mercers' S., Holborn, E.C.
Evans, D.E. Porth Hr. Grade School
Fleck, W.H. Private tuition
Grace, D.F. Broomy Hill Acad., Hereford
Greengrass, W. St. Mary's Coll., Harlow
Guest, D.G. Brentwood High School
McKinney, A.T. Oakes Inst., Walton, Liverpool
Morris, L.F. d. Private tuition
Schroter, A.N. Oakes Inst., Walton, Liverpool
Snell, E. Etor H., Southend-on-Sea
Topping, W. Hutton Gram. S., nr. Preston
1Welch, R.F. The Palace S., Bewdley
Woods, F.H. St. Lawrence Coll., Ramsgate
Banister, R. Hutton Gram. S., nr. Preston
Brooks, L. f. Private tuition
Cotton, C. Eversley S., Stamford
McCabe, C. d. Commercial S., Maidstone

SECOND CLASS [or JUNIOR].

Pass Division.

1Tiffen, T.W. Grosvenor Coll., Carlisle
1Tanner, E.A. Esplanade H., Southsea
1Ailams, H.A. bk. Commercial Coll., Acton
1Mackenzie, F.L. Jersey Modern S., St. Heliers
1Logie, R. University S., Southport
1Williams, W.P. ms. Ardington Park Coll., Chiswick
1Watkinson, H.L. Farnworth Gram. S.
1Grant, S.T. High S. for Boys, Croydon
1Brown, L.N.F. gm. St. Helen's Coll., Southsea
1Buckell, W.D.W. a.gm. St. Helen's Coll., Southsea
1Percival, J.B. Private tuition
1Howarth, W. Hutton Gram. S., nr. Preston
1Smith, S. Bourne College, Quinton
1Aston, T.F. Grammar S., Coleford
1Morris, J.H.C. Oxford House, Thame
1Ritchie, H.V.O. a.sh. Croad's S., King's Lynn
1Starkey, J.B.C. Private tuition
1Van Beers, J.F.a. Mercers'S., Holborn, E.C.
1Lamond, J. Skerry's Coll., Newcastle-on-Tyne

BOYS, 2ND CLASS, Pass—Continued.  
 McClay, N. Oakes Inst., Walton, Liverpool  
 Neeves, F. Private tuition  
 Nicholson, W.A. f. Mercers' S., Holborn, E.C.  
 Pickston, J. Preparatory Classes, Altrincham  
 Sewell, F.R. Modern Coll., Harrogate  
 Simpson, S.E.M. Mossley Hall School, Congleton  
 Stent, E.C. f. Private tuition  
 Stephenson, A.E. ch. Devizes Secondary S  
 Wenham, G. High S. for Boys, Croydon  
 Wright, R.L. Derby School  
 Campbell, W.S. Private tuition  
 D'Authreau, W. Jersey Modern S., St. Heliers  
 Gordon, M. f. Grammar S., Chorlton-cum-Hardy  
 Hanafin, J.G. Archbishop Tenison's Gram.  
 S., Leicester Sq., W.C.  
 Haward, G. Sandwich School  
 Haylar, H.F. gm. Clark's Coll., Chancery Lane, W.C.  
 Jordan, E.W. Belmore House, Cheltenham  
 Rowson, L.F. Private tuition  
 Shepherd, W.J. Easingwold Gram. School  
 Ware, W.H. Brunwick House, Maidstone  
 Willan, L.S. f. Scarborough College  
 Williams, E.R. w. Private tuition  
 Buckle, F. al. Eton H., Southend-on-Sea  
 Butler, B.P. Brunswick H., Maidstone  
 Griffiths, J.O. bk. d. Southport Modern School  
 Johnson, E.C. Royal Gram. S., Whalley  
 Jones, W. St. Mary's Coll., Harlow  
 Morgan, D.T. Tutorial School, Penarth  
 Preston, J.R. d. Mercers' S., Holborn, E.C.  
 Smith, J.R. d. Private tuition  
 Trelease, W.R.A. Probuss School  
 Wakley, P.J. Private tuition  
 Wilson, S.A. Mercers' S., Holborn, E.C.  
 Armstrong, J.E. Winchester H., Redland Rd., Bristol  
 Brock, F. St. Boniface's Coll., Plymouth  
 Coulin, W. St. Mary's Coll., Harlow  
 Davey, T. F. Wallingbrook S., Chulmleigh  
 Edwards, C. ch. Queensberry S., Longton  
 Hanna, J. f. Argyle House, Sunderland  
 Le Feuvre, P. Harleston H., St. Lawrence, Jersey  
 Ordish, B.W.A. Mercers' S., Holborn, E.C.  
 Peters, J. Hutton Gram. S., nr. Preston  
 Stott, G.H. Oakes Inst., Walton, Liverpool  
 Thounless, R.H. King Edward VI. Middle S., Norwich  
 Tilbury, R.W. The Philological S., Southsea  
 Virgin, A.H. The School, Bishop Stortford  
 Baldwin, J.B. Oakes Inst., Walton, Liverpool  
 Billsborough, W. d. Hutton Gram. S., nr. Preston  
 Cole, P.J. Chaloner's S., Braunton  
 Gough, N. The Palace S., Bewdley  
 Hall, B. Swindon High School  
 Heasman, G.H. Private tuition  
 Jones, R.H. Canning St. Council S., Newcastle-on-T.  
 Linley, H.H. Ellesmere S., Harrogate  
 Piper, H.S.T. Private tuition  
 Robertson, G.D. Charterhouse S., Godalming  
 Savins, W.G. Ripley Comm. School  
 Stevens, A.M. Holloway Coll., Holloway  
 Turner, E. Jersey Modern S., St. Heliers  
 Westcombe, M. Avenue H., Sevenoaks  
 Williams, C.R. Blue Coat S., Hereford  
 Bailey, E. Hutton Gram. S., nr. Preston  
 Bailley, R.S. High S. for Boys, Croydon  
 Brade, R. Christ Church Hr. Elem. S., Southport  
 Cutter, T. Westmorland Rd. S., Newcastle-on-T.  
 Doherty, J. The Palace S., Bewdley  
 Hubble, H. Maidstone Gram. School  
 Jones, H.W.G. Long Ashton S., Bristol  
 Linzee, J.I. Private tuition  
 Pynch, G. Private tuition  
 Rowbottom, F. Private tuition  
 Townson, N.H. Hutton Gram. S., nr. Preston  
 Waterland, W.J.H. Ellesmere S., Harrogate  
 Brown, T.A. Private tuition  
 Cooke, H.H. Private tuition  
 Darison, H.A. Private tuition  
 Elleray, J.P. Private tuition  
 Goodman, H. Westmorland Rd. S., Newcastle-on-T.  
 Hazeldine, S. Gram. S., Ashton-in-Makerfield  
 Jennings, E.A. Private tuition  
 Marshall, T.H. Chillingham Rd. S., Hutton  
 Milner, J.F.A. Gram. S., Shoreham  
 Tasker, R.H. Brynmelyn S., Weston-s.-Mare  
 Trelease, J.S. Wadhams S., Liskeard  
 Vieweg, C.J. Mercers' S., Holborn, E.C.  
 Watson, G.W. Churwell College, Leeds  
 Arbery, F.J. Private tuition

Buckell, J.H.W. bk. St. Helen's Coll., Southsea  
 Dennes, T.C. Kendrick Boys' S., Reading  
 Dixey, S.G.W. Southampton Boys' College  
 Feuton, G.A. al. Thornton Heath School  
 Fox, F.S.T.G.J. Private tuition  
 Harrison, W.H.G. Cusack Institute, Moorfields, E.C.  
 Lakeman, A.L. Uxbridge Prep. School  
 Norman, J. Grammar S., Devizes  
 Row, W.L. Regent Street Intermediate S., Plymouth  
 Shillaker, H. Eversley School, Stamford  
 Sky, C.O. Cliftonville Coll., Margate  
 Walton, H.B. Bourne College, Quinton  
 Allen, J.E. High S. for Boys, Croydon  
 Braby, C.P. Private tuition  
 Burrows, H. Brunswick H., Maidstone  
 Harries, T.I. Private tuition  
 Jenkinson, E. Private tuition  
 Poole, C.G. bk. St. James' Coll. S., St. Heliers  
 Rawson, P.H. Private tuition  
 Spencer-Smith, E. St. Olave's Gram. S., S.E.  
 Turner, A.G. Oakes Inst., Walton, Liverpool  
 Weakley, H. High S. for Boys, Croydon  
 Wray, A.E. d. Deacon's S., Peterborough  
 Atkinson, J. Grosvenor College, Carlisle  
 Bunc, W.A. The Palace S., Bewdley  
 Cook, J.H. Gram. S., Ashton-in-Makerfield  
 Despicht, H.J. Grammar S., Spalding  
 Ellams, T.C. Oakes Inst., Walton, Liverpool  
 Elmer, L.W. King Edward VI. Middle S., Norwich  
 Hoare, R.A. Cambridge H., Camden Rd., N.  
 Mallet, H. 33 Tavistock Place, Plymouth  
 Watt, G.W.H. Avenue House, Sevenoaks  
 Barlow, L. Schorne School, Winslow  
 Berry, P. Douglas School, Cheltenham  
 Christian, P. Grammar S., Shoreham  
 Deeks, G. f. Eastmans, Winchester  
 England, B.H. ch. Grammar School, Steyning  
 Fry, S.P.J. Private tuition  
 Judge, E. King's School, Grantham  
 Matthews, G.L. New College, Worthing  
 Morgan, W.L. Private tuition  
 Palmer, C.N. Private tuition  
 Sparks, E. d. Mercers' S., Holborn, E.C.  
 Traise, E. Eversley School, Stamford  
 Wilkinson, F.W. Melbourne College, Anerley  
 Green, E.C. Mercers' S., Holborn, E.C.  
 Hindell, A. ch. Queensberry S., Longton  
 Joslen, W.V. Grammar S., Shoreham  
 Oxley, R.H. Castle Hill S., West Ealing  
 Pullan, W.G. Private tuition  
 Slater, W.G. West Jeamond S., Newcastle-on-Tyne  
 Walford, R.S. Cambridge H., Camden Rd., N.  
 White, H.G. Weymouth Modern School  
 Boundy, S.W. South Molton United Higher S.  
 Durrant, T. Ripley Comm. School  
 King, J.H. Private tuition  
 McMillan, G.J.F. Private tuition  
 Nicoll, E.S. St. Helen's Coll., Southsea  
 Penhale, R.H. The Middle S., Holsworthy  
 Perrott, R.C. Bradley High S., Newton Abbot  
 Pitt, A. Southampton Boys' College  
 Wood, A.E. bk. Broomy Hill Acad., Hereford  
 Briscoe, E.V. Charlecoote, Worthing  
 Bristol, H. St. Mary's Coll., Harlow  
 Coote, P.E. Cambridge H., Camden Rd., N.  
 Easthope, R.I. Hutton Gram. S., nr. Preston  
 Halsall, R. Grammar School, Eccles  
 Maiden, A. Hutton Gram. S., nr. Preston  
 Nelson, K.M. Radley College, Abingdon  
 Newbury, J. St. Leonard's Coll. School  
 Parson, S. d. Brunt's Technical S., Mansfield  
 Pearson, A.J.S. bk. Brunswick H., Maidstone  
 Radnor, C.B. Cliftonville Coll., Margate  
 Seymour, W.J. Kendrick Boys' S., Reading  
 Stevier, E.P.H. Schorne S., Winslow  
 Tilly, H.S. Denstone College  
 Wills, T. Charlton Academy, Bath  
 Ashworth, W. Private tuition  
 Barton, H.R. gm. Private tuition  
 Davies, W. Private tuition  
 Dilly, H.A.R. Canning St. Council S., Newcastle-on-T.  
 Gibbings, W.C. Royal Gram. S., Whalley  
 Goodbody, S.R. Brunswick H., Maidstone  
 Moore, G.K. Private tuition  
 Morgan, A.D. Private tuition  
 Muir-Smith, H. Eastbourne College  
 Allpress, G. Jersey Modern S., St. Heliers  
 Copeland, J. ch. Private tuition  
 Diment, R. Canning St. Council S., Newcastle-on-T.  
 Druce, C.G. Bourne College, Quinton  
 Frayne, J.P. d. Catholic Gram. S., St. Helens  
 Griffiths, A.H. Southport Comm. College  
 Hall, J.R. Canning St. Council S., Newcastle-on-T.  
 Lewis, J.M. f. Private tuition

Scott, C.H. Southampton Boys' College  
 Seedhouse, C.N. Private tuition  
 Watson, A. Hutton Gram. S., nr. Preston  
 Cole, R.W. Belmore H., Cheltenham  
 Davidson, L.F. Castle Hill S., West Ealing  
 Daws, C.H.W. ch. 57 Lansdowne St., Hove  
 Derine, E.R. King's School, Grantham  
 Edenborough, H. St. Mary's Coll., Harlow  
 King, F. Normanby Council School  
 Smith, J.M. Private tuition  
 Stockbridge, P.J. Grammar School, Redditch  
 Watson, J. Private tuition  
 West, D.A. St. Dunstan's Coll., Margate  
 With, P.M. d. The Vale S., Maida Vale, W.  
 Boothroyd, R.H. f. St. Paul's H., St. Leonards-on-Sea  
 Else, V.R. Brunswick H., Maidstone  
 Emmerson, C.L. Private tuition  
 Guest, R.V. The Palace S., Bewdley  
 Husband, W.H.G.M. Wadhams School, Liskeard  
 Jones, F. Cusack Institute, Moorfields, E.C.  
 Ottaway, R.J. King Edward VI. Middle S., Norwich  
 Rourke, E.F. ch. Private tuition  
 Saiyut. Private tuition  
 Sowden, H. gm. Private tuition  
 Wall, H. Private tuition  
 Banks, C.N. Oakes Inst., Walton, Liverpool  
 Charlton, J.E. Private tuition  
 Geach, E.C. St. Winifred's S., Torquay  
 Lansdown, C.S. St. Winifred's S., Torquay  
 Price, J.S. Blue Coat S., Hereford  
 Prout, A.S. St. Olave's Gram. S., S.E.  
 Putman, E.W. Churwell College, Leeds  
 Tomlinson, R. Royal Gram. S., Whalley  
 Weldon, F.E. Modern Coll., Harrogate  
 Bourjeaurd, P.A.E. St. Edmund's Coll., Ware  
 Bradock, R.P. Gram. S., Fulwood, Preston  
 Cane, L.J. Holloway Coll., Holloway  
 Colley, R. Gram. S., Fulwood, Preston  
 Gregory, R. Civil Service Acad., Victoria  
 Buildings, Manchester  
 Higgins, R.D. The Palace S., Bewdley  
 Martin, H.E. The School, Leighton Buzzard  
 Nicholls, A.A. African Training Inst., Colwyn Bay  
 Nichols, G.L. Victoria Tutorial Coll., S.W.  
 Allday, C.R. Private tuition  
 Bissell, M.J. Bourne College, Quinton  
 Evans, E.J. Littleton H., Knowle, Bristol  
 Hills, F.W. bk. St. Leonards Coll. School  
 Holley, B.N. Read's Gram. S., Tuxford  
 Stansby, E.F. Grammar S., Ongar  
 Wall, D. Mercers' S., Holborn, E.C.  
 Bacon, W.D. Brunswick H., Maidstone  
 Cattiff, J.F. Heaton Pk. Rd. Councils., Newcastle-on-T.  
 Clark, B.G. King Edward VI. Middle S., Norwich  
 Gray, J.H. Steyne School, Worthing  
 LeCoulthard, F. Jersey Modern S., St. Heliers  
 Llewellyn, L. Gram. S., Ashton-in-Makerfield  
 Marchant, F. Brunt's Technical S., Mansfield  
 Missing, C.H. Brunswick H., Maidstone  
 Rice, A.E. Grammar S., Shoreham  
 Cooper, W. Private tuition  
 Dix, E.M. Grammar S., Shoreham  
 Henderson, J.L. Oakes Inst., Walton, Liverpool  
 Jenkins, A.L. Old College S., Carnarthen  
 Kelsall, J.J. Penketh School  
 Kemp, J.W. Private tuition  
 Morrison, J.H. Chillingham Rd. S., Heaton  
 Northey, H.G. Chaloner's S., Braunton  
 Perrin, G. Farnworth Gram. School  
 Rodolfo, N.A. f. Gram. S., Taplow  
 Saunders, G.V. Private tuition  
 Spence, T. Tutorial Evening Classes, Perth  
 Bickerstaffe, S.T. Hutton Gram. S., nr. Preston  
 Choidas, T. Grammar S., Shoreham  
 Corder, R.G. Holloway Coll., Holloway  
 Denize, A. Jersey Modern S., St. Heliers  
 Elliott, A. Private tuition  
 Holborn, R.H. bk. St. Leonards Coll. School  
 Howard, N.B. Royal Gram. S., Whalley  
 Jackson, N.H. Oakes Inst., Walton, Liverpool  
 Mulliner, N. Private tuition  
 Phipps, C.A. bk. Grammar S., Ongar  
 Williams, J.J. ch. Skerry's College, W.C.  
 Baden, R. Gunnersbury S., Chiswick  
 Baines, W.E. Private tuition  
 Clarke, J.G.H. Newcastle Modern School  
 Flynn, E.R.H. Private tuition  
 Frye, J.D. d. Marylebone Central Hr. Grade S., W.  
 Machin, J.C. Mossley Hall S., Congleton  
 Miller, A.F. f. Rise School, Sunningdale  
 Remington, C. Thornton Heath School  
 Robinson, F.S. Lancaster Coll., W. Norwood

Stembridge, N. St. J. Bourne College, Quinton  
 Triscott, J.C. Oxenford H., St. Lawrence, Jersey  
 Chalk, G. Private tuition  
 Haddow, R.V. King Edward VI. Middle S., Norwich  
 Lomas, H. Southampton Boys' College  
 Munton, C.E.F. Manor House, Clapham  
 Norris, A.T. Wilton Grove S., Taunton  
 Parham, W.H. Private tuition  
 Parsonage, F.H. The Academy, Crewe  
 Rutter, L.D. St. Joseph's Acad., Kennington Rd., S.E.  
 Scott, H. Modern College, Harrogate  
 Shields, T.V.P. Oxford House, Thames  
 Trevor-Roper, R.D. Grammar S., Newton Abbot  
 Bryan, C.E.W. Private tuition  
 Chapman, G.L. Canning St. Council S., Newcastle-on-T.  
 Gascoigne, A.J. Private tuition  
 Hadfield, J.H. Private tuition  
 Jackson, B.W. Walsall Comm. College  
 McClelland, S. Private tuition  
 Wagstaffe, W.T. f. St. Winifred's S., Torquay  
 Wilks, H.D. Russell Endowed S., Ledbury  
 Young, L. Grammar S., Shoreham  
 Armstrong, P. Brunt's Technical S., Mansfield  
 Burgess, C.R. Queensberry School, Longton  
 Gardner, W.P. Oakes Inst., Walton, Liverpool  
 Goldthorpe, J.R. Northern Inst., Leeds  
 Nicholls, C. Farnworth Gram. School  
 Salisbury, J.S. Kingsholme S., Weston-s.-Mare  
 Torkington, F. Grammar School, Hyde  
 Walters, L.C. Melbourne College, Anerley  
 Wilson, A. Barton School, Wisbech  
 Crossley, C.M. Wallingbrook S., Chulmleigh  
 Dalton, R.G.F. Licensed Victuallers' S., Lambeth  
 Drake, A.J.C. Private tuition  
 Hodgson, T.H. Grosvenor College, Carlisle  
 Jameson, A.F. Read's Grammar S., Tuxford  
 Lake, N. Wilton Grove S., Taunton  
 Lowry, A.J. Mercers' S., Holborn, E.C.  
 Rowe, A.R. Skerry's Coll., Southampton  
 Sebata, M.W. African Training Inst., Colwyn Bay  
 Sinclair, R.F. Ripley Comm. School  
 Buer, W.B. f. Private tuition  
 Godwin, B.H. Grammar S., Shoreham  
 Gray, D.H. Jersey Modern S., St. Heliers  
 Hall, J. Sandbach School  
 Harrison, W.G. Grammar School, Sale  
 Owers, T.F. Taunton School  
 Roberts, W.E. Hutton Gram. S., nr. Preston  
 Sandwith, G. Worthington Secondary S.  
 Spicer, E.J. Cliftonville Coll., Margate  
 Stirling, W.T. d. St. Dunstan's Coll., Catford  
 Taylor, H. Christ Church Hr. Elem. S., Southport  
 Vowles, L.G. Private tuition  
 Baxter, G.S. Warner's College, Richmond  
 Bowden, C.E. The Palace S., Bewdley  
 Chapman, G.C. Bourne College, Quinton  
 Fenwick, T.F. Newcastle Modern School  
 Hanwood, H.B. Thornton Heath School  
 Manaton, A.J. Chaloner's S., Braunton  
 Nicholson, G.L. Preston Gram. S., Stokesley  
 Powell, H.W. Licensed Victuallers' S., Lambeth  
 Stewart, J.H. Private tuition  
 Stott, C.S. Hutton Gram. S., nr. Preston  
 Chilver, H.P. Mercers' S., Holborn, E.C.  
 Diver, O.H. St. Leonards Coll. School  
 Le Lievre, C. Jersey Modern S., St. Heliers  
 Oldham, E.C. St. James' Coll. S., St. Heliers  
 Roe, C.W. Skerry's Coll., Holborn, W.C.  
 Rushbrooke, S.A.W. Private tuition  
 Todd, F.J. Greystones S., Scarborough  
 Williamson, J.H. Barton School, Wisbech  
 Abraham, S.C. Kensington Coaching Coll., W.  
 Blanksby, F. Hutton Gram. S., nr. Preston  
 Blumenthal, M. Private tuition  
 Compton, J.S. Grammar S., Shoreham  
 Corsam, J.C. Dulwich College  
 Fitzsimmons, P. St. Boniface's Coll., Plymouth  
 Hurst, S.H. f. St. Peter's Coll., Westminster  
 Marston, A.D. Manor House, Clapham  
 Ball, A.D. Private tuition  
 Clarke, C.G. Catholic Gram. S., St. Helens  
 Crawford, N.S. Private tuition  
 Daniel, P. Private tuition  
 Elliott, W.J.R. The School House, Leighton Buzzard  
 Freeman, W. Normanby Council School  
 Harvey, W.G. Private tuition  
 Kendall, R. St. Leonards Coll. School  
 Orpwood, J.E. Cliftonville Coll., Margate  
 Reid, K.B. Newcastle Modern School

**BOYS, 2ND CLASS, Pass—Continued.**  
 Rice-Oxley, A. E. Private tuition  
 Simpson, A. M. Margate Comm. School  
 Tatton, G. P. 26 Stapleton Hall Rd., N.  
 Turner, A. M. New College, Worthing  
 Armstrong, A. R. Paddington High School  
 Burton, C. E. St. Mary's Coll., Harlow  
 Garrett, L. A. High S. for Boys, Croydon  
 Lawrenson, E.  
 Christ Church Hr. Elem. S., Southport  
 Lock, S. H.  
 King Edward VI. Middle S., Norwich  
 Pickett, J. S. Brentwood High School  
 Steytler, R. P. Melbourne College, Anerley  
 Turner, T. C. Wadham School, Liskeard  
 Barrett, A. Lancaster Coll., Morecambe  
 Boot, W. E. Private tuition  
 Chester, C. C. St. Leonards Coll. School  
 Hennemann, I. gm.  
 St. John's C. E. School, Grimsby  
 Maitland, C. J. High S. for Boys, Croydon  
 Richards, J. B.  
 Christ Church Hr. Elem. S., Southport  
 Tuttle, T. Xaverian College, Manchester  
 Walker, S. J. Grammar School, Ealing

**THIRD CLASS.**

**Honours Division.**

Meyer, W. A. a.f.g.d.  
 Wellington Coll., Salop  
 Hitching, W. W. e.a.d.g.m.f. Manchester  
 Warehousemen & Clerks' Orphan S.,  
 Cheadle Hulme  
 Block, E. g.a.d.g.m.d.  
 Westmorland Rd. S., Newcastle-on-T.  
 Goodchild, A. T. e.a.n.l.  
 St. John's Coll., Finsbury Park, N.  
 Steward, H. e.a.g.m. Wellington Coll., Salop  
 Le Masurier, C. G. e.f.  
 St. Clements S., Jersey  
 Coulton, F. E. e.a.a.d.d.  
 Cathcart Coll., Cathcart Hill  
 Cookson, C. F. e.a.f. Wellington Coll., Salop  
 Stone, R. F. e.a.g.m.d.  
 Wellington Coll., Salop  
 Marsden, H. M. e.a.n.d.  
 Hutton Gram. S., nr. Preston  
 Hamon, C. s.h.a.d.  
 Jersey Modern S., St. Heliers  
 Hope, W. M. e.g.m. Manchester Warehousemen  
 & Clerks' Orphan S., Cheadle Hulme  
 Walpole, R. O. Oxford House, Thame  
 Wilson, M. D. e.a.l.g.m.d.  
 Manchester  
 Warehousemen & Clerks' Orphan S.,  
 Cheadle Hulme  
 Senior, G. P. e.a.n.l. Wellington Coll., Salop  
 Cliff, N. D. e.a.n.l.f. High School, Torquay  
 Law, H. s.e.a.n.l. Manchester Warehousemen  
 & Clerks' Orphan S., Cheadle Hulme  
 Lye, P. A. s.e.a.l.  
 Cathcart Coll., Cathcart Hill  
 Walters, L. A. e.a. Melbourne Coll., Anerley  
 Hoult, H. N. a.d. Manchester Warehousemen  
 & Clerks' Orphan S., Cheadle Hulme  
 Pratt, D. W. e.a.d. Cliftonville Coll., Margate  
 Jeffery, H. E. e.a.n.l.  
 St. John's Coll., Finsbury Park, N.  
 Johnson, S. R. g.d. Wilsford H., Devizes  
 Lawton, N. K. e.a.n.d.  
 Endcliffe Coll., Sheffield  
 Goodwin, T. H. s.e.a.n.d.  
 St. Martin's Gram. S., Scarborough  
 Green, W. J. e.a.d.  
 Onkes Inst., Walton, Liverpool  
 Greenhalgh, J. e.a.n.d.  
 Farnworth Gram. School  
 Starbuck, L. S. s.g.a.  
 St. John's Coll., Finsbury Park, N.  
 Le Cornu, J. H. d.  
 Jersey Modern S., St. Heliers  
 Rouse, C. A. e.a. Blue Coat S., Hereford  
 Shaw, G. S. e.a.d. Wellington Coll., Salop  
 Bromley, E. V. e.a.d.  
 Hutton Gram. S., nr. Preston  
 Glegg, E. K. e.a. Wellington Coll., Salop  
 Usher, T. G. d. Argyle H., Sunderland  
 Beavis, F. E. e.a.  
 St. John's Coll., Finsbury Park, N.  
 Cookson, O. E. e.a.g.m.  
 Wellington Coll., Salop  
 Fleury, W. e.f.d.  
 Jersey Modern S., St. Heliers  
 Mackenzie, J. S. e.a.  
 Steyne School, Worthing  
 Sutcliffe, G. H. a.d. Manchester Warehousemen  
 & Clerks' Orphan S., Cheadle Hulme  
 Allison, F. G. e.a.a.f.  
 Wellington Coll., Salop  
 Bussey, A. a.  
 King Edward VI. Middle S., Norwich  
 Entwistle, S. V. e. Cliftonville Coll., Margate  
 Kean, J. S. a. Modern School, Gravesend  
 Merrick, L. a. Blue Coat S., Hereford  
 Nelson, H. a.d. Farnworth Gram. School  
 Parsley, W. O. a. Melbourne Coll., Anerley  
 Davis, R. E. a. Wilsford House, Devizes  
 Hudson, W. A. s.  
 Southdown Coll., Eastbourne

McMillan, B. L. e.d.  
 Charlton Academy, Bath  
 Pendleton, H. C. a.l.  
 St. Leonards Coll. School  
 Sankey, J. B. e.ch.d. Penketh School  
 Barlow, H. a.d. Mossley Hall S., Congleton  
 Harland, W. s.e.a.  
 St. Martin's Gram. S., Scarborough  
 Lunn, E. D. e.a.n.d.  
 King Edward VI. Middle S., Norwich  
 Martin, E. C.  
 St. John's Coll., Finsbury Park, N.  
 Scott, W. S. a.n.l.  
 Westmorland Rd. S., Newcastle-on-T.  
 Wright, S. R. Wadham School, Liskeard  
 Hews, H. C. a.d. Godwin College, Margate  
 Hogzins, T. E. e.d. Wellington Coll., Salop  
 Jennings, M. e. Saham College, Watton  
 Prior, P. D. T. a.n.d.  
 King Edward VI. Middle S., Norwich  
 Tucker, A. E. a.b.k.d.  
 St. Winifred's S., Torquay  
 Cook, H. f. Wellington Coll., Salop  
 Denny, F. A. a.a.l.d. New College, Worthing  
 Dudley, C. A. a.l. Oxford House, Thame  
 Durbin, C. E. M. e.a. Taunton School  
 Heald, J. H. e.a.  
 Hutton Gram. S., nr. Preston  
 Pengeley, H. E. s.d.  
 Steyne School, Worthing  
 Stott, H. a.n.l. Hutton Gram. S., nr. Preston  
 Tiddy, E. H. e.d. Wellesley H., Forest Hill  
 Womersley, V. G. a.  
 St. Leonards Coll. School  
 Cornish, F. e.a.f. Wellington Coll., Salop  
 Hornsby, H. R. g.m.d.  
 Clifton Coll., Harrogate  
 Madge, H. M. A. s.e.a.d.  
 South Molton United Higher S.  
 Watchorn, S. s.e.a. Eversley S., Stamford  
 Colverson, A. D. d. Laugharne S., Southsea  
 Dowling, A. e.  
 Oxenford H., St. Lawrence, Jersey  
 James, A. B. a. Blue Coat S., Hereford  
 King, A. G. e.f.l. Private tuition  
 Pitts, C. S. Bedford House, Folkestone  
 Recland, W. P. e.d.  
 Licensed Victuallers' S., Lambeth  
 Romeril, A. J. a.f.  
 Harleston H., St. Lawrence, Jersey  
 Scrivener, A. W. e.d.  
 Abbotsford S., Folkestone  
 Spaul, E. J. a.d.  
 King Edward VI. Middle S., Norwich  
 Watson, R. W. e. Scarborough College  
 Bartlett, W. G. e.a.d.  
 Bradley High S., Newton Abbot  
 Bennion, T. R. g.a.  
 Onkes Inst., Walton, Liverpool  
 Buck, A. J. e.a.n.l. Gram. S., Shoreham  
 Chappell, W. A. e.a.n.l.  
 Finsbury Park Coll., Green Lanes, N.  
 Dodd, A. F. e.f. St. Mary's Coll., Harlow  
 Elliott, G. e.g.m.d.  
 Canning St. Council S., Newcastle-on-T.  
 Horton, R. K. d. Cliftonville Coll., Margate  
 Houllibecq, F. G. St. Clement's S., Jersey  
 Hutchings, W. R. a.b.k.  
 St. Winifred's S., Torquay  
 Latham, E. R. e.a.d.  
 Wellington Coll., Salop  
 Marshall, W. E. a.d.  
 The Middle S., Holsworthy  
 Moody, W. a.d.  
 Catholic Gram. S., St. Helens  
 Pryor, E. J. e.a.f.d.  
 King Edward VI., Middle S., Norwich  
 Schreier, R. S. a. Grammar S., Shoreham  
 Sook, a.l.g.m.d. Private tuition  
 Wright, W. G. H. e.f.f.  
 Westbury H., Southsea  
 Bennett, A. d. Farnworth Gram. School  
 Chapman, J. W. d. Argyle H., Sunderland  
 Clark, G. J. e. Kendrick Boys' S., Reading  
 Collier, F. H. D. g.a.n.l.  
 Boys' High S., Erdington  
 Fell, J. B. e.f.l. Scarborough College  
 Fletcher, G. S. e. Godwin College, Margate  
 Holgate, B. R. e.g.  
 Grammar S., Fulwood, Preston  
 Kenyon, R. e.n.l.  
 Onkes Inst., Walton, Liverpool  
 Latham, E. B. s.e.  
 St. Aubyn's, Woodford Green  
 Lewis, W. E. a.d. Blue Coat S., Hereford  
 MacParlane, J. M. e.a.d.  
 Grosvenor Coll., Carlisle  
 Morton, W. e.a. Argyle H., Sunderland  
 Perry, A. M. e.a.d. Belmore H., Cheltenham  
 Phillips, H. S. e.a.d. Taunton School  
 Robinson, F. M. Brentwood High School  
 Steele, H. R. e.a.d. High S. for Boys, Croydon  
 Welfare, S. A. a. Brunswick H., Maidstone  
 Bartlett, L. F. e.a. Colebrook H., Bognor  
 Blake, O. H. s.d. Cliftonville Coll., Margate  
 Fairlie, B. Norman H., West Didsbury  
 Gantlett, E. R. F. a. Belmore H., Cheltenham  
 Hodke, G. a. Brunswick H., Maidstone  
 Hughes, F. C. Commercial College, Acton  
 Joutle, J. S. a. Brentwood High School  
 Lee, H. B. g.d. Pembroke Coll., Harrogate

Loader, C. P.  
 St. John's Coll., Finsbury Park, N.  
 Sargent, T. P. a.d. Modern School, Gravesend  
 Thompson, E. a.  
 St. Boniface's Coll., Plymouth  
 Waylett, J. R. a.n.l.  
 High S. for Boys, Croydon  
 Ashwell, W. B. a.d.  
 Brunswick H., Maidstone  
 Dean, J. W.  
 St. John's Coll., Finsbury Park, N.  
 Evans, L. H. P. a. St. Leonards Coll. School  
 Fitton, W. M. a. Southport Comm. College  
 Hepper, E. R. a.g. Wellington Coll., Salop  
 Lanning, W. H. e.a.  
 Weymouth Modern School  
 Newsome, S. a.g.m. Scarborough College  
 Pettit, S. M. d. Devonshire H., Orpington  
 Richardson, A. W. Steyne School, Worthing  
 Royley, H. a. Farnworth Gram. School  
 Shaw, J. S. e. Wellington Coll., Salop  
 Thomas, R. Q. St. Aubyn's, Woodford Green  
 Wemmoth, L. J. d. Wadham S., Liskeard  
 Brooks, W. H. e. Kendrick Boys' S., Reading  
 Cooke, H. B. e.a.d.  
 St. Helen's Coll., Southsea  
 Craven, J. M. F. e.d. Wellington Coll., Salop  
 Dickinson, H. a. Manchester Warehousemen  
 & Clerks' Orphan S., Cheadle Hulme  
 Harrison, H. g.d.  
 Canning St. Council S., Newcastle-on-T.  
 Horton, H. F. e. Saham College, Watton  
 Pattison, R. W. a. e.  
 St. John's Coll., Finsbury Park, N.  
 Robinson, H. S. e.  
 Hutton Gram. S., nr. Preston  
 Wale, R. H. s. Cathcart Coll., Cathcart Hill  
 Watt, J. A. d. Avenue House, Sevenoaks  
 White, H. A. e.g.m.  
 Weymouth Modern School  
 Arnold, N. H. Manchester Warehousemen  
 & Clerks' Orphan S., Cheadle Hulme  
 Briggs, H. B. Churwell College, Leeds  
 Gibson, R. E. a.l.g.m.  
 Avenue House, Sevenoaks  
 Leybourn, F. P. Manchester Warehousemen  
 & Clerks' Orphan S., Cheadle Hulme  
 Page, P. e. St. Leonards Coll. School  
 Ramsden, E. F. e. Scarborough College  
 Simonsen, V. V. Colebrook School, Bognor  
 Wallis, T. d. Modern School, Gravesend  
 West, J. R. e.a. Kendrick Boys' S., Reading  
 Zietsch, C. J. B. d. Manchester Warehousemen  
 & Clerks' Orphan S., Cheadle Hulme  
 Boulton, F. D. E. d.  
 King Edward VI. Middle S., Norwich  
 Braithwaite, D. C. New College, Harrogate  
 Chart, H. N. f.l.d.  
 St. Catherine's Coll., Richmond  
 Chitty, E. C. s.e.d. Wellesley H., Forest Hill  
 Curtis, L. C. a. Grammar S., Dawlish  
 Dowling, C. A. L. e.  
 The College, Weston-s.-Mare  
 Grisdale, M. d.  
 Southdown Coll., Eastbourne  
 Hetherington, T. a.d.  
 Westmorland Rd. S., Newcastle-on-T.  
 Holroyd, C. F. Southport Comm. College  
 Horncastle, R. W. b.k. Onsegate S., Selby  
 Jenner, P. A. a. Brunswick H., Maidstone  
 Matthews, I. Broomy Hill Acad., Hereford  
 McGowan, A. G. h. Manchester Warehousemen  
 & Clerks' Orphan S., Cheadle Hulme  
 Morgan, D. F. J. s. St. Deiniol's S., Bangor  
 Pennington, W. F. d.  
 Greystones S., Scarborough  
 Piper, G. a. d. Argyle H., Sunderland  
 Rodmayne, P. H. a.d. Manchester  
 Warehousemen & Clerks' Orphan S.,  
 Cheadle Hulme  
 Robinson, A. H. e. Steyne S., Worthing  
 Rosendahl, S. C. e. Melbourne Coll., Anerley  
 Ruby, A. T. e.a.  
 Kendrick Boys' S., Reading  
 Tyler, B. A. e.f. Hainault H., Ilford  
 Cole, J. s.  
 King Edward VI. Middle S., Norwich  
 Cooke, E. W. s. Wilsford House, Devizes  
 Cumming, H. a.n.d.  
 Hutton Gram. S., nr. Preston  
 Dee, J. C. d. Northampton H., Cheltenham  
 Fairhurst, B. Catholic Gram. S., St. Helens  
 Frampton, H. L. a. Steyne S., Worthing  
 Hall, H. G. Mossley Hall S., Congleton  
 Holt, H. D. G. e.  
 Cambridge H., Camden Rd., N.  
 Johnson, V. R. W. a.d.  
 Kendrick Boys' S., Reading  
 Knight, A. e.d.  
 St. Boniface's Coll., Plymouth  
 Moiroud, A. f. Private tuition  
 Neave, H. d.  
 King Edward VI. Middle S., Norwich  
 Read, E. J. e.d.  
 Alderman Norman's Endow d. S., Norwich  
 Scott, K. C.  
 Thurlow, G. R. d.  
 St. Aubyn's, Woodford Green  
 Tregear, F. a.l.  
 Jersey Modern S., St. Heliers  
 Ward, S. Scarborough College  
 Woodworth, F. T. C. d.  
 Southport Comm. College

**THIRD CLASS.**

**Pass Division.**

Watson, E. C. a. Gram. S., Newton Abbot  
 Pinkstone, C. A. Stationers' S., Hornsey  
 Augur, H. G. d. Private tuition  
 Cox, H. Kendrick Boys' S., Reading  
 Renwick, G.  
 West Jesmond S., Newcastle-on-T.  
 Evans, S.  
 Westmorland Rd. S., Newcastle-on-T.  
 Cooper, A. P. d. Wellington Coll., Salop  
 Cove, S. H. Grammar S., Ongar  
 Mosch, H. F. Walsall Comm. College  
 Watson, F. Hutton Gram. S., nr. Preston  
 Compton, R. S. Grammar S., Shoreham  
 Goids, I. T. Grammar S., Steyning  
 Painter, H. Cliftonville Coll., Margate  
 Turner, J. H. Grammar S., Ongar  
 Burdon, E.  
 Westgate Hill Council S., Newcastle-on-T.  
 Candish, E. J. b.k.  
 St. Winifred's S., Torquay  
 Beare, B. A. Gram. S., Newton Abbot  
 Michelmore, E. High S. for Boys, Croydon  
 Saugster, W. M. Southport Modern School  
 Smart, A. H.  
 Buckingham Place Acad., Landport  
 Davis, R. J. Wilton Grove S., Taunton  
 Hatch, R. E.  
 King Edward VI. Middle S., Norwich  
 Jolley, R. B. Catholic Gram. S., St. Helens  
 Mills, J.  
 Westmorland Rd. S., Newcastle-on-T.  
 Payne, T. M. Tutorial School, Penarth  
 Nickels, E. H. Commercial S., Maidstone  
 Goggin, J. M. Greystones S., Scarborough  
 Whittingham, A. W.  
 Kendrick Boys' S., Reading  
 Pye, D. B. Cliftonville Coll., Margate  
 Zollner, A. W. Grammar School, Sale  
 Bittles, L.  
 Private tuition  
 Bowes, H. C. Preston Gram. S., Stokesley  
 Mallet, A. St. James' Coll. S., St. Heliers  
 Meadows, W. Wingfield Coll., Dover  
 Steventon, P. C. The Palace S., Bewdley  
 Stubbs, A. D. Bourne College, Quinton  
 Harper, E. C. Grammar S., Shoreham  
 Nichols, C. T.  
 Cloughton Coll. S., Birkenhead  
 Plant, F. ch. Queensberry S., Longton  
 Rimmer, J. W.  
 Christ Church Hr. Elem. S., Southport  
 Todd, W. A. Victoria Park S., Manchester  
 Chappell, H. R.  
 Finsbury Park Coll., Green Lanes, N.  
 Oldrin, B. C. J. Whitechurch Gram. S.  
 Stephenson, C. Bailey School, Durham  
 Whately, E. G. Modern Coll., Harrogate  
 Chapman, B. W. Grammar S., Scarborough  
 Speding, R. J. High S. for Boys, Croydon  
 Binstead, N. C. W. Steyne School, Worthing  
 Daykin, T. Brunt's Technical S., Mansfield  
 Mather, W.  
 Westgate Hill Council S., Newcastle-on-T.  
 Ridal, A. High S. for Boys, Croydon  
 Robson, B. S.  
 Westmorland Rd. S., Newcastle-on-T.  
 Williams, N. S. b.k. New College, Worthing  
 Austin, J. H.  
 Gram. S., Chorlton-cum-Hardy  
 Barrett, C. J. Pannal Ash Coll., Harrogate  
 Jackson, N. H. Bedford House, Folkestone  
 McCubbin, G. A.  
 Victoria Park S., Manchester  
 Pritchard, F. E. The Palace S., Bewdley  
 Roddy, S. St. Mary's Coll., Harlow  
 Sanders, F. G. Kent House Coll., Anerley  
 Towler, L. Gram. S., Chorlton-cum-Hardy  
 Bull, H. E. d. The Palace S., Bewdley  
 Colley, T. Gram. S., Fulwood, Preston  
 Dorton, H. S. f. Hamilton House, Ealing  
 Du Haume, C. P.  
 Jersey Modern S., St. Heliers  
 Entwistle, A. Farnworth Gram. School  
 Field, C. W. Wellington Coll., Salop  
 Glasper, W. A. a. Preston Gram. S., Stokesley  
 Greenwood, J. N.  
 Victoria Park S., Manchester  
 Hemphrey, M. R. K.  
 Brunswick House, Maidstone  
 Jinks, S. e.d. Hutton Gram. S., nr. Preston  
 Le Gros, J. e. Jersey Modern S., St. Heliers  
 Lye, G. H. s.a.d.  
 Cathcart Coll., Cathcart Hill  
 Nicholls, G. A. Steyne School, Worthing  
 Speck, B. Croft's School, King's Lynn  
 Woolstencroft, H. L. ch. d. Penketh School  
 Adderley, F. A. d. Boys' Coll. S., Aldershot  
 Bebe, A. D.  
 King Edward VI. Middle S., Norwich  
 Birch, H. J. a. Derwent House, Bamford  
 Bower, G. M. a. Wellington Coll., Salop  
 Crouch, E. S.  
 St. John's Coll., Finsbury Park, N.  
 Deakin, R. H. New College, Harrogate  
 Edgar, V. B.  
 Heaton Pk. Rd. Council S., Newcastle-on-T.

BOYS, 3RD CLASS, Pass—Continued.  
 2Etches, A. N. E. Grammar S., Scarborough  
 Fleney, W. J. Oakes Inst., Walton, Liverpool  
 2Gainsford, F. Avenue H., Sevenoaks  
 2Horton, S. C. e. a. St. Martin's Gram. S., Scarborough  
 Kitcat, A. J. e. a. St. Dunstan's Coll., Margate  
 2Lanker, S. R. Barton School, Wisbech  
 Lewis, A. St. Mary's Coll., Harlow  
 Nicolle, F. St. J. e. a. Oxfenford H., St. Lawrence, Jersey  
 2Parr, J. J. Catholic Gram. S., St. Helens  
 2Senior, P. F. Eton H., Southend-on-Sea  
 Shepherd, C. J. e. a. The Ferns, Thatcham  
 2Thomas, A. E. e. a. Froebel H., Devonport  
 2Verrill, W. G. Westgate Hill Council S., Newcastle-on-T.  
 Vince, W. J. D. King Edward VI. Middle S., Norwich  
 Wolfe, H. L. St. John's Coll., Finsbury Park, N.  
 Barnes, V. G. d. Grammar S., Shoreham  
 Bartlett, J. R. C. e. a. High S. for Boys, Croydon  
 Bowman, H. a. Greystones S., Scarborough  
 Coope, S. C. d. Hutton Gram. S., nr. Preston  
 Doble, C. T. a. Taunton School  
 Good, W. F. Westmorland Rd. S., Newcastle-on-T.  
 2Higgs, R. The Palace S., Bewdley  
 2Holston, G. Preston Gram. S., Stokesley  
 2Holford, A. R. King Edward VI. Middle S., Norwich  
 Hollingworth, A. H. d. Wellington Coll., Salop  
 Hoskin, A. M. Wadhams S., Liskeard  
 Jarvis, J. M. Wellington Coll., Salop  
 Kingston, S. C. d. Towcester School  
 Mann, C. d. High S., St. Luke's Rd., Torquay  
 Martin, P. L. a. Taunton H., Brighton  
 2Mathews, H. O. Private tuition  
 2Phelps, D. e. a. Swindon High School  
 2Pocock, N. S. D. Bolton H., Broadstairs  
 Reynolds, C. G. s. Colebrook H., Bognor  
 2Richmond, G. St. Mary's Coll., Harlow  
 Rogers, R. S. Oakes Inst., Walton, Liverpool  
 2Sinclair, D. Grammar School, Taplow  
 2Taylor, W. Brunswick H., Maidstone  
 2Walker, F. R. Arlington Park Coll., Chiswick  
 Ainslie, S. d. Canning St. Council S., Newcastle-on-T.  
 Bessant, F. R. Ripley Comm. School  
 Brett, E. E. bk. Brunswick H., Maidstone  
 Coombs, A. W. a. Milton Coll., Bexley Heath  
 Corin, T. E. G. e. a. Froebel H., Devonport  
 Dunstall, A. J. Modern School, Gravesend  
 Groom, R. e. a. Blue Coat S., Hereford  
 Helsby, B. d. Wellington S., Heaton Moor, Stockport  
 Kampe, G. E. a. High School, Hornsey Rise, N.  
 2Killingback, H. C. Grammar S., Ongar  
 Leaberry, P. e. Eversley S., Stamford  
 Lear, W. J. a. Grammar S., Dawlish  
 Marston, H. B. e. a. d. York Manor S., York  
 Penny, A. C. d. The College, Weston-s-Mare  
 Pounds, W. s. Milton Coll., Bexley Heath  
 Rushton, G. Farnworth Gram. School  
 Skinner, W. T. Oakes Inst., Walton, Liverpool  
 2Sparrow, V. E. St. Winifred's S., Torquay  
 Temple, J. O. Westmorland Rd. S., Newcastle-on-T.  
 Thompson, J. H. e. a. Penketh School  
 Urnston, F. J. Wellington Coll., Salop  
 Wolley, S. M. a. Wellington Coll., Salop  
 Woodford, H. e. Greystones S., Scarborough  
 Barrett, C. A. bk. d. Grammar S., Ongar  
 Brown, C. H. G. a. d. Weymouth Comm. School  
 2Calvert, A. Pannal Ash Coll., Harrogate  
 2Calvert, F. Pannal Ash Coll., Harrogate  
 Carruthers, P. G. E. s. Grosvenor Coll., Carlisle  
 Cooke, A. C. King Edward VI. Middle S., Norwich  
 Cooksley, C. E. d. The College, Weston-s-Mare  
 2Cookson, C. H. Hutton Gram. S., nr. Preston  
 Corby, A. E. e. Westmorland Rd. S., Newcastle-on-T.  
 Cross, E. a. Wadhams School, Liskeard  
 Evans, R. B. a. Grammar School, Ongar  
 Forrester, H. a. High S. for Boys, Croydon  
 Gibbs, S. e. St. Mary's Coll., Harlow  
 2Griffin, L. J. Taunton School  
 Harden, A. d. Southdown Coll., Eastbourne  
 Heard, G. T. a. Grammar School, Ongar  
 Higson, P. J. Bickerton H., Birkdale, Southport  
 Howard, J. d. Towcester School  
 Hyde, W. R. e. St. John's Coll., Finsbury Park, N.  
 2Jolly, H. Grammar S., Blackpool  
 Ledson, W. A. Oakes Inst., Walton, Liverpool

2Luscombe, C. V. Ripley Comm. School  
 Morgan, G. d. Jersey Modern S., St. Heliers  
 Peckham, H. L. L. Towcester School  
 2Pitchford, C. E. Grammar S., Shoreham  
 2Place, T. B. The Academy, Crewe  
 2Squire, W. South Molton United Higher S.  
 2Thompson, N. L. Ivel Bury, Biggleswade  
 (Anderson, B. A. High S. for Boys, Croydon  
 Atkinson, T. A. s. Royal Gram. S., Whalley  
 2Black, R. W. Hutton Gram. S., nr. Preston  
 Borland, D. D. High S. for Boys, Croydon  
 2Chalk, P. E. Woolston Coll., Southampton  
 Clarke, H. B. Penketh School  
 Close, W. G. a. Brunswick H., Maidstone  
 Croasdale, J. a. High S., South Shore, Blackpool  
 2Denize, P. B. Jersey Modern S., St. Heliers  
 Evershed, E. E. e. a. d. Colebrook H., Bognor  
 Graham, J. J. a. Canning St. Council S., Newcastle-on-T.  
 2Hartnell-Sinclair, L. J. High S. for Boys, Croydon  
 2Huelin, J. Jersey Modern S., St. Heliers  
 Jagge, E. A. e. f. Cliftonville Coll., Margate  
 Martin, P. a. d. Westmorland Rd. S., Newcastle-on-T.  
 2Pratley, R. J. Grammar School, Ongar  
 Price, L. W. e. Taunton School  
 Smethurst, W. K. Victoria Park S., Manchester  
 Stables, F. H. d. Read's Gram. S., Tuxford  
 2Tilly, G. High S. for Boys, Croydon  
 2Tomlinson, A. Ruskin S., Maidenhead  
 Vallis, L. J. d. Clifford S., Beckington, Bath  
 Vincent, A. W. N. e. High S. for Boys, Croydon  
 2Whitaker, H. Cloughton Coll. S., Birkenhead  
 Williams, E. A. e. f. Cambridge H., Camden Rd., N.  
 Williamson, H. E. Lytham College  
 (Bastin, S. S. d. Milton Coll., Bexley Heath  
 Brown, E. d. Grosvenor Coll., Carlisle  
 Burch, A. R. Taunton School  
 Chadwick, E. J. a. d. St. Martin's Gram. S., Scarborough  
 Clarke, W. E. Gram. S., Fulwood, Preston  
 Exell, A. S. High S., St. Luke's Rd., Torquay  
 2Fuller, H. A. St. Leonard's Coll. School  
 Gale, A. P. a. Read's Gram. S., Tuxford  
 Hoffman, F. J. Bradley High S., Newton Abbot  
 2Loria, F. Grammar School, Taplow  
 Mantou, M. D. Derwent House, Bamford  
 Metcalf, J. d. Westmorland Rd. S., Newcastle-on-T.  
 Morgan, V. R. e. Wellington Coll., Salop  
 Morris, L. e. St. Mary's Coll., Harlow  
 2Mullock, G. Oakes Inst., Walton, Liverpool  
 Peach, G. a. Elm Grove S., Exmouth  
 2Pearce, W. E. Boys' Council S., Treherbert  
 Reynolds, H. A. E. f. Bedford H., Folkestone  
 Rix, S. M. Grammar S., Shoreham  
 Robinson, G. d. Wellington Coll., Salop  
 Stone, J. St. Martin's Gram. S., Scarborough  
 Sullfield, H. H. a. d. Wellington S., Heaton Moor, Stockport  
 2Taylor, L. Bradley High S., Newton Abbot  
 2Triggs, J. G. Bienenheim H., Fareham  
 Walker, F. R. Avenue H., Sevenoaks  
 2Westworth, E. W. d. Hutton Gram. S., nr. Preston  
 2Whitaker, R. Cloughton Coll. S., Birkenhead  
 Woolhouse, F. e. a. Eversley S., Stamford  
 Wright, W. V. St. John's Coll., Finsbury Park, N.  
 (Aitkin, W. B. Modern School, Gravesend  
 Bigot, G. V. f. Gram. S., Shoreham  
 2Brown, R. Ripley Comm. School  
 2Buck, A. M. St. Joseph's Coll. S., Totland Bay  
 2Curtis, E. L. Grammar S., Worthing  
 2Dain, D. Sandbach School  
 2Ellman, A. J. Avenue H., Sevenoaks  
 2Gannon, W. A. Ripley Comm. School  
 2Gay, F. G. King Edward VI. Middle S., Norwich  
 Gibbs, R. e. f. St. Mary's Coll., Harlow  
 Gilbert, E. C. d. Barton School, Wisbech  
 2Grant, N. Victoria Park S., Manchester  
 2Harris, C. Derwent H., Bamford  
 2Henry, H. E. Wallingbrook S., Chulmleigh  
 Heywood, H. Norman H., West Didsbury  
 Howis, J. e. f. St. Mary's Coll., Harlow  
 2Howlett, C. S. King Edward VI. Middle S., Norwich  
 Jarvis, H. E. e. Paddington High School  
 Jinnan, N. F. e. High S. for Boys, Croydon  
 Langrish, H. Colebrook H., Bognor  
 Le Breton, A. Jersey Modern S., St. Heliers  
 Lee, N. a. Oakes Inst., Walton, Liverpool  
 2Martin, R. C. St. Helen's Coll., Southsea  
 Oxley, O. L. Modern School, Gravesend  
 Rushbridge, J. C. e. a. Taunton House, Brighton  
 Sargeant, F. J. a. Kendrick Boys' S., Reading  
 Smith, A. W. e. Bourne College, Quinton  
 Smith, R. A. e. Scarborough College  
 2Tregar, J. Jersey Modern S., St. Heliers

2Warren, H. C. Collett House, Boscombe  
 Watts, S. N. e. South Norwood College  
 2Whillock, G. E. B. Greystones S., Scarborough  
 Bell, A. E. Derwent H., Bamford  
 Blaze, C. S. d. Grammar School, Ealing  
 Brackfield, J. A. Brunsworth H., Maidstone  
 Bruce, A. F. Hamilton House, Ealing  
 Chapman, E. J. d. King Edward VI. Middle S., Norwich  
 Coupe, J. S. Gram. S., Fulwood, Preston  
 2Ellett, J. Jersey Modern S., St. Heliers  
 2Fielding, R. E. Private tuition  
 2Ferrington, H. d. Bourne College, Quinton  
 Fetherstonhaugh, H. sp. St. Boniface's Coll., Plymouth  
 Goodridge, H. Grammar School, Dawlish  
 Harris, R. C. e. d. Licensed Victuallers' S., Lambeth  
 Hooper, A. C. d. Kendrick Boys' S., Reading  
 Hutchings, D. J. d. Weymouth Comm. School  
 Jolly, S. B. Lancaster Coll., W. Norwood  
 Journeau, H. a. Jersey Modern S., St. Heliers  
 Laws, H. N. e. a. d. Licensed Victuallers' S., Lambeth  
 Mason, R. A. Colebrook H., Bognor  
 Minchin, H. N. f. Grammar S., Shoreham  
 2Moxon, G. Huddersfield College Modern S.  
 2Rawson, D. S. Endcliffe Coll., Sheffield  
 Turner, G. F. Scarborough College  
 Walker, S. Argyle H., Sunderland  
 White, L. S. s. Reagill House, Bath  
 2Younger, G. C. N. Mercers' S., Holborn, E. C.  
 (Anderson, O. e. Taunton School  
 Ayers, A. H. e. Wellington Coll., Salop  
 Bewley, H. a. d. Gram. S., St. Anne-on-Sea  
 Bolton, C. Christ Church Hr. Elem. S., Southport  
 2Butter, H. F. Grammar S., East Finchley  
 Callwood, J. B. Bourne College, Quinton  
 Danby, H. N. Gram. S., Scarborough  
 Escure, C. A. Thornton Heath School  
 2Goss, J. A. H. St. Winifred's S., Torquay  
 Green, H. bk. Towcester School  
 Hall, N. a. d. Farnworth Gram. School  
 Holmes, C. W. Royal Gram. S., Whalley  
 Jennings, N. d. Grosvenor Coll., Carlisle  
 Keith, A. G. e. a. Commercial Coll., Acton  
 Key, W. B. a. d. Oakes Inst., Walton, Liverpool  
 King, C. F. d. Clifford S., Beckington, Bath  
 Loynes, W. C. a. d. Wellington Coll., Salop  
 Macdonald, S. R. e. a. Arundel H., Sribinton  
 Macklin, H. G. H. Royal Gram. S., Whalley  
 McDougall, D. J. a. St. John's Coll., Finsbury Park, N.  
 Molz, L. S. Modern School, Gravesend  
 Rees, R. M. Summerleaze Coll. S., E. Harptree  
 Reeve, L. W. Eye Grammar School  
 2Roberts, M. E. Margate Comm. School  
 Taylor, J. H. e. f. d. Stoke Newington Gram. S.  
 Trundell, W. J. Gram. S., East Finchley  
 Willmore, L. E. St. John's Coll., Brixton  
 (Amos, T. Grammar School, Sale  
 Benstead, R. e. Wellesley H., Gt. Yarmouth  
 Berriman, T. J. Grammar School, Hayle  
 2Blacklock, J. L. Gram. S., Newton Abbot  
 Brown, A. B. V. d. The Ferns, Thatcham  
 2Brown, C. N. St. Helen's Coll., Southsea  
 Bury, H. Lancaster Coll., Morecambe  
 Campbell, W. R. a. d. Westmorland Rd. S., Newcastle-on-T.  
 Clarkson, P. D. J. a. Grammar S., Fulwood, Preston  
 2Crump, A. H. The Palace S., Bewdley  
 2Foster, G. Ousegate School, Selby  
 Hodgkinson, P. Penketh School  
 2Jones, S. F. G. High S. for Boys, Croydon  
 Leleup, E. P. a. d. Cliftonville Coll., Margate  
 Lough, A. a. The Western Coll., Harrogate  
 Macklin, J. M. e. Royal Gram. S., Whalley  
 2Magor, W. H. Gram. S., Newton Abbot  
 Mallinson, J. F. e. d. High S. for Boys, Croydon  
 2Marchant, A. L. Private tuition  
 Power, E. A. d. Bourne College, Quinton  
 Rines, N. B. a. Scarborough College  
 Thomas, C. H. G. Taunton School  
 Thomson, A. W. Milton Coll., Bexley Heath  
 2Vautier, E. Jersey Modern S., St. Heliers  
 Wood, F. E. Douglas S., Cheltenham  
 Wright, H. W. a. d. Oakes Inst., Walton, Liverpool  
 (Bates, C. Walsall Comm. College  
 Cooke, C. P. e. King Edward VI. Middle S., Norwich  
 Cooke, J. H. a. d. Oakes Inst., Walton, Liverpool  
 2Crawshaw, F. S. Derwent House, Bamford  
 Crocombe, R. J. South Molton United Higher S.  
 Fairlam, J. a. Westmorland Rd. S., Newcastle-on-T.  
 Farrance, W. H. a. d. Grammar School, Ongar  
 Gallop, S. G. Winchester H., Redland Rd., Bristol  
 Green, F. N. Melbourne Coll., Anerley  
 Hamilton, T. O. H. e. Westbury H., Southsea

2Harding, H. K. Churwell Coll., Leeds  
 Laurens, A. Jersey Modern S., St. Heliers  
 Lemon, D. G. King Edward VI. Middle S., Norwich  
 Liddle, A. Froebel H., Devonport  
 Lord, J. A. d. Farnworth Gram. School  
 2Luce, W. Oxfenford H., St. Lawrence, Jersey  
 Marshall, H. J. High S., South Shore, Blackpool  
 Milgate, H. a. Brunswick H., Maidstone  
 Mitchell, L. e. Laughtarne S., Southsea  
 Paton, G. s. St. John's Coll., Finsbury Park, N.  
 2Penty, J. S. Pannal Ash Coll., Harrogate  
 2Richardson, D. R. Hutton Gram. S., nr. Preston  
 2Rodgers, D. St. Mary's Coll., Harlow  
 2Rogers, H. N. All Saints' Choir S., Clifton  
 Rose, L. H. a. d. St. Martin's Gram. S., Scarborough  
 2Towers, J. G. The School, Leighton Buzzard  
 2Tripp, S. H. Southampton Boys' College  
 Tully, L. d. High S., Hornsey Rise, N.  
 Wagner, H. d. Grammar School, Ongar  
 Wright, P. W. e. Laughtarne S., Southsea  
 2Wright, R. N. Cranbrook Coll., Ilford  
 (Beard, A. E. High School, Hornsey Rise, N.  
 Boissenet, G. f. Castle Hill S., W. Ealing  
 Feltrinbach, F. St. Boniface's Coll., Plymouth  
 Godeaux, C. a. Jersey Modern S., St. Heliers  
 Harris, C. O. Hutton Gram. S., nr. Preston  
 Hawkes, N. e. St. Mary's Coll., Harlow  
 Heavens, S. J. e. d. Licensed Victuallers' S., Lambeth  
 Hopwood, C. E. s. Royal Gram. S., Whalley  
 Hughes, H. Southport Comm. College  
 Parr, G. W. d. Lancaster Coll., West Norwood  
 Potts, H. a. Westmorland Rd. S., Newcastle-on-T.  
 Quillinan, M. Walsall Comm. College  
 Ramsden, W. E. a. Kendrick Boys' S., Reading  
 Romeril, C. Harleston H., St. Lawrence, Jersey  
 2Selous, J. G. M. Oxfenford H., St. Lawrence, Jersey  
 Shepherd, J. M. E. Maida Vale School, W.  
 Smerdon, A. C. f. High S., St. Luke's Rd., Torquay  
 Squibbs, G. L. Towcester School  
 2Stammers, A. E. The Palace S., Bewdley  
 2Wade, J. Victoria Park S., Manchester  
 (Bainbridge, G. a. Kirkby Stephen High S.  
 Baker, A. J. e. Waterlooville Coll., Cosham  
 Balden, W. H. New College, Harrogate  
 Chapman, A. T. a. d. The Middle S., Holsworthy  
 Dale, R. E. Gram. S., Chorlton-cum-Hardy  
 2Duguid, J. F. Mercers' S., Holborn, E. C.  
 Foulds, W. G. d. Bickerton H., Birkdale, Southport  
 Freund, E. W. T. Grammar S., Wallington  
 Fuller, C. M. a. d. St. Leonards Coll. School  
 Geiler, O. E. e. Grammar School, Sale  
 Houghton, S. B. Oakes Inst., Walton, Liverpool  
 Hunt, A. Westmorland Rd. S., Newcastle-on-T.  
 Hutchings, C. E. d. Castle Hill S., West Ealing  
 Johnson, F. R. Kendrick Boys' S., Reading  
 2King, C. W. The Palace S., Bewdley  
 Kirby, R. E. a. The Western Coll., Harrogate  
 Lee, J. F. J. a. King Edward VI. Middle S., Norwich  
 Llewellyn, C. E. L. f. Mildford H., Devizes  
 Lomas, G. a. Blue Coat S., Hereford  
 2Mallett, S. H. Mercers' S., Holborn, E. C.  
 McNulty, P. J. d. Catholic Gram. S., St. Helens  
 2Milroy, D. Oakes Inst., Walton, Liverpool  
 2Morris, R. E. High S. for Boys, Croydon  
 Moseley, G. F. d. High S., Market Drayton  
 Mossop, F. H. d. Clair-Val S., Faldout, Goresy  
 Palmer, A. d. Croad's S., King's Lynn  
 2Pierce, W. C. St. Leonards Coll. School  
 Roberts, J. a. Oakes Inst., Walton, Liverpool  
 Rudge, A. T. d. Avenue H., Sevenoaks  
 Salet's S. High S. for Boys, Croydon  
 Saunders, W. H. Caversham H., Reading  
 Shell, R. d. Westmorland Rd. S., Newcastle-on-T.  
 2Slater, D. P. Easingwold Gram. School  
 2Sutcliffe, E. H. Ellesmere S., Harrogate  
 Tansley, R. G. F. Wellington Coll., Salop  
 2Wagner, H. High S. for Boys, Croydon  
 Way, W. E. T. e. d. Cliftonville Coll., Margate  
 2Whetton, C. Hr. Standard S., Sutton-in-Ashfield  
 2Williams, G. C. Council S., Llantwit Major  
 Woodruff, C. A. Sandwich School  
 Yelland, E. J. Grammar S., Dawlish  
 (Bennie, M. Oakes Inst., Walton, Liverpool  
 2Blyth, P. T. King Edward VI. Middle S., Norwich

**BOYS, 3RD CLASS, PASS—Continued.**  
 Darrington, T.A. d. Sandwich School  
 Davies, W.M. Bourne College, Quinton  
 Fill, C.J. a.d. Grammar School, Ongar  
 \*Goddard, A.J. Schorne School, Winslow  
 \*Goddard, W.J. d. Kingsholme S., Weston-a-Mare  
 Head, N.H. a. Westmorland Rd. S., Newcastle-on-T.  
 \*Johnson, H. Walsall Comm. College  
 Laurendeau, H.R.C. f. Cliftonville Coll., Margate  
 \*Lloyd, D. Boys' Council S., Treherbert  
 Long, R.M. e.d. St. Dunstan's Coll., Margate  
 \*Newman, W.B. Blue Coat S., Hereford  
 Nicholls, F.I.G. Melbourne Coll., Anerley  
 Oldring, B. e. Barton S., Wisbech  
 Ramsden, A.M. Pembroke Coll., Harrogate  
 \*Rhodes, A.H. Gram. S., Chorlton-cum-Hardy  
 Ridley, T. d. Grosvenor Coll., Carlisle  
 Smith, L.C. All Saints' Choir S., Clifton  
 Targett, R.C. Reading Coll. S.  
 Walker, L.C. Wilsford H., Devises  
 Wilders-Lewis, H. High S. for Boys, Croydon  
 Williams, S.J. Blue Coat S., Hereford  
 Williams, T.W. e. Bourne Coll., Quinton  
 Young, W.H. Cliftonville Coll., Margate  
 \*Armstrong, W. e. Gram. S., Sale  
 Burdidge, N. d. Eversley S., Stamford  
 Cox, C.D. Margate Comm. S.  
 \*Drake, D.H. Elleamere S., Harrogate  
 Eason, W.F. Margate Comm. S.  
 \*Edgar, L. Sandwich School  
 Elliott, F.C. Chaloner's S., Braunton  
 Ellis, D.L. St. Deiniol's S., Bangor  
 \*Farmer, E. Private tuition  
 Gibbins, G.L. e. Bradley High S. for Boys, Newton Abbot  
 \*Goodchild, G. King Edward VI. Middle S., Norwich  
 Greenshields, G.A. Craven Park Coll., Harlesden  
 Grieve, A. a. Oakes Inst., Walton, Liverpool  
 Hewitt, S.T. Manchester Warehousemen & Clerks' Orphan S., Cheddar Hulme  
 Jackson, H.W. Southport Comm. Coll.  
 McGhie, R.A. Colebrook H., Bognor  
 Oldfield, W.L. d. New Coll., Harrogate  
 \*Pescod, G.W. Gram. S., Friern Barnet  
 Thomas, W.E. f.d. Douglas S., Cheltenham  
 Watkins, G.A. d.g.m. Southdown Coll., Eastbourne  
 Weymouth, W.H.L. St. Winifred's S., Torquay  
 Webb, T.E. Arundel H., Surbiton  
 Webb, T.W. Caversham H., Reading  
 Wood, C.E. d. Colebrook H., Bognor  
 Woodall, W.C. sc. Hutton Gram. S., nr. Preston  
 \*Appleton, G. Catholic Gram. S., St. Helens  
 \*Arnfield, V. King Edward VI. Middle S., Norwich  
 \*Badger, A.G. St. Mary's Boys' S., Loughboro  
 \*Berry, J. Private tuition  
 \*Bessy, D.J. Chaloner's S., Braunton  
 Bolton, F.L. Hutton Gram. S., nr. Preston  
 Buchan, P.E. Froebel H., Devonport  
 \*Buckley, S. Christ Church Hr. Elem. S., Southport  
 Calvin-Thomas, R.C.L. Taunton School  
 Clarke, A. d. St. Martin's Gram. S., Scarborough  
 Crutchfield, W.J. a. Kendrick Boys' S., Reading  
 Dickson, M.T. The Middle S., Holsworthy  
 \*Edwards, C.S. Mercers' S., Holborn, E.C.  
 Ellis, C.O. Froebel H., Devonport  
 Ellis, R.J. The Middle S., Holsworthy  
 Filleul, D. Jersey Modern S., St. Heliers  
 \*Fitzgerald, G. Private tuition  
 Gaud, D.H. a. Froebel H., Devonport  
 Hart, P. d. Gram. S., Ongar  
 \*Helleur, S.G. Harleston H., St. Lawrence, Jersey  
 Hind, R.P. Grosvenor Coll., Carlisle  
 Hollaway, H.W. Thornton Heath S.  
 \*John, D.M. Private tuition  
 Johnson, C.S. d. Barton S., Wisbech  
 Johnson, W.H. St. Winifred's S., Torquay  
 Kantorowicz, R. Clifton Coll., Harrogate  
 Laker, W.N. e. South Norwood Coll.  
 \*Leadbeater, H. Gram. S., Scarborough  
 \*Levy, I. Woolston Coll., Southampton  
 \*Loveck, H.B. County Secondary S., Chippenham  
 \*Megalides, M.P. Victoria Park S., Manchester  
 \*Mills, F.T. Hill Croft S., Wellingborough  
 Morris, W.B.W. Lytham College  
 Nicholson, T. a. Hoylake College  
 Peckitt, L. a. St. Mary's Coll., Harlow  
 \*Piney, R. Warner's Coll., Richmond  
 Reed, S.J.N. Gram. S., Hale  
 Robinson, W.P. Wellington Coll., Salop  
 Slater, J.A. Gram. S., Shoreham  
 Smithdale, A.G. King Edward VI. Middle S., Norwich  
 Sutton, A.M.C.A. All Saints' Choir S., Clifton

Timberlake, H.H. Lancaster Coll., Morecambe  
 Tucker, S.L. The Ferns, Thatcham  
 Wilkinson, J.S. d. Manchester Warehousemen & Clerks' Orphan S., Cheddar Hulme  
 \*Wilson, R.L. Grosvenor Coll., Carlisle  
 Winter, S.S. d. Alderman Norman's Endowed S., Norwich  
 Wright, S.C. Brunswick H., Maidstone  
 Clements, J. a. Grosvenor Coll., Carlisle  
 \*Collinson, C.H. Schorne S., Winslow  
 Crockham, J.H. Westmorland Rd. S., Newcastle-on-T.  
 Dady, J. A. King Edward VI. Middle S., Norwich  
 Dutton, F.F. d. Wellington Coll., Salop  
 Frost, H. Eton H., Southend-on-Sea  
 Glover, F. The Middle S., Holsworthy  
 Green, R.C. e. Taunton School  
 Hobbs, R.A. d. Southdown Coll., Eastbourne  
 Horsfall, E. Lancaster Coll., Morecambe  
 Hudson, E.T. Royal Gram. S., Whalley  
 Kingsland, C.J. d. Gram. S., Shoreham  
 \*Langford, J.A. Lancaster Coll., W. Norwood  
 Lock, E. a. King Edward VI. Middle S., Norwich  
 Norman, J.G. Gram. S., Shoreham  
 Poole, J.E. Clifton Coll., Harrogate  
 \*Schold, A. Gunnersbury S., Chiswick  
 Wells, M.D. Margate Comm. S.  
 Wilson, S. e. Bedford H., Folkestone  
 Winter, C.S. d. Brentwood High S.  
 Beasley, T.W.M.E. Wellington Coll., Salop  
 \*Biscombe, W. Private tuition  
 Bowen, B. e. St. Mary's Coll., Harlow  
 Britain, S.T. Gram. S., Blackpool  
 Brown, W. a. St. Martin's Gram. S., Scarborough  
 Buck, A.G. Grosvenor Coll., Carlisle  
 Coulthard, C.E. e. Beaconsfield, Weston-a-Mare  
 Dickenson, E. Blenheim H., Fareham  
 Eatough, T. a. Taunton School  
 \*Ellis, P.T. Plymstock Council S., Plymouth  
 \*Forster, G. Bailey School, Durham  
 Gee, H. a. Keyford Coll., Frome  
 Gloster, H.W. e. Ripley Comm. S.  
 Gough, R.I. e.d. Wellington Coll., Salop  
 Greenwood, A.E. Boys' Coll. S., Aldershot  
 \*Harper, J.W. Kirkby Stephen High S.  
 Hinton, E.J. Swindon High S.  
 Hughes, E.L. e. St. John's Coll., Brixton  
 Hutchings, C.W. d. Weymouth Comm. S.  
 \*Kelsall, J. Workington Secondary S.  
 \*Milton, G. All Saints' Choir S., Clifton  
 \*Mylrea, F. Gram. S., Sale  
 Netting, E.A. Cronwell High S., Putney  
 Nichols, J. d. Eversley S., Stamford  
 Pallant, F.M. Modern S., Gravesend  
 \*Philippulo, J. Gram. S., Shoreham  
 Porter, A. d. Licensed Victuallers' S., Lambeth  
 Thomas, W.S. Wallingbrook S., Chumleigh  
 Tuffin, R. Westbourne H., Cowes  
 Turnbull, A.D. Eton H., Southend-on-Sea  
 \*Vincent, D.H. High S. for Boys, Croydon  
 Way, E.B. d. Westbury H., Southsea  
 Whitbourn, T.J.C. e.d. Ripley Comm. S.  
 Williams, B. Oakes Inst., Walton, Liverpool  
 Willis, S.T. Westmorland Rd. S., Newcastle-on-T.  
 Atkinson, J. Manchester Warehousemen & Clerks' Orphan S., Cheddar Hulme  
 Bates, C.C. a. Bailey School, Durham  
 Bishop, E.C. d. Schorne S., Winslow  
 Bowman, J. Oakes Inst., Walton, Liverpool  
 \*Church, F.P.M. Tankerton Coll.  
 Corpe, H.E. Margate Comm. S.  
 Couch, O.P. High S., St. Luke's Rd., Torquay  
 \*Hibbert, F.G. Avenue H., Sevenoaks  
 \*Kirk, G.S. Bourne Coll., Quinton  
 Lane, H.A. Northampton H., Cheltenham  
 Lansdale, E.C. Christ Church Hr. Elem. S., Southport  
 \*Lejeune, H. Jersey Modern S., St. Heliers  
 Margerison, F.C. a. Lytham College  
 McIlhagga, L. Oakes Inst., Walton, Liverpool  
 \*Millard, E.C. High S., Hornsey Rise, N.  
 Milton, A. Mount Radford S., Exeter  
 Oliver, R.G. d. The Middle S., Holsworthy  
 Ollis, W.H.F. a. Thornton Heath S.  
 Pape, F. e. Huddersfield College Modern S.  
 Pullen, L.P. Winchester H., Redland Rd., Bristol  
 \*Rich, R.T. Wallingbrook S., Chumleigh  
 Robinson, C.C. Mannamead Prep. S., Plymouth  
 \*Samson, T.F. Gram. S., Friern Barnet  
 \*Sandoval, A. de Schorne S., Winslow  
 \*Schwartz, B. Mission S. for Hebrew Children, Streatham Common  
 Sessions, M.W. St. Peter's Prep. S., Exmouth  
 Shaw, R.P. Modern Coll., Harrogate

Smith, L.W. Clifton Coll., Harrogate  
 \*Tarrant, F.N. Bourne Coll., Quinton  
 \*Tretthewey, L. St. Winifred's S., Torquay  
 \*Alford, C.R. Arlington Park Coll., Chiswick  
 Atwood, S. d. Melbourne Coll., Anerley  
 Ayers, P.S. Wellington Coll., Salop  
 \*Bennett, W.L. 57 Lansdowne St., Hove  
 Bower, A. LeB. Harleston H., St. Lawrence, Jersey  
 Brightling, H.E. a. Godwin Coll., Margate  
 Collin, W.H. Oakes Inst., Walton, Liverpool  
 Doit, E. Norman H., W. Didsbury  
 Durham, W. Preston Gram. S., Stokesley  
 Feldnicke, J.D. a. Gram. S., Shoreham  
 \*Harper, J. Lancaster Coll., Morecambe  
 Jackson, W.G. Blue Coat S., Hereford  
 \*Massey, C. St. Boniface's Coll., Plymouth  
 Miles, A.J. G. d. King Edward VI. Middle S., Norwich  
 Parker, V.S. Kendrick Boys' S., Reading  
 Perworth, W. Hutton Gram. S., nr. Preston  
 Pyc, C.E. Weymouth Comm. S.  
 \*Sully, R.A. Gunnersbury S., Chiswick  
 Symonds, K.C. d. Wellington Coll., Salop  
 Tindall, A.E. Scarborough College  
 Tomkin, J.W.G. Ripley Comm. S.  
 Wallond, H.C.W. Boys' Preparatory S., Maidstone  
 \*Abbott, B.E. e. Chaloner's S., Braunton  
 \*Babbage, L.H. Wallingbrook S., Chumleigh  
 Baxter, G.R.B. d. Wellington Coll., Salop  
 Bennett, J.D. d. The Middle S., Holsworthy  
 Bindon, L.W. Cliftonville Coll., Margate  
 Brierley, H. e.d. Oakes Inst., Walton, Liverpool  
 Brown, R.H. Bickerton H., Birkdale, Southport  
 \*Chandler, A.T. The Palace S., Bewdley  
 Crofton, R.L. d. Bailey School, Durham  
 Crumplin, C.H. Reading Coll., S.  
 Eekersley, A.L. Gram. S., Sale  
 Fulljames, L.J. Modern S., Gravesend  
 Grapel, W.V.R. High S. for Boys, Croydon  
 Graves, A.H.R. Finsbury Park Coll., Green Lanes, N.  
 Griffiths, T.V. King Edward VI. Middle S., Norwich  
 Henton, B.A. f.d. Broadgate S., Nottingham  
 Heppell, J.G. d. Canning St. Council S., Newcastle-on-T.  
 Hobbs, F.A. Southdown Coll., Eastbourne  
 Hodge, V.L. d. Lytham Comm. S.  
 Hunt, A.J. The College, Weston-a-Mare  
 Iremonger, C.J. Barton S., Wisbech  
 Le Gresley, F.H. f. Gorey Comm. S., Jersey  
 Moore, J.H.L. Brean H., Weston-a-Mare  
 \*Newbery, R.L. South Molton United Higher S.  
 Pengilly, J.A. d. Bradley High S. for Boys, Newton Abbot  
 Pettman, A. a. St. Dunstan's Coll., Margate  
 \*Pratt, H.B. Gram. S., Shoreham  
 Rymer, J. Modern Coll., Harrogate  
 Sargeant, G.H. High S., Market Drayton  
 Shearman, S.J. g. Yarmouth Coll., Gt. Yarmouth  
 Southall, P.E. Gram. S., Shoreham  
 Tanton, S.A. d. St. Leonards Coll. S.  
 \*Barker, F. a. d. Westbury H., Southsea  
 \*Blake, G.E. Blenheim H., Fareham  
 Brighton, H.G. The College, Weston-a-Mare  
 Brooks, L.C. Lytham Comm. S.  
 Burchell, S.F. Margate Comm. S.  
 Carrington, G. Gram. S., Ongar  
 Critchley, W.G. Victoria Park S., Manchester  
 Day, L.R.H. d. Southampton Boys' Coll.  
 Dunn, W.M. Gram. S., Workington  
 Gillard, J.O. e. Licensed Victuallers' S., Lambeth  
 Graham, W. New Coll., Worthing  
 Grosjan, E.G. Gram. S., Shoreham  
 Haysman, B. Gram. S., Friern Barnet  
 \*Henri, W.A. Private tuition  
 Hunn, D.L. Ripley Comm. S.  
 Keane, C.P. Modern S., Gravesend  
 Kidner, C.H. High S. for Boys, Croydon  
 Lea, E.H. Scarborough College  
 Liddle, J. a. Ansell S., Lytham  
 Lockhart, M.H. Gram. S., Shoreham  
 Loveridge, A.R. Trafalgar H., Winchester  
 Reeves, G.P. Modern S., Gravesend  
 Rosier, W.N. Kendrick Boys' S., Reading  
 Rowlands, T.S. Bourne Coll., Quinton  
 Ryden, C. d. St. Boniface's Coll., Plymouth  
 Simpson, A. d. Read's Gram. S., Tuxford  
 \*Thomas, E.D. Boys' Councils, Treherbert  
 \*Walker, T.R. Claughton Coll. S., Birkenhead  
 \*Wright, A.B. Ripley Comm. S.  
 \*Bacon, H.L. Warner's Coll., Richmond  
 \*Capon, C.J.S. Hillmartin Coll., Busby Pl., N.W.  
 Carriek, H.M. Modern Coll., Harrogate  
 \*Chapman, A.H. Richmond Hill S.  
 Craig, G. s.e. High S., Market Drayton  
 Curwen, S. Kilgrimol S., St. Annes-on-Sea  
 Dore, C.H. Blue Coat S., Hereford  
 Douthwaite, A.B.C. St. Martin's Gram. S., Scarborough

Ellis, D. St. Mary's Coll., Harlow  
 Fennell, G.W. d. Kendrick Boys' S., Reading  
 Glassborow, C.S. New Coll., Worthing  
 Grant, G.S. d. Bourne Coll., Quinton  
 Hamon, E. Jersey Modern S., St. Heliers  
 \*Havre, D. Smart's Coll., Newcastle-on-Tyne  
 \*Jones, C.V. Mossley Hall S., Congleton  
 Jones, F.W. a. High School for Boys, Croydon  
 \*Kaveny, W.T. Woolston Coll., Southampton  
 Knowles, E.M. Lytham Comm. S.  
 Le Sneur, C.S. West End S., Jersey  
 Middleton, J.W. Canning St. Council S., Newcastle-on-T.  
 Mills, J.W. Fannal Ash Coll., Harrogate  
 Morgensterns, H. The Western Coll., Harrogate  
 Peerless, T.H.P. Bedford H., Folkestone  
 Roper, W. Weymouth Comm. S.  
 Sherring, A.N. e. Gram. S., Ongar  
 Simpson, G.H. e. Canning St. Council S., Newcastle-on-T.  
 \*Strong, E.V. Belmore H., Cheltenham  
 Taylor, H.S. Manchester Warehousemen & Clerks' Orphan S., Cheddar Hulme  
 Vickery, F.W. a. Canning St. Council S., Newcastle-on-T.  
 Vining, D.C. Wellesley H., Forest Hill  
 Wright, L.G. d. Lancaster Coll., W. Norwood  
 Allen, R.G. a. Trafalgar H., Winchester  
 Archer, G.E.T. d. Eton H., Southend-on-Sea  
 Brown, R.C. d. King Edward VI. Middle S., Norwich  
 \*Cole, R.W. Belmore H., Cheltenham  
 \*Cook, R.P. St. Leonards Coll. S.  
 Dias, J.J. e. Grosvenor Coll., Carlisle  
 Dobson, L.J. d. Brentwood High S.  
 \*Elkan, J. Maida Vale S., W.  
 Gale, W.A.E. Read's Gram. S., Tuxford  
 Graves, A.G. Froebel H., Devonport  
 \*Griffin, H. Bourne Coll., Quinton  
 Gunton, J.H. King Edward VI. Middle S., Norwich  
 Hilton, G. e. Gram. S., Sale  
 Houghton, E.M. Oakes Inst., Walton, Liverpool  
 Jerome, F.E. Boys' Coll. S., Aldershot  
 Jode, S.E. Lancaster Coll., W. Norwood  
 King, V. Brunswick H., Maidstone  
 Knight, G. St. Boniface's Coll., Plymouth  
 \*Light, D.S. Hearn H., Hampstead  
 \*Maxwell, A. Victoria Park S., Manchester  
 \*Mills, H.H. Stoke Newington Gram. S.  
 Moule, E.J. The Palace S., Bewdley  
 Newman, J.C.F. Private tuition  
 Pattinson, R.S. a. Grosvenor Coll., Carlisle  
 Pendock, J.C.T. Littleton H., Knowle, Bristol  
 \*Sharp, G. The Palace S., Bewdley  
 Stroug, L.T.M. New Coll., Worthing  
 Sutton, J.R. a. Swindon High S.  
 Sydenham, H. a. Mary Street H., Taunton  
 Tickle, R.N. d. Modern S., Gravesend  
 \*Tope, C.T. Plymstock Council S., Plymouth  
 Wadbrook, W.H.E. Southampton Boys' Coll.  
 Williams, R.T. Trafalgar H., Winchester  
 Allin, H. Wellington Coll., Salop  
 Bailey, V.A. a.d. Walsall Comm. Coll.  
 Britton, E.L. Bourne Coll., Quinton  
 Cathcart, E.A. Bickerton H., Birkdale, Southport  
 Coope, G. Hutton Gram. S., nr. Preston  
 Dean, C.T. Victoria Park S., Manchester  
 Dixon, G. High S., South Shore, Blackpool  
 Doswell, E.V. Trafalgar H., Winchester  
 Dunell, W.F. West End S., Jersey  
 Dunn, W.T. Chaloner's S., Braunton  
 \*Elliott, F.F. Manor H., Clapham  
 \*Evans, G.J. Chaloner's S., Braunton  
 Green, F.N. Lancaster Coll., West Norwood  
 \*Harold, J. Chaloner's S., Braunton  
 Hayes, E. St. Boniface's Coll., Plymouth  
 Hewens, F.A. Margate Comm. S.  
 Hime, N. Claughton Coll. S., Birkenhead  
 Howman, J. Belmore H., Cheltenham  
 Hudson, G.B. Pembroke Coll., Harrogate  
 Iveson, J.A. d. St. Martin's Gram. S., Scarborough  
 \*Jeans, J.A. Gram. S., Sale  
 Jinnam, G.H.W. Eton H., Southend-on-Sea  
 Marshall, H.H. Gram. S., Shoreham  
 Midgley, J.H. The College, Weston-a-Mare  
 Nicholl, C.A. St. Martin's Gram. S., Scarborough  
 Norman, E. Brunswick H., Maidstone  
 \*Pascoe, A.J. Licensed Victuallers' S., Lambeth  
 Pearce, W. d. Oakes Inst., Walton, Liverpool  
 Plevin, J.F. f.d. St. Clement's S., Jersey  
 Roper, D.W. s.a. Bickerton H., Birkdale, Southport  
 Rowlands, R. d. Bourne Coll., Quinton  
 Scott, E. St. Mary's Coll., Harlow  
 Scott, T.H.H. d. High S., Market Drayton  
 Sheffield, T.J. Pembroke Coll., Harrogate  
 \*Swain, E.O. Private tuition  
 \*Boast, W.G. St. Leonards Coll. S.

BOYS, 3RD CLASS, PASS—Continued.

Cockerell, D. Eton H., Southend-on-Sea
Coombs, W.H. a. Littleton H., Knowle, Bristol
Easton-Cook, A.E. Gram. S., Shoreham
Edwards, K.G. St. Deiniol's S., Bangor
Fetherstonhaugh, G.E. St. Boniface's Coll., Plymouth
Harrison, J.D. a. Argyle H., Sunderland
Hayes, B.L. a. Ansdell S., Lytham
Hillier, R.R. Gunnersbury S., Chiswick
Holmes, C.A. Gram. S., East Finchley
Hotton, C.W. St. James's Coll. S., St. Heliers
Jenne, S.F. West End S., Jersey
Jones, H.V. e. Bedford H., Folkestone
Kendrick, H.F. Croad's S., King's Lynn
Knott, O.A. Wingfield Coll., Dover
Merricks, L.M. Swindon High S.
Morgan, M.T. e. Council S., Llantwit Major
Mowan, P.J. St. Boniface's Coll., Plymouth
Mumford, A.L. Weymouth Comm. S.
Smith, H.A. Gram. S., East Finchley
Tattersall, S.R. Clifton Coll., Harrogate
Tomkinson, C.W. Mossley Hall S., Congleton
Wiseman, D.H. King Edward VI. Middle S., Norwich
Withers, R. Summerleaze Coll. S., E. Harptree
Woodhouse, R.B. Grosvenor Coll., Carlisle

Adams, R.G.H. Maida Vale S., W.
Ashton, P. Hutton Gram. S., nr. Preston
Brown, R.F. e. Kendrick Boys' S., Reading
Brown, W. a. Thrapston High S. for Boys
Char-en, M.L. a. Arnold H., Chester
Clarke, H.C. e. Froebel H., Devonport
Cleeve, E.H. d. Blenheim H., Fareham
Craven, D.A. Thornton Gram. S., Bradford
Critchley, H. Lytham College
Darby, H.L. The School, Wellington Rd., Taunton
Davies, H.B. Wellington Coll., Salop
Dymock, M. a. d. Grosvenor Coll., Carlisle
Elderby, D.R. York Manor S., York
Evans, H. Wilsford H., Devizes
Fry, W.M. e. Mary Street H., Taunton
Gilliam, S.T. Private tuition
Griffin, G.L. Thornton Heath S.
Homstock, H. Castle Hill S., W. Ealing
Jackson, H.M. Manor H., Clapham
Jarvis, A.C.T. d. Modern S., Gravesend
Jeffery, J.H. Gram. S., Sale
Johnson, C.B. King Edward VI. Middle S., Norwich
Mauley, D.H.G. St. Deiniol's S., Bangor
McCabe, S. Commercial S., Maidstone
Monk, B. Gram. S., Shoreham
Moore, J. Collett House, Boscombe
Oakes, J. d. Farnworth Gram. S.
Pullen, J.R. St. John's Coll., Brixton
Rapson, E.P. Wadhams S., Liskeard
Sampson, A. d. High S., South Shore, Blackpool
Spray, R.W. All Saints' Choir S., Clifton
Turnbull, K.L. Eton H., Southend-on-Sea
Vernon, C.H. Taunton School
Whitehead, G. d. York Manor S., York
Wongse, d. Private tuition
Worthington, G. Gram. S., Sale
Wright, S. Gram. S., St. Annes-on-Sea

Chandler, E.J. The Ferns, Thatcham
Coulson, J.A. Preston Gram. S., Stokesley
Flinton, J. d. St. Martin's Gram. S., Scarborough
Forrest, N. d. Canning St. Council S., Newcastle-on-T.
Hague, H.G. High S., South Shore, Blackpool
Hetherington, A. a. Gram. S., Scarborough
Hopcraft, J.E. d. Kendrick Boys' S., Reading
Hunt, E.W. d. Reading Coll. S.
King, O. Scarborough College
Little, G. Croad's S., King's Lynn
Marchbank, F.H. e. Kendrick Boys' S., Reading
McManus, W.L. Hutton Gram. S., nr. Preston
Minvalla, E.J. Sholing Coll., Woolston
Owens, A.L. Greystones S., Scarborough
Parks, H.P. High S. for Boys, Sutton
Priestwood, H.T. Clair-Val S., Faldouet, Gorey
Pringle, J. Hr. Standard S., Sutton-in-Ashfield
Purser, P.W. Gram. S., Shoreham
Ribeiro, J. High S. for Boys, Croydon
Walford, J. a. St. Mary's Coll., Harlow
Allcroft, F.R. Buckingham Place Acad., Landport
Ash, T.G. Sandwich School
Bennett, L.J. d. Kingsholme S., Weston-s. Mare
Blackith, J. de la H. Fitzroy S., Crouch End
Bond, J.E. Lytham College
Bryan, A.E. a. d. Long Ashton S., Bristol
Davies, V.J. Private tuition
Dixon, C.H. Brentwood High S.
Farr, A.W. Broomy Hill Acad., Hereford

Gordon, H.E. d. Lancaster Coll., W. Norwood
Hyndson, W. Grosvenor Coll., Carlisle
Hyman, J. Westmorland Rd. S., Newcastle-on-T.
Jones, W.P. Oakes Inst., Walton, Liverpool
Laird, R.G. Arlington Park Coll., Chiswick
Langley, C.C. Brunswick H., Maidstone
Mariano, P.A. St. Boniface's Coll., Plymouth
Rodwell, W.H. Cliftonville Coll., Margate
Sadler, R.L. Hoylelake College
Spencer, L.J. Manor H., Clapham
White, E.W.I. Hasland H., Penarth
Whyman, W.A. Gram. S., Blackpool
Barker, H. Preston Gram. S., Stokesley
Chapman, F. Barton S., Wisbech
Copland, A.E. e. Taunton School
Craig, C.C. Cloughton Coll. S., Birkenhead
Cresswell, A.A. Greystones S., Scarborough
Griffiths, J.E. d. Cliftonville Coll., Margate
Hay, C.N. e. Stoke Newington Gram. S.
Holt, G.W. Wellington S., Heaton Moor, Stockport
Latham, Harold Kilgrimol S., St. Annes-on-Sea
Lewtas, H.A. Gram. S., Sale
Lupton, C. The Western Coll., Harrogate
Pulling, A. Read's Gram. S., Tuxford
Reakes, G.R. High S. for Boys, Croydon
Reed, J. Kendrick Boys' S., Reading
Riley, F.W. The Academy, Crewe
Robinson, W.N. Gram. S., Chorlton-cum-Hardy
Smith, H.B. Springfield Coll., Acton
Thompson, A.S. Wellington Coll., Salop
Tomlin, H.F. Brunswick H., Maidstone
Wilkins, E.G. Taunton School
Woolfenden, F. d. Oakes Inst., Walton, Liverpool
Woolfenden, H. Lytham College

Adams, A.R. High S. for Boys, Croydon
Bennett, A.E. D. Lancaster Coll., Morecambe
Bowden, J.Y. Farnworth Gram. S.
Danemann, F. Highbury New Park Coll., N.
Farrar, H.A. Belmont H., Cheltenham
Fussell, R. a. Clifford S., Beckington, Bath
Godfrey, J.H. Brunswick H., Maidstone
Kendrew, G. Easingwold Gram. S.
Ramsden, A. St. Boniface's Coll., Plymouth
Raymont, A. Coll. S., Laphord
Ritson, F. Grosvenor Coll., Carlisle
Rodriquez, E.C. Gunnersbury S., Chiswick
Wheater, R. Clifton Coll., Harrogate
Wickham, J.N. Cliftonville Coll., Margate
Woolfenden, J.E.P. Taunton School
Barkas, J.C.P. Newcastle Modern S.
Chambers, S. a. Eversley S., Stamford
Channon, C. a. St. Michael's S., Milton
Craig, L.H. The Palace S., Bewdley
Edmonds, H. Grammar S., Fulwood, Preston
Fry, L. Sandwiche School
Godfrey, A.J. Licensed Victuallers' S., Lambeth
Gray, C. Gram. S., Newton Abbot
Handford, R.S. Castle Hill S., W. Ealing
Heasell, W.E. d. Boys' Preparatory S., Maidstone
Isaacson, F.M.W. Mansfield H., Cliftonville
Jackson, W.E. Lytham College
Markham, S.D. Chaloner's S., Braunton
Middlemiss, T.E. Taunton School
Morris, H.S. d. Wellington Coll., Salop
Nash, H. d. Long Ashton S., Bristol
Nolan, W. Private tuition
Ramsbotham, J. Farnworth Gram. S.
Richardson, G. a. Preston Gram. S., Stokesley
Robinson, J.G. e. Abbotsford's, Folkestone
Spreckley, R. d. Eversley S., Stamford
Stanfield, H. Farnworth Gram. S.
Williams, F.A. f. St. Mary's Coll., Harlow
Williams, J. e. Long Ashton S., Bristol
Wood, C.E. Ellesmere S., Harrogate
Woodard, L.E. Victoria Park S., Manchester
Woodfin, J.L. The College, Rock Ferry

Bird, R. Taunton School
Crosse, R.S.W. Taunton School
Cutland, P.W. Commercial Coll., Acton
Evans, D.L. a. Thornton Heath S.
Flook, J. Sandwiche School
Hain, J.G. Gram. S., Hayle
Hallett, H. Chaloner's S., Braunton
Hope-Rabson, E. Gram. S., Friern Barnet
Hopwood, N. Wellington S., Heaton Moor, Stockport
Hosken, W. 26 Stapleton Hall Rd., N.
Humphreys, J.D. St. Helen's Coll., Southsea
Hutton-Balfour, A.G. The Palace S., Bewdley
Kruse, E.C. St. Helen's Coll., Southsea
Lee, J.L. Victoria Park S., Manchester
Loche, W.W. Manor H., Clapham
Margetts, C.F. a. Kendrick Boys' S., Reading
Monckton, E.G.W. d. Commercial S., Maidstone

Nicholas, A.L. e. Long Ashton S., Bristol
Reynolds, E.A. West London Civil Service Coll., Shepherds Bush, W.
Rix, R.A. Gram. S., Shoreham
Robinson, V.T. Stoke Newington Gram. S.
Sherlock, C.S. Cambridge H., Camden Rd., N.
Slade, F. The Western Coll., Harrogate
Walters, W.M. Boys' Councils, Treherbert
Wyeth, R.D. Trafalgar H., Winchester
Amos, H. Thrapston High S. for Boys
Bentley, A.M. The Western Coll., Harrogate
Bew, T. Christ Church Hr. Elem. S., Southport
Clark, B.C. Froebel H., Devonport
Clery, A.A. All Saints' Choir S., Clifton
da Cunha, S. f. d. Norman H., W. Didsbury
Davies, W.G. a. d. The College, Rock Ferry
Hargreaves, C.G. d. Rusholme High S.
Hepworth, A.A. Scarborough College
Hewitson, E. Kirkby Stephen High S.
Holden, R.E. d. Private tuition
Kay, G.P. Heaton Moor Coll., Stockport
Keddie, G.D.F. Eton H., Southend-on-Sea
Miller, H.R. King Edward VI. Middle S., Norwich
Newton, T.C. Derwent H., Bamford
Rodriquez, P.C. Gunnersbury S., Chiswick
Rowlands, A.V.P. a. The Palace S., Bewdley
Sanders, H.W. High S. for Boys, Sutton
Ulph, H.J. Springfield Coll., Acton
Walker, E.D. Kirkby Stephen High S.
Wells, W.S. Commercial S., Maidstone

Barker, C.W. Grammar S., St. Annes-on-Sea
Bell, E.B. Victoria Park S., Manchester
Blumenthal, L. Mission S. for Hebrew Children, Streatham Common
Coles, T. St. Boniface's Coll., Plymouth
Dawes, H.B. Gram. S., Newton Abbot
Dougan, C.W. Park School, Wood Green
Flitcroft, N. Kilgrimol S., St. Annes-on-Sea
Freeman, N.W.H. d. Boys' High S., Erdington
Ripley Comm. S.
Harriot, E.W. Ripley Comm. S.
Key, D.R. Oxenford H., St. Lawrence, Jersey
Marsden, W.S. Oakes Inst., Walton, Liverpool
Saul, R.K. a. d. King Edward VI. Middle S., Norwich
Shave, J. Bradley High S. for Boys, Newton Abbot
Slaymaker, A. a. South Molton United Higher S.
Traise, E. d. Eversley S., Stamford
Bacon, T.R. King Edward VI. Middle S., Norwich
Balkwill, F. a. Ousegate S., Selby
Garden, J.J. Park School, Wood Green
Goldard, H. Wellesley H., Gt. Yarmouth
Grace, A.W.D. Trafalgar H., Winchester
Harrison, R. St. Dunstan's Coll., Margate
Hewland, E.W. St. Martin's Gram. S., Scarborough
Lees, H.E.R. The College, Rock Ferry
Lightfoot, T.L. Grosvenor Coll., Carlisle
Nettleton, A. e. Preston Gram. S., Stokesley
Nuttall, C. Farnworth Gram. S.
Robbins, G.F. Gram. S., Shoreham
Sewell, J. Gram. S., Sale
Spackman, R. d. Keyford Coll., Froume
Wills, K.A. Wykeham H., Abbey Rd., N.W.

Astle, H. Farnworth Gram. S.
Banks, J.B. Grosvenor Coll., Carlisle
Boyd, W. a. Bailey School, Durham
Brazier, A.D.C. Gram. S., Shoreham
Caple, D. Elm Grove S., Exmouth
Craven, P.R. Lancaster Coll., Morecambe
Curwen, A.W. Kilgrimol S., St. Annes-on-Sea
Fraser, L.H.V. St. Helens Coll., Southsea
Frodsham, F.J. Catholic Gram. S., St. Helens
Last, W.T. Gram. S., Shoreham
Lees, N.L. d. Canning St. Council S., Newcastle-on-T.
Lincoln, A.P. Yarmouth Coll., Gt. Yarmouth
Moore, R.H.T. Park School, Wood Green
Morrison, MacR.D. Taunton School
Paige, C.J.M. Sandwiche School
Sewell, W.S. Gram. S., Worthington
Skym, F.J. d. Ousegate S., Selby
Smith, A.M. Lancaster Coll., W. Norwood
Vallis, R. Clifford S., Beckington, Bath
Watson, N. High S. for Boys, Croydon
Watson, J.P. Hutton Gram. S., nr. Preston
Wells, E.L. Private tuition
Young, S. Taunton School
Andrews, N.C. Gram. S., Scarborough
Armstrong, P.A. Gram. S., Shoreham
Davies, R.S. Gram. S., Ongar
Edridge, A.H. d. Brentwood High S.
Francis, A.H. Southdown Coll., Eastbourne
Hayes, H.R. Bickerton H., Birkdale, Southport
Hobson, F.B. Scarborough College
Jauncey, G.H. Private tuition
March, G. Thrapston High S. for Boys
Milner, A.J. Wellington S., Heaton Moor, Stockport
Mortimer, A.N. Gram. S., Blackpool

Mowl, W.R. Wingfield Coll., Dover
Phillips, E.J.R. Anerley College, S.E.
Schlitte, F. Elmhurst S., Kingston-on-Thames
Short, P.F. Taunton School
Southwood, E.J.C. Keyford Coll., Froume
Taylor, F.C. Gram. S., Scarborough
Wickham, T.H. Cliftonville Coll., Margate
Woodley, K.B. Private tuition
Bullen, F.H. King Edward VI. Middle S., Norwich
Empson, R.H.W. King Edward VI. Middle S., Norwich
Fawkes, C.D. St. Helen's Coll., Southsea
Farris, F.J. Clair-Val S., Faldouet, Gorey
Gannon, E.B. Taunton School
Garrod, L.P. St. Peter's Prep. S., Exmouth
Gibbs, A.H.D. The College, Westons. Mare
Haworth, E. Lancaster Coll., Morecambe
Hingley, C. The Palace S., Bewdley
Lauderdale, W.A. Ripley Comm. S.
Mann, M.L. High S., St. Luke's Rd., Torquay
Musgrave, G.F. Taunton School
Needham, C.F. King Edward VI. Middle S., Norwich
Petty, H.G. a. Gram. S., Taplow
Pragnell, G.F. e. Dulwich College
Redford, T.H. Trafalgar H., Winchester
Sankey, W.A. d. Gram. S., Blackpool
Smith, C.H. Lancaster Coll., W. Norwood
Stewart, A. Wellington S., Heaton Moor, Stockport
Tilly, R.L. d. High S. for Boys, Croydon
Walker, S.R. King Edward VI. Middle S., Norwich
White, J.F. Westmorland Rd. S., Newcastle-on-T.

Wood, T.W. Catholic Gram. S., St. Helens
Bamfield, V.H. All Saints' Choir S., Clifton
Bolton, H.A. Bourne Coll., Quinton
Cattell, P.A. Taunton School
Elliot, G.W. The School House, Leighton Buzzard
Field, W.E. St. Dunstan's Coll., Margate
Gough, A.E. Summerleaze Coll. S., E. Harptree
Graham, C. Grosvenor Coll., Carlisle
Halstead, R. Kilgrimol S., St. Annes-on-Sea
Hooper, P.J. Kendrick Boys' S., Reading
Horne, W. Hoylelake College
Maidox, P.J. Wellington Coll., Salop
Mauger, G. d. Oxenford H., St. Lawrence, Jersey
Newstead, K.L. The Western Coll., Harrogate
Norris, E.T. Yarnmouth Coll., Gt. Yarmouth
Puckett, L.H. Cleave's School, Yalding
Royle, F.H. Penketh School
Shore, H. Wellington S., Heaton Moor, Stockport
Tadman, F. St. Martin's Gram. S., Scarborough
Taylor, A.L. e. Gram. S., Chorlton-cum-Hardy
Thornton, S. d. Heaton Moor Coll., Stockport

Todd, J. Ellesmere S., Harrogate
Webb, W.E.K. Downs S., Clifton
Wild, J. d. Oxford Coll., Waterloo, L'pool
Beckwith, F.W. Lancaster Coll., W. Norwood
Cave, E. St. Mary's Coll., Harlow
Coombs, F. d. Clifford S., Beckington, Bath
Currington, S. Barton S., Wisbech
Elee, H. Lancaster Coll., Morecambe
Field, D. High S., Hornsey Rise, N.
Harden, N. Sandwiche School
Lucas, M. Ripley Comm. S.
Nathan, G.F. Cambridge H., Camden Rd., N.
Ross, R.O.C. Buda Coll., Aldington, Hove
Russell, S.V. Castle Hill S., W. Ealing
Taylor, C. Kendrick Boys' S., Reading
Walker, J.H. Taunton School
West, R.V. Thornton Heath S.
Cooper, W.H. Wellington Coll., Salop
Duthoit, C.R. St. Martin's Gram. S., Scarborough
Green, A.E.S. All Saints' Choir S., Clifton
Humphreys, H.R. Ellesmere's, Harrogate
Shannon, H.G. Froebel H., Devonport
Shaw, T.W. Park School, Wood Green
Thomas, W.S. Private tuition
Turner, H.W.W. Lancaster Coll., W. Norwood
White, R.A.J. Woolston Coll., Southampton
Baldwin, R. St. Leonard's Coll. S.
Beeson, A.J. Broomy Hill Acad., Hereford
Bladen, E.O. Read's Gram. S., Tuxford
Blaney, V.F. Gram. S., Hayle
Buller, A. Wellesley H., Gt. Yarmouth
Crouch, W.A. Ripley Comm. S.
Davies, E. Kingsholme S., Weston-s. Mare
Glenfield, P. Schorne S., Winslow
Hingley, P.G. Bourne Coll., Quinton
Hinton, W.J. Bourne Coll., Quinton
Hosking, S.H. Froebel H., Devonport
Kitching, W. Gram. S., Friern Barnet
Lang Browne, A.D. The School, Wellington Rd., Taunton



**BOYS, 3RD CLASS, PASS—Continued.**  
 Manning, H. d. Licensed Victuallers' S., Lambeth  
 Murfitt, G. J. King Edward VI. Middle S., Norwich  
 Murgatroyd, H. Wellington S., Heaton Moor, Stockport  
 Nias, A. M. High S. for Boys, Croydon  
 Payne, C. A. Lancaster Coll., Morecambe  
 Smart, G. U. Winchester H., Redland Rd., Bristol  
 Attwell, L. A. Gram. S., Ongar  
 Bishop, A. G. Schorne S., Winslow  
 Cass, M. Steyne S., Worthing  
 Collyer, T. King Edward VI. Middle S., Norwich  
 Drew, A. G. Manor H., Clapham  
 Fryer, D. R. The Palace S., Bewdley  
 Long, H. A. Long Ashton S., Bristol  
 Mähler, A. K. Gram. S., Chorlton-cum-Hardy  
 Neal, F. Thrapston High S. for Boys  
 Paige, F. W. H. Sandwich School  
 Purdue, P. Gram. S., Shoreham  
 Stilgoe, N. d. Ripley Comm. S.

Warston, G. N. B. Ellesmere S., Harrogate  
 Bygott, R. Scarborough College  
 Cooper, J. J. d. Private tuition  
 Flanagan, G. A. Cambridge H., Camden Rd., N.  
 Hughes, J. Huddersfield College Modern S.  
 Jackson, R. Cambridge H., Camden Rd., N.  
 James, J. W. Springfield Coll., Acton  
 Kappey, C. F. G. Gram. S., Shoreham  
 Labey, R. G. St. James's Coll. S., St. Heliers  
 Mariano, G. St. Boniface's Coll., Plymouth  
 Megginson, C. Scarborough College  
 Molyneux, T. Catholic Gram. S., St. Helens  
 Payu, A. F. Oxenford H., St. Lawrence, Jersey  
 Polwhele, D. E. B. Private tuition  
 Priddy, W. a. Private tuition  
 Roberts, D. Huddersfield College Modern S.  
 Sale, P. J. Reading Coll. S.  
 Stephenson, R. Clair-Val S., Faldouet, Gorey  
 Appleyard, J. G. Gram. S., Scarborough  
 Barnes, H. C. Gram. S., Shoreham  
 Carly, R. J. Clair-Val S., Faldouet, Gorey  
 Fairbairn, E. C. High S. for Boys, Croydon

Freemantle, H. V. Trafalgar H., Winchester  
 Leader, F. G. The Ferns, Thatcham  
 Newell, W. N. Crudgington Council S.  
 Powell, R. M. Sandwich School  
 Protheroe, A. J. Gram. S., Newton Abbot  
 Roper, F. W. Bickerton H., Birkdale, Southport  
 Weaver, R. A. Rusholme High S.  
 Buckley, F. R. Steyne S., Worthing  
 Emery, W. H. Taunton School  
 Gentry Birch, C. York H., Reading  
 Godwin, A. R. Gram. S., Worthing  
 Haldane, D. Manor H., Clapham  
 Howarth, T. E. High S., South Shore, Blackpool  
 Lester, C. F. d. Private tuition  
 Lloyd, F. S. Wellington Coll., Salop  
 Martin, A. J. J. Norbury College  
 Preston, G. R. Ripley Comm. S.  
 Theobald, G. d. Taunton School  
 Wilkinson, J. Southport Modern S.  
 Barnes, F. F. Taunton School  
 Bradshaw, R. J. Arlington Park Coll., Chiswick

Campbell, E. R. Wellesley H., Forest Hill  
 Chandler, S. Sandwich School  
 De Gruchy, R. T. Clair-Val S., Faldouet, Gorey  
 Dryer, R. Taunton School  
 Dufty, G. C. W. Borough Coll. S., Rotherham  
 Huray, W. F. Southampton Boys' Coll.  
 Jones, F. Taunton School  
 Latham, Harry Kilgrimol S., St. Annes-on-Sea  
 Tucker, H. Coll. S., Lapford  
 Wigley, W. Wykeham H., Abbey Rd., N. W.  
 Williams, M. D. Clifton Coll., Harrogate  
 Blankley, H. C. St. Leonards Coll. S.  
 Dudfield, J. G. L. Castle Hill S., W. Ealing  
 Ellis, J. C. Yarmouth Coll., Gt. Yarmouth  
 Fairlie, W. Gram. S., Shoreham  
 Gee, E. D. T. Barton S., Wisbech  
 Kelleway, M. J. d. Gram. S., Shoreham  
 Le Lievre, A. F. H. St John's Coll., Finsbury Park, N.  
 Patterson, G. Private tuition  
 Pither, T. C. L. Craven Park Coll., Harlesden  
 Thornhill, L. A. Boys' Preparatory S., Maidstone

CLASS LIST—GIRLS.

(For list of abbreviations, see page 88.)

FIRST CLASS [or SENIOR]. Honours Division.

Bennell, M. s. e. h. bk. ms. Crouch End High S., Hornsey  
 Williams, M. H. s. Ellerker Coll., Richmond Hill, S. W.  
 Stott, M. s. e. g. Girls' Gram. S., Levenshulme

FIRST CLASS [or SENIOR]. Pass Division.

Vickers, K. s. e. h. g. Westmorland Rd. S., Newcastle-on-T.  
 Guthrie, E. s. Ellerker Coll., Richmond Hill, S. W.  
 Goodman, H. B. s. d. Private tuition  
 Greaves, D. M. d. Girls' Gram. S. Levenshulme  
 Ensum, E. M. s. Winchmore Hill Coll. S.  
 Young, H. M. s. Rutland High S., Dublin  
 Barlow, A. E. s. ph. Westbourne H., Cowes  
 Pease, E. K. Ellerker Coll., Richmond Hill, S. W.  
 Oram, O. K. Hainault H., Ilford  
 Jennings, A. Brunt's Technicals, Mansfield  
 Sutton, M. Private tuition  
 Houson, D. A. ph. Westbourne H., Cowes  
 Bainbridge, F. Private tuition  
 Goodman, A. E. Ripley Comm. S.  
 Curtis, B. I. Girls' Gram. S., Levenshulme  
 Kimber, M. H. s. Alexandra Coll., Shirley  
 Sykes, M. Private tuition  
 John, M. C. Private tuition  
 Hudner, A. Private tuition  
 Colborne, P. Ripley Comm. S.  
 Lawton, W. K. Belgrave Terrace S., Huddersfield  
 Tocher, M. B. Private tuition  
 Vyvyan, D. K. s. Ellerker Coll., Richmond Hill, S. W.  
 Watson, F. Private tuition  
 Thomas, G. M. M. Parkstone School  
 Linton, L. M. Girls' Gram. S., Levenshulme  
 Pearce, F. H. s. Alexandra Coll., Shirley  
 Roberts, N. Penpol Girls' S., Hayle  
 Williams, A. E. Old College S., Carnarthen  
 Beckett, K. S. Private tuition  
 Found, E. M. Westbourne H., Cowes  
 Bamford, J. Private tuition  
 Clarke, D. M. h. St. Margarets, Cardiff  
 Edwards, H. Technical S., Stalybridge  
 Morrey, A. L. The Academy, Crew

Green, J. M. e. Crouch End High S., Hornsey  
 Mason, C. M. ch. Chillingham Rd. S., Heaton  
 Pool, F. J. f. ch. Workington Secondary S.  
 Gledson, A. C. g. Chillingham Rd. S., Heaton  
 Stephens, A. ch. Arnot Street Council S., Walton  
 Dewhurst, B. I. g. Chillingham Rd. S., Heaton  
 Smith, D. E. Sunfield H., Wellington  
 Bertram, M. h. phys. Notre Dame, Mt. Pleasant, L'pool  
 Caulfield, M. e. Notre Dame, Mt. Pleasant, L'pool  
 Stanforth, M. U. ch. Devises Secondary S.  
 Joyce, H. L. s. Parkstone School  
 Colgan, E. a. phys. Notre Dame, Mt. Pleasant, L'pool  
 Rowtcliff, A. G. g. The Middle S., Holsworthy  
 Harrison, C. E. Private tuition  
 Howson, F. Notre Dame, Mt. Pleasant, L'pool  
 McCarthy, G. Notre Dame, Mt. Pleasant, L'pool  
 Godfrey, N. G. ph. Red Maids' S., Bristol  
 Lovell, G. I. ph. Red Maids' S., Bristol  
 Mercer, D. Arnot Street Council S., Walton  
 Leeds, D. M. High S., Dereham  
 O'Donnell, A. e. f. Notre Dame, Mt. Pleasant, L'pool  
 Truscott, D. V. R. d. Crouch End High S., Hornsey  
 Wilson, M. W. gm. d. Heaton Pk. Rd. Council S., Newcastle-on-T.  
 Wilcockson, W. g. Middleton P. T. Centre, Manchester  
 Butterworth, F. ch. Middleton P. T. Centre, Manchester  
 Elliott, G. A. C. bk. Lynton H., Portsmouth  
 Martlew, A. West Jesmond S., Newcastle-on-T.  
 Unsworth, M. ch. Gram. S., Ashton-in-Makerfield  
 Wellens, J. ch. Middleton P. T. Centre, Manchester  
 Downs, L. T. Abercorn Coll., Dublin  
 Withycombe, W. C. a. f. Holly Bank S., Bridgewater  
 Gilby, M. ch. Gram. S., Ashton-in-Makerfield  
 Pollard, D. d. Secondary S. for Girls, Peterborough  
 Hulbert, J. g. ch. Middleton P. T. Centre, Manchester  
 Dodds, E. Chillingham Rd. S., Heaton  
 Russell, A. M. e. d. Gram. S., Spalding  
 Whitlam, M. Middleton P. T. Centre, Manchester  
 Wolstencroft, M. E. C. Private tuition

McWilliam, K. Notre Dame, Mt. Pleasant, L'pool  
 Mount, A. L. Secondary S. for Girls, Peterboro'  
 Cohen, B. rd. Heaton Pk. Rd. Council S., Newcastle-on-T.  
 Millican, I. L. gm. ch. Workington Secondary S.  
 Goldthorp, A. ch. Middleton P. T. Centre, Manchester  
 McNally, E. d. Notre Dame, Mt. Pleasant, L'pool  
 Ronayne, M. d. Notre Dame, Mt. Pleasant, L'pool  
 Shaw, E. Gram. S., Ashton-in-Makerfield  
 Frewing, A. E. f. Portsmouth Girls' Secondary S.  
 Pullen, E. J. Secondary S. for Girls, Peterboro'  
 Carroll, C. phys. Notre Dame, Mt. Pleasant, L'pool  
 Reed, J. West Ham High S., Stratford  
 Rice, G. E. f. d. Calvea, Folkestone  
 Arnold, C. f. Private tuition  
 Icheate, H. B. Milton H., Atherstone  
 Hulme, B. ch. Preparatory Classes, Altrincham  
 Leonard, K. E. Abercorn Coll., Dublin  
 Cobb, E. M. Milton H., Atherstone  
 Day, D. Cambridge House, Camden Rd., N.  
 Wood, F. Langley H., Ashbourne  
 Cain, L. Stoke Public Girls' S.  
 Chattle, O. d. Secondary S. for Girls, Peterboro'  
 Faulkner, A. A. Private tuition  
 Lark, F. d. West Ham High S., Stratford  
 Binks, J. f. Notre Dame, Mt. Pleasant, L'pool  
 Blything, L. ch. Middleton P. T. Centre, Manchester  
 Sargent, B. F. f. sh. Royal Masonic Inst., Clapham Junction  
 Somers, G. M. ch. Preparatory Classes, Altrincham  
 Spooner, E. J. d. Cleveland H., Lower Clapton  
 Walsh, N. Notre Dame, Mt. Pleasant, L'pool  
 Davy, W. J. Tunbridge Wells High S.  
 Morgan, R. Notre Dame, Mt. Pleasant, L'pool  
 Morrissey, E. Notre Dame, Mt. Pleasant, L'pool  
 Renshaw, B. s. Woking High S. for Girls  
 Simons, D. d. Mission S. for Hebrew  
 Children, Streatham Common  
 Sugden, D. E. Hainault House, Ilford  
 French, D. B. h. a. Gram. S., Spalding  
 Hulbert, W. ch. Middleton P. T. Centre, Manchester  
 Oxford, G. Grosvenor House High S., Cricklewood  
 Richards, M. d. Japonica H., Exmouth  
 Callaghan, N. Technical S., Stalybridge  
 Hannah, A. R. Westmorland Rd. S., Newcastle-on-T.  
 Hobbs, D. L. Parkstone School  
 Roizot, J. E. Steyne S., Worthing

Turner, A. Notre Dame, Mt. Pleasant, L'pool  
 Williams, N. Crouch End High S., Hornsey  
 Hampson, N. Notre Dame, Mt. Pleasant, L'pool  
 Murch, W. Notre Dame, Mt. Pleasant, L'pool  
 Patterson, R. A. Aintree High S.  
 Watt, E. I. Crouch End High S., Hornsey  
 Boone, G. ch. Queensberry S., Longton  
 Harding, E. A. West Jesmond S., Newcastle-on-T.  
 Llewellyn, E. d. Pencairg Coll., Newport  
 Murphy, J. Notre Dame, Mt. Pleasant, L'pool  
 Conway, M. Loreto Conv., Hulme, Manchester  
 Dixon, A. Westmorland Rd. S., Newcastle-on-T.  
 Gorton, D. H. h. Pemberton Coll., Up. Holloway  
 Hayes, K. Notre Dame, Mt. Pleasant, L'pool  
 Murphy, E. Notre Dame, Mt. Pleasant, L'pool  
 Brentnall, M. d. Culcheth Hall, Bowdon  
 Burkin, D. E. mu. Tudor H., Exeter  
 Clarke, F. Notre Dame, Mt. Pleasant, L'pool  
 Farr, W. d. Abbeyfield Mount High S., Sheffield  
 Garrod, M. H. Holt H., Fakenham  
 Lalor, L. G. h. Private tuition  
 Lowe, H. E. B. Private tuition  
 Skinner, S. E. d. Gram. S., Spalding  
 Jenkins, E. M. Sunfield H., Wellington  
 Parker, V. f. d. Coll. S. for Girls, Havant  
 Parkin, M. M. f. d. Wood End S., Buxton  
 Parry, J. High Bank Ladies' S., Altrincham  
 Rickard, D. Stoke Public Girls' S.  
 Sharpe, D. M. d. Secondary S. for Girls, Peterboro'  
 Allen, D. M. d. West Ham High S., Stratford  
 Bath, M. A. f. Sunfield H., Wellington  
 Cox, M. A. Notre Dame, Mt. Pleasant, L'pool  
 Draysey, D. L. Pengwern Coll., Cheltenham  
 Patterson, M. D. Westmorland Rd. S., Newcastle-on-T.  
 Rogers, M. P. Heaton Pk. Rd. Council S., Newcastle-on-T.  
 Williams, G. M. mu. Bellevue, Herne Bay  
 Blundell, E. Notre Dame, Mt. Pleasant, L'pool  
 Branton, M. A. Gram. S., Spalding  
 Cullington, M. Notre Dame, Mt. Pleasant, L'pool  
 Greaves, H. M. ch. Queensberry S., Longton  
 Harris, E. G. Harley H., Hereford  
 Houghton, L. E. Hemdean H., Caversham  
 Jarvis, N. C. Girls' High S., Oakengates  
 Smyth, V. K. f. Gwynant, Gravesend  
 Baldon, F. Portsmouth Girls' Secondary S.  
 Burns, C. West Jesmonds, Newcastle-on-T.  
 Gilliam, C. D. gm. Victoria Inst. Secondary S., Worcester  
 Porter, M. J. Victoria Coll., Liverpool  
 Wear, L. M. J. Portsmouth Girls' Secondary S.

SECOND CLASS [or JUNIOR]. Honours Division.

Gieve, G. M. s. a. l. f. d. Crouch End High S., Hornsey  
 Smart, E. L. g. f. ch. d. Devises Secondary S.  
 Renner, E. E. a. d. Chillingham Rd. S., Heaton  
 Butterworth, E. g. ch. Middleton P. T. Centre, Manchester

SECOND CLASS [or JUNIOR]. Pass Division.

Edington, H. A. Cambridge House, Camden Rd., N.  
 Leonard, H. M. Abercorn Coll., Dublin  
 Gleeson, E. Notre Dame, Mt. Pleasant, L'pool

**GIRLS, 2ND CLASS, PASS—Continued.**  
 Bowie, A. ch. Workington Secondary S.  
 Brockbank, F. d.  
 Notre Dame, Mount Pleasant, L'pool  
 Creagh, W.F.A. Private tuition  
 Fox, A.M. Milton H., Atherstone  
 Gilmore, M.  
 Notre Dame, Mount Pleasant, L'pool  
 Hope, E. Brooklyn H., Wellington  
 Barry, E.  
 Loreto Conv., Hulme, Manchester  
 Bicknell, D.E. Tudor H., Exeter  
 Binnie, I.P.  
 Pupil-Teachers' Centre, Aldershot  
 Clough, A.C. Private tuition  
 Clough, A.C. Secondary S., Redditch  
 Holloway, B.  
 St. Thomas Hr. Grade S., Dudley  
 Jones, M. Notre Dame, Mt. Pleasant, L'pool  
 Sharpe, N. St. Maur Coll., Chesham  
 Curtis, M.F. Girls' Gram. S., Levenshulme  
 Fletcher, M.R. ch. Workington Secondary S.  
 Rochelle, P. ch. Queensberry S., Longton  
 Yeoman, A.B. Woodside, Hastings  
 Nedham, B.G. Workington Secondary S.  
 Reeves, M. Wellington Coll., Hastings  
 Rigby, C. Notre Dame, Mt. Pleasant, L'pool  
 Rosenblum, A. Mission S. for Hebrew Children, Streatham Common  
 White, I.G. Parkstone School  
 Wood, E.F. Red Maids' S., Bristol  
 Joseph, H.  
 Royal Masonic Inst., Clapham Junction  
 Woolley, E.E.  
 Secondary S. for Girls, Peterboro'  
 Yeoman, B. Woodside, Hastings  
 Buchan, D. 106 Sutherland Avenue, W. Ellis, I.M. Colville H., Eastbourne  
 Ferguson, H.L.S. Private tuition  
 Franks, G.B. h. Conway H., Farnborough  
 Hobson, A. Queensberry S., Longton  
 Kemp, D.  
 Secondary S. for Girls, Peterboro'  
 Cass, A. Steyne S., Worthing  
 Fletcher, D.B. Workington Secondary S.  
 Jaeger, E.L.M.  
 Craven Park College, Harlesden  
 Jones, D. ch.  
 Preparatory Classes, Altrincham  
 Pearson, d.  
 Heaton Pk. Rd. Councils., Newcastle-on-T.  
 Season, D.M. Devizes Secondary S.  
 Siggs, O. Mountheld, Uckfield.  
 Gordon, M.S. Argyle H., Sunderland  
 Hicks, M. bk. Private tuition  
 Marsh, E.A. Alexandra Coll., Shirley  
 Piper, I.M. Granville Coll., W. Croydon  
 Curtis, A.M.H. Private tuition  
 Elytt, E. d. West Ham High S., Stratford  
 Fyter, V.E. s. Collingwood College, Lee  
 Hayes, E.L.  
 Buckingham Place Acad., Landport  
 Walden, E.L. a. Gram. S., Spalding  
 Butcher, K.M.  
 Secondary S. for Girls, Peterboro'  
 Campbell, C.K.  
 Westmorland Rd. S., Newcastle-on-T.  
 Dale, E.M. f.  
 Portsmouth Girls' Secondary S.  
 East, G.A.E.  
 Gram. S., Ashton-in-Makerfield  
 Molyneux, F.  
 Notre Dame, Mt. Pleasant, L'pool  
 Moore, M.F.  
 Notre Dame, Mt. Pleasant, L'pool  
 Ogden, O.  
 Stoke Public Girls' S.  
 Slocumbe, H.M. Alexandra Coll., Shirley  
 Taylor, G. Secondary S. for Girls, Peterboro'  
 Bott, B. Workington Secondary S.  
 Buck, E. Braunstone H., Newport  
 Forbes, W.M. Bellevue, Herne Bay  
 Holt, C. Technical School, Stalybridge  
 Jones, E.M. Arlington H., Newport, Mon.  
 Roberts, M.F.D. Gram. S., Coleford  
 Seed, E.J. Private tuition  
 Tyaacke, I.A. Orton Coll., Colleshill  
 Wells, D.H.M. Wellington Coll., Hastings  
 Charlton, Mary E.  
 Canning St. Council S., Newcastle-on-T.  
 Dodson, M.G. 109 Uxbridge Rd., Ealing  
 Parker, M. Private tuition  
 Rimmer, F. Gram. S., Ashton-in-Makerfield  
 Worthy, R.V. Argyle H., Sunderland  
 Ashton, M.E. Private tuition  
 Baston, E.M. ch.  
 Chillingham Rd. S., Heaton  
 Cook, F.M. Gram. S., Ashton-in-Makerfield  
 Coyne, M.K. Private tuition  
 Fitzmaurice, A.  
 Notre Dame, Mt. Pleasant, L'pool  
 Grimshaw, M. f. Private tuition  
 Hannan, K.  
 Notre Dame, Mt. Pleasant, L'pool  
 Lockley, E.M. Sunfield H., Wellington  
 Morgan, D.M. Southernhay S., Exeter  
 Nash, A. Brunt's Technical S., Mansfield  
 O'Keefe, K.  
 Notre Dame, Mt. Pleasant, L'pool  
 Bryce, J.D. Chillingham Rd. S., Heaton

Griffith, L.M. ch.  
 Preparatory Classes, Altrincham  
 Hyslop, M.E. Harley H., Hereford  
 Jordan, B. Workington Secondary S.  
 Levine, A. Mission S. for Hebrew Children, Streatham Common  
 Barrett, M.  
 Notre Dame, Mt. Pleasant, L'pool  
 Cole, E.S. Portsmouth Girls' Secondary S.  
 Conway, G.  
 Notre Dame, Mt. Pleasant, L'pool  
 Horner, M.J. Cambridge House, Camden Rd., N.  
 Anderton, M.H. f.  
 West Ham High S., Stratford  
 Barker, S.E. Old Gram. S., Botesdale  
 Gould, O.S. f.  
 Portsmouth Girls' Secondary S.  
 Moore, M. f.  
 Loreto Conv., Hulme, Manchester  
 Peate, A. f. Portsmouth Girls' Secondary S.  
 Scotney, E.E.  
 Secondary S. for Girls, Peterboro'  
 Brighton, F. Ashley High S., Wisbech  
 Livingstone, I.S.S. Private tuition  
 Picken, M.S. Brooklyn H., Wellington  
 Robinson, E.M. Tynbridge Wells High S.  
 Stamp, D. Technical S., Stalybridge  
 Thompson, E.  
 Brunt's Technical S., Mansfield  
 Williams, S. Private tuition  
 Bennett, E. Private tuition  
 Flower, M.J. ch. Devizes Secondary S.  
 Hewitt, E.  
 Westmorland Rd. S., Newcastle-on-T.  
 Smith, D.O. Harley H., Hereford  
 Walker, W.  
 Loreto Conv., Hulme, Manchester  
 Ainsworth, D. Private tuition  
 Biddlecomb, E.M. Westbourne H., Cowes  
 Hosking, A. St. James' Coll. S., Jersey  
 Lloyd, E.K.  
 Westgate Hill Council S., Newcastle-on-T.  
 Riley, E. Loreto Conv., Hulme, Manchester  
 Rimmer, D.  
 Notre Dame, Mt. Pleasant, L'pool  
 Sherlock, L.  
 Woodford High S., South Woodford  
 Wight, E.N. Elvaston S., Dulwich  
 Potter, G. Stoke Public Girls' S.  
 Amy, D.M. f. Private tuition  
 Coombs, N.M. Hope Lodge S., Bexley Heath  
 Donnelly, E.  
 Notre Dame, Mt. Pleasant, L'pool  
 Drew, M.C. Holly Bank S., Bridgewater  
 Franklin, C. d.  
 Girls' S., Mansel Rd., Small Heath  
 Malone, E. phys.  
 Notre Dame, Mt. Pleasant, L'pool  
 Price, E. ch.  
 Gram. S., Ashton-in-Makerfield  
 Reynolds, C.G. Private tuition  
 Seabrook, H.M.  
 Temple Square S., Aylesbury  
 Yeates, B.W. f. Mount Coll., Clent  
 Ashmore, E.M. Granville Coll., W. Croydon  
 Blood, E.  
 Hr. Standard S., Sutton-in-Ashfield  
 Daniel, M.L. Private tuition  
 Hunt, C. Secondary S., Redditch  
 McHugh, K.  
 Notre Dame, Mt. Pleasant, L'pool  
 Seymour, C. Gram. S., Spalding  
 Williams, A. The Academy, Crewe  
 Denton, E. Private tuition  
 Doyle, M.  
 Notre Dame, Mt. Pleasant, L'pool  
 Gillingham, W.M. Colville H., Eastbourne  
 Holson, E. Orton Coll., Colleshill  
 Hubbard, A. Gram. S., Spalding  
 Hunt, D.M. Quarry H., Guildford  
 Jones, M.E.N.  
 Pemberton Coll., Up. Holloway  
 Kelly, E.E. Alexandra Coll., Shirley  
 Rider, D.K. Oakley High S., Southsea  
 Tait, C.M.  
 Westmorland Rd. S., Newcastle-on-T.  
 White, M.A. Bellevue, Herne Bay  
 Collings, L.  
 Summerfield Hall, Maesywmmier  
 Connor, A. d.  
 Notre Dame, Mt. Pleasant, L'pool  
 Dudfield, L.D. Dresden H., Evesham  
 Ellerby, L.E. Haxby Rd. Council S., York  
 Franks, H. Ashley High S., Wisbech  
 Rush, R.D. f. Wellington Coll., Hastings  
 Wigley, G.F. Porth Hr. Grade S.  
 Denison, C. d.  
 Saxonholme High S., Whalley Range  
 Harrison, E. Penketh School  
 Hewlett, D. Brunt's Technical S., Mansfield  
 MacGrath, S. Avenue S., Leigh  
 Tatham Thompson, P. Private tuition  
 Thomas, V. Penventon S., Redruth  
 Thorley, R.  
 Loreto Conv., Hulme, Manchester  
 Truscott, L. Stoke Public Girls' S.  
 Caird, A. Osborne H., Cliftonville  
 Digby, E.G.M. Oakley High S., Southsea  
 Freeman, D.G. Parkstone School

Guthrie, N.  
 Canning St. Council S., Newcastle-on-T.  
 Coppock, E. Springfield S., Stockport  
 Dobson, B.M. Westbourne H., Cowes  
 Halifax, E.M. Buda Coll., Aldington, Hove  
 Pearce, D.M. Private tuition  
 Starck, M.S. Private tuition  
 Wilson, N.B.  
 West Jesmond S., Newcastle-on-T.  
 Gasquoine, E. Sunnybrae, Southport  
 Hagger, A.M.M.  
 St. John's House, Felixstowe  
 Minter, W.A. Private tuition  
 Radford, K.V. Hampton H., Cotham, Bristol  
 Restall, A.  
 Buckingham Place Acad., Landport  
 Wilkin, G.E.E. Litcham, Swaffham  
 Adam, E.A. Chillingham Rd. S., Heaton  
 Ball, D. Springfield S., Stockport  
 Chapman, E.W. Private tuition  
 Foster, K.C.  
 Portsmouth Girls' Secondary S.  
 Andrews, Y.B. s.  
 Cambridge H., Camden Rd., N.  
 Chapman, G. f.  
 West Ham High S., Stratford  
 Cole, G.M. Portsmouth Girls' Secondary S.  
 Fenn, F.G.  
 Secondary S. for Girls, Peterboro'  
 Hardy, E.A. Arundel H., Scarborough  
 Hardy, G.M. Arundel H., Scarborough  
 Jackson, F.B. Clark's College, Brixton Hill  
 Kemball, B. Quarry H., Guildford  
 Leather, A. Avenue S., Leigh  
 McGrath, I.M.  
 Pupil-Teachers Centre, Aldershot  
 Mott, L.S. f. Hemdean H., Caversham  
 Powell, G.G. The Academy, Crewe  
 Roe, A. Hope Lodge S., Bexley Heath  
 Charlton, Margaret E.  
 Canning St. Council S., Newcastle-on-T.  
 Colbert, K.  
 Secondary S. for Girls, Peterboro'  
 Cornforth, G.  
 Sandford Rd. Council S., Jesmond  
 Davies, G. Notre Dame High S., Plymouth  
 Hindell, L. Queensberry S., Longton  
 Hollingworth, L.M. Private tuition  
 Riches, E.W. Wellington S., Deal  
 Sayell, D.E. Hope Lodge S., Bexley Heath  
 Thomas, M.K. Private tuition  
 Coombes, W. Stoke Public Girls' S.  
 Dyer, F.E.  
 Central Council S., Weston-s.-Mare  
 Gardiner, P.E. Pengwern Coll., Cheltenham  
 Johnston, M.S. Toddington Coll.  
 Martin, I.A. St. Maur Coll., Chesham  
 Morrell, B. Stoke Public Girls' S.  
 Spriggins, O.F. Gavine H., Portsmouth  
 Warr, D. Warwick H., Roade  
 Williamson, K.  
 Notre Dame, Mt. Pleasant, L'pool  
 Bourne, E. Queensberry S., Longton  
 Bowman, A.E.  
 Westmorland Rd. S., Newcastle-on-T.  
 Conlon, E.  
 Notre Dame, Mt. Pleasant, L'pool  
 Hale-Stephens, M.  
 St. Maur Coll., Chesham  
 Jones, D.M. Sunfield H., Wellington  
 Lambert, L.F.  
 County Secondary S., Chippenham  
 Peace, A. K.  
 Royal Masonic Inst., Clapham Junction  
 Pout, E.M. Wellington S., Deal  
 Powell, M.D. Lulworth H., Caerleon  
 Farr, E.M. Secondary S. for Girls, Peterboro'  
 Jackson, O.T. Elvaston S., Dulwich  
 Keeves, E.T. West Ham High S., Stratford  
 Lavington, E.M. Ruskin S., Maidenhead  
 Nolan, I. Notre Dame, Mt. Pleasant, L'pool  
 Pearce, D.C. Private tuition  
 Ploughman, B.M. Southampton Girls' Coll.  
 Royle, H.M. ch.  
 Preparatory Classes, Altrincham  
 Stebbing, N.G. Heddingham, Wallington  
 Bispham, G.E. The Academy, Crewe  
 Bradbury, A. Private tuition  
 Burrows, E.M. Ashton H., Grantham  
 Cussans, N.J.  
 St. Peter's Girls' S., Bournemouth  
 Davies, M. St. Maur Coll., Chesham  
 Godliard, M.H. Blenheim H., Fareham  
 Hughes, S. W.  
 Summerfield Hall, Maesywmmier  
 Bullivant, D. The Limes, Solihull  
 Docherty, M.  
 West Jesmond S., Newcastle-on-T.  
 Foster, D.A. Wellington Coll., Hastings  
 Garrett, B.  
 Notre Dame, Mt. Pleasant, L'pool  
 Gibson, K. Gram. S., Ashton-in-Makerfield  
 Kelly, M.A. Adelphi H., Salford  
 McDermott, M.  
 Notre Dame, Mt. Pleasant, L'pool  
 Trevett, E.R. The Magnolias, Southsea  
 Corbett, C.E.L. Girls' High S., Oakenhates  
 Herbert, F. Broadfield, Roehdale

Ivory, P.M. Stapleton Hall S., Stroud  
 Taylor, F. Brunt's Technical S., Mansfield  
 Constantine, V. Aintree High S.  
 Dow, E.M. Granville Coll., Southampton  
 Mitchell, H.M. Queensberry S., Longton  
 Pattison, L.M.  
 Canning St. Council S., Newcastle-on-T.  
 Whillier, G.  
 Oxford H., St. Leonards-on-Sea  
 Winter, E.R.  
 Ellerker Coll., Richmond Hill, S.W.  
 Beequet, A.H. St. James' Coll. S., Jersey  
 Millard, K. Blenheim H., Fareham  
 Newcombe, D.M.  
 Ellerker Coll., Richmond Hill, S.W.  
 Norton, E. The Magnolias, Southsea  
 Ramsay, A.I.  
 Westmorland Rd. S., Newcastle-on-T.  
 Randall, B.M.  
 Woodford High S., South Woodford  
 Smith, H.E.  
 Secondary S. for Girls, Peterboro'  
 Angell, G.M.  
 Woolston Ladies' Coll., Southampton  
 Freegard, K.E.  
 County Secondary S., Chippenham  
 Gard, E.T. d. South Molton United Higher S.  
 Lovatt, E.N. Private tuition  
 Saunders, G.L.F.  
 Normacot Girls' S., Longton  
 Finsbury Park High S.  
 Bertie, W.K.  
 Church, C.K.  
 Girls' Prep. S. Temperance Inst., Dudley  
 Dillworth, M.B. Gram. S., Spalding  
 Harls, W.M. Ruskin S., Maidenhead  
 Manger, P.R. Elvaston S., Dulwich  
 Proctor, M.M. Gram. S., Spalding  
 Simster, R.E. Queensberry S., Longton  
 Touzel, E.M.  
 Les Marais High S., Fauvic, Jersey  
 Brownbill, M. ch.  
 Preparatory Classes, Altrincham  
 Dove, A.A.  
 Hr. Standard S., Sutton-in-Ashfield  
 Evans, N. 114 Cathedral Rd., Cardiff  
 Freegard, F.E.  
 County Secondary S., Chippenham  
 Haworth, G. Girls' Gram. S., Levenshulme  
 Maywhort, E. The Academy, Crewe  
 Scarborough, J.M.M.  
 Devonshire Rd. S., Forest Hill  
 Elliott, J.W. Private tuition  
 Hillen, L.F.  
 Cambridge House, Camden Rd., N.  
 James, V.A. Porth Higher Grade S.  
 Skelling, L.G. Private tuition  
 Ward, K. Buda Coll., Aldington, Hove  
 Whitburn, D.  
 Sandford Rd. Council S., Jesmond  
 Desmares, E.R. f.  
 Plaisance Terrace S., St. Luke's, Jersey  
 Madge, Q.L. Porthminster S., St. Ives  
 Trythall, L. Parc Bracket Coll., Camborne

**THIRD CLASS.**  
**Honours Division.**

Noakes, C.M. f. Crouch End High S., Hornsey  
 Winters, D. ch. g. a. l. f. St. Michael's S., Malton  
 Goodwin, G.I. s. bk. Sirsa H., Cheltenham  
 Tarant, J. s. e. h. d. St. Michael's S., Malton  
 Bowden, O. e. a. a. l. f. Stoke Public Girls' S., Stoke  
 Holmes, L. s. e. St. Andrew's Hall, Southport  
 Davies, Elsie, M. s. e. d. Summerfield Hall, Maesywmmier  
 Barker, E. G. s. e. f. i. Private tuition  
 McDonald, E. A. s. e. g. Cambridge House High S., Battersea Pk.  
 Bevan, C.A. e. h. a. Oakover Girls' S., Burnham  
 Hill, M. e. a. l. Loreto Conv., Hulme, Manchester  
 Payne, G. L. e. a. bk. Alexandra Coll., Shirley  
 Larkinson, C.M. g. a. Camden House, Biggleswade  
 Wise, D. H. s. e. West Ham High S., Stratford  
 Belshaw, Elizabeth s. e. a. St. Andrew's Hall, Southport  
 Biggs, C.M. a. Crouch End High S., Hornsey  
 Moore, A. L. s. h. d. Camden H., Biggleswade  
 Prosser, I. M. M. s. e. h. Wilsford, Devizes  
 Fromow, R. M. e. a. Brook Green Girls' Coll.  
 Hart, E. s. a. d. Manchester Warehousemen & Clerks' Orphan S., Chadde Hulme  
 Slater, N. e. a. d. St. Andrew's Hall, Southport  
 Whyte, E. s. e. a. d. St. Michael's S., Malton  
 Blundell, P. e. a. d. St. Andrew's Hall, Southport  
 Lester, G. I. s. e. f. d. Sunfield H., Wellington  
 Wilson, B. E. L. h. Royal Masonic Inst., Clapham Junction  
 Colbourne, K. s. e. a. 20 St. Aubyns, Hove

GIRLS, 3RD CLASS, HONS.—Continued.

Lloyd, M. Cambridge House High S., Battersea Pk. Redding, C.B. d. Fairlight, Southsea Walton, G. e. a. d. St. Andrew's Hall, Southport
Anthony, B. M. bk. Towcester School Ashton, M. e. h. St. Andrew's Hall, Southport Usher, E. N. Wilsford House, Devizes
Barton, J. A. E. d. Sirsa H., Cheltenham Gay, V. h. al. Stoke Public Girls' S., Stoke Gibbs, E. M. s. e. d. Holt H., Fakenham Leaf, L. M. s. a. a. d. Private tuition Scholes, M. A. a. d. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme Wright, G. I. s. d. Glenarm Coll., Ilford
Betts, O. M. s. d. Stapleton Hall S., Stroud Green Bradley, E. A. e. Sunfield H., Wellington McConnell, A. E. e. d. Sunfield H., Wellington Ridgway, K. E. s. e. a. d. Sunfield H., Wellington Stevenson, N. F. s. e. a. f. d. Royal Bay H., Grouville Toyne, M. a. Crouch End High S., Hornsey
Gayford, V. M. s. e. Lonsdale H., Norwich Hall, G. M. a. d. Camden H., Biggleswade Hodgson, G. e. d. St. Andrew's Hall, Southport Stuart, M. e. f. d. Llanberis, Ealing
Beresford, H. e. Moseley High S., Birmingham Bray, N. Stoke Public Girls' S., Stoke Cookman, K. s. e. d. Woodford High S., South Woodford Hunter-Smith, E. J. s. a. Cornwallis High S., Hastings
Green, E. M. d. Royal Masonic Inst., Clapham Junction Mason, E. e. d. Chorlton High S., Chorlton-cum-Hardy Meade, D. H. Royal Masonic Inst., Clapham Junction Powell, E. M. s. f. Woodside, Hastings Richardson, M. e. a. Loretto Conv., Hulme, Manchester Whittaker, O. M. a. Pencraig Coll.
Belshaw, Ellen St. Andrew's Hall, Southport Best, S. D. a. Crouch End High S., Hornsey Blunsum, O. s. e. Woodford High S., South Woodford Copeman, B. M. e. Harborne Coll. Curtis, M. s. e. d. Woodford High S., South Woodford Lichtenberg, L. Stapleton Hall S., Stroud Green Moon, M. C. s. e. Highwood H., Liskeard
Haveling, H. d. St. Andrew's Hall, Southport Hirsh, J. f. g. e. St. Margarets, Blakeney Luke, V. s. d. Abercorn Coll., Dublin
Dalton, L. St. Andrew's Hall, Southport Holt, M. St. Andrew's Hall, Southport Ward, W. d. St. Andrew's Hall, Southport
Faircloth, D. M. s. e. h. a. Holt H., Fakenham
Lawrence, L. a. Stoke Public Girls' S., Stoke Rhodes, D. A. e. f. Clivedon H., Stoke Newington Sims, A. L. e. a. Cambourne S., Richmond Spears, H. M. e. d. Private tuition Stevenson, J. s. e. St. Michael's S., Malton Williams, W. R. e. f. d. Elsmere S., Reading

THIRD CLASS.

Pass Division.

Martin, M. Queensberry S., Longton
2Hall, A. ch. Preparatory Classes, Altrincham
2McMahon, E. Notre Dame, Mt. Pleasant, L'pool
2Hendry, B. Westmorland Rd. S., Newcastle-on-T.
2Cook, H. Highfield S., Croydon
2Hendy, D. Devizes Secondary S.
2Clarke, E. F. d. Ellerker Coll., Richmond Hill
2Fitzpatrick, B. Notre Dame, Mt. Pleasant, L'pool
2Salisbury, F. A. Central Council S., Weston-s.-Mare
2Wilcock, V. Skerry's Coll., Liverpool
2Porsey, W. Notre Dame, Mt. Pleasant, L'pool
2Bns., L. O. Parkstone School
2Lidbetter, K. M. Cambridge House, Camden Rd., N.
2Reardon, A. Porth Hr. Grade S.
2Miller, B. St. J. s. Beulah House High S., Upper Tooting
2White, M. O. Westmorland Rd. S., Newcastle-on-T.

Merrington, N.

West Jesmond S., Newcastle-on-T.
2Dalton, D. H. Licensed Victuallers' Girls' S., S. E.
2Fawcett, L. Westmorland Rd. S., Newcastle-on-T.
2Ray, M. Notre Dame, Mt. Pleasant, L'pool
2Cottee, E. G. Rose Bank, Brentwood
2Hosking, C. D. Parc Bracket Coll., Camborne
2Jones, O. Porth Hr. Grade S.
2Whitehead, L. f. Kylegas, Southsea
2Potts, F. Canning St. Council S., Newcastle-on-T.
2Charlton, C. M. Allandale High S., Sale Clayton, E. M. e. d. Merton S., Doncaster Davies, M. Holmwood Coll., Westcliff-on-Sea
2Fair, B. J. Westmorland Rd. S., Newcastle-on-T.
2Gottrell, I. G. Ashton H., St. Clements, Jersey
2Jerome, H. A. Portsmouth Girls' Secondary S. Knights, H. M. e. a. Girls' Modern S., Harleston Potter, M. a. d. D'Arcy Hey, Boscombe Regnies, M. E. a. a. d. Lynton H., Portsmouth
2Senior, C. Abbeyfield Mount High S., Sheffield Shilton, D. L. d. Towcester School Clarke, V. E. Towcester School
2Wiltshier, R. K. Brook Green Girls' Coll.
2Amcoats, S. K. e. f. d. Llanberis, Ealing Ascough, I. C. s. Oxford College, Gunnersbury Ballad, F. A. Temple Square S., Aylesbury Boutwood, H. M. e. Wellington Coll., Hastings Bowden, A. Alexandra Coll., Shirley Hunt, M. D. Blenheim H., Fareham Jones, A. L. d. Larchmount Hall, Yatton Layton, M. C. a. Royal Masonic Inst., Clapham Junction
2Meginn, E. Notre Dame, Mt. Pleasant, L'pool Price, M. E. Allyn Coll., Margate Rae, F. F. Finsbury Park High School Shacklady, M. d. St. Andrew's Hall, Southport Tompkins, N. F. s. a. Temple Square, S., Aylesbury Webb, N. V. e. Holmwood Coll., Westcliff-on-Sea
2Askew, D. Mosley High S., Birmingham Baker, M. d. Royal Masonic Inst., Clapham Junction Baker, M. I. e. d. West Ham High S., Stratford
2Bell, E. M. West Jesmond S., Newcastle-on-T. Clayton, J. St. Andrew's Hall, Southport
2Crapper, E. Notre Dame, Mt. Pleasant, L'pool Green, M. e. Chesnut H., Lincoln. Hand, G. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme Hobbs, K. M. s. e. Alexandra Coll., Shirley
2Horrigan, C. Adelphi H., Salford Hubert, F. L. e. f. St. James's Coll. S., Jersey Palmer, M. G. f. Victoria H., Dorking Powell, E. J. e. Penketh School
2Spencer, E. M. Cambridge House, Camden Rd., N. Tice, G. L. M. d. Pemberton Coll., Upper Holloway
2Abram, K. M. e. Elmstone H., Ramsgate Coyte, L. Stoke Public Girls' S., Stoke
2Dyson, E. Private tuition Gower, M. E. Woodford High S., South Woodford Hall, A. a. Stoke Public Girls' S., Stoke
2Lawrence, E. W. Fairfield H., East Dereham Marsh, E. St. Andrew's Hall, Southport Meaby, V. M. e. h. Hennean H., Caversham Pearce, G. E. d. Royal Masonic Inst., Clapham Junction Price, E. M. d. St. Maur Coll., Chestport Ravell, M. M. Fenside, Grantham
2Redding, D. V. Fairlight, Southsea Routledge, I. s. Mount Eyrre, Southport
2Rowe, A. Notre Dame High S., Plymouth
2Batty, M. G. d. Devon Lodge, Wyde Green Brooks, O. M. d. St. Margarets, Cardiff
2Calvert, F. C. Colville H., Eastbourne
2Ditchburn, J. East Walker Council S., Newcastle-on-T. Ellmers, A. E. e. d. West Ham High S., Stratford
2Harse, D. L. Central Council S., Weston-s.-Mare
2Hart, H. Brunt's Technical S., Mansfield Haswell, I. Heaton Pk. Rd. Councils., Newcastle-on-T. Hewett, D. R. s. f. d. Glenarm Coll., Ilford Ivens, S. M. d. Westbourne H., Cowes
2Loveday, E. d. Thrapston High S. for Girls
2Luckley, A. Westmorland Rd. S., Newcastle-on-T.

Mackinlay, S. D.

Westmorland Rd. S., Newcastle-on-T. Stone, E. a. Girls' High S., Tuxford
2Strode, E. M. Aintree High S.
2Bracegirdle, D. ch. Preparatory Classes, Altrincham Clutterbuck, G. M. e. Crouch End High S., Hornsey Dunlop, A. P. Roden H., Ongar
2Graham, E. Collingwood College, Lee
2Zod, W. A. Crouch End High S., Hornsey Taylor, E. M. e. Ripley Comm. S.
2Walter, F. A. Colville H., Eastbourne Weaver, G. M. Larchmount Hall, Yatton
2Anderson, W. M. a. f. Collegiate School, Worcester Park Crofts, W. J. Victoria H., Dorking Daplyn, E. M. s. e. d. Holt H., Fakenham Galloway, H. J. s. e. f. Private tuition
2Laugher, K. E. Private tuition
2Murphy, O. F. St. L. Arlington H., Newport, Mon. Pilling, M. d. St. Andrew's Hall, Southport Witting, J. Arundel H., Scarborough
2Ansell, E. G. Allyn Coll., Margate Bellamy, K. E. e. Fenside, Grantham
2Deakin, G. E. Licensed Victuallers' Girls' S., S. E. Downes, L. d. St. Michael's S., Malton Emerson, E. E. Fenside, Grantham
2Hudson, T. Loretto Conv., Hulme, Manchester
2Millard, M. A. Blenheim H., Fareham Prynn, D. Stoke Public Girls' S., Stoke Smith, S. G. f. Brookville S., Fife Stevens, M. d. Edgehill Girls' Coll., Bideford
2Terry, F. E. Middle Class S., Maidstone
2Young, E. Heaton Pk. Rd. Councils., Newcastle-on-T.
2Blight, J. R. Cambridge H., Millbrook
2Brady, C. Notre Dame, Mt. Pleasant, L'pool Duffy, C. Loretto Conv., Hulme, Manchester Herbert, H. Stoke Public Girls' S., Stoke Potter, M. s. The Crescent S., Norwich Reeve, H. M. d. Private tuition Rodwell, P. M. s. d. Royal Masonic Inst., Clapham Junction
2Simpson, E. R. Private tuition
2Tonkin, J. Aintree High S.
2Winstanley, M. J. Private tuition
2Adams, G. d. The Poplars, Small Heath
2Brill, G. M. Granville Coll., W. Croydon
2Brown, M. V. Cambridge House, Camden Rd., N. Cookson, H. W. d. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme Higgs, E. M. d. Hemdean H., Caversham Hughes, M. O. Hemdean H., Caversham Jackson, D. a. d. Richmond High S., Liskeard Jacob, I. s. Edgehill Girls' Coll., Bideford Jones, G. S. Private tuition
2McGillivray, L. R. Alexandra Coll., Shirley Miller, F. S. Clarendon Collegiate Coll., Forest Gate Moar, E. a. d. Girtonville Coll., Aintree
2Moore, A. Private tuition
2Sandys, M. E. Royal Masonic Inst., Clapham Junction Skinner, G. L. F. Teddington College
2Tomlinson, H. M. J. E. Craven Park Colleges, Harlesden
2Charlwood, E. M. d. Bourne H., Eastbourne Doubl, D. F. s. e. Hope Lodge S., Bexley Heath Douglas, E. A. Teddington College
2Garstin, D. B. Private tuition Kendall, E. M. e. f. Grosvenor H., Wokingham
2Moran, E. Notre Dame, Mt. Pleasant, L'pool
2Neve, C. M. Bitterne Pk. Girls' Council S., Southampton
2Nixon, R. M. Westmorland Rd. S., Newcastle-on-T. Pettinam, M. E. e. d. Hartington H., Beckenham
2Price, P. M. Bedford Rd. Councils., Bootle Sheldrake, N. M. Brook Green Girls' Coll. Walke, H. a. Stoke Public Girls' S., Stoke
2Adams, T. E. Royal Masonic Inst., Clapham Junction
2Billington, G. M. Abergeldie H., Clifton, Bristol Boreham, M. F. s. Stapleton Hall S., Stroud Green
2Brooker, M. Girls' High S., Maidstone Butt, E. s. D'Arcy Hey, Boscombe Dillway, E. M. a. Crouch End High S., Hornsey Edwards, A. C. Highfield S., Croydon Graham, D. St. Andrew's Hall, Southport
2Jefferson, D. M. West Jesmond S., Newcastle-on-T.
2Lake, P. M. Mount Eyrre, Southport Lamb, D. A. a. Lime Tree H., York Linsington, W. M. Thorntonville S., Thornton Heath Milligan, H. U. s. Alexandra Coll., Shirley
2Routledge, M. Mount Eyrre, Southport

Sankey, P. M.

Royal Masonic Inst., Clapham Junction
2Slight, M. The Academy, Crewe
2Slight, M. W. a. Blenheim H., Fareham
2Stevens, F. Stoke Public Girls' S., Stoke
2Webber, F. Japonica H., Exmouth
2Allen, M. a. Stoke Public Girls' S., Stoke Colton, M. A. D. Towcester School Goodhew, P. Roden H., Ongar Henderson, S. H. Crouch End High S., Hornsey
2Keay, H. D. s. Girtonville Coll., Aintree
2Keeley, L. Woodford High S., South Woodford
2Kingston, H. West Ham High S., Stratford
2London, P. G. Lulworth H., Carlion Lucas, L. A. Harringay Park S., Hornsey
2Moore, A. E. Liskeard High S.
2Neale, G. Girls' High S., Maidstone
2Perkins, F. Mount Eyrre, Southport Phippen, B. Larchmount Hall, Yatton Sargent, G. A. The Middle S., Holsworthy Stevenson, A. d. Canning St. Council S., Newcastle-on-T. Webb, F. L. Oakover Girls' S., Burnham Weiland, M. I. f. g. St. Margarets, Blakeney
2Wilks, F. B. Harley H., Hereford Williams, V. K. Brooklyn H., Wellington
2Wood, H. C. Private tuition
2De Neville, I. M. Ripley Comm. S.
2Eversley, E. H. Central Council S., Weston-s.-Mare
2Gill, L. Normandy Council S. Kimber, H. M. Alexandra Coll., Shirley Lawrence, G. F. d. Oakover Girls' S., Burnham
2Michie, E. L. Cambridge House, Camden Rd., N.
2Mikeash, C. M. s. Licensed Victuallers' Girls' S., S. E. Moyle, D. e. St. Monica's, Streatham Pincott, D. E. d. Private tuition Recknell, E. W. Royal Masonic Inst., Clapham Junction
2Samman, C. A. Abergeldie H., Clifton, Bristol Steele, E. W. d. Glenarm Coll., Ilford Terry, F. M. d. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme Welch, E. K. a. d. Burton H., Weston-s.-Mare Williams, E. V. D'Arcy Hey, Boscombe
2Royal Masonic Inst., Clapham Junction Worthington, E. Westmorland Rd. S., Newcastle-on-T.
2Brown, E. E. e. d. Clatford H., Portwood, Southampton
2Brown, G. E. Alexandra College, Shirley Clatney, E. M. Royal Masonic Inst., Clapham Junction Clough, L. St. Michael's S., Malton Gill, E. L. e. f. Woodside, Hastings Haveling, M. K. e. f. Private tuition Heasell, D. K. Alexandra Coll., Shirley Jones, O. I. St. Margarets, Carliff
2Kitchen, F. G. The Academy, Crewe Krulich, J. C. f. High Trees Coll., Bournemouth Lomas-Smith, W. M. a. Bourne H., Eastbourne
2Phillips, A. St. Maur Coll., Chestport Pilling, D. Ellerker Coll., Richmond Hill Playford, C. e. d. Merton S., Doncaster Pritchard, P. Drayton H., Newport
2Rayner, M. Private tuition Richards, R. F. s. Girtonville Coll., Aintree Tait, J. M. a. Edgehill Girls' Coll., Bideford Utting, J. G. s. e. h. Holt H., Fakenham Watson, W. s. Welldrake National S., York Whitehead, E. I. Licensed Victuallers' Girls' S., S. E.
2Wright, G. M. Private tuition
2Allmond, D. E. Licensed Victuallers' Girls' S., S. E. Bickerstaff, M. s. Girtonville Coll., Aintree Brockbank, E. Canning St. Council S., Newcastle-on-T. Butler, E. F. Ellerker Coll., Richmond Hill
2Butler, F. J. Colville H., Swindon
2Colmer, M. Grosvenor House High S., Cricklewood Gunnings, N. s. Southemay S., Exeter Gornall, L. e. d. St. Andrew's Hall, Southport Greenwood, M. F. Alexandra Coll., Shirley Lewry, H. M. Selhurst Pk. S., South Norwood Longley, O. E. d. Westmorland Coll., Peckham Rd., S. E.
2Martin, F. D. Clark's College, Brixton Hill McGuiness, A. Loretto Conv., Hulme, Manchester
2Ouzman, F. Gram. S., Spalding Redburn, C. a. Woodside, Hastings Stevens, D. A. Royal Masonic Inst., Clapham Junction Thurnott, E. N. e. Lea School, Datchett Twine, A. J. Lynton H., Portsmouth Wright, O. M. Private tuition
2Bannister, J. M. Girls' Modern S., Harleston Blauntern, E. C. d. Olton College, Olton

**GIRLS, 3RD CLASS, PASS—Continued.**  
 Branston, N. d. 51 Ditchling Rise, Brighton  
 Cook, E. J. Woodford High S., South Woodford  
 Cragg, R. E. Fernside, Grantham  
 Crawford, A. W. e. a. West Ham High S., Stratford  
 2Hall, D. M. Clark's College, Brixton Hill  
 Hardy, F. E. Private tuition  
 Harrison, K. St. Andrew's Hall, Southport  
 Haughton, E. M. Preswylfa High S., Cardiff  
 2Hicks, G. J. B. Private tuition  
 2Knight, D. M. Buckingham Place Acad., Landport  
 2Lewis, E. Stoneleigh Ladies' Coll., Porthcawl  
 Mackintosh, J. E. Royal Masonic Inst., Clapham Junction  
 2Manson, M. Canning St. Council S., Newcastle-on-T.  
 2Morgan, E. M. Summerfield Hall, Maesyewmmer  
 2Morrison, I. Westmorland Rd. S., Newcastle-on-T.  
 Pople, D. E. d. Oakover Girls' S., Burnham  
 2Scurrah, M. B. Girls' Gram. S., Levenshulme  
 Symonds, M. D. d. High School, Hornechurch  
 2Withers, M. G. Atkinson's Civil Service Acad., Manchester  
 Carr, N. L. Devon Lodge, Wyde Green  
 Cronin, A. Loreto Conv., Hulme, Manchester  
 Dick, A. W. Royal Masonic Inst., Clapham Junction  
 Edwards, D. E. Ripley Comm. S.  
 Fischer, E. F. d. Harringay Park S., Hornsey  
 Griffith, M. M. d. Girtonville Coll., Aintree  
 Hansard, V. E. Guelph Coll., Bristol  
 2McKenna, M. Mount Eyre, Southport  
 Merrills, P. Ladbroke H., Sheffield  
 2Oxendale, H. M. British S., Great Ayton  
 2Price, C. M. Ladies' Coll., Nantwich  
 2Strawbridge, M. Private tuition  
 Weston, C. Royal Masonic Inst., Clapham Junction  
 Wheeler, N. s. Beulah House High S., Upper Tooting  
 2Woodroffe, W. G. Heddingham, Wallington  
 Bailey, E. M. Private tuition  
 Barker, W. E. Licensed Victuallers' Girls' S., S. E.  
 Braybrooks, M. A. s. d. Camden H., Biggleswade  
 2Buxton, M. Queensberry S., Longton  
 Claphew, A. M. d. Ripley Comm. S.  
 Evans, I. D. Hainault H., Ilford  
 2Frickelton, M. Burton H., Weston-s-Mare  
 Gabashane, M. L. African Training Inst., Colwyn Bay  
 Haddy, B. a. Stoke Public Girls' S., Stoke  
 Morgan, M. C. Drayton H., Newport  
 2Ross, P. A. I. Westbourne H., Cowes  
 Russell, O. R. V. Westmorland Rd. S., Newcastle-on-T.  
 Winter, P. R. T. Westmorland Rd. S., Newcastle-on-T.  
 2Buck, O. W. Gran S., Spalding  
 2Cooper, F. Cambridge H., York  
 Duflin, R. s. d. The Crescent S., Norwich  
 Evans, M. M. Preswylfa High S., Cardiff  
 2Howard, E. Sunnybrae, Southport  
 Jones, E. s. Norma S., Waterloo  
 Kyle, M. M. Temple Square S., Aylesbury  
 Mandart, K. M. Hollwadh Coll., Westcliff-on-Sea  
 Pargeter, A. A. Temple Square S., Aylesbury  
 Speller, A. J. d. Royal Masonic Inst., Clapham Junction  
 Williams, B. e. Durham H., Eastbourne  
 Ansell, G. W. Allyn Coll., Margate  
 Blake, E. M. Harley H., Hereford  
 Brown, E. Westoe High S., South Shields  
 Burke, E. M. e. d. 109 Lybridge Rd., Ealing  
 Burton, E. M. Colville H., Eastbourne  
 Campbell-Everden, L. E. M. St. Catherine's S., New Cross  
 Crockett, D. Stoke Public Girls' S., Stoke  
 Evar, S. O. Royal Masonic Inst., Clapham Junction  
 2Evans, S. Private tuition  
 2Frindley, E. Normacot Girls' S., Longton  
 Hall, A. d. St. Anne's Coll., St. Annes-on-Sea  
 Hart, W. d. Summerfield Hall, Maesyewmmer  
 2Hutchinson, E. P. Bleak H., Brentwood  
 Jones, M. d. Norma S., Waterloo  
 Kerry, G. I. d. Girls' Coll., Manchester Rd., Southport  
 Law, E. St. Andrew's Hall, Southport  
 Nelson, A. M. d. Gram. S., Workington  
 Parfitt, D. Pencraig Coll., Newport  
 Robinson, W. M. Royal Masonic Inst., Clapham Junction  
 Stanley, E. St. George's H., Doncaster  
 Aukland, D. B. e. f. Cambridge House, Camden Rd., N.  
 Bazeley, N. e. Coll. S., Gloucester Row, Weymouth  
 Beckett, L. Arnot Street Council S., Walton

Curry, H. Westmorland Rd. S., Newcastle-on-T.  
 Damsell, M. e. Harley H., Hereford  
 Elliott, D. J. H. Lynton H., Portsmouth  
 2Evans, M. E. Marist Coll. S., Paington  
 Gibson, E. Brookville S., Filey  
 Gray, H. 15 Queen St., Aspatria  
 Jobbins, E. Long St. High S., Wotton-under-Edge  
 2Large, D. High School, Crewe  
 Mills, F. E. S. Stonyhurst Conv., East Molesey  
 2Morris, G. Private tuition  
 2Rainford, E. Private tuition  
 2Roberts, F. Woodcote, Leatherhead  
 Shuff, W. Quarry H., Guildford  
 Springate, E. M. f. Royal Bay H., Grouville  
 Tatton, A. B. d. Manchester Warehousemen  
 & Clerks' Orphan S., Cheadle Hulme  
 2Walsh, L. S. Buckingham Place Acad., Landport  
 2Williams, B. Summerfield Hall, Maesyewmmer  
 Wilson, K. C. High Trees Coll., Bournemouth  
 2Bowmar, C. Brunt's Technical S., Mansfield  
 Cherry, D. M. a. Manchester Warehousemen  
 & Clerks' Orphan S., Cheadle Hulme  
 Cocking, M. Belgrave Terrace S., Huddersfield  
 2Cordon, G. A. Queensberry S., Longton  
 Coton, G. W. Hope Lodge S., Bexley Heath  
 Crouch, M. A. s. Camden H., Biggleswade  
 Davies, N. St. Maur Coll., Chesham  
 Fowles, V. St. Michael's S., Malton  
 Green, G. M. f. Grosvenor H., Wokingham  
 Mallalieu, E. M. St. Anne's Coll., St. Annes-on-Sea  
 Middleton, D. Arundel H., Scarborough  
 Overall, O. A. Quarry H., Guildford  
 Pugsley, M. Stoke Public Girls' S., Stoke  
 Simpson, H. W. Arundel H., Scarborough  
 Smith, W. T. Woolston Ladies' Coll., Southampton  
 Styles, I. M. Cambridge House, Camden Rd., N.  
 Thomas, N. d. Osborne H., Redditch  
 Wilson, E. A. Park Road S., Bingley  
 2Allison, G. D. Private tuition  
 Alford, C. G. d. Girls' Moderns, Harleston  
 Bishop, B. a. Stoke Public Girls' S., Stoke  
 Cowland, E. A. M. Wellington Coll., Hastings  
 Davey, E. Stoke Public Girls' S., Stoke  
 Edley, L. Stoke Public Girls' S., Stoke  
 2Evans, D. L. Tudor H., Exeter  
 Haddy, M. a. d. Stoke Public Girls' S., Stoke  
 2Hathaway, M. Moreton-in-Marsh, Glos.  
 Jones, E. C. s. Licensed Victuallers' Girls' S., S. E.  
 Kilner, F. A. d. Victoria Coll., Southend  
 2Menamara, M. M. Notre Dame de Lion, Eden Grove, Holloway  
 2Sweetnam, S. J. The Manse, Kinsale  
 Taylor, O. C. Private tuition  
 Cohen, R. St. Andrew's Hall, Southport  
 2Dallaway, D. E. Private tuition  
 2Denney, O. G. St. Peter's Girls' S., Bournemouth  
 2Hayes, M. Private tuition  
 Jones, E. s. e. Newnam House, Hereford  
 2Kendrick, A. L. Private tuition  
 Little, V. M. d. Temple Square S., Aylesbury  
 Mackintosh, J. F. Cranbury High S., Southampton  
 Murray, N. d. Aintree High S.  
 Osman, K. V. Alexandra Coll., Shirley  
 Pettman, G. d. Hartington H., Beckenham  
 2Robinson, L. Eastgate, Stafford  
 Seeley, D. Chestnut H., Lincoln  
 2Slee, K. E. Richmond High S., Liskeard  
 Swan, S. Ystrad H., Newport  
 Tennant, K. E. s. Private tuition  
 Barber, E. D. d. Bleak H., Walsall  
 2Brady, D. V. Ellerker Coll., Richmond Hill  
 2Frickelton, C. Burton H., Weston-s-Mare  
 Gorvin, M. d. Edgell Girls' Coll., Bideford  
 Reynolds, L. M. Private tuition  
 2Rigler, E. D'Arcy Hey, Boscombe  
 Slee, A. Addiscombe S., Barnstaple  
 Smith, F. H. e. Edgell Girls' Coll., Bideford  
 Stanley, M. Royal Masonic Inst., Clapham Junction  
 Starck, N. L. Aintree High S.  
 2Wilks, C. M. Bleak H., Walsall  
 Wood, W. Oxford Coll., Waterloo  
 2Callingham, C. F. Sirsa H., Cheltenham  
 2Coghlan, G. Loreto Conv., Hulme, Manchester  
 2Cooke, H. L. Summerfield Hall, Maesyewmmer  
 Faichney, C. E. Canning St. Council S., Newcastle-on-T.  
 Groom, F. Royal Masonic Inst., Clapham Junction  
 Harrison, D. Oldfield Park Private S., Bath  
 2Lawry, Y. Penpol Girls' S., Hayle  
 2Martin, M. Hutton Gram. S., nr. Preston  
 Pike, E. M. Girtonville Coll., Aintree  
 Smith, I. G. St. Maur Coll., Chesham

Sweetnam, L. E. The Manse, Kinsale  
 Thomson, E. s. z. Girtonville Coll., Aintree  
 Whitton, E. d. Norma S., Waterloo  
 2Windsor, A. Brooklyn H., Wellington  
 (Acton, M. O. Westbourne H., Cowes  
 Bonham, B. M. E. Temple Square S., Aylesbury  
 Burlace, W. a. Stoke Public Girls' S., Stoke  
 East, L. J. Temple Square S., Aylesbury  
 Gallichan, V. S. f. Ashton H., St. Clements, Jersey  
 Goodley, M. Sunnyside, Foulsham  
 Hopkins, H. K. e. Licensed Victuallers' Girls' S., S. E.  
 Paine, P. M. Private tuition  
 2Plummer, L. M. B. Private tuition  
 Sand, H. M. Belvedere, Birkdale, Southport  
 Stone, M. E. Towcester School  
 2Tait, M. 114 Cathedral Road, Cardiff  
 2Billing, A. Gram. S., Ashton-in-Makerfield  
 Byrne, G. K. Mileham Council S., Swaffham  
 Carter, M. M. H. Temple Square S., Aylesbury  
 Griffin, M. Allyn Coll., Margate  
 Hewitt, E. a. d. Manchester Warehousemen  
 & Clerks' Orphan S., Cheadle Hulme  
 2Hodgson, C. J. Private tuition  
 LeRoy, G. V. Alexandra Coll., Shirley  
 Mason, M. E. Dudley H., Stoke Newington  
 Moiest, E. Stoke Public Girls' S., Stoke  
 2Moore, D. R. Marist Coll. S., Paington  
 Morgan, M. D. Drayton H., Newport  
 Nicholas, K. M. Edgehill Girls' Coll., Bideford  
 Pearce, D. M. Ellerker Coll., Richmond Hill  
 Pennington, D. e. Newnam H., Hereford  
 2Schubert, A. E. Avondale Coll., Winchmore Hill, N.  
 2Searle, D. V. Cronwell H., Patricroft  
 Smith, E. Westmorland Rd. S., Newcastle-on-T.  
 2Thorp, A. W. Private tuition  
 Turner, M. M. Private tuition  
 Vesper, B. d. Stoke Public Girls' S., Stoke  
 Waugh, S. W. Peneira Coll., Newport  
 Wills, L. L. Edgell Girls' Coll., Bideford  
 (Allister, M. B. Girtonville Coll., Aintree  
 Baker, G. M. Grosvenor H., Wokingham  
 2Billington, D. M. Abergeldie H., Clifton, Bristol  
 2Birtall, E. G. Arundel H., Scarborough  
 Boulter, L. O. Maidice Lawn S., Newport  
 Brading, M. F. Westbourne H., Cowes  
 Briggs, J. S. Girtonville Coll., Aintree  
 2Clatterton, A. C. Council S., Llantwit Major  
 Dawe, M. P. Addiscombe S., Barnstaple  
 Evans, J. E. f. Tumbleidge Wells High S.  
 Goldard, A. M. e. Beaulieu S., Swanwick  
 How, M. Temple Square S., Aylesbury  
 Leonard, E. V. d. Victoria Coll., Southend  
 2Meehan, H. Marist Conv., Tottenham  
 Morrish, L. Alexandra Coll., Shirley  
 Pearce, M. Lancelfield S., Southend-on-Sea  
 Sherriff, F. E. Highwood H., Liskeard  
 Spottiswood, H. Canning St. Council S., Newcastle-on-T.  
 2Sterling, A. Sandyford Rd. Council S., Jesmond  
 Suh, M. Ripley Comm. School  
 Warren, A. H. e. Fernside, Grantham  
 Williams, G. St. Margarets, Cardiff  
 (Basham, A. M. d. St. Maur Coll., Chesham  
 Cook, H. H. Edgell Girls' Coll., Bideford  
 Cox, D. The Poplars, Small Heath  
 Hornebrook, E. E. d. Private tuition  
 2Jackson, M. Belgrave Terrace S., Huddersfield  
 Longbottom, W. e. Belgrave Terrace S., Huddersfield  
 Morgan, K. M. Southernhay S., Exeter  
 Saul, G. D. d. Belvedere, Birkdale, Southport  
 2Schumacher, L. J. St. Peter's Girls' S., Bournemouth  
 Smith, M. L. Drayton H., Newport  
 2Springford, L. Parnella H., Devizes  
 Sutherland, L. d. Saxonholme High S., Whalley Range  
 (Bate, D. Osborne H., Redditch  
 2Cheshire, J. Preparatory Classes, Altrincham  
 Elliott, M. O. Private tuition  
 Estcourt, E. F. M. Girls' Moderns S., Harlesden  
 Fanshawe, M. Licensed Victuallers' Girls' S., S. E.  
 2Fletcher, F. L. Oxford H., Junction Rd., N.  
 2Fletcher, F. M. Lissadell, West Ealing  
 Hutchins, H. M. Beaconfield H., Preston Pk., Brighton  
 Kelland, I. M. Coll. S., Lapford  
 Legge, M. Convent High S., Chorlton-cum-Hardy  
 2Pallett, E. Ellerker Coll., Richmond Hill  
 2Reel, F. S. Richmond High S., Liskeard  
 Squire, J. Marist Coll. S., Paington  
 Tennant, E. J. d. Private tuition  
 Turner, A. C. Hemdean H., Caversham  
 2Wyatt, E. K. Woodcote, Leatherhead  
 Young, G. M. St. Margarets, Cardiff  
 Young, W. P. Quarry H., Guildford

Barron, D. R. M. Clarendon Collegiate Coll., Forest Gate  
 Browne, M. E. Belle Vue H., Norwich  
 Francis, I. M. Mayfield S., Folkestone  
 2James, H. Fordeleigh Coll., Newton Abbot  
 Kirton, T. F. L. e. Lancelfield S., Southend-on-Sea  
 2Maynard, G. E. S. Buckingham Place Acad., Landport  
 Pickup, M. d. St. George's H., Doncaster  
 Relfe, A. O. Cornwallis High S., Hastings  
 Spurgen, E. F. d. Mayfield S., Folkestone  
 Sweet, F. B. Highwood H., Liskeard  
 Wetherell, M. I. 4 The Crescent, Selby  
 Wilde, M. Springfield S., Stockport  
 2Banks, A. S. Hr. Standard S., Sutton-in-Ashfield  
 2Boothroyd, G. Broomfield, Headingley, Leeds  
 Boutell, R. O. Licensed Victuallers' Girls' S., S. E.  
 Bragg, W. M. Alexandra Coll., Shirley  
 Brunce, E. St. George's H., Doncaster  
 Colegate, K. L. e. Bower H., Maidstone  
 Edmunds, M. s. e. Beulah House High S., Upper Tooting  
 Freeman, W. L. Collingwood College, Lee  
 Gill, D. St. George's H., Doncaster  
 Greenwood, R. G. e. Roden H., Ongar  
 Hamilton, B. C. G. Avondale Coll., Winchmore Hill, N.  
 2Hart, E. P. Arlington H., Newport, Mon.  
 2Jenkins, A. M. Summerfield Hall, Maesyewmmer  
 Lewis, E. O. Summerfield Hall, Maesyewmmer  
 Maltby, M. E. Lime Tree H., York  
 Mayger, C. M. Licensed Victuallers' Girls' S., S. E.  
 2Olsen, L. A. Central Council S., Weston-s-Mare  
 Parker, D. Towcester School  
 Powell, G. L. S. Arlington H., Newport, Mon.  
 2Astbury, C. E. Normacot Girls' S., Longton  
 2Botly, B. Clarendon Collegiate Coll., Forest Gate  
 Burney, E. Canning St. Council S., Newcastle-on-T.  
 2Cavanagh, M. Notre Dame, Mt. Pleasant, Lpool  
 2Cook, E. Private tuition  
 Davies, Edith M. s. Summerfield Hall, Maesyewmmer  
 2Elmy, H. M. Licensed Victuallers' Girls' S., S. E.  
 2Emmett, C. High S., Twickenham  
 Hall, F. M. Ellerker Coll., Richmond Hill  
 Lawton, M. Ladies' Coll., Nantwich  
 2McKivett, F. M. Bleak House, Brentwood  
 2Ockmore, E. M. Licensed Victuallers' Girls' S., S. E.  
 Thorp, M. H. Alderhurst, Sale  
 Travis, E. Norma S., Waterloo  
 Tyrell, A. M. Belvedere, Birkdale, Southport  
 2Whitmill, E. E. Ruskin S., Maidenhead  
 2Winger, K. V. Licensed Victuallers' Girls' S., S. E.  
 De Guelle, E. G. Pembroke H., Jersey  
 Floyd, C. Conv. S., Hazlewood Cres., W.  
 Fry, G. W. Long St. High S., Wotton-under-Edge  
 2Goody, B. M. Parnella H., Devizes  
 Graham, M. The Convent, Little Ealing Lane, S. Ealing  
 Hood, R. L. Alexandra Coll., Shirley  
 Horman, D. H. St. James' Coll. S., Jersey  
 Morgan, B. M. Summerfield Hall, Maesyewmmer  
 Onth, D. Arundel H., Scarborough  
 Peynichoux, M. J. f. Private tuition  
 Ransley, D. E. Hemdean H., Caversham  
 2Smith, E. Private tuition  
 Wagstaffe, K. H. Park Road S., Bingley  
 Winstanley, B. W. Girtonville Coll., Aintree  
 (Allechin, M. E. Royal Masonic Inst., Clapham Junction  
 Drew, G. M. Collingwood College, Lee  
 French, A. High S., Cork  
 Guest, W. M. Royal Masonic Inst., Clapham Junction  
 Macdonald, F. E. Westbourne H., Chiswick  
 Moxley, V. M. Craven Park Ladies' Coll., Harlesden  
 2Rowe, F. Brook Green Girls' Coll.  
 Gilboe, E. Marist Conv., Tottenham  
 Handscomb, M. F. Crouch End High S., Hornsey  
 Hill, M. C. Private tuition  
 Lumley, G. Trinity H., Bexhill-on-Sea  
 Mitchell, A. M. Pengwern Coll., Cheltenham  
 2Noble, W. D. Arundel H., Scarborough  
 2Rudd, G. J. Buckingham Place Acad., Landport  
 Smith, F. Abbeyfield Mount High S., Sheffield  
 Standler, A. J. e. g. Private tuition  
 2Burdge, G. E. Private tuition  
 Chandler, A. E. M. Abercorn Coll., Dublin  
 Daws, G. M. Mileham Council S., Swaffham

**GIRLS, 3RD CLASS, PASS—Continued.**  
 2Evans, E.R. Oxford H., Junction Rd., N.  
 Feurer, W.M. Dudley H., Stoke Newington  
 Garland E. St. Maur Coll., Chesham  
 2Goodwin, E.A.  
 St. Peter's Girls' S., Bournemouth  
 Howell, T.M. Preswylfa High S., Cardiff  
 Jenkins, L. Maidene Lawn S., Newport  
 Kent, A.L.  
 Royal Masonic Inst., Clapham Junction  
 Kistruck, E.M. Hemdean H., Caversham  
 Laws, I.M. French Protestant S.,  
 Shaftesbury Av., W.C.  
 Robinson, R.D.  
 Pengwern Coll., Cheltenham  
 Seymour, P.L. Ripley Comm. S.  
 Squirrel, D. St. Andrew's Hall, Southport  
 Betts, E.M. s. Lonsdale H., Norwich  
 Bourne, E.M. Harringay Park S., Hornsey  
 2Cassidy, E.  
 Preparatory Classes, Altrincham  
 Cheesman, A.L.  
 Westmorland Rd. S., Newcastle-on-T.  
 2Furzeaux, D.A. Home Park S., Stoke  
 Lye, H.S. Wilsford H., Devizes

Peak, G. Private tuition  
 2Walker, M.H. Breakspear Coll., Brockley  
 2Williams, E.  
 St. Thomas Hr. Grade S., Dudley  
 Mason, D.E. Commercial S., Wood Green  
 Blyth, D.A. Modena H., Ealing  
 2Pinlow, M.K. Private tuition  
 Harrison, W. Ousegate S., Selby  
 Ireland, B.L. Collingwood College, Lee  
 Lally, K. Conv. S., Hazlewood Cres., W.  
 Merritt, M.E.  
 Licensed Victuallers' Girls' S., S.E.  
 2Radford, M.C. Marist Coll. S., Paignton  
 2Tunstall, H.E. Bleak H., Brentwood  
 Ward, F.E. Elm Lodge, Petersham  
 Chivers, W. Wilsford H., Devizes  
 Dickinson, F.M. Gram. S., Worthington  
 2Dodd, M. Cromwell House, Patricroft  
 Hall, E.M. d. Ladies' Coll., Nantwich  
 2Lloyd, A.E. Private tuition  
 Sadler, M.V. Holt House, Fakenham  
 Sharpe, M.A. Castle Dene, Newport  
 Tregaskiss, M.H. Hollygirt, Nottingham  
 Watson, M.E.  
 Canning St. Council S., Newcastle-on-T.

Aukland, I.M. Cambridge House, Camden Rd., N.  
 2Barnett, E.M. Oakley High S., Southsea  
 2Coad, E.E. Gram. S., Hayle  
 Haines, D. Osborne H., Redditch  
 Hooper, M. Penpol Girls' S., Hayle  
 2Hore, E. Holyhead County S.  
 2Reid, M.A. Meadowcroft Coll., Aintree  
 2Roberts, M.B. Cromwell H., Patricroft  
 Simkins, E. d. High S., Cork  
 2Waight, E. Fintragh, Southsea  
 Canning, F. Ladies' Coll., Nantwich  
 Clampton, G. e. Oakover Girls' S., Burnham  
 Conner, M.S. High S., Cork  
 Lendon, D.V. Hedingham, Wallington  
 Tait, A.A. Edgell Hill Girls' Coll., Bideford  
 Tressie, D.M. Home Park S., Stoke  
 White, M. d. St. Andrew's Hall, Southport  
 2Bright, J. Springfield S., Chorlton-cum-Hardy  
 Cocks, W.M. Crouch End High S., Hornsey  
 Cowley, A.F.  
 Licensed Victuallers' Girls' S., S.E.  
 2Dent, L. Eastgate, Stafford

Holland, R. Canning St. Council S., Newcastle-on-T.  
 Newland, E.M. s. Arlington H., Newport, Mon.  
 Nicholson, V.M. Westmorland Rd. S., Newcastle-on-T.  
 Stanbury, B.L. Home Park S., Stoke  
 Tucker, M.H. Bank H., Crediton  
 2Balslaw, M.J. High Bank Ladies' S., Altrincham  
 2Boyd, G. Station Road, Hednesford  
 Hastie, K. Middle Class S., Maidstone  
 Ost, L. High S., Cork  
 2Perry, E.E. Private tuition  
 Huess, D.M. Raglan House, Cardiff  
 Maclumpha, G.M. W. Richmond High S., Liscard  
 Sayer, M. Woodcote, Leatherhead  
 Thorpe, E. a. Westmorland Rd. S., Newcastle-on-T.  
 Travers-Drapes, M.M. Royal Masonic Inst., Clapham Junction  
 Baldwin, F.R. Richmond High S., Liscard

LOWER FORMS EXAMINATION. — PASS LIST, CHRISTMAS, 1907.

BOYS.

Abbiss, F.T.L. Skelsmergh H., Margate  
 Abbott, R.S. Raleigh Coll., Brixton  
 Aggas, R.L. Ripley Comm. School  
 Agnes, H.E. Windsor Crescent S., St. Helier  
 Agnew, W.R. Wellington Coll., Salop  
 Ainsley, F. Bailey School, Durham  
 Ainsworth, A.H. Gram. S., St. Annes-on-Sea  
 Airey, C. Croad's S., King's Lynn  
 Airey, R. Royal Gram. S., Whalley  
 Aitkin, D.G. Modern School, Gravesend  
 Albin, N. High S., South Shore, Blackpool  
 Alford, E.H. St. Dunstan's Coll., Margate  
 Allen, B. Green Park Coll., Bath  
 Allen, N.C.E.H. The Western Coll., Harrogate  
 Allen, S.B. Barton School, Wisbech  
 Ambrose, R.C. Brunswick H., Maidstone  
 Amos, G. Thrapston High S. for Boys  
 Anderson, H.R. Wellington College, Salop  
 Anderson, T. Manchester Warehousemen &  
 Clerks' Orphan S., Cheddle Hulme  
 Andrews, H.J.W. Froebel House, Devonport  
 Andrews, J.P. Richmond Hill School  
 Andrews, P.T. Steyne School, Worthing  
 Appleyard, H.E.  
 The Western Coll., Harrogate  
 Argent, N.A. Brentwood High School  
 Ash, J. Manchester Warehousemen &  
 Clerks' Orphan S., Cheddle Hulme  
 Aspinwall, A. Manchester Warehousemen &  
 Clerks' Orphan S., Cheddle Hulme  
 Atherton, G. Penketh School  
 Atkinson, D.J. Clifton College, Harrogate  
 Atkinson, G.R. Royal Gram. S., Whalley  
 Ayres, W.L. Douglas School, Cheltenham  
 Bach, G.L. Gram. School, Taplow  
 Bacon, A.E.  
 Prep. S., Wilson Rd., Southend-on-Sea  
 Badman, C.R. Modern School, Gravesend  
 Badman, W.H. Modern School, Gravesend  
 Bailey, J. Manchester Warehousemen &  
 Clerks' Orphan S., Cheddle Hulme  
 Baines, E.H. Gram. School, Scarborough  
 Baker, H.C. Taunton House, Brighton  
 Baldwin, H.T. St. Leonards Coll. School  
 Ball, S.F. The College, Weston-s-Mare  
 Bancroft, G.W. Wellington College, Salop  
 Barber, M. New College, Harrogate  
 Barclay, M.A. Maida Vale School, W.  
 Bardsley, C.G.C. Gram. School, Sale  
 Barlow, R. Cliftonville College, Margate  
 Barnett, P.J.  
 Winchester H., Redland Rd., Bristol  
 Barni, N.H.L. Gram. School, Taplow  
 Baron, C.E. Manchester Warehousemen &  
 Clerks' Orphan S., Cheddle Hulme  
 Barrett, A.V. Herne Bay College  
 Barrett, J.V. Keyford Coll., Frome  
 Barron, W.J. Steyne School, Worthing  
 Barter, C.E. Taunton School  
 Bartlett, J.S. St. John's Coll., Brixton  
 Bates, A.W. Brunswick H., Maidstone  
 Bates, W.R. Gram. S., St. Annes-on-Sea  
 Beadon, W.A.C. Ripley Comm. School  
 Beachamp, A.H.E. Wilsford H., Devizes  
 Beckitt, W. Read's Gram. S., Tuxford  
 Becks, C.H.G. Brentwood High School  
 Beer, C. Cliftonville College, Margate

Beer, R.G. Cliftonville College, Margate  
 Bell, H.C.A. Gram. School, Taplow  
 Bennett, A. Farworth Gram. School  
 Benson, B.W. Ousegate S., Selby  
 Bentley, P.A. Bradley High S. for Boys, Newt on Abbot  
 Berry, D.C. The Modern Coll., Harrogate  
 Billing, E.W. Downs Park Coll., Herne Bay  
 Billot, P.E. Jersey Modern S., St. Heliers  
 Biltcliffe, P. Gram. S., Blackpool  
 Binckes, C.S. Uxbridge Prep. School  
 Binns, W.H. Manchester Warehousemen &  
 Clerks' Orphan S., Cheddle Hulme  
 Birch, T. Taunton School  
 Gram. School, Taplow  
 Bird, E. Lytham College  
 Bishop, C.W. Licensed Victuallers' S., Lambeth  
 Brunswick H., Maidstone  
 Black, A.N. Taunton School  
 Blake, J. South Molton United Higher S.  
 Blundell, T.G. Southport Comm. College  
 Blyth, T.A.  
 Prep. S., Wilson Rd., Southend-on-Sea  
 Bollard, W.T. Ellesmere S., Harrogate  
 Bolwell, E.L. Richmond Hill School  
 Bonck, H.E. Gram. School, Shoreham  
 Bonck, J.A. Gram. School, Shoreham  
 Bond, T. St. Aubyn's, Woodford Green  
 Bonney, J.A. Catholic Gram. S., St. Helens  
 Booth, R.E. Trafalgar H., Winchester  
 Southport Modern School  
 Booth-Clibborn, W. Bedford House, Folkestone  
 Boshier, E. Grosvenor House, Wokingham  
 Boulter, S.F. Cliftonville College, Margate  
 Bowack, J.R.McA. Taunton House, Brighton  
 Bower, J.A. Royal Gram. S., Whalley  
 Bowett, F.H.L. Yarmouth Coll., Gt. Yarmouth  
 Bowker, R.E. Royal Gram. S., Whalley  
 Box, M.A. Modern School, Gravesend  
 Boyd, F.P. Manchester Warehousemen &  
 Clerks' Orphan S., Cheddle Hulme  
 Braden, R.E. Margate Comm. S.  
 Bradley, J. Churwell College, Leeds  
 Branston, W. 51 Ditching Rise, Brighton  
 Brayley, A. South Molton United Higher S.  
 Brenner, A.S. St. Catherine's Coll., Richmond  
 Bremner, G.B.S. Lancaster Coll., W. Norwood  
 Brett, H.J. Maldon Rd. British S., Kelvedon  
 Brooks, T.C. Herne Bay College  
 Brough, A.F. Downs Park Coll., Herne Bay  
 Brown, H.A. Herne Bay College  
 Brown, H.W. Brunswick House, Maidstone  
 Brown, K.D. Belton House, Broadstairs  
 Brown, R.J. New Coll., Harrogate  
 Brown, T.H. Uxbridge Prep. School  
 Brown, V.W.O. Belmore House, Cheltenham  
 Brown, W.H. Hutton Gram. School  
 Brown, W.R. Uxbridge Prep. School  
 Browne, A.G.C. Gram. School, Taplow  
 Browne, J.S. Herne Bay College  
 Brownell, J.W. Manchester Warehousemen  
 & Clerks' Orphan S., Cheddle Hulme

Bruce, H.D. Handel College, Southampton  
 Bryce, K.S. Mall Road Middle Class S., Hammersmith  
 Buchanan, R.V.M. Wychwood, Bournemouth  
 Buckeldee, S.C. Swindon High School  
 Buckingham, J. Sunny Hill S., Ilfracombe  
 Buckingham, R. Sunny Hill S., Ilfracombe  
 Buckland, V.H. Gram. S., Park Hill, Clapham  
 Bullied, H. South Molton United Higher S.  
 Bullough, D.P. Taunton School  
 Bungard, R.H. Egham High School  
 Burnham, G. Oxenford H., St. Lawrence, Jersey  
 Burnley, T.H. Churwell College, Leeds  
 Burrows, A.G. Handel College, Southampton  
 Butcher, C.E. Gram. School, East Finchley  
 Butcher, D.J. Egham High School  
 Butt, L.M. The College, Weston-s-Mare  
 Bywater, H.A. St. Aubyn's, Woodford Green  
 Calvert, M.J. Home S. for Girls, Kensington, Bath  
 Campbell, Y. Woolston College, Southampton  
 Caple, G.R. Oldfield Pk. Private S., Bath  
 Carey, T. Bailey School, Durham  
 Carpenter, C.G. Steyne School, Worthing  
 Carpenter, F.C.J. Everard House, King's Lynn  
 Charlton Academy, Bath  
 Carr, R.C. The Western College, Harrogate  
 Cartwright, S.F. St. Mary's College, Harlow  
 Cavey, W.G. West End School, Jersey  
 Chamberlain, R. Eversley School, Stamford  
 Chancellor, H.W. Margate Comm. School  
 Chant, A.C. Johnston Terrace S., Devonport  
 Chapman, G.H. Southport Modern School  
 Charlack, C.E. Froebel House, Devonport  
 Chaston, R.A. Trafalgar House, Winchester  
 Chatburn, E.W. Gram. School, St. Annes-on-Sea  
 Clerks' Orphan S., Cheddle Hulme  
 Cherry, C.H. Manchester Warehousemen &  
 Clerks' Orphan S., Cheddle Hulme  
 Chilcott, R.W. Modern School, Gravesend  
 Child, M.D. St. Aubyn's, Woodford Green  
 Chorlton, A.E. Manchester Warehousemen  
 & Clerks' Orphan S., Cheddle Hulme  
 Christmas, L.A. Boys' Coll. School, Aldershot  
 Christopher, R.R. Green Park College, Bath  
 Chudleigh, E.M. Mount Radford School, Exeter  
 Clapham, G. Skelsmergh House, Margate  
 Clark, T.D. Taunton School  
 Clarkson, N.F.W. St. Deiniol's Sch., Bangor  
 Clatworthy, W.B. Mary Street House, Taunton  
 Clinch, G.T. Modern School, Gravesend  
 Cockaday, H.G. Yarmouth Coll., Gt. Yarmouth  
 Cockshott, B.P. Argyle House, Sunderland  
 Coleman, G. St. Mary's College, Harlow  
 Coleman, G.F. Private tuition  
 Coleman, R.E. Private tuition  
 Collard, S.V. Cliftonville College, Margate  
 Comery, R.S. Godwin College, Margate  
 Comley, T. Gram. School, Streatham  
 Cook, A. Saham College, Watton  
 Cook, R.H. St. Aubyn's, Woodford Green

Cooke, L.F. Gram. School, Scarborough  
 Coombe, G.R. The Middle School, Holsworthy  
 Farnworth Gram. School  
 Coope, T.E. Farnworth Gram. School  
 Cooper, F.S.T. Manchester Warehousemen  
 & Clerks' Orphan S., Cheddle Hulme  
 Cooper, G.H. Gram. S., Fulwood, Preston  
 Cooper, H. Southport Comm. College  
 Cooper, W.F.R.A. Brean House, Weston-s-Mare  
 Copland, D.M. Gram. S., Birkdale, Southport  
 Copland, E.F. Arnold College, W. Bournemouth  
 Corby, J.A. Taunton School  
 Cornforth, A.W. Etow House, Southend-on-Sea  
 Corson, H. Jersey Modern S., St. Heliers  
 Coulshaw, L. Lancaster College, West Norwood.  
 Coulthurst, B. Grimsshaw St. British S., Preston  
 Cox, E.G. High S., South Shore, Blackpool  
 Cox, F.A.H.L. Gram. School, Taplow  
 Cox, J.W. Yarmouth Coll., Gt. Yarmouth  
 Cox, M.L. Taunton House, Brighton  
 Cragh, O.M.C. De Gresley Lodge, Southsea  
 Crisp, H. Croad's School, King's Lynn  
 Critchley, F. Lytham College  
 Crookford, W. Blenheim House, Fareham  
 Crossley, B.R. Gram. School, St. Annes-on-Sea  
 Crossley, O.L. York House, Folkestone  
 Crowest, W. Gram. School, Streatham  
 Crowther, B. Royal Gram. School, Whalley  
 Crutchley, F. Girtonville College, Aintree  
 Cullimore, G.E. Licensed Victuallers' S., Lambeth  
 Cullum, W. Thrapston High S. for Boys  
 Cundiff, F.W. Gram. School, St. Annes-on-Sea  
 Read's Gram. S., Tuxford  
 Curtis, W.J. Eversley School, Stamford  
 Dalton, S. Handel College, Southampton  
 Dalziel, A.R. Handel College, Scarborough  
 Danby, R.A. Gram. School, Scarborough  
 Dain, H. Commercial School, Maidstone  
 Darrington, H.E. High S. & Comm. Coll., Forest Gate  
 Davey, A.R. Wilton Grove School, Taunton  
 Davidson, G.R. Weymouth Comm. School  
 Davies, J.T. Taunton School  
 Davis, W.E. Argyle House, Sunderland  
 Davison, C.R. Skelsmergh House, Margate  
 Day, T.S. Clifton College, Harrogate  
 Day, A.E. Swindon High School  
 Day, G.S. Wellington College, Salop  
 Day, R.E. Brunswick House, Maidstone  
 Deakin, G. New College, Harrogate  
 Dearden, R.S. Clifton College, Harrogate  
 Decastro, H.P. Cliftonville College, Margate  
 Delmege, C.P. De Gresley Lodge, Southsea  
 De Pinna, C.D. Maida Vale S., W.  
 Dew, H.S.E. Gram. School, Taplow  
 Dewis, J.N. Walsall Comm. College  
 Dexter, L.W. Ripley Comm. School  
 Dixon, J. The Middle S., Holsworthy  
 Gram. School, Streatham  
 Dixon, W. Heaton Moor Coll., Stockport

BOYS, LOWER FORMS—Continued.

Doherty T.O.C. Woodslee, Weybridge
Dollin, F. Froebel House, Devonport
Downs, W. Mechanics' Inst., Thornton
Duckett, F.E.C. Godwin College, Margate
Dumper, E.M. Trafalgar House, Winchester
Durnell, H.W. Bedford House, Folkestone
Dyson, H.V. Pembroke School, Hove
Eaney, G.R.S. Yarmouth Coll., Gt. Yarmouth
Eberli, L.H. Highbury Park School, N.
Ekersley, S.B. Penketh School
Edgecombe, G.W.P. Collett House, Boscombe
Edridge, C.B. Brentwood High School
Edwards, A.S. St. Denioli's School, Bangor
Edwards, E.L. Skelsmergh House, Margate
Edwards, S.E. Taunton School
Eglin, A. High S., South Shore, Blackpool
Elder, S.H. Mary Street H., Taunton
Eldridge, A. Gram. School, Streatham
Elmy, W.H. Licensed Victuallers' S., Lambeth
Elliot, A.C. Boys' Coll. School, Aldershot
Ellis, W.O.H. St. Denioli's School, Bangor
Elliot, G.J. Gram. School, St. Annes-on-Sea
Espley, A. Wellington College, Salop
Evans, A.J. Taunton House, Brighton
Evans, H.R. Dirliton House, St. Albans
Evenett, D.P. Gram. School, Taplow
Everett, A.G. Argyle House, Sunderland
Everett, W.G.A. Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme
Ewen, F.D. Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme
Ewing, A.W.G. Bedford House, Folkestone
Exton, H.A. All Saints' Choir S., Clifton
Eyre, F. Mossley Hall S., Congleton
Farndale, W.J. Ellesmere School, Harrogate
Farr, L.C. Winchester H., Redland Rd., Bristol
Fawcett, G. Hutton Gram. School
Fawcett, H.W. New College, Harrogate
Fearhead, J.H. Southport Modern School
Featherstone, R.K. Mossley Hall School, Congleton
Fenwick, H.E. Dirliton House, St. Albans
Fewings, E.W. South Molton United Higher S., Richmond Hill School
Fisher, A.W. Richmond Hill School
Flood, C.H. Margate Comm. School
Foley, J.R. Cliftonville Coll., Margate
Foot, C.S.P. St. Aubyn's, Woodford Green
Ford, H.W. Ripley Comm. School
Forster, J. Bailey School, Durham
Fort, H.C. Tankerton College
Foster, E. Blenheim House, Farnham
Foster, E. Bedford House, Folkestone
Fowler, W.R. Keyford College, Frame
Francis, F.C.F. Gram. School, Taplow
Francis, G. Blenheim House, Farnham
Francis, S. Conway House, Farnborough
Freeburne, S.L. Southport Comm. College
Freeman Matthews, R. Handel Coll., Southampton
French, A. Royal Gram. School, Whalley
Fry, W.C.S. Bradley High S. for Boys, Newton Abbot
Fuller, B.M. Taunton House, Brighton
Fuller, C.H. Gram. S., Shoreham
Fuller, H.S. St. Mary's College, Harlow
Fullerton, F. Kilgrimol S., St. Annes-on-Sea
Gale, C.F. West End School, Jersey
Gale, H.G.J. Blenheim House, Farnham
Gallantry, T. The Western College, Harrogate
Gardiner, F.E.G. Green Park College, Bath
Garstang, R.L. Royal Gram. S., Whalley
Gebbett, A. South Molton United Higher S.
George, T.H. Gram. School, Taplow
Gerson, N. Great Ealing Gram. School
Gibbins, C. Modern School, Gravesend
Gibbins, J. Ripley Comm. School
Gibson, W.R. Argyle House, Sunderland
Gilbert, R.S. Commercial School, Maidstone
Gilbert, S. South Molton United Higher S.
Gill, H.E. Weymouth Comm. School
Glehill, T.K. Heaton Moor Coll., Stockport
Glover, C.J. Arundel House, Surbiton
Godwin, L.V. Taunton School
Goldberg, C. Maida Vale School, W.
Goldberg, M.H. Grimsshaw St. British S., Preston
Goldstein, A. Great Ealing School
Goncalves, J. Heaton Moor Coll., Stockport
Good, A.R. Handel Coll., Southampton
Goodale, E.W. St. Catherine's Coll., Richmond
Goodchild, R.T. Anerley College, S.E.
Goode, L. Gram. School, Shoreham
Goodwin, H.E. Skelsmergh House, Margate
Gordon, D.A. Herne Bay College
Gordon, G. Gram. School, Taplow
Gorton, R.L. The College, Weston-s-Mare
Gowlett, H.S. Cliftonville College, Margate
Grape, D.H. Lancaster College, W. Norwood
Gravenor, L.J. York House, Farnham
Graves, C.H. High S., South Shore, Blackpool
Gray, J.E. Steyne School, Worthing
Gray, W.D. Spencer College, Wimbledon
Green, A.R. All Saints' Choir S., Clifton
Green, C.R. Modern School, Gravesend
Green, F.F. Gram. School, Shoreham
Green, W.E. Lancaster Coll., West Norwood
Greenwood, A. Boys' Coll. School, Aldershot
Greenwood, G.F. Heaton Moor Coll., Stockport
Gregg, G.P. Kilgrimol S., St. Annes-on-Sea

Gresty, A.L. Penketh School
Griffiths, J.E. Taunton School
Grouth, H.P. Skelsmergh House, Margate
Gummer, H.L. St. Mary's College, Harlow
Haffenden, C.L.W. Taunton School
Hales, P.S. Steyne School, Worthing
Hall, C.E. Mount Radford S., Exeter
Hall, E.E. Highbury Park School, N.
Hamilton, G. Wellington College, Salop
Hammond, W.R. Modern S., Gravesend
Hannett, F.W. Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme
Hampson, W.R.A. Taunton School
Hansford, A.U. Gram. School, Shoreham
Hanson, A.R. Lancaster Coll., Morecambe
Harding, C. Mossley Hall S., Congleton
Hardingham, L.H. Craven Park Coll., Harlesden
Harker, J.E. Gram. School, Shoreham
Harrington, F. Yarmouth Coll., Gt. Yarmouth
Harris, B. Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme
Harris, R.G. The Middle S., Holsworthy
Harrison, H. Ivel Bury, Biggleswade
Harrison, J. Penketh School
Harrison, K. Gram. S., Birkdale, Southport
Harrison, L. Clifton College, Harrogate
Harrison, V. Hoyle College, Harrogate
Harvey, S.E. Skelsmergh House, Margate
Hatton, J. Gram. School, Blackpool
Hawkins, D.E. Private tuition
Hawthorth, A. Southport Modern School
Hawthorth, I. Heaton Moor Coll., Stockport
Hawthornthwaite, O. Penketh School
Hay, K.G. De Gresley Lodge, Southsea
Hayler, J.M. Woolston Coll., Southampton
Hayward, A. Brentwood High School
Hayward, J.H. Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme
Hazel, H. Barton School, Wisbech
Head, G.L. Belmore House, Cheltenham
Heap, J.A. Lytham College
Heard, W.L.M. Arlington House, Newport
Heasman, G.W. Steyne School, Worthing
Heath, H.F. Gram. School, Sale
Healey, G.H. Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme
Henry, H. Gram. School, Streatham
Hepworth, F. Huddersfield Coll. Modern S.
Hepworth, T.P. Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme
Heritage, A. Cliftonville College, Margate
Heritage, F. Cliftonville College, Margate
Herring, G. Gram. School, Streatham
Heyworth, W.N. Kilgrimol S., St. Annes-on-Sea
Hickman, H. Licensed Victuallers' S., Lambeth
Hicks, C.L. Sandwich School
Highwood, C.J. Brunswick House, Maidstone
Hibbick, F.C. Walsall Comm. College
Hill, E.F. Breaun House, Weston-s-Mare
Hill, L. St. Mary's College, Harlow
Hill, R.C. Skelsmergh House, Margate
Hill, S.O. Ripley Comm. School
Hills, A.E. Cliftonville Coll., Margate
Hindley, A.C. Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme
Hipwell, C. Thrapston High S. for Boys
Hobden, R.D. Gram. School, Shoreham
Hodges, C.A. Southampton Boys' School
Hodgkinson, F.V. Mossley Hall S., Congleton
Hodgkiss, E. Farnworth Gram. School
Hollas, W. Farnworth Gram. School
Holmes, R.C. Heaton Moor College, Stockport
Honeywell, E.V. Ripley Comm. School
Hopwood, J.J. High S., South Shore, Blackpool
Horswill, F. Bradley High S. for Boys, Newton Abbot
Horton, S.H. All Saints' Choir S., Clifton
Hough, C.W. St. Aubyn's, Woodford Green
Houghton, B.A. Modern S., Gravesend
Howells, G.D. Maindee Lawn S., Newport
Hoyle, F.V.N. Kilgrimol S., St. Annes-on-Sea
Humphries, S.W. Margate Comm. School
Hunt, B.O. Taunton House, Brighton
Hunt, W. Ripley Comm. School
Hunt, W.B. Licensed Victuallers' S., Lambeth
Huntley, M.J. Clarendon School, Bath
Huntman, C. Highbury Park School, N.
Husk, A.C. High S. for Boys, New Brighton
Hyde, G.L. St. John's College, Brixton
Jacka, H.T. Argyle House, Sunderland
Jackman, H. Bradley High S. for Boys, Newton Abbot
Jackson, E.J.S. Jackson, E.J.S.
Bradley High S. for Boys, Newton Abbot
Lancaster Coll., Morecambe
Uxbridge Prep. School
Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme
Bedford House, Folkestone
Croad's School, King's Lynn
Croad's School, King's Lynn
St. Leonards Coll. School
Penketh School
Eversley School, Stamford
Swindon High School
St. Denioli's S., Bangor
St. Denioli's S., Bangor
Northampton H., Cheltenham
Wellington College, Salop
Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme

Jockelson, S. Argyle House, Sunderland
Johnson, C.M. Spencer College, Wimbledon
Johnson, H.E. Taunton School
Johnston, J.R. St. John's College, Brixton
Jolliffe, J.S. The Middle School, Holsworthy
Jones, C.H.B. Gram. School, Shoreham
Jones, F.A. Wellington College, Salop
Jones, P.T. Ansdell School, Lytham
Jones, S. Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme
Jones, S.G. Herne Bay College
Joye, L.J. Southport Modern School
Judd, C.W. York House, Farnham
Kallend, B.W. Milton College, Bexley Heath
Keppin, A.W. Caversham H., Reading
Kemp, J.A. Tankerton College
Kent, C. Gram. School, Shoreham
Kent, F.C. Trafalgar House, Winchester
Kimber, D.V. Handel College, Southampton
Kimber, K.S. Handel College, Southampton
King, A.F. St. Mary's College, Harlow
King, G. Thrapston High School for Boys
King, W.E. Croad's School, King's Lynn
King, W.H. Gram. School, Fulwood, Preston
King, W.H. Ripley Comm. School
Kirk, E.G. St. John's College, Brixton
Kirham, H.G. Raleigh College, Brixton
Kirham, S. Southport Modern School
Kitcat, G.I. St. Dunstan's College, Margate
Kitchin, G. Skelsmergh House, Margate
Kitchin, N.W. Skelsmergh House, Margate
Lahart, C. St. Mary's College, Harlow
La Fosse, A.L.E. Oxenford H., St. Lawrence, Jersey
Lake, H.S. Mount Radford School, Exeter
Lamerton, H.R. West End School, Jersey
Lane, C.H. Northampton House, Cheltenham
Langford, W.S. St. Oswald's S., Castelnan, Barnes
Langmaid, E.L. St. Mary's College, Harlow
Langton, V.Y. Gram. School, Shoreham
Last, J.S. Gram. School, Shoreham
Latham, G.T. Farnworth Gram. School
Latham, P. Wellington College, Salop
Latham, P.A. Friedenfels, St. Leonards-on-Sea
Laurence, C. Anerley College, S.E.
Law, W.H. Croad's School, King's Lynn
Lawrence, N.A. Bedford House, Folkestone
Lawson, C.V. All Saints' Choir S., Clifton
Leather, J. Margate Comm. School
Le Brocq, C. Harleston H., St. Lawrence, Jersey
Lee, F.P. Victoria Park S., Manchester
Lee, H.F. Green Park College, Bath
Lee, J. Oxford College, Waterloo, L'pool
Lees, E. Southport Comm. College
Leet, A.G. Skelsmergh House, Margate
Le Grice, D. Croad's School, King's Lynn
Leigh, F.A. Preparatory S., Wilson Rd., Southend-on-Sea
LeMaistre, C.P. Harleston H., St. Lawrence, Jersey
LeMasurier, F.R. West End School, Jersey
Le Roy, H. Gram. School, Streatham
Lewis, F.E. Highbury Park School, N.
Lewis, T.A.S. Steyne School, Worthing
Liddell, E. Southdown College, Eastbourne
Lingford, C.G. Gram. School, St. Annes-on-Sea
Llewellyn, R. E.D.T. Winchester H., Redland Road, Bristol
Locke, F.A. Taunton School
Lomax, J.F. Kilgrimol S., St. Annes-on-Sea
Longton, E. Penketh School
Lord, T.N. Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme
Lorenzen, A.E. Gram. School, East Finchley
Lort, W.V. St. Denioli's School, Bangor
Love, G.L. Wellington College, Salop
Low, R. Croad's School, King's Lynn
Lowry, H.V. Wychwood, Bournemouth
Lowson, N.L. Gram. School, Scarborough
Lucas, A.G. Wychwood, Bournemouth
Lucas, J. Jersey Modern S., St. Heliers
Luscombe, L. Bradley High S. for Boys, Newton Abbot
Luton, B.G. All Saints' Choir S., Clifton
Lye, E.G. Wilsford House, Devizes
Lye, W.T. Wilsford House, Devizes
Machin, J.E. Mossley Hall S., Congleton
Mackay, D. Swindon High School
Mackenzie, H.C. St. Catherine's Coll., Richmond
MacNulty, E. Mossley Hall S., Congleton
Madwick, G. Spencer Coll., Wimbledon
Maggs, S.C.W. High S. and Comm. Coll., Forest Gate
Mail, D.B. Grosvenor College, Carlisle
Mallous, C.G. Ripley Comm. School
Manger, C.A.J. Lancaster Coll., West Norwood
Manning, W.M. Bedford House, Folkestone
Marsh, A. Thrapston High S. for Boys
Marsh, C.H. St. Dunstan's Coll., Margate
Martin, J.W. Read's Gram. S., Tuxford
Mason, H. Wellington S., Heaton Moor, Stockport
Mathers, H.W. Gram. School, Sale
Matthews, A.J. Saham College, Watton
Matthews, F. Wychwood, Bournemouth
Maxwell-Stuart, J. St. Dominic's, Upper Bognor

Maxwell-Stuart, W. St. Dominic's, Upper Bognor
May, F.C. Mount Radford S., Exeter
McKnight, N. Southdown Coll., Eastbourne
Mead, F. Gram. School, Taplow
Meade, R.O. Commercial College, Acton
Meadway, B.W. Godwin College, Margate
Menendez, F.T.S. Mary Street H., Taunton
Merrifield, J.H. Taunton School
Merry, R.N. Brunswick H., Maidstone
Midgley, R.W. Penketh School
Milton, F.F. Modern School, Gravesend
Minter, F. Herne Bay College
Mitchell, F.E. Taunton School
Mitchell, W.J. Lancaster Coll., West Norwood
Mitchiner, J. Raleigh College, Brixton
Molyneux, E. Royal Gram. S., Whalley
Montague Huggins, W.T. Heaton Moor Coll., Stockport
Moon, G. The College, Weston-s-Mare
Morley, K. Skelsmergh H., Margate
Morgan, E.H. Taunton School
Morgan, G.R. Argyle H., Sunderland
Morgan, J. Farnworth Gram. School
Morris, A.F. St. Leonards Coll. School
Morrish, H.J. Lytham College
Bradley High S. for Boys, Newton Abbot
Morton, F. Gram. School, Sale
Moss, P.J. Brunswick H., Maidstone
Mould, B.S. Handel College, Southampton
Mourant, W.P. Jersey Modern S., St. Heliers
Murray, E.R. Wellington S., Heaton Moor, Stockport
Musparr, K.K. Wychwood, Bournemouth
Mynott, D.D. Brentwood High School
Mytton, R. Gram. School, East Finchley
Nasinsky, A.V. Spencer Coll., Wimbledon
Nathan, L. Arlington Park Coll., Chiswick
Needham, R.A. Gram. School, Shoreham
New, R. St. Mary's College, Harlow
Newcombe, R.H. South Molton United Higher S.
Newsome, C. Churwell College, Leeds
Nicholas, R.A. Lulworth House, Caerlon
Noakes, J. Margate Comm. School
Norris, L.C. Gwyrfai H., East Cowes
Norris, W.E. Cliftonville Coll., Margate
North, J.E. Read's Gram. S., Tuxford
Northcott, F.J. South Molton United Higher S.
Northcott, R.F.E. Froebel House, Devonport
Norton, J.H. Eaton House, Southend-on-Sea
Oates, E.T. Modern School, Gravesend
Ogden, J.H. High S., South Shore, Blackpool
Oliver, A.G. West End School, Jersey
Oliver, J.D. Sandwich School
Oliver, I.E. Taunton House, Brighton
Olliv, G.W. Ripley Comm. School
Olliv, L.J. Lancaster Coll., West Norwood
Ollivier, J. Margate Comm. School
Olson, H.O. The College, Weston-s-Mare
O'Reilly, J.E. Boys' Coll. S., Aldershot
Osbourne, R.J. Yarmouth Coll., Gt. Yarmouth
Page, G.R. Dirliton House, St. Albans
Page, W.H. Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme
Pagniez, H.V. St. Mary's College, Harlow
Paige, J.P. Bradley High S. for Boys, Newton Abbot
Painter, W.T. Cliftonville College, Margate
Palmer, H.A. Littleton H., Knowle, Bristol
Panting, H.A. Gram. School, St. Annes-on-Sea
Parker, H. Southport Modern School
Parker, J.H. Bursledon School, Exeter
Parker, R.C.H. Gram. S., Park Hill, Clapham
Parry, G.P. Taunton House, Brighton
Parry, H.M. Gram. S., Park Hill, Clapham
Pasmore, A. Trafalgar House, Winchester
Patterson, H.G. Brunswick H., Maidstone
Pearce, J.M. All Saints' Choir S., Clifton
Peermund, L.F. Licensed Victuallers' School, Lambeth
Pelling, C. Charlton Academy, Bath
Pendock, P.E.C. Littleton House, Knowle, Bristol
Pepin, A.F. Oxenford House, St. Lawrence, Jersey
Perkins, T.E. Gram. School, Blackpool
Petherick, J.S. The Middle S., Holsworthy
Pfaff, B. The College, Weston-s-Mare
Phillips, F. Swindon High School
Phillips, F. Cromwell School, Patricroft
Piller, H. St. Mary's College, Harlow
Pitchford, A.R. Gram. School, Shoreham
Pitt, B. Eversley School, Stamford
Pocock, W.H. Brunswick H., Maidstone
Pogose, I.R. Arlington Park Coll., Chiswick
Pollard, T.R. Saham College, Watton
Poole-Connor, M. Arundel H., Surbiton
Poole, J. Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme
Porritt, A. Huddersfield Coll. Modern S.
Porter, H. Southport Modern S.
Poulton, A.H. Ripley Comm. School
Pounsett, R.F. Blenheim H., Farnham
Price, E.N. Taunton H., Brighton
Priest, W.G. Richmond Hill School
Prior, A.N. Boys' Coll. School, Aldershot
Prior, L.P. Eton House, Southend-on-Sea
Pritchard, H.E. Taunton School
Pryor, H.N. Wilsford House, Devizes
Purkiss, C.A. Licensed Victuallers' S., Lambeth

BOYS, LOWER FORMS—Continued.

Racey, R. Yarmouth Coll., Gt. Yarmouth
Ratcliff, E.A. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme
Rayley, G. Farnworth Gram. School
Readman, W.H. Ousegate School, Selby
Reavley, P.J. Hasland House, Penarth
Reddy, E.P. Clair-Val S., Faldouet, Gorey
Reidmond, R. Hutton Gram. School
Reeves, T.T. Taunton House, Brighton
Reid, J.A. Victoria Park S., Manchester
Reid, J.W. Maida Vale School, W.
Reily, D.C. Southport Comm. College
Remington, W. Raleigh College, Brixton
Reynolds, A. St. Mary's College, Harlow
Rice, F.H. Richmond Hill School
Rice, F.L. Herne Bay College
Richards, F.R. Spencer Coll., Wimbledon
Richardson, B. Kilgrimol S., St. Annes-on-Sea
Richmond, D.E. St. Leonards Coll. School
Ricketts, T.C.D. Bedford H., Folkestone
Riley, C. Gram. School, Taplow
Riley, R.D.F. Royal Gram. S., Whalley
Robin, E.deJ. Froebel H., Devonport
Robinson, D.D. Wellington S., Heaton Moor, Stockport
Robinson, G.E. Douglass School, Cheltenham
Robinson, R.L. New College, Harrogate
Robson, E.L. Private tuition
Rodd, F.T. Rhamphore House, Wembley
Roe, C.L. Hillmartin Coll., Busby Place, N.W.
Roebuck, H. Gram. School, Blackpool
Rogers, C.H. Margate Comm. School
Rogers, E. Brunswick H., Maidstone
Rogers, P.W. South Molton United Higher S.
Roland, G.V. De Gresley Lodge, Southsea
Romeril, A.J. Clair-Val S., Faldouet, Gorey
Ross, A. Great Kaling School
Rough, D.H. Mount Radford S., Exeter
Rowe, B. Kilgrimol S., St. Annes-on-Sea
Rowe, V.G. St. Mary's College, Harlow
Rowson, R.H. Penketh school
Rusney, P.C. Commercial S., Maidstone
Rushton, A.H. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme
Rutley, M. Spencer Coll., Wimbledon
Sabine, H.C. Bradley High S. for Boys, Newton Abbot
Sage, J.L.P. Taunton School
Sale, G.N. Grosvenor H., Wokingham
Sandford, E. Eversley S., Stamford
Sarchet, L.L. Froebel H., Devonport
Sargeant, S.H. Commercial Coll., Acton
Saunders, J.L. Caversham H., Reading
Saxby, G. Read's Gram. S., Tuxford
Scarff, K.C. Arundel House, Surbiton
Scarlett, G. Mary Street H., Taunton
Schirm, W. Victoria Park S., Manchester
Schofield, A. Southport Comm. College
Schreiber, B.C. Gram. School, Shoreham
Schute, E.B. Clifton College, Harrogate
Scott, C. Gram. School, Streatham
Scott, J. Read's Gram. S., Tuxford
Scroggs, H.S. Dirlerton H. S., St. Albans
Scutt, C.C. Arnold Coll., W. Bourne-mouth
Sealey, L.R. Cliftonville Coll., Margate
Sedger, H.A. Gram. School, Taplow
Senior, H. New College, Harrogate

Sewell, A. Grosvenor Coll., Carlisle
Seyfang, R.E. Brentwood High School
Shackleton, J. Wellington College, Salop
Shackleton, J. Wellington S., Heaton Moor, Stockport
Shadrach, C.C. Caversham H., Reading
Shaplaid, A.F. Taunton School
Sharpe, L.G. Lahore, Purley
Shaw, E.W. Wellington College, Salop
Shepherd, G.A. Skelsmergh H., Margate
Shiel, J. Farnworth Gram. School
Shillito, J.T. The School, Wellington Rd., Taunton
Shorter, B.J. Modern School, Gravesend
Shrewsbury, A.H. Milton Coll., Bexley Heath
Shutt, W.J. The High S., Market Drayton
Simpson, A. Penketh School
Simpson, F.A. All Saints' Choir S., Clifton
Simpson, F.G. The Western Coll., Harrogate
Skelton, H. St. Aubyn's, Woodford Green
Smethurst, F.H. Kilgrimol S., St. Annes-on-Sea
Smiles, C.E. Craven Park Coll., Harlesden
Smith, A.G.H. Modern S., Gravesend
Smith, E.P. Hutton Gram. School
Smith, F. Eversley S., Stamford
Smith, P.L. St. Leonards Coll. School
Smith, S.H. Steyne S., Worthing
Smith, T. Farnworth Gram. School
Smith, W. Eversley S., Stamford
Smith, W.G. Walsall Comm. College
Smyter, H.D. Gram. School, Shoreham
Smyth, F.W.L. Mary Street H., Taunton
Snowball, G.N. Argyle H., Sunderland
Solomon, H. Boys' Coll. School, Aldershot
Soper, L.V. Taunton House, Brighton
Spear, F.C. Olive Villa, Southville, Bristol
Springthorpe, L. Eversley School, Stamford
Stafford, J. Wellington College, Salop
Starling, J.E. Gram. School, Taplow
Stening, A.H. Ripley Comm. School
Stening, H.J. High S. & Comm. Coll., Forest Gate
Stephenson, G.K. Herne Bay College
Stewart, H. Tankerton College
Stewart, I.C. Wellington S., Heaton Moor, Stockport
Stewart Patterson, G.W.O. All Saints' Choir S., Clifton
Stokes, F. Ripley Comm. School
Stone, K.S. Modern School, Gravesend
Stone, S.V. Wilsford H., Devizes
Stonham, F.K. Bedford H., Folkestone
Strube, P.F. Licensed Victuallers' S., Lambeth
Sutcliffe, F.W. High S., South Shore, Blackpool
Sutherland, J.L. Godwin College, Margate
Swan, E.M. Steyne School, Worthing
Swann, A.B. Mossley Hall S., Congleton
Swinford, H.F. Cliftonville Coll., Margate
Symonds, H.V.B. Gram. School, Shoreham
Sylvester, B.S. Royal Gram. S., Whalley
Talbot, F.G. Brentwood High School
Tallant, N. Collett House, Boscombe
Tantou, C.H. St. Leonards Coll. School
Tarr, F.W. Ripley Comm. School
Taylor, G.L. Taunton House, Brighton
Taylor, C. All Saints' Choir S., Clifton
Taylor, D. Cliftonville Coll., Margate

Taylor, E.C. Brunswick H., Maidstone
Taylor, H.L. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme
Taylor, R. All Saints' Choir S., Clifton
Taylor, R.H. New College, Harrogate
Taylor, R.T.S. St. Winifred's S., Torquay
Taylor, W.C. Brentwood High School
Tett, G.F. Weymouth Comm. School
Theobald, D. Taunton School
Thomas, E.H. Gram. School, Shoreham
Thomas, E.L. Belmont H., Cheltenham
Thomas, F. Littleton H., Knowle, Bristol
Thomas, G.H. St. Aubyn's, Woodford Green
Thomas, I.W. Penketh School
Thomas, J. Woolston Coll., Southampton
Thomas, P.E.B. Gram. School, Shoreham
Thompson, R.D. Gram. School, Shoreham
Thomson, S. Gram. School, Shoreham
Threlfall, R.H. Skelsmergh H., Margate
Thurby, J. Eversley S., Stamford
Tilley, W.J. High S. & Comm. Coll., Forest Gate
Tindel, H.A. Grimshaw St. British S., Preston
Tingley, W.G. Gram. School, Shoreham
Tolcher, J.H. Gram. School, Taplow
Toll, R.W. Froebel H., Devonport
Tomblason, F.H. Barton School, Wisbech
Tomkinson, R.L. Kilgrimol S., St. Annes-on-Sea
Tovey, T.H. York House, Farnham
Townsend, R.S. Douglas S., Cheltenham
Toye, R.H. Bedford H., Folkestone
Trenance, E.J. Gram. S., Shoreham
Tronson, D. Gram. S., Streatham
Tuck, D.B. St. Aubyn's, Woodford Green
Tune, G.F. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme
Turk, J. Wellington S., Deal
Turnbull, J.G. Craven Park Coll., Harlesden
Twelves, C.F.H. Steyne S., Worthing
Twinberrow, R. Hoylake College
Tyrer, J.E. Gram. School, Blackpool
Underdown, H.H. Brunswick H., Maidstone
Van Weede, H. Skelsmergh H., Margate
Varley, E.C. New College, Harrogate
Verner, C. Highbury Park School, N.
Vidler, S.M. Richmond Hill School
Vine, L.E. Weymouth Comm. School
Vollaire, A.C. Gram. S., Shoreham
Vollaire, G.W. Gram. S., Shoreham
Vose, F. Catholic Gram. S., St. Helens
Waight, D. St. Mary's College, Harlow
Walkden, J.N. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme
Walker, D.T. The Western Coll., Harrogate
Walker, G.H. Mossley Hall S., Congleton
Wallis, A.C. Skelsmergh H., Margate
Walk, R.J. Penketh School
Wainsley, B.D. Gram. S., St. Annes-on-Sea
Wainwright, J. Southport Modern School
Walters, J.D. Swindon High School
Walton, F. Ripley Comm. School
Warner, G.S. Swindon High School
Warwick, R.G.G. Blenheim H., Fareham
Warwick, W.A.G. Blenheim H., Fareham
Waters, R.C. Farnworth Gram. School
Waters, S.H. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme
Watson, A.E. Taunton School
Watson, E.V. Oxford College, Waterloo, L'pool

Watson, F.B. Southdown Coll., Eastbourne
Way, A.B. Gram. School, Shoreham
Webb, C. Southdown Coll., Eastbourne
Webb, J.A. Royal Gram. S., Whalley
Webb, M.H. Downs School, Clifton
Webb, N.E. Swindon High School
Weber, L. Oxford Coll., Waterloo, L'pool
Webster, D.F. High S. for Boys, New Brighton
Webster, J.J. High S. for Boys, New Brighton
Weeks, H.V. Brunswick H., Maidstone
Welton, M.W.S. Gram. School, Sale
West, F.W.A. Steyne School, Worthing
Wheeler, W.L. Clifton Coll., Harrogate
Wheeler, A.G. Gram. School, Shoreham
Wheeler, G.E. Woodside, Weybridge
White, A.C. Woolston Coll., Southampton
White, A.W. Gram. School, Shoreham
White, E.V. Eton House, Southend-on-Sea
White, J. Southport Comm. College
White, J.E. New College, Harrogate
White, K.B. All Saints' Choir S., Clifton
Whitehead, A.D. Gram. School, Shoreham
Whitfield, B.G. Downs Park Coll., Herne Bay
Whitworth, C.S. The Modern Coll., Harrogate
Widdowson, J.J. Gram. School, Shoreham
Wilcock, W.C. Ansdell School, Lytham
Wild, N.M. Wellington S., Heaton Moor, Stockport
Wilkins, E.S. Southport Modern School
Wilks, E.D. Gram. S., St. Annes-on-Sea
Willan, G. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme
Williams, F.D. St. Mary's Coll., Harlow
Williamson, T. St. Mary's Coll., Harlow
Williamson, W.S. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme
Willis, C.G. Swindon High School
Wilson, G. All Saints' Choir S., Clifton
Wilson, G.C. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme
Wilson, R.H. Swindon High School
Wilson, S.A. All Saints' Choir S., Clifton
Windsor, W.L. Gram. School, East Finchley
Wolstenholme, A. Ansdell School, Lytham
Wood, A.H. Farnworth Gram. School
Wood, C.G. Taunton School
Wood, H. High S., South Shore, Blackpool
Wood, S.C. Douglas S., Cheltenham
Wood, S.T. South Molton United Higher S.
Woodward, J. Brunswick H., Maidstone
Woodward, R.C. Taunton School
Woodlcock, A. South Molton United Higher S.
Woodliscroft, W. The Western Coll., Harrogate
Wright, E. Southport Modern School
Wright, G.R. Brunswick H., Maidstone
Wright, J. Mall Road Middle Class S., Hammersmith
Wright, J.D. Brunswick H., Maidstone
Wyatt, E. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme
Wyatt, I.H.W. St. John's College, Brixton
Yates, A.C. St. Leonards Coll. School
Yeats, J. Catholic Gram. S., St. Helens
Young, C. Gram. School, Streatham
Young, S.F.C. Modern School, Gravesend
Youngs, J.W. Everard House, King's Lynn
Zollner, F.A. Gram. School, Sale

GIRLS.

Abbott, D.M. 51 Ditchling Rise, Brighton
Abbott, P.M.C. Winwick, S. Woodford
Adams, K. Abbeyfield Mount High S., Sheffield
Adams, M.D. Hartington H., Beckenham
Ahier, F.M. St. Clement's School, Jersey
Allechin, F.V. Royal Masonic Inst., Clapham Junction
Allun, T.F.E. Modena House, Ealing
Andrew, M. Edgehill Girls' Coll., Bideford
Anstey, D.E. Redland View S., Bristol
Arnold, V. Stamford H., Edgbaston
Ashdown, L. Northcote H., Bexhill
Astle, C.L. Castelnau College, Barnes
Astley, E.F. St. Catherine's S., New Cross
Atkins, N. Ladies' S., Dyke Road, Brighton
Auld, L.A. Alexandra Coll., Shirley
Axtens, M.N. Home School, Clifton
Ayles, J.C. Alexandra Coll., Shirley
Ayre, M. Ladies' S., The Shrubbery, South Molton
Ayton, D.M. Sunnybrae, Southport
Bailey, C.H. Gunnerside S., Plymouth
Bailey, G.R. Girls' Coll. S., Jersey
Bailey, W.E. Winwick S., Woodford
Baker, B.E. Middle Class S., The Athenaeum, Maidstone
Baker, I.K. Roanoke Coll. S., Palmer's Green
Baker, M.H. Gunnerside S., Plymouth
Ball, M.D. Evelyn High S., Upper Holloway
Bance, H.M. Summerbrook, Reading

Barker, M. Loreto Conv., Hulme, Manchester
Barnett, E. Thrapston High S. for Girls
Barnet, D.M. Highfield S., Harrogate
Barron, M. Ripley Comm. School
Barter, D.K. Licensed Victuallers' Girls' S., S.E.
Bartlett, E.M. Gwyrfai H., East Cowes
Bass, L.A. St. Michael's Avenue S., Northampton
Bassil, E.E. Southend College
Bateman, M. Salisbury H., Plymouth
Batty, D.W. Woodside, Hastings
Baudains, L.M. Ashton H., St. Clements, Jersey
Beale, N. Wiltshire Road S., Brixton
Beall, M.A.B. Collegiate School, Worcester Park
Bean, M.S. High School, Crewe
Beech, O.A. Royal Masonic Inst., Clapham Junction
Bell, E.M. Glenam Coll., Iford
Bell, K. Temple Square S., Aylesbury
Bell, S. Penketh School
Bellew, D.W.J. Edgehill Girls' Coll., Bideford
Bennett, H.M. St. Kilda's Coll., Clifton
Bennett, I.A. Camden H., Biggleswade
Bennett, L.R. The Coll., Nightingale Lane, Clapham Com.
Bernardes, E. Breakspear Coll., Brockley
Bertram, A. Les Marais High S., Fauvic, Jersey

Biddle, I.H. Southend College
Biggs, I.L. Crouch End High S., Hornsey
Billot, E.M. Ashton H., St. Clements, Jersey
Birchall, E.D.L. Private tuition
Bird, O.M. St. Catherine's S., New Cross
Blackhurst, M. The Laurels, Lincoln
Blake, V.V. Edgehill Girls' Coll., Bideford
Bond, A.D. St. Michael's Avenue S., Northampton
Booth, M. 'Mechanics' Inst., Thornton, nr. Bradford
Borrow, W.M. Queensthorpe, Cosham
Bosshardt, M. Springfield S., Stockport
Bowman, M.L. Brentwood, Southport
Bradley, E.C. Wilsford H., Devizes
Braund, F. Gunnerside S., Plymouth
Brewer, B.A. Arlington H., Newport
Brice, E.L. Alexandra Park Coll., N.
Briggs, M.A. The Laurels, Kegworth
Brown, D.F. Alexandra College, Shirley
Brown, D.G. Braunstone H., Newport
Brown, I.K. Westbourne H., Cowes
Brown, M.L.V. Private tuition
Browne, V.M. Collingwood Coll., Lee
Bryant, P.E. Gunnerside S., Plymouth
Buchanan, M. Summerbrook, Reading
Bucknell, E. Minton H., Padworth
Bucknell, K.R. Minton H., Padworth
Bulmer, M.C. Royal Masonic Inst., Clapham Junction
Burdon, A.M. Royal Masonic Inst., Clapham Junction

Burr, L.E. Darnley H., Gravesend
Burt, G. Braunstone H., Newport
Butcher, C.A.E. Bleak House, Brentwood
Butler, D.M. Thrapston High S. for Girls
Buxton, D.C. St. Kilda's Coll., Clifton
Byron-Brown, D.M. Fairhaven, Batheaston, Bath
Cadogan, M.P. Home S. for Girls, Kensington, Bath
Caister, E.M. Elsmere S., Reading
Callon, C. Temple Square S., Aylesbury
Cannon, G.M. Thurilton, Norwich
Carr, I.L. Gravelly Hill High S., Birmingham
Carr, V.E. Gravelly Hill High S., Birmingham
Carter, E.A. Private tuition
Carter, H.E. Royal Masonic Inst., Clapham Junction
Carter, M.H. Grosvenor H., Wokingham
Challis, F.G. Drayton H., Newport
Chance, F.M. Private tuition
Chatterton, P. Springfield S., Stockport
Cheshire, F.M. Alexandra Coll., Shirley
Childs, M.E. High School, Crewe
Chiselat, E.L.A. Azincour, Deal
Cholerton, G.F. Brock Coll. S., Poulton Le Fyde
Christie, L. Roanoke Coll. S., Palmer's Green
Christie, D. High School, Twickenham
Clark, P.K. Ellerker Coll., Richmond Hill
Clark, A. Girls' High S., Tuxford
Clarke, D.M. Norbury High School

GIRLS, LOWER FORMS—Continued.

Clayson, F.E. S. Michael's Avenue S., Northampton Cleaver, M.H. Gordon House, Brighton Clemen, V.B. Cornwallis High S., Hastings Cockrell, D.E. Laucekfields, Southend-on-Sea Coln, E. Harringay Park S., Hornsey Cole, M.E. Edgell Hill Girls' Coll., Bideford Collins, D.E. Steyne School, Worthing Collins, F. Colville H., Eastbourne Collins, L.K. Godwin Girls' Coll., Cliftonville Common, M.H.M. St. Catherine's S., New Cross Conybeare, M.F. Salisbury H., Plymouth Cooke, M.E.H. Lynton H., Fortsumings Cooper, M.G. Cornwallis High S., Hastings Conche, E.S.E. Southernhay S., Exeter Goulton, E. Malvern H., Birkdale Coursieres, J. St. Joseph's Secondary S., Reading Covell, P.L. Steyne School, Worthing Cox, G.F.L. Temple Square S., Aylesbury Coy, I. Westboro' High S., Newcastle-on-Tyne Cranmer, M.S. Thornton H., Redhill Craven, E. Uppingham H., Bradford Crawley, V.E. Camden H., Biggleswade Cregan, B.M. Woodford High School, S. Woodford Crook, E.M. Sunnyholme S., Southport Crosby, W.M. St. George's H., Doncaster Crouch, A.L. Ripley Comm. School Crowden, B. Southend College Crowe, K.R. Waverley Coll., Silverdale, Sydenham Crozier, G. Kirkby Stephen High S. Cullum, D.M. Thrapston High S. for Girls Cuming, E. Gunnerside S., Plymouth Curtis, W. Girls' High S., Tuxford Cuthbert, E.C. Hartington H., Beckenham Daniel, L.M. Edgell Hill Girls' Coll., Bideford Daniel, S.P. Woodside, Hastings David, C.H. 114 Cathedral Rd., Cardiff Davies, K. St. Kilda's Coll., Clifton Davies, B.D. Richmond High S., Liscard Davies, E.W. Woolston Ladies' Coll., Southampton Davies, L.L. Balliol H., Wandsworth Common Davies, M.J. St. Margaret's, Cardiff Dawa, H. 7 Pelham Rd., Southsea Dawkins, B. Westbourne H., Cowes Dawson, D. Westboro' High S., Newcastle-on-Tyne Dawson, I. Burton H., Westons.-Mare Day, W.M. Westbourne H., Chiswick Daysh, G.D. Queensthorpe, Cosham Deacock, W.R. Wendover Coll., Bowes Park Devenish, C. 4 Glebe Villas, Mitcham Dick, G. Crouch End High S., Hornsey Dickinson, E.M. Norma S., Waterloo Dixon, E.M. Penketh School Dodd, O.L. Penketh School Dodsworth, M.H. Froebel H., Worthing Dougherty, P.M. Richmond High S., Liscard Douglas, E.M. Southend College Douglas, F.L. Sliu Chiarn S., Northampton Dowse, J.A. Thorpe High S., Thorpe next Norwich Dowse, R.E. Thorpe High S., Thorpe next Norwich Drayton, J.C. Harringay Park S., Hornsey Duffin, K.M. Southend College Dunn, D.O. Royal Masonic Inst., Clapham Junction Eardley, N.E. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme East, S. Les Landes S., Faldon, Jersey Eddolls, V.E. Lulworth H., Caerleon Edmunds, M.G. Blenheim H., Fareham Edwards, V. Norma School, Waterloo Eighteen, F.M. Hemdean H., Caversham Evtitt, G. Hartington H., Beckenham Fane, D.E. Ripley Comm. School Farmer, A.G. Southend College Fell, W.M. Halcyon H., Congleton Fenner, E.S. Clare House, Worthing Fenton, D.M. Woodford High School, S. Woodford Ferguson, A.E. Girtonville Coll., Aintree Ferguson, F.I. Girtonville Coll., Aintree Fisher, M. Ellerker Coll., Richmond Hill Fisher, D.M. Pencerag Coll., Newport Fisher, M.E. Ellerker Coll., Richmond Hill Fishleigh, M.J. Edgell Hill Girls' Coll., Bideford Fleck, D.R. Royal Masonic Inst., Clapham Junction Fletcher, M.J. Trinity H., Bexhill-on-Sea Ford, A.C.D. Parnella H., Devises Francis, H.M. Darnley H., Gravesend Frankford, M.M. Clark's College High S., Tufnell Park Fraser, M. D'Arcy Hey, Boscombe Freeman, S. 7 Pelham Rd., Southsea Frost, A.F.I. Drayton H., Newport Gale, H. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme Gale, M.L. Drayton H., Newport Gardner, D.M. Glenam Coll., Ifford Garnett, E.A. Edenfield S., Withington Gidwell, L.M. Orton Coll., Colleshill Gilbert, M.E. Cloughton Coll., Romford Gilmour, M.A. Radley H., Wandsworth Common

Gladwell, I.M. Guelph Coll., Bristol Glasspool, E.F. Froebel H., Worthing Godwin, L.A. Colville H., Swindon Goodman, E.M. Ripley Comm. School Goodman, G. High School, Twickenham Goodman, L. Salisbury H., Plymouth Gould, D.I. Godwin Girls' Coll., Cliftonville Grant, K.M. Highwood H., Liskeard Grave, J.M. Quarry H., Guildford Gray, G.F. Woodford High S., Woodford Green, C.I. Edgell Hill Girls' Coll., Bideford Green, D.E. Castle Dene School, Newport Green, H.A. Southernhay School, Exeter Green, M. Richmond High S., Liscard Gregory, E.M. Grosvenor H., Wokingham Gregory, F. Highfield College, Blackpool Gregson, G.M. Sunnyholme S., Southport Greville, M. Loreto Convent, Hulme, Manchester Griffiths, T.K. Redland View S., Bristol Grover, D.H. Camden House, Biggleswade Gubbin, W.D. Thorntonville School, Thornton Heath Guinness, M.E. Private tuition Hadton, D.M. Royal Masonic Inst., Clapham Junction Hall, M.L. Woodford High S., S. Woodford Hamilton, V.A.M. Woodside, Weybridge Hamilton, V.L.C. Thorpe High S., Thorpe next Norwich Hankins, E. Thrapston High S. for Girls Hannah, A.S. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme Hanson, M. Crouch End High S., Hornsey Hardcastle, E.M. Churwell College, Leeds Hargrave, I.M. Orton College, Colleshill Harris, E.L. Glenam Coll., Ifford Harris, M. Brentwood, Southport Harrison, A. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme Hart, K.D. Castle Hall S., Northampton Hartley, F.T. Rougemont Coll., Blackpool Hartley, H.M. Girtonville Coll., Aintree Harwood, G.M. Devon Lodge, Wyde Green Haselden, H.R. The Coll., Nightingale Lane, Clapham Comm. Haske, H.M. High S., The Mall, Wanstead Haynes, E.M. Devon Lodge, Wyde Green Heap, E.E. Castle Hall S., Northampton Heasman, E.G. Steyne School, Worthing Heath, I.E.M. Roanoke Coll. S., Palmer's Green Helbling, D.M. Beulah House High S., Upper Tooting Hemming, G. Loreto Conv., Hulme, Manchester Henry, M.A. Salisbury H., Plymouth Henwood, P.Q. Belle Vue, Saltash Herrett, E.B. Bleak House, Brentwood Herring, N.I.M. Darnley H., Gravesend Heseltine, M. Beulah House High S., Upper Tooting Hewitt, C.F. Glenam Coll., Ifford Hewison, G. Woking High S. for Girls Hibberd, L.P. Parnella H., Devises Hickman, E.M. Woodhouse Hall S., Leeds Hicks, B.F. Carisbrooke Coll., Walthamstow Hicks, I. High School, Twickenham Higgins, M.E. St. Michael's Avenue S., Northampton Hilditch, D.F. Ladies' College, Nantwich Hills, G.A. Highfield S., Croydon Hine, D.E.F. Sunnybrae, Southport Hirst, J. Lowther College, Lytham Hoally, M.J. Devon Lodge, Wyde Green Hodgkinson, G. Penketh School Holden, H.S. Belvedere, Birkdale, Southport Holdstock, D.M. Carisbrooke Coll., Walthamstow Holligan, K.E. Colville House, Swindon Hollis, E.C. Braunstone H., Newport Holmes, A. Alderhurst, Sale Holtum, D. Stamford H., Edgbaston Homewood, L.D. Dunrobin, Woolston Hood, C.M. High S., The Mall, Wanstead Horwood, D.R. Hemdean H., Caversham Howe, D.L.M. Nantley H., Heston, Hounslow Hudson, F. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme Hudson, W. Loreto Conv., Hulme, Manchester Hughes, E.B. Hartington H., Beckenham Hughes, G.F. Fairhaven, Bathaston, Bath Humphrey, B.M. Breck Coll. S., Poulton Le Fylde Hunn, R.V. Quarry House, Guildford Hunt, C.E. Crouch End High S., Hornsey Inlach, A.M. Kynerton, Sefton Pk., Liverpool Ingram, M.M. Orton College, Colleshill Ings, E. Crouch End High S., Hornsey Innes, G.E.S. Hartington H., Beckenham Insch, P.M. Malvern H., Birkdale Irwin, E.M. Alwyne Coll., Canonbury, N Izod, M.F. Crouch End High S., Hornsey Jackson, M.B. Roanoke Coll. S., Palmer's Green Jago Smith, E. Godwin Girls' Coll., Cliftonville Jelley, G.E. Ashton House, Grantham Jelliman, D. Pinner High School Jenkinson, D.M. High School, Hornchurch Jerram, E.G. Alexandra Coll., Shirley Johnson, C.J. Licensed Victuallers' Girls' S., S.E.

Johnson, D.M. Gravelly Hill High S., Birmingham Johnston, M.B. Private tuition Jones, J.C. Colville House, Swindon Jones, M.S.A. St. Margaret's, Cardiff Jones, O.M. Pencerag Coll., Newport Jones, S.M. Carisbrooke Coll., Walthamstow Jones, W.C. Drayton H., Newport Joynt, E. High School, Cork Junk, H. Springfield S., Stockport Juson, M. High Bank Ladies' S., Altrincham Kay, D. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme Kelly, K.M. Ellerker Coll., Richmond Hill Kenbery, E.M. Edgell Hill Girls' Coll., Bideford Kendall, F.H. Camden H., Biggleswade Kendall, Mays. The Middle S., Holsworthy Kendall, Muriels. The Middle S., Holsworthy Kerr, M. High School, Cork Kewley, L.E. Meadowcroft Coll., Aintree Kilgour, C.I. Waverley Coll., Silverdale, Sydenham Killeck, A.M. Brentford Coll. School Killing, E.E.M. S. Farnboro' High S., Farnboro' Kistruck, K.S. Hemdean H., Caversham Kitson, R.E. St. Monica's, Herne Bay Koch, K. High School, Twickenham Laack, E.M. Holt House, Fakenham Laidlaw, N. Westboro' High S., Newcastle-on-Tyne Lanerton, N. Edgell Hill Girls' Coll., Bideford Lancaster, A.M. Brentwood, Southport Lander, M.B. Evelyn High S., Upper Holloway Langridge, V.M. Edgell Hill Girls' Coll., Bideford Larsen, K.S. Richmond High S., Liscard Law, M.C. Private tuition Lawther, G. Wiltshire Road S., Brixton Lawrence, D. Royal Masonic Inst., Clapham Junction Lawrence, A.D. Hemdean H., Caversham Lawrence, A.G. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme Lawton, C.A. Cromwell H., Patricroft Lea, V.A. St. Michael's Avenue S., Northampton Le Feuvre, G.E. Six Roads S., St. Lawrence, Jersey Legg, D. Coll. S., Gloucester Row, Weymouth Leopold, W.M. St. Michael's Avenue S., Northampton Le Roy, F. Ripley Comm. School Le Sauter, B.M. Vauxhall School, Jersey Liddicoat, N. St. Winifred's S., Torquay Litherland, I.M. Girtonville Coll., Aintree Lloyd, L.M. Westbourne H., Cowes Loake, V.V. Slien Chiarn, Northampton Lones, P.V. Stamford H., Edgbaston Long, M.P. Lee College, Eastbourne Londen, E. D'Arcy Hey, Boscombe Love, E.M. Holmwood Coll., Westcliff-on-Sea Love, K.I.D. Exmouth Villa, Stoke Lowe, A.P. St. Anne's Coll. St. Anne-on-Sea Lynn, E.M. Devon Lodge, Wyde Green Lynn, F. Ferside, Grantam MacLaughlin, M. Loreto Conv., Hulme, Manchester Maidment, M. 7 Pelham Rd., Southsea Mallet, L.M. Ashton H., St. Clement's, Jersey Marchant, F. Home S. for Girls, Kensington, Bath Marriner, M.K. Brentwood, Southport Marrook, C.E. Marist Coll. S., Paignton Marshall, E.B. Finsbury Park High School Marsh, C.B. St. George's H., Doncaster Marsh, D.K. Alexandra Park Coll., N. Martin, K. Modena House, Ealing Martin, I.O. Darnley H., Gravesend Mason, O.V. Steyne School, Worthing Mason, W.M. Cloughton Coll., Romford Mason, W.M. Hemdean H., Caversham Matthews, K.H. Clark's College High S., Tufnell Park Maxwell, F. Woking High S. for Girls Mayoss, G.A. Alexandra Coll., Shirley McBean, A.I. Northcote H., Bexhill McRae, H. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme Meade, G.M. Marist Coll. S., Paignton Mecey, H.M. Private tuition Mechen, D.M. Woodford High School, S. Woodford Minter, D.M. St. Margaret's High S., Leigh-on-Sea Mitchell, B. Ripley Comm. School Moignard, L.A. Royal Masonic Inst., Clapham Junction Montagu, D.G. Larchmount Hall, Yatton Montford, E.D. London College, Goodmayes Moore, G. Ladies' S., The Shrubbery, South Molton Moores, E. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme Moores, L. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme Morgan, E.M. St. Maur Coll., Chestport Morgan, R.E. Southend College Morley, I. Thrapston High S. for Girls Morris, C.S. Colville H., Swindon

Morris, E.M. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme Morris, F.M. Edgell Hill Girls' Coll., Bideford Morris, M.S. Braunstone H., Newport Morris, W.M. Summerbrook, Reading Moses, S. Finsbury Park High School Mounsey, A.M.L. Breck Coll. S., Poulton Le Fylde Mulliner, I.M. Brooklyn H., Wellington Musgrave, E.R. French Protestant S., Shaftesbury Av. W.C. Naylor, D. Brentford Coll. School Needham, M.L. Larchmount Hall, Yatton Newington, A.B. Steyne School, Worthing Newman, D. Temple Square S., Aylesbury Newton, E.M. Royal Masonic Inst., Clapham Junction Nicholas, C.M. Lulworth H., Caerleon Nicholson, L. Kenilworth, Folkestone Nicholson, M. Royal Masonic Inst., Clapham Junction Norbury, D.G. Private tuition Norton, D.H.A. Radley H., Wandsworth Common Norton, W.A. Roanoke Coll. S., Palmer's Green Oades, M. Winwick, S. Woodford Oakley, D. Osborne H., Redditch Ogden, N. Dunmarklyn S., Harrogate Oliver, D. Ashton House, Grantham Openshaw, K. Brentwood, Southport Opie, M.L. Lynton H., Portsmouth Orridge, G.M.L. St. Margaret's High S., Leigh-on-Sea Osbaldiston, M. Royal Masonic Inst., Clapham Junction Ostick, F. Lime Tree House, York Oxburgh, L. Girtonville Coll., Aintree Panther, D.I. Castle Hall S., Northampton Parker, P.A. High Bank Ladies' S., Altrincham Parker, R.I. Edgell Hill Girls' Coll., Bideford Parker, D.B. St. George's H., Doncaster Parkinson, E. St. Anne's Coll., St. Anne-on-Sea Parr, D.I. Royal Masonic Inst., Clapham Junction Parrett, M.C. St. Monica's, Herne Bay Parrish, C.A. Cloughton Coll., Romford Parry, E.L.B. King's House, Highgate Parry-Jones, F. Lowther College, Lytham Parsons, M.D. 51 Ditchling Rise, Brighton Pasbach, G.M. Private tuition Peacock, K.E. Holt House, Fakenham Pearce, Q. Meadowcroft College, Aintree Pearn, D.V. 51 Ditchling Rise, Brighton Pearson, A.M. Ashton House, Grantham Pearson, A.R. Home School, Clifton Pearson, M.K. Home School, Clifton Penny, M. Edgell Hill Girls' College, Bideford Percy, N.E. St. George's House, Doncaster Pethybridge, L.M. Marist Coll. S., Paignton Phillips, D.K. St. Michael's Avenue S., Northampton Pickering, A.M. Lime Tree House, York Pink, A.H. Mayfield School, Folkestone Piper, D.V.H. Froebel House, Worthing Piper, E.W. Stamford H., Edgbaston Plummer, M.H. High-Trees College, Bonnemouth Pocock, E.M. Stuart House, Gravesend Poole, I.E. Godwin Girls' Coll., Cliftonville Port, W.M. Marist Coll. S., Paignton Poulton, G.M.M. Ripley Comm. School Powell, G.E. Harley House, Hereford Powell, G.K. Harley House, Hereford Pratt, E. Private tuition Pratt, V. Private tuition Pritchard, F.A. Ellerker Coll., Richmond Hill Pritchard, D.L. Woodside, Hastings Pritchard, G.M. Royal Masonic Inst., Clapham Junction Pritchard, F.M. Edenfield S., Withington Pullan, F.I. Royal Masonic Inst., Clapham Junction Purdy, D.M.W. Manchester Warehousemen & Clerks' Orphan S., Cheadle Hulme Purkis, E.D.S. Stonyhurst Conv., East Molesey Quinton, C.M. Castle Dene S., Newport Ransome, D.E. Ripley Comm. School Ratcliffe, E. Abbeyfield Mount High S., Sheffield Rawlings, H.D. Pencerag Coll., Newport Read, E. Westoe High S., South Shields Redgate, F.Y. E. Bridgford College Reeve, E.C. Southend College Reynolds, G.D. The Limes, Beckhurst Hill Reynolds, E. Tedford S., Dawlish Rice, H.M.E. Private tuition Richardson, D.G. Teddington College Richardson, E.D. Westoe High S., South Shields Risely, E.M. Thorntonville S., Thornton Heath Roberts, H.A. Camden H., Biggleswade Roberts, A.J. Carisbrooke Coll., Walthamstow Roberts, D. Woking High S. for Girls Robins, G.L. Apsley H., Wood Green Robinson, G. Brentwood, Southport Robson, H.M. Roanoke Coll. S., Palmer's Green Rogers, M. High School, Twickenham Rose, L.F. St. Kilda's Coll., Clifton



GIRLS, LOWER FORMS—Continued. Routledge, G.E. Woodside, Hastings Rowland, A. Steyne School, Worthing Roworth, H.L. The Laurels, Kegworth Russell, A.E. Licensed Victuallers' Girls' S., S.E. Rutherford, E. Greenshaw St. British S., Preston Ryder, M. Lime Tree House, York Saltor, D.E. Quarry House, Guildford Sanders, A.M. Edgehill Girls' Coll., Bideford Sansome, C.E. St. Michael's Avenue S., Northampton Saw, D.I. Hartington H., Beckenham Scholes, N. Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme Scott, E.L. Lancaster Coll., West Norwood Sellers, E.M. St. Michael's Avenue S., Northampton Sewell, B. Balliol H., Wandsworth Common Sharpe, M.V. The Coll., Nightingale Lane, Clapham Com. Sharpe, M.W. Lahore, Purley Shea, W. Guelph H., Cliftonville Silk, V.E. Private tuition Sims, D.D. Home S. for Girls, Kensington, Bath Sisk, I. Bourne H., Eastbourne Slight, N.B. Blenheim H., Fareham Smart, F. Private tuition Smith, A.H. St. Margaret's, Cardiff Smith, B.H. Royal Masonic Inst., Clapham Junction Smith, C. Thrapston High S. for Girls Smith, E.P. Olton College, Olton Smith, I.M. St. George's H., Doncaster Smith, L. Ripley Comm. School Smith, M.L. Girtonville Coll., Aintree Smith, R.M. King's House, Hightate Smith, W. Larchmount Hall, Yattton Smith, W.B. Camden H., Biggleswade	Smith, W.H. Harley H., Hereford Spear, F.L. Essex House, Saltash Spear, M.E. Essex House, Saltash Speller, H.M. Royal Masonic Inst., Clapham Junction Spenceley, A.D. St. Margaret's, Cardiff Springford, E.E. Parnella H., Devizes Spurgeon, W.A. Mayfield S., Folkestone Squire, N.M. Edgehill Girls' Coll., Bideford Stacey, F.J. Gunnerside S., Plymouth Stagg, O. Coll. S., Gloucester Row, Weymouth Stander, C.L. Private tuition Stanford, M.E. Summerbrook, Reading Starek, D.M.A. Girls' Coll. S., Jersey Steed, G.H. London Coll., Goodmayes Stephenson, H.S. Highfield S., Harrogate Stone, E.D. Dunrobin, Woolston Stone, G.H. Le B. Pembroke H., Jersey Stretton, E.L. Royal Masonic Inst., Clapham Junction Strickland, I.K. Queens Thorpe, Cosham Talbot, I.M. Stuart H., Gravesend Tanner, G.M. Bourne H., Eastbourne Tarr, K.H. Ripley Comm. School Taylor, D. Rougemont Coll., Blackpool Taylor, D.M. Wengover Coll., Bowes Park Taylor, E.L. Private tuition Temple, G. Lowther Coll., Lytham Thatcher, K.M. Drayton H., Newport Thomas, G. High School, Crewe Thomas, M. High School, Crewe Thomson, B.I. Orton College, Colshill Thompson, I. Alexandra Coll., Shirley Thompson, K. Thornton H., Redhill Thornley, B.E. Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme Tonkin, D.G. Edgehill Girls' Coll., Bideford Topham, O.E. Ellerker Coll., Richmond Hill Torrens, E. Royal Masonic Inst., Clapham Junction	Harley H., Hereford Essex House, Saltash Essex House, Saltash Royal Masonic Inst., Clapham Junction St. Margaret's, Cardiff Parnella H., Devizes Mayfield S., Folkestone Edgehill Girls' Coll., Bideford Gunnerside S., Plymouth Gloucester Row, Weymouth Private tuition Summerbrook, Reading Girls' Coll. S., Jersey London Coll., Goodmayes Highfield S., Harrogate Dunrobin, Woolston Pembroke H., Jersey Royal Masonic Inst., Clapham Junction Queens Thorpe, Cosham Stuart H., Gravesend Bourne H., Eastbourne Ripley Comm. School Rougemont Coll., Blackpool Wengover Coll., Bowes Park Private tuition Lowther Coll., Lytham Drayton H., Newport High School, Crewe High School, Crewe Orton College, Colshill Alexandra Coll., Shirley Thornton H., Redhill Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme Edgehill Girls' Coll., Bideford Ellerker Coll., Richmond Hill Royal Masonic Inst., Clapham Junction	Towers, F.M. Castle Hall S., Northampton Townley-Friend, A. Woodside, Hastings Toyne, E. Crouch End High S., Hornsey Travis, M. Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme Trelease, B.M. Highwood H., Liskeard Trevaskis, E. Prinpol Girls' S., Hayle Triplett, W. Breakspear Coll., Brockley Troid, M.M. Temple Square S., Aylesbury Tulley, W. 51 Ditching Rise, Brighton Turner, A.I. St. Catherine's S., New Cross Turner, D.M. Halcyon H., Congleton Turner, O.A. Hope Lodge S., Bexley Heath Turnham, I.M. Licensed Victuallers' Girls' S., S.E. Underwood, D.M. Ashlea H., Southend-on-Sea Ussher, M.P. Wilsford H., Devizes Vaid, V. Private tuition Van Aker, A. Friedenfels, St. Leonards-on-Sea Venning, M. Gunnerside S., Plymouth Vickers, F.A.V. Clark's College High S., Tufnell Park Vigot, E. Les Marais High S., Fanvie Vines, D.F. Crouch End High S., Hornsey Viney, L. High School, Twickenham VonLeonhardt, M.F.S.A. Private tuition Wade, A. Uppingham H., Bradford Walling, E.E.S. Colville H., Eastbourne Wallis, E. Ladies' S., Dyke Rd., Brighton Walter, D. Froebel House, Worthing Ward, M. Conv. S., Hazelwood Crescent, W. Waters, L.M. Fairhaven High S., Lytham Watson, E.M. Westoe High S., South Shields Waycott, W.S. Exmouth Villa, Stoke Webb, D.G.S. Clark's College High S., Tufnell Park Webb, M.R. Westmont, Newport Webster, L. D'Arcy Hey, Boscombe	Wells, D. Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme Wells, L. St. Agnes' S., Willesden Wheeler, W.L. Buda Coll., Aldrington, Hove White, E.M. Colville H., Swindon Whitehead, F.G. Brookville S., Filey Wickett, H.M. Edgehill Girls' Coll., Bideford Wignall, D. Manchester Warehousemen & Clerks' Orphan S., Cheddle Hulme Wilkes, D.E. Connaught S., Dover Williams, D. Hovehurst, Adisceombe, Croydon Williams, F. Breakspear Coll., Brockley Williams, F. Edgehill Girls' Coll., Bideford Williams, I.V. Cambridge House, York Williams, J. Premyslla High S., Cardiff Williams, M.M. Elsmere S., Reading Williamson, I.M. Merton S., Doncaster Wilmot, M. Lancefield S., Southend-on-Sea Wilson, H. Lowther Coll., Lytham Wilson, H.J.A. Avondale Coll., Winchmore Hill Wiseman, E.E. Belvedere, Birkdale, Southport Witty, E. St. George's H., Doncaster Wolfers, G. Margate Jewish College Wood, C.A. Merton S., Doncaster Wood, D. Penketh School Wood, M.A. Merton S., Doncaster Woods, F.E. Salisbury H., Plymouth Woods, L.E.M. S. Farnboro' High S., Farnboro' Woolgar, A.M. Collegiate S., Havant Wright, A.R.F. Ashlea H., Southend-on-Sea Wright, C. Holt H., Fakenham Wyatt, M. Larchmount Hall, Yattton Wyerley, I. High School, Crewe Wyd, S.G. E. Bridgford College Young, E.M. Clare House, Worthing
--	---	--	--	--

# Messrs. PHILIPS' NEW PUBLICATIONS.

For Cambridge Locals, 1908.

**A NATIONAL GEOGRAPHY.** By ERNEST YOUNG, B.Sc., Head Master of the Lower School of John Lyon, Harrow. A new work on the most modern lines, with numerous Maps and Diagrams. In Three Parts, each 1s. 6d.  
**Part I.—Climate, The British Isles, Europe.** [Ready.  
**Part II.—Tides, Winds, Currents, Latitude and Longitude, America, Africa.** [Shortly.  
**Part III.—Map Drawing and Projection, Surveying, Asia, Australasia.** [In preparation.  
*Prospectus free.*

**HINTS ON TEACHING GEOGRAPHY.** By the same Author. 6d. net.

For Oxford and Cambridge Exams., &c.

**CONSTRUCTIONS IN PRACTICAL GEOMETRY.** Intended for Candidates for the Oxford and Cambridge School Examinations, Scottish Leaving Certificate, and Army Qualifying Examinations. By H. F. WENTLAKE, B.A. Oxon., Senior Mathematical Master, Lancing College, Crown 8vo, 1s. *Prospectus free.*

**OUR OWN ISLANDS: Elementary Studies in Geography.** For Lower and Middle Forms of Secondary Schools. By H. J. MACKINDER, M.A., Director of the School of Economics and Political Science, University of London; late Reader in Geography, University of Oxford. With 14 Coloured Maps, 18 Coloured Plates, numerous Illustrations, and Sketch Maps. In Two Parts, each 1s. 3d.; or, in One Volume, 2s. 6d. *Prospectus free*

Indispensable for Teachers' Reference Libraries.

**ADVANCED CLASS-BOOK OF MODERN GEOGRAPHY—Physical, Political, and Commercial.** For Advanced Students and Teachers. By WILLIAM HUGHES, F.R.G.S., late Professor of Geography, King's College, London. New and Revised Edition, with Coloured Maps and an Appendix giving the Etymology of Place-names. Crown 8vo, 884 pages, cloth, 6s. *Prospectus free.*

Catalogue of New Publications post free.

London: GEORGE PHILIP & SON, Limited, The London Geographical Institute, 32 Fleet Street.  
 Liverpool: PHILIP, SON, & NEPHEW, Limited, 45-51 South Castle Street.

## EDUCATIONAL WORKS BY A. K. ISBISTER, M.A., LL.B.,

LATE DEAN OF THE COLLEGE OF PRECEPTORS.

Nineteenth Edition. 16mo, 1s. 6d.; or in Two Parts, price 9d. each.  
**THE ELEMENTS OF ENGLISH GRAMMAR AND COMPOSITION**, including the Analysis of Sentences, simplified for Beginners.

Tenth Edition. 12mo, price 6d.  
**A FIRST BOOK OF ENGLISH GRAMMAR, GEOGRAPHY, AND ENGLISH HISTORY.** With Arithmetical Tables, Dates, &c.

LONDON: LONGMANS & CO., PATERNOSTER ROW, E.C.

## BEFORE ORDERING WALL-MAPS, SEE PHILIPS' COMPARATIVE SERIES OF LARGE SCHOOLROOM MAPS.

An entirely New and Original Series.  
**COMBINING PHYSICAL WITH POLITICAL GEOGRAPHY.**  
 Physical Features specially prominent.  
 Political Boundaries clearly shown.  
 Uniformity of Scale and Comparison of Areas.  
 Careful Selection and Spelling of Names.

The *Geographical Teacher* says—"We are delighted to receive a wall-map, printed in this country, which can be thoroughly recommended. There can be no hesitation in advising teachers to select this series for their class-rooms."

**INDIA, IRELAND, CANADA, AND AUSTRALIA JUST ADDED.**  
**Test Maps**, without names, to correspond.  
*Prospectus, with Coloured Section, post free to Head Teachers.*

## MODEL TEST MAPS.

A New Series for Class Demonstration, reproduced from carefully constructed Relief Models, *without Names*.  
 Size 30 x 25 in., 16 sorts, each 2s. 6d. net, or on cloth, rollers, and varnished, 4s. net.  
 Also as Wall Atlases, or as Sets boxed. *Prospectus free.*

The "Golden Mean" of Penmanship.

## PHILIPS' "SEMI-UPRIGHT" COPY BOOKS.

Designed to produce **Bold, Legible, and Rapid Writing**, free from all the extravagances of other systems. Three books with French Headlines just added.  
 Price 2d. each.

"We heartily commend these books, as they are among the best we have seen."  
 —Head Teacher. *Prospectus, with Specimen Pages, post free.*

# MESSRS. BELL'S BOOKS

## FOR THE COLLEGE OF PRECEPTORS' EXAMINATIONS, 1908.

### FIRST AND SECOND CLASS (SENIOR AND JUNIOR).

#### ENGLISH.

**SHAKESPEARE'S MERCHANT OF VENICE and JULIUS CÆSAR.** Edited, with Introduction and Notes, by T. DUFF BARNETT, B.A. 2s. each. (*Bell's English Classics.*)

Notes, separately. 1s. each.

Text, with Introduction and Glossary, by JOHN DENNIS. Illustrated. 1s. net each. (*Chiswick Shakespeare.*)

**THE PARAPHRASE OF POETRY.** A Practical Handbook on Paraphrasing, for Use in Schools. By EDMUND CANDLER. With Introduction, Specimens of Paraphrases, and numerous Examples. 1s. 6d.

**MASON'S ENGLISH GRAMMAR: Including the Principles of Grammatical Analysis.** Fortieth Edition. 3s. 6d.

#### ARITHMETIC.

**NEW SCHOOL ARITHMETIC.** By CHARLES PENDELBURY, M.A., F.R.A.S., assisted by F. E. ROBINSON, M.A. Complete, with or without Answers. Fourth Edition. 4s. 6d. Or in Two Parts, with or without Answers. 2s. 6d. each. The Answers separately, 6d. net.

**NEW SCHOOL EXAMPLES IN ARITHMETIC.** Extracted from the "New School Arithmetic." Second Edition. With or without Answers, 3s.; or, in Two Parts, 1s. 6d. and 2s. KEY to Part II. 8s. 6d. net.

**A JUNIOR ARITHMETIC.** By CHARLES PENDELBURY, M.A., assisted by F. E. ROBINSON, M.A. Small crown 8vo, 1s. 6d.; or, with Answers, 2s. The Answers, separately, 6d. net.

**EXAMPLES IN ARITHMETIC.** With some Notes on Method. By C. O. TUCKEY, M.A., Assistant Master at Charterhouse, late Scholar of Trinity College, Cambridge. Crown 8vo, with or without Answers, 3s.

#### ALGEBRA.

**ELEMENTARY ALGEBRA.** By W. M. BAKER, M.A., and A. A. BOURNE, M.A. Complete (for the Senior Exam.), Fourth Edition. Revised, with or without Answers, 4s. 6d.; or, Part I. (for the Junior Exam.), 2s. 6d.; or, with Answers, 3s. Part II., with or without Answers, 2s. 6d. Examples separately, 3s.

**A FIRST ALGEBRA.** By the same Authors. Second Edition. 1s. 6d.; or, with Answers, 2s. This book includes Quadratic Equations, Indices, &c.

**EXAMPLES IN ALGEBRA.** By C. O. TUCKEY, M.A. Fifth Edition. Revised. Crown 8vo, with or without Answers, 3s. Also an Appendix of Supplementary Examples, 6d. net.

#### GEOMETRY.

**ELEMENTARY GEOMETRY.** By W. M. BAKER, M.A., and A. A. BOURNE, M.A. Complete (for the Senior Exam.), 4s. 6d. Also Books I.-III. For the Junior Exam. Seventh Edition. 2s. 6d.

#### ELEMENTARY PHYSICS.

**A FIRST YEAR'S COURSE IN PRACTICAL PHYSICS.** By JAMES SINCLAIR, M.A. Glas., B.Sc. Lond., Head Science Master in Shawlands Academy, Glasgow. Third Edition. With numerous Diagrams. 1s. 6d.

**A SECOND YEAR'S COURSE IN PRACTICAL PHYSICS.** By JAMES SINCLAIR, M.A., B.Sc. 1s. 6d.

**A THIRD YEAR'S COURSE IN PRACTICAL PHYSICS.** By JAMES SINCLAIR, M.A., B.Sc. 1s. 6d.

#### LATIN.

**CAESAR: DE BELLO GALLICO.** Books I. and II. Edited, with Introduction, Notes, Exercises, and Vocabulary, by A. C. LIDDELL, M.A., Assistant Master at Westminster School. With numerous Illustrations, Maps, and Plans. 1s. 6d. each. (*Bell's Illustrated Classics.*)

Translation. 1s. (*Bell's Classical Translations.*)

**VIRGIL: AENEID.** Book I. Edited, with Introduction, Notes, and Vocabulary, by the Rev. E. H. ESCOTT, M.A., Assistant Master at Dulwich College. 1s. 6d. (*Bell's Illustrated Classics.*)

Translation. 1s. (*Bell's Classical Translations.*)

**VIRGIL: AENEID.** Book X. Abridged from Prof. CONINGTON'S Edition. With Notes. 1s. 6d. (*Cambridge Texts with Notes.*)

**HORACE: ODES.** Book III. Edited, with Introduction, Notes, and Vocabulary, by H. LATTER, M.A., Assistant Master at Cheltenham College. With numerous Illustrations. 1s. 6d. (For the Senior Exam.) (*Bell's Illustrated Classics.*)

Translation. 1s. (*Bell's Classical Translations.*)

**BELL'S ILLUSTRATED LATIN COURSE, for the First Year.** By E. C. MARCHANT, M.A., and J. G. SPENCER, B.A. In Three Parts. With Coloured Plates and numerous other Illustrations. Price 1s. 6d. each.

**BELL'S CONCISE LATIN COURSE.** By E. C. MARCHANT, M.A., and J. G. SPENCER, B.A. 2s.

**BELL'S CONCISE LATIN COURSE.** Part II. By E. C. MARCHANT, M.A., and S. E. WINBOLT, M.A. 2s. 6d.

#### GREEK.

**EURIPIDES: HECUBA.** Edited by the Rev. A. W. UPCOTT, M.A., Head Master of Christ's Hospital. With Introduction, Notes, Appendices, and Vocabulary, and numerous Illustrations. 2s. (For the Senior Exam.) (*Bell's Illustrated Classics.*)

Translation. 1s. (*Bell's Classical Translations.*)

**XENOPHON: ANABASIS.** Book I. Edited, with Introduction, Notes, and Vocabulary, by E. C. MARCHANT, M.A. With Illustrations and Map. 1s. 6d. (*Bell's Illustrated Classics.*)

Translation. 1s. (*Bell's Classical Translations.*)

**CLIMAX PROTE. A First Greek Reader.** In Two Progressive Parts, with Hints and Vocabulary. By E. C. MARCHANT, M.A. With 30 Illustrations. 1s. 6d.

#### GERMAN.

**BELL'S FIRST GERMAN COURSE.** By L. B. T. CHAFFEY, M.A., Assistant Master at Eton. Crown 8vo. Illustrated. 2s.

**GERMAN PROSE COMPOSITION.** Consisting of Selections from Modern English Writers. With Grammatical Notes, Idiomatic Renderings, and General Introduction. By C. A. BUCHHEIM, Ph.D. Eighteenth Edition. Fcap. 8vo, 4s. 6d. A KEY to the First and Second Parts. Fourth Edition. 3s. net. To the Third and Fourth Parts. 4s. net.

#### INORGANIC CHEMISTRY.

**ELEMENTARY INORGANIC CHEMISTRY.** By JAMES WALKER, D.Sc., Ph.D., F.R.S. Third Edition, revised. 3s. 6d.

#### PRACTICAL CHEMISTRY.

**AN INTRODUCTION TO CHEMISTRY.** By D. S. MACNAIR, Ph.D., B.Sc. Fourth Edition, revised. 2s.

### THIRD CLASS.

#### ARITHMETIC.

**NEW SCHOOL ARITHMETIC.** By CHARLES PENDELBURY, M.A. Part I. With or without Answers, 2s. 6d.

**A JUNIOR ARITHMETIC.** By CHARLES PENDELBURY, M.A., and F. E. ROBINSON, M.A. 1s. 6d.; or, with Answers, 2s.

#### ALGEBRA.

**ELEMENTARY ALGEBRA.** By W. M. BAKER, M.A., and A. A. BOURNE, M.A. Part I. To Quadratic Equations. Third Edition, revised. 2s. 6d.; or, with Answers, 3s.

**A FIRST ALGEBRA.** By the same Authors. 1s. 6d.; or, with Answers, 2s.

#### GEOMETRY.

**ELEMENTARY GEOMETRY.** By W. M. BAKER, M.A., and A. A. BOURNE, M.A. Book I. Containing the substance of the Theorems contained in Euclid, Book I., Props. 1 to 32, with a Chapter on Easy Experimental Geometry. Fifth Edition. 1s.

#### ENGLISH.

**A JUNIOR ENGLISH GRAMMAR.** Based on Mason's Grammars. Revised and Augmented by A. J. ASHTON, M.A., Examiner in English to the College of Preceptors. Crown 8vo, 1s.

**ELEMENTARY ENGLISH GRAMMAR THROUGH COMPOSITION.** By JOHN D. ROSE, M.A., Rector of the Kirkcaldy High School. Small crown 8vo, 1s.

#### LATIN.

**CAESAR: DE BELLO GALLICO.** Book I. Edited, with Introduction, Notes, and Vocabulary, by A. C. LIDDELL, M.A. With Illustrations and Map. 1s. 6d. (*Bell's Illustrated Classics.*)

Translation. 1s. (*Bell's Classical Translations.*)

**EUTROPIUS.** Books I. and II. Edited, with Introduction, Notes, and Vocabulary, by J. G. SPENCER, B.A., Assistant Master at St. Paul's School. With numerous Illustrations and Map. 1s. 6d. (*Bell's Illustrated Classics.*)

Translation. 5s. (*Bohn's Classical Library.*)

**LATIN UNSEENS.** Selected and arranged by E. C. MARCHANT, M.A. 1s.

London: GEORGE BELL & SONS, York House, Portugal Street, W.C.

THE  
CORRESPONDENCE  
(MAR 9 1908)  
**EDUCATIONAL TIMES,**

AND  
**Journal of the College of Preceptors.**

Vol. LXI.] New Series, No. 563.

MARCH 2, 1908.

(Published Monthly, price, to Non-Members, 6d.; by Post, 7d. Annual Subscription, 7s.)

**COLLEGE OF PRECEPTORS.**  
(INCORPORATED BY ROYAL CHARTER.)

**MEMBERS' MEETING.**

The next Monthly Meeting of the Members will take place on Wednesday, the 18th of March, at 7.30 p.m., when T. PERCY NUNN, Esq., M.A., D.Sc., will read a Paper on "Science in correlation with Geography and Mathematics."

A Discussion will follow the reading of the Paper. Members have the privilege of introducing their friends.

**EXAMINATIONS.**

**Diplomas.**—The next Examination of Teachers for the Diplomas of the College will commence on the 31st of August, 1908.

**Practical Examination for Certificates of Ability to Teach.**—The next Practical Examination will be held in May.

**Certificate Examinations.**—The Midsummer Examination for Certificates will commence on the 30th of June, 1908.

**Lower Forms Examinations.**—The Midsummer Examination will commence on the 30th of June, 1908.

**Professional Preliminary Examinations.**—These Examinations are held in March and September. The Autumn Examination in 1908 will commence on the 8th of September.

**Inspection and Examination of Schools.**—Inspectors and Examiners are appointed by the College for the Inspection and Examination of Public and Private Schools.

The Regulations for the above Examinations can be obtained on application to the Secretary.

**LECTURES FOR TEACHERS.**

A.—The First Course of Lectures (Thirty-sixth Annual Series), by Prof. J. ADAMS, M.A., B.Sc., F.C.P., on "The Application of Psychology to the Work of the School," commenced on Thursday, February 13th, at 7 p.m.

The Course is meant to meet the needs of Teachers who wish to improve their acquaintance with what underlies the principles of their profession, whether they have any examination in view or not. The reading of the students will be guided, and problems set for their exercise. Every opportunity will be taken of making practical applications of psychological principles to the work of the classroom. The Fee for the Course is Half-a-Guinea. The Lectures will be delivered on Thursday Evenings at 7 o'clock, at the College, Bloomsbury Square, W.C.

For syllabus, see page 108.

C. R. HODGSON, B.A., Secretary.

Bloomsbury Square, W.C.

**UNIVERSITY OF ST. ANDREWS.**

**L.L.A. DIPLOMA FOR WOMEN.**

The attention of Candidates is drawn to the Ordinary and Honours Diplomas for Teachers, which are strongly recommended as suitable for those who are or intend to be teachers.

Examinations are held at Aberdeen, Birmingham, Blackburn, Brighton, Bristol, Cardiff, Croydon, Devonport, Edinburgh, Glasgow, Hull, Inverness, Leeds, Liverpool, London, Manchester, Newcastle-on-Tyne, Norwich, Nottingham, Oxford, St. Andrews, Sheffield, Swansea, and several other towns.

Information regarding the Examinations may be obtained from the SECRETARY, L.L.A. Scheme, The University, St. Andrew

**Diploma Correspondence College, Ltd.**

Principal—J. W. KNIFE, L.C.P., F.R.S.L.  
Vice-Principal—S. H. HOOKE, B.A., Hons. Lond.

**Specially arranged Courses for LONDON MATRICULATION, B.A., B.D., B.Sc., A.C.P., L.C.P., &c.**

**FREE GUIDES**

on application to the SECRETARY.

**WOLSEY HALL, OXFORD.**



**THE ASSOCIATED BOARD**

OF THE R.A.M. AND R.C.M.  
FOR LOCAL EXAMINATIONS IN MUSIC.

PATRON: HIS MAJESTY THE KING.

PRESIDENT: H.R.H. THE PRINCE OF WALES, K.G.

**LOCAL CENTRE EXAMINATIONS (Syllabus A).** Examinations in Theory at all Centres in March and November; in Practical Subjects at all Centres in March-April, and in the London District and certain Provincial Centres in November-December also. Entries for the November-December Examinations close Wednesday, October 7th, 1908.

**SCHOOL EXAMINATIONS (Syllabus B).** Held three times a year, viz., June-July, October-November, and March-April. Entries for the June-July Examinations close Wednesday, May 13th, 1908.

Specimen Theory Papers set in past years (Local Centre or School) can be obtained on application. Price 3d. per set, per year, post free.

Syllabuses A and B, entry forms, and any further information will be sent post free on application to—

JAMES MUIE, Secretary.

15 Bedford Square, London, W.C.

Telegrams: "Associa, London."

**PROFESSIONAL PRELIMINARY EXAMINATIONS, LONDON MATRIC. INTER. and FINAL B.A. and B.Sc.**—Private and Class Tuition for the above, and in Science and Advanced Mathematics, by ALEXANDER W. BAIN, B.A., B.Sc. (Lond.), A.I.C., F.C.S., Anglo-Saxon and Early English Text Society's Prizeman (Univ. Coll., Lond.), Silver Medal and Exhibition in Chemistry and Prizeman in Organic Chemistry (Univ. Coll., Lond.), Honours in Chemistry at B.Sc. and at Board of Education Exams. Nearly 2,000 successes in 16 years.

Mr. BAIN is the Head of the Chemical Department, Tottenham Polytechnic, also a Sub-Examiner to the University of London and to the College of Preceptors. He has prepared the sons of leading public and professional men for the Universities and Professional Entrance Examinations.

Address—Mr. A. W. BAIN, B.A., B.Sc., A.I.C., Central Tutorial Classes, 207 Gray's Inn Road, London.

**CORRESPONDENCE TUITION,**

Classes or Private Lessons in all Subjects for all Examinations, &c., at moderate fees. Special tuition for MEDICAL Prelims. and DIPLOMA Exams. Many recent successes.—F. J. BORDLAND, B.A., L.C.P. (Science and Math. Prizeman), Victoria Tutorial College, 87 Buckingham Palace Road, S.W.; and Stalheim, Brunswick Road, Sutton, Surrey.

Schools visited and Examinations conducted.

**LONDON COLLEGE OF MUSIC.**  
(Incorporated.)

GREAT MARLBOROUGH STREET, LONDON, W.

Patron: HIS GRACE THE DUKE OF LINDS.

Dr. F. J. KARN, Mus. Bac, Cantab., Principal.

G. AUGUSTUS HOLMES, Esq., Director of Examinations.  
**EXAMINATIONS, 1908.**

The NEXT EXAMINATION in PIANOFORTE PLAYING, SINGING, THEORY, and all branches of Music will be held in London and 400 Provincial Centres in APRIL, when Certificates will be granted to all successful candidates.

The Higher Examinations (Practical and Theoretical) for Diplomas of Associate (A.L.C.M.), Licentiate (L.L.C.M.), the Teachers' Diploma, L.C.M., and Fellowship (F.L.C.M.) take place in JUNE, JULY, and DECEMBER.

Gold and Silver Medals and Book Prizes are offered for competition according to the Regulations.

**LOCAL SCHOOL CENTRES.**—Full particulars with reference to the formation of these Centres will be forwarded to Principals of Schools upon application.

**SYLLABUS** for 1908, together with Annual Report, is now ready, and may be had of the SECRETARY.

In the Educational Department students are received and thoroughly trained under the best Professors at moderate fees. The College is open 10 a.m. to 9.30 p.m. A COURSE OF TRAINING in Pianoforte and Singing for Teachers is held at the College.

**VACATION LESSONS** for Teachers and others are given at Easter, August, and Christmas.

T. WEBBES HOLMES, Secretary.

**COACHING FOR EXAMS.**

Resident Students (Ladies or Gentlemen) prepared for University, Civil Service, &c., by MR. E. J. BUNNETT, M.A. (Cantab.); 20 years' successful experience. Prospectus, &c., from Mr. or Mrs. BUNNETT, Altdorf, Vicarage Road, Eastbourne.

**AT LONDON UNIVERSITY MATRICULATION**

DURING THE LAST SIX YEARS

**2526**

University  
Correspondence College  
STUDENTS HAVE PASSED.

**FREE GUIDE**

To Matriculation and Guides to the Higher Examinations, post free from

**THE SECRETARY,**

Burlington House, Cambridge;

or from the London Office of

University Correspondence College,  
32 Red Lion Square, Holborn, W.C.

**JOINT AGENCY FOR WOMEN TEACHERS.**

(Under the management of a Committee appointed by the Teachers' Guild, College of Preceptors, Head Mistresses' Association, Association of Assistant Mistresses, and Welsh County Schools' Association.)

Address — 74 GOWER STREET, LONDON, W.C.

Registrar—Miss ALICE M. FOUNTAIN.

This Agency has been established for the purpose of enabling Teachers to find work without unnecessary cost. All fees have therefore been calculated on the lowest basis to cover the working expenses.

Head Mistresses of Public and Private Schools, and Parents requiring Teachers, or Teachers seeking appointments, are invited to apply to this Agency.

Many Graduates and Trained Teachers for Schools and Private Families; Visiting Teachers for Music, Art, and other special subjects; Foreign Teachers of various nationalities; Kindergarten and other Teachers are on the Register, and every endeavour is made to supply suitable candidates for any vacancy.

School Partnerships and Transfers are arranged.

Hours for interviews (preferably by appointment) :—

11 a.m. to 1 p.m., and 3 to 5 p.m.  
Saturdays, 11 a.m. to 1 p.m., and 2 to 3 p.m.

**THE JOINT SCHOLASTIC AGENCY.**

23 Southampton Street, Bloomsbury Square, W.C.

Managed by a Committee of Representatives of the following Bodies :—

HEAD MASTERS' CONFERENCE.

INCORPORATED ASSOCIATION OF HEAD MASTERS.

COLLEGE OF PRECEPTORS. TEACHERS' GUILD.

INCORPORATED ASSOCIATION OF ASSISTANT MASTERS.

ASSOCIATION OF TECHNICAL INSTITUTIONS.

ASSOCIATION OF PREPARATORY SCHOOLS.

WELSH COUNTY SCHOOLS.

Registrar: Mr. E. A. VIRGO.

The object of this Agency is to render assistance at a minimum cost to Masters seeking appointments.

The lowest possible fees are therefore charged.

A PROSPECTUS will be sent ON APPLICATION.

Interviews (preferably by appointment) 12 p.m.—1.30 p.m., and 3 p.m.—5.30 p.m. Saturdays, 12 p.m.—1 p.m.

**LONDON INTER-COLLEGIATE SCHOLARSHIPS BOARD.**

ENTRANCE SCHOLARSHIPS AND EXHIBITIONS, 1908.

20 SCHOLARSHIPS and EXHIBITIONS, ranging in value from £20 to £50 a year, for men and women, tenable at University College, King's College, and the East London College, will be offered for competition on May 12, 1908.

Candidates must have passed the London Matriculation, or an equivalent examination, and be under the age of 19 on October 1st, 1908.

Full particulars and forms of entry may be obtained from the SECRETARY OF THE BOARD (A. E. G. ATTOE), University College, Gower Street, London, W.C.

**UNIVERSITY OF WALES.**

MATRICULATION EXAMINERSHIP IN CHEMISTRY.

Appointment to the above Examinership for 1908 will be shortly made. Applications should be sent on or before March 11th to the REGISTRAR, University Registry, Cathays Park, Cardiff, from whom further particulars may be obtained.

**CHURCH EDUCATION CORPORATION.**

CHERWELL HALL, OXFORD.

Training College for Women Secondary Teachers.

Principal—Miss CATHERINE I. DODD, M.A. (late Lecturer in Education in the Manchester University).

Students are prepared for the Oxford, the Cambridge, and the London Teacher's Diploma. Special arrangements made for Students to attend the School of Geography.

Exhibitions and Scholarships awarded in December and July.—Apply to the PRINCIPAL.

**SALISBURY SCHOOL, SALISBURY.**

FOUR SCHOLARSHIPS, all tenable for two years, two of £15 a year each for Boarders only, and two of £10 a year each for Boarders or Day Boys, will be competed for on April 10th next. Candidates to be between ages 12 and 14. The tenure may be extended at the Council's discretion.

For particulars, apply—HEAD MASTER.

**BEDFORD COLLEGE FOR WOMEN**

(UNIVERSITY OF LONDON),  
YORK PLACE, BAKER STREET, W.  
ENTRANCE SCHOLARSHIPS.

Three Entrance Scholarships, each tenable for three years at Bedford College for Women, will be offered for competition in June, 1908.

**DEPARTMENT FOR PROFESSIONAL TRAINING IN TEACHING.**

Students are admitted to the Training Course in October and January.

The Course includes full preparation for the Examinations for the Teaching Diplomas granted by the Universities of London and Cambridge.

Full particulars on application to the PRINCIPAL.

**THE CAMBRIDGE TRAINING COLLEGE FOR WOMEN TEACHERS.**

Principal—Miss H. L. POWELL,  
late Scholar of Newnham College (Hist. Tripos, Class I.), late Head Mistress of the Leeds Girls' High School.

A residential College providing a year's professional training for Secondary Teachers.

The course includes preparation for the Cambridge Teacher's Certificate (Theory and Practice), and for the Teachers' Diploma of the London University. Ample opportunity is given for practice in teaching science, languages, mathematics, and other subjects in various schools in Cambridge.

Students are admitted in January and in September. Full particulars as to qualifications for admission, scholarships, and bursaries may be obtained on application to the PRINCIPAL, Cambridge Training College, Wollaton Road, Cambridge.

**THE INCORPORATED****FROEBEL EDUCATIONAL INSTITUTE,**

TALGARTH ROAD, WEST KENSINGTON, LONDON, W.

Recognized by the Board of Education as a Training College for Secondary Teachers.

Chairman of the Committee—Sir W. MATHER.

Treasurer—Mr. C. G. MONTEFIORE, M.A.

Secretary—Mr. ARTHUR G. STYMONDS, M.A.

**TRAINING COLLEGE FOR TEACHERS.**

Principal—Miss E. LAWRENCE.

**KINDERGARTEN AND SCHOOL.**

Head Mistress—Miss A. YELLAND.

Students are trained for the Examinations of the National Froebel Union and other Examinations.

TWO SCHOLARSHIPS of £20 each, and two of £15 each, tenable for two years at the Institute, are offered annually to Women Students who have passed certain recognized Examinations.

Prospectuses can be obtained from the PRINCIPAL.

**ST. GEORGE'S TRAINING COLLEGE FOR WOMEN TEACHERS, EDINBURGH.**

This College provides a year's Professional Training for well educated women who intend to become Teachers in Secondary and High Schools.

The College is recognized by the Edinburgh Provincial Committee for the Training of Teachers under the sanction of the Scotch Education Department, by the English Board of Education, and by the Teachers' Training Syndicate of the University of Cambridge.

Prospectus and further particulars from the Principal, Miss M. R. WALKER, 5 Melville Street, Edinburgh.

**DENMARK HILL GYMNASIUM AND PHYSICAL TRAINING COLLEGE FOR TEACHERS.**

Full preparation for Public Examinations.  
British College of Physical Education: English and Swedish systems.

Board of Education: Science.

Swimming and Sports.

For particulars apply—Miss E. SPELMAN STANGER, Trevena, Sunray Avenue, Denmark Hill, London, S.E.

**BIRKBECK COLLEGE, BREAMS BUILDINGS, CHANCERY LANE, E.C.**

DAY AND EVENING CLASSES.

Courses of Study under Recognized Teachers of the University of London for Degrees in Science and in Arts.

Science.—Chemistry, Physics, Mathematics (Pure and Applied), Botany, Geology, Zoology.

Arts.—Classics, English, French, German, Italian History, Geography, Logic, Economics, Mathematics (Pure and Applied).

Particulars on application.

**The Tutorial Institute, 39 BLOOMSBURY SQUARE, LONDON.**

Principal:

J. F. EWEN, M.A.,

Honours in Mathematics and Physics.

(Founder and for ten years Principal of The London and Northern Tutorial College.)

The Principal has had over 12 years' successful experience in preparing by Correspondence and Orally for the Higher Examinations qualifying Secondary Teachers. Over 2,000 successes have been officially credited to his students, who have completed over 300 Diplomas and Degrees. Strong staff of Tutors, all University Graduates, mostly in Honours.

**CORRESPONDENCE INSTRUCTION.**

All Fees payable by instalments.

A.C.P.—New Classes now forming for August. AM subjects, £4. 4s. Education, £1. 11s. 6d.

L.C.P.—Graduates exempt from all subjects except Education. Full Course, £2. 12s. 6d. A.C.P.'s. can complete extra work for L.C.P. for Composition Fee, £4. 4s. Education alone, £1. 11s. 6d.

Diploma Guide Free.

Inter. Arts.—Full Courses for July. 20 lessons each subject, £1. 11s. 6d.

B.A.—Thorough Tuition by Honours Graduates.

Inter. Science.—Special attention to Mathematics and Physics. Full Course, £2. 2s. each subject.

B.Sc.—Expert help by eminent specialists.

Matriculation.—Full Preparation in usual subjects, 10s. 6d. monthly.

R.U.I.—The Degrees of the Royal University of Ireland are in some respects more feasible for private students than the London Exams.

Higher Locals.—Fullest and most successful help. Usual Subjects, £1. 11s. 6d. each.

FROEBEL CERTIFICATES.—Thoroughly practical instruction by highly qualified Teachers.

Froebel Guide Free.

**ORAL TUITION**

in Class and Individually for L.L.A., Matriculation, Professional Preliminaries, Entrance, and all the Higher Examinations. Evening and Saturday Oral Classes.

**The Best TONIC.**

For the restoration of energy and vitality; the relief of mental and physical exhaustion, impaired digestion or appetite, there is no remedy so beneficial as

**HORSFORD'S Acid Phosphate**

(Non-Alcoholic.)

It is a scientific and carefully prepared preparation of the phosphates that provides the tonic and nerve food needed to improve the general health.

If your chemist does not have it in stock he can obtain it from Bovril, Ltd., 152 Old Street, London, E. C.

**University Tutorial College**

(Affiliated to University Correspondence College).



Day and Evening Classes

FOR

**MATRICULATION**

AND OTHER

**LONDON UNIVERSITY**

**EXAMINATIONS**

may be taken up at any time at proportionate fees.

At each of the last four Matriculation Examinations the official Pass Lists of the University credit University Tutorial College with many more Successes than any other institution, and at three of these Examinations University Tutorial College is credited with twice as many Successes as any other institution.

Prospectus, with full particulars of Day and Evening Classes for Matriculation, Inter. Science and Arts, B.Sc. and B.A. and Prelim. Sci. (M.B.), may be had, post free, from

THE PRINCIPAL,  
University Tutorial College,  
Red Lion Square, Holborn, W.C.

**FOR A HIGH CLASS LADIES' COLLEGE.**

AN absolutely unique Property has come into the market, and the Freehold may be purchased: a great bargain. A magnificently built and completely equipped modern mansion (erected by wealthy gentleman for own occupation), standing in 1½ acres of beautiful old gardens, adorned with handsome timber, in a convenient and very healthy situation on the Western outskirts of London. It has large accommodation, with a splendid suite of eight reception rooms and grand central hall and staircase entirely in oak. Complete domestic offices for a large staff. Stabling, laundry, model farmery, glass houses, gardener's cottage, lodge, tennis lawns, orchard, &c. Illustrated particulars of the Agents, Messrs. GILLOW (Waring & Gillow, Ltd.), 181 Oxford Street, W. Folio 2047.

TO SELL OR LET.

**TEVIOT GROVE ACADEMY, HAWICK.**

At present Secondary School, under Board originally, and for many years well known as successful Higher Grade Private School, for which there is again a growing demand in district. Grand opportunity for capable principal.

Particulars—J. MURRAY & SON, Hawick.

**Books at less than Half-price!!!**

Most carefully selected and arranged Stock of Recent Second-hand Educational Books in London.

HIGHEST PRICES GIVEN FOR ALL EDUCATIONAL BOOKS.

R. G. RUTHERFORD, A.C.P., Inter.B.A. (late with W. & G. Foyle).

1 BLOOMSBURY COURT (15 Seconds from Museum-Tube), High Holborn, W.C.

**BADGES, HAT BANDS, CAPS**

AT WHOLESALE PRICES.

Write—SCHOOLS AGENT, 1 Arundel Villas, Chelmsford Road, South Woodford, N.E.

**CARLYON COLLEGE.**

55 AND 56 CHANCERY LANE.

**LONDON UNIVERSITY EXAMINATIONS.**

LONDON MATRICULATION, INTER. ARTS AND SCIENCE, B.A., and B.Sc. Classes (small) Day and Evening. M.A. Classes. B.A. Honours Classes. Elementary Greek Class.

Classes and Tuition for Legal and Medical Preliminaries, Accountants', Scholarship Examinations, Previous, Responses, and General.

Papers Corrected for Schools. Vacation Tuition. Private tuition for all Examinations.

Prospectus and full details on application to R. C. B. KERIN, B.A. Lond., First of First Class Classical Honours, Editor of "Phaedo," "Pro Plancio," &c.

**SUCCESSSES.**

1892-1907.—London Matric., 149; Inter. Arts, Sc., and Prel. Sci., 140, 6 in Hons.; B.Sc., 1896-1906, 25; B.A., 1891-1905, 95, 14 in Hons.; Medical Prelim., 249; Responses and Previous, 60; Law Prelim., 62; other Successes, 400.

B.A. (LOND.), 1906 and 1907, 15, 3 in Classical Honours. M.A., 8. INTER. ARTS, 1907, 6 out of 8.

**FREE.**

The Principals of the Normal Correspondence College have, through the courtesy of the College of Preceptors, issued the following

**FREE GUIDES.**

1. A.C.P.	100 pages.
2. L.C.P.	84 "
3. F.C.P.	75 "
And have also published the following Guides.	
4. PREL. CERT.	120 pages.
5. CERTIFICATE.	92 "
6. MATRICULATION.	84 "
7. IRISH UNIVERSITY.	60 "
8. OXFORD & CAMBRIDGE LOCALS	100 "

These Guides are supplied gratis to all who mention this paper and state they intend sitting for examination.

"They are written by experts whose advice is the best procurable."—*Educational News.*

"Will undoubtedly help greatly towards success."—*Schoolmistress.*

**NORMAL CORR. COLLEGE,**

47 MELFORD ROAD, EAST DULWICH, S.E., and 110 AVONDALE SQUARE, LONDON, S.E.

**WALTER J. DICKES, B.A. (Lond.)**

PRIVATE TUITION FOR EXAMINATIONS, &c.

BEECHEN CLIFF, THE GARDENS, E. DULWICH, LONDON, S.E.

**SECONDHAND BOOKS AT HALF PRICES! NEW BOOKS AT 25% DISCOUNT!**

BOOKS for A.C.P., L.C.P., F.C.P., Matric., University, Certificate, Scholarship, L.L.A., B.A., and ALL other Examinations supplied. State wants: send for List. Books sent on approval. BOOKS BOUGHT, best prices given.—W. & G. FOYLE, 135 Charing Cross Road, W.C.

**Some Good Modern School Desks**

for Sale, some dual, some to seat four.

Also Forms, Drawing Models, Inkwells, Fire-guards, &c.

Apply, 43 RAVENSDALE ROAD, STAMFORD HILL, N.

**INVALUABLE TO SCHOOLS.—**

Schoolmasters should use the BLACK AUTO-COPYIST—most perfect, simplest, and cleanly Copyst invented—for reproducing Examination Papers, Diagrams, Circulars, Music, &c. Original written or drawn on ordinary paper. Write for Price List and Specimens, or call and see apparatus in operation.—AUTOCOPYIST Co., No. 3 Dept., 64 Queen Victoria Street, London, E.C.

Messrs.

**TRUMAN & KNIGHTLEY,**

Educational Agents,

6 HOLLES ST., CAVENDISH SQUARE, LONDON, W.

Telegrams—"TUTORESS, LONDON."  
Telephone—No. 1167 Mayfair.

This Agency is under distinguished patronage, including that of the Principals of many of our leading Schools.

**A.—EMPLOYMENT DEPARTMENT.**

(i.) ASSISTANT MASTERS & TUTORS.

MESSRS. TRUMAN & KNIGHTLEY introduce University and other qualified ENGLISH and FOREIGN MASTERS and TUTORS to Schools and Private Families.

(ii.) ASSISTANT MISTRESSES.

MESSRS. TRUMAN & KNIGHTLEY introduce University, Trained, and other qualified ENGLISH and FOREIGN LADY TEACHERS to Girls' and Boys' Schools.

(iii.) LADY MATRONS AND HOUSE-KEEPERS.

MESSRS. TRUMAN & KNIGHTLEY introduce well qualified and experienced LADY MATRONS, HOUSEKEEPERS, and HOUSE MISTRESSES to Boys' and Girls' Schools.

No charge is made to Principals, and no charge of any kind is made to candidates unless an engagement be secured through this Agency, when the terms are most reasonable.

**B.—SCHOOL TRANSFER DEPARTMENT.**

A separate Department, under the direct management of one of the Principals, is devoted entirely to the negotiations connected with the Transfer of Schools and Introduction of Partners.

MESSRS. TRUMAN & KNIGHTLEY, being in close and constant communication with the Principals of nearly all the chief Girls' and Boys' Schools in the United Kingdom, to many of whom they have had the privilege of acting as Agents, and having on their books always a large number of thoroughly genuine Schools for Sale and Partnerships to negotiate, as well as the names and requirements of numerous would-be purchasers, can offer unusual facilities for satisfactorily negotiating the TRANSFER of SCHOOLS, and arranging PARTNERSHIPS.

No charge is made to Purchasers, and there is no charge to Vendors unless a Sale or Partnership be effected through this Agency.

All communications and enquiries are treated in the strictest confidence.

**C.—PUPILS' DEPARTMENT.**

MESSRS. TRUMAN & KNIGHTLEY have a carefully organized Department for the introduction of Pupils to Schools and other Educational Establishments. No charge is made for registration.

Any negotiations entrusted to MESSRS. TRUMAN & KNIGHTLEY receive prompt and careful attention, every effort being made to save clients as much time and trouble as possible.

Prospectus, References, and full particulars will be forwarded on application.

1908.  
COLLEGE OF PRECEPTORS.

(Incorporated by Royal Charter.)

BLOOMSBURY SQUARE, W.C.

Lectures for Teachers

ON THE

SCIENCE, ART, AND HISTORY OF EDUCATION.

THE APPLICATION OF PSYCHOLOGY TO THE  
WORK OF THE SCHOOL.

To be delivered by Professor J. ADAMS, M.A., B.Sc., F.C.P., Professor of Education in the University of London.

The First Course of Lectures (Thirty-sixth Annual Series) commenced on Thursday, February 13th, at 7 p.m.

The Course is meant to meet the needs of teachers who wish to improve their acquaintance with what underlies the principles of their profession, whether they have any examination in view or not. The lecturer will treat his subject in such a way as to fit in with the requirements of the College in connection with the examinations for the Associateship, the Licentiate, and the Fellowship. The reading of the students will be guided, and problems set for their exercise. Every opportunity will be taken of making practical applications of psychological principles to the work of the classroom.

SYLLABUS.

I. (Feb. 13.) *Nature and scope of Psychology*: border-land between physiology and psychology; characteristics of consciousness; the psychological attitude of mind; the teacher's use of psychology; Professor Münsterberg's view; the intermediary between psychology and education; genetic psychology; experimental methods: child study.

II. (Feb. 20.) *Consciousness*: its fundamental character; its polarity; its insulation; "the general consciousness"; the ego or self; the subjective and objective; the unity of individual consciousness; meaning of the subconscious; advantageous position of educator as external influence.

III. (Feb. 27.) *Manipulation of Consciousness*: the various modes of being conscious; the so-called faculties: concentration and diffusion of consciousness; interest and attention; interaction between them; interest as means and as end; relation between the interesting and the easy; kinds of attention; physiological mechanism of attention.

IV. (March 5.) *Sense-perception*: nature of pure sensation; the senses, general and special; the essential mark of perception; the respective contributions of sensation and perception to knowledge; nature and scope of observation; its relation to inference; the gaping point; danger underlying the phrase "the training of the senses."

V. (March 12.) *Mental content*: the unit of mental content; the idea; laws of the interaction and combination of ideas; apperception; presented content and presentative activity; gradual modification of presentative activity; transitive and intransitive elements of thought; the static and dynamic view of the concept; the logical and psychological aspect of the concept.

VI. (March 19.) *Habit*: habit based on the laws of association; these laws not limited to ideas; association a general principle of organic development; place and value of habits in education; accommodation and co-ordination; the elimination of consciousness; convergent and divergent association; the continuum; reintegration.

VII. (March 26.) *Retention and recall*: physiological basis of memory; plasticity; memory not limited to intellectual process; personal identity; question of the possibility of improving the quality of memory; educational applications of mnemonics; learning by rote; obliviscence; element of purpose in memory.

VIII. (April 23.) *Imagination*: place of imagery in thinking; limitations imposed by images; importance of clearly imaged ends in ordinary life; practical applications in the schoolroom; the aesthetic imagination; cause of general suspicion of the "busy faculty"; scientific uses of the imagination; exact meaning of "picturing out"; relation of the imagination to the ideal.

IX. (April 30.) *Judgment and reasoning*: relation between logic and psychology; concept, judgment, reasoning correspond generally to term, proposition, syllogism; essential meaning of thinking is an adaptation of means to ends on the ideal plane; the purposive aspect of apperception; distinction between mere reintegration and thinking; the laws of thought as thought; the fundamental condition of all mental process: what underlies fallacies.

X. (May 7.) *Human nature*: general tendency to over-estimate the cognitive aspect; relation of knowledge to character; temperament the physical basis of character; classification of temperaments and of character types; advantages and dangers of such classifications; personality; permanency of temperaments and means by which they may be modified; types of troublesome pupils; treatment of the different temperaments in school.

XI. (May 14.) *The emotions*: value of the emotions in human life; like sensations they are subject to the law of relativity; emotions are to be utilized, not eliminated; cause of popular depreciation of the emotions; emotions are to be regulated by ideas; classification of the emotions; their expression; Lance-James theory of relation between emotion and its expression; element of truth in the theory and its great practical importance to teachers.

XII. (May 21.) *The will*: relation of will to feeling on the one hand and knowledge on the other; the appeal of the motive; fallacy of "the strongest motive"; resolution of the dualism implied in the process of making up one's mind; metaphysical exercises obscuring the problem of the freedom of the will; the evolution of the will in its relation to desire; the possibility of the training of the will; fundamental importance of the time element in this training.

The Fee for the Course of Twelve Lectures is Half-a-Guinea.

\* \* The Lectures will be delivered on THURSDAY EVENINGS, at 7 o'clock, at the College, Bloomsbury Square, W.C.—Members of the College have free admission to the Course.

**FRENCH and GERMAN**  
taught rapidly and thoroughly by  
Correspondence.

STUDENTS PREPARED FOR ALL EXAMINATIONS  
BY OUR STAFF OF  
NATIVE GRADUATE MASTERS.

SPECIAL COURSES FOR COMMERCIAL STUDENTS.

Over 200 Successes in 1907.

GOLD MEDAL (FIRST PRIZE), Alliance Française Competition,  
open to all Schools of Great Britain.

FEES.

12/6 per Term (12 weeks).

APPLY TO—

THE SECRETARY,  
THE BILLOT FRENCH SCHOOL,  
SHEFFIELD.

WILL BE READY IN MARCH.

Demy 8vo, cloth, price 2s. 6d., free by post.  
To Members of the College the price is 1s., or 1s. 6d. free by post.

THE CALENDAR

OF

THE COLLEGE OF PRECEPTORS

FOR THE YEAR 1908:

CONTAINING

All information respecting the objects and operations of the College,  
Lists of Officers, Examiners, and Members, the Regulations of  
the various Examinations, &c., with an Appendix containing  
the following Examination Papers:—

- |   |                      |
|---|----------------------|
| 1. Papers set at Examination of Teachers for Diplomas, Summer,      | 1907.                |
| 2. Do. do. do. do. do.  | Christmas, 1907.     |
| 3. Papers set at Examination of Pupils for Certificates, Midsummer, | 1907.                |
| 4. Do. do. do. do. do.  | Christmas, 1907.     |
| 5. Papers set at Professional Preliminary Examination, March,       | 1907.                |
| 6. Do. do. do. do. do.  | September, 1907.     |
| 7. Papers set at Lower Forms Examination ... ..                     | Summer, 1907.        |
| 8. Do. do. do. do. do.  | ... Christmas, 1907. |

\* \* Nos. 3, 4, 5, and 6 may be had separately, price, free by post, 7d. each set. Nos. 7 and 8, price, free by post, 4d. each set.

The Diploma Papers are to be had only in the  
"Calendar."

FRANCIS HODGSON, 89 FARRINGTON STREET, LONDON, E.C.

EDUCATIONAL BOOKSELLERS

LARGEST STOCK  
of SECOND-HAND  
School, Classical,  
Mathematical,  
Scientific Books  
in London.

ESTABLISHED  
1854.

Keys and Translations.

BOOKS  
BOUGHT.

J. POOLE & CO.,

104 Charing Cross Rd.,  
AND  
2 Manette Street, Soho,  
LONDON, W.C.

NEW AND SECOND HAND. WRITE TO US FOR A QUOTATION.

THE  
**School World.**

A MONTHLY MAGAZINE OF EDUCATIONAL  
WORK AND PROGRESS.

EACH NUMBER CONTAINS EIGHTY COLUMNS  
OF READING MATTER.

PRICE 6d. VOLUME IX., 1907, 7s. 6d. NET.

The aim of THE SCHOOL WORLD is to provide information of **practical and permanent value** to Schoolmasters and Schoolmistresses. To this end all important changes and developments affecting any branch of the work of teachers in secondary and other schools are dealt with by **leading authorities and experienced teachers.**

The Magazine has become indispensable to all who desire to keep in touch with modern and effectual methods of education.

MACMILLAN & CO., Ltd., LONDON.

GEORGE GILL & SONS, LTD.,

A Selection of Publications from the  
**Oxford and Cambridge Edition**  
AND  
**Oxon. and Cantab. Edition**  
FOR THE  
**COLLEGE OF PRECEPTORS EXAMINATIONS, 1908.**

**Religious Knowledge.**

<b>THE OXFORD AND CAMBRIDGE EDITION MARK.</b>	Edited by Rev. F. MARSHALL, M.A. ...	ST. s. d.	1 6
<b>THE OXON. AND CANTAB. EDITION ST. MARK.</b>	Edited by Rev. F. MARSHALL, M.A. For Third Class Candidates	net	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION ACTS. Part I.</b>	Edited by Rev. F. MARSHALL, M.A. ...	1 6	
<b>THE OXON. AND CANTAB. EDITION ACTS. Part I.</b>	Edited by Rev. F. MARSHALL, M.A. ...	net	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION ACTS. Part II.</b>	Edited by Rev. F. MARSHALL, M.A. ...	1 6	
<b>THE OXON. AND CANTAB. EDITION ACTS. Part II.</b>	Edited by Rev. F. MARSHALL, M.A. ...	net	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION JOSHUA.</b>	Edited by Rev. F. MARSHALL, M.A. ...	1 6	
<b>THE OXFORD AND CAMBRIDGE EDITION JUDGES.</b>	Edited by Rev. F. MARSHALL, M.A. ...	1 6	
<b>THE OXFORD AND CAMBRIDGE EDITION EZRA.</b>	Edited by Rev. F. MARSHALL, M.A. ...	1 0	
<b>THE OXFORD AND CAMBRIDGE EDITION NEHEMIAH.</b>	Edited by Rev. F. MARSHALL, M.A. ...	1 0	

**English.**

<b>THE OXFORD AND CAMBRIDGE EDITION MERCHANT OF VENICE.</b>	Edited by STANLEY WOOD, M.A. ...	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION JULIUS CAESAR.</b>	Edited by STANLEY WOOD, M.A., and A. SYMS-WOOD, B.A. ...	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION MARMION. (Complete.)</b>	Edited by Rev. F. MARSHALL, M.A. ...	2 6
<b>THE OXFORD AND CAMBRIDGE EDITION MARMION. Cantos I. and VI.</b>	Edited by Rev. F. MARSHALL, M.A. ...	1 0

In the above works the necessary "Notes" have been added to enable Candidates to answer questions set by the Examiners.

**GUIDE**

to the 1908 College of Preceptors Examinations, and Complete List, and Pages, of the "prescribed" Books contained in the Oxford and Cambridge Edition,  
Post free.

THE NORMAL PREPARATION TEST MAPS.

1d. each net. (Copyright.)

By REGINALD GILL, F.R.G.S., London Chamber of Commerce.

This New Series of Test Maps has been produced in order to provide a ready means of discovering the Geographical Knowledge of the Pupil. The form in which each Map is issued gives all Pupils, for the first time in Test Maps, an equal opportunity. In fact, the name list attached to every Map records the work attempted by the Pupil. The Material upon which the Pupil is required to show his knowledge accompanies each Map in such a manner as to obtain the fullest results.

UNIFORM WORK BY EACH SCHOLAR.

Instructions to Junior and Senior Students are provided, together with hints for suitably doing the work. Specimen lettering is included.

COLOURED TEST MAPS.

The Map is already coloured for the Student, so obviating this inconvenient process in School work.

OUTLINE MAPS SUPERSEDED.

Though not requiring the Pupil to complete the actual outline, the Normal Test Maps supply sufficient data in Art Colours to enable him to do the work. By this means the objection against all other Outline Maps that the Pupil has no practice in drawing the contour is removed.

THE SERIES INCLUDE:

**EUROPE:** British Isles and North Sea, England and Wales, Scotland, Ireland, France, German Empire, Italy, Balkan Peninsula, Russia.  
**ASIA:** India, **AFRICA.** **N. AMERICA.** **UNITED STATES.** **AUSTRALIA.**

Specimen Map free to Teachers.

A Key to the whole of these Test Maps is issued, entitled *The Sphere Atlas*, 1s. 6d.

Complete Catalogue post free.

London: **GEORGE GILL & SONS, Ltd.,** 13 Warwick Lane, E.C.

# College of Preceptors Certificate Examinations.

Suitable Books issued by the University Tutorial Press.

## ENGLISH AND FRENCH.

- MATRICULATION ENGLISH COURSE.** By W. H. Low, M.A., and JOHN BRIGGS, M.A., F.Z.S. *Second Edition.* 3s. 6d.
- GROUNDWORK OF ENGLISH HISTORY.** By M. E. CARTER. 2s.
- HISTORY OF ENGLAND, THE TUTORIAL.** (To 1901.) By C. S. FEARENSIDE, M.A. 4s. 6d.
- FRENCH COURSE, BARLET'S PRECEPTORS JUNIOR.** By STÉPHANE BARLET, B. ès Sc. Univ. Gall. 1s. 6d.
- JUNIOR FRENCH COURSE.** By E. WEEKLEY, M.A. With passages for Translation into French. *Second Edition.* 2s. 6d.
- JUNIOR FRENCH READER.** With Notes and Vocabulary. By ERNEST WEEKLEY, M.A. *Second Edition.* 1s. 6d.
- MATRICULATION FRENCH COURSE.** By E. WEEKLEY, M.A. *Third Edition.* 3s. 6d.
- MATRICULATION FRENCH READER.** Containing Prose, Verse, Notes, and Vocabulary. By J. A. PERRET, Examiner in the University of London. 2s. 6d.

## MECHANICS.

- DYNAMICS, THE TUTORIAL.** By Wm. BRIGGS, LL.D., M.A., B.Sc., and G. H. BRYAN, Sc.D., F.R.S. *Second Edition.* 3s. 6d.
- HYDROSTATICS, MATRICULATION.** By Wm. BRIGGS, LL.D., M.A., B.Sc., F.R.A.S., and G. H. BRYAN, Sc.D. *Second Edition.* 2s.
- MECHANICS, JUNIOR.** By F. ROSENBERG, M.A., B.Sc. 2s. 6d.
- STATICS, THE TUTORIAL.** By Wm. BRIGGS, LL.D., M.A., B.Sc., F.R.A.S., and G. H. BRYAN, Sc.D. *Third Edition.* 3s. 6d.

## MATHEMATICS.

- ALGEBRA, THE NEW MATRICULATION.** With a Section on Graphs. By R. DEAKIN, M.A. *Fourth Edition.* 3s. 6d.
- ALGEBRA, TUTORIAL.** Advanced Course. By Dr. Wm. BRIGGS and Prof. G. H. BRYAN. *Second Edition.* 6s. 6d.
- ARITHMETIC, JUNIOR.** By R. H. CHOPE, B.A. 2s. 6d.
- ARITHMETIC, THE SCHOOL.** An edition of the *Tutorial Arithmetic* adapted for school use. With or without Answers. By W. P. WORKMAN, M.A., B.Sc. 3s. 6d. Also in Two Parts. Part I., 2s. Part II., 2s.
- EUCLID.** By RUPERT DEAKIN, M.A. With Problems in Practical Geometry. Books I., II., 1s. Books I.-IV., 2s. 6d. Books V., VI., XI., 1s. 6d.
- GEOMETRY, THEORETICAL AND PRACTICAL.** By W. P. WORKMAN, M.A., B.Sc., and A. G. CRACKNELL, M.A., B.Sc. Part I. (Sections I.-III.), 2s. 6d. Part II. (Sections IV., V.), 2s.
- This work is also published in Sections as follows :—
- SECTION I. Introductory Course. 9d.
- SECTION II. Rectilinear Figures (Euclid I.). 1s. 6d.
- SECTION III. The Circle (Euclid III. 1-34, IV. 1-9). 1s.
- SECTION IV. Rectangles and Polygons (Euclid II., III. 35-37, and IV. 10-16). 1s.
- SECTION V. Similar Figures. 1s. 6d.

## SCIENCE.

- BOTANY, FIRST STAGE.** By A. J. EWART, D.Sc., F.L.S. 2s.
- BOTANY, TEXT-BOOK OF.** By J. M. LOWSON, M.A., B.Sc., F.L.S. *Third Edition.* 6s. 6d.
- CHEMISTRY, JUNIOR.** By R. H. ADIE, M.A., B.Sc. [In preparation.]
- CHEMISTRY, A SAFE COURSE IN EXPERIMENTAL.** By W. T. BOONE, B.A., B.Sc. 2s.
- CHEMISTRY, THE NEW MATRICULATION.** Containing all the Chemistry required for London Matriculation. By Dr. BAILEY. *Third Edition, Rewritten and Enlarged.* 6s. 6d.
- JUNIOR EXPERIMENTAL SCIENCE.** By W. M. HOOTON, M.A., M.Sc. 2s. 6d.
- MAGNETISM AND ELECTRICITY, THE SCHOOL.** By R. H. JUDE, M.A., D.Sc. 3s. 6d.
- THE NEW MATRICULATION HEAT. THE NEW MATRICULATION LIGHT. THE NEW MATRICULATION SOUND.** By R. W. STEWART, D.Sc. Three Volumes, each 2s. 6d.

## BOOK-KEEPING AND HYGIENE.

- BOOK-KEEPING, JUNIOR.** By T. C. JACKSON, B.A., LL.B. 1s. 6d.
- BOOK-KEEPING, PRACTICAL LESSONS IN.** By T. C. JACKSON, B.A., LL.B. *Third Edition.* 3s. 6d.
- HYGIENE, FIRST STAGE.** By R. A. LYSTER, M.B., B.Ch., B.Sc., D.P.H. *Fourth Edition.* 2s.

## GREEK AND LATIN.

- GREECE, THE TUTORIAL HISTORY OF.** By W. J. WOODHOUSE, M.A., Professor of Greek in the University of Sydney. 4s. 6d.
- GREEK READER, THE TUTORIAL.** By A. W. YOUNG, M.A. With Notes and Complete Vocabularies. *Second Edition, Enlarged.* 2s. 6d.
- LATIN AUTHORS, MATRICULATION SELECTIONS FROM.** Edited by A. F. WATT, M.A., and B. J. HAYES, M.A. *Second Edition.* 2s. 6d.
- LATIN COMPOSITION.** By A. H. ALLCROFT, M.A., and J. H. HAYDON, M.A. *Sixth Edition, Enlarged.* 2s. 6d.
- LATIN CONSTRUING BOOK, THE MATRICULATION.** By A. F. WATT, M.A., and B. J. HAYES, M.A. 2s.
- LATIN COURSE, JUNIOR.** By B. J. HAYES, M.A. *Second Edition.* 2s. 6d.
- LATIN READER, JUNIOR.** By E. J. G. FORSE, M.A. 1s. 6d.
- LATIN GRAMMAR, TUTORIAL.** By B. J. HAYES, M.A., and W. F. MASOM, M.A. *Fourth Edition.* 3s. 6d. Exercises on same, 1s. 6d.
- ROME, THE TUTORIAL HISTORY OF.** To 14 A.D. By A. H. ALLCROFT, M.A., and W. F. MASOM, M.A. *Third Edition, Revised and partly Rewritten,* by J. F. STOUT, B.A. 3s. 6d.

Complete Catalogue of the University Tutorial Series, and List of Books for COLLEGE OF PRECEPTORS CERTIFICATE, OXFORD AND CAMBRIDGE LOCALS, and other EXAMINATIONS, post free, on application.

UNIVERSITY TUTORIAL PRESS, LD., W. B. CLIVE, 157 Drury Lane, LONDON, W.C.



# Messrs. LONGMANS & CO.'S LIST.

**By BENJAMIN HALL KENNEDY, D.D.,**

*Late Regius Professor of Greek in the University of Cambridge.*

## THE REVISED LATIN PRIMER.

Crown 8vo, 2s. 6d.

## A SHORTER LATIN PRIMER.

Crown 8vo, 1s.

## EXERCISES ON THE SHORTER LATIN PRIMER.

By M. G. and J. KENNEDY and H. WILKINSON, M.A. Crown 8vo, 1s. 6d.

*A KEY, for the use of Masters only. 2s. 9d. net, post free.*

**By T. K. ARNOLD, M.A.**

## PRACTICAL INTRODUCTION TO LATIN PROSE COMPOSITION.

Edited by G. GRANVILLE BRADLEY, D.D., formerly Dean of Westminster. 5s.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

### LONGMANS' FRENCH COURSE.

**Longmans' French Grammar.** By T. H. BERTENSHAW, B.A., Mus. Bac., Assistant Master in the City of London School. Crown 8vo.

**Grammar. Part I.** Up to and including Regular Verbs, with Vocabulary, &c., 1s.

**Grammar. Part II.** Including Pronouns, Adverbs, Irregular Verbs, Subjunctive Mood, Infinitive, and Participles, with Vocabulary, &c., 1s.

**Parts I. and II.** Complete in One Vol., 2s.

*KEY and SUPPLEMENT, for the use of Masters only.*

**Longmans' Illustrated First Conversational**

**French Reader.** With Notes and full Vocabulary. By T. H. BERTENSHAW, B.A., Mus. Bac. With 86 Illustrations (including 18 Views of the Public Buildings, &c., of Paris, and Plan of Paris, illustrating "Ma Première Visite à Paris"). Crown 8vo, 1s. 6d.

**Longmans' Illustrated First French Reading**

**Book and Grammar.** By JOHN BIDGOOD, B.Sc., and THOMAS HARBOTTLE. Crown 8vo, 1s.

**Longmans' Illustrated Second French Reading**

**Book and Grammar.** By JOHN BIDGOOD, B.Sc., and J. WATSON CAMPBELL. With 40 Illustrations. Crown 8vo, 2s.

*By LÉON CONTANSEAU, M.A.*

**A Practical Dictionary of the French and English Languages.** Post 8vo, 3s. 6d.

**A Pocket Dictionary of the French and English Languages.** Being a careful Abridgment of the Author's "Practical French and English Dictionary," preserving all the most useful features of the Original, condensed in a much smaller Volume. Square 18mo, 1s. 6d.

\*. \* *Special Edition for Travellers and Pocket Use, bound in leather tuck, price 3s. 6d. net.*

*By A. A. SOMERVILLE, M.A.*

**A First French Writer.** For the use of Lower and Middle Forms of Schools. Crown 8vo, 3s. 6d.

*By H. G. LIDDELL, D.D., and ROBERT SCOTT, D.D.*

**Greek-English Lexicon.** 4to, 36s.

**Greek-English Lexicon.** Abridged from the above. Revised throughout. Square 12mo, 7s. 6d.

*By H. R. HEATLEY, M.A., and H. N. KINGDON, M.A.*

**Gradatim.** An Easy Latin Translation Book for Beginners. With Vocabulary. Fcap. 8vo, 1s. 6d.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

**Exercises on Gradatim.** By H. R. HEATLEY, M.A., and the Rev. A. SLOMAN, M.A. Fcap. 8vo, 1s. 6d.

**Excerpta Facilia.** A Second Latin Translation Book.

Containing a Collection of Stories from various Latin Authors. With Notes at end, and a Vocabulary. Crown 8vo, 2s. 6d.

*A KEY, for the use of Masters only. 5s. 3d. net, post free.*

*By ARTHUR SIDGWICK, M.A.*

**A First Greek Writer.** Crown 8vo, 3s. 6d.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

**Introduction to Greek Prose Composition.**

With Exercises. Crown 8vo, 5s.

*A KEY, for the use of Masters only. 5s. 3d. net, post free.*

**Scenes from Greek Plays.** Rugby Edition.

Abridged and Adapted for the use of Schools. Fcap. 8vo, 1s. 6d. each.

**Aristophanes.**—The Clouds. The Frogs. The Knights. Plutus.

**Euripides.**—Iphigenia in Tauris. The Cyclops. Ion. Electra. Alcester.

**Bacchae. Hecuba. Medea.**

**An Introduction to Greek Verse Composition.**

By ARTHUR SIDGWICK, M.A., and F. D. MORICE, M.A. With Exercises. Crown 8vo, 5s.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

*By FRANCIS DAVID MORICE, M.A.*

**Stories in Attic Greek.** With Notes and Vocabulary. Crown 8vo, 3s. 6d.

# Cambridge University Press

## THE CAMBRIDGE HISTORY OF ENGLISH LITERATURE

Edited by A. W. WARD, Litt.D., Master of Peterhouse, and A. R. WALLER, M.A.

Volume I. of this work, FROM THE BEGINNINGS TO THE CYCLES OF ROMANCE, is now ready, price 9s. net, bound in buckram, or 15s. net. in half-morocco.

Volume II. THE END OF THE MIDDLE AGES, which will appear about Easter, will deal with *Piers Plowman*, Richard Rolle, Wyclif and the minor poetry and prose of their age not already dealt with in Volume I.; Gower, Chaucer and the Chaucerian school; the beginnings of English prose; and those of Scots literature (Huchoun, Barbour, James I., Henryson, Dunbar, Douglas, &c.); the work of the Westminster press; ballads; and the early days of public school, college and university life.

"It is not so much in the account given of the great lights of English literature as in the careful study of the whole subject, a study in which no details are omitted, that the value of the 'Cambridge History' is to be found. 'Beowulf' is known to everyone, but the minor poems that appear to be nearly contemporaneous with it are less familiar. And they give us glimpses of the everyday life on which the epics do not touch. The same characteristic will be found throughout the volume. The subject is treated with a completeness which gives to the work a unique value for purposes of study; this value is greatly enhanced by the bibliographies which, as in the 'Modern History,' supplement the text." *Westminster Gazette*.

### PRESS NOTICES OF VOLUME I.

"The enterprise conducted by Dr. Ward and Mr. Waller promises to achieve as notable a success as the 'Cambridge Modern History'. . . . The book can be read with genuine pleasure even by those who have but a slight knowledge of the subject. To the scholar it is simply indispensable."—*Tribune*.

"There is a satisfactory appearance of authority and weight about the first volume. . . . If future instalments are as worthy of the enterprise as this one, there will be no rivals for the work."—*Outlook*.

The work will be completed in fourteen royal 8vo volumes of about 500 pages each. Each chapter, so far as is possible, is the work of a writer specially familiar with the subject, while the Editors, Dr. A. W. Ward and Mr. A. R. Waller, are jointly responsible for the whole. The Volumes will be sold separately, and there is a special subscription price for the complete work in either binding, namely, £5. 5s. net for the buckram (payable in fourteen instalments of 7s. 6d. on publication of the separate Volumes), and £8. 15s. net for the half-morocco (payable in fourteen instalments of 12s. 6d.). *A Detailed Prospectus, showing the Contents of Volume I., and the scope of the other Volumes, will be sent on application.*

### **History of England from the Wars of the Roses to the Death of Elizabeth.**

For use in Schools.  
By ARTHUR D. INNES, M.A., formerly Scholar of Oriel College, Oxford.

Crown 8vo,  
with 3 Maps and  
Plan, 2s.

The complete work (The Cambridge School History of England) from which these chapters are taken, is published in three parts:—

Part I. To 1509 A.D. 2s. | Part II. 1509-1714. 2s.  
Part III. 1689-1901. 2s.

Or in ONE VOLUME, 4s. 6d.

"We have nothing but praise for this excellent text-book. The author has had in mind the needs of students at the Public Schools, roughly speaking between the ages of fourteen and eighteen, and their teachers. . . . Though written for Public School boys and teachers, the book will undoubtedly be most useful to the Preparatory Schools, and also to the general student."—*Preparatory Schools Review*.

"Mr. Innes, realising probably in how comparatively few schools European history is taught as the foundation of English history, gives in every case a distinct summary of the position of affairs on the Continent before attempting to describe our relations with them. Thus the international aspect of our history has received its due share of attention almost for the first time, and this alone should be sufficient to make the book welcome in our schools."—*The Practical Teacher*.

Press Opinions  
of the  
Complete Work.

### **The Two Books of the Kings, in the Revised Version.**

With Introduction and Notes by WILLIAM EMERY BARNES, D.D., Fellow and Chaplain of Peterhouse, Hulsean Professor of Divinity.

Fcap. 8vo,  
3s. 6d. net,  
or in 2 Vols.,  
2s. net each.

These volumes are issued in the *Cambridge Bible for Schools and Colleges*, under the general editorship of the Very Rev. A. F. Kirkpatrick, D.D., Dean of Ely.

The *Times* describes this series as one "which has done more to spread accurate Biblical knowledge among English-speaking people than any book except the Revised Version"; and the *Guardian* says that "it is difficult to commend this excellent series too highly."

### **The Theory of Light.**

A Treatise on Physical Optics. By RICHARD C. MACLAURIN, M.A., LL.D. In Three Parts.

Part I.

Part I.,  
Demy 8vo,  
9s. net.

The aim of the treatise, of which this volume forms the first part, is to give an account of the theory of physical optics that is systematic, and as complete as possible in the limits within which the author has thought it expedient to confine himself. He hopes that the foundation has been laid broadly enough to support the whole superstructure, and that the mode of treatment will make clear the relation between light and electricity, when those two sciences come into contact.

### **The Mathematical Theory of Electricity and Magnetism.**

By J. H. JEANS, M.A., F.R.S., Professor of Applied Mathematics in Princeton University.

Royal 8vo,  
15s. net.

The present book is intended to give the mathematical theory of the range of electro-magnetism which every student of physics may be expected to have covered, with more or less of thoroughness, before proceeding to the study of special branches of the subject. The range is very approximately that of Maxwell's original treatise; but while Maxwell's treatise was written for the fully-equipped mathematician, the present book is written more especially for the student, and for the physicist of limited mathematical attainments.

### **Modern Electrical Theory.**

By NORMAN ROBERT CAMPBELL, M.A., Fellow of Trinity College, Cambridge.

Demy 8vo,  
7s. 6d. net.  
(Cambridge  
Physical Series.)

"The object of this book is to deal with those phases of modern electrical theory which are most closely connected with its central problem, the relations of electricity and matter. Perhaps the most valuable chapters are those dealing with the electron theory, in which great care has been taken to distinguish between assumptions that are fundamental to the modern theory, and those that it may be necessary to abandon after further progress. We can warmly recommend the book to the study of both physicists and physical chemists."—*Oxford Magazine*.

CONTENTS.

	Page		Page
Leader: Education v. Decadence .....	113	College of Preceptors:	
Notes .....	114	Suggestions from America for English Educationists:	
The New Education Bill—Departmental Regulations—Irish University Reform—Moral Instruction and Moral Training—Household Economics for Women Students—The Teaching of Hygiene.		Lecture by Mr. F. Charles, B.A. ....	130
Summary of the Month .....	115	The Winter Meeting for Teachers ( <i>continued</i> ) .....	131
Universities and Colleges .....	119	The Use of the Voice (Dr. Aikin)—Preventable Physical Defects of School Children (Dr. Biss and Dr. Collie)—Plato (Mr. Morshead).	
The Educational Ladder.....	120	Teachers' Diploma Examination, Christmas, 1907: Lists	133
Private Initiative in Education in the North of Europe:		Certificate Examination, Christmas, 1907: Class Lists of Candidates at Colonial and Foreign Centres .....	135
Lecture at Nyköbing by Mr. J. S. Thornton .....	121	Meeting of the Council of the College of Preceptors.....	138
Open Court: The Training of Teachers. By the Rev. J. O. Bevan, M.A., F.C.P. ....	122	Personation at Examinations.....	138
Belgian Technical Schools .....	123	Reviews .....	138
L.C.C. Inducements to Teachers .....	124	Continuation Schools in England and Elsewhere (Ed. Sadler)—The Historians' History of the World (Ed. Williams)—Decadence (Balfour)—The Axioms of Descriptive Geometry (Whitehead).	
Correspondence .....	124	General Notices .....	140
An Appeal for Educational Peace (I. Gregory Smith)—An Arithmetic of the Olden Time (J. Vine Milne), &c.		First Glances .....	142
Current Events .....	127	Mathematics .....	144
Fixtures—Honours—Endowments and Benefactions—Scholarships and Prizes—Appointments and Vacancies—Literary Items—General.			

The Educational Times.

*Education versus Decadence.*

MR. BALFOUR does not tell us by what train of thought the occasion of the Henry Sidgwick Memorial Lecture at Newnham led him to discourse on "Decadence."

Whether the cold shades of Opposition are depressing, or the adventurous policy of political adversaries inspires alarm, or "unsettled convictions" breed uneasy anticipations, or prosperity is wisely mindful of Nemesis, or—it is bootless to inquire. It is well, however, that a leading statesman, in a time of rising exports and imports, should be looking ahead and envisaging the possibility of a decline of the Empire. Analogies are always instructive, but they require very careful handling in order to draw from them their true import for different times and different circumstances. Even the Roman Empire, which has been so often pressed into comparison, does not readily furnish a plain and convincing lesson. Perhaps a direct inquiry, with the comparative method in subordination, might yield more fruitful results. In that case, one would expect that greater prominence would be given to Education as a preservative factor.

Indirectly, indeed, Mr. Balfour recognized the influence of education by laying great stress upon "the modern alliance between pure science and industry," and by placing emphasis "at least as much on the word 'science' as on the word 'industry.'" "If in the last hundred years," he says, "the whole material setting of civilized life has altered, we owe it . . . to the combined efforts of those who have advanced science and those who have applied it." This tribute to science might fairly be qualified; but, without questioning the material, or even the moral, results claimed for science, one must still conclude, as Mr. Balfour himself does, that all this "is but an aid to optimism, not a reply to pessimism." But education is wider than science pure and applied, and in its widest application it bears upon the question proposed for solution. "Under the Roman Empire," Mr. Balfour remarks, "education was well endowed, and its professors held in high esteem"; and yet the Empire declined and fell. Shall we infer that education would prove similarly ineffective for the maintenance of the British Empire? Or shall we inquire what was the part really played by educa-

tion in the Roman Empire, and what are the bearings of education upon the stability of the British Empire? We imagine that profound differences would emerge from such an inquiry.

The British teacher has very ample reason to magnify his office. He recognizes it as his duty not only to convey information, but also to train the mind and to mould the character of his pupils; and knowledge and character, we take it, are tolerably strong staves in the structure of a nation. In the regeneration of Japan, as in the regeneration of Prussia a century before, the foundations of the new life were laid in the reformed education of the youth. At the present moment the most progressive nations of the world look to education as the lever that is most essential, and absolutely essential, to raise them to higher planes of efficiency, not merely in the competitive struggles of industry and commerce, but in the moral qualities of manhood and citizenship. And the means to rise are necessarily the means to maintain a rise—the forces that are antagonistic to decadence. If education is deemed so important in countries under an absolute government, and in countries that are compact and all but self-contained it becomes vital in a country that is largely democratic, open to assault in all the quarters of the globe, and dependent for physical sustenance upon the open seas. Not progress only, but existence, is involved. The most directly operative and the most influential force against decadence in this country is knowledge guided by character; and the generation of this force, if not wholly accomplished in the schools, is yet the regular function of the teacher.

The importance of furthering the efficiency of our educational system, both by direct support and by removal of hindrances, thus stands out in striking relief. By slow and painful steps we have reached an expenditure of over eleven millions a year upon the elementary branches, and those that know the requirements best still ask for more. The higher branches are crippled sadly, and the Government grants go little beyond half a million; while technical education, if it needs considerable reform, yet also needs more support than a similar contribution. Sir Norman Lockyer, who has spoken up so valiantly and reasonably for something like adequate driving power, has just been telling the Association of Technical Institutions that "our educational organization

reminds one a little of Alice's wonderful tea party." The commercial side of education is also becoming more clamorous. A correspondent of the *Times*, after a long description of commercial intelligence and trade organization in Germany, sums up in these moving terms: "There is no doubt that this great and rapidly increasing peaceful army of trained commercial warriors, unequalled elsewhere in concentration of purpose and organized intelligence, is quietly effecting for Germany, and will in the future effect, more triumphs than can be achieved by the exercise of any weapons of war." Undoubtedly; and therefore we want the value of a "Dreadnought" to bring us to an equal, if not to a commanding, position. At the same time, it cannot be said that our business men have yet shown encouraging appreciation of the commercial training afforded in the newer Universities and other technical institutions. In other ways, too, we are handicapped not a little by traditional unintelligence or prejudice. Many parents and employers persist in clinging to child labour—though, indeed, in very many cases it is somewhat hard to blame parents, and sometimes, as things stand, even employers. Yet the situation is economically and nationally wasteful, and some remedy ought to be devised. Further, while agricultural education is fairly satisfactory in view of recent developments, the Secretary to the Board of Agriculture has reason to complain. "The number of students pursuing the longer courses offered by our colleges," he says, "is not so large as a few years ago promised to be the case; and it must be admitted that, in spite of inducements in the form of scholarships given by County Councils, and of the improvement in the quality of the instruction offered, the English farmer does not show anxiety to obtain systematic instruction in agriculture for his son."

The educational awakening is not yet complete. Meantime, in the fundamental sphere of elementary education, the energies that should combine for the good of the children and of the nation are painfully dissipated in ecclesiastical wrangles. The teacher, whose function is so vitally important for the national welfare, longs for peace, for security of tenure, for an adequate living, for independence of action. Let us hope. "A teacher," says Principal MacAlister, "cannot be a pessimist, he is seldom an optimist, but by the law of his existence he must needs be a meliorist." The recent teachers' meetings exhibit an interest and an energy that stand stiffly against decadence.

### NOTES.

THE provisions of the new Education Bill, which is not introduced as we write, will be public before our present issue is in the hands of our readers. Without being a prophet, or the son of a prophet, however, one may confidently anticipate the main lines of the proposals. There will be no public money apart from public control, and there will be no toleration of religious tests; except in so far as the inevitable denominational concessions may require. The suggestion of "contracting-out" has been condemned already by the National Union of Teachers. We have yet to see, however, what the method, if actually adopted, really

implies. On the face of it, the principle would seem to be practically the same as is happily operative in many other countries—indeed, in most other countries. The thing to be feared is that religious (or ecclesiastical) feeling has been so much exacerbated as to prevent, for the present, a reasonable solution. Political victors may insist on the political spoils: but the experience of other countries, as well as our own experience, teaches—what should not require teaching in these days—that force is not a remedy capable of securing a permanent settlement. As a correspondent truly says, and as the course of the controversy has shown, "a partial settlement of the question would be a Pyrrhic victory."

PROF. SADLER, writing to the *Times* on Mr. McKenna's Sunday speech, acknowledges that the President of the Board of Education justly emphasized the part played by departmental regulations under successive Governments in the building up of secondary education and of the training colleges in connexion with the State. "But," remarks Prof. Sadler, "he did not point out that such changes by regulation have won the permanent approval of the public in so far as they have sought to establish a fair balance between denominational and undenominational effort in English education." After quoting provisions of the new regulations "committing the State, which should be impartial, to a one-sided view of what is educationally good for the nation," Prof. Sadler writes:

The point which I would respectfully submit to the consideration of the Government is that English education is the better for combining denominational and undenominational elements in its structure. Each element makes its contribution to the welfare of our educational life. Each gives to it something that the nation needs. Is it not desirable, therefore, that the State should recognize the value of both kinds of effort? Should not the State help each to attain a high level of excellence in teaching and hygiene? And is not the true moral of the chapters in our educational history to which Mr. McKenna referred on Sunday, that the administrative action of the Board of Education is most acceptable to the country when it endeavours to foster, among the friends of denominational and of undenominational schools alike, a desire for unity of effort in the public interest—a unity which is not the less real and fruitful because it expresses itself in different forms of educational method and of spiritual appeal?

The worst of it is that, so long as a well grounded sense of unfairness exists, energies that should go to "unity of effort in the public interest" are only too likely to be wasted in internecine conflict.

It is rumoured—if it is worth while to give heed to rumour—that the forthcoming Irish University Bill provides for the reconstitution of the Royal University as a teaching as well as an examining institution, with an endowment of £30,000 per annum in addition to the £20,000 already given; for the affiliation of the Queen's Colleges of Cork and Galway and University College, Dublin (an institution managed by Jesuits); and for liberty to Queen's College, Belfast, either to join or to become a separate University. The voice of rumour is, indeed, very like the voice of Provost Traill at Manchester. The Provost stated that he had "received from Mr. Birrell the positive assurance that in the proposals which he hopes to be able to lay before Parliament, Trinity College, its constitution, and its endowments are absolutely excluded": that is to say, the essence of Mr. Bryce's scheme has evaporated. The Provost went on to say that, in his own personal opinion,

Trinity should be reformed "from within if possible," and that there should be created in Belfast a University founded on the existing Queen's College, as well as another University embracing the Roman Catholic College on St. Stephen's Green, together with the Cork and Galway Colleges, each of these two Universities to have "an atmosphere of its own, decided by the majority of its students." And he clinched this personal opinion by adding the assurance that "it is upon lines of this character that the Chief Secretary is proceeding." If this is so, then the Chief Secretary will need all his powers of conciliation to effect a permanent settlement of the question.

A WRITER in the current number of *A.M.A.*, discussing conflicting views on "Moral Instruction versus Moral Training," puts the following three questions:—

(1) Is not Dr. Hayward quite right in his contention that character can be influenced, as against those who assert the contrary? (2) Is not Mr. Paton's attitude equally right—that moral training is more important in school life than moral instruction? (3) Has not the whole question of moral instruction been plunged into unnecessary confusion owing to the failure of those who have discussed it to see that there is a vital difference distinguishing the problems of primary from those of secondary education?

All three questions he answers in the affirmative. It is now for Dr. Hayward, he goes on to say, to look at the question from the secondary-school master's point of view, and to answer this one question: "Is direct moral instruction more effective than indirect moral training at the secondary stage?" The terms and the sphere of discussion should have been made quite clear at first, and the discriminations now made will probably simplify the problem. It is not so evident, however, that the final challenge to Dr. Hayward is couched in conclusive form. Still, as the challenger says, "if he can give an answer upon this straight issue, we, as secondary-school masters, will at least have something definite to go upon."

THE Women's Department of King's College, London, which is located at Kensington, will open next autumn a post-graduate course of training to women students in household economics, "analogous to the courses of special or professional training already provided for men and women which connect themselves in growing measure with the curriculum of the Universities." The course will aim not merely at the equipment of future teachers of domestic science, but at the broader needs of such as propose to engage in various forms of social and philanthropic work. As a scheme for systematic training on scientific lines, the project deserves a cordial welcome, and we wish it all success. We cannot, indeed, help thinking (in an old-fashioned way, no doubt) that the first accomplishment of a girl-graduate is to be an expert domestic administratrix; and it is not easy to comprehend why she should have much, if anything, to learn on the subject in post-graduate days. Still, we fear, she often has gaps in her knowledge. But let us be practical, at all events: it should not be considered necessary to make the students expert chemists, physiologists, architects, plumbers, and so forth (though some exception might well be made in favour of expert plumbers, if such an educational product be really feasible). The tendency seems to be to overdrive new subjects. On the wider matters of social and

philanthropic work there is certainly much that needs learning—and criticism.

WE have not a little satisfaction in acknowledging and recording the following expert appreciation of the hygienic section of the lectures and discussions at the recent Winter Meeting of the College of Preceptors. We quote from the *Medical Press* (January 22):—

The late Mr. Spurgeon, when speaking of the religious efforts made to reach different strata of the community, was wont to speak of "the neglected upper classes," and, applying the simile to the efforts now being made to bring the care of children and the hygiene of schools to public notice, we cannot but feel that the children of the poor are being affected far more by diffusion of knowledge on these subjects than are the children of the upper classes. True, school hygiene is penetrating some of the large public schools; Dr. Clement Dukes, who was a school hygienist before school hygiene was "discovered," has done yeoman work at Rugby; Canon Lyttelton has sensible ideas to inculcate in his new sphere at Eton; and University College and King's College Schools, in their respective new surroundings, both bear traces of the hand of the reformer. But in the private preparatory and secondary schools the light of the new gospel has yet to dawn, and we welcome very heartily the excellent efforts made by the College of Preceptors to bring it to the masters and mistresses engaged in those spheres by incorporating lectures by well known teachers on such subjects as the care of school children's eyes, the hygiene of the ear and throat, and the training of the voice, into their meetings for teachers in the winter. The session of these vacation lectures has just closed, and we feel that the instruction therein given cannot but have a far-reaching effect. There is no reason why the upper classes should be "neglected," and we congratulate the College of Preceptors on its far-sighted wisdom in providing such courses. The principle is capable of almost indefinite extension.

## SUMMARY OF THE MONTH.

THE Education Bill is being introduced in the House of Commons just as we go to press.

THE Executive of the National Union of Teachers have unanimously passed the following resolution:—

That, in view of the probability of the forthcoming Education Bill containing clauses which would enable non-provided schools to be withdrawn from the control of the Local Education Authorities and from the benefit of rate aid, the Executive of the National Union of Teachers wish to protest in advance against any such proposals, and to affirm that, in the opinion and experience of teachers in such schools generally, such contracting-out would be fatal to the efficiency of the schools and injurious to the health, comfort, and education of the children. Further, in the opinion of the Executive such a proposal, if carried, can only lead to the indefinite postponement of the adoption of a national system of education.

THE ARCHBISHOP OF CANTERBURY presided (January 30) at the Annual Meeting of the Canterbury Diocesan Education Society, held at Faversham. He said that a vast multitude of the English people were convinced that we could not preserve religious force at its best, either for the teachers or the children, unless that religious force was connected with some great religious society or organization, and in this connexion he combated the notion that public interest in the denominational side of elementary teaching had been shown, by the falling off in the support given it, to have waned. In 1871 the amount subscribed for the maintenance of Church schools connected with the National Society was roughly £343,000; in 1881 £582,000, in 1891 £602,000, and in 1901 £648,000. Surely it was impossible that any settlement of the education controversy could be fair or could be permanent unless it accorded reasonable recognition of that conscientious principle which had been marked in so practical a way. There were many possible ways of recognition, and he (the Primate) had declared his readiness to meet more than half-way any reasonable approach to that recognition, but the exact manner in which that recognition was to be given must be left to the Government. He confessed to be exceedingly anxious on the subject at present, because recent administrative action by no means tended to what he had always thought was a Liberal principle—the recognition of conscientious convictions when they were thus publicly, and over wide areas, and prominently set forward. Perhaps the best object-lesson was to be found in what had hap-

pened in regard to their training colleges. When the Bill of 1899 was under discussion, it was regarded as impossible that any Minister of Education would ever use for partisan ends the supervisory powers then first given to him. The President had told them the Regulations were temporary, but the annual report of the Board had no reference to that. The difficulty about the trust deeds could not be got over without submitting them to the Board for alteration; it was almost like asking the counsel for the prosecution to act also as judge. There might not be any desire to cut about and tamper with the documents; but the risk was there. There was also danger that the pressure of the secular subjects might reduce the attention to religious teaching, and then what became of the object for which the colleges were founded?

The first meeting of the General Council of Church of England Training Colleges, which has been called into existence through the emergency created by Mr. McKenna's regulations respecting the admittance of students to these institutions, was held (February 3) at the offices of the National Society. The Archbishop of Canterbury, President of the Council, was in the chair, and there was a large attendance of representatives of training colleges in all parts of the country. The Council, while strongly indicating the impossibility of accepting Mr. McKenna's suggestion to alter the trust deeds so as to suit the regulations, also showed its wish to make all provision that can be made to meet the needs of Nonconformist students, so long as this can be achieved without defeating the essential purpose for which the Colleges exist. An Executive Committee was appointed, and the following resolutions were adopted:—

This Council approves the action taken by the representative Training College Conference on December 6.

The fact that the Church of England training colleges have been established on the fundamental principle that religious life and character are essential qualifications for the teacher of the young, and that the new Regulations of the Board of Education require the college authorities, in selecting candidates, to have no regard to religious faith or the willingness or otherwise of a candidate to receive religious instruction or to attend religious worship or observances, appears to this Council to render it impossible for such a training college to apply for a scheme which would be inconsistent with those fundamental conditions.

The Council, as representing Church of England training colleges, fully accepts the principle, already largely acted upon, of a conscience clause for Nonconformist students, provided that the arrangement, whether secured by a hostel system or otherwise, be not such as to interfere with the general discipline and with the religious life and character of the college as a whole.

The Executive Committee of the Northern Counties Education League have passed unanimously the following resolution on Regulation 43 of the Regulations for Secondary Schools:—

That the Northern Counties Education League deplores the action of various Education Authorities in asking the Board of Education to waive the Regulations which the Board has imposed as a condition for making increased grants for secondary schools. The League trusts that Local Authorities will insist on adhesion to the following principles—namely: (1) Representative control of the expenditure of public money; (2) the non-imposition of religious tests in schools which receive the increased grant; (3) the provision of an adequate number of free places for poor children in all schools receiving the grant.

In memoranda addressed to the President of the Board of Education by the Council of the Teachers' Guild of Great Britain and Ireland, the Council states, in connexion with the question of the tenure of head and assistant teachers in endowed schools, that in view of the recent decision of the Court of Appeal in the Richmond School case, it desires to express its strong objection to tenure clauses as they are at present drafted in schemes for endowed schools, and desires to urge the introduction by the Government in the coming Session of a Bill providing for the introduction of improvements of tenure into all future schemes, and for the revision of existing schemes in the same sense.

In a series of resolutions indicating necessary improvements in the matter of tenure, the Council urges that "a permanently appointed assistant master should only be dismissed by the governing body at the instance of the head master. A right of appeal, on the part of either the head master or the assistant, should in all cases lie from the governing body to the Board of Education, and no assistant mastership should, *ipso facto*, terminate in consequence of a change of principals."

In a memorandum respecting the recently issued regulations for secondary schools, the Council of the Guild expresses regret

that the clause dealing with the appointment and dismissal of head masters makes no provision for the appointment and dismissal of assistant teachers. With regard to the clauses governing the question of religious instruction in secondary schools, the Council expresses approval of them, holding that, while they free State-aided schools from undue dogmatic limitations, they will not interfere with the giving of special denominational instruction when there is a desire for it.

The Council expresses the opinion that the new Teachers' Registration Council should be composed of not fewer than twenty and not more than thirty members, that the representatives of the Crown should not exceed one-fifth of the total membership, that teachers on the register should be represented directly through their own votes, and that the Registration Council should be empowered to act as a court of appeal in cases of dismissal, whether of heads of assistants.

In the House of Commons on February 12, in reply to Mr. Masterman, Mr. McKenna said: A training college which fails to comply with the new regulation requiring students to be admitted without regard to religious belief or social antecedents will be liable to removal from the list of colleges recognized as eligible to receive Government grants. It may, however, after removal from the list, continue to be accepted by the Board as a place suitable for the training of teachers for public elementary schools if the Board are satisfied as to its educational efficiency, and students attending it may in that case be admitted to the Board's examination on the same conditions as students who are trained in recognized colleges, and will be eligible in that way to become certificated teachers, though no grants can be paid on their account. Arrangements will be made, when occasion arises, for the establishment of a list of certified training colleges (on the lines of the Board's list of efficient secondary schools) which would comprise all the training colleges, both grant-earning and non-grant-earning, recognized as efficient by the Board of Education.

In answer to Sir W. Anson, Mr. McKenna said: A considerable number of resolutions passed by Local Education Authorities under Article 43 of the Regulations for Secondary Schools have reached, and are still reaching, the Board of Education. The total number of Authorities from whom such resolutions have been received is thirty-six. Some of these resolutions have already been considered by the Board, and they have thought fit in the case of fourteen schools to waive one or more of the conditions imposed by the new regulations for 1907. They have not thought fit to waive any of the conditions referred to in the resolutions as regards three schools at Southampton, Bury, and Peterborough respectively. The greater number of the resolutions are still under consideration, and a full return showing for each school the articles which the Board were asked to waive, and their decision as regards each article, will be laid before Parliament when the process is complete. It is hoped that the return will be ready in the course of April.

The new volume of Statistics of Public Education in England and Wales in 1905, 1906, and 1907, issued by the Board of Education—practically a statistical appendix to the Annual Report of the Board of Education for 1906-7—is divided into three parts: (1) a list of Local Education Authorities, (2) educational statistics, and (3) financial statistics. On August 1, 1907, the number of Local Education Authorities in existence was 328. On August 1, 1906, out of a total of 7,236 Council schools, 6,980 were elementary schools, accommodating 3,520,093 children, the total number of pupils being 3,543,760. The non-provided schools numbered in all 13,671, with accommodation for 3,524,881 children. Of these schools 13,487 were elementary, with places for 3,492,432 children. These figures show a grand total of 20,907 schools and 7,068,641 school places. The non-provided schools are divided into five groups, the Church of England being credited with 11,377 schools and 2,743,876 places, the Roman Catholic Church coming second with 1,064 schools, containing accommodation for 411,360 children. Wesleyan schools number 345, with 129,350 places, and Jewish schools 12, with 11,358 places. The undenominational and other schools number 689, with accommodation for 196,480 pupils. During the period from January 1 to July 31, 1906, 112 voluntary schools were transferred to Local Education Authorities. While the Council elementary schools have increased in number voluntary schools have decreased. Of the special schools, those for the blind and deaf have decreased and those for defective

and epileptic children increased, the dates of comparison being in each case January 1, 1906, and August 1, 1906. From statistics of the expenditure of the Board of Education out of the Parliamentary vote, it appears that for the year 1906-7 the total cost, after deducting appropriations in aid, was £13,165,338, as compared with £12,604,048 in the preceding year. Of this sum the grants in respect of elementary education accounted for £11,248,794. The average salary of the 13,642 male head teachers in August, 1906, was £163; but there were over five hundred male head teachers with salaries of over £300 per annum. The average salary of the 17,617 female head teachers was £112, there being only 16 with salaries of over £300. The average salary of the 15,498 certificated male assistants was £116; but more than two thousand of these were in receipt of salaries exceeding £150. The average salary of the 36,787 certificated female assistants was £84, of whom only a hundred were being paid more than £150.

THE recent return issued by the Board of Education showing the cost of higher education in England and Wales during the year ending March 31, 1906, contains particulars of the application of funds by Local Authorities to the purpose of education other than elementary under the Education Act, 1902, the Welsh Intermediate Education Act, 1889, the Public Libraries and Museums Acts, and Local or Private Acts. The return comprises also information as to expenditure upon secondary education—including not only secondary schools, but also the instruction of pupil-teachers and intending pupil-teachers—the training of teachers, the provision of scholarships, evening schools, and the various forms of technical instruction, and higher education in science and in art generally. The income from all sources available for meeting the year's expenditure showed a total increase, as compared with the previous year, of rather more than £750,000, and the increased amount raised from rates was equivalent to about two-thirds of this total. The total income other than from loans of Local Education Authorities was £3,518,178 and expenditure £3,355,433, compared with £2,757,886 and £2,889,871 respectively in the previous year. The total expenditure during the year in the Administrative County of London for secondary schools, including pupil-teacher centres and preparatory classes under the Board of Education, was £211,004. For evening schools, institutions for higher and technical instruction, &c. (not including the training of teachers), the total was, for the Administrative County of London, £367,825.

THERE is a short but pointed indictment of the English farmer in the annual report published on the Board of Agriculture's distribution of grants for agricultural education. "It is true," says Mr. T. H. Middleton, Secretary of the Board, "that there has been of late years a gratifying change in the attitude of the farmer towards the teaching staff of agricultural institutions, but this attitude has not yet reached the point at which it affects the farmer's personal desire for education. Many farmers are now ready enough to admit, by their action on Education Committees, if not in so many words, that education is a good thing for their neighbours; but the Agricultural Committees will not take the place in our system which we wish them to occupy until farmers are convinced that education is a good thing for themselves." In last year's report it was estimated that between thirty and forty thousand persons annually received agricultural instruction of some kind, and that 1,116 attended courses at agricultural institutions. Last year the number attending these institutions was 1,121. "While these figures are satisfactory," comments the Secretary, "the number of students pursuing the longer courses offered by our colleges is not so large as a few years ago promised to be the case, and it must be admitted that, in spite of inducements in the form of scholarships given by County Councils, and of the improvement in the quality of the instruction offered, the English farmer does not show much anxiety to obtain systematic instruction in agriculture for his son." It is suggested that much larger sums should be expended by the Board in promoting research on agricultural problems. The amount of the residue grant which was applied in the counties to agricultural education in 1906-7 was £79,805, this being exclusive of about £4,000 received by Leeds University from the three Ridings of Yorkshire: £23,596 went in grants to colleges and schools, £12,066 for dairy instruction, £9,536 for horticulture, and £9,353 for scholarships. The total expenditure of institutions aided by the Board of Agriculture was £38,794.

The tenth Annual Meeting of the Moral Instruction League

took place (March 10) in the Medical Examination Hall, Victoria Embankment, Sir Edward H. Busk, M.A., LL.B. (a Vice-President of the League), presiding. The annual report recorded considerable progress. About one Local Education Authority out of every six had now some provision for systematic moral instruction in its schools. The Authorities of Buckinghamshire, Devonshire, Chester, and Swansea had adopted during the year the League's Graduated Syllabus of Moral and Civic Instruction for Elementary Schools. Several other Authorities, including several Scottish School Boards, had also taken action in the League's direction. The League had also exercised considerable influence internationally, important Leagues on similar lines having been constituted during the year in Germany and the United States of America. The League had published during the year a Graduated Syllabus of Moral and Civic Instruction for Secondary Schools. It had entered into a contract with a leading firm of educational publishers to complete within eighteen months a series of teachers' handbooks to illustrate all the standards outlined in its Elementary Syllabus. The membership of the League had considerably increased.

Sir Edward Busk said that the arguments used against the methodical teaching of ethics might be grouped under three heads. First: the number and diversity of the theories of ethics. There was undoubtedly difference enough, but this was of a philosophical rather than of a practical character. All writers on the subject admitted the authoritative character of a moral judgment; there was, therefore, an agreement upon the practical side of morals. A second objection was based upon the varying standards of the good and the bad in different countries and in successive epochs. Our everyday experience, however, was that no action by itself was either good or bad, but good when the higher of the two alternatives known to the agent was selected, and bad when he chose the lower of the two of which he was cognizant. As mankind advanced, higher and higher motives of action became known, so that what at a lower stage of development might have been the highest known spring of action became one low down on the advanced scale, and its selection instead of the other possibilities was reprehensible. If this were the true explanation of moral judgment, it afforded the highest justification of the necessity for systematic moral instruction. The third objection was the alleged difficulty of treating of the imperative nature of duty without assuming some sanction, either supernatural or natural. Upon this it might be remarked that if actions were chosen from fear of consequences, the resulting conduct is prudent rather than moral, and that no one will need the stimulus of a system of rewards and punishments who is penetrated with the spirit of morality, and turns naturally to the true and noble and shrinks from the baser thoughts and actions.

Prof. Mackenzie directed special attention to two main difficulties felt in connexion with the giving of systematic moral instruction in schools. The first difficulty was the conflicting moral ideals that prevail in the community. He thought that there were various ways of dealing with this difficulty, all of which had a certain value. Some urged that it would be well to distinguish between the good citizen and the good man, and to confine efforts in moral instruction mainly to the development of the former. Others urged that there should be recognition of the common elements in divergent ideals and that endeavours should be made to limit instruction to these; that in any case a serious attempt should be made to discover an underlying unity in the ideals that seem to conflict. He admitted, of course, the possibility of difference of opinion on certain points, but held that a certain latitude should be permitted here as was commonly done in regard to history, literature, and other subjects of the school course; and he was further of opinion that discreet references to these existing differences of opinion would stimulate reflection on the children's part and prevent mechanical and dogmatic methods of instruction. The second difficulty was that of finding suitable teachers for giving efficiently such important instruction. He pointed out, however, that this difficulty was not created by the introduction of moral instruction into the curricula of schools, but had only thus been brought to light, and that it was imperative that this difficulty should be met by greater care being devoted to the training of teachers, and that, further, the school itself should be more systematically organized to this end.

MR. BARROW CADBURY announces his desire to dedicate his old home, Uffculme, near Birmingham, to the memory of his father, the late Mr. Richard Cadbury, by devoting it to the promotion

of adult school work, to which Mr. Richard Cadbury gave a large part of his life. Mr. Barrow Cadbury states that his wife and he have been impressed by the need of some place within easy distance of Birmingham to which members of adult schools, children's school parties, and kindred bodies may resort. They propose to equip the house as an adult school hostel, which will afford accommodation for visitors to conferences and similar gatherings, and twenty-eight acres of the surrounding park will be set apart for school parties, mothers' meetings, &c. The large hall and chalet adjoining will be at the disposal of parties, and teas and other refreshments will be obtainable at popular prices. The idea of the benefactors is that parties, provided they are sufficiently large, should have the freedom of the grounds for their exclusive enjoyment, making their own arrangements according to their bent. It is not to be a public park, and admission will be regulated by ticket. This scheme is to be developed experimentally for four or five years.

A SERIES of examinations in hygiene has been promoted and organized by the Incorporated Institute of Hygiene of London (34 Devonshire Street, Harley Street, W.), which should stimulate the acquisition of knowledge in regard to those important subjects which affect the health and well-being of the people and which may be expected also to have most beneficial and far-reaching results on the physical fitness of the race. These examinations will be held at the leading centres throughout England, Scotland, and Ireland, and are of special interest to ladies, as they will include not only the necessary examinations showing general proficiency in hygiene, but the following additional Honours subjects:—The Hygiene of the Home, The Hygiene of Motherhood, The Feeding and Rearing of Children, Food and Cooking, Home Nursing and First Aid, School Hygiene, Physical Training. An examining board, composed of some of the leading physicians and scientists throughout the country, has been formed to further this branch of the educational work of the Institute of Hygiene, and every assistance and encouragement will be given to candidates—who may carry on their studies at school, college, or at home—while they will receive the Certificate of the Institute for proficiency in elementary knowledge and the Diploma of the Institute for proficiency in advanced knowledge, should they pass the examination successfully.

THE Annual Report of the Oxford University Extension Delegacy states that during the past session 1,276 lectures, distributed in 178 courses, had been delivered by 40 lecturers at 138 centres; 22,421 students were in regular attendance at the lectures, and 6,900 students at the classes held in connexion with the lectures; 824 candidates entered for examination, of whom 774 passed, 284 with distinction. These figures show little variation from those of recent years. Fifty-one students' associations were at work and 360 meetings were held. The summer meeting this year will be at Cambridge, and the delegates propose to arrange a meeting at Oxford in 1909.

THE total number of candidates entered for the Cambridge Local Examinations, held in December last, was 13,038, exclusive of 2,544 candidates examined at colonial centres. In the Senior Examination 891 boys and 1,313 girls passed, 116 boys and 9 girls being placed in the First Class. Sufficient merit was shown by 464 boys and 165 girls to entitle them to exemption from one or both parts of the Previous Examination. Of the junior candidates, 2,407 boys and 1,685 girls passed, the numbers placed in the First Class being 262 and 43 respectively. In the Preliminary Examination 1,584 boys and 1,171 girls satisfied the examiners.

THE Annual Report of the London University Extension Board on the work of last session (1906-7) states that the number of courses delivered was 172, the number of entries 13,803, the average attendance at classes 5,541, the average number of weekly papers 1,559, and the number of certificates awarded 1,100. Successful endeavours are being made to interest Londoners in the history and architecture of London, and also in sociology and local government. Over a thousand workmen attended the artisan course by Prof. Masterman in Westminster Abbey last summer. The Government have agreed that Westminster Hall shall be used for similar lectures this summer,

when much larger audiences are anticipated. A new development in extension work is the course of continuous study in the humanities, extending over five years, for the Chancellor's certificate.

THE Report of the Girls' Public Day School Trust states that the Council closed the Gateshead School in July and the York School in December last, and the number of schools is therefore now 31. Including £4,460 brought forward, the accounts show a gross profit of £11,085. After providing £3,013 for depreciation on premises and furniture (schools and office)—including additional amounts specially written off—the amount available is £8,072. The Council propose to pay on March 4 interest at the rate of 4 per cent. per annum, free of tax, which is estimated to require £5,998, and to carry forward £2,074. The grants from the Board of Education for the year ended July 31, 1906, amounted to £8,238. Those for the year ended July 31, 1907, amount to about £9,000, payable in instalments. Of this amount £3,802 has been received.

THE first meeting of the Bristol Branch of the English Association this year was held (February 7) at University College, Mr. J. H. Fowler in the chair. The report for last year was very satisfactory. The membership had increased to 65, and, in addition, a number of members of other societies had availed themselves of the opportunity of attending the meetings. A paper on "The Teaching of Composition in Higher Forms of Secondary Schools" was read by Mrs. Meyrick Heath, and discussion followed.

THE College of the City of New York on Washington Heights, which has been under erection since 1903, is (says the *Sphere*) almost ready for occupation. Indeed, some portions of the five great buildings, which have cost from first to last something like £1,000,000 sterling, have been in use more than two years. The institution is sixty years old and began in what was formerly known as the old Free Academy. It is built of gneiss, brightened by white terra-cotta for the decorative details. All the five portions of the group are connected by wide and airy underground passages through which students (of which the college can accommodate four thousand) may pass in stormy weather. The central hall—90 ft. high, 90 ft. wide, and 180 ft. long—is likely to be one of the show places of New York, for it will be used not only as a chapel and place of assembly for the institution, but also as a place for great municipal functions. The great stained glass windows, into which are set the seals of all the important colleges of the United States, reach almost to the roof. It will give some indication of the size of the place when it is stated that the chemistry building has twelve laboratories for general work alone, besides many smaller ones for special work. It is proposed later on to increase the usefulness of the college by establishing night classes.

THE remarkable progress accomplished by the Japanese during the last thirty-two years in the field of public education is brought out very clearly (says *Nature*) in the Thirty-second Annual Report of the Japanese Minister of Public Instruction, which has been published recently. This report deals with the year 1904-5, the date of the war with Russia. It is instructive to note that this time of stress was allowed to interfere in no way with educational activity. The Emperor, indeed, proclaimed it to be a national duty that the zeal and efforts of educational administrators and teachers should be redoubled. Despite the financial difficulties to which a great war gave rise, the expenditure on education was not diminished. While in 1873 only 28 out of every 100 children were under instruction in public schools, the ratio had risen in the year under review to the remarkable one of 97 boys and 91.5 girls out of every hundred; and the number of children in the schools had reached 7,551,445. Higher education, too, was in an equally flourishing condition. For example, the number of students in the University of Tokyo had reached 3,500, and in Kioto 1,300. Numerous special schools, technical schools for engineers and for agricultural specialists, medical schools, and schools for the study of modern languages, were all in a high state of efficiency. Moreover—a point of special interest in our country to-day—the hygiene of schools is scrupulously watched, and medical officers are charged specially with the duty of keeping the pupils under examination. Altogether the report provides abundant evidence of the success with which Japan is educating her people.



## UNIVERSITIES AND COLLEGES.

(From our own Correspondent.)

Oxford. THE term so far has shown an extraordinary lack of vitality. Everything has moved in an unusually humdrum fashion. There have been no wars or rumour of wars, and for the time being Greek and the threatened revival of the Ladies' question have been shelved. There has, indeed, been some writing and discussion of the "Three Years' Proposal"—a scheme intended doubtless to compete with the system in vogue at Cambridge and to simplify matters for the would-be Civil Service candidate, but it is very doubtful whether the proposal will take definite shape. After all, it is not the main business of the University to adopt Cambridge methods; nor yet, again, solely to cater for the Civil Service candidates. As it is, Oxford men have not failed to any conspicuous degree in the examination.

Even over the election to the Boards of Faculties there has been little excitement and practically no opposition. The "relief fund" for the University does not seem to have so far reached the amount which optimists prophesied when our new Chancellor first put his name to the appeal; at the same time the consciences of some of the Colleges (and their bursars) have been pricked, and various promises have reached the Vice-Chancellor of temporary or permanent assistance in various departments of the University. Whether these offers have been dictated by natural generosity or by prudential considerations of what might happen if a new Commission were appointed by Parliament, does not matter; it is, at any rate, a good thing that Colleges should regard extra-parochial considerations and show themselves alive to the "needs of the University."

After all the fuss which was made over the Oxford Pageant and all the rumours which were rife that the financial outcome was disastrous, it is satisfactory to note that, after long negotiations with sundry claimants, the promoters have been able to produce a considerable balance, and some Oxford charities will benefit though not to the extent which had been foretold: there is no doubt that the organizers were rather lavish in their expenditure. We have lately enjoyed a somewhat boisterous Torpid week, and Christ Church have achieved a record by going head and then followed up their success in the Eights. They have had the assistance of two freshmen—the younger Gladstone and Majolier, both of whom were in the Trials, while the latter seemed likely to find a seat in the Varsity Eight.

Talking of the Eight reminds us that the experts now tell us that we have a very good chance this year of defeating Cambridge in spite of the skill of Mr. Stuart as stroke: at present the crew are fast, though rather short: they have been handicapped by the absence—owing to the prevailing epidemic—of Kirby, the President. We have won the Association Football match and lost the Hockey: the Sports, despite rumour that several of our runners are "crooked," look on paper a good thing for us. The Golf match seems an open thing, and neither side is equal to some of its recent predecessors. The O.U.D.S. began their week's performances of the "Midsummer Night's Dream" on Thursday, and we are told to expect an elaborate presentation.

(From our own Correspondent.)

Cambridge. It is the season of benefactions. To begin with, the late Sir William Pearce has enriched Trinity to the extent of at least a quarter of a million, though the actual sum was at first stated to be somewhat larger. The late Baronet was one who thoroughly appreciated University life, and was a loyal member of the great College to which he belonged. It is not often possible to determine the reasons which have prompted testators to make vast charitable benefactions, but it is, at any rate, to be recorded that twenty-five years ago Sir William Pearce was reading an ancient volume—Westcote's "View of Devonshire"—when the following statement caught his eye: "Nicholas Wadham, Esq., married Dorothy, daughter of Sir William Petre, Kt., Principal Secretary of State to Queen Mary and of her Privy Council, and died sans issue [save that they left behind them an issue better than of sons and daughters—viz., Wadham College in Oxford, their most noble offspring, which will convey their name and memory fragrant to all future generations]." Who knows but that this was the suggestion which caused the welcome benefaction to Trinity?

The archaeological museum also has profited to the extent of £4,000 through the generosity of a Cambridge family, the Fosters, who have been well known here for generations. This

gift has been made in memory of one of the family, Mr. W. K. Foster, who died recently.

The scheme for starting an examination in architecture has met with buffets from within and without, chiefly the latter; but Cambridge people are beginning to think that they can manage their own affairs, at any rate in educational matters, and perhaps the scheme will pull through after all. One of the most experienced members of the syndicate is unfortunately *hors de combat* through ill-health, Mr. Cranage, the Secretary of the Local Lectures, having to go away to the South of France in search of health and strength.

The Porson Scholarship has fallen to Mr. J. R. M. Butler, the youthful son of the Master of Trinity. This early genius seems to win scholastic distinction much as other people pick apples. As this is the second University distinction Mr. Butler has won before he is eighteen, it is quite possible that he will add to the family reputation by making a clean sweep of the board.

The unemployed missionaries have not visited Cambridge. It is rather a pity, as here we are experts on the subject, and Mr. Gray could receive some useful hints from our poll men on the great problem of how to enjoy doing nothing. At Eton both parties seem to have been satisfied.

Dr. Lawrence, of Downing, has delivered two interesting lectures on "The Hague Conference." It seems waste of good material to let loose such a trained international lawyer in the byways of a rural parish. There are important subjects in which there are more teachers than taught; there are others where the only teachers are driven elsewhere by the vagaries of our fellowship system. Perhaps the next University Commission will take the evidence of those who do some of the donkey work of the place and see the rolls and whitebait devoured at the high table afar off.

The Provost of King's has intimated his intention of resigning the Directorship of the Fitzwilliam Museum, and much discussion has taken place as to the terms upon which his successor is to hold office. Things have been said and suggestions made. It has even been hinted that the new Director should keep a log-book of his attendances to show that he has earned his salary. Such an outrageous proposal was promptly vetoed. It was felt that the next step would be to make college lecturers and officials show that they were competent to earn their stipends. This would be contrary to all University traditions. When Cambridge is run on business principles we may expect the wealthy business men of the country to give grants in aid.

The report of the Examination Board shows that 34 per cent. of the candidates for Part I. of the General last year were plucked, whereas in Part II. of the Theological Special only about 6 per cent. failed. There seems to be something wrong.

One of the new scholarships founded by the late Mr. Charles Oldham is to be awarded for classical research, the scholar to be selected by a Board. The Shakespeare Scholarship is to be of the ordinary type to favour the crude digestion and absorbent faculties of literary pot-hunters.

The Theatre has been well patronized this term, and the management have done their best to provide a good bill of fare. The conduct of a certain part of the house is still very much open to criticism. The last act of a good play is often rendered unintelligible by the loud-spoken criticisms of second-term undergraduates, while the attention of the audience has been distracted all through the evening by a buzz of rapid and unprofitable conversation. A strong Committee of leading men was formed some terms ago to put down the nuisance, but things will go from bad to worse till the authorities post a few football or boxing "Blues" to jot down the names of those who interfere with other people's comfort.

The Varsity Rugby Football Team have been giving good exhibitions of the game, though Oxford vanquished them somewhat too easily last term.

The Boat is going well, but much will depend upon Stuart and his physical capacity to avoid staleness; the men are a strong, willing lot, and are improving. An unkind remark was overheard on the bank that they look better at rest than in motion.

The term is the longest on record—and the dreariest.

London—  
King's.

It is proposed to provide in London a course of instruction in household economics of University standard, post-graduate in the first place; and efforts directed towards the same end are being

made in Leeds and Cheltenham. The course will be given at the Women's Department of King's College and will begin next October. The plan has the sympathy of the Council of the Incorporated Association of Head Mistresses. A College Board, consisting mainly of the professors of the subjects germane to the course, with Prof. Smithells, F.R.S., acting as Honorary Adviser, will control the educational side of the work. The first stage will be tentative and experimental, but it is hoped that in due course it will be found possible to include courses of training for the management of large educational and other institutions, which are in many respects homes on a greater scale, for the duties of factory inspection and for philanthropic work in the homes of the workers in great cities. For the effective organization of the plan, the sum of £3,000 is needed. Already over £500 has been subscribed; and further donations may be sent to Miss Soltan, King's College (Women's Department), 13 Kensington Square, London, W.

A RESOLUTION was approved by Convocation of Manchester. Manchester University (January 29) embodying the opinion that it is desirable, in the interests of matriculated students who are unable, for financial and other reasons, to take the three years' course for the B.A. degree, that a five years' course of evening classes be established. Convocation also agreed that it was high time that a common understanding between the University of London and the Northern Universities was arrived at as to the mutual recognition of matriculation certificates on terms of equivalence.

THE report for 1906-7 states that additional promises Leeds. have been received towards the building and endowment fund, raising it to £87,000, and that it is of much importance that the remaining £13,000 required to complete the sum named by the Privy Council in granting the charter to the University should be obtained at the earliest possible date. The new detached block for the mining and metallurgical departments has been completed during the year, and is now being used for class and laboratory work. Owing to the pressure on its available space the Council have been compelled to proceed with other large building additions. The extensions are estimated to cost upwards of £50,000. The fees of scholars and students, amounting to £13,254, show a slight decrease on the previous year—a result chiefly due to alterations caused by the adoption of the educational scheme for evening classes instituted by the Leeds City Council, by which the fees for evening classes have been reduced to a nominal amount. The Treasury made a supplemental grant to the University during the year of £900, of which £400 was allocated to the purchase of special books for advanced study and £500 to meet the expenses of researches in the University; and the Council of the University voted the further sum of £490 towards the maintenance of students during the course of this work. The Vice-Chancellor's report for the session shows that the University was attended last session by 813 day students. Of the registered day students 693 entered in the Faculties of Arts (including Law), Science, and Technology, and 120 in the Faculty of Medicine. The men students in attendance numbered 672 and the women students 141. Courses of study in preparation for University degrees were followed by 360 students.

THE Fifteenth Annual Report states that the Reading. scheme whereby the College has during the last four years been completely re-established includes the erection of a hall capable of seating a thousand persons, an extensive range of studios and laboratories, lecture rooms and classrooms for literary teaching, the purchase and stocking of a farm for teaching and experimental purposes, and the provision upon it of new buildings. The total outlay had actually been £77,959. The sum of £13,343 remained to be raised. The revenue from tuition fees and capitation grants, a main test of growth and efficiency, had increased by £392. Four years ago the receipts under this head amounted to £5,415; the corresponding receipts now were £8,197. The College had gained the noteworthy distinction of being specially mentioned in the last report of the Treasury Advisory Committee in terms of commendation as follows:—"We have been impressed by the favourable nature of the Inspector's report on University College, Reading. The College was accorded provisional recognition in 1902, and we think that the satisfactory progress which it has made in the past five years amply justifies the continuance of the existing grant." The report was unanimously adopted.

### THE EDUCATIONAL LADDER.

CAMBRIDGE UNIVERSITY.—The following candidates have passed the examination in the Theory, History, and Practice of Education, and in Practical Efficiency, and are entitled to the Certificate:—Men: Class I.—C. A. J. Bonner, S. Mangham, A. G. Widgery. Class II.—W. G. Bowden, G. B. Brown, H. S. Clayton, J. Clayton, H. Dippie, P. Freeman, C. A. Gimblett, J. K. King, J. Ramsbottom, H. Thirkill, C. D. Waters. Class III.—B. F. Beaumont, S. Binnion, H. H. Wallis. All these, with the exception of Mr. King, were at the Cambridge University Day Training College. Women: Class I.—G. M. N. Beaumont, L. Everitt, J. S. Lawson, Cambridge; G. M. Leppan, Clapham High School; E. A. Lippert, Cambridge; D. Parkin, Nottingham. Class II.—E. Beale, Maria Grey College; M. A. Bowler and M. Bunce, Cambridge; E. M. Butler, Cheltenham Ladies'; K. T. B. Butler and M. Clandillon, Cambridge; E. M. Crawford, Maria Grey College; D. F. Dalston and B. E. Dobbs, Clapham High School; M. G. Findlay, E. C. Flanigan, Cavendish Square; M. S. Gatesman; E. M. Grant, Cambridge; C. B. Hutchison, Wantage; F. N. C. Kennedy, Cavendish Square; S. de Laplace, Bedford College; C. Macdermott, Cavendish Square; M. Mitchell, Great Crosby; M. W. Pedder; B. Phillips; K. M. Pope, Cambridge; N. U. Rawes, Oxford; K. F. Reeve, Bedford College; D. Schuster, Cheltenham Ladies'; S. E. Stenhouse, Cambridge; L. C. Taylor, Nottingham; D. Yeo, Cheltenham Ladies'. Class III.—I. M. Ackers and E. M. Allen, Cheltenham Ladies'; B. Barry, Cavendish Square; K. Garaway, Wantage; E. Gault, Cambridge; M. C. Haslam, St. Mary's, Paddington; E. E. Keen, Cheltenham Ladies'; E. M. Linton and A. C. Mason, St. Mary's, Paddington; E. C. Mercer, Maria Grey College; D. F. Pellmann, Oxford; A. M. Vining, Maria Grey College; R. Williamson, Cambridge; A. K. H. Young, Cheltenham Ladies'.

Smith's Prizes (names in alphabetical order): W. J. Harrison, B.A., Clare; J. E. Littlewood, B.A., Trinity; J. Mercer, B.A., Trinity. Isaac Newton Studentship: J. B. Hubrecht, B.A., Christ's. Craven Scholarship: F. E. Adcock, Scholar of King's. Davies Scholarship: Reginald Hackforth, Scholar of Trinity. Porson Scholarship: J. Ramsay Montagu Butler, Scholar of Trinity. Chancellor's Classical Medals: (1) D. S. Robertson, Scholar of Trinity and Pitt University Scholar; (2) E. G. Selwyn, Scholar of King's and Waddington University Scholar. Honourable Mention: A. Y. Campbell, Scholar of St. John's. Burney Prize: K. J. Saunders, M.A., Emmanuel.

LONDON UNIVERSITY.—The following is the pass list of the examination in Pedagogy, 1907, for external students:—Christina V. Butler, Hist. Hons. School, Oxford, Oxford Training Delegation; \*Arthur G. D. Capel, B.Sc.; Edward K. Hanson, M.A., Cambridge University College, Reading, and London Day Training College; †Winifred Hindshaw, B.A. Vict.; Frances M. Kirk, B.A. Vict.; Flora E. McKinnell, B.A. Birmingham; John Rounsefell, B.A., B.Sc.; Kathleen M. Shepherd, M.A. University College, Cardiff; Anne E. Warmington, B.A. (\*Excell'd in the practical examination. †Excell'd in the written examination.)

The following is the pass list of the examination in Pedagogy for internal students:—Ellen M. Adams, B.A., Anne M. Baker, B.Sc., and Florence E. Barnett, B.Sc., Bedford College; Annie E. Cameron, B.A., Maria Grey College; Ethel M. Hancock, B.Sc., and Florence M. Ingram, B.A., Bedford College; Lilian M. Jaggs, B.A., London Day Training College; Ethel M. Langdon, B.A., Bedford College; Dorothy Lynd, B.A. Ireland, St. Mary's College, Paddington; Jessie A. Martin, B.A., London Day Training College; Margaret W. Mathew, B.A., Bedford College; Florence E. E. Milne, B.Sc., St. Mary's College, Paddington; Madeline H. Mortimer, B.Sc., London Day Training College; Dora C. Newton, B.A., Datchelor Training College; Ellen K. Obel, B.Sc., London Day Training College; Agnes M. Perry, M.A. Ireland, and Janet H. Perry, B.A. Ireland, Bedford College; Marion E. A. Phipps, B.A., London Day Training College; Dorothy Rolfe, B.A., Bedford College; Kathleen A. Scorer, B.A., St. Mary's College, Paddington; Mabel S. Seldon, B.A. Wales, Bedford College; Eleanor Silsby, B.Sc., London Day Training College; Agnes C. P. Thomson, M.A. Glasgow, Maria Grey College; and Lily M. Warwick, B.Sc., London Day Training College.

The following Doctorates have been conferred: D.Sc. (Economics) on Miss Marion Phillips (London School of Economics); D.Sc. (Physiology) on Dr. Charles Bolton, M.D., B.S. (external student); and D.Litt. on Mr. Ernest A. Baker.

OXFORD: CHERWELL HALL.—Scholarships of £20 each for one year have been awarded to the following students, who intend to complete the course of Secondary Training in Cherwell Hall during the present year:—Miss Jessie L. Lowson, M.A., First Class Honours in Classics and Philosophy, St. Andrews; Miss Margaret Cleghorn, M.A., Second Class Honours in English and History, Edinburgh; Miss Ivy L. Gardner, B.A., First Class Honours in English Language and Literature, McGill University; Miss Margaret Muriel Gray, M.A., First Class Hons. in English Language and Literature, Glasgow; Miss Mabel Constance Daws, B.A., Second Class Hons. in Modern Languages, London.

OXFORD UNIVERSITY.—Prince Consort Prize: H. T. W. Tillyard, B.A., Gonville and Caius. Senior Mathematical Scholarship: A. V. Billen, B.A., late Scholar of University. Junior Mathematical Scholarship: Valentine W. O'C. Miley, Scholar of Brasenose. Exhibition: R. H. Crump, Scholar of Corpus Christi. *Proxime accessit*: A. M. Grundy, Scholar of Hertford.

ABERDEEN UNIVERSITY.—Fullerton, Moir, and Gray Scholarship in Mathematics: J. C. Surtees, M.A. Jenkyns Prize in Classical Philology: Harold G. Gruer.

### PRIVATE INITIATIVE IN EDUCATION

#### IN THE NORTH OF EUROPE.

MR. J. S. THORNTON recently gave an address on "Private Initiative in Education" to the Union of Teachers in Danish Realskoler, drawing his illustrations entirely from the four countries in the north of Europe—Sweden, Finland, Norway, Denmark. The meeting was held at Nyköbing, in Falster, and our report is taken from *Lolland-Falsters Stiftstidende*. Mr. Thornton said:—

I will begin with Sweden. The State School in Sweden has been a very rigid and conservative institution, much more so than in Denmark and Norway, where there are so many private schools. It has displayed no power of adapting itself to new circumstances and requirements; and as early as 1828 the State made a vigorous attempt to remedy the evil by erecting a school (*den nya Elementarskola*) whose freedom of initiative was guarded by the most elaborate precautions, in order that it might make researches and experiments of every possible kind for the good of the other schools in the country. But what is the result after eighty years? The years have gone by and the school has approximated more and more to an ordinary State school. It is a good school, a very good school; but as a school of wide-reaching and successful experiment and research it cannot for a moment compare with Rektor Palmgren's Private Recognized School,\* on which the State expends £500 a year, whilst the State School of Research must draw from the public funds perhaps twenty times as much.

When, in 1873 and 1874, it was proposed the State should establish higher schools for girls, corresponding to those for boys, the proposition was once and again rejected by Parliament. If it be asked what was the reason why Sweden refused so decidedly to educate her girls in the same way as her boys, I can imagine her answering from an experience of State secondary schools dating from the Thirty Years' War, and saying: "I value my secondary schools for boys, for I know their worth. But I also know their faults—faults which for three generations, at a heavy cost to the public purse, I have in vain endeavoured to eradicate. And, in legislating for girls, I shall try another plan and lay less weight on the outward and more on the inward. Without being careless as to buildings and equipment, I will be more careful still to secure freedom, life, variety, and movement."

To secure these ends the State determined to erect no schools of its own for girls, but to support those already existing, whether private schools or municipal. And the consequence is that the girls' schools have very much more freedom than the boys', cost the State far less, come nearer to the children's homes, and have no difficulty in at once satisfying the needs of the time and locality.

In Finland the private co-education schools, there called

\* Direktor Max Walter, of the Musterschule, Frankfurt-am-Main, has written an account of the Palmgrenska Samskola, which may be seen either at the British Museum or at the Board of Education Library.

*Samskolor*, have had a splendid success. There are three reasons which have led to this. First, the economical reason. In a small town of three to four thousand inhabitants it is impossible to have a good secondary school for boys and another for girls, but it is easy to have one for both together. The second reason is the educational one. In the school, as in the family, it is well that boys and girls grow up together. The third reason will interest those who are advocates of women's suffrage. It is hoped, through the *Samskolor*, to diminish the inequalities between men and women. There are more than four thousand girls in private recognized *Samskolor* in Finland, whilst there are less than two hundred in the corresponding schools of the State. As a consequence of this, when last year the four Estates were swept away to make room for a single Chamber, the suffrage was given to women and men alike on attaining their twenty-fourth year.

The relation between public and private effort as regards education in Finland will best be shown by the following statistics:—In 1880 there were 4,592 boys and girls in 47 higher State schools, costing the State 1,220,135 Finnish marks (i.e., francs), as against 3,282 boys and girls in 50 private schools, costing the State 132,800 marks. But in 1905 there were 9,495 boys and girls in 49 higher State schools, costing the State 3,190,543 marks, as against not less than 11,148 boys and girls in 111 higher private schools, costing the State 951,133 marks.

And now to Norway. I must pass by the late Skolebestyrelse, although, year after year, he passed more than a hundred pupils a year at the *Middelskole examen* (an examination nearly corresponding to London Matriculation); I must pass by the private training colleges, although they train just as many teachers as the State training colleges at less than one-tenth of the cost to the State. I will pass by these two matters in order to pay greater attention to the higher schools for boys and girls—the *Gymnasia* and *Middelskoler*. Of all these four northern countries there is not one that has derived greater benefit from private initiative, so far as higher schools are concerned, than Norway; and there is no country where the State has been so niggardly to private initiative as in Norway. The consequence is that the private schools in Norway (by private schools I always understand the *recognized* schools) have had a development quite different from that in Denmark.

The most eminent name in the history of education in Norway—I may even say in the North of Europe—during the last century was Hartvig Nissen, the well known head master of a private school in Christiania. "It was he," says Prof. Paludan in his "Higher Education in Denmark, Norway, and Sweden" (1885), "who, in a still higher degree than the Danish private schools, went ahead of the State schools by the adoption of new educational ideas and methods. This school became more and more a model school, to which the public schools had to conform. Norse and German were the basis of language instruction, and the living languages were studied before the dead—Latin not till twelve years of age, and Greek not before thirteen or fourteen. The union of classical side and modern side in one school, the longer preparatory course common to both sides, the putting off the ancient languages to a later age, as well as the relatively large number of pupils in each class, were economical necessities for the private school, which Nissen at a later date elevated into educational principles and then gave them an ever widening extension. Great importance was attached to object-lessons, *viva voce* instruction, and gymnastics. In 1847 a whole week was occupied exclusively in musket drill. Amongst other experiments, it may be mentioned that for two years from 1856 the two highest classes did all their work in school, so as to have no home-work, with the exception of a few essays. Under constant superintendence and with only occasional use of examination as a means of control, each pupil in those classes worked on independently, as fast as he could, without being kept back by the necessity of being taught with others, and so the transition was made to the freer methods of University studies." The 33 pupils of 1843 became 663 twenty years later; and in 1849 a corresponding school was opened for girls, which exists to this day.

From 1850 to 1854 he had to transfer his school for a while to other guidance (he parted with it finally in 1866); for in those years he was acting as the Government's *Konsulent* in school matters, and in that capacity paid in 1853 a long visit to Scotland in order to study the parish schools. The results of that visit were embodied in a report of several hundred pages which was published next year and formed the basis of the elementary school law of 1860. In 1854 he represented Norway at the

Educational Exhibition promoted in London by the Society of Arts, and on that occasion delivered a lecture, to be found in the Society's Journal for October, 1854, on "The School System of Norway." He was next a member of the Commission that transformed eleven out of the fourteen State schools into combined *Latin- and Real-skoler*. From 1865 to 1873 he was at the head of the Education Office and was at the same time appointed Chairman of the Commission for the reorganization of the higher schools. Their labours resulted in the new school law of 1869, which fixed the form of the higher schools down to 1896. In 1872 he was appointed Rektor of the old Cathedral School in Christiania, which dates from the twelfth century; and in that position he died in 1874.\*

After Nissen came Aars and Voss, whose school at one period numbered 850 pupils, and whose *Gymnasium* (i.e., the higher division of the secondary school) is still the most important in Norway.

One would think that State and Commune would be so grateful for help so striking in amount and quality that they would be eager to render it possible for such schools to spread all over the country. But, without some subvention from the State—such as we find in Denmark, in Sweden, and in Finland, but not in Norway—it is scarcely possible for a good private school to exist outside the greater towns. Such schools as Nissen's and Aars and Voss's are scarcely found in Norway outside Christiania, Bergen, and Trondhjem. The consequence is that, whilst the secondary recognized schools in the country districts of Denmark are, 70 per cent. of them, in private hands, the corresponding schools in Norway are all municipal in character. Norway, which will not give a single penny to private *Gymnasia* or to private middle schools, however good they may be, possessed, in 1900, 66 middle schools outside Christiania; and all, except those in Bergen and Trondhjem, were municipal. But in Denmark it does not matter whether a school has been erected by State, by Commune, or by private individual, so long as it is good and reaches the prescribed standard. And the consequence is that for the same population Denmark has twice as many recognized secondary schools in the country districts as Norway—i.e., Denmark in the country districts brings the secondary school ten times as near to pupils' homes as Norway. And, whilst some portion of this result is due to the fact that Denmark is only one-eighth of the size of Norway, the other and larger part of the result is due to the greater favour shown by Denmark to approved and selected private effort.

But, up to the present time, these middle schools in Norway have had one great advantage over the corresponding schools in Denmark. Teachers' salaries are much greater than in Denmark, inasmuch as the State pays one-third of the commencing salary and all subsequent additions. It is a great shame that salaries for teachers in the recognized secondary schools in Denmark are lower than those in the elementary schools. And nothing rejoices me more than to know there is a good prospect of this scandal being removed.

Now we come to Denmark last of all. But it will be so stupid of me to bring coals to Newcastle that I shall be as short as possible. What has private initiative not done in Denmark? In June, 1905, there were nearly 26,000 pupils in Danish *Realskoler*. Of these 1,300 were in State schools, nearly 7,000 in municipal schools, and nearly 18,000 in private recognized schools. Besides this, one half of the pupils in the *Gymnasia* are in private State recognized schools. There are also the private training colleges which train all the women teachers and more than half the men. But in England we are interested still more in what your People's High Schools have accomplished. The connexion between the People's High Schools and all your co-operative work is exceedingly close. You know that the ordinary Englishman thinks much—yes, all too much—of money; and when we see that your co-operative dairies, bacon factories, and similar undertakings—all of them carried on to such a large extent by pupils from the People's High Schools—account for the half of your exports, we begin to believe that an all-round humanistic development is, after all, as important for the working class as it is for the middle and the upper classes. Let me also remind you that 30 per cent. of the members in your upper and lower Houses of Parliament—and amongst them the Prime Minister himself—have been pupils in the schools which, above all others, are due to private initiative—I mean the People's High Schools.

\* This account of Nissen is drawn from pages 62, 63 of Vol. XVII. of "Special Reports on Educational Subjects."

## OPEN COURT.

*They have said . . .  
What say they?—Let them say!*

### THE TRAINING OF TEACHERS.

By the Rev. J. O. BEVAN, M.A., F.C.P.

As an element in the organization of secondary education, the training of teachers seems scarcely to receive the attention it merits. This is rendered the more noticeable when one compares the existing state of things with that prevailing in respect of elementary education. Doubtless, the original training colleges were founded by voluntary agencies; but of late years they have been largely aided by Government, and their number has been recently increased through the establishment by certain Local Education Authorities of day training colleges, which are mainly supported out of rates and taxes. All these have relation to one class of teachers only—namely, those intended for work in public elementary schools. (Some of these teachers afterwards take up work in grammar schools or in private schools, but the number is so small that it may be left out of account.) The enlargement of the curriculum and the improvement of work in primary schools have resulted in additional demands being made upon these training colleges, and in the desire of the more ambitious workers to matriculate at a University or to obtain the diplomas of the College of Preceptors. Further—what is worthy of special mention—an association has been formed to raise a fund available for sending eligible ex-pupil teachers to Oxford or Cambridge, that they may thereby have the advantage of a full residential course.

As educationists, we must rejoice at the improved education thus given to the children of the people, and at the more elaborate preparation demanded from their instructors. But, when we consider the numerous and important agencies at work in this direction, and the large sums expended by the State, by public bodies, and by voluntary agencies in the work of preparation, we are led to look at the contrasted position in secondary education. On one side, the State does everything, or almost everything; in the other case, but very little. From the present relations between so-called elementary and secondary education, and from what we may conceive as likely to happen in the immediate future if the present forces in the lower stratum continue to act, the gravity of the position becomes more apparent.

It may be alleged that the cases are, to a certain extent, different. This is true, but it may also be admitted that the field of secondary education itself is not uniform. There is great inequality, and the different elements require separate treatment. The great public schools will always be able to draw a sufficiency of men from the Universities. In many instances, these would be able to work their way through, because endowment has made up for State aid.

Rightly or wrongly, there is so much indifference shown by head masters to training, other than muscular, that the lack is not felt so much as an enlightened conscience would demand. We are not here dealing with the necessity of technical training for teachers on the part of the University, but it may be taken for granted that, if there be a call for it, that call will be obeyed. We should rejoice to anticipate that a time would soon come when, under the pressure of a registration scheme, training would become *sine qua non*. When that time arrives the Universities will be required to take it up in earnest, and difficulties as to the provision of Chairs of Education and practising schools will arise. Furthermore, the cost, in time and money, involved in a post-graduate course would press heavily on expectant secondary teachers.

It may be contended that public grants to elementary teachers are balanced by endowments appertaining to grammar schools and Universities; but these endowments can be utilized only in respect of general culture, leaving nothing available for specific training in the science and art of education. Further, the number of exhibitions and scholarships is limited; many are taken up by the workers in other fields of activity; and the obtaining help in this way is difficult and uncertain of accomplishment. With reference to a certain number of grammar schools, and a large proportion of private schools, intending teachers are mostly poor and dependent upon their own exertions. Although, with extraneous help, they might be able to afford to work for a London University degree, yet they could not afford to spend a further term of two years or so in an educational

centre in order to submit themselves to the discipline of a regular technical course of training.

Does not this condition of affairs furnish a real and growing danger to secondary education? One is not making invidious comparisons between the two kinds of education, nor is one contending that a sixpence less should be spent on the education of elementary teachers. The following facts, however, should be kept in mind. The importance to the State of a sound education for the middle class is incontestable. The middle class, in respect of the sacrifices for education made by its members, deserves well of the country. Members of this class not only educate their own children, but also contribute largely towards the education of the children of the artisan class. We take the distinction as it stands, and by no means wish to imply that children of the artisan class or of any class should not have full access to the advantages of secondary education, so far as may be.

If it be a matter of necessity that the children of the hand-labouring classes be well instructed, it is equally a matter of necessity that the children of our trades-folk, merchants, manufacturers, and professional men be likewise well instructed. In this particular of training of teachers, these elements of society have been left entirely to themselves up to the present; and it now becomes a question whether the State holds the scales evenly as between these classes. What can be done to redress the balance? Existing voluntary agencies can be sustained. Amongst these, the College of Preceptors bears an honourable record. As a writer in an educational paper reminds us, "training of teachers was in the forefront of the earliest scheme of the College, and Prof. Payne was the first and very well known occupant of its Chair of Education." Lectures in pedagogy have been consecutively given during a long series of years. Diplomas—which would be all the better in the lower stage for a little screwing up—have been granted to intending and acting teachers. Endeavours have been made to engage the students in practical training. The classes were open to women and men alike. Here, then, was provided all that was wanted; but the difficulties were great—too great, indeed, for the first effort to succeed—and some step is, therefore, necessary to render effectual the resources possessed by the College. Further, a teaching University for London, with affiliated colleges, is now constituted; but more requires to be done, and one would ask: Is it even now premature to approach the legislature—in connexion, it may be, with other secondary training colleges—for a grant which would advance the good work, and provide substantial help for those student teachers who would then find it possible to set aside two years for profitable study? Why should not members of the College aim at this end, in conjunction with the authorities of the London University, with whom some workable basis might possibly be found?

In the meantime we could not do better than bring into prominence that part of the Report of the Royal Commission of 1895 which dealt with training, and impress its conclusions upon the profession, the public, and Parliament. Voluntary effort has done something, especially for women teachers—the Universities are waking up—but all that has gone before is only a beginning, and, with the best intentions, these bodies can do little without substantial help. Under existing circumstances—especially in face of public calls now being made—it is of little use to look for aid to private individuals. We turn our eyes, then, to the country at large and to Parliament. Of late, Parliament has had the allocation of large sums of money; but, whilst some has gone to the provision of technical education, and more to the advancement of elementary, the secondary side has been comparatively neglected. We have a right to ask that the State shall foster what has been satisfactorily originated.

One may be allowed to appeal to private teachers for the support of this plea, inasmuch as the question affects them more than those engaged in endowed or high schools; since a large proportion of their number has not been in a position to obtain degrees or diplomas. It is surprising, therefore, that private teachers, as a body, have not realized existing weaknesses.

Some persons look for a solution of the problem in this respect to a proposal that teachers for all classes of schools should be trained together. There would be no objection to this being done under certain conditions, but these conditions would be rendered more favourable if those interested in secondary education did what the case now demands, namely, secure for teachers in that class of school the measure of recognition and help which is their right. Then in due course would come a united profession, the abolition of invidious distinctions, and a complete interchange of duty and of work.

### BELGIAN TECHNICAL SCHOOLS.

THE prosperity of Belgium, which is advancing rapidly from year to year, is undoubtedly due (says the *Journal of the Society of Arts*) to the technical teaching which is prominent in the diversity and number of its institutions. These schools, created and maintained by the Government, are under the general supervision of the Department of Commerce and Labour, which appoints a Board of General Supervisors, whose duty it is to see that the teaching is of a high standard, as well as to look into the sanitary and hygienic arrangements of the various schools. Belgium enjoys the distinction of being the first country to organize domestic training schools, the first being established in 1889. According to the American Consul at Liège, this system comprises in its practical curriculum maintenance and cleanliness of dwellings, furnishings, laundry work, cutting, fitting, making and repairing ordinary garments, cooking, and, in the rural districts, gardening, dairy work, and the care of poultry. The theoretical teaching consists of lectures on hygiene, domestic economy, care of children, and sick nursing. This particular training is intended for the children of the working classes, the object being to prepare the pupils for the economical management of a house, as a mistress or as a servant. In the more advanced schools, termed professional domestic schools, the theoretical and practical teaching are equal, and include designing, cutting, dressmaking, millinery, artificial flower making, lace making, embroidery, china painting, commercial book-keeping, typewriting, domestic economy, &c. The practical effect of this system not only enables a girl to gain a livelihood by the application of her knowledge in the various branches taught, but is particularly emphasized in house-keeping.

While the Government has legislated against the employment of women under ground, they assume important places in the large manufactories, and work side by side with the male employees, showing equal ability. Many of the large workshops give technical lectures and demonstrations expressly for the female employee who is unable to take advantage of the technical course offered to boys. In training boys for professional and industrial work, attention is given to the demands of the various localities. The various schools are as follows:—Mechanical and electrical engineering, iron and steel, wood cutting, carpentering, joining, plumbing, watchmaking, jewellery making, firearm manufacturing, bookbinding and gilding, painting, designing, engraving, spinning and weaving, dyeing, tanning, basket and lace making, upholstery, tailoring, telegraphy, music, &c. While the practical work of these institutions is the same as in the actual workshops, the theoretical training is intended to meet what the workshop does not supply. Apart from the Government technical training schools, private institutions have been established, and are partly maintained by private subscriptions. These, however, look for help to the Government. The well-known School of Arms in Liège turns into the local workshops annually young men already fitted to apply themselves practically to any branch of the firearm trade. This class of labour is always in demand, and at no time need the firearm workman be out of employment.

The School of Textiles is an institution where teaching has brought out the manufacture of cloth and all branches attached to that industry to a high state of perfection. Year after year the cloth manufacturers in other countries apply to this school for a competent man to serve them as foreman or superintendent. In Belgium itself the pupils at this institution are immediately taken up by the local manufacturers and their future is assured. The Government, to encourage application, gives yearly a money prize to pupils having distinguished themselves at the school, this being intended to meet the expenses of a journey abroad. The same conditions prevail at the School of Mining and all the other schools.

Technical education in Belgium has for its object to assist the employer and employed alike. The present condition of both is highly satisfactory, and the future points to a substantial advancement. The country is tranquil, the working classes are increasing their savings annually, a spirit of contentment is everywhere manifest, which condition of affairs guarantees uninterrupted labour. Lock-outs and strikes are rare, while the question of the unemployed is absent. All workmen are more or less skilled, and their labour wins a compensation satisfactory to them. The continued industrial and commercial advancement of Belgium stimulates the demand for labour, and the labour, owing to technical education in all its branches, readily meets these demands.

### L.C.C. INDUCEMENTS TO TEACHERS.

THE Education Department (Executive) of the London County Council have prepared a statement of the opportunities now open to boys and girls that propose to enter the teaching profession. The modifications which have been recently made in the Regulations of the Board of Education and of the London County Council, it is pointed out, have considerably increased the facilities for entering the profession, and, when once a man or woman has become a trained teacher, there is a safe prospect of permanent employment at an adequate salary increasing to a good maximum. Moreover, the cost of the preliminary training is now met to a large extent by the grants which are offered in the way of scholarships, both by the Government and by Local Authorities.

The London County Council has established a comprehensive system of scholarships which enables the capable children of parents who have slender means to pursue a course of education and training from the age of eleven to the age of twenty with very little cost to themselves. A boy or girl may become a junior scholar at the age of eleven, a bursar or pupil-teacher at the age of sixteen, a student-teacher at the age of seventeen, a training college student at the age of eighteen, and at every stage may receive not only free education and training, but also maintenance grants of a substantial amount. On leaving the training college at the age of twenty the student can at once begin to earn the full salary of a trained, certificated teacher, the rates of pay for assistant teachers in London being as follows:—Men, £100 a year, rising with two increments of £5 and twelve of £7. 10s. to £200; women, £90, rising by increments of £4 to £150. Every year, in order to staff the London schools with a due proportion of teachers, the London County Council requires about 1,450 new assistants at the above salaries. Moreover, there are a great many posts in London for head teachers. The salaries attached to these posts are: Men, ranging from £200 to £400 a year, according to the size of the school, with a few posts of £500 a year; women, ranging from £160 to £300 a year, with a few posts at £400 a year. About seventy to eighty of these posts fall vacant every year, and the posts are by regulation filled almost without exception from assistants who are already in the London service. At the present moment there is a good opening for young men to enter the profession, since the number of vacancies is in excess of the number of qualified candidates.

The training for an assistant master or mistress in a secondary school follows somewhat different lines from that required for an assistant in an elementary school; but here, again, the County Council offers substantial assistance to intending teachers by its system of junior, intermediate, and senior scholarships, as well as by the provision which it makes in the way of training colleges. The salaries which are offered to assistants in its secondary schools are as follows:—Men, £150, rising by £10 to £300 and in some cases £350; women, £120, rising by £10 to £220 and in some cases £250. The salaries offered to head masters and head mistresses of secondary schools are as follows:—Head masters, ranging from £400 to £800 according to the size of the school; head mistresses, ranging from £300 to £600 according to the size of the school. The scholarships offered by the London County School enable boys and girls to pursue their education to the University stage, and thus to qualify for these positions. Full particulars with regard to the various facilities offered by the Council are given in the "Scholarships Handbook," which may be obtained from Messrs. P. S. King & Son, 2 and 4 Great Smith Street, Westminster (1d., post free 3d.).

### CORRESPONDENCE.

[We do not hold ourselves responsible for the opinions expressed by our correspondents.—ED. E.T.]

#### AN APPEAL FOR EDUCATIONAL PEACE.

To the Editor of "The Educational Times."

SIR,—May one fast passing from the "strife of tongues," who has numbered Nonconformists, ministers and lay people, among his friends, crave a brief hearing? Let there be an end to this fratricidal war about the schools. To either side a partial settlement of the question would be a Pyrrhic victory. If there has been

in the past aloofness on either side, let there be now whole-hearted co-operation in the great work of national education. "Neu patriae fortis in viscera vertite vires!"

*For the Children's sake.*—Nonconformists and Church people, we all want the children to be trained to lead happy and useful lives; we all believe that the surest moral training rests on religion; that real education is not the accumulation of knowledge, still less of multifarious smatterings; that education, to be worth having, is character-building through the personality, mainly, of the teacher. Is not this a worthy aim for all to combine for? England lapses back into paganism while the swords of Christians are clashing over the children's heads.

*For the Nation's sake.*—If it is true that England lags in what should be a friendly rivalry with other nations, what is the cause? Not any want of capacity, not any technical backwardness, so much as a something below the surface which too often manifests itself in selfish unthriftiness. Here, again, is a call to all to combine. We want our schools to turn out patriotic, unselfish citizens. We want our English homes to become more generally what they might be, what they ought to be—centres of light and love.

*For the Master's sake.*—Harshness and bitterness in controversy are a dishonour to Him. Never, so long as time shall last, can any two persons see the same thing exactly in the same light, or from the same point of view. But, beneath our differences there is a Bed-rock; and "that Rock is Christ." The unity which we all long for and pray for is far more likely to be gained by the frank recognition of these differences than by the vain attempt to dragoon the nation into submission to one State-made creed.

What England wants is a variety of type in her schools. Will not Nonconformists join hands with Churchmen in defending the great principle of parental responsibility for the religious training of our children? This is what the "Parents' League" is for. I am, Sir, &c. I. GREGORY SMITH.

Horsell, Woking, January, 1908.

#### AN ARITHMETIC OF THE OLDEN TIME.

To the Editor of "The Educational Times."

SIR,—I have taken the following extract from an old arithmetic ("Intuitive Calculations," by Daniel O'Gorman; ninth edition, 15,000; 1853) used in a country school of my acquaintance not fifty years ago. The author gravely sets to work to teach his pupils *how to multiply money by money!*

*Rule.*—Pounds multiplied by pounds produce pounds. Pounds multiplied by shillings, every 20 is a pound, the rest shillings. Pounds multiplied by pence, every 12 is a shilling, and the rest pence. Shillings multiplied by shillings, every 20 is a shilling, every 5 is threepence, and each 1 is two farthings and four-tenths of a farthing. Shillings multiplied by pence, every 5 is a farthing, and each 1 two-tenths of a farthing. Pence multiplied by pence, every 60 is a farthing, and every 6 one-tenth of a farthing.

*Example.*—Multiply £3 5s. 6d. by £2 12s. 9d.  
*Explanation.*—First, I say, £2 by £3 make £6. Secondly, £2 by 5s. is 10, and £3 by 12s. is 36, whose sum is 46, which by second direction will be £2 6s. Thirdly, £2 by 6d. is 12s, and £3 by 9d. is 27, whose sum is 39, which by direction the third will be 3s. 3d. Fourthly, 12s. by 5s. is 60, which by direction the fourth is 3d. Fifthly, 12d. by 6d. is 72, and 5d. by 9d. is 45, whose sum is 117, which by direction the fifth will be 5<sup>1</sup>/<sub>2</sub>d. and four-tenths. Sixthly, 6d. by 9d. is 54, which by direction the sixth is 1<sup>1</sup>/<sub>2</sub>d. Add the whole, and you will find £8 12s. 9<sup>1</sup>/<sub>2</sub>d. as required.

The thing is too amazing for words; but I should have liked to know the result of multiplying lamp-posts by sky-rockets, "which by direction the last would be" old age pensions, I fancy.—I am, Sir, &c., J. VINE MILNE.

#### A CORRECTION.

To the Editor of "The Educational Times."

SIR,—May I be allowed to correct three errors in the report of my remarks at the Half-Yearly Meeting as given on page 70 of the current number of *The Educational Times*? For "Scholastic Education Association" and for "Scholastic Registration Association Alliance" read "Scholastic Registration Association"; and for "mushroom institutions" read "children." The use of the word "mushroom" would rightly expose me to the charge of discourtesy.—I am, Sir, &c.,

February 1, 1908.

BARROW RULE.

# BLACKIE'S LIST

## HISTORY.

### A Brief Survey of European History.

By ARTHUR HASSALL, M.A. An excellent general sketch of European History from Charlemagne to the present time. Crown 8vo, cloth, 4s. 6d.

### Landmarks of European History.

By E. H. M'DOUGALL, M.A. Oxon., late Assistant in the Tewfikiah School and Training College, Cairo. With many Coloured and Sketch Maps, Index, &c. 3s. 6d.

### Heroes of the European Nations.

From Early Greece to Waterloo. By A. R. HOPE MONCRIEFF. 1s. 6d.

### Readings in English History.

From Original Sources. Edited by R. B. MORGAN, B.Litt., and E. J. BALLEY, B.A. Illustrated. Vol. I., B.C. 54 to A.D. 1154, 2s. Vol. II., 1154 to 1485, 2s. 6d. Vol. III., 1485 to 1688, 2s. 6d. (just ready).

### A Brief Survey of British History.

By G. TOWNSEND WARNER, M.A. With Tables, Summaries, Maps, Notes, &c. 1s. 6d.

"The best English History for younger pupils. Used in all leading Preparatory Schools, and the Royal Naval College, Osborne."

## ENGLISH.

### Combined Course of Literary Reading and Composition.

Illustrated from Famous Paintings. Edited by LEWIS MARSH, M.A. Carefully chosen readings from English Literature, with graded exercises, forming a complete course of instruction in English. 2s.

### Précis Writing.

By H. LATTER, M.A., of Cheltenham College. With numerous Exercises, a practical Introduction, and a Worked Example. Crown 8vo, cloth, 3s. 6d. KEY, 2s. 6d. net.

### Précis Writing—Second Series.

By H. LATTER, M.A., of Cheltenham College. This second series contains a fresh selection of Exercises on the whole easier than those in the first book. The two together form a collection that will meet all the requirements of army classes, &c. 3s. 6d. KEY, 2s. 6d. net.

### English Poetry for the Young.

Selected by S. E. WINBOLT, M.A. A chronological selection of English poetry, clearly printed and well bound in cloth. 1s.

## BLACKIE'S ENGLISH TEXTS.

Edited by W. H. D. ROUSE, Litt.D.,  
Head Master of the Perse School, Cambridge.

EXCELLENT MATERIAL FOR THE LITERARY STUDY OF ENGLISH.

In cloth covers, price 6d. each.

- |  |  |
|--|--|
| <p>Freissart—Border Warfare.<br/>Freissart—Reign of Richard II.<br/>Freissart—Creoy and Poitiers.<br/>Irving—England's Rural Life.</p> | <p>Malory—Coming of Arthur.<br/>Malory—Knights of the Round<br/>Cowley's Essays. [Table.<br/>Ruskin—Sesame and Lilies.</p> |
|--|--|

The above volumes have been recently added. Complete List on application.

## BLACKIE'S LATIN TEXTS.

General Editor: Dr. W. H. D. ROUSE.

This Series is intended for use during the first two or three years of Latin.

Price 6d. net each Book.

### A General Vocabulary to Virgil.

Prepared under the Editorship of A. GRAHAM, M.A. Crown 8vo, cloth, 1s.

### A General Vocabulary to Caesar's Gallic War.

Prepared under the Editorship of A. GRAHAM, M.A. Crown 8vo, cloth, 1s.

These vocabularies have been prepared for use in schools where the pupils are not at first provided with Latin Dictionaries of their own. They contain all the words that occur in the Aeneid, Bucolics and Georgics of Virgil, and De Bello Gallico of Caesar. The advantage of these vocabularies is that they can be used with any Edition of these Classics.

Full particulars and complete Educational Catalogue post free.

BLACKIE & SON, Ltd., 50 Old Bailey, E.C.

# A GOOD ADVERTISEMENT

is not of much use unless you have a good Prospectus to send to Enquiring Parents, and

# A GOOD PROSPECTUS

is of no use unless Parents see it.

# LET US PREPARE

you a good Prospectus, and give your School a

# GOOD ADVERTISEMENT

in our

# PATON'S LIST OF SCHOOLS AND TUTORS

which now has a World-wide Circulation.

The Eleventh Edition is now in hand for Press.

# WRITE US,

with copy of your present Prospectus, and we will send you (without any charge) Specimens and Full Particulars, with proof of value.

# OUR GOLD MEDALLIST

Photographs Schools within reasonable distance of London—expert work only.

**J. & J. PATON,**  
EDUCATIONAL AGENTS,

143 CANNON STREET, LONDON, E.C.

Telephone—5053 Central.

# CLERGY MUTUAL ASSURANCE SOCIETY,

2 &amp; 3 THE SANCTUARY, WESTMINSTER, S.W.

[FOUNDED 1829.]

Patrons—THE ARCHBISHOP OF CANTERBURY; THE ARCHBISHOP OF YORK.  
 President—THE BISHOP OF LONDON. Vice-President—THE LORD HARRIS.  
 Chairman—THE DEAN OF CANTERBURY. Deputy-Chairman—SIR PAGET BOWMAN, BART.  
 Secretary—W. N. NEALE, Esq. Actuary and Manager—FRANK B. WYATT, Esq., F.I.A.

The Society offers the **BENEFITS of MUTUAL LIFE ASSURANCE** without personal liability on highly favourable terms to  
**THE CLERGY AND THEIR RELATIVES.**

**ALL PROFITS BELONG TO THE MEMBERS.**

Accumulated Fund, **£4,242,820.** Annual Income, **£453,897.**

Bonuses Distributed, **£4,256,464.**

**LOW PREMIUMS.  
LARGE BONUSES.**

Notwithstanding the lowness of the Premiums charged, the **BONUSES** are on an **EXCEPTIONALLY HIGH SCALE.**

**NEW AND SPECIAL POLICIES.**

Application is invited for the **PROSPECTUS**, and Leaflets explaining two new Policies, with valuable Options.

**1. WHOLE-LIFE CONVERTIBLE ASSURANCES.** Very Low Premium—about one-half the usual rate—during first ten years.

**2. PENSION POLICIES.** Premiums returnable with compound interest in case of death or surrender before pension age. Option to commute for cash.

Assurances without profits, at low rates of premium, may be effected, and Life Annuities on favourable terms may be purchased, by any person irrespective of any special qualification by relationship to the Clergy.

**SPECIMEN OF RATES FOR £1,000, WITH PROFITS.**

Age next Birthday.	£1,000 Payable at Death.			£1,000 Payable at Age 60 or earlier Death.		
	£.	s.	d.	£.	s.	d.
25	20	1	8	27	3	4
30	23	3	4	32	10	10
35	26	10	0	40	1	8
40	31	1	8	51	5	0

**NOTE.**—Under the Reduced Premium System (explained in Prospectus) four-fifths only of these Premiums need be paid, the other one-fifth remaining a charge to be repaid out of Bonus.

No Agents employed and no Commission paid for the introduction of business, whereby £10,000 a year is saved to the Members.

Assurances can be effected by direct communication with the Office, 2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

**CAMBRIDGE LOCAL EXAMINATIONS, 1908.**

*A new work on the most modern lines.*

## A RATIONAL GEOGRAPHY.

BY

**ERNEST YOUNG, B.Sc.,**

Head Master of the Lower School of John Lyon, Harrow.

In three parts, with numerous Maps and Diagrams, Cloth, crown 8vo, 1s. 6d. each.

Part I.—CLIMATE, THE BRITISH ISLES, EUROPE. [Ready.]

Part II.—TIDES, WINDS, CURRENTS, LATITUDE AND LONGITUDE, AMERICA, AFRICA. [Ready.]

Part III.—MAP DRAWING, MAP PROJECTION, SURVEYING, ASIA, AUSTRALASIA. [In the press.]

**HINTS ON TEACHING GEOGRAPHY.** By same Author. 6d. net.

This is a new work on the most modern lines, and so arranged that it meets the requirements of all the ordinary Preliminary and Junior University Local Examinations. Though primarily intended to meet the requirements of the Board of Education's Syllabus for three out of the Four Years' Course in Geography, it is at the same time admirably adapted for the use of candidates taking the Cambridge Examinations of 1908.

*SPECIMEN PAGES FREE.*

*For Oxford and Cambridge Exams., &c.*

**CONSTRUCTIONS IN PRACTICAL GEOMETRY.** Intended for candidates for the Oxford and Cambridge School Examinations, Scottish Leaving Certificate, and Army Qualifying Examinations. By H. F. WESTLAKE, B.A. Oxon., Senior Mathematical Master, Lancing College. Crown 8vo, 1s. *Prospectus free.*

**OUR OWN ISLANDS: Elementary Studies in Geography.** For Lower and Middle Forms of Secondary Schools. By H. J. MACKINDER, M.A., Director of the School of Economics and Political Science, University of London; late Reader in Geography, University of Oxford. With 14 Coloured Maps, 18 Coloured Plates, numerous Illustrations and Sketch Maps. In Two Parts, each 1s. 3d.; or in One Volume, 2s. 6d. *Prospectus free.*

GEORGE PHILIP & SON, Ltd, 32 FLEET STREET, LONDON.

**THE ONLY EFFECTIVE METHOD**  
OF "WEIGHTING" AND LAYING THE

## DUST

(See the Official Memorandum on the Cleansing and Disinfecting of Schools)  
Is to USE

# FLORIGENE

(Regd.)

(Awarded BRONZE MEDAL of the ROYAL SANITARY INSTITUTE)  
On all Wood, Linoleum, and other Floors in

**SCHOOLS, LABORATORIES,**

Art Galleries, Libraries, Museums, etc..

**EARLY in the EASTER VACATION**

(THREE TIMES A YEAR ONLY BEING NECESSARY).

"FLORIGENE" also Purifies the Atmosphere, Preserves Floors, Saves Labour, etc.

"FLORIGENE" is a fluid which can be easily and quickly used by the unskilled, and each application is generally effective for 2 to 4 months, or longer, according to the wear.

It is not sticky, but the dust and dirt absorb the "FLORIGENE" from the impregnated floors and thus become "weighted," so that when the floors are brushed in the usual manner, the sweepings do not rise, but roll in front of the broom.

**No Scrubbing or Sprinkling of Floors.**

**BOOKS, FURNITURE, APPARATUS, etc.,**  
seldom require dusting or cleaning.

"FLORIGENE" is an aid to the Prevention of Throat Irritations and School Epidemics.

The Cost (if any) is small compared with the HYGIENIC AND OTHER IMPORTANT ADVANTAGES.

For particulars, Reports, and Testimonials, write

**THE 'DUST-ALLAYER' CO.,**

165 QUEEN VICTORIA STREET, E.C.

Contractors to H. M. GOVERNMENT, etc.



# COLLEGE OF PRECEPTORS' CERTIFICATE EXAMINATIONS.

Special Subjects, 1908.

**Caesar.—Gallic War, Book I.** By A. H. ALLCROFT, M.A., and F. G. PLAISTOWE, M.A. 1s. 6d. Vocabulary. 1s.  
"A very good edition."—*Schoolmaster*.

**Caesar.—Gallic War, Book II.** By A. H. ALLCROFT, M.A., and W. F. MASON, M.A. 1s. 6d. Vocabulary. 1s.  
"An excellent general map, and a clear plan of the battle of Axona, add much to the value of the book."—*Schoolmaster*.

**Cicero.—In Catilinam, I.—IV.** By J. F. STOUT, B.A. 2s. 6d.  
"The notes are worked up with the minuteness and care usual in this series, and with full historical references" (Cicero.—In Catilinam, III.)—*Practical Teacher*.

**Euripides.—Hecuba.** By T. T. JEFFERY, M.A. 3s. 6d.  
"We are inclined to think that this is one of the best volumes of the University Tutorial Series which have yet appeared."—*School World*.

**Horace.—Odes, Book III.** By A. H. ALLCROFT, M.A., and B. J. HAYES, M.A. 1s. 6d. Vocabulary. 1s.  
"A straightforward serviceable edition."—*Journal of Education*.

**Vergil.—Aeneid, Books I. and X.** By A. H. ALLCROFT, M.A., and others. With complete Alphabetical Lexicon. 1s. 6d. each Book.  
"The notes are clear and scholarly."—*Journal of Education*.

**Xenophon.—Anabasis, Book I.** By A. H. ALLCROFT, M.A., and F. L. D. RICHARDSON, B.A. 1s. 6d.  
"The text is clearly printed, and the book is well planned and edited."—*Educational News*.

**Shakespeare.** Edited by Prof. W. J. ROLFE, D.Litt. **Merchant of Venice.** 2s. **Julius Caesar.** 2s. 6d.  
"Mr. Rolfe's excellent series of school editions of the plays of Shakespeare give the student helps and hints on the characters and meanings of the plays, while the word-notes are also full and posted up to the latest date."—*Academy*.

## LONDON UNIVERSITY MATRICULATION Important Text-Books.

**Matriculation English Course.** Containing Grammar, Analysis, Composition, Précis-Writing, and Paraphrase. By W. H. LOW, M.A., and JOHN BRIGGS, M.A. P.Z.S. *Second Edition.* 3s. 6d.  
"Candidates may take this book as a trustworthy guide."—*Schoolmaster*.

**Groundwork of English History.** By M. E. CARTER, First Class Honours in Modern History, Oxford. With Coloured Maps. 2s.  
Contains the "salient facts" required by the University Regulations.

**The New Matriculation Algebra.** With a Section on Graphs. By RUPERT DEAKIN, M.A. *Fourth Edition.* 3s. 6d.  
"An excellent introduction to Algebra."—*Oxford Magazine*.

**Matriculation Geometry.** By W. P. WORKMAN, M.A., B.Sc., and A. G. CRACKNELL, M.A., B.Sc. 3s. 6d.  
"Shows on every page the skill and care with which the material has been put together."—*School World*.

**Matriculation Selections from Latin Authors.** By A. P. WATT, M.A., and B. J. HAYES, M.A. *Second Edition.* 2s. 6d.  
"The selection is a good one."—*Journal of Education*.

**The Matriculation French Course.** By Prof. E. WEEKLEY, M.A. *Third Edition.* 3s. 6d.  
"An excellent preparation for the London Matriculation Examination."—*Secondary Education*.

**The Matriculation French Reader.** By J. A. PERRET, Examiner in French at the University of London. 2s. 6d.  
"This book is the outcome of scholarship combined with ripe experience in tuition. The notes are succinct and informative."—*Westminster Review*.

**The Matriculation Mechanics.** By Wm. BRIGGS, LL.D., M.A., B.Sc., F.R.A.S., and G. H. BRYAN, Sc.D., F.R.S. *Second Edition.* 3s. 6d.  
"Altogether it is an excellent book."—*School Guardian*.

**The New Matriculation Chemistry.** By G. H. BAILEY, D.Sc., Ph.D. Edited by WILLIAM BRIGGS, LL.D., M.A., B.Sc., F.C.S. 5s. 6d.  
"Contains everything that a candidate at Matriculation is likely to require."—*Nature*.

**The New Matriculation Heat. The New Matriculation Light. The New Matriculation Sound.** By E. W. STEWART, D.Sc. Three Volumes, each 2s. 6d.  
"An admirable text-book (New Matriculation Heat)."—*Education*.

University Tutorial Press, Ltd.,

W. B. CLIVE, 157 Drury Lane, London, W.C.

### ADVERTISEMENT SCALE.

Whole Page—Ordinary	£4 10 0	.....	Position	£5 10 0
Half Page	2 10 0	.....	"	3 0 0
Quarter Page	1 10 0	.....	"	1 15 0
Per inch in broad column (half width of page)	0 7 0	.....	"	0 7 0
Narrow Column (one-third page)	2 0 0	.....	"	2 0 0

General Scholastic Advertisements (Colleges, Schools, Classes, Tuition, &c.). 3s. 6d. for 6 lines, or 4s. 6d. the inch.

Situations Vacant and Wanted—30 words or under, 2s.; each additional 10 words, 6d. (For 1s. extra, Replies may be addressed to the Publishing Office, and will be forwarded post free.)

### CURRENT EVENTS.

At the Members' Meeting of the College of Preceptors, on March 18, Dr. T. Percy Nunn will read a paper on "Science in correlation with Geography and Mathematics."

M. G. PETILLEAU will present a *Causerie anecdotique*, entitled "Notre Oncle," to the Société Nationale des Professeurs de Français en Angleterre, at the College of Preceptors on March 28, at 4 p.m.

MME. CHAMBON will lecture on "La Bretagne: son sol, ses curiosités et quelques-unes de ses vieilles légendes," at Bedford College for Women (University of London), on March 12 at 5.15 p.m. Open.

UNDER the auspices of the Geographical Association the following lectures will be delivered at University College, London:—March 13, "How to Teach the Geography of a Country," by Prof. L. W. Lyde, M.A.; March 27, "Orographical Maps as the Basis of the Geography Lesson," by Dr. A. J. Herbertson, M.A. Non-members may obtain tickets (1s. each) from Mr. J. F. Unstead, 5 Wiverton Road, Sydenham, S.E.

THE fourth Biennial Vacation Course of the Oxford School of Geography will be held August 10 to 28. There will be at least two lectures and a period of practical work in field or map-room or an excursion each day. Special evening lectures and discussions will be arranged. A more detailed programme will be issued in June.

THE Child Study Society, London, announce the following lectures and discussions (Parkes Museum, Margaret Street, W., at 8 p.m.):—March 5, "The Education (Administrative Provisions) Act in relation to the Inspection and Treatment of the Teeth," by W. T. Elliott, D.D.S., L.D.S.; March 12, "Congenital Aphasia (Word Blindness and Word Deafness)," by C. J. Thomas, M.B., B.Sc., D.P.H.; March 19, "Anthropometry and Physical Development," by F. C. Shrubbsall, M.A., M.D., M.R.C.P.; March 26, "The Downfall of the Dogma of Formal Training," by T. H. Hayward, Ph.D.

THE Modern Languages Holiday Courses of the Teachers' Guild at Tours, Honfleur, Neuwied, and Santander will commence in the first week of August. Information from the General Secretary (Mr. H. B. Garrod), 74 Gower Street, W.C. Handbook (6d.) ready May 1.

LORD LISTER has declined an invitation to become a candidate (unopposed) for the Chancellorship of Glasgow University.

OXFORD UNIVERSITY has conferred the honorary degree of D.C.L. upon Prof. Westlake, Cambridge, the honorary

degree of M.A. upon Mr. Nicol F. Mackenzie, M.Inst.C.E., Instructor in Surveying, and upon Mr. C. J. Holmes, Slade Professor of Fine Art; and the honorary degree of Mus.M. upon Herr Paul David, Music Master at Uppingham.

THE University of Edinburgh proposes to confer honorary degrees as follows:

D.D.—Rev. Ellis Edwards, M.A., Principal of the Calvinistic Methodist College, Bala; Rev. Hugh Ross Mackintosh, M.A., D.Phil., Professor of Systematic Theology, New College, Edinburgh; Rev. William Robertson, M.A., Minister of Coltness Parish; Rev. Alexander Smellie, M.A., Original Secession Church, Carlisle.

LL.D.—The Maharaja of Jaipur: Mr. James Ormiston Affleck, M.D., Edinburgh; Prof. Ramkrishna Gopal Bhandarkar, Bombay Legislative Council; Prof. William Burnside, Royal Naval College, Greenwich; Mr. Richard Caton, M.D., Lord Mayor of Liverpool; Sir Norman Lockyer, Director of Solar Physics Observatory, South Kensington; Sir James Balfour Paul, Lyon King of Arms, Edinburgh; Mr. Reginald Lane Poole, M.A., Ph.D., Oxford; Mr. Andrew E. Scougal, H.M. Senior Chief Inspector of Schools in Scotland, Edinburgh; Right Hon. Thomas Shaw, Lord Advocate.

MCGILL UNIVERSITY, Montreal, has conferred the honorary degree of LL.D. upon Mr. Bryce, British Ambassador to the United States.

THE University of Durham has conferred the honorary degree of M.Sc. upon Mr. R. A. Harper Gray, Armstrong College, Newcastle.

LORD LOREBURN, D.C.L., Lord Chancellor, has been elected an honorary Fellow of Balliol College, Oxford.

AT Downing College, Cambridge, Sir Herbert Isambard Owen, F.R.C.P., Principal of Armstrong College, the Rev. T. J. Lawrence, LL.D., formerly Fellow and Tutor, and the Hon. W. P. Schreiner, C.M.G., K.C., formerly Fellow, and late Prime Minister of Cape Colony, have been elected Honorary Fellows.

A FUND is being raised for a Studentship in connexion with Oxford, to be held at the School of Rome, as a memorial of the late Prof. Pelham, who was the founder of the School and Chairman of the Managing Committee until his death. The Rector of Exeter College is treasurer of the fund.

**Endowments and Benefactions.** MRS. JOHN RYLANDS, Longford Hall, near Manchester, has left £50,000 to Victoria University, £25,000 to Owens College, £10,000 to Mansfield College, £8,000 to Hackney College, and £5,000 to the Baptist College, Regent's Park, London.

MRS. BELL PETTIGREW has given £6,000 to St. Andrews University towards providing a museum and extending the Botanical Garden, in commemoration of the long association of her husband, the late Dr. J. Bell Pettigrew, with the University as Professor of Medicine and Anatomy (since 1875).

DR. J. W. H. TRAILL, Professor of Botany, Aberdeen University, has given to the University £1,000, to found a bursary for science students.

THE Treasury has again made a special grant of £1,200 for this year to Manchester University for the promotion of research and other special purposes.

THE Treasury has agreed to give an annual grant of £200 to the Royal Scottish Geographical Society.

MISS MARY W. SHILLITO has given £800 to Oxford University to provide a stipend for Dr. Stephen Langdon as Reader in Assyriology and Comparative Semitic Philology for three years.

MISS CAROLINE E. WILLIAMS, of Vicarage Gate, London, W., a generous donor to the funds of Cardiff University College, has left £800 to Aberdare Hall, Cardiff, for a Scholarship, and £800 to Cardiff University College.

THE Mercers' Company have granted £535 towards the funds for the incorporation of King's College in the University of London.

THE Hants County Education Committee have raised their annual contribution to Hartley University College to £600 (almost double the previous sum), and will make a special grant of £200 for the year ending March 31, 1909. The College needs further substantial help.

LORD STRATHCONA has given £100 to a fund for establishing a Lectureship in Geography in Edinburgh University.

THE Board of Agriculture has granted £250 to the Cheshire Agricultural and Horticultural College, Holmes Chapel, for research work.

THE late Lady Stanhope has bequeathed a sum sufficient to establish a scholarship of £50 a year at Harrow, in memory of her husband, the Right Hon. Edward Stanhope, Secretary at War 1887-92, who was in the Harrow Cricket Eleven of 1859.

THE REV. JOHN ROSCOE, of the Church Missionary Society, has presented to the University of Cambridge a second instalment of native manufactures from Uganda, including an exceptionally interesting and valuable set of relics of deceased Baganda kings.

THE London Inter-Collegiate Scholarships and Prizes examination for 20 scholarships and exhibitions, tenable at University College, King's College, and the East London College, on May 12 and following days. Candidates must have passed the London Matriculation (or an equivalent) Examination and be under nineteen on October 1, 1908. The total value of the scholarships offered exceeds £1,700. Full particulars and forms of entry from the Secretary of the Board (Mr. Alfred E. G. Attoe), University College, W.C.

AT Oxford scholarships, &c., will be offered for competition as follows:—March 3, Mathematics (Magdalen, Brasenose, Christ Church, Worcester); March 10, Natural Science (Keble); March 17, Classics (New, Magdalen, Corpus Christi), Natural Science (Merton, New, Corpus Christi), History (Exeter); April 21, Classics (non-collegiate); May 12, Classics (Pembroke); June 2, Classics (Brasenose), Law (Brasenose); June 25, Classics, History, English, Modern Languages (Worcester); June 30, Natural Science (Balliol, Brasenose).

**Appointments and Vacancies.** MR. WARDE FOWLER has been appointed Gifford Lecturer in Edinburgh University (not Glasgow University, as we mistakenly reported last month).

MR. HENRY TAYLOR BOVEY, F.R.S., D.C.L., LL.D., Dean of the Faculty of Applied Science and Professor of Civil Engineering in McGill University, Montreal, and Hon. Fellow of Queens' College, Cambridge, has been appointed Rector of the Imperial College of Science and Technology.

MR. RONALD M. BURROWS, M.A. Oxon., Professor of Greek, University College, Cardiff (since 1897), has been appointed Professor of Greek in Manchester University.

VICE-ADMIRAL SIR JOHN DURNFORD, K.C.B., D.S.O., has been appointed President of the Royal Naval College, Greenwich, in succession to Admiral Sir Arthur D. Fanshawe, K.C.B.

MR. JAMES ADAMSON, Advocate, Edinburgh, has been appointed Dean of the Faculty of Law in Victoria College, Wellington, in succession to Prof. Salmond.

THE Secretary of State for India has appointed Mr. Robert Marks, M.A., of Wadham College, Oxford, to be Professor of Logic and Moral Philosophy in the Elphinstone College, Bombay; Mr. F. Storrs, B.A., of Cambridge, to be Professor of English Literature in the same College; and Mr. William Christopher Wordsworth, M.A., of Jesus College, Oxford, to be Professor of Philosophy in Bengal.

A LECTURER in Geography is required by the University of Sheffield. Apply to the Registrar by March 14.

MR. J. G. STEWART, M.A., B.Sc., Lecturer in Agriculture, Leeds University, has been appointed Lecturer in the Edinburgh and East of Scotland College of Agriculture.

MR. W. FARRER has been appointed Reader in Local History in Liverpool University. The post has been specially created for Mr. Farrer, who has edited and largely written the first two volumes of "The Victoria History of the County of Lancaster" (to be completed in seven volumes). Mr. J. A. Twemlow has been appointed Lecturer in Palæography.

MR. A. R. AINSWORTH, B.A., Assistant to the Professor of Greek in Edinburgh University, has accepted a post under the Board of Education.

MR. H. J. THOMSON, M.A., has been appointed Assistant to the Professor of Humanity in St. Andrews University.

THE Senior Science Mastership at Clifton College is vacant through the lamented death of Mr. W. A. Shenstone, F.R.S., who had held the post since 1880.

A HEAD MASTER (graduate) is required for the Wirksworth Grammar School (co-educational). Apply to the Clerk to the Governors by March 25.

A HEAD MASTER (graduate) is required for Wells Endowed Secondary School. Apply to the Secretary to the Governors of the Blue Schools, Wells, Somerset.

A HEAD MASTER is required for Heath Grammar School Halifax. Apply to Mr. N. B. Spenser, C.A., 1 Harrison Road, Halifax, by March 3.

MR. H. H. ROBJOHN, B.Sc., formerly Principal Assistant in the Higher Department of the Office of the Kent Educa-

tion Committee, has been appointed Head Master of the Technical Day School, Napier, N.Z.

MR. J. B. CLARK, M.A., Chief Assistant Master, Heriot's Hospital, Edinburgh, has been appointed Head Master, in succession to Dr. Lowe (retired).

MISS MARGARET ANDERSON, B.Sc. Lond., late assistant mistress, Blackheath High School for Girls, has been appointed Head Mistress of the Girls' Public High School, Bridgnorth.

A HEAD MISTRESS (graduate, or equivalent) is required for Wallasey High School for Girls. Apply to Mr. F. W. M. Wilson, 8 Cook Street, Liverpool, by March 15.

A HEAD MISTRESS is required for the Chelsea Secondary School for Girls (Hortensia Road). Apply (on official form) to the Clerk of the L.C.C. by March 16.

MR. OSCAR BROWNING has resigned his Lectureship in History and Economics at King's College, Cambridge, and is succeeded by Prof. Chapman, of Leeds University, Fellow of King's.

Literary Items. "COLERIDGE'S LITERARY CRITICISM," with an introduction by Prof. Mackail, is about to be added to the "Oxford Library of Prose and Poetry." The minor works of Tacitus, translated by Mr. W. Hamilton Fyfe, will also be issued immediately in the "Oxford Library of Translations."

MESSRS. GEORGE PHILIP & SON will shortly publish the second part of "A Rational Geography," by Ernest Young, B.Sc., constructed on the most modern lines and fully illustrated with maps and diagrams.

MR. FISHER UNWIN is publishing a new translation of "The Tragedies of Seneca," by F. J. Miller, in blank verse, the choruses in lyric metres. Prof. John M. Manly contributes an introduction estimating the influence of Seneca's tragedies upon the early English drama.

THE Bookseller Jubilee number contains, in addition to the usual information, a number of very interesting articles bearing mostly on the history of the trade, with many photographs of well known publishers and booksellers.

Child Life has somewhat altered its old form. The contents are as varied and practical as ever.

General. THE Bedford Head Meetings of the Assistant Masters have been revived at the London Day Training College in Southampton Row, the Association and the College co-operating. Such "free and frank discussion" is very valuable, and we share the hope of Prof. Adams "that the meetings will bring together many of the educational forces in London."

A GIFT of £200 a year for the next ten years from the Drapers' Company, with £300 a year now paid to the Lecturer in Botany, will enable Cambridge University to found a second Professorship of Agriculture and retain the services of Mr. R. H. Biffen, at present University Lecturer.

### SUGGESTIONS FROM AMERICA FOR ENGLISH EDUCATIONISTS.

At the Evening Meeting of the members of the College of Preceptors on Wednesday, February 19, Prof. ADAMS in the chair, Mr. F. CHARLES, B.A., read the following paper:—

A year ago I was in America for nearly three months, when I spent the whole of my time studying the educational conditions and methods of our American cousins, visiting schools, attending teachers' meetings, taking part in conferences, and interviewing employers. I visited Washington, Annapolis, and Westpoint, where I studied the educational preparation for the services—Army, Navy, and Civil Service; I visited Indianapolis and Elyria, where I inquired what the municipality was doing in the cause of education, so that I might compare with towns of like size in England; I visited Chicago, Cleveland, and New York, where I devoted myself to the experiments now being conducted in those towns—experiments which I believe are the best of their kind.

In such a visit it is impossible to get a general idea of America or American education. America is too vast; and, further, every State has its own laws, and every town its Education Committee. The Education Bureau at Washington has no administrative power; it is comparable, not to our Board of Education, but to the Inquiries Department; it collects and distributes information. When, therefore, I speak of "American" you must understand that what I say is limited to those parts I saw. It may, but it does not necessarily, apply to other towns or other parts of the continent.

In those parts were many excellences which we might well emulate, and some excesses we might well try to avoid. When I say "excesses" I do so in all kindness, and not in any spirit of carping criticism; and I think I am saying nothing here that I have not said to, and discussed with, one or other of my kindly hosts on the other side. I learnt something, I think, for committees, governing bodies, teachers, and schools. The public schools—i.e., the schools belonging to the public and maintained at the public expense—taught me more outside the classroom than in it. The public are keen on education, and take care that they get what they want. They believe in education and are willing to pay for it. They will liberally back their opinion of its worth. Indianapolis spends more on education than on anything else; it spends, indeed, three times as much as on any other department; one-third of its municipal income is devoted to its schools. Nottingham, a city not backward in educational enterprise, spends less than one-sixth of its income on its schools.

Education is increasingly free from other considerations. At Indianapolis—to cite it as an example once more—each member of the Committee is required by law to take an oath that, during his term of office, he will not be influenced by any consideration of politics or religion. The Committees are small and business-like—five or six is quite a usual number. They deal with the statesmanship of education and do not attempt any of the details of school management; they appoint two or three experts and hold them responsible for carrying out general instructions. The chief of these—the superintendent—appoints and dismisses the teachers, who have a right to appeal to the Board. The contrast with our own Education Committees is marked; many of them try to do the work of experts; some select text-books, draw up syllabuses, decide what to teach and how to teach it; make all appointments, even the school porter, and consequently get choked up with a mass of detail.

The size of some of the schools is immense; many of the high schools have over a thousand pupils. Now here I do not agree with those who maintain that no school of over four or five hundred can be efficient. Some of those huge schools seem to me to prove the contrary. It, of course, means that the head master cannot know the development of each pupil at first hand. But that disadvantage is quite overcome where the tutorial system and the general class system are working side by side. To the tutor, house master, or nursing father, the head may devote the charge of all pupils entering at one time. Thus Dr. Buchanan, at De Witt Clinton, who has just adopted this system, has eight assistants each in charge of a half-year. In this way the teachers are kept much more closely in touch with the life of the school; their interests cannot become centred in one class or one subject; and, further, it gives him excellent practice in school management.

The size of the school makes for economy and not necessarily for efficiency, and economy in buildings is not sufficiently con-

sidered. Committees in America are like committees in England—they like to see something for their money; they are willing to spend on buildings—on blackboards even—but not on men. There, as here, salaries must be increased, and largely increased, if suitable men are to be secured to do the work. Here the work is becoming more arduous; more work, better work, and better qualifications are being required, but for salaries which do not increase as fast as the cost of living. Though in the matter of salary the American teacher is no better off than the English one, in the matter of tenure he has the advantage. He is recognized as existing—he does know whom he serves.

The cost of buildings and equipment naturally leads to thoughts on manual training. Here, I think, we might take a lesson, but at the same time a warning. We do not devote enough attention to it; the American devotes too much. It becomes engineering. It appeared to me that the tendency is to pay attention to the technique, to the finish of the articles made rather than to the education of the maker. The practical work overshadows the English and literary work—e.g., in a group of twelve manual training high schools one-third of the whole time is given to practical work. Better educational results are obtained where the manual training is not allowed to dominate, where original designs roughly worked out take the place of good machines and beautiful furniture of finished workmanship, where the education is the well balanced training in expression by words, pictorial representation, material construction, and musical sounds.

The American teacher always welcomes criticism; he is not afraid of talking shop, and freely and frankly discusses any criticism passed upon him. He has indeed an inordinate thirst for criticism. I was often a prey to this thirst. Once I was inveigled to a meeting of teachers and persuaded to say to them together what I had said to some of them singly: they wanted criticism, not invited flattery. I felt that the boys were not doing all they could, and said so. I suggested three causes: parental control, the presence of girls in the classes, and the high proportion of lady teachers. All agreed to the first. The second was keenly debated, and the balance of opinion was certainly in favour of the cause suggested. Work sufficient for the girls was not enough to keep the boys busy, while enough for the boys was far too much for the girls, who pay greater attention to details and are more conscientious. Plain speaking on the third point was a little difficult where perhaps two-thirds of those present were lady teachers. However, all agreed that they were dependent on the chivalry of the boys, and that, at times, it breaks down.

The evil effects of direct parental control are many and far-reaching, especially where the children have more and more influence over their parents and so over the schools. The authority of parents over children seems to me to be disappearing faster in the States than here; and instances are not wanting to show that here it is disappearing far too quickly. In one town in which school ended at 12.30 the children were agitating—or making their parents agitate—for the reduction and limitation of home work which had reached the alarming total of ten hours a week!

It gives rise, too, to seeking after popularity. A teacher who is not popular must go. It is a force, then, which helps the tendency to make everything easy for the children, to smooth away their every difficulty—a marked contrast to the old and robust method which built up strong characters. Now the ways of learning are paths of pleasantness, and the result is a race of youthful mental Epicureans before whom we put their mental pabulum in such a peptonized form that no effort on their part is necessary to digest it. Their work is done for them, and they have nothing to do but to take it or leave it; to remember or forget. We, in England, are doing much the same thing; we do not swing so easily as a younger nation, but, once well started, it takes more to stop us. In the past most of the work in the classroom was done by the pupils; now too much is done by the master. It may help pupils to pass examinations, but it does not enable them to think for themselves; and our object is not to instil into them as many facts as possible, but so to train them that they can work and think, and so acquire facts for themselves.

The causes and the effects of the very large proportion of lady teachers are, too, matters of great interest to us at this time, when the supply of well qualified men teachers has practically stopped, or, at any rate, is far below the demand. The common cause in the two countries is money. In America commercial prosperity and natural resources are so great that men of quite ordinary capacity can make fortunes with ease in business, and this naturally

diverts them from a calling in which by steady work they can earn but a competence. Women will work for smaller salaries than men, and they are not so averse from remaining in one place, steadily working on, as the American man; his life must be one of continual movement. It has, then, become a question whether it is better to employ the weaker man- or the stronger woman-teacher. The decision has been so often in favour of the latter that masculine influence is being driven out of the classroom, until, at the last return, 73 per cent. of the teachers in the public schools in the States are women.

Two very apparent advantages are enjoyed by the American schools. One is the regular and infrequent admissions; all pupils come in at the beginning of one of the two semesters; they come in uniform in age and fairly uniform in attainment. The other is absence of overloading. The primary and grammar grades are satisfied with a few subjects well taught. The curriculum of the high schools is kept within such bounds that each day's time-table is the same, though the English of one day may be different from that of another; one may be an author, while another is oral composition. Mathematics on one day is algebra, and on another is geometry. Again, the subjects of one year are not those of another; French, for instance, may not persist through the four years of a high-school course, but through two only. The result is that, at a given age—say, eighteen, the year in which the high school course is generally completed—the children know less than children of the same age in England; but whether this disadvantage is not more than compensated by their greater freshness and capacity for applying and increasing what they know I am not prepared to say. At any rate, it suggested to me that our curriculum should be unloaded; for we want to educate, to enable to learn, not to cram in the maximum number of facts in the minimum of time.

The work of the private schools, or of those schools which are not directly under State or municipal control, is more characteristic. My visits to these were not in any sense planned; but wherever I was in reach of a school which had a reputation for excellence in any one branch, which had an undoubted speciality, I made an opportunity to see that speciality and learn from it. Schools of this type are not nearly so much handicapped by the influx of foreigners as the public schools; in them are found a much more homogeneous race, though the percentage of American children of American parents is very small. At Washington, I was told, was the best "finishing" school in the States. I went rather expecting to find smart society ladies covering ignorance with a veneer of accomplishments. But far from it. I found an American school that had "struck culture." I found, too, the ideal solution to the modern language problem. Small classes, under the care of accomplished specialists, were treating French texts just in the same way as they would English texts in a literature lesson. A passage was read without comment; then grammatical points, word forms, and syntax were discussed where necessary. Next came questions on the subject-matter, and, finally, the characters of the individuals as evidenced in the passages read. The other work I saw was just as sound, and I came away satisfied that that finishing school undoubtedly stood for culture and refinement.

The Ethical Culture School in New York is so well known that I need only remind you of its aim—to bring to consciousness the things present unconsciously in the school atmosphere, and so, in place of vague, unstable sentiments, to build up definite concepts of right and wrong. That, then, is what the school stands for; but it offers another suggestion. It makes all anniversaries and festivals educational opportunities. The element of show is, as far as possible, eliminated. The celebration is in school hours; the school forms the largest part and the chief part of the audience. All departments work together with the common aim of thanksgiving or of suitably calling to mind the great men who are gone. In these celebrations are found opportunities of natural co-ordination very different from the far-fetched and strained correlation so often apparent. Christmas was celebrated by the whole school. The high school wrote the book from "Sir Roger de Coverley" papers, weaving in Christmas material from "Silas Marner," "Christmas Carol," "Bracebridge Hall," and "Lorna Doone." The illustrative material which realized for the eye the rite and pageant of which the story-tellers told—waits, mummers, boar's head procession, &c.—was contributed by the other grades, each one of which had made a short study of some one Christmas custom. The elements most mischievous and most difficult to avoid are show and advertisement—they are definitely contrary to true educa-

tion—so the celebration had better be omitted than used to attract attention.

The ideal of the Francis Parker School at Chicago can be described, I think, by "practice rather than precept." The children there are evidently living rather than learning to live. There is what appears at first sight chaotic freedom. Formal lessons are not the rule: arithmetic, for instance, has no place for itself, but, when required for calculating the cost of seeds or the price of garden produce, it is introduced incidentally. Under such a regime no definite conclusions could possibly be drawn in the short time at my disposal; but it was clear from conversation with the pupils that admirable work was being done in an original way—a way which seems to eliminate a large part of the drudgery of learning. My one doubt is whether the strength of character which results from unattractive, unpalatable tasks faithfully performed could be derived from such a training.

The University School, Chicago, has for its speciality the science of education. Its continual study is what to teach and how to teach it. Experiments are tried under the best conditions and the results very closely observed.

Now, to all these schools one characteristic is common: every one of them stands for something, and for something definite; and here, to my mind, is the opportunity of the private schools. Let each one of them take care that it stands for something, has a particular excellence of its own—modern languages, practical work, freedom of life still under authority, wide reading of the best authors, power of speech, wealth of imagination. To stand for something is not enough; it must take care that we know it does, not by advertisement, not by asseverating that it does, but by its products and by the valuable lessons it teaches to those interested in education. How are those lessons to be taught? How is the true value to be estimated? The only way evident to me is by inspection. The excellence may be there, but the hall-mark of that excellence should be there also. Insist on inspection and recognition.

For conclusion, let me sum up as in a manual of "Do's" and "Don'ts." *Do* remember that the children are the first consideration: that they must be educated, not laden with a number of facts, and that education is the work of teachers rather than of Committees and organizers. If you are a member of the public, of a Committee, or an organizer, *do* make it possible for the teacher to give his best energies, free from gnawing poverty and insecure tenure, to this work of education. *Don't* co-educate. If you are a parent, *do* keep some authority over your children; co-operate with the school in their development. *Don't* throw on it your parental responsibility. If you are a teacher, *do* be keen; *don't* become ratty, *don't* peptonize.

And, finally, *do* you who are here set aside for a time British reserve, and discuss with American candour some of the points that I have tried to set before you.

### THE WINTER MEETING FOR TEACHERS

THE following is a summary of the lectures on "The Use of the Voice" by Dr. W. A. Aikin; on "Preventable Physical Defects of School Children" by Dr. H. E. J. Biss and Dr. R. J. Collie; and on "Plato" by Mr. E. D. A. Morshead, which we were unable, through exigency of space, to insert in the last number:—

#### THE USE OF THE VOICE.

Dr. W. A. Aikin dealt with this subject in three lectures, under the headings (1) The Principles of Vocal Sound, (2) The Cultivation of Voice Organs, and (3) Speech in its Application to Teaching. He insisted upon the necessity of teachers knowing something of the general principles of vocal sound; for they not only had to cultivate in themselves the best possible habits of speaking, but they also had to cherish the good and eradicate the bad in the speech and pronunciation of the thousands of children who relied upon them for instruction. To teach these principles and to show how they were put into practical use was the function of the science of phonology. On the principle that the act of breathing-out was solely responsible for the force which produced the sound of the voice, it was necessary to have as large a volume of air to use as could be conveniently and quickly taken in, as well as the proper control to regulate its output. For this reason central breathing was advocated, in which the greatest expansion took place at the level of the lowest part of the sixth rib. This ensured the full expansion of the ribs, and especially of the lower ones, and a proportionate descent of the diaphragm, involving expansion of the upper part of the abdomen above the waist only. In order to maintain control of the breath it was advisable to keep the ribs elevated while elasticity and abdominal muscles replaced the diaphragm. The

expanded position of the ribs also assisted resonance by its association with the expansion of the chamber in the neck. The act of phonation was then brought about by the simultaneous onset of the breath and the vocal reed, when the vocal cords were made to vibrate by their own complete approximation, while breath pressure acted upon them from below. The method of onset called "the shock of the glottis" was altogether inadmissible, and should be regarded as an unnatural spasm, however slight, both unnecessary and unphonological, besides being distinctly harmful to the organs themselves. Particular stress was laid upon the subject of resonance, and the lecturer enjoined a careful study and practice of the principles of the resonator scale, an arrangement of vowel sounds according to their resonant notes in the whispering voice, by which the open mouth, forward tongue, open throat, and expanded neck are associated with all the positions of the organs of speech. The double nature of the resonator was shown to indicate the fact that the mouth cavity is more concerned in the differentiation of the vowel sounds, while the neck cavity has more to do with the total resonance in the sonority of the voice. The general advice given, in conclusion, was that teachers should not bend over their desks when speaking, but either stand or sit up in a position favourable to central breathing; that they should feel that the output of breath is responsible for the sound they are making, especially in the proper emphasis and continuity-to-the-end of their phrases; that they should pitch their voices low, and keep their articulation free and far forward in the mouth, relying for resonance upon the neck expansion which goes with the elevated ribs; that they should always breathe through the nose, with the mouth closed when not actually speaking, and cleanse their throats with very mild gargles and lozenges after sitting in badly ventilated and dusty classrooms. The lectures were illustrated by diagrams and examples.

#### PREVENTABLE PHYSICAL DEFECTS OF SCHOOL CHILDREN.

##### THE CARE OF THE EYES.

The lecturer, Dr. Hubert E. J. Biss, laid stress on the word "preventable" in the title, because practically all eye defects are either preventable or capable of being arrested in early life if recognized promptly. It was pointed out that the eye is the most important channel of access to the brain, and therefore the chief factor in education. Defective eyesight must, therefore, impair the value of all instruction conveyed through the eye to the brain. A brief description of the structure of the eye was given, emphasis being laid on the plasticity of the organ and the facility with which it responds to favourable or adverse influences. The mechanism of the eye was dealt with and binocular vision explained, and it was shown that three muscular efforts are involved in near vision—namely, those exerted by the ciliary muscle in altering the shape of the lens, by the iris in contracting the pupil, and by the internal recti in convergence. Muscular fatigue was the result of effort, and near vision involved, therefore, weariness of the muscles cited, together with derangement of the circulation in the eye, and even lifelong alteration of its shape. The differences between the eye of the adult and that of the child were pointed out, the extra strain involved in the child by both near and distant vision being strongly insisted upon. The various forms of defective vision and muscular action (squint) and their appropriate correction by rest and glasses, were then dealt with, the claims of opticians, chemists, and other unqualified persons claiming to prescribe spectacles being discounted. The lecturer then spoke of the precautionary methods which should be adopted in schools, the methods of lighting classrooms, of constructing school furniture, of printing school books, of preserving proper positions, and of preventing fatigue of the eyes in writing and sewing being described, emphasis being laid on the importance of preserving a distance of twelve inches as the nearest working point for the child's eye. It was then shown how, by test-types, any teacher could examine a child's eye for defects, and how the results could be expressed in conventional fractions. Finally, by reference to the mass of statistics prepared by Dr. Kerr, of the London County Council, the lecturer demonstrated how frequent serious defects of vision are among school children, especially in the younger ones, and what grave impediments to progress in education and to bodily and mental health such defects are. The lecture was illustrated by diagrams, sections of the eye, and various models.

##### THE CARE OF THE EARS, SKIN, ETC.

The lecturer, Dr. R. J. Collie, stated that 60 per cent. of those who are deaf were either congenitally so or the disease had been contracted in early infancy. Dr. Kerr's estimate that 1 per cent. of the scholars of the elementary schools in London have discharging ears was referred to, and the frequency with which inflammation of the lining membrane of the brain supervenes as a direct consequence emphasized. The methods whereby teachers may test the children's hearing were then described, and the dangers attendant upon improper methods of removing foreign bodies from the ear demonstrated. The frequency with which adenoids, or post-nasal growths, occur in young children was pointed out. The fact that adenoid tissue is merely an overgrowth of what is normally present was insisted upon. The symptoms of this condition are defective nose-breathing, snoring respiration, sluggish and delayed mental powers, loss of resonance, deafness, ear-ache, &c. The impor-

ance of early removal, and the evils resulting from neglect of what is comparatively simple operation, were mentioned in detail, and their effect upon mental development specially emphasized. A brief description of acute rheumatism as it affects children was given, and the relative frequency of heart complications in childhood compared with their manifestations in the adult was fully discussed. The fact that the absence of pain in young children so frequently leads to acute rheumatic fever being unrecognized, paved the way for the onset of heart complications, and it was made clear that many cases of heart disease in adults originate in this way. The so-called growing pains were shown to be rheumatic, and the foolish notion of "hardening" children was condemned. Rickets was then briefly discussed. It was shown that it is essentially a disease of town life, bad food and bad hygiene being the chief factors in its causation.

##### HEALTHY AND UNHEALTHY BRAIN ACTION.

It was pointed out by the lecturer, Dr. R. J. Collie, that in all organisms, from the highest to the lowest, the nerve centres are made up of practically nothing else than groups of nerve cells with their communicating neurons, and that these nerve centres are acted upon by their environment—*e.g.*, vibrations of light, waves of sound, muscular sense. Nerve impulses were accompanied in the brain by changes of consciousness. Mental action was necessarily related to brain action, and was, indeed, limited by it. The intimate nature of consciousness had never been rationally explained by any material cause; if the cerebral tissue was working imperfectly the brain function must necessarily be unhealthy. The subject of mentally defective school children was fully considered. It was shown that mental deficiency is essentially a relative term, and the different grades—first, the idiot; second, on the ascending scale, the imbecile; and, third, the mentally defective child—were fully described. Idiots were classified as mental paupers who had practically no assets. The imbecile, on the other hand, was capable of learning such simple rules of life and modes of conduct as enabled him to preserve his own life; while the mentally defective child not infrequently took his place—a lowly one—in the world's work. The origin of mental defect was discussed. It was asserted that in these children the development of mental processes ceased from want of sufficient impetus. The various causes of this insufficient impetus were fully dealt with. Inherited disease did not always exactly reproduce the same disease in the child, but only an organic disposition. An insane father, it was stated, not infrequently begets an eccentric son; the eccentric son, on the other hand, may reproduce one or more mentally defective children. The causes of mental defect, according to the statistics of Drs. Beach and Shuttleworth, were fully examined. Moral insanity was described as the disorder of the affections and feelings—*i.e.* the moral powers—as opposed to the affections of the understanding and intellect: children whose irresistible streams of immoral tendencies ran freely along the rugged line without the least resistance. A large proportion had inherited mental weakness; they were moral imbeciles; they had inherited some obscure intellectual disability; they would never be like other children. If they lived to be men and women, they broke the law and were secluded, or went about amongst their fellows "debasement the moral currency." The audience was appealed to to remember that these people were not sane; that their lower impulses were not inhibited and controlled by the higher; and an appeal was made to treat not only children, but any one with moral insanity, in a spirit of patient compassion.

##### PLATO.

The lecturer, Mr. E. D. A. Morshead, commenced by pointing out the debt due to Homer from the Athenian poets—Pindar and Aeschylus in particular; and then dwelt upon Plato's philosophy as a culminating influence—but an influence largely based upon the theological and mythological elements in the "Iliad" and "Odyssey," and on the works of Pythagoras of Samos—those particularly in which that philosopher claims to have originated the doctrine of the transmigration of souls in successive bodies of men and of animals—a thought touched upon, in later times, by St. Paul, and afterwards by Marlowe and Shakespeare; but potent in the mind of Plato, who is the master of Greek prose writing, and particularly of that style which we call "dialogue." Aristotle followed him as pupil and as critic: the lecturer dwelt at some length on the likeness and the differences of these two great thinkers, and pointed out the unique influence of Socrates upon Plato, who almost effaces his own personality in representing that of his teacher. The most famous of Plato's dialogues were summarized, special reference being made to the "Republic," the "Apology," the "Gorgias," the "Phaedo," and to the curious fragment called "Critias." Allusion was made to the Platonic doctrine of transcendental ideas, and his argument, put in the mouth of Socrates, for the immortality of the soul, and a short consideration of its cogency, in the light of modern times. The *leit* of the dialogues was illustrated by a humorous scene from the "Symposium"; and an endeavour was made to show that Plato's doctrines are much more allegorical than is often supposed—an illustration being given by the Platonic views of female education. Finally, a brief sketch of the Neo-Platonic philosophy and its decay was introduced, in a reference to the novel "Hypatia," and to the visionary rhapsodies of Plotinus and his followers. The lecture closed by a brief reference to the allegory, if allegory it is, of Plato's own death.

COLLEGE OF PRECEPTORS.—TEACHERS' DIPLOMA EXAMINATION.

CHRISTMAS, 1907.

THE Christmas Examination commenced on the 30th of December and was held in London and at the following Local Centres:—Anking (China), Banchory, Birmingham, Bristol, Calcutta (India), Dublin, Edinburgh, Leeds, Liverpool, Lucknow (India), Manchester, Newcastle-on-Tyne, Plymouth, Rawal Pindi (India).

The total number of candidates examined was 513.

The following are the names of the candidates who passed in the various subjects: (*hon.*) attached to a name, or to a letter denoting a subject, indicates that the candidate obtained Honours in the subject:—

**Theory and Practice of Education.**

**FELLOWSHIP.**

Babb, F. J.  
Brett, F. A. B.  
McCarthy, W.

**LICENTIATESHIP.**

Banbery, H.  
Burlington, Miss M.  
Cooke, R.  
Danielson, A.  
Duggan, J.  
Eades, G. E.  
Gawthorpe, J.  
Greenough, Miss E. M.  
Harold, C. W.  
Harris, Miss J. D.  
Hawksworth, H.  
Jamison, J.  
Johnstone, E. M.  
Keating, T. P.  
Lyon, J. G.  
Magnire, H.  
Mayo, H. W.  
Morrison, C.  
Nash, C. W. B.  
Partridge, F.  
Shackleton, Miss M. H.  
Spratt, H. H.  
Thorogood, J. W.  
Traylen, Miss M.  
Westmore, H. C. S.  
Withnashaw, J. W.  
Woods, Miss L. W.  
Wykes, J. E.

**ASSOCIATESHIP.**

Anderson, Miss B. G.  
Atkinson, Miss A.  
Barber, J.  
Barton, Miss M.  
Bate, F. A.  
Beach, T.  
Beale, Miss W. M.  
Beeley, Miss M. M.  
Bennett, Miss L. J.  
Bonson, J.  
Blackall, L.  
Blackburn, Miss N.  
Bloyce, E. J.  
Boore, E.  
Bounevalle, Miss T.  
Boyd, Miss I. J.  
Bradshaw, J.  
Branstone, Miss B.  
Brickell, Miss E. F.  
Bridgford, Mrs. S. J.  
Brien, D. J.  
Brook, W.  
Brookson, C. W.  
Bryan, Miss S. L.  
Butler, Miss T.  
Butterworth, J. H.  
Bygott, C. E.  
Clement, H. R.  
Colquitt, Miss M.  
Cooke, A. H. J.  
Cope, R. C.  
Copley, S.  
Corah, F.  
Corry, W. P.  
Crabtree, J. D.  
Cracknell, S. H.  
Critchley, Miss E. R.  
Curtis, S. S.  
Daniels, E.  
Davies, J. R. B.  
Day, A. G.  
de Creux-Hutchinson, W. H. K.  
Downes, E.  
Downing, Miss M.  
Eatherington, W. H.  
Ellis, J.  
Ellis, Miss M. G.

Elphick, Miss G. C.  
Ewels, J.  
Fairhurst, Miss C.  
Fassnidge, J. H.  
Fellows, E. H.  
Ferguson, Miss I.  
Fieldus, O.  
Fisher, Miss A. H.  
Fox, Miss A. G.  
Fox, Miss L. B.  
Frayne, Miss E. M.  
Fretwell, O. N.  
Friedenberg, H.  
Frodsham, R. H.  
Gale, Miss E. H.  
Gamble, Miss M.  
Gannon, J.  
Garrard-Cole, Miss B. M.  
Gilbart, J. W. H.  
Glanville, F. R.  
Godfrey, M.  
Greenough, Miss M.  
Griffith, E.  
Griffiths, Miss F. E.  
Haire, T. A.  
Hale, Miss W. A.  
Hammer, Miss M. L.  
Harding, A.  
Hargreaves, E.  
Harris, W. J.  
Harwood, H. T.  
Howard, R. W.  
Hawley, Miss M. E.  
Hayes, W.  
Head, Miss B. M. M.  
Hewitt, Miss A. G.  
Hey, A. W.  
Hickey, Miss A. F. F.  
Hill, Miss F. G.  
Hilliard, Miss A. E.  
Hobson, H.  
Hodges, Miss M. A.  
Hopkins, F.  
Hough, Miss C.  
Houghton, F. J.  
Hoyte, Miss A.  
Hughes, Miss E. M. G.  
Hughes, Miss M. A.  
Humphries, Miss E. B.  
Hurd, Miss L.  
Hyde, Miss L.  
Hyett, Miss F. B.  
Jacobs, G. S.  
Jarratt, Miss C.  
Jeffery, Mrs. A.  
Jones, J. E.  
Jones, W. James  
Jones, W. Jonah  
Kempthorne, Miss H. M.  
Kershaw, Miss E.  
Key, Miss E.  
Lal, R. B.  
Lee, Miss K.  
Lewis, W. W. P.  
Linklater, P.  
Longworth, Miss L.  
Ludford, C. H.  
Lyon, H. J. T.  
Maddison, Miss E.  
Maher, Miss M. J.  
Marshall, H.  
Matthews, J. H. W.  
Maxted, A. J. S.  
Maxwell, W. H.  
McCabe, F. A.  
McCarthy, C. J.  
McMath, W. H.  
Mears, Miss M. R.  
Melles, R. E.  
Metcalf, Miss E. M. E.  
Milton, C. V.  
Milton, Miss L.  
Money, A.  
Morris, H. H.  
Moss, S.  
Mumby, A.  
Munro, F. W.  
Munro, M. A. R.

Nicholson, Miss A.  
O'Donnell, J. J.  
Owen, Miss I. L.  
Palmer, Miss C. M. E.  
Parsons, W.  
Payne, Miss M.  
Peters, W. H.  
Popple, Miss E.  
Potts, Miss J. E.  
Potts, Mrs. M. E.  
Prescott, E. L.  
Pring, Miss E. W.  
Randall, Miss C. M.  
Ratcliffe, G. W.  
Rawle, Miss B. E.  
Reed, Miss E.  
Reeve, A. H. B.  
Rice, Miss H. M.  
Richards, F. E.  
Ridley, F. W.  
Ripley, Miss J.  
Rogers, A. E.  
Rowlands, H. J.  
Saunders, T. S.  
Scarlett, E. J.  
Scarre, Miss M.  
Seabrook, Miss E. J. H.  
Sharmann, S. E.  
Sherwen, W. H.  
Shuttlewood, T.  
Siggins, Miss C.  
Smallwood, Miss G.  
Smith, E. R.  
Smith, H. W.  
Smith, J. A.  
Spencer, W. J.  
Spindler, Mrs. E. M.  
Spink, Miss F. M.  
Stevens, W. S.  
Stevenson, G.  
Stott, S. F.  
Suffling, A. J.  
Taylor, C. S.  
Taylor, Miss E.  
Thomas, Miss E. E.  
Thomas, J.  
Thomas, R. W.  
Tipping, S. L.  
Topham, Miss G.  
Tresidder, J. M.  
Trist, Miss L. C.  
Varlon, P. C. W.  
Wade, D.  
Walker, F. M.  
Warne, Miss A. J.  
Warren, F. E.  
Watson, W. F.  
Whatley, W. E.  
White, B. C.  
White, T.  
Whitehead, Miss J.  
Whitten, J.  
Wilkins, Miss G. R.  
Williams, R. L.  
Wilson, C. E.  
Wilson, Miss D. M.  
Wood, Mrs. F. L.  
Wood, W. T.  
Woods, C.  
Wright, H. F.  
Yates, J. H.  
York, A.

**English Language.**

Atkinson, Miss A.  
Barnes, O. H.  
Beach, T. (*hon.*)  
Bedford, Miss V. E.  
Bennett, Miss L. J.  
Bloxham, Miss O. M.  
Border, Miss G.  
Brien, D. J.  
Brittain, J.  
Brittain, T. G.  
Brooke, H.

Caley, Miss F. A.  
Cleator, J. M.  
Cretney, F. H.  
Culshaw, W. H.  
Dale, Miss K. H.  
de Creux-Hutchinson, W. H. K.  
Eatherington, W. H.  
Ewels, J. (*hon.*)  
Farrow, Miss Z. M.  
Fassnidge, J. H.  
Flotcher, T. J. B.  
Frodsham, R. H.  
Frost, G. E.  
Gamble, Miss M.  
Gannon, J.  
Gay, F. P.  
Goodfellow, G. H.  
Gow, Miss C.  
Green, Miss M. E.  
Halc, Miss W. A.  
Harding, A.  
Hargreaves, E.  
Harris, W. J.  
Harrison, E. A.  
Head, Miss B. M. M.  
Hickey, Miss A. F. F.  
Hobson, H.  
Houghton, F. J.  
Hubard, J. D.  
Hughes, Miss E. M. G.  
Jacobs, G. S.  
Jones, D. B.  
Jones, J. E.  
Keeley, P. F.  
Lee, Miss K.  
Le Messurier, Miss F. M.  
Longworth, Miss L.  
Mayes, W. C.  
Mears, Miss M. R.  
Milton, C. V.  
Moran, Miss M.  
Morrison, C.  
Munro, F. W.  
Nathan, Miss M. L.  
North, Miss J.  
O'Vastar, B. T.  
Owen, Miss I. L.  
Payne, Miss M.  
Percy, J.  
Perry, S. S.  
Peters, W. H.  
Pitt, E. J. C.  
Pittard, R. T.  
Pringle, C. W.  
Ratcliffe, G. W.  
Reeve, A. H. B.  
Sharmann, S. E.  
Sherwen, W. H.  
Smith, Miss A. A. (*hon.*)  
Smith, E. R.  
Spence, W. S.  
Staines, Miss K. E.  
Stanley, Miss M. A.  
Steal, H. G.  
Suffling, A. J.  
Thomas, J.  
Tiller, E. A.  
Tipping, S. L.  
Tresidder, J. M.  
Valentine, Miss L.  
Walter, Miss A. S.  
Warren, F. E.  
Watson, W. F.  
Williams, I.  
Wilson, C. E.  
Wylam, J.

**English History.**

Anwyl, C.  
Avery, H. C.  
Barrass, G. E. S.  
Bavidge, G. G.  
Beach, T.  
Beacroft, W.

Bennett, Miss L. J.  
Blackall, L.  
Bloxham, Miss O. M.  
Brien, D. J.  
Brittain, J.  
Butterworth, J. H.  
Caley, Miss F. A.  
Clarkson, Miss I.  
Coulter, C.  
Cowley, Miss H. M.  
Cretney, F. H.  
Davies, J. R. B.  
de Creux-Hutchinson, W. H. K. (*hon.*)  
Dovey, Miss E. J.  
Eatherington, W. H.  
Ewels, J. (*hon.*)  
Farrow, Miss Z. M.  
Fassnidge, J. H. (*hon.*)  
Fell, C. G.  
Fretwell, O. N.  
Frodsham, R. H.  
Frost, G. E.  
Gamble, Miss M.  
Gibb, Miss M.  
Gilbert, Miss L. E.  
Goodfellow, G. H.  
Greenhalgh, S. B.  
Hale, Miss W. A.  
Harding, A.  
Hargreaves, E.  
Harper, G. R.  
Harris, W. J.  
Haward, R. W.  
Haysman, J. H.  
Houghton, F. J.  
Huddleston, Miss I. S.  
Hughes, Miss E. M. G.  
Jacobs, G. S.  
Jones, J. E.  
Jones, W. Jonah  
Keeley, P. F. (*hon.*)  
Lee, Miss K.  
Le Messurier, Miss F. M.  
Linklater, P. (*hon.*)  
Longworth, Miss L.  
Mayes, W. C.  
McCarthy, C. J.  
Mears, Miss M. R.  
Moran, Miss M.  
Nathan, Miss M. L.  
North, Miss J.  
O'Vastar, B. T.  
Owen, Miss I. L.  
Payne, Miss M.  
Percy, J.  
Perry, S. S.  
Peters, W. H.  
Pitt, E. J. C.  
Pittard, R. T.  
Pringle, C. W.  
Ratcliffe, G. W.  
Reeve, A. H. B.  
Sharmann, S. E.  
Sherwen, W. H.  
Smith, Miss A. A. (*hon.*)  
Smith, E. R.  
Spence, W. S.  
Staines, Miss K. E.  
Stanley, Miss M. A.  
Steal, H. G.  
Suffling, A. J.  
Thomas, J.  
Tiller, E. A.  
Tipping, S. L.  
Tomlinson, Miss E. M.  
Trist, Miss L. C.  
Upton, R. J.  
Valentine, Miss L.  
Warren, F. E.  
Watson, W. F.  
Wilkins, Miss G. R.  
Wilson, C. E.

**Geography.**

Barnes, O. H.  
Bate, F. A.  
Beach, T.  
Bennett, Miss L. J.  
Bounevalle, Miss T.  
Butterworth, J. H.  
Caley, Miss F. A.

Clarkson, Miss I.  
Cleator, J. M.  
Copley, S.  
Cretney, F. H.  
Curtis, S. S.  
de Creux-Hutchinson, W. H. K. (*hon.*)  
Dunning, Miss M.  
Eatherington, W. H.  
Ewels, J.  
Fassnidge, J. H.  
Fell, C. G.  
Frodsham, R. H.  
Frost, G. E.  
Gannon, J.  
Goodfellow, G. H.  
Gow, Miss C.  
Greenhalgh, S. B.  
Hambly, W. D.  
Harding, A.  
Hargreaves, E.  
Harris, W. J.  
Hobson, H.  
Hosken, W. T.  
Hughes, Miss E. M. G.  
Jacobs, G. S.  
Jones, J. E.  
Keeley, P. F.  
Lancaster, C. A.  
Le Messurier, Miss F. M.  
Lockwood, S.  
Longworth, Miss L.  
Mayes, W. C.  
McCarthy, C. J.  
Morris, H. H.  
O'Vastar, B. T.  
Peraudeau, Miss V.  
Percy, J.  
Peters, W. H.  
Reeve, A. H. B.  
Senyard, Miss M.  
Sharmann, S. E.  
Sherwen, W. H.  
Shuttlewood, T.  
Smith, Miss A. A.  
Spindler, Mrs. E. M.  
Swift, J. A.  
Thomas, J.  
Tiller, E. A.  
Tipping, S. L.  
Valentine, Miss L.  
Warren, F. E.  
Watson, W. F.  
Wilson, C. E.

**Arithmetic.**

Abbott, Miss M. H.  
Anwyl, C.  
Avery, H. C.  
Beach, T.  
Bedford, Miss V. E.  
Billings, Miss E. L.  
Brien, D. J.  
Brookson, C. W.  
Butterworth, J. H.  
Caley, Miss F. A.  
Cleator, J. M.  
Cockburn, A. M.  
Copley, S.  
Corry, Miss M.  
Curtis, S. S.  
Dale, Miss K. H.  
de Creux-Hutchinson, W. H. K.  
Dunning, Miss M.  
Eatherington, W. H.  
Ewels, J.  
Fassnidge, J. H.  
Forster, S. R.  
Fretwell, O. N.  
Frost, G. E.  
Gannon, J.  
Gay, F. P.  
Goodfellow, G. H.

**Arithmetic—(contd.)**

Green, Miss M. E.  
Greenhalgh, S. B. (hon.)  
Griffiths, Miss M. A. E.  
Harding, A.  
Hargreaves, E.  
Harris, W. J.  
Harrison, E. A. (hon.)  
Hughes, Miss E. M. G.  
Jacobs, G. S.  
Jones, J. E.  
Jones, W. M.  
Keeley, P. F.  
Kempthorne, Miss H. M.  
Lancaster, C. A.  
Lee, Miss K.  
Le Messurier, Miss F. M.  
Lockwood, S.  
Longworth, Miss L.  
Ludford, C. H.  
Matheson, J.  
Mayes, W. C.  
McCarthy, C. J.  
Mcars, Miss M. R.  
Milton, C. V.  
Mitchell, Miss M. M.  
Moran, Miss M.  
Morris, H. H.  
Murphy, W. J.  
North, Miss J.  
O'Vastar, B. T.  
Payne, Miss M.  
Percy, J. (hon.)  
Perry, S. S.  
Peters, W. H.  
Piper, W. E.  
Pring, Miss E. W.  
Ratcliffe, G. W.  
Ryle, G. E.  
Sherwen, W. H.

Shuttlewood, T.  
Spicer, E. V.  
Stanley, Miss M. A.  
Stead, H. G. (hon.)  
Sutcliffe, A. J.  
Swift, J. A.  
Thomas, J.  
Tiller, E. A. (hon.)  
Tipping, S. L.  
Upton, R. J.  
Vardon, P. C. W.  
Watson, W. F. (hon.)  
Williams, I.  
Williams, W.  
Wilson, C. E.  
Wolfers, A.  
Woodhall, H. D. G.

**Mathematics.**

**FELLOWSHIP.**

Rust, S. J. (hon. trig.)

**LICENTIATESHIP.**

Cliff, S.  
Danielson, A.  
Dixon, J.  
Dolton, W. N.  
Fox, J. H.  
Kelly, Miss C.  
Kent, Miss T.  
Moore, W. I. (hon. trig.)  
Morgan, A.  
Richards, Miss F.  
Stead, H. G.  
Willcocks, T.

**ASSOCIATESHIP.**

Anvyl, C.  
Bates, S. A.  
Bavidge, G. G.  
Beach, T.  
Bradshaw, J.  
Brien, D. J.  
Cleator, J. M.  
Coulter, C.  
Cretney, F. H.  
Curtis, S. S.  
Fassnidge, J. H.  
Fretwell, O. N.  
Frost, G. E.  
Greenhalgh, S. B.  
Harding, A.  
Hargreaves, E.  
Harward, R. W.  
Jacobs, G. S.  
Ludford, C. H.  
Milton, C. V.  
Percy, J.  
Peters, W. H.  
Roden, R. D.  
Sherwen, W. H.  
Stanley, Miss M. A.  
Stevens, W. S.  
Swift, J. A.  
Thomas, J.  
Thomas, R. W.  
Tipping, S. L.  
Watson, W. F.  
Williams, I.  
Wolfers, A.  
Wylan, J.

**Algebra.\***

**LICENTIATESHIP.**

Amesbury, J.

**Geometry.\***

**LICENTIATESHIP.**

Amesbury, J.

**Conics.\***

**LICENTIATESHIP.**

Ellison, T. W.

**Languages.**

e. = Higher English,  
f. = French, g. = German,  
gr. = Greek, l. = Latin.

**LICENTIATESHIP.**

Bennet, Miss E. e.f.  
Booth, J. B. e.l.  
Buttery, W. A. e.f.  
John, H. M. f.g. (hon.)  
Jowett, A. e.g.  
Le Richeux, C. E. f.l.  
Thomas, Miss E. f.g.

**ASSOCIATESHIP.**

Abbs, Miss L. S. f.  
Atkinson, Miss A. f.  
Austen, Miss L. S. f.  
Bennet, Miss L. S. f.  
Bouneville, Miss T. f. (hon.)  
Brittain, J. l.  
Caley, Miss F. A. f.  
Cockburn, A. M. l.  
Cummings, Miss H. G. P. f.  
Dowling, Miss S. f.

Dunning, Miss M. f.

Ewels, J. f.  
Fletcher, T. J. B. f.  
Forster, S. R. f.  
Gay, F. P. l.  
Gilbert, Miss L. E. f.  
Goodfellow, G. H. f.  
Green, Miss M. E. f.  
Green, W. H. f.  
Hodder, A. E. f.  
Lee, Miss K. f.  
Linklater, P. f.  
Mears, Miss M. R. f.  
Mills, E. G. gr.  
Nathan, Miss M. L. f.  
Prideaux, P. H. f. (hon.)  
Pring, Miss E. W. f. (hon.)  
Harris, W. J. p.ch.  
Russell, Miss J. f. (hon.)

**Science.**

a. = Astronomy.  
b. = Botany.  
ch. = Chemistry,  
g. = Geology,  
m. = Mechanics,  
p. = Experimental  
Physics.  
ph. = Animal Physiology.  
z. = Zoology.

**LICENTIATESHIP.**

Beacroft, A. ph.b.  
Brooksbank, H. H. a.ch.  
Brown, A. E. ph.g.  
Cahill, Miss M. ph.b.  
Denton, W. S. ph.b.  
Eades, G. E. ch.ph.  
Gandy, W. p.ch.

Grey, R. E. a.ph.  
Jarvis, T. F. a.ph.  
Le Richeux, C. E. ch.ph.  
Moore, W. I.  
p. (hon.) m. (hon.)  
Peraudeau, Miss V. ph.b.  
Renwick, J. ch.ph.  
Stead, H. G. p.m.

**ASSOCIATESHIP.**

Andrews, E. G. ph.b.  
de Creux-Hutchinson,  
W. H. K. m. (hon.) ph.  
Ellis, J. ch.ph.  
Everett, W. M. ph.b.  
Gow, Miss C. ph.b.  
Hambly, W. D. p.ph.  
Harris, W. J. p.ch.  
Le Messurier, Miss F. M. ph.b.  
Longworth, Miss L. p.ch.  
McMillan, Miss A. ph.b.  
Moys, Miss B. A. ph.b.  
Niederleithner, F. ch.ph.  
Pringle, C. W. ph.b.  
Reeve, A. H. B. ph.z.  
Smith, Miss A. A. m.ph.  
Spence, W. S. ch.ph.  
Spindler, Mrs. E. M. ph.b.  
Taylor, G. W. ch.ph.  
Tiller, E. A. p.ph.  
Wilson, Miss D. M. ph.b.

**Animal Physiology.\***

**LICENTIATESHIP.**

Whitbread, F. J.

\* Under Old Regulations.

Diplomas were awarded to the following, who had satisfied all the prescribed conditions:—

FELLOWSHIP.	ASSOCIATESHIP.	Downes, E.	Hawley, Miss M. E.	McCabe, F. A.	Smallwood, Miss G.
Babb, F. J.	Abbott, Miss M. H.	Downing, Miss M.	Hayes, W.	McMath, W. H.	Smith, E. R.
	Anderson, Miss B. G.	Ellis, Miss M. G.	Hewitt, Miss A. G.	Melles, R. E.	Smith, H. W.
	Austen, Miss L. S.	Ewels, J.	Hill, Miss F. G.	Metcalf, Miss E. M. E.	Smith, Miss A. A.
	Barber, J.	Fassnidge, J. H.	Hilliard, Miss A. E.	Mills, E. G.	Spencer, W. J.
<b>LICENTIATESHIP.</b>	Bavidge, G. G.	Fellows, R. H.	Hobson, H.	Milton, Miss L.	Spink, Miss F. M.
Burlington, Miss M.	Beach, T.	Ferguson, Miss I.	Hodges, Miss M. A.	Money, A.	Staines, Miss K. E.
Cahill, Miss M.	Beale, Miss W. M.	Fieldus, O.	Hopkins, F.	Moss, S.	Stevenson, G.
Cliff, S.	Beeley, Miss M. M.	Fisher, Miss A. H.	Hough, Miss C.	Mumby, A.	Stott, S. F.
Dixon, J.	Blackburn, Miss N.	Fletcher, T. J. B.	Houghton, F. J.	Munro, M. A. R.	Taylor, C. S.
Dolton, W. N.	Bloyce, E. J.	Fox, Miss A. G.	Hoyle, Miss A.	Nicholson, Miss A.	Taylor, Miss E.
Grey, R. E.	Boore, E.	Fox, Miss L. B.	Humphries, Miss E. B.	O'Donnell, J. J.	Thomas, J.
Hawksworth, H.	Boyd, Miss L. J.	Frayne, Miss E. M.	Hurd, Miss L.	Palmer, Miss C. M. E.	Thomas, Miss E. E.
Jamison, J.	Bradshaw, J.	Friedenberg, H.	Hyde, Miss L.	Parsons, W.	Tipping, S. L.
Jarvis, T. F.	Branstone, Miss B.	Gale, Miss E. H.	Hyett, Miss F. B.	Pender, H. H.	Topham, Miss G.
Keating, T. P.	Breckell, Miss E. F.	Gannon, J.	Jacobs, G. S.	Piper, W. E.	Valentine, Miss L.
Kelly, Miss C.	Butler, Miss T.	Garrad-Cole, Miss B. M.	Jarratt, Miss C.	Poppo, Miss E.	Walker, F. M.
Kent, Miss T.	Bygott, C. E.	Glanville, F. R.	Jeffery, Mrs. A.	Potts, Miss J. E.	Watson, W. F.
Le Richeux, C. E.	Clement, H. R.	Godfrey, M.	Jones, W. James	Prescott, E. L.	White, B. C.
Lyon, J. G.	Cockburn, A. M.	Green, Miss M. E.	Kershaw, Miss E.	Pringle, C. W.	White, T.
Maguire, H.	Cope, R. C.	Greenough, Miss M.	Key, Miss E.	Randall, Miss C. M.	Whitehead, Miss J.
Mayo, H. W.	Corah, F.	Griffith, E.	Lancaster, C. A.	Rawle, Miss B. E.	Whitten, J.
Morgan, A.	Corah, F.	Griffiths, Miss F. E.	Linklater, P.	Reed, Miss E.	Williams, R. L.
Richardson, Miss F.	Corry, W. P.	Haire, T. A.	Longworth, Miss L.	Rice, Miss H. M.	Wood, Mrs. F. L.
Shackleton, Miss M. H.	Crabtree, J. D.	Hambly, W. D.	Lyon, H. J. T.	Richards, F. E.	Wood, W. T.
Thorogood, J. W.	Cracknell, S. H.	Hammer, Miss M. L.	Maddison, Miss E.	Ridley, F. W.	Woodhall, H. D. G.
Westmore, H. C. S.	Critchley, Miss E. R.	Harding, A.	Maher, Miss M. J.	Ripley, Miss J.	Woods, C.
Whitbread, F. J.	Cummings, Miss H. G. P.	Hargreaves, E.	Marshall, H.	Rowlands, H. J.	Wright, H. F.
Willcocks, T.	Daniels, E.	Harper, G. R.	Matheson, J.	Seabrook, Miss E. J. H.	Yates, J. H.
	Day, A. G.	Harris, W. J.	Matthews, J. H. W.	Senyard, Miss M.	York, A.
	de Creux-Hutchinson, W. H. K.	Harwood, H. F.	Maxwell, W. H.	Sherwen, W. H.	

WILL BE READY IN MARCH. Demy 8vo, cloth, price 2s. 6d., free by post.

To Members of the College the price is 1s., or 1s. 6d. free by post.

**THE CALENDAR OF THE COLLEGE OF PRECEPTORS FOR THE YEAR 1908 :**

Containing all information respecting the objects and operations of the College, Lists of Officers, Examiners, and Members, the Regulations of the various Examinations, &c., with an Appendix containing the following Examination Papers:—

- |   |   |
|---|---|
| 1. Papers set at Examination of Teachers for Diplomas, Summer, 1907.      | 5. Papers set at Professional Preliminary Examination, March, 1907. |
| 2. Do. do. do. Christmas, 1907.   | 6. Do. do. do. September, 1907.                                     |
| 3. Papers set at Examination of Pupils for Certificates, Midsummer, 1907. | 7. Papers set at Lower Forms Examination ... Summer, 1907.          |
| 4. Do. do. do. Christmas, 1907.   | 8. Do. do. do. ... Christmas, 1907.                                 |

\* Nos. 3, 4, 5, and 6 may be had separately, price, free by post, 7d. each set. Nos. 7 and 8, price, free by post, 4d. each set.

The Diploma Papers are to be had only in the "Calendar."



# CLASS LISTS

OF CANDIDATES WHO HAVE PASSED THE CERTIFICATE EXAMINATION OF THE COLLEGE OF PRECEPTORS.—CHRISTMAS, 1907.

## LIST OF SUCCESSFUL CANDIDATES AT COLONIAL AND FOREIGN CENTRES.

N.B.—The small italic letters denote that the Candidate to whose name they are attached was distinguished in the following subjects respectively:—

a. = Arithmetic.	e. = English.	A. = History.	ms. = Mensuration.	sc. = Elementary Science.
al. = Algebra.	f. = French.	he. = Hebrew.	mu. = Music.	sh. = Shorthand.
b. = Botany.	g. = Geography.	i. = Italian.	nh. = Natural History.	sp. = Spanish.
bk. = Bookkeeping.	ge. = German.	l. = Latin.	p. = Political Economy.	tr. = Trigonometry.
ca. = Chemistry.	geo. = Geology.	lt. = Light and Heat.	ph. = Physiology.	w. = Welsh.
d. = Drawing.	gm. = Geometry.	m. = Mechanics.	phys. = Elementary Physics.	z. = Zoology.
do. = Domestic Economy.	gr. = Greek.	ma. = Magnetism & Electricity.	s. = Scripture.	

The small figures <sup>1</sup> and <sup>2</sup> prefixed to names in the Second and Third Class Lists denote that the Candidates were entered for the First and Second Classes respectively.

In the addresses, Acad. = Academy, C. or Coll. = College, Coll. S. = Collegiate School, Comm. = Commercial, Conv. = Convent, Elem. = Elementary, End. = Endowed, Found. = Foundation, H. = House, Hr. = Higher, Inst. = Institute, Int. = International, Inter. = Intermediate, Poly. = Polytechnic, Prep. = Preparatory, P.T. = Pupil Teachers, S. = School, Sec. = Secondary, Tech. = Technical, Univ. = University.

[Bracketing of names denotes equality.]

### BOYS.

#### FIRST CLASS [OR SENIOR].—PASS DIVISION.

Johnson, L.R. Wesleyan High S., Freetown, Sierra Leone  
Niez, P. f. Private tuition

#### SECOND CLASS [OR JUNIOR].—HONOURS DIVISION.

Williams, C.T. Grenada Gram. S.  
Fernando, P.H. Lorenz S., Maradana, Colombo  
Aldred, W. du. Sacred Heart Conv., Klerksdorp

#### SECOND CLASS [OR JUNIOR].—PASS DIVISION.

Glean, C.E. bk. f. Grenada Gram. S.  
Rosenberg, I. Marist Bros.' Coll., Johannesburg  
Zeffert, A. f. Marist Bros.' Coll., Johannesburg  
Goonewardena, G.R. al. Central Coll., Colombo  
Leemburgen, A.R. Central Coll., Colombo  
Burke, W.S. Private tuition  
Wiyewardene, D.E. Central Coll., Colombo  
Arulperagasam, R. Central Coll., Colombo  
Knight, G.E. Grenada Gram. S.  
Grenier, H.W. Central Coll., Colombo  
Lightbourn, P.M. Queen's Coll., Nassau  
Aum, S.E. Marist Bros.' Coll., Johannesburg  
Ajose, C.A. Wesleyan High S., Lagos  
Carluo, L. Marist Bros.' Coll., Johannesburg  
Israel, L. Marist Bros.' Coll., Johannesburg  
Setukavalar, R.N. Private tuition  
Turtle, M.A. d. Queen's Coll., Nassau  
Manikavelu, A. Norris Coll., Rangoon  
Rupesinghe, L. Central Coll., Colombo  
Negamuttu, P. Private tuition  
Jayasingha, D.A. Central Coll., Colombo  
Mahamarkkalage, G.P. Private tuition  
Aspoas, H. Marist Bros.' Coll., Johannesburg  
De Silva, G.P. Central Coll., Colombo  
Pardini, A. Marist Bros.' Coll., Johannesburg  
Sylvester, N.G. Private tuition  
De Silva, S. Private tuition  
Purushothum, V. Norris Coll., Rangoon  
Shirkole, M. Norris Coll., Rangoon  
Moore, R.K. Queen's Coll., Nassau  
Damodarum, S. Norris Coll., Rangoon  
Wright, P.W. H. Wesleyan High S., Freetown, Sierra Leone  
Fernando, P.M. Private tuition  
Haddinnapole, P. Private tuition  
Pety, M. Marist Bros.' Coll., Johannesburg  
Lulowyke, J.H.B. Private tuition  
Harlie, J.R. Lomas Acad., Lomas de Zamora  
Solomon, E. Private tuition  
Mahon, E.S. Private tuition  
Coomaraswamy, E.T. Central Coll., Colombo  
Jansz, R.V. Lorenz S., Maradana, Colombo  
Andries, G.E. Private tuition  
Don, C.D. Central Coll., Colombo  
Waddell, W. Marist Bros.' S., Cala  
Coker, B.D. Wesleyan High S., Freetown, Sierra Leone  
Jones, R. Private tuition  
Saunders, W.H.J. Queen's Coll., Nassau  
Lipshitz, A. jr. Private tuition  
McCrum, R.M. bk. Lomas Acad., Lomas de Zamora  
Soysa, A.H.T. Central Coll., Colombo  
Andrews, E.A.E. Private tuition  
Sandiford, S. Private tuition  
St. Joseph's Inter S., Lacytown, Georgetown, B. Guiana  
Peries, L.H. Private tuition  
Roberts, A. MacC. Private tuition

Armstrong, P.S. St. Joseph's Inter S., Lacytown, Georgetown, B. Guiana  
Johannes, E.C. City Coll., Colombo  
Wasserzug, H. Marist Bros.' Coll., Johannesburg  
Feimberg, D. Private tuition  
Pedrio, J. Private tuition  
De Silva, D.M.J. Central Coll., Colombo  
Wangsooria, S.L. Lorenz S., Maradana, Colombo  
Kilroe, T. St. Aidan's College, Grahamstown

#### THIRD CLASS—HONOURS DIVISION.

Thomas, N.G.G. e. al. f. Middle S., Lacytown, Georgetown, B. Guiana  
Pitt, C.S.L. s. a. bk. Private tuition  
Noel, E.A. s. a. bk. Private tuition  
Findlay, C.H. e. a. Barronallie Anglican S., St. Vincent  
Almon, H. e. al. gm. Marist Bros.' High S., Port Elizabeth  
Felix, F. s. a. Private tuition  
Pitt, R. s. Private tuition  
Dorey, C. e. a. al. gm. Marist Bros.' Coll., Johannesburg  
McIntosh, L.C. s. a. Private tuition  
Appleby, R. e. a. al. d. Marist Bros.' High S., Port Elizabeth  
Gibbs, J. h. a. Private tuition  
Lipman, A. e. a. al. Marist Bros.' Coll., Johannesburg  
Nundy, A. e. a. Marist Bros.' Coll., Johannesburg  
Walters, J.E. a. Private tuition  
Marshall, G.I. a. Middle S., Lacytown, Georgetown, B. Guiana  
Ruther, C. a. Marist Bros.' Coll., Johannesburg  
Crawford, S. al. Marist Bros.' High S., Port Elizabeth  
Pearson, A.W. Lomas Acad., Lomas de Zamora

#### THIRD CLASS.—PASS DIVISION.

Bandaranaike Peiria, J.H. Private tuition  
Hardie, W.S. bk. sp. Lomas Acad., Lomas de Zamora  
Trow, C.J. Marist Bros.' S., Cala  
Tweedie, G. du. Sacred Heart Conv., Klerksdorp  
Roberts, E. Wesleyan High S., Freetown, Sierra Leone  
Grant, N. Queen's Coll., Nassau  
Comenius Sec.S., Queenstown, Georgetown, B. Guiana  
Stainwall, D. Central Coll., Colombo  
Hitze, W. e. Marist Bros.' Coll., Johannesburg  
Nicolls, S.O. Wesleyan High S., Freetown, Sierra Leone  
Albers, G. a. Marist Bros.' Coll., Uitenhage  
Mallalieu, R. Marist Bros.' Coll., Johannesburg  
Oosthuisen, M. e. al. du. Marist Bros.' Coll., Uitenhage  
Anderson, E. e. d. Marist Bros.' Coll., Johannesburg  
Hill, S. Marist Bros.' High S., Port Elizabeth  
Holmes, H. a. d. Marist Bros.' High S., Port Elizabeth  
Rosenberg, N. Marist Bros.' Coll., Johannesburg  
Thomas, S.A. s. a. Georgetown Government S., St. Vincent  
Grant, P. Marist Bros.' Coll., Uitenhage  
Lowry, G. a. d. Marist Bros.' S., Cala  
Jacobs, F.V. e. Delair Anglican S., St. Vincent  
Tham, E.E. Wesleyan High S., Freetown, Sierra Leone  
Cummings, E.H.T. Wesleyan High S., Freetown, Sierra Leone  
Goodger, D.A. e. a. Marist Bros.' Coll., Uitenhage  
Keys, B. e. a. Marist Bros.' Coll., Uitenhage  
Bradfield, S.F. Marist Bros.' Coll., Uitenhage  
Rupasinghe, G.W. City Coll., Colombo  
Craol, G.H. e. a. Middle S., Lacytown, Georgetown, B. Guiana  
Jockelson, R. e. Marist Bros.' Coll., Johannesburg  
Laing, A. e. a. Marist Bros.' Coll., Johannesburg  
Macaulay, J.E. a. Wesleyan High S., Freetown, Sierra Leone

Pieris, I.F. City Coll., Colombo  
Duncan, W. a. Marist Bros.' High S., Port Elizabeth  
Shervington, G.T. Comenius Sec.S., Queenstown, Georgetown, B. Guiana  
Jones, D.O. s. a. Wesleyan High S., Lagos  
Jones, H.M. Wesleyan High S., Freetown, Sierra Leone  
Ranger, V.M. a. Marist Bros.' Coll., Uitenhage  
Cozier, C.A. a. f. Middle S., Lacytown, Georgetown, B. Guiana  
De Silva, A.B.J. a. Central Coll., Colombo  
Pitout, S. Marist Bros.' Coll., Uitenhage  
Wilkinson, E. Comenius Sec.S., Queenstown, Georgetown, B. Guiana  
Caesar, J.H. Comenius Sec.S., Queenstown, Georgetown, B. Guiana  
Phillips, H. e. a. Middle S., Lacytown, Georgetown, B. Guiana  
Adler, G. a. Marist Bros.' Coll., Johannesburg  
Hulley, J.T. a. al. Marist Bros.' S., Cala  
King, J.H. Gram.S., New Amsterdam, Berbice, B. Guiana  
Kelly, H.N. Queen's College, Nassau  
Rodrigo, S.H. St. Paul's Boys' English S., Colombo  
Seenitambay, S.S. Wesleyan Central S., Batticaloa  
Heyzer, R.C. Lorenz S., Maradana, Colombo  
Jensen, M. Marist Bros.' Coll., Johannesburg  
John, E.A. Wesleyan High S., Freetown, Sierra Leone  
Lardner, R.E. Wesleyan High S., Freetown, Sierra Leone  
Lovemore, R.H. a. Marist Bros.' Coll., Uitenhage  
Fielding, J. Marist Bros.' High S., Port Elizabeth  
Gabriel, C. Marist Bros.' Coll., Johannesburg  
Jackson, D.E. e. a. Middle S., Lacytown, Georgetown, B. Guiana  
Johnson, J.M. Wesleyan High S., Freetown, Sierra Leone  
Leygonie, C.F. du. Marist Bros.' Coll., Uitenhage  
Rae, F.R. Queen's Coll., Nassau  
Harris, C. e. a. Marist Bros.' High S., Port Elizabeth  
Kark, L. Marist Bros.' Coll., Johannesburg  
Tardugno, R. Marist Bros.' High S., Port Elizabeth  
Bishop, H. Marist Bros.' High S., Port Elizabeth  
Noel, A. J. Private tuition  
Bethel, C.P. Queen's Coll., Nassau  
Carter, A. Private tuition  
Hundermarl, F. Marist Bros.' Coll., Uitenhage  
Maturine, R.J. Private tuition  
Fernando, E.M. Central Coll., Colombo  
Fox-Smith, W. Marist Bros.' High S., Port Elizabeth  
Tosu, J.O. Wesleyan High S., Lagos  
Ueckerman, A.G. Marist Bros.' Coll., Uitenhage  
Aranson, N. Marist Bros.' Coll., Johannesburg  
Jensen, C.A. Marist Bros.' Coll., Johannesburg  
Wambeck, J.O. Wesleyan Central S., Batticaloa  
Acton, M. d. Marist Bros.' S., Cala  
Binhu, H. e. Marist Bros.' Coll., Johannesburg  
Chung, A.H. Middle S., Lacytown, Georgetown, B. Guiana  
Cornelis, A.P.J. Marist Bros.' Coll., Uitenhage  
Hoare, A.L. Marist Bros.' Coll., Uitenhage  
Lawson, F.L. Wesleyan High S., Lagos  
Mohideen, S.L.M. Central Coll., Colombo  
Casi Chitty, G.A. e. City Coll., Colombo  
Fernando, P.W. Central Coll., Colombo  
Green, L.F. Marist Bros. Coll., Uitenhage  
Sears, R.R. d. Queen's Coll., Nassau  
Archer, J.L. Private tuition  
Egan, L. Marist Bros.' S., Cala  
Hindagala, L.B.H.M. a. City Coll., Colombo  
Francis, I.E.L. s. Private tuition  
Osborne, C. Marist Bros.' Coll., Uitenhage  
Pearson, C. B. a. Marist Bros.' Coll., Uitenhage  
Ranatunge, D. S. City Coll., Colombo

BOYS, THIRD CLASS, PASS—continued.

Abdul Majeed, M. K. a. St. Paul's Boys' English S., Colombo
Adam, V. Marist Bros. Coll., Johannesburg
Ingamells, H. d. Marist Bros. High S., Port Elizabeth
Moses, C. New Amsterdam, Berbice, B. Guiana
Muir, C. J. of. Marist Bros. S., Cala
Papendorf, R. Marist Bros. Coll. Uitenhage
2Pietersz, D. L. Loreuz S., Maradana, Colombo
Albers, H. Marist Bros. Coll., Uitenhage
Delph, A. C. St. Joseph's Inter. S., Lacytown, Georgetown, B. Guiana
Eaton, P. Marist Bros. High S., Port Elizabeth
Hitge, T. Marist Bros. Coll., Uitenhage
Perkins, E. Marist Bros. High S., Port Elizabeth
Shuman, S. d. Marist Bros. S., Cala
Higham, J. Marist Bros. Coll., Johannesburg
Marcus, I. Marist Bros. Coll., Johannesburg
2Sivaperagasam, M. Wesleyan Central S., Batticaloa
White, P. Marist Bros. Coll., Johannesburg
AbdulCarier, M. Z. St. Paul's Boys' English S., Colombo
De Silva, V. H. City Coll., Colombo
Nepthune, C. Private tuition
Stephan, B. E. a. Marist Bros. Coll., Johannesburg
Sutherland, D. A. Private tuition
Vogel, K. Marist Bros. High S., Port Elizabeth
Donalson, T. W. sp. Lomas Acad., Lomas de Zamora
Pettit, H. E. Marist Bros. Coll., Uitenhage
Dundas, S. B. Middle S., Lacytown, Georgetown, B. Guiana
Harrison, J. Marist Bros. Coll., Johannesburg
Hart, J. Marist Bros. S., Cala
King, L. St. Aidan's College, Grahamstown
Maha Raju, R. a. Wesleyan Central S., Batticaloa

Van Diggelen, H. Marist Bros. Coll., Johannesburg
2Alder, H. W. Wesleyan High S., Lagos
Harley, D. Marist Bros. Coll., Uitenhage
Akiwumi, A. M. Wesleyan High S., Lagos
Howard, H. e. Marist Bros. S., Cala
Spring, H. Marist Bros. Coll., Johannesburg
Thorne, A. H. Middle S., Lacytown, Georgetown, B. Guiana
Wagner, J. Marist Bros. Coll., Uitenhage
Hukins, L. d. Marist Bros. High S., Port Elizabeth
Melvor, K. Marist Bros. Coll., Johannesburg
Norton, J. Marist Bros. Coll., Uitenhage
Thomson, R. a. Marist Bros. High S., Port Elizabeth
2Alwis, R. F. de Central Coll., Colombo
2Bandaranayake, E. R. D. Central Coll., Colombo
Grigor, G. Marist Bros. High S., Port Elizabeth
Osborne, J. H. Comenius Sec. S., Queenstown, Georgetown, B. Guiana
Perry, F. St. Joseph's Inter. S., Lacytown, Georgetown, B. Guiana
2Roberts, C. B. Lynch, G. M. Middle S., Lacytown, Georgetown, B. Guiana
2Nagapillay, R. Norris Coll., Rangoon
Pirie, E. Marist Bros. Coll., Johannesburg
Schlimmer, O. e. Marist Bros. Coll., Johannesburg
Smith, G. Marist Bros. Coll., Uitenhage
2Wiyasinghe, C. P. Central Coll., Colombo
Young, S. Marist Bros. High S., Port Elizabeth
D'Aubrey, L. Marist Bros. Coll., Johannesburg
Fitzgerald, G. W. Marist Bros. Coll., Uitenhage
Isaacs, A. Marist Bros. Coll., Johannesburg
2Karupiah, K. D. City Coll., Colombo
Kinkead, T. Marist Bros. Coll., Johannesburg
Martin, S. Union Wesleyan S., Bridgetown P.O., St. Vincent

Rathouse, O. Marist Bros. Coll., Johannesburg
Walker, J. A. Biabon Wesleyan S., Bridgetown P.O., St. Vincent
Ba Ket, D. Central Coll., Colombo
2May, J. C. Wesleyan High S., Freetown, Sierra Leone
2Peiris, M. City Coll., Colombo
2Naidoo, T. Norris Coll., Rangoon
Taylor, C. D. Private tuition
Wilson, J. Marist Bros. Coll., Johannesburg
York, A. Brighton Wesleyan S., Calliaqua P.O., St. Vincent
Favard, T. Marist Bros. Coll., Uitenhage
Griffin, H. Marist Bros. High S., Port Elizabeth
Guest, K. Marist Bros. Coll., Uitenhage
Matthews, R. Marist Bros. High S., Port Elizabeth
Messina, E. Marist Bros. High S., Port Elizabeth
Weeks, A. L. Marist Bros. Coll., Uitenhage
Aberdeen, J. E. Private tuition
Messina, G. Marist Bros. High S., Port Elizabeth
Pritchard, A. P. d. Queen's Coll., Nassau
Richard, C. Marist Bros. Coll., Johannesburg
2Seneyaratne, D. F. Private tuition
Hodgson, H. a. Marist Bros. Coll., Uitenhage
Gillwald, E. Marist Bros. Coll., Uitenhage
McLeod, D. Marist Bros. Coll., Johannesburg
Weera Koon, S. G. City Coll., Colombo
Wallace, G. Marist Bros. Coll., Johannesburg
Berry, K. Marist Bros. High S., Port Elizabeth
Haynes, S. B. Brighton Wesleyan S., Calliaqua P.O., St. Vincent
Lippman, S. Marist Bros. Coll., Johannesburg
Miller, A. Marist Bros. Coll., Johannesburg
Sinatturai, C. Wesleyan Central S., Batticaloa
Summers, W. St. Aidan's College, Grahamstown
Van Ransow, B. H. St. Paul's Boys' English S., Colombo

GIRLS.

FIRST CLASS [OR SENIOR].—HONOURS DIVISION.

Belmar, M. s. ph. St. Joseph's Conv., Castries, St. Lucia
Lafitte, L. St. Joseph's Conv., Castries, St. Lucia

FIRST CLASS [OR SENIOR].—PASS DIVISION.

Herrera, M. e. d. St. Joseph's Conv., Port of Spain, Trinidad
Kernahan, A. s. St. Joseph's Conv., Port of Spain, Trinidad
du Boulay, M. C. ph. St. Joseph's Conv., Castries, St. Lucia
Hack, D. E. z. Conv. of the Holy Cross, Cala
Blake, R. W. Sacred Heart Conv., Klerksdorp
Hall, L. M. V. Conv. of the Holy Family, End St., Johannesburg
Ridley, D. Sacred Heart Conv., Queenstown
Van Straten, M. E. z. ms. Conv. of the Holy Cross, Cala
Scllier, L. J. St. Joseph's Conv., Port of Spain, Trinidad
Monee, Norris College, Rangoon
Vogel, F. du. Conv. of the Holy Cross, Cala

SECOND CLASS [OR JUNIOR].—HONOURS DIVISION.

Belmar, M. T. f. St. Joseph's Conv., Castries, St. Lucia
Kernahan, T. f. St. Joseph's Conv., Port of Spain, Trinidad
Andrews, L. M. d. Moorhurst, Irene
Sash, S. h. f. Conv. of the Holy Family, End St., Johannesburg

SECOND CLASS [OR JUNIOR].—PASS DIVISION.

1Bertrand, M. A. Girls' High S., St. George's, Grenada
Boucaud, E. St. Joseph's Conv., Port of Spain, Trinidad
Sellier, M. f. St. Joseph's Conv., Port of Spain, Trinidad
De Gannes, I. f. St. Joseph's Conv., Port of Spain, Trinidad
Gresham, W. E. f. Private tuition
Andrews, G. Moorhurst, Irene
1Bertrand, C. A. Girls' High S., St. George's, Grenada
Otway, E. L. Girls' High S., St. George's, Grenada
1Saunders, L. E. Queen's Coll., Nassau
Prior, D. Conv. of the Holy Family, Parktown, Johannesburg
1Watson, M. E. Augustinian Conv., Ladysmith
Nathan, H. Loreto H., Pretoria
Levine, G. C. St. Joseph's Inter. S., Lacytown, Georgetown, B. Guiana
Boucaud, S. St. Joseph's Conv., Port of Spain, Trinidad
1Sellier, B. St. Joseph's Conv., Port of Spain, Trinidad
1Cheesman, E. St. Mary's S., Oakford, Verulam, Natal
1Mackintosh, E. A. f. St. Anne's Conv., Umzinto
Briseoe, K. Moorhurst, Irene
Llaños, H. St. Joseph's Conv., Port of Spain, Trinidad
Smith, A. D. Westwood High S., Stewart Town P.O., Jamaica
Kernahan, M. f. St. Joseph's Conv., Port of Spain, Trinidad
1Abraham, C. Norris Coll., Rangoon
1Marshall, I. St. Anne's Conv., Umzinto
Collins, M. St. Mary's S., Oakford, Verulam, Natal
Surgeon, E. M. Westwood High S., Stewart Town P.O., Jamaica
Coch, A. St. Mary's S., Oakford, Verulam, Natal
Smith, G. E. Private tuition
Perry, A. P. Private tuition
Lane, A. Sacred Heart Conv., Klerksdorp
Johnstone, E. Conv. of the Holy Family, Parktown, Johannesburg
Wood, G. L. Comenius Sec. S., Queenstown, Georgetown, B. Guiana
deBeer, E. St. Anne's Conv., Umzinto
Catts, R. St. Mary's S., Oakford, Verulam, Natal

THIRD CLASS.—HONOURS DIVISION.

Lafitte, G. s. e. a. d. f. St. Joseph's Conv., Castries, St. Lucia
Marquis, F. s. h. a. d. St. Joseph's Conv., Castries, St. Lucia
Forester, C. s. e. b. k. Private tuition
du Boulay, J. C. s. a. l. f. d. St. Joseph's Conv., Castries, St. Lucia

Lapin, L. e. f. Moorhurst, Irene
Lewis, A. E. I. s. f. Middle S., Lacytown, Georgetown, B. Guiana
Howard, H. B. e. a. d. St. Cecilia's, Allahabad
van der Byl, D. Moorhurst, Irene
Cadet, E. s. z. e. d. St. Joseph's Conv., Castries, St. Lucia
Cronje, J. s. e. Augustinian Conv., Ladysmith
Wells, N. L. Girls' High S., St. George's, Grenada
Rodriguez, A. I. d. St. Joseph's Conv., Port of Spain, Trinidad

THIRD CLASS.—PASS DIVISION.

2Sweeting, R. Queen's Coll., Nassau
Kernahan, M. St. Joseph's Conv., Port of Spain, Trinidad
1Lavertine, M. Conv. of the Holy Family, Parktown, Johannesburg
Miller, D. d. Moorhurst, Irene
v. Lelyveld, S. du. Sacred Heart Conv., Klerksdorp
Phillips, D. f. Conv. of the Holy Family, Parktown, Johannesburg
Chittenden, E. d. Sacred Heart Conv., Klerksdorp
Dennehy, M. s. a. Conv. of the Holy Family, Parktown, Johannesburg
Watson, L. Z. s. a. d. Augustinian Conv., Ladysmith
Blake, C. Sacred Heart Conv., Klerksdorp
2Brown, O. Conv. of the Sacred Heart, Potchefstroom
Feinstein, S. a. Sacred Heart Conv., Klerksdorp
Williams, E. s. e. Girls' High S., St. George's, Grenada
2Hall, A. Conv. of the Holy Family, Parktown, Johannesburg
Watcham, A. St. Anne's Conv., Umzinto
David, D. M. St. Cecilia's, Allahabad
2Smith, G. Comenius Sec. S., Queenstown, Georgetown, B. Guiana
Argue, N. A. e. f. Augustinian Conv., Ladysmith
Gibbons, O. A. a. d. St. Cecilia's, Allahabad
2Goliab, F. A. Private tuition
2Williams, E. Girls' High S., St. George's, Grenada
Evans, W. Conv. of the Holy Family, End St., Johannesburg
Landsberg, M. f. Loreto H., Pretoria
Mackintosh, E. f. St. Anne's Conv., Umzinto
v. Lelyveld, Gertrude a. d. u. Sacred Heart Conv., Klerksdorp
Modeste, V. R. Girls' High S., St. George's, Grenada
Gibbs, C. A. Private tuition
Cheesman, R. St. Mary's S., Oakford, Verulam, Natal
Bowe, L. E. O. s. a. Queen's Coll., Nassau
2Collins, E. St. Mary's S., Oakford, Verulam, Natal
Wallace, I. L. Westwood High S., Stewart Town P.O., Jamaica
2Clarke, C. R. Westwood High S., Stewart Town P.O., Jamaica
French, K. A. Queen's Coll., Nassau
Guillany, M. St. Joseph's Conv., Port of Spain, Trinidad
Sellier, J. f. St. Joseph's Conv., Port of Spain, Trinidad
DeWeever, I. z. St. Joseph's Inter. S., Lacytown, Georgetown, B. Guiana
Prada, Q. St. Joseph's Conv., Port of Spain, Trinidad
Allen, R. St. Anne's Conv., Umzinto
Grantham, H. St. Joseph's Conv., Port of Spain, Trinidad

Betz, V. Conv. of the Holy Family, Parktown, Johannesburg
Carey, C. I. Westwood High S., Stewart Town P.O., Jamaica
Hoole, J. L. Vincent S., Batticaloa
Stevenson, I. Westwood High S., Stewart Town P.O., Jamaica
Brokenha, M. Conv. of the Holy Family, End St., Johannesburg
Hart, M. z. Conv. of the Holy Family, End St., Johannesburg
Brown, E. St. Mary's S., Oakford, Verulam, Natal
Cohnheim, D. Conv. of the Holy Family, Parktown, Johannesburg
Bingham, M. St. Mary's S., Oakford, Verulam, Natal
Canagaretam, E. G. Vincent S., Batticaloa
O'Reilly, G. Conv. of the Holy Family, Parktown, Johannesburg
Monplaisir, E. a. St. Joseph's Conv., Castries, St. Lucia
2Brown, N. Conv. of the Holy Family, Parktown, Johannesburg
Crowley, E. z. Conv. of the Holy Family, End St., Johannesburg
Eberhardt, C. Conv. of the Sacred Heart, Potchefstroom
Kelly, P. M. d. Queen's Coll., Nassau
Lofthouse, I. M. Queen's Coll., Nassau
Mackintosh, G. St. Anne's Conv., Umzinto
Cuñha, E. L. Middle S., Lacytown, Georgetown, B. Guiana
Gallimore, M. A. e. Westwood High S., Stewart Town P.O., Jamaica
Krishnapillai, M. P. Vincent S., Batticaloa
Price, I. St. Mary's S., Oakford, Verulam, Natal
2Hobson, G. St. Joseph's Conv., Port of Spain, Trinidad
Wegerle, E. ge. d. Loreto H., Pretoria
Wolfe, A. M. Queen's Coll., Nassau
2Bell, S. U. Grenada High S., St. George's, Grenada
Clarke, L. H. St. Cecilia's, Allahabad
Gomez, M. St. Joseph's Conv., Port of Spain, Trinidad
Pendleton, I. H. St. Joseph's Inter. S., Lacytown, Georgetown, B. Guiana
Pyfrom, M. P. Queen's Coll., Nassau
Abbott, E. Conv. of the Sacred Heart, Potchefstroom
Rubinstein, B. d. Loreto H., Pretoria
Cohnheim, I. Conv. of the Holy Family, Parktown, Johannesburg
Morrish, G. Conv. of the Holy Family, End St., Johannesburg
Albury, M. A. Queen's Coll., Nassau
Cartwright, W. St. Mary's S., Oakford, Verulam, Natal
Reynolds, V. M. S. Westwood High S., Stewart Town P.O., Jamaica
Curry, D. L. Queen's College, Nassau
v. Lelyveld, Gladys Sacred Heart Conv., Klerksdorp
Elli, J. E. Grenada High S., St. George's, Grenada
2Abbot, B. Conv. of the Sacred Heart, Potchefstroom
Shirley, E. M. Westwood High S., Stewart Town P.O., Jamaica
Katrnamtambe, L. M. Vincent S., Batticaloa
Langley, C. Conv. of the Holy Family, End Street, Johannesburg
Bobbert, N. Conv. of the Sacred Heart, Potchefstroom
Harrington, K. d. Loreto H., Pretoria
Hogan, L. St. Mary's S., Oakford, Verulam, Natal
Byrne, E. St. Mary's S., Oakford, Verulam, Natal
Clark, A. Loreto H., Pretoria
Haynes, F. Private tuition
Lurie, E. Loreto H., Pretoria
Silver, M. A. Westwood High S., Stewart Town P.O., Jamaica
Strawhaim, M. St. Mary's S., Oakford, Verulam, Natal
De la Silva, I. T. B. Vincent S., Batticaloa
Johnson, H. M. Queen's Coll., Nassau
Newton, M. Conv. of the Sacred Heart, Potchefstroom

LOWER FORMS EXAMINATION.—PASS LIST.

BOYS.

Aaron, C. Comenius Sec. S., Queenstown, Georgetown, B. Guiana	Fakeera Norris Coll., Rangoon	Rensburg, J. Marist Bros.' Coll., Johannesburg
Achilles, O.B. St. Paul's Boys' English S., Colombo	Faria, A. Middle S., Lacytown, Georgetown, B. Guiana	Ricci, G. Marist Bros.' Coll., Johannesburg
Adamjee, M. Central Coll., Colombo	Fisher, L. Marist Bros.' Coll., Johannesburg	Rodkin, B. Marist Bros.' Coll., Johannesburg
Alexander, H. W. St. Cecilia's, Allahabad	Ford, J. J. Comenius Sec. S., Queenstown, Georgetown, B. Guiana	Rodrigo, B. C. City Coll., Colombo
Anderson, R. Marist Bros.' Coll., Johannesburg	Fraser, G. D. Gram. S., New Amsterdam, Berbice, B. Guiana	Rowe, G. Marist Bros.' Coll., Johannesburg
Anderson, W. Marist Bros.' Coll., Johannesburg	Furze, L. Marist Bros.' Coll., Johannesburg	Ryllie, V. L. V. St. Joseph's Inter. S., Lacytown, Georgetown, B. Guiana
Arcus, H. Marist Bros.' Coll., Johannesburg	Gallie, W. Marist Bros.' High S., Port Elizabeth	Sahid, A. C. M. City Coll., Colombo
Aspas, A. Marist Bros.' Coll., Johannesburg	Gibson, O. Lomas Acad., Lomas de Zamora	Sash, M. Marist Bros.' Coll., Johannesburg
Baard, D. Marist Bros.' Coll., Johannesburg	Glisan, A. Marist Bros.' Coll., Johannesburg	Saunders, H. Marist Bros.' Coll., Johannesburg
Babcock, G. Marist Bros.' Coll., Johannesburg	Gluckman, P. Marist Bros. Coll., Johannesburg	Sawyer, E. Marist Bros.' Coll., Johannesburg
Barrett, H. Conv. of the Sacred Heart, Potchefstroom	Grigor, A. Marist Bros.' High S., Port Elizabeth	Schwartz, M. Marist Bros.' Coll., Johannesburg
Beckett, D. Marist Bros.' High S., Port Elizabeth	Hannansing, J. H. Gram. S., New Amsterdam, Berbice, B. Guiana	Scott, G. Comenius Sec. S., Queenstown, Georgetown, B. Guiana
Bell, D. Marist Bros.' S., Cala	Heath, J. Marist Bros.' S., Cala	Scott, N. Marist Bros.' Coll., Johannesburg
Bell, L. Marist Bros.' Coll., Johannesburg	Idroos, A. C. M. Central Coll., Colombo	Seluan, O. C. St. Joseph's Inter. S., Lacytown, Georgetown, B. Guiana
Berriman, A. Marist Bros.' Coll., Johannesburg	Jackson, E. Marist Bros.' Coll., Johannesburg	Stephan, H. Marist Bros.' Coll., Johannesburg
Bertram, S. Marist Bros.' Coll., Johannesburg	Jacobs, C. Marist Bros.' Coll., Johannesburg	Stoby, P. S. St. Joseph's Inter. S., Lacytown, Georgetown, B. Guiana
Binstead, F. Marist Bros.' High S., Port Elizabeth	Jardine, J. S. Marist Bros.' Coll., Johannesburg	Stuart, R. Marist Bros.' S., Cala
Blackhead, D. Marist Bros.' S., Cala	Job, S. Marist Bros.' Coll., Johannesburg	Swanson, W. Marist Bros.' Coll., Johannesburg
Boucher, H. C. St. Paul's Boys' English S., Colombo	Jordan, A. Comenius Sec. S., Queenstown, Georgetown, B. Guiana	Teitge, C. Marist Bros.' Coll., Johannesburg
Bowling, R. A. J. Middle S., Lacytown, Georgetown, B. Guiana	Kietzmann, J. Marist Bros.' Coll., Johannesburg	Thompson, C. S. Queen's Coll., Nassau
Brick, T. Marist Bros.' Coll., Johannesburg	Koo, J. T. Middle S., Lacytown, Georgetown, B. Guiana	Todd, J. F. Middle S., Lacytown, Georgetown, B. Guiana
Bruessow, W. Marist Bros.' S., Cala	Lamont, J. Marist Bros.' Coll., Johannesburg	Tranchell, D. N. Central Coll., Colombo
Bruno, F. Marist Bros.' Coll., Johannesburg	Lawnski, F. Marist Bros.' Coll., Johannesburg	Tweedie, R. Sacred Heart Conv., Klerksdorp
Buckland, M. R. Lomas Acad., Lomas de Zamora	Lichtenstein, L. Marist Bros.' Coll., Johannesburg	Vaithilingam, N. Central Coll., Colombo
Christiani, J. L. St. Joseph's Inter. S., Lacytown, Georgetown, B. Guiana	Linford, P. Marist Bros.' High S., Port Elizabeth	van Buren, V. Marist Bros.' Coll., Johannesburg
Clarke, C. F. Comenius Sec. S., Queenstown, Georgetown, B. Guiana	Lowe, H. Marist Bros.' Coll., Johannesburg	Van der Hoff, E. Marist Bros.' High S., Port Elizabeth
Cohen, B. Marist Bros.' Coll., Johannesburg	Macfarlane, G. Lomas Acad., Lomas de Zamora	Van der Schyff, R. Marist Bros.' High S., Port Elizabeth
Cooper, A. Marist Bros.' S., Cala	March, A. E. Lomas Acad., Lomas de Zamora	Venkanah Norris Coll., Rangoon
Crawford, G. W. Middle S., Lacytown, Georgetown, B. Guiana	Marcus, M. Marist Bros.' Coll., Johannesburg	Wade, W. Marist Bros.' S., Cala
Cudmore, C. Marist Bros.' High S., Port Elizabeth	Marillier, F. Marist Bros.' S., Cala	Wakfer, C. Marist Bros.' S., Cala
Curry, O. H. Queen's Coll., Nassau	Martin, J. Marist Bros.' Coll., Johannesburg	Wambeck, E. S. Wesleyan Central S., Batticaloa
D'Andrade, C. F. St. Joseph's Inter. S., Lacytown, Georgetown, B. Guiana	Maynard, A. Comenius Sec. S., Queenstown, Georgetown, B. Guiana	Whalley, C. Marist Bros.' Coll., Johannesburg
Darling, E. T. City Coll., Colombo	McKay, J. R. St. Joseph's Inter. S., Lacytown, Georgetown, B. Guiana	White, L. Marist Bros.' Coll., Johannesburg
Da Silva, J. St. Joseph's Inter. S., Lacytown, Georgetown, B. Guiana	Melville, G. B. Gram. S., New Amsterdam, Berbice, B. Guiana	White, W. Marist Bros.' Coll., Johannesburg
Davies, C. B. De M. Gram. S., New Amsterdam, Berbice, B. Guiana	Milton, R. Marist Bros.' S., Cala	Wilson, A. Marist Bros.' Coll., Johannesburg
Davey, C. Marist Bros.' Coll., Johannesburg	Mitchell, C. B. Gram. S., New Amsterdam, Berbice, B. Guiana	Wilson, C. Marist Bros.' Coll., Johannesburg
Devasahayam Norris Coll., Rangoon	Moran, M. Marist Bros.' High S., Port Elizabeth	Wilson, I. Marist Bros.' Coll., Johannesburg
Dingwall, H. J. A. Comenius Sec. S., Queenstown, Georgetown, B. Guiana	Morkel, J. Marist Bros.' Coll., Johannesburg	Wilson, J. Marist Bros.' S., Cala
Dowse, G. Marist Bros.' Coll., Johannesburg	Morris, V. Marist Bros.' S., Cala	Wilson, T. Marist Bros.' S., Cala
Duminy, C. Marist Bros.' Coll., Johannesburg	Muller, T. Marist Bros.' S., Cala	Wright, A. Marist Bros.' Coll., Johannesburg
Edbrooke, D. Marist Bros.' Coll., Johannesburg	Naganathan, A. Central Coll., Colombo	Wright, H. Marist Bros.' Coll., Johannesburg
Egan, A. Marist Bros.' S., Cala	Nagthall, O. E. St. Paul's Boys' English S., Colombo	Yhap, S. Middle S., Lacytown, Georgetown, B. Guiana
Ellis, M. Marist Bros.' Coll., Johannesburg	Nankivell, R. Marist Bros.' S., Cala	Ying, S. A. Middle S., Lacytown, Georgetown, B. Guiana
Errecalde, M. Lomas Acad., Lomas de Zamora	Neser, E. Sacred Heart Conv., Klerksdorp	Zedoff, W. E. Lomas Acad., Lomas de Zamora
	Pennacchini, L. Marist Bros.' High S., Port Elizabeth	
	Pettitt, G. Marist Bros.' High S., Port Elizabeth	
	Phillips, W. Marist Bros.' Coll., Johannesburg	
	Powrie, D. Marist Bros.' Coll., Johannesburg	

GIRLS.

Aitken, D. Conv. of the Sacred Heart, Potchefstroom	Helps, E. Conv. of the Sacred Heart, Potchefstroom	Orsmund, A. Sacred Heart Conv., Queenstown
Anderson, D. Conv. of the Holy Family, End St., Johannesburg	Holliday, E. Sacred Heart Conv., Queenstown	Prenthomme, G. E. Grenada High S., St. Georges, Grenada
Angeron, R. St. Joseph's Conv., Port of Spain, Trinidad	Hovendou, N. Sacred Heart Conv., Queenstown	Robbie, N. L. St. Cecilia's, Allahabad
Argue, F. A. Augustinian Conv., Ladysmith	Jacobson, R. Conv. of the Holy Family, President St., Johannesburg	Roberts, M. Moorhurst, Irene
Arnott, G. Sacred Heart Conv., Queenstown	Jones, R. Sacred Heart Conv., Queenstown	Robertson, V. Conv. of the Holy Family, End St., Johannesburg
Belmar, B. St. Joseph's Conv., Castris, St. Lucia	Joss, A. Convent S., Bulawayo	Robinson, K. P. Augustinian Conv., Ladysmith
Benjamin, G. Conv. of the Holy Family, End St., Johannesburg	Keane, A. P.O. Box 31, Kingstown, St. Vincent	Rojas, M. St. Joseph's Conv., Port of Spain, Trinidad
Bezuidenhout, H. Moorhurst, Irene	Kernahan, M. E. St. Joseph's Conv., Port of Spain, Trinidad	Rooth, C. Moorhurst, Irene
Boadi, J. Conv. of the Sacred Heart, Potchefstroom	Kidson, A. Sacred Heart Conv., Queenstown	Rose, D. Loreto H., Pretoria
Brisbane, G. P.O. Box 31, Kingstown, St. Vincent	Kimber, M. Moorhurst, Irene	Rubinstein, F. Loreto H., Pretoria
Buchanan, A. Conv. of the Sacred Heart, Potchefstroom	Ladliffe, M. A. St. Joseph's Conv., Castris, St. Lucia	Shawe, O. Sacred Heart Conv., Queenstown
Butler, G. Queen's Coll., Nassau	Lamy, R. St. Joseph's Conv., Port of Spain, Trinidad	Short, B. Conv. of the Sacred Heart, Potchefstroom
Clapper, M. Conv. of the Holy Family, End St., Johannesburg	Lewis, A. E. L. Middle S., Lacytown, Georgetown, B. Guiana	Simmons, A. Moorhurst, Irene
Colen, R. Conv. of the Holy Family, End St., Johannesburg	Lewis, Vinetta Sacred Heart Conv., Queenstown	Simmons, M. St. Joseph's Conv., Port of Spain, Trinidad
Combrinck, L. Conv. of the Holy Family, End St., Johannesburg	Lewis, Violet Sacred Heart Conv., Queenstown	Taggart, M. Sacred Heart Conv., Queenstown
Constable, M. St. Joseph's Conv., Castris, St. Lucia	Lindenberg, E. Sacred Heart Conv., Klerksdorp	Tait, E. St. Joseph's Conv., Port of Spain, Trinidad
d'Abadie, M. H. St. Joseph's Conv., Port of Spain, Trinidad	Loram, L. Conv. of the Holy Family, End St., Johannesburg	Thorpe, J. A. Conv. of the Holy Family, End St., Johannesburg
Delmas, A. St. Joseph's Conv., Port of Spain, Trinidad	Lowman, A. Sacred Heart Conv., Klerksdorp	Torrente, T. Conv. of the Holy Family, End St., Johannesburg
de Verteuil, E. St. Joseph's Conv., Port of Spain, Trinidad	Mathews, K. G. St. Cecilia's, Allahabad	Traverso, G. St. Joseph's Conv., Port of Spain, Trinidad
Dounawa, W. P.O. Box 31, Kingstown, St. Vincent	Mathis, C. Conv. of the Holy Family, Parktown, Johannesburg	Traverso, H. St. Joseph's Conv., Port of Spain, Trinidad
Duncan, M. Moorhurst, Irene	McDowall, H. P.O. Box 31, Kingstown, St. Vincent	Underwood, F. Sacred Heart Conv., Queenstown
Fleming, A. Moorhurst, Irene	McEwen, M. Conv. of the Holy Family, End St., Johannesburg	Vander Westhuizen, S. Sacred Heart Conv., Queenstown
Fotheringham, E. Sacred Heart Conv., Queenstown	Monplaisir, L. St. Joseph's Conv., Castris, St. Lucia	Vasconcelos, D. St. Joseph's Conv., Port of Spain, Trinidad
Fotheringham, M. Sacred Heart Conv., Queenstown	Montell, V. St. Joseph's Conv., Port of Spain, Trinidad	Venter, J. J. Augustinian Conv., Ladysmith
Fyfe, J. Conv. of the Holy Family, End St., Johannesburg	Montgomery, M. Convent S., Bulawayo	Vivas, R. St. Joseph's Conv., Port of Spain, Trinidad
Gebhardt, W. Sacred Heart Conv., Queenstown	Moodie, C. B. Moorhurst, Irene	Vogts, G. Conv. of the Sacred Heart, Potchefstroom
Gelman, E. Convent S., Bulawayo	Moore, M. Conv. of the Holy Family, Parktown, Johannesburg	Vogts, V. Conv. of the Sacred Heart, Potchefstroom
Gemsbach, W. Convent S., Bulawayo	Morrish, R. Conv. of the Holy Family, End St., Johannesburg	Wakeford, G. Sacred Heart Conv., Queenstown
Gonsler, B. St. Joseph's Conv., Port of Spain, Trinidad	Myers, L. Conv. of the Holy Family, Parktown, Johannesburg	Wallis, M. Sacred Heart Conv., Klerksdorp
Grant, C. A. P.O. Box 31, Kingstown, St. Vincent	O'Connor, M. St. Joseph's Conv., Port of Spain, Trinidad	Wharton, V. St. Joseph's Conv., Port of Spain, Trinidad
Gwilliam, E. Convent S., Untata	Ogilvie, A. M. Grenada High S., St. George's, Grenada	Williams, J. Conv. of the Holy Family, President St., Johannesburg
Hanson, M. St. Joseph's Conv., Port of Spain, Trinidad	O'Grady, K. Conv. of the Holy Family, Parktown, Johannesburg	Witfield, E. Sacred Heart Conv., Klerksdorp
Hart, E. Sacred Heart Conv., Queenstown	O'Leary, N. Sacred Heart Conv., Queenstown	
Hart, L. Conv. of the Holy Family, End St., Johannesburg		

## MEETING OF THE COUNCIL OF THE COLLEGE OF PRECEPTORS.

A MEETING of the Council was held at the College, Bloomsbury Square, on February 15. Present: Dr. Wormell, President, in the chair; Prof. Adams, Prof. Adamson, Dr. Armitage Smith, Mr. Barlet, Rev. J. O. Bevan, Rev. J. B. Blomfield, Mr. Bowen, Mr. Brown, Mr. E. A. Butler, Mr. Eve, Mr. Hawe, Mr. Holland, Miss Jebb, Mr. Kelland, Rev. R. Lee, Rev. G. E. Mackie, Dr. Maples, Mr. Milne, Dr. Moody, Mr. Morgan, Mr. Pinches, Miss Punnett, Mr. Rule, Mr. Rushbrooke, Rev. Dr. Scott, Mr. Starbuck, Rev. J. Stewart, and Mr. White.

The minutes of the last meeting were read and confirmed.

Diplomas were granted to the successful candidates at the Christmas Examination of teachers (see list, page 134). The diploma of Licentiate was also granted to Miss A. Wall, who had satisfied the prescribed conditions.

Mr. Brown was appointed one of the representatives of the College on the committees of the Women's and Men's Joint Agencies, respectively.

It was resolved that a memorial be presented to the Lord President of the Council and to the President of the Board of Education, reciting the part that had been taken by the College in promoting the Registration of Teachers, and praying that in any Registration Council to be constituted under the Education (Administrative Provisions) Act of 1907, adequate representation should be given to the College.

The Report of the Finance Committee was adopted.

The Report of the Examination Committee was adopted. Dr. A. J. Greenish and Dr. W. G. MacNaught were appointed Examiners in Theory of Music; Mr. C. H. Swinestead and Mr. H. W. O. Hagreen were appointed additional Examiners in Drawing, and Mrs. Pillow was appointed one of the Examiners in Domestic Economy.

The Personation Committee reported that the steps taken by direction of the Council had resulted in the conviction and punishment of the offenders in the personation case which had occurred at the College Certificate Examination at Inverurie in June, 1907, fines of £5 having been imposed on the personator and the man who was personated. The report concluded with a strong expression of satisfaction with the ability and energy shown by the College Solicitor in his conduct of the case. The report was adopted, and it was resolved that thanks be given to the Solicitor, Mr. H. W. Rydon, for his services.

Sir Philip Magnus, M.P., was elected President of the Council; and Mr. E. A. Butler, the Rev. Canon Bell, and Prof. Adams were elected Vice-Presidents.

Mr. H. W. Eve was re-elected Dean, and Dr. Armitage Smith Treasurer of the College.

The Moderators, Examiners, and Revisers for the year 1908 were appointed.

The Standing Committees were appointed, with their respective Chairmen.

The following persons were elected members of the College:—

Mr. F. G. W. Brown, B.Sc. Lond., L.C.P., 35 Wyatt Road, Forest Gate, E.

Prof. W. E. Dixon, M.A. Camb., M.D., B.Sc. Lond., King's College, London.

Miss D. C. Harris, L.C.P., Clovelly House, Grove Place, Port Talbot.

Mr. R. S. Gough Paynter, A.C.P., Grammar School, Windermere.

Mr. G. F. Phillips, B.Sc. Lond., F.C.P., F.C.S., Hartley University College, Southampton.

Mr. H. S. Warren, Belle Orchard, Ledbury.

The following books had been presented to the Library since the last meeting of the Council:—

By Mr. J. JAKEMAN.—Gregg's Shorthand Manual.

By E. ARNOLD.—Johnson's Dramatic Scenes from History.

By G. BELL & SONS.—Hendiam's Translations of Aeschylus' *Eumenides* and *Prometheus Bound*; Nixon's *Junior History of England*; Sinclair's *Third Year's Course in Practical Physics*.

By A. & C. BLACK.—Black's *English History from Original Sources* (1216-1307 and 1603-1660); *Literary Readers*, Book III.; and *Picture Lessons in English*, Book III.

By BLACKIE & SON.—Bagnall and Vivier's *Le Cid* and *Horace*; Baker's *De Vigny's Poesies Choies*, and *Lamartine's Premieres Meditations Poetiques*; Endeocer's *School Course in Physics* (Light and Sound); Hill's *Souvestre's La Loterie de Francfort*, &c.; Washington Irving's *England's Rural Life* and *Christmas Customs*; Mace's *Le Chevalier du Guet*; Major's *Stories to Remember* (Senior Book); Malory's *The Coming of Arthur*; Ogilvie's *Smaller English Dictionary*.

By the CLARENDON PRESS.—Berthon's *De Balzac's Eugénie Grandet*; Gordon's *Scott's Legend of Montrose*; Wilson-Green's *Sisimondi's Marignan*.

By W. B. CLIVE.—*Matriculation Directory*, January, 1908; *University Correspondent*, 1907.

By MACMILLAN & Co.—Fowler's *Gibbon's Age of the Antonines*; Lee's *Seventeenth Century Prose*; Pollard's *Chaucer's Nun's Priest's Tale*; Siepmann's *Short French Grammar*; Topfer's *La Bibliothèque de mon Oncle*; Word- and Phrase-Book for *Un Saint*; Word- and Phrase-Book for *Nicomède*.

By J. MURRAY.—Tischbrock's *Der Neue Leitfaden*.

By G. PHILIP & SON.—Pearce's *Modelling in Relief*.

By BELFE BROS.—Relfe's *Ideal Senior Poetry Book*, and *Exercises in Spelling, Dictation and Composition for Upper Forms*; Carter's *Ezra, Nehemiah, and Esther*; Gorse's *Kingsley's The Heroes*; Perry's *Junior Physical Geography*, and *History of England, 1509-1688*.

By RIVINGTONS.—Glazebrook's *Bible Lessons for the Young*, with Notes and Outlines; Hartog's *Delacourt's Nouvelles et Anecdotes*, Minssen's *La Belle au*

Bois Dormant, and Minssen's *Huit Contes*; Trevelyan and Edghill's *The Beginnings of the Church*.

Calendars of Trinity College of Music; Pharmaceutical Society; University of Liverpool; University of Birmingham; and University College of Wales, Aberystwyth.

## PERSONATION AT EXAMINATIONS.

It cannot be too widely known that to personate a candidate at a public examination is a criminal offence and liable to be visited with severe penalties. At a recent examination of the College of Preceptors held at a centre in the North of Scotland a case of personation was detected, and the personator (a school-teacher) and the candidate personated (a chemist's assistant) were tried for the offence in the Sheriff's Court at Aberdeen on the 31st of January last. Both the accused pleaded guilty. It was alleged on their behalf that they had acted foolishly and thoughtlessly, and that they had no idea of the magnitude of their crime. The Public Prosecutor (Procurator Fiscal) stated that the Lord Advocate, before whom the case had been laid, had instructed the prosecution. Both the culprits were of respectable families and were companions in Aberdeen. It was alleged that the personator derived no personal advantage from the fraud he had undertaken, and the certificate obtained had been handed back. The sheriff said he had some difficulty in giving the offenders the option of a fine: he must, however, make the fine a substantial one, and he sentenced each of them to pay a fine of £5, or to go to prison for thirty days.

## REVIEWS.

### CONTINUATION SCHOOLS.

*Continuation Schools in England and Elsewhere: their Place in the Educational System of an Industrial and Commercial State.* Edited by M. E. Sadler, M.A., LL.D., Professor of the History and Administration of Education in the University of Manchester. (8s. 6d. net. Manchester University Press—Sherratt & Hughes.)

The other month we heralded the appearance of this important volume, and now we simply direct attention to the comprehensive and instructive handling of the subject, taking it for granted that everybody interested in education will master its contents. Prof. Sadler opens the survey with a long historical review of the agencies for further education in England; and the remaining twenty-four chapters deal with particular sections or aspects of the subject in England and abroad. Five of these chapters are also from the industrious pen of Prof. Sadler: they treat of the present position of State-aided evening schools and classes in England and Wales; the organization of continuation schools in Scotland; compulsory attendance at continuation schools in Germany; the trend towards industrial training in continuation schools in New England; and the question whether attendance at continuation schools should be made compulsory in England. In three more chapters Prof. Sadler collaborates with Miss Mary S. Beard: the work of continuation schools in certain rural districts of England (Cambridgeshire, Gloucestershire, Northumberland, Cumberland, Buckinghamshire, Yorkshire East Riding); a summary of returns relating to English employers and the education of their work-people; and a brief review of the aims and courses of study of certain trade schools and pre-apprenticeship schools in England. It is thus seen how deeply Prof. Sadler has stamped his mark upon the history of this profoundly important inquiry. The conditions of Lancashire and Yorkshire centres are pretty fully presented; and comparative views are shown from Denmark (J. S. Thornton), Munich (C. E. Stockton), Switzerland (A. J. Pressland), France (Georges Cahen), and the United States (William Scott and Mary S. Beard). The laws regulating the employment of children and young persons in factories and workshops in the United Kingdom, Germany, and Switzerland have been furnished by the Labour Department of the Board of Trade. A very instructive paper by Mr. C. T. Millis discusses the economic value of trade schools for boys and girls, and the place of such schools in a national system of education. And there are half-a-dozen other chapters that throw much light upon different parts or aspects of the general problem.

We have again and again insisted on the far-reaching importance of the subject, and now there is no doubt about that in the mind of any thinking person acquainted with the facts. The point now is the remedy for the admitted mischiefs, and, as

Prof. Sadler remarks, it is futile to expect any simple or easy remedy. "Whatever is done must necessarily be done in stages, so that the weight of public opinion may go along with new legislation and with the administrative action to which such legislation would lead." That is a very obvious and fundamental consideration, and yet it needs to be persistently emphasized; and it may be added that very much depends upon the lead that is given to public opinion. Prof. Sadler further points out, and again most wisely, that, "in considering what shall be done, we shall not be content to fix our thoughts upon the purely industrial or commercial interests which are at stake," though the importance of these is not to be minimized. "It is the human side of the question that rightly appeals to us with the greatest force."

We are right (says Prof. Sadler), when we discuss it, to think of individual boys and girls whom we know, in circumstances with which we are familiar, and of practical difficulties and opportunities of which we have personal experience. And this leads us to think of the real conditions of employment which lie around us; of the home circumstances of the children as we know them in real life; of the point of view of foremen; of the different ways in which employers regard their responsibilities; and of the actual people (teachers, attendants, clerks, inspectors) through whom, if it further exerts its authority, the State will be bound to act. By seeing things thus in the concrete; by trying to visualize the actual working of suggested plans; by trying to judge how far their requirements could be evaded, and what their unseen and collateral results might be; by realizing the inner differences which distinguish English social life from American or German or French—we may hope to escape from fallacious generalities and to see in fair proportion the part which, in England, legislation can play in social improvements and the parts which must be borne by public opinion, by the action of employers, by the skill and good sense of teachers, and by the personal effort of individuals who bring to social service a shrewd combination of sympathy and science.

Just so. The various chapters of this volume provide an immense mass of information and suggestion. Prof. Sadler narrates the history of the subject in England, and lays down the general and plain principles of practical procedure. Get the facts, and then handle them in the light of English idiosyncrasy and English conditions. The volume represents an immense service to English education, and to the future welfare and efficiency of the nation.

#### THE NEW WORLD-HISTORY.

*The Historians' History of the World.* Edited by Henry Smith Williams, LL.D., with the collaboration of many specialists and with contributions by more than thirty living historical scholars. Vols. XIII. to XXIV. (7s. 6d. each. London: the Times.)

This contingent of a dozen volumes completes the extensive work, whose general characteristics we commented upon in our last issue. Volume XIII. concludes the history of France, from 1815 to the present time, and carries the history of the Netherlands down to 1722. Volume XIV. completes the history of the Netherlands (modern Holland and Belgium), and with Volume XV. sets forth the history of the Germanic Empires. Volume XVI. is mainly occupied with Scandinavia, but also treats of the affairs of Switzerland down to the seventeenth century. Volume XVII. concludes Switzerland, and for the rest is concerned with Russia. The British Empire fills the next four and a half volumes, XVIII.—XXII. (middle), British India and the Colonies occupying the first half of Volume XXII. The United States and Spanish America take us to the end of Volume XXIII. And Volume XXIV. tells the stories of Poland, the Balkan States, Modern Greece, the Turkish Empire, some minor States of North Africa and Central Asia (including mediæval and modern Egypt, Morocco, modern Persia, and the Buffer States of Central Asia), China, and Japan. The comparative amplitude of the space devoted to the British Empire is noteworthy and satisfactory. The bibliographies, chronological tables, maps, diagrams, and other illustrations are most useful; and sometimes, as in the case of Germany, many pages are given to a very serviceable reprint of important constitutional documents. It would be easy enough to point out passages where the best authorities have not been followed, or passages where critical acumen has not been brought to bear upon traditional misconceptions, or views of policy that cannot stand any efficient historical test. But the very nature of the work renders such weaknesses all but inevitable. Accordingly, as before, we are content to accept the positive performance as on the whole very satisfactory in view of the needs of the general reader, and to hope that a call for another edition will lead to a

drastic revision of the inadequate parts. The special oak book-case (over four feet high) is a handsome and substantial receptacle for the library of 25 volumes—light, strong, and artistically designed.

#### THE DECLINE AND FALL OF NATIONS.

*Decadence.* By the Right Hon. Arthur James Balfour, M.P. (1s. 6d. net. Cambridge University Press.)

The Henry Sidgwick Memorial Lecture, delivered at Newnham College on January 25 last by Mr. Balfour, while appropriately of a philosophical cast, characteristically "makes no pretence to be an adequate treatment of some compact and limited theme, but rather resembles those wandering trains of thought where we allow ourselves the luxury of putting wide-ranging questions to which our ignorance forbids any confident reply." Mr. Balfour starts the question of Decadence—political and national decadence—"the decadence which attacks, or is alleged to attack, great communities and historic civilizations." He reviews at some length the commonly enumerated causes of the decline and fall of the Roman Empire, admitting most of them with more or less qualification; but "they obviously require themselves to be explained by causes more general and more remote, and what," he asks, "were these?" These were "Decadence"; and, if the name explains nothing, it may be of some use as "ruling out explanations that are obvious but inadequate." What grounds, then, are there "for supposing that we can escape the fate to which other races have had to submit?" Mr. Balfour offers "some purely tentative observations." Each generation, as it enters on adult life, is the resultant of two factors mainly: physiological inheritance and social surroundings. It is the latter factor in any society—"the physical and psychical conditions affecting the life of its component units"—that is the more susceptible to progress or decadence; and there is a new social force on which "we must mainly rely for the improvement of the material conditions under which societies live"—namely, "the modern alliance between pure science and industry."

If in the last hundred years the whole material setting of civilized life has altered, we owe it neither to politicians nor to political institutions. We owe it to the combined efforts of those who have advanced science and those who have applied it. If our outlook upon the universe has suffered modifications in detail so great and so numerous that they amount collectively to a revolution, it is to men of science we owe it, not to theologians or philosophers. On these, indeed, new and weighty responsibilities are being cast. They have to harmonize and to co-ordinate, to prevent the new from being one-sided, to preserve the valuable essence of what is old. But science is the great instrument of social change—all the greater because its object is not change, but knowledge; and its silent appropriation of this dominant function, amid the din of political and religious strife, is the most vital of all the revolutions which have marked the development of modern civilization.

All honour to science, especially if it is to save us from Decadence. But does not Mr. Balfour strangely minimize the services of statesmen, theologians, and philosophers? There is great temptation indeed to drive home the point of scientific vantage—that science has a single eye to knowledge, fact, truth. But, leaving that aside, one may ask, Where is the saving virtue of science if the statesman is incompetent? And how can the wisest of statesmen even get the opportunity of acting unless he is supported by enlightened and moral constituencies—moral beyond the highest influences of popularized science? Mr. Balfour is acute enough to rate his speculation modestly, as "but an aid to optimism, not a reply to pessimism." The reply to pessimism must await "a sociology which has arrived at scientific conclusions on the life-history of different types of society." The treatment is elusive throughout. The provisional conclusions offered by Mr. Balfour are either obvious or disputable or else too vague to be useful except as broad suggestions.

#### DESCRIPTIVE GEOMETRY.

*The Axioms of Descriptive Geometry.* By A. N. Whitehead, Sc.D., F.R.S. (2s. 6d. net. Cambridge University Press.)

This is the fifth of the excellent series of "Mathematical and Physical Tracts," now in course of issue under the able supervision of Mr. J. G. Leatham, M.A., and Mr. E. T. Whittaker, M.A., F.R.S. Tracts 4 and 5 are both from the powerful pen of Dr. Whitehead and follow the same general plan in their construction. In the former, which has already been favourably reviewed in these columns, the author treated of a body of axioms forming a sufficient basis for the theory of projective geometry—a geometry which, as we know, presupposes the necessary intersection of every pair of coplanar lines. In the

latter, namely, the present tract, the writer commences by stating alternative sets of axioms, which furnish a satisfactory groundwork in the case of descriptive geometry, a branch of geometry in which the existence of pairs of non-intersecting coplanar lines is admitted as possible. The scope of each tract is clearly indicated by the writer, and, consistently with it, he confines his attention to such investigation only as he thinks necessary and sufficient in order to establish the validity of the body of axioms considered. It may be noted that in projective geometry *order* is not the first among the leading principles to claim attention, but in descriptive geometry it acquires primary importance. And hence we find the various methods of introducing it discussed in the opening chapter of the new tract. Answering to Peano's axioms, we have as the central idea the *class* of points lying *between* any two given points. Next arises the consideration of points collinear with the former, but lying *beyond* one of the chosen end-pair, and this, in turn, leads to the conception of the entire straight line as consisting of the pair of defining points and of the three classes of points, one of which lies *between both*, whilst the other two lie each *beyond one* of the given points. Peano's axioms are given in full. Secondly, the author touches on the method suggested by Vailati and Russell. Here the straight line is the field of an *ordered* relation between any two points belonging to that field, and many of the axioms are identical with members of Peano's set. Thirdly, the author draws attention to the method of Veblen, which secures all that is required, whilst it has, moreover, the virtue of introducing simplifications. In accordance with Veblen's system, descriptive geometry is developed from an *ordered* relation consisting of three terms. The corresponding set of axioms is given at length by Dr. Whitehead. In the second chapter the reader is shown the relation between projective and descriptive geometry and the more general character of the former is noted. The treatment of descriptive as a part of projective space is pointed out as the origin of the introduction of the "plane at infinity" into Euclidean geometry.

Dr. Whitehead next considers several preliminary theorems which enable him to proceed in the following chapter to the investigation of the theory of ideal points. Subsequent chapters treat of such subjects as *correspondence, congruence, infinitesimal rotations*, and other topics of equal interest and importance, and it is to be observed that Lie's contributions to the theory of congruence are clearly indicated.

Dr. Whitehead's style is marked by simplicity of language and great conciseness, and his manner of treating his subject is in every way attractive.

## GENERAL NOTICES.

### CLASSICS.

*Aristotle: De Anima*: with Translation, Introduction, and Notes. By R. D. Hicks, M.A., Fellow and late Lecturer of Trinity College, Cambridge. (18s. net. Cambridge University Press.)

"This treatise," says Mr. Hicks, "however inadequate its method and assumptions when judged by the standard of the present day, has nevertheless a recognized place in the early history of psychology, for it is the outcome of a long series of conjectures, inquiries, and provisional hypotheses which occupied men's minds in the infancy of science." Mr. Hicks prints the text mainly after Biehl's critical edition, but with free exercise of his own independent judgment, adding at the foot of the page a very elaborate array of critical notes. He acknowledges handsomely and justly "the great gifts of Torstrik, who, by his insight, candour, and logic, contributed beyond all others to improve Bekker's text of the treatise"; and he may fairly claim a like acknowledgment for his own labours. Opposite the text he has placed an English version, which reads like an English treatise, while skilfully bringing out the meaning of the original, and never degenerates into the "mere medley of specious paraphrase and allusive subterfuge" that he scorns in some of our vernacular renderings. The introduction treats very fully the history of previous speculation of the subject, as well as the principles adopted in handling the text. The notes are ample, filling some 400 of the 700 pages, and they are extremely able and instructive. An extensive index is appended. The work is yet another monumental example of Cambridge classical scholarship and of the technical skill and care of the Cambridge University Press.

*The Odes and Epodes of Horace*. Translated into English Verse corresponding with the original Metres. By John Marshall, M.A. Oxon., LL.D. Edin., Rector, Royal High School, Edinburgh. (2s. 6d. net. Dent. The Temple Greek and Latin Classics.)

Dr. Marshall has been under no illusion as to the extreme difficulty of his task. "The work," he says, "is, in a way, the fruit of forty

years of study of my best beloved author; and in the actual doing of it the translation has occupied most of the leisure of at least ten recent years." Curiously enough, the rhymed translation has been evolved from earlier unrhymed verse, which he at one time held to be the only possible form of even a moderately successful translation. The principles he has imposed on himself are sufficiently rigid, and the difficulty is all the greater when they have to be worked out in English material. The translation is extremely interesting and astonishingly successful. Every stanza is marked by thoughtful and thorough study and by deft manipulation of the English. The Latin and the English are conveniently placed on opposite pages. A charming portrait of Horace forms the frontispiece.

*Aeschylus*.—(1) *Prometheus Bound*. Translated by Robert Whitelaw. (2) *Agamemnon*. Translated by John Conington. Both with Introduction and Notes by J. Churton Collins, Litt.D., Professor of English Literature in the University of Birmingham. (1s. net each. Clarendon Press.) (3) *Prometheus Bound*, and (4) *The Eumenides*. Translated from a revised Text by Walter Headlam, Litt.D., Fellow of King's College, Cambridge. (1s. each. George Bell.)

If Conington evinces more poetical insight and skill, yet Whitelaw's rendering is scholarly and agreeable, and both versions are well worth reproduction. The full introductions and judicious notes supplied by Prof. Collins are very helpful for the purpose of the series—to present Greek masterpieces to be studied as English works in schools, Extension classes, &c., and by private readers. Dr. Headlam's translations are based on a careful critical revision of the text, and represent the original with scholarly fidelity and literary skill.

### MATHEMATICS.

*A Manual of Geometry*. By W. D. Eggar, M.A. (3s. 6d. Macmillan.)

The prescribed course is essentially practical and experimental, and, if followed in the best way, must ensure a thorough grounding in the principles of elementary geometry. It is intended to meet fully the requirements of candidates for Junior University, for Matriculation, and for University Local Examinations. The author, in giving only skeleton proofs of the leading theorems, follows the principle adopted by those teachers who try to encourage the members of a class to fill in for themselves the details of the demonstrations. The method has much to recommend it, provided that the teacher is always exercising the necessary supervision; otherwise, in the case of the less eager and less intelligent pupils, the note-books may well prove but a sorry substitute for the reliable text, of which they are supposed to take the place, for purposes of revision. It is pleasant to note Mr. Eggar's plea for the retention of Euclid's "Elements" as a University subject. We quote his own words:—"Though it is easy to find defects in Euclid's work, it is not easy to make out a course of geometry superior to Euclid's as a system of logic."

*A First Geometry*. By W. M. Baker, M.A., and A. A. Bourne, M.A. (1s. 6d. Bell.)

A small volume, very suitable for the part assigned to it by the authors, namely, that of providing a purely preliminary course in geometry. The work which is suggested is almost entirely experimental, and appears well calculated both to create interest in the subject and to impart a stock of valuable knowledge of the elementary truths of geometry and of the properties possessed by some of the simple geometrical figures. The usefulness of the course is enhanced by the fact that the investigations in general may be carried out without the aid of elaborate apparatus—nay, more, the beginner learns how to manufacture simple instruments sufficient for the successful performance of various practical experiments. The text is good, but there are sections which require some revision.

*A Heuristic Arithmetic, Part I*. By Clifford Granville, B.A., and C. E. Rice, M.A. (2s. 6d. Horace Marshall.)

The reader is almost wholly concerned with the first four rules (simple and compound) of arithmetic and with the best way of imparting a knowledge of them. Every teacher will not perhaps be ready to adopt each individual method, yet it will be generally conceded that the lines followed are sound and excellent. The ideals are good and the principles involved and partially implied in the title of the book may be briefly summed up thus: Educate in the best sense of the word by obtaining as much information as possible from the pupils themselves; bring thought and experience to bear when determining the order of dealing with the subject; in general, treat each process by stages. At the first stage the teacher is advised to appeal entirely to concrete number and the sense of sight; at the second the imagination of the pupil is called in to assist partially concrete illustrations; finally, teacher and pupil examine the subject in a manner essentially abstract in character.

### SCIENCE.

*Inorganic Chemistry*. By E. I. Lewis, B.A. Cantab., B.Sc. Lond., Assistant Master at Oundle School. (6s. Cambridge University Press.)

Mr. Lewis's book has grown in a somewhat unusual way: it is "the outcome of an attempt to provide a chemistry course for a class of

boys of whom some had been promoted from a lower science set and the rest had come over from the classical side," so that "the course had to be both a revision and an introduction." He thinks, however, that the inevitable restrictions worked out eventually "altogether advantageous." "Nearly every lesson begins with the study of a simple reaction;" and "this is followed by a discussion involving the suggestion of further experiments." It is interesting to learn that "the boys, in class, by their own reasoning, questioning, and suggestion, led Mr. Lewis to alter radically the plans of many chapters." This looks like getting to business. In Part I. exercises and problems are appended to each chapter, and the answers are given. Part II. is for senior forms, with more information, to support the arguments. There are over 130 figures. The work is fresh, lucid, and practical.

(1) *The New Matriculation Light*. (2s. 6d.) (2) *The New Matriculation Heat*. (2s. 6d.) (3) *The New Matriculation Sound*. (2s.) All by R. W. Stewart, D.Sc. Lond. (Clive.)

These volumes are admirably adapted for the purposes of the London University Matriculation and other similar examinations. The treatment is simple and experimental, and in accordance with the best methods. There is abundance of exercises (with answers) and of illustrations. Thoroughly good text-books.

A second impression of *The Age of the Earth and other Geological Studies*, by Prof. Sollas, is published by Mr. Fisher Unwin (6s. net). Extremely able, varied, and charming discourses.

Messrs. Macmillan issue a third edition of *Modern Views of Electricity*, by Sir Oliver Lodge (6s.). The work has been revised to date. "Some new lectures and articles have been added; one of them dealing in a semi-philosophic way with the Interstellar Ether, and two others giving a popular account of recent discoveries as to the probable nature of matter, and some idea of the atomic theory of electricity." At once scientific and popular.

*The Elements of Electrical Engineering*, by Tyson Sewell, A.M.I.E.E. (7s. 6d. net, Crosby, Lockwood, & Co.), has been revised and enlarged in a fourth edition, with 277 illustrations. The new additions largely add to its value. A very serviceable work.

*A Key to Elementary Dynamics*, by W. M. Baker, M.A., Cheltenham College (10s. 6d. net, George Bell), will be extremely helpful both to teachers and to students. The solutions are masterly, and the methods are always instructive.

#### MODERN LANGUAGES.

*Heine's Book of Songs*. Translated by John Todhunter. (3s. 6d. net. Clarendon Press.)

"Every modern translator," Mr. Storr remarked in his brilliant presidential address to the Modern Language Association, "has tried his hand on Heine's lyrics, but the wise have followed the example of Victor Hugo and kept their translations in *scrinio*." Shall we infer that Dr. Todhunter is not among the wise or that Mr. Storr spoke before having studied Dr. Todhunter's translation? Or may not both be in a sense justified? Dr. Todhunter probably falls short of Mr. Storr's standard, but yet has achieved a success that fully justifies publication. The attempt is extremely difficult: "Heine invites and eludes translation." Dr. Todhunter says his endeavour "has been, while keeping as closely as possible to the sense and sentiment of the original, to follow those delicate changes in rhythm which Heine uses so daintily, stanza by stanza, while keeping within the bounds of his metre, and on which so much of the emotional expression depends." These lines, we think, are right; but the manipulation of the English is exceedingly difficult. A good example is "The Grenadiers": Dr. Todhunter follows the "delicate changes in rhythm" with remarkable skill, and yet the language does not permit him to do more than furnish a pale reflection of the music and feeling of the original. Still, these translations offer much of interest to the German scholar, and to those that do not know the originals they will convey as good a general idea of Heine's songs as they are ever likely to get in English. For the most part they read like English poems, and it is only the comparison with the German that modifies their effect. Mr. Frowde has done well to include the volume in his interesting series of translations.

*Bibliotheca Romanica*. (8d. net each volume in stout cartridge paper wrappers; or 1s. net cloth. London: Chatto & Windus. Strassburg: J. H. Ed. Heitz.)

The "Bibliotheca Romanica" furnishes a series of Romance texts, with prefaces and occasional notes. It is in four divisions, presenting masterpieces in four Romance languages. The volumes are in small octavo (about 6 x 4 inches); the type, though small, is remarkably clear; and the texts follow the best editions. Of the first division—"Bibliothèque Française"—we have several specimens: (1) *Le Misanthrope* (Molière); (2) *Les Femmes Savantes* (Molière); (3) *Le Cid* (P. Corneille); (4) *Discours de la Méthode* (Descartes); (5) *L'An Deux Mille* (Restif de la Bretonne); (11) *Athalie* (Racine); (18, 19, 20 together) *Mon Oncle Benjamin* (Claude Tillier); (23, 24) *Le Barbier de Séville* (Beaumarchais); (26, 27, 28) *La Nuit Vénitienne*, *André del Sarto*, *Les Caprices de Marianne*, *Fantasio*, *On ne badine pas avec l'amour* (Alfred de Musset); (29) *Horace* (P. Corneille); (32, 33, 34)

*Manon Lescaut* (L'Abbé Prévost); (35, 36) *Poésies Diverses* (Villon).—Of the second division—"Biblioteca Italiana": (5, 6) *Inferno* (Dante); (7) *Decameron, Prima Giornata* (Boccaccio); (12, 13, 14, 15) *Rerum Vulgarium Fragmenta* (Petrarca); (16, 17) *Purgatorio* (Dante); (21, 22) *Decameron, Seconda Giornata* (Boccaccio); (30, 31) *Paradiso* (Dante); (40) *La Vita Nuova* (Dante).—Of the third division—"Biblioteca Española": (8) *La Vida es Sueño* (Calderón); (37, 38, 39) *Les Mocedades del Cid, I, II* (Castro).—Of the fourth division—"Biblioteca Portuguesa": (10 and 25) *Os Lusindas I, II, and III, IV* (Camões). This very handy and clearly printed (in German) series, while very useful for school purposes, will also be welcomed by the general reader.

*The Oxford Book of French Verse*. Chosen by St. John Lucas, Coll. Univ. Oxon. (6s. net. Clarendon Press.)

Mr. Frowde has fitted out in charming style this comprehensive and representative selection of French verse from the twelfth century down to Paul Verlaine. Wherever one opens the volume the examples are typical and delightful; and the care and taste of the compiler, supported by the practical skill and generosity of the publisher, should do much to popularize the fine body of poetry here exemplified in specimens. The introduction reviews the whole subject on the main lines of development with insight and sympathy and in a style reflecting the polish of the examples. The compilation has evidently been a labour of love, growing out of intimate knowledge and discriminative appreciation.

*Oxford Higher French Series*. Edited by Leon Delbos, M.A. (Clarendon Press.)

Four new volumes have been added to this convenient and admirable series: (1) *Iambes et Poèmes*, by Auguste Barbier, edited by Ch.-M. Garnier, Professeur Agrégé au Lycée Henri IV. (2s. net); (2) *Contes et Nouvelles* ("Mateo Falcone," "Vision de Charles XI," "L'Enlèvement de la Redoute," "Tamango," "Carmen"), by Prosper Mérimée, edited by J. E. Michell, M.A., Ph.D., Assistant Master in Westminster School (2s. net); (3) *La Légende des Siècles*, by Victor Hugo, edited by G. F. Bridg, M.A. (3s. net); (4) *Eugénie Grandet* (Balzac), edited by H. E. Berthon, M.A., Taylorian Lecturer in French in the University of Oxford (2s. 6d. net). Each volume has a portrait of the author as frontispiece, and the last has also a portrait of Mlle. Nivellean, the model for Eugénie Grandet. The introductions and the notes are brief and instructive.

*Oxford Modern French Series*. Edited by Leon Delbos, M.A. (Clarendon Press.)

Five new volumes of excellent reading matter, with short introductions and sufficient notes: (1) *Le Roman d'un Jeune Homme Pauvre* (Octave Feuillet), edited by J. Laffitte, B. ès L., Principal French Master in the City of London School (2s.); (2) *Les Fiancés du Spitzberg* (Xavier Marmier), edited by A. A. Hentsch, Ph.D., Lecturer in Mediaeval and Modern Languages at Girton College, Cambridge (3s.); (3) *Journal d'un Voyage aux Mers Polaires* (Lieut. René Bellot), edited (with map) by H. J. Chaytor, Second Master at King Edward VII. School, Sheffield (2s. 6d.); (4) *Scrutium et Grandeur Militaires* (Alfred de Vigny), edited by C. L. Freeman, M.A., Modern Language Master in Magdalen College School, Oxford (2s. 6d.); (5) *La Jeunesse de Chateaubriand*, edited by Gerald Goodridge, B.A., Senior Master, United Services College, Windsor (3s.).

The second volume of *The Modern Language Quarterly* (Cambridge University Press) is a valuable repertory of current research and criticism in mediæval and modern literature and philology. The articles are mostly very substantial investigations or discussions; the minor criticisms are pointed and suggestive; and the lists of new publications are very convenient.

#### ENGLISH LITERATURE.

*The Complete Poetical Works of John Keats*. Edited, with an Introduction and Textual Notes, by H. Buxton Forman, C.B. (3s. 6d. Frowde. Oxford Edition.)

Mr. Forman is the most experienced of Keats's editors, and he has brought together in this volume the whole of the known works of the poet, including sixteen lines (of "The Eve of St. Mark") not printed in any other edition. "The edition," he says, "differs from those which I have prepared in past years in that it is neither an exhaustive *variorum* edition nor a mere unannotated text, but a text illustrated by readings and cancelled passages selected from the great mass of manuscript and printed material." The text, then, is authoritative and complete, and the illustrative readings, which are pretty numerous, but do not overburden the page, will indicate not only the results that Keats arrived at, but also the steps whereby he attained them, "so far as those steps may be said to have a true literary and psychological value." In a long introduction Mr. Forman essays "to record precisely how and in what forms the text has come through the nineteenth century and reached the poet's lovers and admirers in the twentieth." He adds also type facsimile titles of Keats's three books, a list of principal works consulted, and a careful chronology. This must be the standard popular edition.

*A Treasury of English Literature.* Arranged by Kate M. Warren. With an Introduction by Stopford A. Brooke. Parts I. and II. (1s. net each. Constable.)

This admirable work was originally issued in one volume in November, 1906, and now it is being reissued in six sections, two of which are before us. The first covers the "Old English" period, A.D. 700-1200: the selections are good, and the translations at the foot of the page will be very helpful. The second section runs from the twelfth century to the Age of Elizabeth: the selections are representative, and foot-notes (in several cases translations) are furnished where necessary. The type and get-up are liberal and attractive. The volumes should do a good deal to popularize the earlier English literature.

*The People's Library.* (8d. net each volume. Cassell.)

Here is a strong challenge to other series of reprints of good literature. The form is convenient, the type good, and the binding tasteful and substantial, while the price is astonishingly moderate. We have two more instalments of ten volumes each, with an additional volume (to each instalment) exemplifying the leather binding (1s. 6d. net each volume), which is very pleasantly flexible and strong.

First instalment: (1) *The Mill on the Floss* (George Eliot); (2) *Tom Brown's School-Days* (Thomas Hughes); (3) *Dickens's Christmas Books* (five stories); (4) *Kenilworth* (Scott); (5) *The Poems of Robert Browning, 1833-65*; (6) *The Autocrat of the Breakfast Table* (Holmes); (7) *Essays, Civil and Moral* (Bacon); (8) *John Halifax, Gentleman* (Mrs. Craik); (9) *The Cloister and the Hearth* (Reade); (10) *King Solomon's Mines* (Rider Haggard). The leather specimen is *Browning's Poems, 1833-65*, which runs to over six hundred pages, and is, we should imagine, the largest and most representative selection of Browning's work that is available in such get-up for eighteenpence.

Second instalment: (1) *The Bible in Spain* (Borrow); (2) *The Poems of Longfellow* (selected); (3) *The Opium Eater, &c.* (De Quincy); (4) *Henry Esmond* (Thackeray); (5) *The Last Days of Pompeii* (Lytton); (6) *The Last of the Mohicans* (Cooper); (7) *Silas Marner* (G. Eliot); (8) *The Tower of London* (Ainsworth); (9) *Pride and Prejudice* (Jane Austen); (10) *Cranford* (Mrs. Gaskell). The De Quincy volume also in leather.—The next instalment is promised on March 13.

*Nelson's Library.* (7d. net each volume.)

Seven new volumes of this convenient, well printed, and tastefully got-up series: (1) *The Bible in Spain* (Borrow); (2) *Sense and Sensibility*, (3) *Pride and Prejudice* (Jane Austen); (4) *Quentin Durward* (Scott); (5) *Gulliver's Travels* (Swift); (6) *A Child's History of England* (Dickens); (7) *Villette* (Charlotte Brontë). Each volume has a frontispiece.

Messrs. Macmillan have added to their delightful "Prize Library" (2s. 6d. each volume) (1) *Rosy*, (2) *The Rectory Children*, (3) *Two Little Waifs*—all charming stories by Mrs. Molesworth, charmingly illustrated by Walter Crane, and a new and revised edition of *The Kipling Reader* (selections from the books of Rudyard Kipling), illustrated effectively by J. Macfarlane.

#### ENGLISH READERS—LOCAL AND DESCRIPTIVE.

*Pitman's Local Readers* are similar in purpose, but they are more elementary in style, less full of matter, and much more abundantly illustrated. We have (1) *Esser*, (2) *Westward of the Wash* (counties of Lincoln, Northampton, Huntingdon, and Rutland), (3) *The Birmingham Midlands* (counties of Warwick, Stafford, and Worcester), (4) *Northumberland and Durham*, and (5) *Middlesex and London north of the Thames*. [(1)-(4), 3d. each; (5), 4d.] The matter is judiciously selected and simply presented; the maps are particularly good, and the illustrations are profuse and distinctive.

*London, Historical and Descriptive*, by Ben Jonson (1s. 6d. Blackie), offers a brief historical sketch of the City and of the part it has played in national affairs. The treatment is simple, and the selection of matter is appropriate, with a view to interest school readers. The illustrations are numerous and good.

#### SOCIAL AND POLITICAL QUESTIONS.

*Race Culture, or Race Suicide? A Plea for the Unborn.* By Robert Reid Rentoul, M.D., M.R.C.S., &c. (7s. 6d. net. Walter Scott Publishing Co.)

This is a second and enlarged edition of a work that attracted considerable attention some four or five years ago. As Dr. Rentoul says, it is "not a pleasant subject to write upon," but it is a subject of great importance and of increasing interest to students of sociological phenomena. The statistics here presented are, indeed, "appalling to the thinking man and woman"; and yet they "must not be taken as a complete statement of actual conditions" "I would point out," says Dr. Rentoul, "that mental and physical diseases are on the increase: the number of lunatics, idiots, imbeciles, feeble-minded, epileptic, and mentally backward children is increasing; the suicide and attempted suicide rates are increasing"; and so on for a long half-page. He inquires into the amount of physical and mental degeneracy, the cost of the upkeep of deteriorants and degenerates, and certain of the causes of national deterioration and

degeneracy, devoting much space to the more prominent of these causes. Finally, he explains proposals that have been made with the view of lessening the number of degenerates. From four of his tables of statistics it appears "that in one day alone [Census day, 1901] we had 65,700 married or widowed idiots, imbeciles, feeble-minded, and lunatics in the United Kingdom"; so that one can scarcely wonder at his concern that the species should not be perpetuated by such classes. The anthropologists are no less concerned than the doctors, and a warning note recently proceeded from the Eugenics School. Dr. Rentoul writes frankly and does not suffer fools gladly; but his argument, if sometimes pushed rather forcibly, is very striking, and the supporting statistics compel thoughtful and patient consideration.

*The Industrial Revolution.* By W. Cunningham, D.D., F.B.A., Fellow of Trinity College, Cambridge, and Archdeacon of Ely. (5s. net. Cambridge University Press.)

Dr. Cunningham's work is well known and highly appreciated. The present volume is a separate print of the portions of "The Growth of English Industry and Commerce in Modern Times" entitled "Parliamentary Colbertism" and "Laissez Faire"—that is to say, Part 3, and Postscript. The original work is now in a fourth edition, which has been assiduously brought abreast of the most recent investigations at home and abroad, and the separate Parts of course share the improvements of the whole. For many purposes, the more limited volume will be very convenient.

*The Need of the Nations: an International Parliament.*

(1s. net. Watts.)

"It is frankly admitted," says the author, "that war and militarism have none but detrimental effects on the internal progress of civilized nations," and "the hope of ultimate peace lies in the establishment of some International Authority which the various great nations will agree to respect." Indeed, "the time is ripe, or at least nearly ripe, for instituting some such Authority." Accordingly the author sketches in broad outlines a "Scheme of an International Parliament." The objects of the institution "would be primarily political, not economic"; "the effective control of armed forces by sea and land would be its first duty." The writer certainly takes time by the forelock, with some courage.

We are glad to see Mr. Frederick Peaker's interesting and useful little volume, *British Citizenship: its Rights and its Duties*, in a new and enlarged edition (2s., Ralph, Holland, & Co.). It contains much well selected information as to the machinery of government and administration, with new chapters on the relations of the colonies and dependencies to the mother country.

*The Licensed Trade*, "an independent study," by Edwin A. Pratt, which we noticed a few months ago, is now republished in strong limp cloth at 1s. net, by Mr. Murray. Without agreeing at all points with Mr. Pratt, we welcome this popular issue of his able book.

#### FIRST GLANCES.

##### CLASSICS.

*Aeneas Facta et Fata.* By E. Vernon Arnold, Litt.D., Professor of Latin at the University College of North Wales. 2s. Dent.

["A stepping-stone to Virgil, with notes and exercises on the text, for the use of beginners." Numerous illustrations, two in colour, specially designed by T. H. Robinson.]

*Cicero in Catilinam.* Edited by Ralph Harvey, M.A., Head Master of Cork Grammar School. 2 vols. 1s. 6d. each. Hachette.

[Introduction, notes, vocabulary, analysis, and index of proper names.]

*Decursus Primus: a First Latin Grammar, with Exercises.* By T. G. Tucker, Litt.D. Cantab., Professor of Classical Philology in the University of Melbourne. 2s. 6d. Macmillan.

*Elegia: Passages for Latin Elegiac Verse, with Hints and English-Latin Gradus.* By C. H. St. L. Russell, M.A., Assistant Master at Clifton College. 3s. 6d. Macmillan.

[Sequel to "Latin Elegiacs and Prosody Rhymes for Beginners." Hints full.]

*Ovid: Metamorphoson Liber XI.* Edited, with Introduction and Notes, by G. A. T. Davies, M.A., Assistant Lecturer in Latin, University College, Cardiff. 2s. Clarendon Press.

[Careful notes; summaries of paragraphs.]

*Virgil: Aeneid.* Book X. Edited by H. B. Widdows, M.A. Cantab., Assistant Master at the Collegiate School, Sunderland. 1s. 4d. Dent (Temple Series of Classical Texts).

[Introduction, biographical and literary; notes brief and pointed. Vocabulary. Attractive edition.]

##### MATHEMATICS.

*Algebra, Concrete, Elementary.* By Robert W. Holland, M.Sc., LL.B. 9d. net. Charles & Dible.

[Rules; brief explanations; numerous examples; miscellaneous tests from papers actually set. Goes up to problems resulting in fractional equations.]



Arithmetic, A Modern; with Graphic and Practical Exercises. By H. Sydney Jones, M.A. Cantab., Head Master of Cheltenham Grammar School. Part I. 3s. Macmillan.

[Numerous examples and exercises; revision and examination papers; answers. Very full and "modern."]

Arithmetic, Bell's New Practical, for Elementary Schools. By W. J. Stainer, B.A. Lond., Head Master, Municipal Secondary School, Brighton. Pupil's copy (containing the exercises of the First Year's Course of the "New Practical Arithmetic"), years first to sixth, 3d. each; year seventh, 4d. Teacher's copy (containing suggestions on methods of teaching and answers to the examples for calculation), years first to seventh, 8d. net each.

Arithmetic for Schools. By the Rev. J. B. Lock, M.A., Fellow and Bursar of Gonville and Caius College, Cambridge, formerly Master at Eton. New Edition, revised and enlarged with the assistance of V. M. Turnbull, M.A., Mathematical Master at the Perse School, Cambridge. 4s. 6d. Macmillan.

[Abundant examples; answers. Excellent.]

Arithmetic, Meiklejohn's Modern, arranged for Class use. Six Books. 2d., 2d., 3d., 3d., 4d., 4d. Answers, 3d. each book.

Arithmetic for Beginners. 1s. Parts I. and II. separate, 4d. and 6d. Heath.

[Section One of "The New Concrete Practical Arithmetics."]

Arithmetic, The Methodical. Edited by W. J. Greenstreet, M.A., F.R.A.S., Head Master of the Marling School, Stroud, Editor of the *Mathematical Gazette*. Parts I. and III. 1½. each.

[For First and Third Standard pupils in elementary schools, in accordance with the Code of Regulations issued by the Board of Education.]

Arithmetic, The School: being a School Course adapted from "The Tutorial Arithmetic." By W. P. Workman, M.A., B.Sc., Head Master of Kingswood School, Bath, late Scholar of Trinity College, Cambridge, and Smith's Prizeman.

[Third impression (second edition). Examples and exercises profuse; examination papers and miscellaneous problems; answers. Very comprehensive and able.]

Arithmetical Test Cards, Practical, McDougall's. Second Year. 1s. 3d. net. per packet. McDougall's Educational Company.

[180 sums for each of three terms; 180 revision tests; 180 mental sums. Very serviceable.]

Geometry and Physics, A First Year's Course in. By Ernest Young, B.Sc., Head Master, Lower School of John Lyon, Harrow, formerly of the Education Department, Siam. 2s. 6d. Also Part III. 1s. Bell.

[Abundant exercises; 110 figures. Answers separate, 6d. net.]

Geometry, Plane, Cartesian. Part I., Analytical Conics. By Charlotte Angus Scott, D.Sc., Girton College, Cambridge, Professor of Mathematics in Bryn Mawr College, Pennsylvania. 5s. Dent (Mathematical and Scientific Text-Books for Schools).

["The distinctive feature of the book is the systematic use of Cartesian line coordinates concurrently with point coordinates from the very first"; leaving, however, "the balance of power with point coordinates." Examples numerous; 100 figures.]

Geometry, Plane, for Secondary Schools. By Charles Davison, Sc.D., and C. H. Richards, M.A., Mathematical Masters at King Edward's High School, Birmingham. 4s. Cambridge University Press.

["On two important points we have ventured to differ from most writers of the present day." Plenty of exercises and problems.]

Metric System, Graduated Exercises on the. By A. W. Wise, A.C.P. Part I., Elementary, 2d. Part II., Advanced, 3d. Complete edition, with Answers, 6d. Ralph, Holland, & Co.

[Comprehensive, graduated, practical.]

EDUCATION.

Board of Agriculture and Fisheries. (1) Various useful Leaflets. (2) Report on Agricultural Education in the United States. 4d. post free (3d. to subscribers to the *Journal of the Board of Agriculture*).

Board of Education. (1) Special Reports on Educational Subjects: Vol. 18, The Education and Training of the French Primary School Teacher. Cd. 3777. 1s. (2) Prospectus of the Royal College of Art, 1907-8. 3d. (3) Prospectus of the Royal College of Science, 1907-8. 6d. (4) Certificate Examination, 1907—Papers set. (5) Report of the Board of Education for 1906-7. Cd. 3862. 6d. (6) Suggestions on Rural Education. By T. S. Dymond, H.M.I. 3d. (7) Special Reports on Educational subjects: Vol. 21, School Excursions and Vacation Schools. Cd. 3866. 5½d. (8) Science Examinations, 1907—Reports, &c. 6d. (9) Art Examinations, 1907—Reports, &c. 6d. (10) Statistics of Public Education in England and Wales, 1905-6-7. Cd. 3886. 2s. (11) Return of Higher Education, England and Wales (Application of Funds by Local Authorities) during 1905-6. 1s. 6d. (12) Memorandum of

the History and Prospectus of the Pupil-Teacher System (Circular 573). 3d. Wyman.

Cambridge University: Regulations (1) for the Cambridge Local Examinations, July and December, 1908; (2) for the Examinations for School Certificates and Army Leaving Certificates, 1908. (3) Local Examinations (Preliminary, Junior, Senior)—Examination Papers, December, 1907, with Lists of Syndics and Examiners and Regulations for July and December Examinations, 1908. 2s. (by post 2s. 3d.). (4) Higher Local Examinations: 39th Annual Report of the Syndicate. 6d. Cambridge University Press Warehouse (London: Fetter Lane).

Carnegie Foundation for the Advancement of Teaching. Second Annual Report of President and Treasurer.

Chile: Anales de La Universidad. Julio-Agosto, 1906, Enero-Febrero, 1907.

[Belated, but well furnished.]

City and Guilds of London Institute: Department of Technology. Report for 1906-7. John Murray.

[Full and instructive. Extracts from Examiners' reports. Questions set in the examinations occupy pages 131-391.]

English Association, Report of the First General Meeting of the. Also Leaflet No. 2, on "The Teaching of Shakespeare in Secondary Schools."

English, How to write. New edition. 1d. Leng.

Japanese National Development, A Sketch of; more especially with reference to Education. By Baron Kikuchi, M.A., D.Sc., LL.D. 8d. Edinburgh: Grant. London: Williams & Norgate.

Johns Hopkins University Circular, No. 7, 1907: Notes from the Geological Laboratory, 1906-7. No. 8, 1907: Catalogue and Announcement for 1907-8 of the Medical Department.

Latin and Greek, The Position of, in American Education. (1) The Present Position of Latin and Greek. (2) The Value of Latin and Greek as Educational Instruments. (3) Latin and Greek in our Courses of Study. By Prof. Francis W. Kelsey, University of Michigan.

[Reprinted from the *Educational Review* (New York), (1) December, 1906, (2) January, 1907, (3) February, 1907. Able discussions.]

L.C.C. (1) Annual Report of the Proceedings of the Council for Year ended March 31, 1907. No. 1116. 1s. (post free 1s. 5d.). (2) Report of the Public Health Committee, submitting Report of Medical Officer of Health for 1906. No. 1109. 3s. 6d. (per parcel post 3s. 10d.). (3) Report of the Medical Officer (Education). 1s. P. S. King.

London University Guide and University Correspondence College Calendar, 1908. Gratis.

[Very useful to students for London examinations.]

London University: University College Hospital Medical School. Calendar, 1907-8. Taylor & Francis.

Manchester Education Committee: Fifth Annual Report, 1906-7.

Mathematics, Annals of. October, 1907. Longmans.

[Very able and useful.]

Navy League, The Work of the, in Schools: Articles by Principals of Public and Preparatory Schools. 6d. The Navy League, 13 Victoria Street, Westminster, S.W.

North Wales University College Calendar, 1907-8.

Oxford University: Local Examinations, July, 1907—Special Reports of the Examiners in Natural Science subjects and in Drawing, with specimen drawings. 1s. 6d. Oxford and London: James Parker & Son.

PRACTICAL PURSUITS.

Agricultural and Dairy College, The Midland: Reports. (1) On Field Trials on the manuring of Seeds Hay; (2) on a Field Trial with varieties of Barley; (3) on Field Trials on the manuring of Potatoes; (4) on the Spraying of Potatoes to prevent disease.

Commerce of the World, 1850-1905. By John J. Macfarlane. Philadelphia Commercial Museum.

[Reprinted from *Commercial America*. "Shows the remarkable growth of international trade of the world and the still more wonderful strides made by the United States in the development of her export trade." Graphical illustrations.]

Cookery Book, Aunt Kate's. 1d. Leng.

[Large, varied, and excellent collection of recipes.]

Essex Education Committee.—(1) Notes on Agricultural Analyses, 1903-6, compiled by V. H. Kirkham, B.Sc., A.I.C. (2) The Essex Field Experiments, 1906: Report (9 papers) by B. W. Bull, N.B.A., and V. H. Kirkham, B.Sc., A.I.C. (3) Market-Day Lectures, 1905-6; being reports of (20) addresses to farmers, delivered at Chelmsford and Colchester during the winter months. County Technical Laboratories, Chelmsford.

Garden Books, "One & All." No. 8, Allotments, by T. W. Sanders, F.L.S. No. 9, Roses, by T. W. Sanders, F.L.S. No. 10, Garden Making, by Edward Owen Greening, F.R.H.S. No. 11, Bulbs, by S. Arnott, F.R.H.S. 1d. each. London Agricultural and Horticultural Association, 92 Long Acre, W.C.  
[Capably handled and amply illustrated.]

Glamorganshire Chamber of Commerce: Official Report on Ratin. The Ratin Laboratory, 17 Gracechurch Street, E.C.

Grocers in the Making: Report of the Inception and Development of the Technical Education Movement in the Grocery Trade. Compiled by C. L. T. B. 6d. National Association of Grocers' Assistants, 49 and 51 Eastcheap, E.C.  
[Exhaustive and instructive account of the movement.]

MUSIC.

Novello's Elementary Music Manuals (edited by W. G. McNaught). No. 3: An Elementary Sight-Singing Course. Staff Notation through Tonic Sol-fa, for Class use. By George Lane. Part I. 6d.

Novello's School Music. Humpty-Dumpty. A short Cantata for Children, consisting of a prelude, four short settings of the old nursery-rhyme, and part of the famous scene between Alice and Humpty-Dumpty (from "Alice through the Looking-Glass," by Lewis Carroll), adapted and set to Music by H. Walford Davies. 1s. 6d.; Tonic-Sol-fa, 9d.

Novello's School Songs. Book 145 (Grade II.): Six Two-Part Songs by various composers. 6d.; Tonic Sol-fa edition, 3d. Book 182: The Children's Summer Day. A Song-Cycle for Young Children, compiled and composed by Myles B. Foster (9 pieces). 9d.; Tonic Sol-fa edition, 4d. Book 184: Eight Kindergarten Game-Songs (reprinted from the *School Music Review*), by various composers. Voice parts in Staff and Tonic Sol-fa notations, with Pianoforte accompaniment, 6d. Book 185: Eight Unison Songs (Grade II., reprinted from the *School Music Review*), by various composers. Voice parts in Staff and Tonic Sol-fa notations, with Pianoforte accompaniment, 6d.; Tonic Sol-fa edition, 3d. Book 186: Thirteen Classical Songs (Grade III., reprinted from the *School Music Review*), by various composers. Voice parts in Staff and Tonic Sol-fa notations, with Pianoforte accompaniment, 9d.; Tonic Sol-fa edition, 4d. Book 187: Christmas Songs and Carols, by various composers. 6d.

No. 696: Winds Gently Whisper, by John Whittaker. Two-Part (Grade II., easy). 2d. No. 703: Comrades To-day (Gibney), by Myles B. Foster. Two-Part (Grade III., suitable for higher divisions). 3d. No. 754: Royalty (Elizabeth Forrester), by J. Cliffe Forrester. Unison (Grade II., easy). 1d. No. 783: Come away, Elves (Beatrice Abercrombie), by J. L. Hatton. Two-Part (Grade II., easy). 3d. No. 835: Springtime (Elmenhorst), by Ferdinand Hiller. Two-Part (Grade II., easy). 2d. No. 838: Infant Joy (Blake), by H. Walford Davies. Two-Part. 2d.; Tonic Sol-fa edition, 1d. No. 859: Mistress Mary, by C. A. Macirone. Three-part, accompanied. 2d.; Tonic Sol-fa edition, 1d. No. 860: Fair Summer Morning ("Placer d'Amore," transposed from the key of F and set to English words by M. E. Sidebotham), by F. Sor. Unison. (Grade II., easy). 2d. No. 862: God Bless the Prince of Wales (Linley), by Brinley Richards. Unison. 1d. No. 880: Sister Elves! It is the Hour, by Steven Glover. Unison (Grade II., easy). 3d.

[Varied, attractive, and excellent selection.]

Songster, British, McDougall's. By Edward Mason, Mus.Bac. 6d. net. ["Contains the greater part of the songs recommended by the Board of Education." The English Songster, Part I.: English songs (25), carols (3), rounds (12), general songs (2). Part II.: English songs (24), carols (3), rounds (12), general songs (2). The Scottish Songster (24). The Irish Songster (24). The Welsh Songster (20). "Auld Lang Syne" figures both in the English and in the Scottish section. Will the Scottish patriots regard this as a tribute or—otherwise? Surprisingly large and good collection at the price.]

The Scale-Staff System of Teaching Music. By A. J. Sleigh. First Book. 6d. net. Philip.  
[Simple and practical; progressive exercises.]

MISCELLANEOUS.

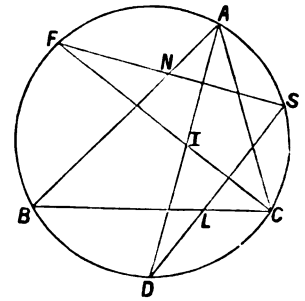
Alice in Wonderland (Lewis Carroll). 1d. Leng.  
Empire Calendar, 1908. J. H. Swinstead, Chalgrove, Oxon.  
Ereunt Mahatmas! By G. A. Gaskell. 2d. Watts.  
Recitation Book, The People's. 1d. Leng.  
Social Criterion. The; or, How to judge of proposed social reforms. Address by Prof. Bosanquet, St. Andrews. 6d. Blackwoods.  
Songs, Irish, The People's. No. 2. 1d. Leng.  
Thrift, Improved Methods of; with a list of societies for its promotion. By Mrs. A. H. Johnson. 3d. King.  
[Tract No. 7, issued for the National Union of Women Workers of Great Britain and Ireland. Second Edition. Very useful.]  
Ventilation: Report of Select Committee. Hickson, Ward, & Co.

MATHEMATICS.

Geometrical Note on a certain Circum-Conic.

By R. F. DAVIS, M.A.

Let S be any point on the circum-circle of a given triangle ABC; D, F the middle points of the arcs BC, AB opposite to A, C respectively. Let SD, SF intersect BC, AB in L, N respectively.



Applying Pascal's theorem to the hexagon BCFSDA, LN passes through the in-centre of ABC. But L, N are each points on the S-directrix of the hyperbola, having S as focus which circumscribes ABC in such a manner that A, C lie on the S-branch and B lies on the opposite branch. (For SL, SN bisect angles BSC, ASB.)

More generally:—Of the four circum-conics having S as focus, the S-directrices pass respectively through the in-centres and ex-centres of ABC.

Moreover, since  $DC^2 = DL \cdot DS = DI^2$ ; therefore  $SC : CI = SI : IL$ . That is  $SC$  : perpendicular from C on  $IL = SI$  : perpendicular from I on  $BC$ , or eccentricity =  $SI/r$ , a result remarkably similar to a well known theorem in reciprocation.

It would appear that the circum-conic is a parabola only when S is a point of intersection of the circum-circle with an ex-circle.

16358. (Professor R. W. GENESE, M.A.)—From a variable point P two fixed straight lines  $l_1, l_2$  are projected on to two fixed planes  $\alpha_1, \alpha_2$ . If the projections meet in a point, the locus of P is a hyperboloid of one sheet passing through  $l_1, l_2$  and the intersection of  $\alpha_1, \alpha_2$ .

Solution by S. T. SHOVELTON, M.A., and W. RIGBY, B.A.

Let Q be any point on the common section of  $\alpha_1, \alpha_2$ . Then the locus of P is obviously the locus of the intersection of the planes passing through Q and  $l_1$  and Q and  $l_2$ . But this intersection is a line meeting the three lines  $l_1, l_2$ , and the intersection of  $\alpha_1, \alpha_2$ ; therefore, &c.

The Problem of Three Images.

By C. E. McVICKER.

In what follows, I hope to show that (i.) the problem can be reduced to a much more tangible form, in which its irreducibility (in general) is placed beyond all doubt; (ii.) there are in general nine solutions, seven of which are real in the particular case where the given points are the vertices of an equilateral triangle.

1. Given A, B, C the images of X, Y, Z in YZ, ZX, XY respectively, it is required to find the points X, Y, Z.

Suppose a solution of this problem (call it I.) possible; then the following (II.) admits also of solution, and conversely.

A'B'C' is a given triangle whose sides B'C', C'A', A'B' are bisected at ABC; it is required to find a point O in its plane, such that

$$OA \cdot OA' = OB \cdot OB' = OC \cdot OC'.$$

Construction.—Find a triangle XYZ, such that the images of X in YZ, Y in ZX, and Z in XY coincide with ABC respectively; take O the circum-centre of XYZ, then shall  $OA \cdot OA' = OB \cdot OB' = OC \cdot OC'$ .

Proof.—Choose O as origin, and take an Argand Diagram on which the complex numbers at A, B, C, A', B', C', X, Y, Z are denoted by the corresponding small letters  $a, b, c, a', b', c', x, y, z$ .

Through X draw a parallel to YZ meeting the circum-circle of XYZ again at P. Then, since obviously PYAZ is a parallelogram, PZ is equal and parallel to YA, so that  $p-z = y-a$ . Also  $p/y = z/x$  (as the triangle POY is clearly similar to ZOY).

Therefore  $y+z-zx/x = a$ ;  
similarly  $z+x-zx/y = b$  and  $x+y-xy/z = c$ .

These equations give

$$x = bc'(b+c-a), \quad y = ca'(c+a-b), \quad z = ab'(a+b-c).$$

Now  $a'-b = c-a$ , for A'B is equal and parallel to CA.

Hence  $b+c-a = a', \quad c+a-b = b', \quad a+b-c = c$ ;

therefore  $x/b = c/a', \quad y/c = a/b', \quad z/a = b/c$ .

That is,  $\triangle XOB$  is similar to  $\triangle COA'$ ,  $\triangle YOC$  is similar to  $\triangle AOB'$ ,  $\triangle ZOA$  is similar to  $\triangle BOC'$ ; and therefore

$$OB \cdot OC = OX \cdot OA', \quad OC \cdot OA = OY \cdot OB', \quad OA \cdot OB = OZ \cdot OC'.$$

Hence (as  $OX = OY = OZ$ ),  $OA \cdot OA' = OB \cdot OB' = OC \cdot OC'$ . Q.E.D.

16255. (ALFRED A. ROBB.)—The solution of the differential equation  $d^2y/dx^2 = Ay^m x^n$  may be reduced to quadratures when either

$n = -(m + 3)$  or  $n = -\frac{1}{2}(m + 3).$

Show that the equation may also be solved when

$m = 2, n = -\frac{1}{2}^2; m = 2, n = -\frac{2}{7}^2 \dots (a, b).$

Solution by T. STUART, M.A., D.Sc.

In  $d^2y/dx^2 = Ay^2x^n \dots (1)$ , put  $x = \theta^{-a}$  and  $y = \lambda \cdot \theta^{-i(a+1)}$  in succession, and we have

$d^2\lambda/d\theta^2 = \frac{1}{2}(a^2 - 1)\lambda \cdot \theta^{-2a} + Aa^2 \cdot \lambda^2 \cdot \theta^{-2ai},$

where  $n_1 = na + \frac{1}{2}(a + 1) \dots (2)$ , and on putting  $y_1 = \lambda + (a^2 - 1)/8Aa^2 \cdot \theta^{n_1 - 2}$ , this becomes

$d^2y_1/d\theta^2 = Aa^2 \cdot y_1^2 \cdot \theta^{-2ai} \dots (3)$ , provided  $n_1$  is a root of  $8n_1^2 - 40n_1 + 49 = a^2 \dots (4)$ .

The equations (1) and (3) are thus either both soluble or both insoluble, and when a solution of one is known that of the other is at once deducible. Thus when  $n_1 = 0$ , we have  $a = \pm 7$  and  $n = -\frac{2}{7}^2$  or  $-\frac{1}{2}^2$ . Similarly, when  $n_1 = \frac{1}{2}^2$ , we get  $n = -5$  or 0; but if  $n = -5$ , (1) can be integrated otherwise. The integral in each of these cases is easily obtained.

Note.—In the *Nouvelles Annales de Mathématiques*, 2nd série, t. XVIII., 1879, M. Worms De Romilly has shown that the integration of

$d^2y/dx^2 = y^m(ax^2 + bx + c)^{-1(m+3)}$

can be reduced to quadratures and put in the form

$\int du \sqrt{\phi + Au^2 \cdot m^{-1}(m-1)} = \int F(x) dx,$

where A is an arbitrary constant, u a certain function of x, y, and  $\phi$  a function of u of the form  $a \cdot u^{2(m+1)(m-1)} + \beta \cdot u^2 + \gamma$ . The first two forms (mentioned by the Proposer) are obviously special cases of this, found by taking (i.)  $b = c = 0$ ; (ii.)  $a = c = 0$ .

16355. (R. F. WHITEHEAD, B.A.)—If a set of conics be taken passing through four points, then the quantity

$[e^4/(1 - e^2)] \sin^2 \frac{1}{2}(\alpha + \beta + \gamma + \delta)$

is invariant for the set, e being the eccentricity of, and  $\alpha, \beta, \gamma, \delta$  the eccentric angles of the four points for, any conic of the system. Find its value in terms of the elements of the quadrangle formed by the four points.

Solution by the PROPOSER.

Let the axes be the axes of any conic passing through the four points, so that  $x_1 = a \cos \alpha, y_1 = b \sin \alpha, \dots$

The determinant  $(1, -x_2, -y_3, x_4^2 + y_4^2)$   
 $= ab(1 - \cos \beta, -\sin \gamma, a^2 \cos^2 \delta + b^2 \sin^2 \delta)$   
 $= \frac{1}{2}[ab(a^2 - b^2)](1 - \cos \beta, -\sin \gamma, \cos 2\delta)$   
 $= 16ab(a^2 - b^2) \Pi \sin \frac{1}{2}(\alpha + \beta + \gamma + \delta),$

where

$\Pi = \sin \frac{1}{2}(\alpha - \beta) \sin \frac{1}{2}(\alpha - \gamma) \sin \frac{1}{2}(\alpha - \delta) \sin \frac{1}{2}(\beta - \gamma) \sin \frac{1}{2}(\beta - \delta) \sin \frac{1}{2}(\gamma - \delta).$

(Burnside & Panton, *Determinants*, p. 75.)

Again, the determinants  $\begin{vmatrix} x_2 & y_2 & 1 \\ x_3 & y_3 & 1 \\ x_4 & y_4 & 1 \end{vmatrix} \dots$

$= 4ab \sin \frac{1}{2}(\gamma - \delta) \sin \frac{1}{2}(\delta - \beta) \sin \frac{1}{2}(\beta - \gamma) \dots (l.c., p. 72).$

Hence  $(1, -x_2, -y_3, x_4^2 + y_4^2)^2 = \frac{(a^2 - b^2)^2 \sin^2 \alpha + \beta + \gamma + \delta}{a^2 b^2 \sin^2 \alpha + \beta + \gamma + \delta}$ ;

therefore  $\frac{e^4 \sin^2 \alpha + \beta + \gamma + \delta}{1 - e^2} = \frac{1}{2} \frac{\Sigma(\Sigma - pp')(\Sigma - qq')(\Sigma - rr')}{\Delta_1 \Delta_2 \Delta_3 \Delta_4}$ ,

where  $\Delta_1, \&c.,$  are the areas of the triangles formed by omitting each of the four points in turn, and  $pp', qq', rr'$  are the products of opposite pairs of lines joining the four points, and  $\Sigma$  their half sum (l.c., p. 77).

15978. (Communicated by C. M. ROSS.)—Explain how to express the co-ordinates of points on a uniscalar cubic as cubic polynomials of a parameter t. Taking the cubic

$x^3(a_1 b_1 c_1 d_1 \tilde{x} t, 1)^3 = y^3(a_2 b_2 c_2 d_2 \tilde{x} t, 1)^3 = z^3(a_3 b_3 c_3 d_3 \tilde{x} t, 1)^3,$

show that three points  $t_1, t_2, t_3$  are collinear provided that

$\begin{vmatrix} a_1 & a_2 & a_3 & 1 \\ b_1 & b_2 & b_3 & p \\ c_1 & c_2 & c_3 & q \\ d_1 & d_2 & d_3 & r \end{vmatrix} = 0,$

where  $p = -\frac{1}{2}(t_1 + t_2 + t_3)$ ,  $q = \frac{1}{2}(t_1 t_2 + t_2 t_3 + t_3 t_1)$ ,  $r = -t_1 t_2 t_3$ .

Deduce a quadratic for the parameters of the double point, and find the condition that it should be a cusp.

Note by  $\theta\theta$ .

The solution given in *Reprint*, Vol. XI. (New Series) does not seem quite correct in its determination of the double point.

If the determinant of the question is expanded in the form

$A + Bp + Cq + Dr = 0,$

and if  $t_1, t_2$  are parameters of the double point,  $t_3$  may be taken arbitrarily. Thus

$3A - B(t_1 + t_2) + Ct_1 t_2 + t_3[-B + C(t_1 + t_2) - 3Dt_1 t_2] = 0$

must be zero for all values of  $t_3$ . That is

$3A - B(t_1 + t_2) + Ct_1 t_2 = 0$

$B - C(t_1 + t_2) + 3Dt_1 t_2 = 0$

The quadratic with  $t_1, t_2$  as roots is thus

$t^2, t, 1 = 0,$

$3A, B, C$

$B, C, 3D$

and for a cusp the two parameters are equal, so that

$4(3BD - C^2)(3AC - B^2) = (9AD - BC)^2$

or  $B^2 C^2 - 4(AC^3 + B^3 D) + 18ABCD - 27A^2 D^2 = 0,$

which can of course be obtained at once, as the condition that  $A - Bt + Ct^2 - Dt^3 = 0$  has a squared factor. [See Salmon's *Higher Plane Curves*, Arts. 216, b, c; unfortunately, these Articles contain several misprints.]

16334. (Lt.-Col. ALLAN CUNNINGHAM, R.F.)—Factorize completely (into prime factors)  $N = (60601^6 + 60602^6)$ ;—has 29 figures.

Solution by the PROPOSER.

$N = (60601^6 + 60602^6) = x^6 + y^6$  (suppose).

Then  $N = N_2 \cdot N_6$ , where  $N_2 = x^2 + y^2$ , and  $N_6 = (x^6 + y^6)/(x^2 + y^2)$ .

(1)  $N_2 = \frac{1}{2}\{(x-y)^2 + (x+y)^2\} = \frac{1}{2}(1^2 + 121203^2) = 5.29.50655749.$

The author has compiled a large table of solutions of the congruence  $Y^2 + 1 \equiv 0 \pmod p$ , which is now continuous up to  $p \gg 50000$ . Taking  $Y = 121203$ , this table shows that  $N_2$  has no more divisors  $< 7121$ , so that the large factor in  $N_2$  is prime.

(2) As to  $N_6$ . Here  $y - x = 1$ ,

$y + x = 121203 = 3.201^2 = 3z^2$  (suppose),

whence  $y^2 - x^2 = 3z^2$ .

Hence  $N_6 = x^4 - x^2 y^2 + y^4 = y^4 - 3y^2 z^2 + 9z^4 = (y^2 + 3z^2)^2 / (y^2 + 3z^2)$ ,

a Trin-Aurifeuillian, whose factors (L, M) are known (algebraically) to be

$L = y^2 - 3yz + 3z^2 = 36361806601,$

$M = y^2 + 3yz + 3z^2 = 3709266613.$

The further factorization of L, M depends on showing how to utilize tables of solutions of  $(1 + y^6)/(1 + y^2) \equiv 0 \pmod p$  in this case.

This depends on a relation (the general proof of which will shortly be published) connecting three sextans  $N', N'',$  where

$N' = (1 + y'^6)/(1 + y'^2)$ , with  $y' = 6\eta'^2$ ,

$N = (x^6 + y^6)/(x^2 + y^2)$ , as in present case,

$N'' = (1 + y''^6)/(1 + y''^2)$ , with  $y'' = 6\eta''^2$ .

Then  $N', N''$  are Sext-Aurifeuillians and  $N' = L'M', N'' = L''M'$ , by known rules, and  $N = LM$  as above shown.

Now take  $y'' - y' = 1, z = 2y' + 1$ ; then the relation is that the numbers of the series  $N$  fall in between those of  $N', N''$ , in such a way that the L (of  $N$ ) = the  $M'$  (of  $N'$ ), the M (of  $N$ ) = the  $L''$  (of  $N''$ ).

Hence  $N = LM = M' \cdot L''$  and the tables suited to factorizing  $N' N''$  can be used for factorizing  $N$ . The Proposer has compiled a table of solutions of the congruence  $(y^6 + 1)/(y^2 + 1) \equiv 0 \pmod p$ , which is now complete up to  $p \gg 32000$ . This gives the divisors 13, 37, 9157 of  $N' N''$ ; and on actual trial in the L, M of  $N$  it is found that

$L = 9157.397073; M = 13.37.7711573.$

16352. (Professor NANSON.)—If

$a/(b-c) + b/(c-a) + c/(a-b) = 0,$

then

$a/(b-c)^2 + b/(c-a)^2 + c/(a-b)^2 = 0.$

Solutions (I.) by T. STUART, M.A., D.Sc.; (II.) by "SOLIDUS," and others.

(I.) Since  $\Sigma(a/b-c) = 0, \Sigma(b-c) = 0, \Sigma a(b-c) = 0$ ; therefore

$F(\theta) = \Sigma \frac{a}{\theta + (b-c)} \equiv \frac{(a+b+c)\theta^2}{(\theta + b-c)(\theta + c-a)(\theta + a-b)}$

Hence  $F(\theta) = 0$  has two zero roots; therefore  $F'(0) = 0$ , and this gives  $\Sigma[a/(b-c)^2] = 0$ .

Or as follows:—

Write  $(b-c, c-a, a-b) \equiv (\lambda, \mu, \nu)$ , and let  $\lambda, \mu, \nu$  be the roots of  $x^3 + qx - r = 0$ .

Then  $r [(a/\lambda^2) + (b/\mu^2) + (c/\nu^2)] \equiv \sum_1^3 a\lambda + q \sum_1^3 (a/\lambda)$ ;

and therefore if no two of the quantities  $a, b, c$  are equal  $\sum (a/\lambda^2)$ , i.e.  $[a/(b-c)^2] + [b/(c-a)^2] + [c/(a-b)^2] = 0$ .

(II.) We have

$$\left(\frac{a}{b-c} + \frac{b}{c-a} + \frac{c}{a-b}\right) \left(\frac{1}{b-c} + \frac{1}{c-a} + \frac{1}{a-b}\right) - \left(\frac{a}{(b-c)^2} + \frac{b}{(c-a)^2} + \frac{c}{(a-b)^2}\right) = \frac{a}{b-c} \left(\frac{1}{c-a} + \frac{1}{a-b}\right) + \dots = \frac{a(c-b) + b(a-c) + c(b-a)}{(b-c)(c-a)(a-b)} = 0.$$

Hence, if  $\sum a/(b-c) = 0$ , it follows that  $\sum a/(b-c)^2 = 0$ . But the converse does not hold good. If  $\sum a/(b-c)^2 = 0$ , we can deduce that either  $\sum a/(b-c) = 0$  or  $\sum 1/(b-c) = 0$ .

16312. (S. NARAYANA AIYAR.)—If  $f(x)$  represents the expression

$$a_0 + a_1x + a_2x^2 + a_3x^3 + \dots + a_nx^n,$$

how that the determinant

$$\begin{vmatrix} f(1), & f(2), & \dots, & f(r), & f(r+1) \\ f(2), & f(3), & \dots, & f(r+1), & f(r+2) \\ \dots & \dots & \dots & \dots & \dots \\ f(r), & f(r+1), & \dots, & f(2r-1), & f(2r) \\ f(r+1), & f(r+2), & \dots, & f(2r), & f(2r+1) \end{vmatrix}$$

is  $-(a_n \cdot n!)^{r+1}$  or 0, according as  $n$  is equal to or less than  $r$ .

Solution by Professor NANSON.

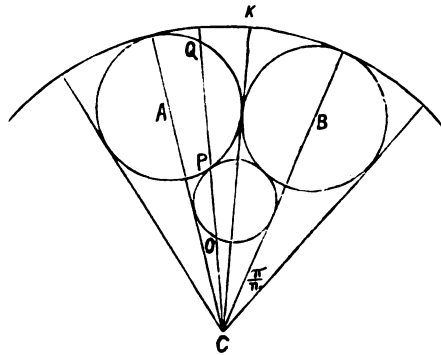
The determinant is orthosymmetric and is therefore not altered in value by replacing  $f(r+1)$  by its  $r$ -th difference. When this is done the elements below the secondary diagonal all vanish, and hence the determinant has the value  $(-1)^{r(r+1)/2} (a_n n!)^{r+1}$  or zero, according as  $r$  is equal to or greater than  $n$ .

16307. (D. BIDDLE.)—A circle of radius equal to unity is divided into  $n$  equal sectors and in each sector a circle is inscribed. Thus there are  $n$  small circles, each of which is in contact with the original circle and with the two adjacent circles of its own set. Within this circlet or set another set of  $n$  equal circles is described, each of which has external contact with two of the former set and also with two of its own, and so on, until the original circle can hold no more such circlets. Find their total area.

Solution by HENRY RIDDELL, M.E.

A and B are centres of a pair of circles in outer row; one circle of the second row is shown.

The points of contact of the alternate rows of circles must lie upon radii, since C is the centre of similitude of all circles whose centres lie on any one radius. By symmetry a line of contact points bisects the angle ACK.



Then  $CO/CP = CP/CQ = OP/PQ = r_2/r_1$ ,

where  $r_1$  = radius of one of the outer ring of circles, and  $r_2$  one of the second ring.

Then, if  $\alpha$  = area of one of the outer ring of circles we have the sum of all the areas

$$S = n\alpha [1 + CP^2/CQ^2 + (CP/CQ)^4 + (CP/CQ)^6 + \dots \text{to infinity}] = n\alpha [CQ^2/(CQ^2 - CP^2)] = \pi n r_1^2 [CQ^2/(CQ^2 - CP^2)].$$

If the radius of containing circle is unity,  $(1-r_1) \sin \pi/n = r_1$ ; therefore  $r_1 = \frac{\sin \pi/n}{1 + \sin \pi/n}$ ; therefore

$$S = \frac{\pi \sin^2 \pi/n}{(1 + \sin \pi/n)^2} \frac{CQ^2}{CQ^2 - CP^2}$$

From the equation of the circle we have

$$CQ + CP = \frac{2 \cos \pi/2n}{1 + \sin \pi/n},$$

$$CQ - CP = \frac{2(\sin^2 \pi/n - \sin^2 \pi/2n)}{1 + \sin \pi/n} = \frac{2 \sin \pi/2n (2 \cos \pi/n + 1)}{1 + \sin \pi/n},$$

$$CQ^2 - CP^2 = \frac{2 \sin \pi/n (2 \cos \pi/n + 1)}{(1 + \sin \pi/n)^2},$$

$$CQ = \frac{\cos \pi/2n + \sin \pi/2n (2 \cos \pi/n + 1)}{1 + \sin \pi/n},$$

$$\frac{CQ^2}{CQ^2 - CP^2} = \frac{[\cos \pi/2n + \sin \pi/2n (2 \cos \pi/n + 1)]^2}{2 \sin \pi/n (2 \cos \pi/n + 1)},$$

$$S = \frac{\pi \sin \pi/n [\cos \pi/2n + \sin \pi/2n (2 \cos \pi/n + 1)]^2}{2 (1 + \sin \pi/n)^2 (2 \cos \pi/n + 1)^2}$$

I leave the reduction to the reader.

QUESTIONS FOR SOLUTION.

16382. (M. T. NARANIENGAR, M.A.)—If forces proportional to the sides of a triangle act at any point of the N.P. circle towards the feet of the perpendiculars of the triangle, their resultant passes through the point of contact of the inscribed or escribed circle with the N.P. circle.

16383. (S. NARAYANA AIYAR.)— $\phi_1(x), \phi_2(x), \phi_3(x), \dots, \phi_n(x)$  are  $n$  functions which are expandible in powers of  $x$  with the respective absolute terms  $a_1, a_2, a_3, \dots, a_n$ .  $c_1, c_2, c_3, \dots, c_n$  and  $s_1, s_2, s_3, \dots, s_n$  are respectively the real and imaginary parts of the functions  $\phi_1(re^{i\theta}), \phi_2(re^{i\theta}), \phi_3(re^{i\theta}), \dots, \phi_n(re^{i\theta})$  [i.e.,  $\phi_1(re^{i\theta}) = c_1 + is_1 \dots$ ].  $S_p$  denotes the sum of the products of any  $p$  of the quantities  $s_1, s_2, s_3, \dots, s_n$  and the remaining  $n-p$  of the quantities with  $c$  written for  $s$ , the  $p$  quantities being chosen in every possible way, thus:

$$S_0 = c_1 c_2 c_3 \dots c_n, \\ S_1 = s_1 c_2 c_3 \dots c_n + c_1 s_2 c_3 \dots c_n + c_1 c_2 s_3 \dots c_n + \dots + c_1 c_2 c_3 \dots s_n.$$

Establish the following results:—

- (1)  $\int_0^\pi (S_0 - S_1 - S_2 + S_3 + S_4 - S_5 - S_6 + S_7 + S_8 - \dots) \tan \frac{1}{2} \theta \frac{d\theta}{\theta} = \frac{1}{2} \pi a_1 a_2 a_3 \dots a_n,$
- (2)  $\int_0^\pi (S_1 - S_2 + S_3 - S_4 + \dots) \frac{d\theta}{\theta} = \frac{1}{2} \pi [\phi_1(r) \phi_2(r) \phi_3(r) \dots \phi_n(r) - a_1 a_2 a_3 \dots a_n],$
- (3)  $\int_0^\pi (S_0 - S_2 + S_4 - S_6 + \dots) \frac{d\theta}{1 + \theta^2} = \frac{1}{2} \pi \phi_1\left(\frac{r}{e}\right) \phi_2\left(\frac{r}{e}\right) \phi_3\left(\frac{r}{e}\right) \dots \phi_n\left(\frac{r}{e}\right).$
- (4)  $\int_0^\pi (S_1 - S_3 + S_5 - S_7 + \dots) \frac{\theta}{1 + \theta^2} d\theta = \frac{1}{2} \pi [\phi_1\left(\frac{r}{e}\right) \phi_2\left(\frac{r}{e}\right) \phi_3\left(\frac{r}{e}\right) \dots \phi_n\left(\frac{r}{e}\right) - a_1 a_2 a_3 \dots a_n].$
- (5)  $\int_0^\pi (S_1 - S_3 + S_5 - S_7 + \dots) \frac{d\theta}{\theta(1 + \theta^2)} = \frac{1}{2} \pi [\phi_1(r) \phi_2(r) \phi_3(r) \dots \phi_n(r) - \phi_1\left(\frac{r}{e}\right) \phi_2\left(\frac{r}{e}\right) \phi_3\left(\frac{r}{e}\right) \dots \phi_n\left(\frac{r}{e}\right)].$

16384. (K. S. PATRACHARI.)—Solve the equation  $y(y + d^2y/dx^2) = a^2x^2$ .

16385. (Rev. F. H. JACKSON.)—If  $[a+1]_n$  denote the  $q$  factorial  $[a+1] [a+2] [a+3] \dots [a+n]$ ,

in which  $[a+r] = (q^a \cdot r - 1)/(q-1)$ , show that, on replacing  $q$  by  $1 + \epsilon$  ( $\epsilon$  a small quantity),

$$\frac{[a+1]_n [b+1]_n}{[c+1]_n [d+1]_n} = \frac{(a+1)_n (b+1)_n}{(c+1)_n (d+1)_n} \left\{ 1 + \frac{n(a+b-c-d)}{2} \epsilon + \frac{n^2 \{ 3(a+b-c-d)^2 + (a+b-c-d) \}}{24} \epsilon^2 + \dots \right\}.$$

The coefficients of  $\epsilon^3, \epsilon^4, \dots, \epsilon^n$  are required. The problem is of importance in discussing the limiting forms of  $q$ -functions.

16386. (A. M. NESBITT, M.A.)—If every element in the  $r$ -th row of a determinant of order  $n$  be  $1/r^2$ , except that in the principal diagonal which is  $1 + 1/r^2$ , then, if  $n$  be indefinitely increased, the limiting value of the determinant will be  $1 + \pi^2/6$ .

16387. (Lt.-Col. ALLAN CUNNINGHAM, R.E.)—Show how to solve in (unequal) integers

$$N = x^4 + y^4 + z^4 = x'^4 + y'^4 + z'^4 = x''^4 + y''^4 + z''^4 = \dots$$

Give the lowest numbers so expressible in two ways and in four ways.

**16388.** (ROBT. W. D. CHRISTIE.)—Prove that, if  $a^2 + b^2 = c^2$  integral, then  $S-a, b, S$  are in harmonical progression, and  $s-b, a, S$  are in harmonical progression. Can the theorem be extended?

**16389.** ("λ, μ.")—Solve

$$yz + ax^2 = a^2 + bc, \quad zr + by^2 = b^2 + ca, \quad x\eta + cz^2 = c^2 + ab.$$

**16390.** (Professor NEUBERG.)—Soient A'B'C'D' et ABCD deux tétraèdres polaires réciproques par rapport à une sphère de centre O. Démontrer que

$$\begin{aligned} \text{vol OB'C'D'} &= \text{OC'D'A'} = \text{OD'A'B'} = \text{OA'B'C'} \\ \text{vol OBCD} &= \text{OCDA} = \text{ODAB} = \text{OABC} \end{aligned}$$

**16391.** (JAMES BLAIRIE, M.A.) Suggested by Question 16286.—A, B are two fixed points whose distance from each other is  $2a$ . C is the centre of a sphere whose diameter,  $d$ , is greater than  $a$ . Determine fully the locus of a point P such that the mid-points of PA, PB lie on the given sphere.

**16392.** (C. E. YOUNGMAN, M.A.)—On the cardioide  $r = 2a(1 - \cos \theta)$  the points PQR are such that the cusp is their orthocentre. Prove that the circle PQR has radius  $a(\sqrt{2} + 1)$  and that its centre lies on a circle with radius  $a(\sqrt{2} - 1)$ , centrally placed on the axis of the cardioide; also that the in-circle of PQR has radius  $a$ .

**16393.** (SARADAKANTA GANGULI, M.A.)—Show that it is possible to find any number of integers such that the square of the greatest is equal to the sum of the squares of the rest. Hence, solve in integers  $x_1^2 + x_2^2 + x_3^2 + x_4^2 = x_5^2$ .

**16394.** (S. T. SHOVELTON, M.A.) Suggested by Question 16199.—Find the envelope of a straight line on which two given circles intercept lengths in a constant ratio. (Geometrical solution preferred.)

**16395.** (Professor SANJANA, M.A.)—Prove that one point of intersection of the conics

$$a^2/l + \beta^2/m + \gamma^2/n = 0, \quad l\beta\gamma + m\gamma\alpha + n\alpha\beta = 0,$$

lies on the line of concurrence of the intersections of the external bisectors of the angles of the triangle of reference with the opposite sides, when  $(m+n-l)(n+l-m)(l+m-n) = lmn$ .

Can this line be a common chord of the two conics?

**16396.** (S. NARAYANAN, B.A., L.T.)—If  $\theta$  be the sum of the inclinations to the axis of  $x$  of the four normals that can be drawn from a fixed point P to one of a system of confocal conics, prove that  $\tan \theta$  is constant; and show that when  $\tan \theta$  is given, the locus of P is a rectangular hyperbola.

**16397.** (HENRY RIDDELL, M.E.)—If two parabolas touch the sides of a triangle, and with the intersection of their directrices as focus a third parabola be described, and a tangent to this curve cut the sides of the triangle. Then, if the focus of this third parabola be joined to the three intersections of the tangent with the sides of the triangle, and upon each of these joining lines perpendiculars be let fall from the vertex opposite the side concerned, these three perpendiculars will meet in a point, and the locus of this point is a circle.

**16398.** (R. J. WHITAKER, B.A.)—ABCD is a quadrilateral. P, Q are points in AB, CD respectively, such that AP : PB = CQ : QD. PR, QS are drawn parallel to CD, AB respectively, meeting BC, AD in R, S. Prove that RS is parallel to BD. Geometrical proof wanted.

**16399.** (R. F. DAVIS, M.A.)—ABCD is a convex cyclic quadrilateral. Prove that the in-centres of the triangles ABC, BCD, CDA, DAB form a rectangle each of whose sides and diagonals pass through two of the ex-centres of the same triangles.

OLD QUESTIONS AS YET UNSOLVED (IN OUR COLUMNS).

**11664.** (Professor LUCAS.)—De combien de manières un pion du jeu de dames, placé en un coin du damier, peut-il se rendre sur le bord opposé en progressant par cases consécutives parallèlement à l'une ou l'autre diagonale? Suivant que le damier a  $2n$  ou  $2n+1$  cases de côté, Professor Lucas pense que le nombre cherché est égal à  $C_{2n-1, n-1}$ , ou  $C_{2n, n}$ .

**11702.** (Professor ECHOLS.)—Prove that

$$\sum_{m=0}^{n-1} (-1)^m \frac{2^{2m-1} - 1}{(2n-2m+1)! (2m)!} B_m = 0,$$

wherein  $B_m, \dots$  represent Bernoulli's numbers.

**11749.** (C. BICKERDIKE.)—A right cone is placed upon a revolving circular disc, when the disc is suddenly stopped and the cone tilts over. What amount of work is done by stopping the disc?

**11759.** (Professor RAMASWAMI AIYAR, M.A.)—Find loci in space for the movable points A, B, C, D, such that AB.CD = AC.BD.

**11784.** (Professor MALET, F.R.S.)—Using Legendre's notation for elliptic integrals, given the relations

$$F(c, \theta) + F(c, \phi) + F(c, \psi) - F(c, \alpha) - F(c, \beta) = 0,$$

$$\Pi(n, c, \theta) + \Pi(n, c, \phi) + \Pi(n, c, \psi) - \Pi(n, c, \alpha) - \Pi(n, c, \beta) = 0,$$

prove that

$$\begin{aligned} E(c, \theta) + E(c, \phi) + E(c, \psi) - E(c, \alpha) - E(c, \beta) \\ = -nc^2 \sin \theta \sin \phi \sin \psi \sin \alpha \sin \beta. \end{aligned}$$

**11898.** (Professor BHATTACHARYA.)—Observations give results 4.1, 4.23, 4.55, 4.56; find the probable error of the average.

NOTICE TO CORRESPONDENTS.

It is requested that all Mathematical communications should be sent to the Mathematical Editor, Miss CONSTANCE I. MARKS, B.A., 10 Matheson Road, West Kensington, W.

Vol. XII. (New Series) of the "Mathematical Reprint" is now ready, and may be had of the Publisher, FRANCIS HODGSON, 89 Farringdon Street, E.C. Price to Subscribers, 5s.; to Non-Subscribers, 6s. 6d.

THE LONDON MATHEMATICAL SOCIETY.

Thursday, February 13th, 1908.—Prof. W. Burnside, President, in the Chair.

Mr. W. E. Dalby was admitted into the Society.

The following papers were communicated:—

"Proof that every Algebraic Equation has a Root," Dr. H. A. de S. Pittard.

"Note on  $q$ -Differences," Mr. F. H. Jackson.

"An Extension of Eisenstein's Law of Reciprocity" (Second Paper), Mr. A. E. Western.

"On the Uniform Approach of a Continuous Function to its Limit," Dr. W. H. Young.

"Conformal Representation and the Transformation of Laplace's Equation," Mr. E. Cunningham.

EXAMINATION PAPER

AS USED BY THE

COLLEGE OF PRECEPTORS.

In strict accordance with the College requirements, and each Sheet bears their Watermark.

Packed in Reams of 480 Sheets ... per Ream, 2s.  
" " 960 " " " " 4s.

Bookkeeping Paper, ruled for Ledger, Cash Book, and Journal, 1s. per 100 Sheets.  
Music Paper, 1s. per 100 Sheets.

Remittance should accompany Order.

F. W. SHELBOURNE & CO., Wholesale and Retail Stationers,  
63 HIGH HOLBORN, LONDON, W.C.

THE RUGBY PRESS

undertakes every description of Letterpress

PRINTING FOR SCHOOLS.

Estimates furnished. Enquiries solicited.

Address— GEORGE OVER, Printer, Rugby.

IDOLA PULPITORUM:  
PITFALLS OF THE PRACTICAL TEACHER.

For this series of Articles, see "THE JOURNAL OF EDUCATION."

INTRODUCTORY ARTICLE, by Professor ADAMS [November, 1906]; CLASSICS, by H. G. HART [December, 1906]; ENGLISH, by ARTHUR BURRELL [January, 1907]; FRENCH, by CLOUDENLEY BRERETON [February and March, 1907]; SCIENCE, by T. PERCY NUNN [April, 1907]; NATURE STUDY, by T. RAYMONT [May, 1907]; HISTORY, by S. S. F. FLETCHER [June, 1907]; PHYSICAL TRAINING, by Colonel MALCOLM FOX [July, 1907]; DRAWING, by W. E. SPARKES [August, 1907]; DOMESTIC SCIENCE, by ALICE RAVENHILL [October, 1907]; GEOMETRY, by H. WINIFREED STURGE [December, 1907]; GEOGRAPHY, by Dr. A. J. HERBERTSON [January, 1908].

Subscription is 7s. per annum; single numbers, 8d. post free.

Offices: 3 BROADWAY, LUDGATE HILL, E.C.

# OXFORD UNIVERSITY PRESS.

SPECIAL REISSUE. Pp. lii+283. 2s.

## SIR THOMAS MORE'S UTOPIA

(ROBYNSON'S TRANSLATION).

EDITED, WITH INTRODUCTION, NOTES, AND GLOSSARY, BY  
J. CHURTON COLLINS,

*Professor of English Literature in the University of Birmingham.*

This book is prescribed, for 1909, for the Matriculation Examination of the Universities of Manchester, Liverpool, Leeds, and Sheffield; for "Detailed Study" for the Teacher's Certificate Examination; and for "General Study" in Scheme I for the Examination of Students in Training Colleges.

*School World.*—"For educational purposes this edition promises to become authoritative."

*Athenaeum.*—"Suggestive in the best sense, and by no means overweighted with erudition."

### Select Plays of Shakespeare for Schools.

(Merchant of Venice, Tempest, As You Like It, Henry V., Julius Caesar, Hamlet, Macbeth, Midsummer Night's Dream.) Edited (slightly abridged), with Introduction and Notes, by G. S. GORDON.  
*[In the press.]*

### Selections from Dryden.

Chosen and edited by G. E. HADWY, Tutor in English Literature, Lady Margaret Hall, Oxford. Crown 8vo, pp. 192. 2s. 6d.

### The Writing of English.

By PHILIP J. HARTOG, Academic Registrar of the University of London; sometime Bishop Berkeley Fellow of the Owens College, and Lecturer in the Victoria University, Manchester. With the assistance of Mrs. AMY H. LANGDON. Crown 8vo, pp. xii+164. 2s. 6d.

*Athenaeum.*—"This handy and valuable little work."

### Sidney's Apologie for Poetrie.

Edited, with Introduction, Notes, and Index, by J. CHURTON COLLINS, Professor of English Literature in the University of Birmingham. Crown 8vo, pp. xxviii+112, with a facsimile title-page. 2s. 6d.

### The Works of Aristotle.

Translated into English under the Editorship of J. A. SMITH, M.A., Fellow of Balliol College, and W. D. ROSS, M.A., Fellow of Oriel College. PART I. **The Parva Naturalia.** By J. I. BEARE, M.A., Fellow of Trinity College, Dublin, and G. R. T. ROSS, M.A., D.Phil., Lecturer on Philosophy and Education in the Hartley University College, Southampton. 8vo, pp. ii+152. 3s. 6d. net.

#### OXFORD LIBRARY OF TRANSLATIONS.

Extra Fcap. 8vo. 3s. 6d. net per Volume.

NEW VOLUMES IN THE PRESS.

### Tacitus: Dialogus, Agricola, and Germania.

Translated, with Introduction and Notes, by W. HAMILTON FYFE. With Maps. *[Immediately.]*

### The Works of Hesiod.

Translated by A. W. MAIR.

### Virgil.

Translated by J. JACKSON.

SELECT LIST OF EDUCATIONAL WORKS PUBLISHED IN 1907 AND COMPLETE CATALOGUE (144 PAGES) POST FREE ON APPLICATION.

London: HENRY FROWDE, Oxford University Press, Amen Corner, E.C.

### The Sounds of English.

An Introduction to Phonetics. By HENRY SWEET, M.A., University Reader in Phonetics, Oxford. Crown 8vo, pp. 140. 2s. 6d.

### Phonetic Transcriptions of English Prose.

By DANIEL JONES, Lecturer on Phonetics at University College, London. Crown 8vo, pp. xiv+86. 2s.

### The Oxford Book of French Verse. Thirteenth Century to Nineteenth Century.

Chosen by ST. JOHN LUCAS, University College, Oxford. Second Impression. Extra fcap. 8vo. cloth, gilt edges, pp. xxxv+492. 6s. net, and on Oxford India paper 7s. 6d. net.

*Athenaeum.*—"The best selection that has been printed in England. The Introduction gives a rapid and brilliant survey of French poetry."  
*School World.*—"Would make a very good school prize."

### Trois Semaines en France.

A French Reader with questions for conversation and grammatical exercises. By D. L. SAVORY, Lecturer at Goldsmiths' College (late Assistant Master at Marlborough College) and L. CHOUVILLE. 2s.

### Marignan: Conquête et Perte du Milanais.

By J. C. L. SIMONDE DE SIMONDI. Edited by A. WILSON-GREEN, Senior French Master in Radley College. Crown 8vo, pp. xii+134. 2s. (*Oxford Modern French Series.*)

### Eugénie Grandet.

By HONORE DE BALZAC. Edited by H. E. BERTHON, Taylorian Lecturer in French in the University of Oxford. Extra Fcap. 8vo, pp. xxviii+206. 2s. 6d. net. (*Oxford Higher French Series.*)

### The Senior Geography.

**VOL. III.—THE OXFORD GEOGRAPHIES.** By A. J. HERBERTSON, Reader in Geography in the University of Oxford, and F. D. HERBERTSON. Second Edition. Crown 8vo, pp. viii+363, with 117 Maps and Diagrams. 2s. 6d.

*School World.*—"Is good everywhere. The text is written quite on the right lines; no pains are spared to bring out the cause and effect; broad statements are not isolated; examples by way of comparison and of reference are constantly cited. The sketch maps are most interesting and most instructive."

### The Rise of the Greek Epic.

Being a Course of Lectures delivered at Harvard University. By GILBERT MURRAY, formerly Professor of Greek in the University of Glasgow. 8vo, pp. xii+283. 6s. net.

*Nation* (Prof. BURY).—"This brilliant study recalls us to the true appreciation of values. The distinction of Mr. Murray's book is that it unites historical method with literary insight and imagination."

### The Attic Theatre.

A Description of the Stage and Theatre of the Athenians, and of the Dramatic Performances at Athens. By A. E. HAIGH, late Fellow of Corpus Christi College, Oxford. THIRD EDITION, Revised, and in part Rewritten, by A. W. PICKARD-CAMBRIDGE, Fellow of Balliol College, Oxford. 8vo, pp. xvi+396, with Illustrations. 10s. 6d. net.

### A History of Music in England.

By ERNEST WALKER, Balliol College, Oxford. 8vo, pp. viii+364. 7s. 6d. net.

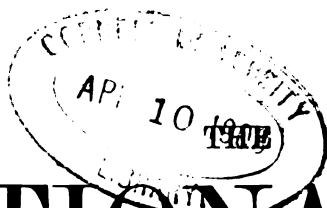
*Times.*—"At last there is a book worthy of the subject."

*Standard.*—"Worthy in every way to rank as the standard work."

### The Art of Counterpoint

And its Application as a Decorative Principle. By C. H. KITSON, late Scholar of Selwyn College, Cambridge. Crown 8vo, pp. viii+352. 7s. 6d. net.

*Musical World.*—"At every step the student is assisted to a right appreciation of principles rather than a mere knowledge of rules. Whatever other books a student may take up, this is the one which he can least afford to neglect."



22D

# EDUCATIONAL TIMES,

AND

## Journal of the College of Preceptors.

Vol. LXI.] New Series, No. 564.

APRIL 1, 1908.

{Published Monthly, price, to Non-Members, 6d.; by Post, 7d. Annual Subscription, 7s.

### COLLEGE OF PRECEPTORS. (INCORPORATED BY ROYAL CHARTER.)

#### MEMBERS' MEETING.

The next Monthly Meeting of the Members will take place on Wednesday, the 1st of April, when Sir EDWARD BUSK will deliver an Address on "Moral Education," in connection with the approaching International Moral Education Congress.

The Chair will be taken by the Right Hon. Lord AVBURY, at 5.30 p.m.

Members have the privilege of introducing their friends.

#### EXAMINATIONS.

**Diplomas.**—The next Examination of Teachers for the Diplomas of the College will commence on the 31st of August, 1908.

**Practical Examination for Certificates of Ability to Teach.**—The next Practical Examination will be held in May.

**Certificate Examinations.**—The Midsummer Examination for Certificates will commence on the 30th of June, 1908.

**Lower Forms Examinations.**—The Midsummer Examination will commence on the 30th of June, 1908.

**Professional Preliminary Examinations.**—These Examinations are held in March and September. The Autumn Examination in 1908 will commence on the 8th of September.

**Inspection and Examination of Schools.**—Inspectors and Examiners are appointed by the College for the Inspection and Examination of Public and Private Schools.

The Regulations for the above Examinations can be obtained on application to the Secretary.

#### LECTURES FOR TEACHERS.

A.—The First Course of Lectures (Thirty-sixth Annual Series) by Prof. J. ADAMS, M.A., B.Sc., F.C.P., on "The Application of Psychology to the Work of the School," commenced on Thursday, February 13th, at 7 p.m.

The Course is meant to meet the needs of Teachers who wish to improve their acquaintance with what underlies the principles of their profession, whether they have any examination in view or not. The reading of the students will be guided, and problems set for their exercise. Every opportunity will be taken of making practical applications of psychological principles to the work of the classroom. The Fee for the Course is Half-a-Guinea. The Lectures will be delivered on Thursday Evenings at 7 o'clock, at the College, Bloomsbury Square, W.C.

For syllabus, see page 152.

C. R. HODGSON, B.A., Secretary.

Bloomsbury Square, W.C.

### UNIVERSITY OF ST. ANDREWS.

#### L.L.A. DIPLOMA FOR WOMEN.

The attention of Candidates is drawn to the Ordinary and Honours Diplomas for Teachers, which are strongly recommended as suitable for those who are or intend to be teachers.

Examinations are held at Aberdeen, Birmingham, Blackburn, Brighton, Bristol, Cardiff, Croydon, Devonport, Edinburgh, Glasgow, Hull, Inverness, Leeds, Liverpool, London, Manchester, Newcastle-on-Tyne, Norwich, Nottingham, Oxford, St. Andrews, Sheffield, Swansea, and several other towns.

Information regarding the Examinations may be obtained from the SECRETARY, L.L.A. Scheme, The University, St. Andrews.

### BIRKBECK COLLEGE, BREMA BUILDINGS, CHANCERY LANE, E.C.

#### DAY AND EVENING CLASSES.

Courses of Study under Recognized Teachers of the University of London for Degrees in Science and in Arts.

**Science.**—Chemistry, Physics, Mathematics (Pure and Applied), Botany, Geology, Zoology.

**Arts.**—Classics, English, French, German, Italian History, Geography, Logic, Economics, Mathematics (Pure and Applied).

Particulars on application.

### ST. GEORGE'S TRAINING COLLEGE FOR WOMEN TEACHERS IN INTERMEDIATE AND SECONDARY SCHOOLS, EDINBURGH.

This College provides a year's Professional Training for well educated women who intend to become Teachers.

The Course of Training is supervised by the Edinburgh Provincial Committee for the Training of Teachers and is recognized by the Scotch Education Department; it is also recognized by the English Board of Education, and by the Teachers' Training Syndicate of the University of Cambridge.

Bursaries of £30, £20, and £15 are offered to Students entering in October, 1908.

Prospectus and further particulars from the Principal, Miss M. E. WALKER, 5 Melville Street, Edinburgh.

### DENMARK HILL GYMNASIUM AND PHYSICAL TRAINING COLLEGE FOR TEACHERS.

Full preparation for Public Examinations. British College of Physical Education: English and Swedish systems.

Board of Education: Science.

Swimming and Sports.

For particulars apply—Miss E. SPELMAN STANGER, Trevena, Sunray Avenue, Denmark Hill, London, S.E.

### CHURCH EDUCATION CORPORATION.

#### CHERWELL HALL, OXFORD.

Training College for Women Secondary Teachers.

Principal—Miss CATHERINE I. DODD, M.A. (late Lecturer in Education in the Manchester University).

Students are prepared for the Oxford, the Cambridge, and the London Teacher's Diploma. Special arrangements made for Students to attend the School of Geography.

Exhibitions and Scholarships awarded in December and July.—Apply to the PRINCIPAL.

### Diploma Correspondence College, Ltd.

Principal—J. W. KNIFE, L.C.P., F.R.S.L.  
Vice-Principal—S. H. HOOKE, B.A., Hons. Lond.

Specially arranged Courses for LONDON MATRICULATION,

**B.A., B.D., B.Sc.,**  
A.C.P., L.C.P., &c.

**FREE GUIDES**

on application to the SECRETARY.

**WOLSEY HALL, OXFORD.**

### LONDON COLLEGE OF MUSIC. (Incorporated.)

GREAT MARLBOROUGH STREET, LONDON, W.

Patron: HIS GRACE THE DUKE OF LEBDS.  
Dr. F. J. KARR, Mus. Bac. Cantab., Principal.  
G. AUGUSTUS HOLMES, Esq., Director of Examinations.  
EXAMINATIONS, 1908.

The NEXT EXAMINATION in PIANOFORTE PLAYING, SINGING, THEORY, and all branches of Music will be held in London and 400 Provincial Centres in JULY (June for Scotland and Ireland), when Certificates will be granted to all successful candidates.

The Higher Examinations for the Diplomas of Associate (A.L.C.M.), Licentiate (L.L.C.M.), the Teachers' Diploma, L.C.M., and Fellowship (F.L.C.M.) take place in JUNE, JULY, and DECEMBER.

Gold and Silver Medals and Book Prizes are offered for competition according to the Regulations.

LOCAL SCHOOL CENTRES.—Full particulars with reference to the formation of these Centres will be forwarded to Principals of Schools upon application.

SYLLABUS for 1908, together with Annual Report, may be had of the SECRETARY.

In the Educational Department students are received and thoroughly trained under the best Professors at moderate fees. The College is open 10 a.m. to 9.30 p.m.

TWELVE OPEN SCHOLARSHIPS, giving free tuition for TWO YEARS at the College, are offered for competition in April. Full particulars on application.

T. WEBBES HOLMES, Secretary.



### THE ASSOCIATED BOARD OF THE R.A.M. and R.C.M.

FOR LOCAL EXAMINATIONS IN MUSIC.

PATRON: HIS MAJESTY THE KING.

PRESIDENT: H.R.H. THE PRINCE OF WALES, K.G.

LOCAL CENTRE EXAMINATIONS (Syllabus A). Examinations in Theory at all Centres in March and November; in Practical Subjects at all Centres in March-April, and in the London District and certain Provincial Centres in November-December also. Entries for the November-December Examinations close Wednesday, October 7th, 1908.

SCHOOL EXAMINATIONS (Syllabus B). Held three times a year, viz., June-July, October-November, and March-April. Entries for the June-July Examinations close Wednesday, May 13th, 1908.

Specimen Theory Papers set in past years (Local Centre or School) can be obtained on application. Price 3d. per set, per year, post free.

Syllabuses A and B, entry forms, and any further information will be sent post free on application to—

JAMES MUIB, Secretary.  
15 Bedford Square, London, W.C.

Telegrams: "Associa. London."

## FREE GUIDE

TO

## LONDON UNIVERSITY MATRICULATION

Post free, from

THE SECRETARY,  
Burlington House, Cambridge;

or from the London Office of

University Correspondence College,  
32 Red Lion Square, Holborn, W.C.

**UNIVERSITY OF LONDON.—  
UNIVERSITY COLLEGE.**

The Faculties of the College are:—  
The Faculty of Arts and Laws, including the Slade School of Fine Art, the Indian School, and the Department of Economics.  
The Faculty of Science, including the Departments of Engineering and Architecture.  
The Faculty of Medical Sciences, including the Department of Public Health.  
Students desiring to take Undergraduate Courses in any one of these Faculties should Matriculate either in June or September in order to enter the College in October.

ENTRANCE SCHOLARSHIPS in the Faculties of Arts, Law, and Science will be awarded on the results of Examinations to be held in May; and in the Faculty of Medical Sciences on the results of Examinations to be held in September.

For further particulars apply to  
**WALTER W. SETON, M.A.,**  
Secretary.

**PRIFYSGOL CYMRU.**

**UNIVERSITY OF WALES.**

The FIFTEENTH MATRICULATION EXAMINATION will commence on Monday, June 29th, 1908. Particulars from the REGISTRAR, University Registry, Cathays Park, Cardiff, from whom forms of entry can be obtained. Application for entry forms must be made not later than Monday, June 1st, 1908.

**NEWCASTLE-UPON-TYNE  
EDUCATION COMMITTEE.**

WANTED.—For RUTHERFORD COLLEGE SECONDARY SCHOOL FOR GIRLS.—

- (a) HEAD SCIENCE MISTRESS. Subjects:—Botany, Chemistry, Physics (possibly Hygiene). Experience in Laboratory management necessary. Scale salary £120 to £170.
- (b) FORM MISTRESS. Subjects:—French, Latin, and Elementary Mathematics desirable. Scale salary, £90 to £120.

The commencing salary may be higher than the scale minimum if warranted by experience.  
Degree and experience in a Public school essential for each appointment.

Application forms should be obtained from the SECRETARY, Education Offices, Northumberland Road, Newcastle-upon-Tyne, and returned not later than 30th April, 1908.

**BOROUGH POLYTECHNIC  
INSTITUTE,**

103 BOROUGH ROAD, LONDON, S.E.

The Governors will, after Easter, require the services of an ASSISTANT MISTRESS in their Trade School for Girls for three mornings and five afternoons a week. Subjects: Elementary Chemistry, English subjects or Elementary Geometry. Salary, £100 per annum. Particulars can be had by sending stamped addressed foolscap envelope to the Lady Superintendent.

C. T. MILLIS,  
Principal.

**EMPLOYMENT OFFERED.—** We

wish to appoint EDUCATIONAL REPRESENTATIVES in a few special districts. Excellent opportunities offered to capable men. None others need apply.—**UNDERWOOD & UNDERWOOD, 104 High Holborn, W.C.**

**CROYDON Outskirts.** Rapidly grow-

ing neighbourhood, conveniently situate near the Main Line Railway Station, close to the County Sports Grounds, &c. A Commodious RESIDENCE, admirably adapted for a School (which is much needed) or Institution, standing in fine old grounds of about 3 acres, and containing 22 bed- and dressing-rooms, bath-room, 4 reception-rooms, handsome music-room, extensive offices on ground floor. Very low price for the freehold, £4,000; or would be let.—Apply to Messrs. Bowditch & Grant, Surveyors, 105 George Street, Croydon. Telephone No. 112 Croydon.

**LADY** seeks Engagement in School or Family. Twenty years in France. Certified. Good French, Drawing, English, Needle-work. Good disciplinarian.—W., 9 Wickham Road, Beckenham.

**BADGES,  
HAT BANDS, CAPS**  
AT WHOLESALE PRICES.

Write—SCHOOLS AGENT, 1 Arundel Villas, Chelmsford Road, South Woodford, N.E.

**BEDFORD COLLEGE FOR  
WOMEN**

(UNIVERSITY OF LONDON),  
YORK PLACE, BAKER STREET, W.

The EASTER TERM begins on Thursday, April 23, 1908. Lectures are given in preparation for all examinations of the University of London in Arts, Science, and Preliminary Medicine for the Teachers' Diploma, London; for the Teachers' Certificate, Cambridge; and for the Cambridge Higher Local Examination.

Special course of Scientific Instruction in Hygiene recognized by the Sanitary Inspector's Examination Board.

Six Laboratories are open to Students for Practical Work.

Students may attend the Art School who are not taking other subjects at the College.

A Single Course in any subject may be attended.

Regular Physical Instruction is given, free of cost, to Students who desire it by a fully qualified woman teacher.

Students can reside in the College.

**ENTRANCE SCHOLARSHIPS.**

One Reid Scholarship in Arts, value £31. 10. first year; £28. 7s. second and third years.

One Arnott Scholarship in Science, annual value £48, tenable for three years.

One Pfeiffer Scholarship in Science, annual value £48, tenable for three years, will be awarded on the results of the examination to be held in June.

Full particulars on application to the PRINCIPAL.

**DEPARTMENT FOR PROFESSIONAL TRAINING  
IN TEACHING.**

Two Scholarships each of the value of £15 for one year are offered for the course of secondary training beginning in October, 1908.

The Scholarships will be awarded to the best candidate holding a degree in Arts or Science.

Applications should reach the HEAD OF THE TRAINING DEPARTMENT not later than July 1st, 1908.

**THE CAMBRIDGE TRAINING  
COLLEGE FOR WOMEN TEACHERS.**

Principal—Miss H. L. POWELL,  
late Scholar of Newnham College (Hist. Tripos, Class I.), late Head Mistress of the Leeds Girls' High School.

A residential College providing a year's professional training for Secondary Teachers.

The course includes preparation for the Cambridge Teacher's Certificate (Theory and Practice), and for the Teachers' Diploma of the London University. Ample opportunity is given for practice in teaching science, languages, mathematics, and other subjects in various schools in Cambridge.

Students are admitted in January and in September. Full particulars as to qualifications for admission, scholarships, and bursaries may be obtained on application to the PRINCIPAL, Cambridge Training College, Wollaston Road, Cambridge.

**THE INCORPORATED  
FROEBEL EDUCATIONAL INSTITUTE,  
TALGARTH ROAD, WEST KENSINGTON, LONDON, W.**

Recognized by the Board of Education as a Training College for Secondary Teachers.

Chairman of the Committee—Sir W. MATHER.

Treasurer—Mr. C. G. MONTEFIORE, M.A.

Secretary—Mr. ARTHUR G. SYMONDS, M.A.

**TRAINING COLLEGE FOR TEACHERS.**

Principal—Miss E. LAWRENCE.

**KINDERGARTEN AND SCHOOL.**

Head Mistress—Miss A. YELLAND.

Students are trained for the Examinations of the National Froebel Union and other Examinations.

TWO SCHOLARSHIPS of £20 each, and two of £15 each, tenable for two years at the Institute, are offered annually to Women Students who have passed certain recognized Examinations.

Prospectuses can be obtained from the PRINCIPAL.

**Some Good Modern School Desks**

for Sale, some dual, some to seat four.

Also Forms, Drawing Models, Fire-guards, &c.

Apply, 43 RAVENSDALE ROAD,  
STAMFORD HILL, N.

New Edition. 18mo, price 9d.

**THE ELEMENTS OF BOOK-KEEPING,** by SINGLE and DOUBLE ENTRY, with Practical Explanations and Exercises on the most useful Forms for Business. By A. K. ISHSTER, M.A. LL.B., late Dean of the College of Preceptors.  
LONDON: LONGMANS & Co., PATERNOSTER ROW, E.C.

**JOINT AGENCY FOR WOMEN TEACHERS.**

(Under the management of a Committee appointed by the Teachers' Guild, College of Preceptors, Head Mistresses' Association, Association of Assistant Mistresses, and Welsh County Schools' Association.)  
Address—74 GOWER STREET, LONDON, W.C.

Registrar—Miss ALICE M. FOUNTAIN.

This Agency has been established for the purpose of enabling Teachers to find work without unnecessary cost. All fees have therefore been calculated on the lowest basis to cover the working expenses.

Head Mistresses of Public and Private Schools, and Parents requiring Teachers, or Teachers seeking appointments, are invited to apply to this Agency.

Many Graduates and Trained Teachers for Schools and Private Families; Visiting Teachers for Music, Art, and other special subjects; Foreign Teachers of various nationalities; Kindergarten and other Teachers are on the Register, and every endeavour is made to supply suitable candidates for any vacancy.

School Partnerships and Transfers are arranged.

Hours for interviews (preferably by appointment):—  
11 a.m. to 1 p.m., and 3 to 5 p.m.  
Saturdays, 11 a.m. to 1 p.m., and 2 to 3 p.m.

**THE JOINT SCHOLASTIC  
AGENCY.**

23 Southampton Street, Bloomsbury Square, W.C.

Managed by a Committee of Representatives of the following Bodies:—

**HEAD MASTERS' CONFERENCE.**

INCORPORATED ASSOCIATION OF HEAD MASTERS.

COLLEGE OF PRECEPTORS. TEACHERS' GUILD.

INCORPORATED ASSOCIATION OF ASSISTANT MASTERS.

ASSOCIATION OF TECHNICAL INSTITUTIONS.

ASSOCIATION OF PREPARATORY SCHOOLS.

WELSH COUNTY SCHOOLS.

Registrar: Mr. E. A. VIRGO.

The object of this Agency is to render assistance at a minimum cost to Masters seeking appointments.

The lowest possible fees are therefore charged.

A PROSPECTUS will be sent ON APPLICATION.

Interviews (preferably by appointment) 12 p.m.—1.30 p.m., and 3 p.m.—5.30 p.m. Saturdays, 12 p.m.—1 p.m.

**Nervous Disorders**

The nerves need a constant supply of phosphates to keep them steady and strong. A deficiency of the phosphates causes a lowering of nervous tone, indicated by exhaustion, restlessness, headache or insomnia.

**Horsford's  
Acid Phosphate**

(Non-Alcoholic.)

furnishes the phosphates in a pure and abundant form. It repairs waste, restores strength and induces restful sleep without the use of dangerous drugs.

**An Ideal Tonic in Nervous Diseases.**

If your chemist does not have it in stock he can obtain it from Bovril, Ltd., 152 Old Street, London, E. C.



**University Tutorial College**  
(Affiliated to University Correspondence College).



Day and Evening Classes

FOR

**MATRICULATION**

AND OTHER

**LONDON UNIVERSITY EXAMINATIONS**

may be taken up at any time at proportionate fees.

The official Pass List of London University for the last Matriculation Examination credits University Tutorial College with nearly three times as many Successes as any other Institution.

**PRACTICAL SCIENCE CLASSES**  
are held during the  
**EASTER VACATION.**

Full particulars of Classes and Private Tuition for Matriculation, Inter. Science and Arts, B.Sc. and B.A., Prelim. Sci. (M.B.), College of Preceptors, and other Examinations may be had, post free, from

THE PRINCIPAL,  
University Tutorial College,  
Red Lion Square, Holborn, W.C.

**COACHING FOR EXAMS.**

Resident Students (Ladies or Gentlemen) prepared for University, Civil Service, &c., by Mr. E. J. BUNNETT, M.A. (Cantab.); 20 years' successful experience. Prospectus, &c., from Mr. or Mrs. BUNNETT, Aldorf, Vicarage Road, Eastbourne.

**CORRESPONDENCE TUITION,**

Classes or Private Lessons in all Subjects for all Examinations, &c., at moderate fees. Special tuition for MEDICAL Prelims. and DIPLOMA Exams. Many recent successes. - F. J. BORLAND, B.A., L.C.P. (Science and Math. Prizeman), Victoria Tutorial College, 87 Buckingham Palace Road, S.W.; and Stalheim, Brunswick Road, Sutton, Surrey.  
Schools visited and Examinations conducted.

**WALTER J. DICKES, B.A. (Lond.)**

PRIVATE TUITION  
FOR EXAMINATIONS, &c.

BEECHEN CLIFF, THE GARDENS,  
E. DULWICH, LONDON, S.E.

**SECONDHAND BOOKS AT HALF PRICES!  
NEW BOOKS AT 25% DISCOUNT!**

**BOOKS** for A.C.P., L.C.P., F.C.P.,  
Metric, University, Certificate, Scholarship,  
L.L.A., B.A., and ALL other Examinations supplied.  
State wants: send for List. Books sent on approval.  
**BOOKS BOUGHT**, best prices given. - W. & G.  
FOYLE, 135 Charing Cross Road, W.C.

**INVALUABLE TO SCHOOLS.—**

Schoolmasters should use the **BLACK AUTO-COPYIST**—most perfect, simplest, and cleanly Copyist invented—for reproducing Examination Papers, Diagrams, Circulars, Music, &c. Original written or drawn on ordinary paper. Write for Price List and Specimens, or call and see apparatus in operation.—**AUTOCOPYIST Co.**, No. 3 Dept., 64 Queen Victoria Street, London, E.C.

**CARLYON COLLEGE.**

55 AND 56 CHANCERY LANE.

**LONDON UNIVERSITY EXAMINATIONS.**

LONDON MATRICULATION, INTER. ARTS and SCIENCE, B.A., and B.Sc. Classes (small) Day and Evening. M.A. Classes. B.A. Honours Classes. Elementary Greek Class.

Classes and Tuition for Legal and Medical Preliminaries, Accountants', Scholarship Examinations, Previous, Responses, and General.

Papers Corrected for Schools. Vacation Tuition. Private tuition for all Examinations. Prospectus and full details on application to E. C. B. KERIX, B.A. Lond., First of First Class Classical Honours. Editor of "Phaedo," "Pro Plancio," &c.

**SUCCESSSES.**

1892-1907.—London Matric., 149; Inter. Arts, Sc., and Prel. Sci., 140, 6 in Hons.; B.Sc., 1896-1906, 25; B.A., 1891-1906, 96, 14 in Hons.; Medical Prelim., 249; Responses and Previous, 60; Law Prelim., 62; other Successes, 400.

B.A. (LOND.), 1906 and 1907, 15, 3 in Classical Honours. M.A., S.  
INTER. ARTS, 1907, 6 out of 8.

**FREE.**

The Principals of the Normal Correspondence College have, through the courtesy of the College of Preceptors, issued the following

**FREE GUIDES.**

- |                              |            |
|------------------------------|------------|
| 1. A.C.P.                    | 100 pages. |
| 2. L.C.P.                    | 84 "       |
| 3. F.C.P.                    | 75 "       |
| 4. PREL. CERT.               | 120 pages. |
| 5. CERTIFICATE.              | 92 "       |
| 6. MATRICULATION.            | 84 "       |
| 7. IRISH UNIVERSITY.         | 60 "       |
| 8. OXFORD & CAMBRIDGE LOCALS | 100 "      |

These Guides are supplied gratis to all who mention this paper and state they intend sitting for examination.

"They are written by experts whose advice is the best procurable."—*Educational News.*

"Will undoubtedly help greatly towards success."—*Schoolmistress.*

**NORMAL CORR. COLLEGE,**

47 MELFORD ROAD, EAST DULWICH, S.E., and  
110 AVONDALE SQUARE, LONDON, S.E.

**BEAUTIFUL COLLECTION**

MUSEUM SPECIMENS FOR SALE.—Owls, Bats, Starlings, Kestrel-hawk, Mole; Cotton, Woollen, Linen Manufactures; Soapstone (China), Stalactite (Cheddar), Atlantic Cable, Fossils, Minerals, Sea Curiosities. Apply—Mr. AMES, M.C.P., Waltham, Grimsby.

Tenth Edition, 12mo, price 3s. 6d.

**THE ILLUSTRATED PUBLIC**

SCHOOL SPEAKER AND READER, based on Grammatical Analysis, comprising a choice Selection of pieces for Reading and Recitation, annotated for Expression, Emphasis, and Pauses, and illustrated by Diagrams and Figures exhibiting to the eye the appropriate gestures and positions; to which is added a selection of Greek, Latin, French, and German Extracts, suitable for "Speech Days" at Public Schools.

LONDON: LONGMANS & Co., PATERNOSTER ROW, E.C.

Sixteenth Edition, with Map. 12mo.

**CÆSAR'S COMMENTARIES ON**

THE GALLIC WAR. By A. K. ISBISTER, M.A., LL.B., late Dean of the College of Preceptors.

BOOKS I.-V. With Notes Critical and Explanatory, a Vocabulary of all the words in the Text, and Easy Reading Lessons for Beginners ..... price 3s. 6d.

BOOKS I.-VII. do. do. ..... 4s. 6d.

Do. (without the Reading Lessons) ..... 4s. 0d.

BOOK I. (with Vocabulary, Reading Lessons, &c.) ..... 1s. 6d.

LONDON: LONGMANS & Co., PATERNOSTER ROW, E.C.

Messrs.  
**TRUMAN & KNIGHTLEY,**

Educational Agents,

6 HOLLES ST., CAVENDISH SQUARE,  
LONDON, W.

Telegrams—"TUTORESS, LONDON."  
Telephone—No. 1167 Mayfair.

This Agency is under distinguished patronage, including that of the Principals of many of our leading Schools.

**A.—EMPLOYMENT DEPARTMENT.**

(i.) ASSISTANT MASTERS & TUTORS.

MESSRS. TRUMAN & KNIGHTLEY introduce University and other qualified ENGLISH and FOREIGN MASTERS and TUTORS to Schools and Private Families.

(ii.) ASSISTANT MISTRESSES.

MESSRS. TRUMAN & KNIGHTLEY introduce University, Trained, and other qualified ENGLISH and FOREIGN LADY TEACHERS to Girls' and Boys' Schools.

(iii.) LADY MATRONS AND HOUSE-KEEPERS.

MESSRS. TRUMAN & KNIGHTLEY introduce well qualified and experienced LADY MATRONS, HOUSEKEEPERS, and HOUSE MISTRESSES to Boys' and Girls' Schools.

No charge is made to Principals, and no charge of any kind is made to candidates unless an engagement be secured through this Agency, when the terms are most reasonable.

**B.—SCHOOL TRANSFER DEPARTMENT.**

A separate Department, under the direct management of one of the Principals, is devoted entirely to the negotiations connected with the Transfer of Schools and Introduction of Partners.

MESSRS. TRUMAN & KNIGHTLEY, being in close and constant communication with the Principals of nearly all the chief Girls' and Boys' Schools in the United Kingdom, to many of whom they have had the privilege of acting as Agents, and having on their books always a large number of thoroughly genuine Schools for Sale and Partnerships to negotiate, as well as the names and requirements of numerous would-be purchasers, can offer unusual facilities for satisfactorily negotiating the TRANSFER OF SCHOOLS, and arranging PARTNERSHIPS.

No charge is made to Purchasers, and there is no charge to Vendors unless a Sale or Partnership be effected through this Agency.

All communications and enquiries are treated in the strictest confidence.

**C.—PUPILS' DEPARTMENT.**

MESSRS. TRUMAN & KNIGHTLEY have a carefully organized Department for the introduction of Pupils to Schools and other Educational Establishments. No charge is made for registration.

Any negotiations entrusted to MESSRS. TRUMAN & KNIGHTLEY receive prompt and careful attention, every effort being made to save clients as much time and trouble as possible.

Prospectus, References, and full particulars will be forwarded on application.

1908.  
COLLEGE OF PRECEPTORS.

(Incorporated by Royal Charter.)  
BLOOMSBURY SQUARE, W.C.

Lectures for Teachers  
ON THE  
SCIENCE, ART, AND HISTORY OF EDUCATION.

THE APPLICATION OF PSYCHOLOGY TO THE  
WORK OF THE SCHOOL.

To be delivered by Professor J. ADAMS, M.A., B.Sc., F.C.P., Professor of Education in the University of London.

The First Course of Lectures (Thirty-sixth Annual Series) commenced on Thursday, February 13th, at 7 p.m.

The Course is meant to meet the needs of teachers who wish to improve their acquaintance with what underlies the principles of their profession, whether they have any examination in view or not. The lecturer will treat his subject in such a way as to fit in with the requirements of the College in connection with the examinations for the Associateship, the Licentiate, and the Fellowship. The reading of the students will be guided, and problems set for their exercise. Every opportunity will be taken of making practical applications of psychological principles to the work of the classroom.

SYLLABUS.

I. (Feb. 13.) *Nature and scope of Psychology*: border-land between physiology and psychology; characteristics of consciousness; the psychological attitude of mind; the teacher's use of psychology; Professor Münsterberg's view; the intermediary between psychology and education; genetic psychology; experimental methods: child study.

II. (Feb. 20.) *Consciousness*: its fundamental character; its polarity; its insulation: "the general consciousness": the ego or self; the subjective and objective; the unity of individual consciousness; meaning of the subconscious; advantageous position of educator as external influence.

III. (Feb. 27.) *Manipulation of Consciousness*: the various modes of being conscious; the so-called faculties; concentration and diffusion of consciousness; interest and attention; interaction between them; interest as means and as end; relation between the interesting and the easy; kinds of attention; physiological mechanism of attention.

IV. (March 5.) *Sense-perception*: nature of pure sensation; the senses, general and special; the essential mark of perception; the respective contributions of sensation and perception to knowledge; nature and scope of observation; its relation to inference; the gaping point; danger underlying the phrase "the training of the senses."

V. (March 12.) *Mental content*: the unit of mental content; the idea; laws of the interaction and combination of ideas; apperception; presented content and presentative activity; gradual modification of presentative activity; transitive and intransitive elements of thought; the static and dynamic view of the concept; the logical and psychological aspect of the concept.

VI. (March 19.) *Habit*: habit based on the laws of association; these laws not limited to ideas; association a general principle of organic development; place and value of habits in education; accommodation and co-ordination; the elimination of consciousness; convergent and divergent association; the continuum; reintegration.

VII. (March 26.) *Retention and recall*: physiological basis of memory; plasticity; memory not limited to intellectual process; personal identity; question of the possibility of improving the quality of memory; educational applications of mnemonics; learning by rote; obliviscence; element of purpose in memory.

VIII. (April 23.) *Imagination*: place of imagery in thinking; limitations imposed by images; importance of clearly imaged ends in ordinary life; practical applications in the schoolroom; the aesthetic imagination; cause of general suspicion of the "busy faculty"; scientific uses of the imagination; exact meaning of "picturing out"; relation of the imagination to the ideal.

IX. (April 30.) *Judgment and reasoning*: relation between logic and psychology; concept, judgment, reasoning correspond generally to term, proposition, syllogism; essential meaning of thinking is an adaptation of means to ends on the ideational plane; the purposive aspect of apperception; distinction between mere reintegration and thinking; the laws of thought as thought; the fundamental condition of all mental process; what underlies fallacies.

X. (May 7.) *Human nature*: general tendency to over-estimate the cognitive aspect; relation of knowledge to character; temperament the physical basis of character; classification of temperaments and of character types; advantages and dangers of such classifications; personality; permanency of temperaments and means by which they may be modified; types of troublesome pupils; treatment of the different temperaments in school.

XI. (May 14.) *The emotions*: value of the emotions in human life; like sensations they are subject to the law of relativity; emotions are to be utilized, not eliminated; cause of popular depreciation of the emotions; emotions are to be regulated by ideas; classification of the emotions; their expression; Lance-Jones theory of relation between emotion and its expression; element of truth in the theory and its great practical importance to teachers.

XII. (May 21.) *The will*: relation of will to feeling on the one hand and knowledge on the other; the appeal of the motive; fallacy of "the strongest motive"; resolution of the dualism implied in the process of making up one's mind; metaphysical exercises obscuring the problem of the freedom of the will; the evolution of the will in its relation to desire; the possibility of the training of the will; fundamental importance of the time element in this training.

The Fee for the Course of Twelve Lectures is Half-a-Guinea.

\* \* \* The Lectures will be delivered on THURSDAY EVENINGS, at 7 o'clock, at the College, Bloomsbury Square, W.C.—Members of the College have free admission to the Course.

GEOMETRY:  
PLANE AND SOLID.

By JOHN S. RAWLE, F.S.A.,  
LATE EXAMINER TO THE SCIENCE AND ART DEPARTMENT.

More than 600 Diagrams.

Over 280,000 copies sold.

INDISPENSABLE TO ALL TO WHOM A KNOWLEDGE OF  
GEOMETRY IS A NECESSITY.

Paper bound, 1s. Cloth bound, 2s.

Adapted to the requirements of all Science and Art Classes, Public Schools, &c.; also a reliable Text-book for the Examinations of the Science and Art Department, the Army and Navy, &c., &c.

For use in conjunction with the above:—

CLASS-SHEETS FOR PRACTICAL GEOMETRY ..... 1s.  
PRACTICAL GEOMETRY TEST-PAPERS ..... 4d.

Also:—  
FREEHAND DRAWING TEST-PAPERS ..... 1s.  
ARTIST'S SIGHT-MEASURE ..... 2s. 6d.

LONDON:

SIMPKIN, MARSHALL, HAMILTON, KENT, & CO., LIMITED.

THE RUGBY PRESS

undertakes every description of Letterpress

PRINTING FOR SCHOOLS.

Estimates furnished. Enquiries solicited.

Address— GEORGE OVER, Printer, Rugby.

IDOLA PULPITORUM:  
PITFALLS OF THE PRACTICAL TEACHER.

For this series of Articles, see "THE JOURNAL OF EDUCATION."

INTRODUCTORY ARTICLE, by Professor ADAMS [November, 1906]; CLASSICS, by H. G. HART [December, 1906]; ENGLISH, by ARTHUR BURRELL [January, 1907]; FRENCH, by CLOUDESLEY BRERETON [February and March, 1907]; SCIENCE, by T. PERRY NUNN [April, 1907]; NATURE STUDY, by T. RAYMONT [May, 1907]; HISTORY, by S. S. F. FLETCHER [June, 1907]; PHYSICAL TRAINING, by Colonel MALCOLM FOX [July, 1907]; DRAWING, by W. E. SPARKES [August, 1907]; DOMESTIC SCIENCE, by ALICE RAVENHILL [October, 1907]; GEOMETRY, by H. WINIFRED STURGE [December, 1907]; GEOGRAPHY, by Dr. A. J. HERBERTSON [January, 1908].

Subscription is 7s. per annum; single numbers, 8d. post free.

Offices: 3 BROADWAY, LUDGATE HILL, E.C.

CAREY'S "GRADUS AD PARNASSUM."

WITH THE ENGLISH MEANINGS.

Revised, Corrected, and Augmented by a Member of the University of Cambridge.

Post svo, cloth, price 7s.

THE STATIONERS' COMPANY, STATIONERS' HALL, LONDON.

EXAMINATION PAPER  
AS USED BY THE  
COLLEGE OF PRECEPTORS.

In strict accordance with the College requirements, and each Sheet bears their Watermark.

Packed in Reams of 480 Sheets... .. per Ream, 2s.  
" " " 960 " " " " " " 4s.

Bookkeeping Paper, ruled for Ledger, Cash Book, and Journal, 1s. per 100 Sheets.  
Music Paper, 1s. per 100 Sheets.

Remittance should accompany Order.

F. W. SHELBORNE & CO., Wholesale and Retail Stationers,  
63 HIGH HOLBORN, LONDON, W.C.

## MESSRS. BELL'S NEW MATHEMATICAL WORKS.

*Write for New Catalogue of Mathematical Books,  
sent post free on application.*

### NEW SCHOOL ARITHMETIC.

By CHARLES PENDLEBURY, M.A., assisted by F. E. ROBINSON, M.A. Second Edition. With or without Answers, 4s. 6d.; or, in Two Parts, 2s. 6d. each.

Key to Part II. 8s. 6d. net.

### NEW SCHOOL EXAMPLES IN ARITHMETIC.

Extracted from the above. With or without Answers, 3s.; or, in Two Parts, without Answers, 1s. 6d. and 2s.

### A JUNIOR ARITHMETIC.

By CHARLES PENDLEBURY, M.A., assisted by F. E. ROBINSON, M.A. 1s. 6d.; or, with Answers, 2s.

### EXAMPLES FROM A JUNIOR ARITHMETIC.

Extracted from the above. Price 1s.; or, with Answers, 1s. 6d.

### EXAMPLES IN ARITHMETIC.

With some Notes on Method. By C. O. TUCKEY, M.A., Assistant Master at Charterhouse. 3s.

### ELEMENTARY ALGEBRA.

By W. M. BAKER, M.A., and A. A. BOURNE, M.A., of Cheltenham College. Complete. Crown 8vo. Fourth Edition, with or without Answers, 4s. 6d.; or in Two Parts—Part I., 2s. 6d.; or, with Answers, 3s.; Part II., with or without Answers, 2s. 6d.

Complete Key, with numerous Graphical and other Figures, 10s. net; or, in Two Parts, 5s. net.

### EXAMPLES IN ALGEBRA.

Extracted from the above. With or without Answers, 3s.; or in Two Parts—Part I., 1s. 6d.; or, with Answers, 2s.; Part II., with or without Answers, 2s.

### A FIRST ALGEBRA.

By W. M. BAKER, M.A., and A. A. BOURNE, M.A. Second Edition. 1s. 6d.; or, with Answers, 2s.

### EXAMPLES IN ALGEBRA.

By C. O. TUCKEY, M.A. Fifth Edition, 3s. (Appendix of Supplementary Examples, 6d. net.)

### ELEMENTARY GEOMETRY.

By W. M. BAKER, M.A., and A. A. BOURNE, M.A. Complete. Fifth Edition, Revised, 4s. 6d. Can also be had in Parts. (Full List on application.)

Answers to Numerical and Mensuration Examples, 6d. net.

Complete Key, 6s. net.

### A FIRST GEOMETRY.

By W. M. BAKER, M.A., and A. A. BOURNE, M.A. Small crown 8vo, with or without Answers, 1s. 6d.

### ALGEBRAIC GEOMETRY.

A New Treatise on Analytical Conic Sections. By W. M. BAKER, M.A., Head Master of Military and Civil Department at Cheltenham College. Crown 8vo, 6s. PART I.—Straight Line and Circle, separately, 2s. 6d.

Key, 7s. 6d. net.

### A FIRST YEAR'S COURSE IN GEOMETRY AND PHYSICS.

By ERNEST YOUNG, B.Sc., Head Master Lower School of John Lyon, Harrow; formerly of the Education Department, Siam. Crown 8vo, 2s. 6d. Also PARTS I. and II., in One Volume, 1s. 6d. PART III., 1s.

### NEW TRIGONOMETRY FOR SCHOOLS.

By W. G. BORCHARDT, M.A., B.Sc., and the Rev. A. D. PERROTT, M.A. Crown 8vo, 4s. 6d.; or, in Two Parts, 2s. 6d. each.

Complete Key, 10s. net; or, in Two Parts, 5s. net each.

London: GEORGE BELL & SONS,  
York House, Portugal Street, Kingsway, W.C.

## GEORGE GILL & SONS, LTD.,

publish the following Works for the  
**COLLEGE OF PRECEPTORS EXAMINATIONS, 1908.**

### THE Oxford and Cambridge Edition.

#### Scripture History and English.

<b>THE OXFORD AND CAMBRIDGE EDITION ST. MARK.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXON. AND CANTAB. EDITION ST. MARK.</b> Edited by Rev. F. MARSHALL, M.A. <i>For Third Class Candidates</i> net	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION ACTS. Part I.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXON. AND CANTAB. EDITION ACTS. Part I.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION ACTS. Part II.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXON. AND CANTAB. EDITION ACTS. Part II.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION JOSHUA.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION JUDGES.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION EZRA.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION NEHEMIAH.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION MERCHANT OF VENICE.</b> Edited by STANLEY WOOD, M.A. ...	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION JULIUS CAESAR.</b> Edited by STANLEY WOOD, M.A., and A. SYMS-WOOD, B.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION MARMION. (Complete.)</b> Edited by Rev. F. MARSHALL, M.A. ...	2 6
<b>THE OXFORD AND CAMBRIDGE EDITION MARMION, Cantos I. and VI.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 0

In the above works the necessary "Notes" have been added to enable Candidates to answer questions set by the Examiners.

#### GUIDE

*to the 1908 College of Preceptors Examinations, and Complete List of the "prescribed" Books contained in the*

**Oxford and Cambridge Edition,**

*Post free.*

### THE NORMAL PREPARATION TEST MAPS.

1d. each net. (Copyright.)

By REGINALD GILL, F.R.G.S., London Chamber of Commerce.

This New Series of Test Maps has been produced in order to provide a ready means of discovering the Geographical Knowledge of the Pupil. The form in which the Maps are issued gives each Pupil, for the first time in Test Maps, an equal opportunity. In fact, the name list attached to each Map records the work attempted by the Pupil. *The Material upon which the Pupil is required to show his knowledge accompanies every Map in such a manner as to obtain the fullest results.*

**EUROPE:** British Isles and North Sea, England and Wales, Scotland, Ireland, France, German Empire, Italy, Balkan Peninsula, Russia.

**ASIA:** India. **AFRICA.** N. AMERICA. **UNITED STATES.** **AUSTRALIA.**

*Specimen Map free to Teachers.*

A Key to the whole of these Test Maps is issued, entitled **The Sphere Atlas**, 1s. 6d.

#### JUST PUBLISHED.

## HISTORICAL ATLAS,

*with CHRONOLOGICAL NOTES,*

by E. A. BENIANS, M.A., and T. H. KNIGHT, M.A. 96 pp. Crown 8vo, 8d.

Intended to provide suitable material for a general knowledge of British History and more especially for use as a supplementary work in Examination Preparation.

*Complete Catalogue post free.*

London: GEORGE GILL & SONS, Ltd., 13 Warwick Lane, E.C.

## MR. EDWARD ARNOLO'S LIST.

### THE LATEST FRENCH BOOKS.

**Arnold's Modern French Book. I.** Edited by H. L. HURTON, M.A., Chief Modern Languages Master at Merchant Taylors' School. viii + 198 pages. Crown 8vo, cloth, 1s. 6d.

**Arnold's Modern French Book. II.** Edited by H. L. HURTON, M.A. 1s. 6d.

These books are written on reformed methods, and contain a series of graduated Reading Lessons, followed by a carefully arranged *Questionnaire*, with Exercises for retranslation. At the end is an outline of French Grammar and a French-English Vocabulary.

*A Modern French Grammar in French for English Students.*

**Grammaire Française à l'Usage des Anglais.** Par E. RENAULT, Ancien Étudiant à la Sorbonne; Bachelier de l'Enseignement spécial; Officier d'Académie; Assistant Lecturer at the University of Liverpool. viii + 353 pages. Crown 8vo, 4s. 6d.

**Petite Grammaire Française à l'Usage des Anglais.** Par E. RENAULT. Crown 8vo, cloth, 1s. 6d. (For Junior Classes.)

**Elements of French Composition.** By J. HOME CAMERON, M.A., Lecturer in French in University College, Toronto, Canada. viii + 196 pages. Crown 8vo, cloth, 2s. 6d.

**Arnold's Lectures Françaises.** Four Volumes. Books I. and II. Edited and Arranged by JETTA S. WOLFF. Books III. and IV. Edited and Arranged by M. A. GEROTHWOHL, Litt.D. Illustrated with Reproductions of Paintings by French Artists. Book I., 1s. 3d.; Books II., III., IV., 1s. 6d. each.

The intention of this series is to supply choice extracts from French writers and poets either as a substitute for, or as a complement to, the reading of the prescribed texts. The variety of the sources whence the selections have been drawn should add both to their value as "unseens" and to their interest as representative specimens of French style from "le grand siècle" down to the present day.

#### ARNOLD'S ADVANCED FRENCH SERIES.

Introduction, Historical Notes, and a few Exercises in French Composition. Crown 8vo, cloth, 1s. 6d.

**De l'Angleterre.** Par Madame DE STAËL. Edited by W. G. HARTOG, B.A., Lecturer in French at University College, London. These chapters from "Considérations sur la Révolution Française" form a fascinating study of England as it appeared to this brilliant Frenchwoman in 1813.

**Causeries de Lundi.** Par SAINTE-BEUVE. Edited by A. W. TRESSLER, M.A., Assistant Master at Charterhouse. Selected essays from the great French critic, including *Qu'est-ce qu'un Classique*.

**Le Coup d'État.** Par VICTOR HUGO. Edited by J. W. LONGSDON, M.A. An abridgment of that magnificent piece of invective, *Napoléon le Petit*.

**Le Français Chez-lui.** A French Reader on Reform Lines, with Exercises on Grammar for Junior and Middle Forms. By W. H. HODGES, M.A., Senior Modern Language Master at St. Lawrence College, Ramsgate; and P. POWELL, B.A., Assistant Master at Wellington College. 1s. 3d.

**The Alphonse Daudet Reading Book.** Récit biographique et Extraits de ses Œuvres. Edited by JETTA S. WOLFF, Author of "Les Français en Ménage," &c. 1s. 6d. [Just out.]

#### ARNOLD'S FRENCH READING BOOKS.—REFORM SERIES.

The feature of these four volumes is that in addition to the notes and vocabulary there is a set of exercises, chiefly in the form of questions and answers in French, modelled upon the text of the narrative. This innovation promises to prove very popular.

**L'Apprenti.** By EMILE SOUVESTRE. Edited by C. F. HERDENER, Lecturer in Modern Languages, Durham University. Crown 8vo, 1s.

**Richard Whittington.** By Madame EUGENIE FOA. And **Un Conte de l'Abbé de Saint-Pierre.** By EMILE SOUVESTRE. Edited by C. F. HERDENER. Cloth. Crown 8vo, 1s.

**Mémoires d'un Âne.** By Madame DE SÉGUR. Edited by LUCY E. FARRER, B.A., formerly Assistant Lecturer at the Bedford College for Women, London. Cloth. Crown 8vo, 1s.

**Le Manuscrit de ma Mère.** By LAMARTINE. Abridged and edited by LUCY E. FARRER. Only authorized English Edition. Crown 8vo, 1s.

EDWARD ARNOLD,

London: 41 & 43 MADDOX STREET, BOND STREET, W.

## THE School World.

A MONTHLY MAGAZINE OF EDUCATIONAL  
WORK AND PROGRESS.

EACH NUMBER CONTAINS EIGHTY COLUMNS  
OF READING MATTER.

PRICE 6d. VOLUME IX., 1907, 7s. 6d. NET.

The aim of THE SCHOOL WORLD is to provide information of practical and permanent value to Schoolmasters and Schoolmistresses. To this end all important changes and developments affecting any branch of the work of teachers in secondary and other schools are dealt with by leading authorities and experienced teachers.

The Magazine has become indispensable to all who desire to keep in touch with modern and effectual methods of education.

MACMILLAN & CO., Ltd, LONDON.

EDUCATIONAL WORKS  
By A. K. ISBISTER, M.A., LL.B.  
(Late Dean of the College of Preceptors.)

Sixth Edition. 12mo, price 3s. 6d.

**THE COLLEGE EUCLID:** Comprising the First Six and portions of the Eleventh and Twelfth Books read at the Universities. Chiefly from the Text of Dr. SIMSON. With a new arrangement of the Figures and Demonstrations; the Enunciations of the Propositions separately for Self-Examination, apart from the Text; Notes and Questions on each Book; and a Series of Geometrical Problems for Solution, from the most recent University Examination Papers.

Fifteenth Edition. 12mo, price 2s. 6d.

**THE SCHOOL EUCLID:** Comprising the First Four Books. With Questions, Geometrical Exercises, &c.  
THE SCHOOL EUCLID, Books I. & II. With Questions, Exercises, &c. 12mo, price 1s. 6d.  
THE SCHOOL EUCLID, Book I. With Questions, &c. 12mo, price 1s.

New Edition. 12mo, price 9d.

**THE COLLEGE AND SCHOOL EXAMINER IN EUCLID,** containing the Enunciations of all the Propositions in the College and School Editions, Questions on the Definitions, Arithmetical and Algebraical Demonstrations of the Propositions in Books II. and V., and a large collection of Geometrical Problems for Solution. Designed for Class and Self-Examination, and adapted to all Editions of Euclid.

Third Edition. 12mo, price 1s. 6d.

**FIRST STEPS TO EUCLID:** Comprising the Propositions of Book I., prepared for writing out, with a recapitulation of the steps of the Demonstration appended to each. Forming a Text-book for the above.

Fifth Edition. Two Quarto Copy Books, price 6d. each.

**THE GEOMETRICAL COPY-BOOK.** Arranged for writing out the Propositions of Euclid in the Abbreviated and Symbolical Form adopted in the Universities and Public Schools.

LONDON: LONGMANS & CO., PATERNOSTER ROW, E.C.

OPPOSITE THE BRITISH MUSEUM.

# THACKERAY HOTEL

GREAT RUSSELL STREET, LONDON.

NEAR THE BRITISH MUSEUM.

# KINGSLEY HOTEL

HART STREET, BLOOMSBURY SQUARE, LONDON.

These well-appointed and commodious **TEMPERANCE HOTELS** will, it is believed, meet the requirements, at moderate charges, of those who desire all the conveniences and advantages of the larger modern Licensed Hotels. These Hotels have **PASSENGER LIFTS, ELECTRIC LIGHT THROUGHOUT, BATHROOMS ON EVERY FLOOR, SPACIOUS DINING, DRAWING, WRITING, READING, BILLIARD, AND SMOKING ROOMS, LOUNGES, HEATED THROUGHOUT.**

Fireproof Floors. Perfect Sanitation. Telephones. Night Porters.

Bedrooms, including attendance, from 8s. 6d. to 10s. Full Tariff and Testimonials on application.

Inclusive Charge for Bedroom, Attendance, Table d'Hôte Breakfast and Dinner, from 8s. 6d. to 10s. 6d. per day.

ALSO UNDER THE SAME MANAGEMENT.

# ESMOND HOTEL

1 MONTAGUE STREET, RUSSELL SQUARE, LONDON.

This Temperance Hotel adjoins the British Museum, and is exceptionally quiet and economical.

Bedrooms, including attendance, from 8s. to 4s. 6d. per night. Full Tariff and Testimonials on application. Night Porter.

Telegraphic Addresses:

THACKERAY HOTEL,  
"THACKERAY, LONDON."

KINGSLEY HOTEL,  
"BOOKCRAFT, LONDON."

ESMOND HOTEL,  
"AGROUP, LONDON."

NOW READY.

Demy 8vo, cloth, price 2s. 6d., free by post.

To Members of the College the price is 1s., or 1s. 6d. free by post.

## THE CALENDAR

OF

## THE COLLEGE OF PRECEPTORS

FOR THE YEAR 1908:

CONTAINING

All information respecting the objects and operations of the College, Lists of Officers, Examiners, and Members, the Regulations of the various Examinations, &c., with an Appendix containing the following Examination Papers:—

1. Papers set at Examination of Teachers for Diplomas, Summer, 1907.
2. Do. do. do. Christmas, 1907.
3. Papers set at Examination of Pupils for Certificates, Midsummer, 1907.
4. Do. do. do. Christmas, 1907.
5. Papers set at Professional Preliminary Examination, March, 1907.
6. Do. do. do. September, 1907.
7. Papers set at Lower Forms Examination ... Summer, 1907.
8. Do. do. ... Christmas, 1907.

\*.\* Nos. 3, 4, 5, and 6 may be had separately, price, free by post, 7d. each set. Nos. 7 and 8, price, free by post, 4d. each set.

The Diploma Papers are to be had only in the "Calendar."

FRANCIS HODGSON, 89 FARRINGTON STREET, LONDON, E.C.

LARGEST STOCK  
of SECOND-HAND  
School, Classical,  
Mathematical,  
Scientific Books  
in London.

ESTABLISHED  
1854.

Keys and Translations.

BOOKS  
BOUGHT.

**J. POOLE & CO.,**  
104 Charing Cross Rd.,  
AND  
2 Manetto Street, Soho,  
LONDON, W.C.

NEW AND SECOND HAND. WRITE TO US FOR A QUOTATION.

EDUCATIONAL BOOKSELLERS

# Cambridge University Press

**Sir Thomas More's Utopia.** Translated by RAPHE ROBYNSON. Together with the Life of Sir THOMAS MORE, by his Son-in-Law, WILLIAM ROPER, reprinted from HEARNE'S Edition of 1716. Edited, with Introduction, Notes, Glossary, and Index of Names, by J. RAWSON LUMBY, D.D.

Fcap. 8vo,  
2s.

"Edited in a most complete and scholarly fashion, by Dr. J. R. Lumby, whose name alone is a sufficient warrant for its accuracy. It is a real addition to the modern stock of classical English literature."—*Guardian*.

**On Stimulus.** A Lecture by A. SIDGWICK, M.A.

This Lecture, which has been for some time out of print, has now been reprinted.

Fcap. 8vo,  
1s.

"An admirably vigorous paper. . . . Every teacher of the classics (the subject with which it deals) should read it."—*Spectator*.

"It is not every one who cares to know how to teach Latin verse-making, but every teacher ought to be desirous to make his lessons as stimulating as he can; and he can nowhere find more abundant help than in Mr. Sidgwick's forty pages, filled to overflowing with wit and wisdom, and enriched with the results of a wide and conspicuously successful experience."—*Manchester Guardian*.

**Colloquia Latina.** Adapted from Erasmus. With Notes and Vocabulary. By G. M. EDWARDS, M.A.

Fcap. 8vo,  
1s. 6d.

"This is an idea well conceived and executed, and we hope many schoolmasters may make the experiment of introducing their boys to Erasmus's living and humorous dialogues."—*Cambridge Review*.

**Altera Colloquia Latina.** Adapted from Erasmus. With Notes and Vocabulary. By G. M. EDWARDS, M.A.

Fcap. 8vo,  
1s. 6d.

"The favourable reception which has been accorded to 'Colloquia Latina' leads me to think that a second series of Dialogues may be found useful. I am more and more impressed with Erasmus's wonderful command of the best Latin idiom and vocabulary. He is equally admirable in sparkling dialogue, in graphic description, and in reflective passages often of great beauty. With him Latin is indeed a living language; and he seems to invest all his themes with the charm of a perennial youthfulness."—*Extract from Preface*.

**Inorganic Chemistry.** By E. I. LEWIS, B.A., B.Sc., Assistant Master at Oundle School.

Demy 8vo,  
5s.

"This book deserves the widest recommendation as a sound and interesting introduction to the subject. It consists of a series of chapters, or lessons, in which the systematic part of the subject is happily blended with a considerable amount of theory. The treatment is thorough and painstaking, without being dry. . . . It is a pleasure to notice a book of this description, for it indicates the serious and important place chemistry is taking in the school curriculum. It deserves a high place, not only in the school, but generally as an introductory first course, understanding by this term not a mere smattering of the kind deemed sufficient only a few years ago, but a course in keeping with the true position of the science as a serious and profitable part of a good modern education."—*Nature*.

**The Winchester Arithmetic.** By C. GODFREY, M.A., Head Master of the Royal Naval College, Osborne, and G. M. BELL, B.A., Senior Mathematical Master at Winchester College.

Crown 8vo,  
3s.

Teachers' Edition,  
6s. net.

"This admirable text-book will rank high amongst its fellows, and it would be difficult to find a school arithmetic more worthy of general use."—*Nature*.

"All the arithmetic that needs to be, or ought to be, undertaken in a secondary school, is here admirably presented in a slim volume of less than 200 pages. . . . It is one of the best and most workable of the recent arithmetics."—*Bookman*.

## THE CAMBRIDGE SCHOOL HISTORY OF ENGLAND.

**History of England for Use in Schools.**

By ARTHUR D. INNES, M.A. Complete in One Volume, or in Three Parts. Part I., To 1509 A.D. Part II., 1509-1714 A.D. Part III., 1689-1901 A.D. A separate Part is also issued containing the period "From the Wars of the Roses to the Death of Elizabeth."

Crown 8vo,  
with 13 Maps  
and 8 Plans,  
4s. 6d.  
Parts, 2s. each.

"Though written primarily as a school history this volume of some 600 pages may well be recommended to the average reader as a standard book of reference for facts and dates in English history. Proportion, thoroughness, and accuracy of detail are its outstanding features, while for the student the demands of the examiner have been kept steadily in view."—*Glasgow Herald*.

## Books suitable for the OXFORD LOCAL EXAMINATIONS, 1909.

### THE PITT PRESS SHAKESPEARE FOR SCHOOLS.

With Introduction, Notes, Glossary, and Index by A. W. VERITY, M.A.

**The Tempest.** Sixth Edition. 1s. 6d.

"Mr. A. W. Verity possesses learning, literary insight, and a facile pen. He has a knowledge of boys and sympathy with their difficulties; moreover, when writing for them he seldom loses himself in the subject to the extent of forgetting his audience. Consequently, as has been shown in these columns on more than one occasion, he is an almost ideal editor of school texts."—*Guardian*.

**King Henry the Fifth.** Fifth Edition. 1s. 6d.

"The school edition of the play."—*Guardian*.

**Macbeth.** Fourth Edition. 1s. 6d.

"Seems to us to be an excellent text-book for the study of the play."—*Education*.

### THE PITT PRESS SERIES, &c.

AUTHOR.	WORK.	EDITOR.	PRICE. s. d.
Macaulay	Lays of Ancient Rome	J. H. Flather	1 6
More	Utopia	J. R. Lumby	2 0
Scott	The Talisman	A. S. Gaye	2 0
"	Quentin Durward	W. Munroson	2 0
"	Lay of the Last Minstrel	J. H. Flather	2 0
Erckmann-Chatrian	Histoire d'un Conserit de 1813	A. R. Ropes	3 0
Hauff	Die Karavane	A. Schlottmann	3 0
Caesar	De Bello Gallico, Book III.	A. G. Peskett	1 6
"	" " " Books IV., V.	"	1 6
"	" " " Books III., IV.	E. S. Shuckburgh	1 6
"	(With Complete Vocabulary.)		
Morace	Odes, Book III.	J. Gow	2 0
"	" " " Book IV.	"	1 6
Livy	Book XXII.	M. S. Dimsdale	2 6
Vergil	Aeneid, Books III., IV.	A. Sidgwick	ea. 1 6
"	" " " Book III.	"	1 6
"	(With Complete Vocabulary.)		
Aeschylus	Prometheus Vincetus	H. Rackham	2 6
Euripides	Heccuba	W. S. Hadley	2 6
Plato	Apologia Socratis	J. Adam	3 6
"	" " " Crito	"	2 6
Xenophon	Anabasis, Books III., IV.	A. Pretor	ea. 2 0
"	" " " " " "	G. M. Edwards	ea. 1 6
"	(With Complete Vocabulary.)		

### THE CAMBRIDGE BIBLE FOR SCHOOLS AND COLLEGES

BOOK.	EDITOR.	PRICE. s. d.
The First Book of Kings	W. E. Barnes	2 0 net
The Gospel according to St. Matthew	A. Carr	2 0 net
The Acts of the Apostles	J. R. Lumby	3 0 net
The Epistles to the Thessalonians	G. G. Findlay	1 6 net

### REVISED VERSION.—SCHOOL EDITION

The Gospel according to St. Matthew	A. Carr	1 6 net
-------------------------------------	---------	---------

### THE SMALLER CAMBRIDGE BIBLE FOR SCHOOLS

The First Book of Kings	J. R. Lumby	1 0
The Gospel according to St. Matthew	A. Carr	1 0
The Acts of the Apostles	J. R. Lumby	1 0

### THE CAMBRIDGE GREEK TESTAMENT FOR SCHOOLS

The Epistles to the Thessalonians	G. G. Findlay	3 0
-----------------------------------	---------------	-----

CONTENTS.

	Page		Page
Leader : A Poser for the Moral Congress .....	157	Practical Examination for Certificates of Ability to Teach : List (February) .....	168
Notes .....	158	Professional Preliminary Examination (March) Pass List: .....	168
The Education Bill—Opposition to the “Contracting-out” Clause— Attitude of the Churches—Reform of Classical Teaching—The Proposed Chair of Scottish History at Glasgow—A Great Jewish University at Jerusalem—“Rara Arithmetica.”		Current Events .....	171
Summary of the Month .....	159	Fixtures—Honours—Endowments and Benefactions—Scholarships and Prizes—Appointments and Vacancies—Examinations—Literary Items—General.	
Universities and Colleges .....	162	Science in correlation with Geography and Mathematics. Lecture at the College of Preceptors by Dr. T. Percy Nunn .....	175
Cambridge—London—McGill—The Parliamentary Grant—The Car- negie Trust.		Reviews .....	180
The Educational Ladder .....	163	The Greatness and Decline of Rome (Ferrero)—The Shakespeare Library (ed. Gollancz) ; The Old Spelling Shakespeare (Furnivall and Boswell-Stone) ; The Shakespeare Classics (ed. var.) ; The Lamb Shakespeare for the Young ; Shakespeare’s England (ed. var.)—A Brief Biographical Sketch of Robert Rawson (Harley).	
The Successful Teacher of Mathematics: Some Essentials. By John S. French .....	164	General Notices .....	182
Practice and Prejudice in Education. By Prof. J. W. Adanson, B.A. Lecture delivered at the Winter Meeting of the College ( <i>to be continued</i> ) .....	165	First Glances .....	186
The College of Preceptors : Meeting of the Council .....	167	Mathematics .....	187

The Educational Times.

*A Poser for  
the Moral Congress.*

THE First International Moral Education Congress, to be held in London during the last week of September, promises to be the most important and influential of the various similar meetings which date back to the Health Exhibition of 1884. Preparations for it have been taken in good time. Herr Gustav Spiller, of Berlin, the energetic Organizer and General Secretary, has been engaged since the beginning of the year in visiting the chief capitals of Europe, and has secured the adhesion and support of every important foreign Government. Our own Board of Education, as might be expected, is the last to give its official sanction, but, as in the case of last year’s Colonial Conference, it will doubtless join at the eleventh hour.

The scope of the Congress, as stated in the prospectus, is to discuss Moral Education in its practical aspects. The following, for instance, are some of the subjects for which readers of papers have been already secured: “School and Home,” “Discipline,” “The Ethical Penetration of the whole Curriculum,” “The Relation of Aesthetic and Physical to Moral Education,” “The Education of the Morally Backward.” At the same time, it is expressly stated that reference to religious and philosophical points of view will not be excluded.

The list of supporters who have already given in their names is a sufficient guarantee of catholicity. Bishops and ministers of the Free Churches, the champions of denominationalism and of secularism, Mr. Edward Lyttelton and Mr. Allanson Picton, Prof. Findlay and Dr. Hayward, Mrs. Bryant and Lady Verney, will meet on neutral ground; and, starting from the opposite poles of theory, will, we have no doubt, be brought by the light of experience to very similar practical conclusions.

The fundamental question at issue, whether moral instruction should be given directly or indirectly, has lately occupied many columns of this journal, and both sides have been set before our readers by able exponents of the rival theories. We have no intention of reopening the controversy, nor at this stage will we embark on the equally fundamental question of the relation of moral to religious instruction.

We may, however, venture to offer one caution to the Executive Committee now engaged in drawing up the detailed programme. “Qui trop embrasse mal étreint” is an old saw, but modern instances of its truth are only too abundant. In a First Congress the temptation to cover the whole ground is almost irresistible, but, if it is not strenuously resisted, there will be dissipation of energy and every question raised will have to be adjourned to the next session. If it is wise, the Congress will concentrate its attention on one problem, or, rather, one group of problems, and postpone the rest of the programme to their next merry meeting. Thus, “The Interdependence of Religion and Morality” is, with all its ramifications and the practical applications of first principles to home and school life, a sufficiently wide and complex question to occupy all three days of the Congress. It has a direct bearing on English politics of the hour, but it would be removed from the dust and heat of the political arena and discussed by educationists indifferent to party or sectarian triumphs and concerned only with the moral and spiritual well-being of the child.

And there is one rider that we would propound to the Congress, not as a “riddle of death Thebes never knew,” but as a practical problem for the solution of which we have all the necessary data. How is it that, while our primary schools are torn and rent asunder by the religious difficulty, in our secondary schools it is virtually non-existent? Judging *a priori*, we should have expected that the reverse would have been the case. It is in boarding schools, not day schools, that the difficulty is likely to arise. In secondary day schools it is solved in various ways. In University College School no religious instruction of any kind is imparted. In the City of London School there is a conscience clause, but Dr. Abbott’s lessons in the Greek Testament were generally attended by the Jewish pupils. Merchant Taylors’ School is professedly a Church of England school, but the religious instruction is confined to a single lesson in the week, and it is, or was, attended by Nonconformist pupils. In none of these cases, which we have chosen at random, has any religious difficulty, so far as we are aware, arisen.

These are a few scattered facts bearing on our suggested problem, and it is to be hoped that the Report of Prof. Sadler’s Moral Inquiry League, with full tabulated information of the kind, will be available before the Congress meets.

Ignorance, insular ignorance, no less than conservative prejudice, is at the root of our present educational impasse, and an International Congress—rubbing shoulders with the highest authorities and the most active workers of foreign nations—will do more to remove it than a multitude of reports and Blue books and special inquiries. A late Minister of Education, on the eve of a Parliamentary debate, despatched a special messenger to Cannon Row to ascertain whether there were any denominational schools in Germany, and learnt, to his surprise, that in Germany there were none but denominational schools. No one would suspect our present Minister of Education of such gross ignorance; but even Mr. McKenna, if he survives the storm and stress of the present session, the apostolic knocks of the episcopal bench, and the shrewder thrusts from his friends in Russell Square, might learn something by attending the International Moral Congress.

### NOTES.

THE new Education Bill has taken the form that was naturally anticipated. The exhaustion consequent on excited debate appears to have reconciled most combatants to the main features of a national system involving public control and the absence of religious tests for teachers. The main struggle promises to rage about the "contracting-out" clause, on which the opinions of various important bodies are set forth in their own terms in our columns of Summary. However keen one may be for a purely national system, one must in reason acknowledge that such a settlement at the present moment could be accomplished only by force—the argument of big battalions—if accomplished at all; and here force is no permanent remedy. On the other hand, the exception meets the wishes of honest believers in denominational atmospheres, and the objection to forcible measures may be used to raise somewhat the proposed Government contribution to the finances of the "contracting-out" schools—the point of real pressure. It may be that most of these exceptions to a completely national system will by and by fall under the general rule, once the unnatural excitement leaves the situation in a calmer light. Extravagant utterances can only serve to play the game of the advocates of the secular solution, which the country certainly does not wish.

WHILE representatives of the Churches use drastic language in the supposed interests of religion and of religious equality, the National Union of Teachers is unusually vehement in the interests of education, and notably in opposition to "contracting-out." The N.U.T. resolution on this point goes so far as to say that the concession "would cause all prospect of the ultimate establishment of a national and homogeneous system of public elementary schools in England and Wales to vanish." This, we take it, is much too strong; and the absolute "nationality" of a system may be too dearly purchased. The weight of the N.U.T. criticism, however, is not to be denied: the insufficiency of income even to maintain the current standard, to say nothing of keeping pace with ever growing requirements, in point of

quality and number of teachers, and adequacy of buildings and other material equipment; the exclusion of teachers from the benefits of various funds on retirement; the exclusion of the children from the benefits of public centres of practical training, and public scholarships to higher schools. The price of denominationalism is a very heavy one; and the "intolerable strain" must soon make itself felt again, unless the denominational laity rise to the material support of their principles. The position is hard, but in the present temper of parties inevitable. "The Church," said Herbart, "may maintain relations with the school, but must not dominate it." The N.U.T. is emphatic against domination.

WE cannot think that the attitude of many Churchmen is truly represented by the Bishop of Manchester when he declares that "as a specimen of class legislation, of unscrupulous rapacity, and of religious intolerance in the twentieth century, the Bill will no doubt deserve a place in historical archives by the side of racks, thumbscrews, boots, and other engines of torture." The criticism, if just, need not be objected to on the score of violent expression; but it does not seem to be based on a calm historical retrospect. The Archbishop of Canterbury is more measured and businesslike. The Free Churches, while warmly supporting the Government policy in the main and accepting "contracting-out" with frank reluctance, show a hard front. They deprecate the least concession of larger financial aid, and insist on stringent requirement of the same standard of efficiency as in Council schools. The first point comes with bad grace in view of a conciliatory settlement. The second, however, is difficult to resist on the merits, however disastrous to the denominational schools in the absence of adequate maintenance. Meantime, the Secular Education League warns the wrangling churches by the issue of a manifesto in favour of the "secular solution," "signed by 557 clergy and ministers of all denominations." It is time to agree with the adversary quickly.

THE *Morning Post*, once more laying down the law on classical teaching, says "what we want is a classical revival"—presumably in the schools. This implies some change in the distribution of teaching force and teaching material. "The plain fact is that classical teachers have lost faith in the classics: they believe in scholarship successes, and in the means which are necessary for securing such successes, but the motive for their work lies outside the work itself, not in it." However this may be, the critic is right enough in demanding that they "make it their first duty to bring a boy into touch with the classical authors themselves," with a trenchant diminution of "grammatical elaborations, commentators' embroiderings, and parallel passages which, being produced ever so far in both directions, never meet." "There is no work in Latin literature suitable for normal boys of eight." Not even the Latin "Robinson Crusoe"? "Greek should have no place at all in the preparatory school." "Free composition in Latin and Greek must largely take the place of the stereotyped exercises." Hence will come a saving of time, a saving of error, a sense of freedom giving power and encouragement, a great increase



in the amount of reading, more attention to context and less to matters of form; and so, even if a boy never goes to the University, he will get some knowledge of classical literature. The substantial contentions of our contemporary are very well worth sober consideration.

GLASGOW seems to be at fever heat over the amazing question whether there should or should not be established in the University a Chair of Scottish History. The patriotic sentiment appears to have died away in some local minds, and the unabashed exhibition of the fact has stirred the blood of the faithful. Mr. Medley, the Professor of History in the University, finds that Scottish history (if any) extends but from about 1400 to the Union—say three centuries. Mr. Medley is, we believe, an Englishman, and such an expression of opinion is enough to recall to some of the more vivid spirits the ancient Act (of 1455) providing “that na Scottisman bring in the realme ony Englisman,” but fortunately (for the Professor) the statute is repealed. Apart from national rivalries, however, Prof. Medley’s view is not easily intelligible. Principal MacAlister understands the position better. “A whole province of historical study,” he recently said to the Franco-Scottish Society, “lies there [that is, in the Register House of Edinburgh], and lies altogether outside the border of English history in its narrower and more parochial sense. To explore that province, to show its bearing on the evolution of the Scottish nation and people, to explain what they were and had become, and were to be, by what they were and why, would be one function—and a most valuable function—of the Professor of Scottish History.” Even that is far from being the whole of the argument; but it amply suffices to cover with shame the opponents of the proposal for the new Chair.

In this age of new Universities, why should there not be a great Jewish University? And what more appropriate place for it—if the students could be attracted—than the Holy City of Jerusalem? Mr. Israel Abrahams makes a “strong, cogent, and exhaustive plea” for such a University, and the *Jewish Chronicle* says “it is a proposal which should not fail to thrill the fibre of every Jew—every Jew, that is, who cares anything for Jewish scholarship and Jewish learning.” Indeed, adds our contemporary,

It touches a chord in every heart that is Jewish which must respond to an idea which has in it the germ of illimitable possibilities for our people. If—nay, because—Israel is still destined to be the tribe of wandering foot, let us at least have a home for Jewish learning which, after all, is our sheet anchor in the turbulent waters that beat around us and has never failed us, however tempest-driven and storm-tossed we may have been. In a great Jewish University at the very centre of our people’s aspirations and hopes, it is quite possible there may be found the solvent of many problems, religious, social, political, and economic, which to-day confront us. A new era may begin for Jewry—a new era ushered in by the best tradition which Jewry ever has cherished.

There can be no question that there is plenty of Jewish intellect to make a Jewish University one of the very foremost seats of learning in the world. The first question, as usual, is the question of funds. But, though Jewry is not without its poor, it does not lack rich, enlightened, or generous sons and daughters; and there is the Jewish Colonial Trust, the Hirsch Trustees, and, no doubt, other wealthy bodies of similar character. The most serious difficulty,

probably, would be to get the students—at all events, in the first instance. Anyhow, the *Jewish Chronicle* regards the idea as “excellent, feasible, and fraught with potentiality of boundless good.” In which case, we wish it God-speed.

MESSRS. GINN announce the publication of a new volume of curious interest under the title of “*Rara Arithmetica*”—the most elaborate bibliography of arithmetic hitherto attempted. Prof. De Morgan was able to examine less than a hundred arithmetics written before 1601, including all editions. But Prof. David Eugene Smith, of Teachers’ College, Columbia University, who has edited the work, has had access to the library of the well known bibliophile, Mr. George A. Plimpton, of New York City, which contains early text-books and other works bearing upon arithmetic to the number of 374, besides some 68 manuscripts. He can thus furnish a description of most of the important arithmetics of the formative period in the modern history of the subject. More than 250 facsimile pages will not only reproduce title pages of rare first editions, but also illustrate the development of arithmetical processes and topics. We cannot all afford 20 dollars for the *édition de luxe*, even if there were copies enough to go round; but a student’s edition (without the two colour plates and seven heliotype plates of the special edition) will render the singular work accessible to mathematicians generally.

### SUMMARY OF THE MONTH.

In a circular letter issued to the clergy and managers of Church schools in his diocese, the Bishop of Manchester states, regarding the Elementary Education Bill:

As a specimen of class legislation, of unscrupulous rapacity, and of religious intolerance in the twentieth century, the Bill will, no doubt, deserve a place in historical archives by the side of racks, thumbscrews, boots, and other engines of torture. But that it can ever, in its present form, find a place in the Statute Book of England, I refuse to believe. Nevertheless, neither time nor trouble must be spared if it is to be defeated and relegated to its proper place in the limbo of legislative abortions. I ask you, gentlemen, to stand together as you did in 1906, and to let the whole country be aware of the indignation with which you regard this Bill of confiscation and of religious pains and penalties.

At the annual Congress of the National Union of Free Churches held at Southport (March 3), the following resolution was unanimously adopted:—

The Council, recalling the resolutions on national education passed at Newcastle, Manchester, Birmingham, and Leeds, approves the recent action of the Government in regard to denominational training colleges, and welcomes their new Education Bill introduced by Mr. McKenna.

I. The Council warmly supports the policy of the Government (1) in opening denominational training colleges to qualified applicants without regard to social status or religious belief; (2) in arranging that all future training colleges for teachers supported by public money shall be on a national and not on a denominational basis; (3) in proposing that in all public elementary schools “no teacher is required as a condition of his employment to subscribe to any religious creed or to belong to any specified religious denomination, or to attend or to abstain from attending any Sunday school or place of worship”; (4) in securing full and real public control of all “public elementary schools”; (5) in defining Cowper-Temple teaching by reference to the London County Council Syllabus; (6) in removing the cost of all denominational teaching from the rates; (7) in abolishing the sectarian monopoly in single-school areas and placing a public elementary school within reach of every child whose parents demand it.

II. The Council regrets to see the “contracting-out” clause of the new Education Bill, since it falls short of the ideal of a complete national system of education, inasmuch as it perpetuates ecclesiastical tests and fails to secure effective popular control over all the elementary schools. The Council recognizes, however, that the Bill properly limits “contracting-out” by excluding the single school areas from its operation and by requiring the same standard of efficiency in “contracted-out”

as in Council schools; and, therefore, while thanking the Government for the new Education Bill, and calling on the Local Councils to support it, the National Council urges on the Government: (a) that the conditions imposed by the Bill be most rigidly enforced; (b) that steadfast resistance be made to every appeal for further financial aid; and (c) that adequate safeguards be taken against lowering the standard of efficiency in schools, and also against the inadequate payment of teachers employed; and (d) its strong hope that the existing permission to charge fees may be withdrawn.

III. Further, the Council regards it as absolutely essential (1) that in order to avoid the subtle introduction of denominational tests in the appointment of teachers, it is of vital importance that the State teacher shall not be permitted to give denominational teaching in a public elementary school; (2) the denominational training colleges, being based on an entirely false principle, should be speedily replaced by training colleges of a thoroughly national type, free to all citizens of capacity and character, and worked without the need for any conscience clause.

THE Secular Education League has issued the following manifesto, signed by 557 clergy and ministers of all denominations. While not necessarily committed to every point of view expressed therein, the Secular Education League issues it as a contribution to the discussion now proceeding, and believes that it is likely to have an important bearing on the discussion of the religious problem in national education:—

We, the undersigned Christian clergy and ministers, desire to make clear the grounds upon which we support what is commonly known as the "secular solution" of the education question. By the "secular solution" we mean that religion should not be taught in the public elementary schools in school hours nor at the public expense. We have not arrived at this conclusion through under-rating the importance of religion in the education of our children. On the contrary, we consider it to be of paramount and vital importance, and we hold that education, in the truest sense, is impossible without it. But we hold equally strongly that it is not the function of the State to impart such teaching. We hold that it is contrary to the principles of justice and righteousness, either that Catholics should be forced to pay rates in support of Protestant teaching or that Protestants should be forced to pay rates in support of Catholic teaching; while it is equally unjust to force Freethinkers and Rationalists to pay rates in support of any religious teaching whatever. The only solution of this difficulty is that no religion at all should be taught at the public expense. But further, even were it possible, without injustice, for the State to teach religion, we believe that the attempt would be fatal to the best interests of religion itself. Religion can only be effectively taught by religious people, and the only bodies qualified to give such teaching are the various Christian denominations which exist for that very purpose. So far from the secular solution endangering or enfeebling religion, we believe that its direct effect would be to awaken the Churches to a sense of the duty and responsibility which are theirs and theirs alone. We are too deeply convinced of the vitality of the Churches of this country to deem it for one moment probable that they would not rise to what would in reality be their great opportunity.

THE following resolutions have been adopted by the Executive of the National Union of Teachers:—

I. Before expressing a favourable opinion on other features of the Education Bill, this Executive offers uncompromising opposition to the contracting-out clauses, condemns them as vitiating fatally those principles of local public control and religious freedom for teachers which other clauses in the Bill are intended to secure, and emphatically affirms that the existence of contracted-out schools would cause immense and irreparable damage to education, in the following ways, among others:— (a) Contracted-out schools would be removed from all local public control and supervision, and even from the present one-third proportion of local public management. (b) The transformation of existing schools into contracted-out schools, and especially the power to set up new schools of this type, would cause all prospect of the ultimate establishment of a national and homogeneous system of public elementary schools in England and Wales to vanish. (c) The income of the contracted-out schools would be wholly insufficient to maintain the present educational standard, and the children attending them would suffer deprivation of even the present degree of education; and, the income still less sufficing to enable contracted-out schools to keep pace with growing educational requirements, that disposition to keep Council schools marking time with the others which used to exist before 1902 would be revived. (d) Children in contracted-out schools would lose the benefit of the collective instruction at centres for manual training, cookery, laundry work, &c., provided by the Local Education Authority; and also of systems of scholarships confined to children from public elementary schools tenable at higher schools. (e) Because of the loss of rate-aid, the buildings of the contracted-out schools, the other material equipment, and the efficiency and sufficiency of the teaching staff, and therefore the care and education of the children, must necessarily deteriorate. (f) The management of contracted-out schools would become wholly private, locally irresponsible, largely clerical, and, as a rule, inefficient and loose.

(g) In contracted-out schools the "intolerable strain" in the way of inferior staffing, insufficient equipment, and less than reasonably suitable pay, which was mainly borne by the teachers prior to 1902, would be reimposed on them unjustly, and for no fault of their own. (h) Creed tests and the performance of services extraneous to day-school duty, such as training the choir, playing the organ, teaching in Sunday-school, and general parochial work, would be imposed on teachers in contracted-out schools as a condition of employment. (i) The terms of the Bill would forbid teachers in contracted-out schools to continue their contributions to the Teachers' Annuity Fund, or to make further recorded service for the purpose of the Teachers' Superannuation Act, and such teachers would thus be robbed, at the age of sixty-five, of the full effects of their thrift and past services to the State, while teachers newly entering such schools would not be permitted to make any such statutory provision for the future at all.

II. This Executive warmly welcomes the Bill so far as it affirms the principles of (1) full local public control and management of public elementary schools; (2) the abolition of powers to impose creed tests on teachers in such schools; and (3) the obligation on a Local Authority to provide a free place in a public elementary school for each child when the parents demand it.

III. This Executive also welcomes warmly the proposed consolidation and increase of Government grants, the proportioning of central aid to local expenditure on education, and the transference of special charges from particular parishes to the county as a whole.

IV. This Executive further approves the Bill in its application to single-school areas, and recommends the same application to all school districts, with the proviso that, instead of contracting out, the denominational difficulty may be relieved by permitting teachers now employed in denominational schools in other than single-school areas, so long as they hold their present posts and are therefore not subject to further creed tests, to volunteer to give special religious teaching out of school hours in schools which are at present denominational.

V. This Executive deprecates the proposed repeal of the free Education Act, and protests against the permission to charge fees for entrance to Council and contracted-out schools, and the creation of invidious social distinctions between those elementary-school children who bring fees and those who do not.

VI. This Executive claims, as a matter of mere justice, that the compensation clauses for teachers, which were added by the Government to the Bill of 1906, and unanimously approved by both Houses of Parliament, shall be inserted in the present Bill, so that teachers thrown out of employ by the operation of the Bill, if enacted, shall not be left without some solatium and provision for the immediate future.

THE Moral Instruction League proposes the following amendments to the Education Bill:—

(1) In every public elementary school systematic moral instruction shall be given on at least one day a week. (2) Instruction given under this section shall be given during the time ordinarily set apart for religious instruction (if any) given in the school subject to the provisions of Section 14 of the Elementary Act, 1870. (3) One of the conditions required to be fulfilled by every public elementary school in order to obtain a parliamentary grant shall be that efficient instruction of the kind prescribed by this section is given in the school. (4) Instruction given under this section shall be subject to inspection by the Local Education Authority and the Board of Education, and shall not be deemed to be instruction in religious subjects or in religious knowledge within the meaning of Section 7 of the Elementary Education Act, 1870.

THE Education Bill (says the *British Friend*) appears to us an honest attempt to find a settlement of this long-vexed question; and, whatever our Church and Catholic friends may say, it is a compromise and no mere "Nonconformist" measure. It comes as near as any measure could to achieving what is now declared to be the Churchman's policy—respect for the rights of parents. For, in the country districts, where, speaking broadly, for generations the rights of Nonconformist parents have not been recognized at all, and where the multiplication of little denominational schools is unthinkable, the only method is to exclude from State-supported schools denominational teaching in school hours. We believe the measure will succeed, in the country districts at least, in establishing a truly national system of public education; and though we do not like the "contracting out" provisions, there seems to be no other way to do justice to the claims of the Roman Catholics, Jews, and others in the towns.

In the House of Commons (February 21) on the supplementary vote of £6,000 for the Board of Education, including the Imperial College of Science and Technology,

Sir Philip Magnus said this sum of £6,000 was only part of a sum of £20,000 a year which was to be allocated towards the maintenance of the Imperial College of Science and Technology. He wished to know how the sum of £6,000 as an instalment was arrived at, and how much

of the total grant of £20,000 was in excess of the cost of maintenance of the Royal College of Science and the Royal School of Mines, which had been incorporated into the Imperial College. Unless this College was adequately endowed, it would fail to afford that aid to British industry that was expected of it. He wished to know whether the Government intended to appoint a Royal Commission in reference to the relation of the Imperial College to the London University.

Mr. Lough said that when the charter was granted to the College it was arranged that £20,000 a year was to be given to it practically out of the funds of the Board of Education. The bargain was made by the late Government, of which the hon. member was a supporter. There were other advantages which the Imperial College would obtain besides the grant of £20,000. It would receive the fees which were paid by students, which came to a considerable amount every year, and which had appeared in their estimates as an appropriation in aid. This would be a considerable advantage to the College. Then the Government had certain schemes of their own, which, according to the arrangement, would now become of advantage to the Imperial College, as the Board would have to pay the fees of those students. This would make a considerable difference in favour of the College. The Government were very glad to carry out the arrangement, all the more because it was the policy of their predecessors. He had every reason to believe that the main part of the funds would be forthcoming, but he could not say exactly. The governing body was going on steadily with its work, and there was not the slightest apprehension that it would be unable to fulfil its important duties.

In the House of Commons (February 28) Sir Philip Magnus asked the President of the Board of Education whether, having regard to Article 15, chap. 2, of the Regulations for Secondary Schools, 1907, he proposed, after July 31, 1908, to make evidence of training a condition for the appointment of any proportion of the teachers in secondary schools receiving Government grants; and whether the Board were prepared to make grants to private institutions for the training of secondary-school teachers, provided that the training is recognized by the Board as efficient. Mr. McKenna replied: "The Article referred to will stand in the next issue of the Regulations; and the Board hope to issue at an early date Regulations prescribing the conditions upon which grants may be made in aid of the training of teachers for secondary schools, but my right honourable friend is not in a position at present to indicate their scope."

Mr. McKenna, replying to a deputation from the Association of Municipal Corporations, said that, when his Education Bill passed, the Local Authorities would be far more than indemnified from the increased Exchequer grant for any extra burden thrown upon them by the new duty of the medical inspection of school children. Means would be devised to protect them from the loss of the attendance grant owing to necessary absence of inspected school children.

The Committee of the Council on Education in Scotland has passed a minute to amend the minute of April 27, 1899, whereby the limit of the grant for secondary and technical education shall be advanced from £2,000 to £10,000. This amendment is proposed with the object of making more money available for the promotion of agricultural education in rural districts, according to schemes framed in consultation with the several agricultural colleges in Scotland. It is proposed to add to the staff of the agricultural colleges under these schemes additional officers to give continuous instruction in various branches of agriculture at selected centres in each county, to provide additional instructors for dairying, poultry, and bee-keeping, and to facilitate the creation and suitable use of gardens and instruction plots in connexion with schools in rural districts.

The Board of Education has notified to the authorities of the University of Oxford that the Board will be prepared to recognize as qualified for admission to training colleges candidates that pass the senior examination of 1908 in certain specified subjects, with the further concession that they may be prepared for examinations forming recognized stages in the courses for University degrees. The Board should try to make it easy for the students in training to follow such courses as lead to a degree.

The main conclusions which were reached by the educational conferences during the Christmas holidays are briefly stated by Prof. Sadler in *Indian Education*, thus:

(1) In school curricula we need great varieties of type. The State

should not attempt to impose uniformity of courses of study in any one grade of school. The teacher is the soul of the school. The good teacher must be free in choice of methods and (not less important) in the amount of time which he may think well to give to each part or aspect of the subject in order to develop the intellectual powers of the pupils. Supervision and inspection are good and helpful, but their benefit lies in making the teacher feel that he is working in the public interest and in acquainting him with the experience and new ideas of other teachers. The wise inspector fertilizes the work in one school by bringing to it ideas from another.

(2) All education must begin with a careful and liberal training in the mother tongue. Premature Latin and Greek are the relics of a departed past. What we need in education is humanity. For that reason the classical languages and literature will always have an honoured place. But the classical studies of English boys must be preceded by a careful training in English.

(3) More should be done in the education of girls to give a scientific and practical training in housecraft. But the teaching of domestic subjects must not be allowed to injure the claims of a liberal education.

(4) One great danger of modern education is the overcrowding of curricula. Too many separate subjects are pressed at one and the same time upon the attention of the pupils. We have to move in the direction of simplicity. This means a reform in our methods of teaching English, and the quickening of a strong intellectual purpose in the school studies.

(5) The tenure and prospects of assistant teachers, in the great majority of English secondary schools, are deplorable. Reform in these matters is essential if the secondary schools are to accomplish their necessary work for English national life.

A COMMISSION authorized for the purpose in the Collège de France at Paris (says the *International*) has lately adopted Esperanto as an international language. The commission recognized that the artificial language devised some twenty years since by the Warsaw physician, Dr. Zamenhof, best fulfilled the aims of an auxiliary speech for the whole world. The members of the commission were distinguished scholars belonging to various countries, among them being Privy Councillor Prof. Ostwald, of Leipzig; M. Le Paige, Director of the Royal Academy at Brussels; Prof. Dr. Jespersen, of Copenhagen; and W. T. Stead, Editor of the *Review of Reviews*. They had received their mandates from the Delegation for the adoption of a universal auxiliary language, which has met at Paris since 1900, and is composed of 357 learned and other societies, and 1,011 men of science of all nations. This Delegation had approached the Association of Scientific Academies sitting in Vienna in May last, with the request that they would place a resolution *re* deciding upon an international auxiliary language on their agenda paper. The Academies, however, declared themselves incompetent to deal with the question, whereupon the Delegation took the settlement of the matter into its own hands.

At a recent meeting of the North Wales branch of the Mathematical Association, held at the Friars' School, Bangor, it was urged that children of seven or eight should begin experimental work in measuring and the practical use of weights and measures instead of the usual abstract rules and methods. The use of slide rules at an early stage was also advocated, and the working of decimals beyond one or two places deprecated. Prof. Bryan spoke strongly in favour of the disappearance of algebra as a separate examination subject in all schools. Just as Euclid had been largely replaced by examples to be worked by ruler and compasses, so practical work and graphical methods were wanted in algebra, joined with arithmetic; and the solution of equations ought to be reached much earlier by omitting long division, complex fractions, &c.

The first volume of the Report of the U.S. Commissioner of Education for the year ending June 30, 1906, in addition to chapters summarizing the progress made in the various departments, contains a series of excellent articles on educational administration in various European and other countries. From the summary provided in the Commissioner's introduction it appears that there were, during 1905-6, 622 institutions of higher education reporting to the Washington Bureau of Education. The total number of professors and instructors reached 23,950, and the number of students 258,603—an increase of 9,430 on the preceding year. The value of the property possessed by the 622 institutions amounted to £110,815,400, of which £49,686,100 was the amount of productive funds. The aggregate income of these institutions for the year was £3,956,709. The total value of all

gifts reported amounted to £3,543,300: Harvard University received £443,600; Yale University, £229,100; Columbia University, New York, £210,000; the University of Pennsylvania, £109,000; and the North-Western University, Illinois, and Princetown University, New Jersey, each received about £105,000. In this report, for the first time, the number of students in schools of technology is not given separately, because, as the commissioner points out, there has been an erroneous opinion in Europe and elsewhere that there is no higher technical training in America outside the schools of technology, whereas the ordinary Universities grant nearly twice as many degrees in science as the technical colleges, and are doing excellent work in pure and applied science generally.

ABOUT three years ago a new syllabus of instruction was introduced into the State primary schools of Queensland. The new syllabus was designed to make the self-activity of the pupils the basis of school instruction, to bring the work of the pupil into closer touch with his home and social surroundings, and to increase the influence of the school as an agent in the intellectual, moral, and social development of the child. A three years' experience of the new syllabus has proved that it has fully realized expectations, and that the primary system of education has now a more practical bearing upon the requirements of the State and the future vocations of the children. The pupils are made to do things for themselves, instead of merely seeing them done by the teachers. In keeping with the spirit of the new schedule, the Department has encouraged the teaching of elementary agriculture in schools in farming localities and of elementary mineralogy in mining communities. Regular courses of instruction for teachers are held at the Gatton College; prizes are awarded for the best school gardens or elementary agricultural work; simple tools and garden implements and seeds and plants are supplied free to the schools; cabinets for mineral collections and bookcases for school libraries are also provided free; and, as many teachers have now qualified as milk and cream testers, the Department pays half the cost of simple testing apparatus for use in schools if the parents will find the other half. This offer has already been accepted by several schools in dairying centres.

WE piece together the following items from a recent number of the *School Journal* :—

Some of Philadelphia's people are much wrought up over the wretched state of affairs in the schools of their city, and drastic measures are suggested as a remedy. Overcrowding, poor ventilation, antiquated and unsafe buildings are some of the things charged. . . . At the recent St. Joseph County (Indiana) Teachers' Institute, Dr. George W. Neeb declared that teachers everywhere are notoriously neglectful of their own health and the health of the children they teach. . . . Recent investigations by a Special Committee show that, out of 600,000 school children in New York City, 465,800 are physically defective. When these statistics, which include in their number all classes of children, had been definitely determined, they were turned over to another Committee composed of four physicians, two men and two women, who were instructed to visit the children at their homes and make personal inspection. Hundreds of homes were visited and some alarming facts discovered concerning the physical and social condition of those homes, the quantity and quality of the food the children had, their sleeping accommodation, the income of the wage-earners, the amount paid for rent, and the practices of hygiene indulged in by the housewife. Out of 168 cases of malnutrition in a given district, 51 cases were in families having an income of more than 20 dollars per week, and but 20 cases were in families having less than 10 dollars per week. A total of 1,441 families paid 70.3 per cent. of their income for rent, and yet from these families fewer children came to school suffering from malnutrition than from the same number of families of comparative wealth. Of public-school children 72.4 per cent. have defective teeth; and further digging into the causes for this condition of affairs resulted in the information that the dentist is seldom consulted in the cases of children of school age, and that a large number of the children investigated do not know the mysteries of the tooth brush. It was also found that in a very large number of instances soap was an absolute stranger to the children! The National Association for the Improvement of the Condition of the Poor, which conducted this investigation, has appealed to President Roosevelt for aid, for it believes that similar conditions exist among school children in other parts of the country.

MR. J. R. M. BUTLER, who has won the Porson Scholarship at

Cambridge, is (says *Free Lance*) the son of the Master of Trinity, and both his parents were Senior Classics. Dr. and Mrs. Butler were married by a Senior Classic, Dr. Vaughan; the best man at the wedding was a Senior Classic; Dr. Butler's father was a Senior Wrangler; and Sir James Ramsay, Mrs. Butler's father, got a first in Greats. To complete the tale of scholarship, young Mr. Butler's brother is at present the best scholar at Harrow.

CANON CROMWELL, formerly Vice-President of Durham Diocesan Training College, and for twenty-two years the well known Principal of St. Mark's College, Chelsea, died at Slough, in his eighty-eighth year.

## UNIVERSITIES AND COLLEGES.

(From our own Correspondent.)

THEY are talking of establishing a professorship to deal with the theory of heredity and racial development. If the work of the professor is to be on modern and practical lines, he can provide himself with two very "shocking examples" in the persons of Mr. Andrew S. F. Gow and Mr. James R. M. Butler. The former has won the Browne Medals for Greek Ode and Greek Epigram, while Mr. Butler takes his accustomed monthly distinction in the form of the Latin Ode.

The Goldsmiths' Company have shown their generosity in a practical and workmanlike way by endowing a Readership in Metallurgy and Assaying. It cannot be too often pressed upon the generous benefactor that the University has the best material for developing the scientific knowledge on which the arts and crafts are founded: the Germans have taught us a lesson, and now ordinary manufacturing firms find it to their advantage to retain the services of really well trained scientific men. In Pathology, Bacteriology, and kindred topics, the patient work of the research enthusiast leads to more valuable results when carried on away from the hurry and bustle of actual practice. Even our Law School might lay the basis of a scientific study of the subject if only it was not so deplorably weak and so hampered by the ridiculous and vicious regulations which control the work of students for the Bar in London.

The chair of Agricultural Botany has been filled by the appointment of Mr. Rowland Biffen. The department is now well staffed, and is doing really good work. The Agricultural Special is to undergo reconstruction. Agriculture is to be introduced as a subject in the examination.

Some little discussion has taken place lately on the subject of the Whewell Professorship now held by that eminent international lawyer Dr. Westlake. It is doubtful whether the professor can be legally compelled to reside, and there is a somewhat strong feeling that non-resident professors are out of date. Of course there are exceptional cases, and these must be dealt with specially. One thing is perfectly certain—the statutory requirements of delivering twelve or possibly twenty-four lectures a year do not entail a very onerous burden on any professor who enjoys a stipend of anything from £500 to £800 a year. The writer of these notes is in favour of annual or biennial appointments, an opinion which is based upon a conviction that many professors could exhaust all the results of their special research if they were to lecture three times a week for three or six terms.

We are making a move in the right direction by taking steps to confer the title of Emeritus Professor on those who have done good work and have retired to make room for younger men.

The report of the Botanic Garden Syndicate shows that, in spite of the rise in prices of coal and labour, the Gardens are doing remarkably well. It is not, perhaps, generally known that quite half the ground held by the University is let out to private tenants in small allotments, and the rent received (£304) might be quadrupled at any time by substituting building for agricultural tenancies. It is satisfactory, however, to note that Mr. Lynch's services as Curator are at length recognized by the addition of £50 to his present inadequate stipend. Mr. Blackman, of St. John's, is still carrying on his researches into the breathing of plants, and perhaps some day the result of his labours may rejoice the heart of the practical flower-grower.

Canon Parry is resigning his Tutorship at Trinity, after serving an extra term at the special request of the Council. He will, however, not give up college work, but will take over the office of Dean, for which he possesses the most obvious qualifications—absolute sincerity and complete devotion to the interests of his college. As tutor Mr. Parry is succeeded by Mr. Barnes, of whom the voice of good report is heard in the land.

To conclude with prophecy. The Professorship in Biology, to which allusion was made above, will probably fall to Mr. Bateson; and, if the Whewell Professorship should fall vacant, Dr. Laurence, of Downing, would fill the chair with dignity and distinction.

In matters of sport our prospects look fairly rosy. The sports should be a very open affair, but the Boat Race should be a certainty if Stuart can only keep fit and well. In golf we do not appear to have the strongest of chances, but before these notes see the light the results will be public property.

The Lent term has been the longest on record (by one day) and the dreariest by many lengths. The May term promises to be specially short, bright, and eventful. A week in April and a week in June, on either side of the merry month, is all that we have for academic labours; a fortnight in June devoted to irresponsible frivolity, and then another year is over.

THE Earl of Rosebery, as Chancellor of the University of London, visited University College (March 26) and formally opened the new libraries and the new south wing, which includes lecture-rooms for the faculty of arts, the departments of geology, hygiene, and experimental psychology, also large extensions of the departments of applied mathematics, of mechanical, electrical, and municipal engineering, and accommodation for the new hydraulic laboratory.

At the meeting of the Council of the University of Paris (February 24) the Vice-Rector presented to that body a loving cup, a gift made by the University of London to the University of Paris, as a souvenir of the hospitality it received last summer. The cup is silver-gilt, repoussé and chiselled, and is nearly 3 ft. high. The lid is surmounted by an allegorical figure, while the body of the cup bears on its outside the arms of the Universities of Paris and London, two escutcheons emblematic of the French Republic and Great Britain, and three figures symbolic of Science, Letters, and Art. The cup was designed and executed by Messrs. Ramsden & Carr.

McGill. THE annual report of McGill University, Montreal, for 1906-7, which has just been issued, is of interest as showing not only the generosity of its benefactors, but the scale on which it is inviting fresh benefactions. The principal gift received during the year was 2,002,333.33 dols. from Sir William C. Macdonald for the endowment of the agricultural and training college which bears his name, an institution which, it will be remembered, was itself a gift from him to the University. The smaller sums include 11,000 dols. from the same donor for other purposes, 5,250 dols. from Lord Strathcona, and 14,000 dols. from graduates for the endowment of the McGill Union. The net result of the year's operations is that revenue falls short of expenditure by 33,103 dols. A year ago the University appealed for 1,000,000 dols. to meet its growing needs, largely to improve internal conditions at the University, to increase professional salaries, and so forth. Soon after that, however, the double disaster occurred by which both the new engineering building and the medical building were burnt down, and the original appeal was almost lost sight of. It is now pointed out that 1,000,000 dols. would only make good the loss occasioned by the fires, and that another 1,000,000 dols. is wanted to provide enough revenue for current needs. The amount received from insurances on the burned buildings was 636,000 dols.; but the cost of the new engineering building, with additions to a kindred structure, was 512,000 dols. without equipment, and the expenditure consequent upon the fires, such as demolition of the ruins, installation of electric wires, and fire protection, already amounts to 85,000 dols. The new medical building is expected to cost from 500,000 dols. to 600,000 dols., and it is hoped that the University will be able to begin the work this spring.

Parliamentary Grant. THE Board of Education has published the reports from those Universities and University Colleges in Great Britain which participated during the year ended March 31, 1907, in the annual Parliamentary grant, now amounting to £100,000. The reports deal with the work of the colleges during the year 1905-6, and appear to be reprinted just as they were received by the Board of Education. The information is arranged, it is true, under headings prescribed by the Board, such as land and buildings, staff and educational work, students, fees, finance, and so on, and it is possible with much labour to institute comparisons between the various institutions. The usefulness of the Blue-book would be increased greatly (says *Nature*, and we entirely agree) if, following the practice adopted in many other of the Board's publications and the custom which is fairly general in American volumes of a similar kind, the statistics relating to the various colleges were summarized and the totals obtained for the different institutions classified and compared. It would then be possible to co-ordinate the facts and to say, for instance, how the interest in higher education in the north of England compares with that in the Midlands or in Wales. If some such plan were adopted much greater use would be made of what would then be an interesting and serviceable volume.

Carnegie Trust. THE second annual report (for 1907) of the Carnegie Foundation for the Advancement of Teaching is a very interesting document. Mr. Carnegie's gift of two million pounds sterling was intended to serve primarily for the establishing of retiring allowances for teachers in the institutions of higher learning in the United States, Canada, and Newfoundland, and was to be administered in such manner as the trustees might decide. The fears expressed in some quarters that such a gift in the hands of a limited number of men might prove a centralized power which would hinder rather than aid the progress of education do not seem to have been well founded. Since the inauguration of the foundation down to September 30 last, grants have been made to 166 persons (18 of whom died during the period), involving an annual budget of £16,932. Of this amount, £29,230 was devoted to retiring allowances in accepted institutions and £17,702 to retiring allowances made to individuals. In the group of retirements on the basis of age an interesting comparison is made; the number of allowances granted on this basis to professors not in accepted institutions before October, 1906, was eighteen; since then only eight similar allowances have been made. This indicates that the number of aged professors whom on account of their distinguished merit alone the trustees would be likely to add to the holders of allowances is rapidly diminishing. It is also interesting to note that retiring allowances to professors in State Universities are made only when the services rendered to learning by the applicant have been of great distinction. As indicative of the number of applications made to the trustees, it may be stated that the files of the foundation show that 500 applications have been refused. It is satisfactory to learn that when once the principles of award have been decided upon finally, the trustees will see that the retiring allowance comes to the recipient "as a right, not as a charity; as a thing earned in the regular course of service, not a courtesy."

### THE EDUCATIONAL LADDER.

CAMBRIDGE UNIVERSITY.—Chancellor's Medal for English Verse: George G. G. Butler, Trinity.—Porson Prize (Greek Iambic Verse): C. A. Storey, Minor Scholar of Trinity: honourable mention, A. S. Farrar Gow, Scholar of Trinity.—Brown Medals: Greek Ode and Greek Epigram, A. S. Farrar Gow; Latin Ode, J. R. Montagu Butler, Scholar of Trinity; Latin Epigram, Geoffrey G. Morris, Scholar of Trinity.—Pewis Medal (Latin Verse): W. C. Clearey, Scholar of Trinity.—Allen Scholarship (for Research): G. R. Mines, B.A. Sidney Sussex.

Christ's.—Junior Fellowship: Mr. C. R. Fay, Scholar of King's.

Downing.—Entrance Scholarships of £40 have been awarded to H. E. Leader, City of London; A. P. Saint, Mill Hill; C. R. Thacker, Dulwich, all for Natural Science; J. C. Karn, St. Edmund's, Canterbury, for Mathematics; and C. J. Passant, Hartley Institution, Southampton, for History.

DUBLIN UNIVERSITY.—Tyrrell Memorial Prize (Classics) : M. T. Smiley.—Wray Prize (Ethics) : divided between W. T. Stace and A. D. Tuckey.

LONDON: GILCHRIST TRUST.—Miss Marion Puck, B.Sc., Royal Holloway College, has been appointed to a Gilchrist Studentship for Women—£100 for one year.

LONDON: ROYAL METEOROLOGICAL SOCIETY.—Essays on "Climate or Weather" by Teachers: (1) £5, W. C. Upshall, Broughton, Stockbridge; (2) £3, Miss A. B. Phillips, 34 Blythe Hill, Catford; (3) £2, Albert V. Stevenson, St. Paul's School, Sunderland. Extra Prizes, £1 each: John Young, Barrook School, Wick; Henry Collar, Lavender Hill School, Clapham Junction. Essays by Pupil-Teachers: (1) £1, Arnold B. Timm, 28 Macaulay Road, Birkby, Huddersfield; (2) 10s., Miss Daily E. James, Church House, Wokingham.

LONDON UNIVERSITY.—D.Sc. in Chemistry: R. J. Caldwell, Central Technical College.—D.Sc. in Physiology: D. Henriques de Souza, University College (internal).—D.Sc. in Zoology: H. B. Fantham, University College (internal).

OXFORD UNIVERSITY.—Arnold Essay Prize: divided between R. B. Mowat, B.A., Fellow of Corpus Christi, and G. A. C. Sandeman, B.A., Christ Church.—Vinerian Law Scholarship: Wilfrid A. Greene, B.A., Fellow of All Souls.—Passmore Edwards Scholarship: H. J. Ross, B.A., Fellow of Exeter (Rhodes Scholar).—Denver and Johnson Scholarships: H. Marriott, B.A. (Keble), and E. F. Monson, B.A. (Lincoln).—Hall and Hall-Houghton Syriac Prize: D. Simpson, Wadham.—Hall-Houghton Septuagint Prizes: Senior, R. Lightfoot, Worcester; Junior, C. Saunders, St. John's.—Canon Hall Greek Testament Prizes: Senior, C. Boughton, Wadham, and R. Lightfoot, Worcester; Junior, Alfan Gaunt, Trinity.

Certificate in Regional Geography: Eva G. R. Taylor, B.Sc. Lond. (with distinction); Arthur Addenbrooke, B.A. (Corpus Christi).

Balliol.—Jenkyns Exhibition: R. Petrie; *proxime accessit* F. Clarke.

Brasenose.—Mathematical Scholarships: Open, G. H. Davis, Christ's Hospital; Somerset Thornhill Scholarship, H. L. Hart, Manchester Grammar School.

Christ Church.—Open Scholarship in Mathematics: G. W. Border, Lincoln Grammar School.

Magdalen.—Mathematical Demyship: G. G. Milu, King's School, Chester.

Merton.—Mr. P. S. Allen, M.A. Corpus, has been elected without examination to a Fellowship, on an undertaking to continue his edition of the "Letters of Erasmus."

Worcester.—Mathematical Scholarship: J. R. Grisman, Royal Grammar School, Worcester.—Mathematical Exhibitions: A. H. M. Salmon, Christ's Hospital; R. F. Wilkinson, St. John's School, Leatherhead.

SHREWSBURY SCHOOL.—Old Salopian Scholarship of £70 a year: H. B. Winton (Mr. de Winton's, Gore Court, near Sittingbourne). House Scholarships of £40 a year: Blackledge (Mr. Dealry's, The Leas, Hoylake); C. C. Banks (Mr. Banks's, Arnold House, Llandulas); and Smith (Mr. Savery's, Bramcote, Scarborough). House Scholarships of £30 a year: Walker (Mr. Savery's, Scarborough); and K. S. Rudd (Mr. Lynam's, Oxford).

## THE SUCCESSFUL TEACHER OF MATHEMATICS.

### SOME ESSENTIALS.

By JOHN S. FRENCH.

[From Bulletin No. 3 of the Association of Teachers of Mathematics in the Middle States and Maryland.]

MATHEMATICS is at once one of the most important topics in the curriculum and one of the most disliked. This unenviable position seems to be brought about by the misappropriation of its parts, on the one hand, and the failure of its teaching force to fully grasp the significance of the topics, on the other.

It is proposed in what follows to discuss the second aspect by noting some of the characteristics which seem essential to the success of mathematical instruction. One of the greatest dangers which beset the teaching of mathematical branches which are *par excellence* open to logical development is the introduction of topics and methods in no way suited to the condition of mind of the student.

I shall, then, assign first as a foundation on which is to be

built a teaching rationality a system based on genetic psychology. The study of mental process as function involving the relation of growth to development is of great import to the teacher in analyzing the mind of the student in order to adjust his work to the periods of maximal receptivity.

The second requisite for the successful teacher is a working knowledge of the history of education. It must not be forgotten that in fitting our youth to be active agents in the advancement of national character we are simply filling in one stage in this process of "effecting a higher and a more complete maturity." A knowledge of what has passed is absolutely indispensable in following out the rational lines of mental evolution; for the freedom to accept and reject is the racial inheritance of man, and upon the wisdom of the choice depends the degree of his advancement.

Emphasis has been above placed on the psychological and historical fields because they are regarded as active agents in advancing and stimulating the true powers for development—the former in providing a rational basis on which education must be founded, the latter by making our methods of study comparative. What is fundamentally important to the teacher in addition to a rational basis and a "selective history" is a proficiency in the different branches of mathematics. The subject matter is so peculiar and the methods so unique that he can hardly expect to reach the desired results for which mathematics is in the curriculum without having mastered the fundamental principles upon which all mathematical development is based. He should know mathematics as an art and as a science. In the former the teacher should note at once that proficiency in the technique of the art conditions proficiency in that art. He should then become a master of its technique. He should note carefully that diversity of method, and not variety of application, is the secret of the true division of mathematics into its various branches. The tendency at the present time is to draw the different branches closer and closer together, with the end of using that method most appropriate for the treatment of the problem at hand.

The teacher, having mastered his subject and thus able to see it in its true perspective, should proceed to determine the immediate function of the different branches in the education of the pupil and then cultivate individual methods arising through his own experience and characterized by his own peculiar qualifications.

One of the greatest drawbacks at the present time to good teaching is the lack of freedom which the teacher has in the selection of books and methods. To my mind, most mathematical subjects are more effectively taught when the teacher, using the book simply for its exercises and examples, brings in methods adapted to his own ideas and judgment. In using these methods, however, he should be careful that they fit into a universal scheme for presenting the entire topic and conform to the condition of mind of the student, on the one hand, thereby causing the least waste of nervous energy on the part of the student from the introduction of extraneous matter, and, on the other, meeting the objective demands inherent in the topic as a part of the curriculum.

If by correlation is meant the bringing into sympathetic relation of subjects closely allied by virtue of their contents and modes of development, then the great field for correlation in mathematics is in bringing its different branches into a more sympathetic relation with one another.

The unification of mathematics stands solely for one thing—commonness of subject-matter and methods, the force of which lies in the interrelation between the branches and in the continuity of their development.

In summing up, then,

1. The teacher should know himself and thus be able to fit into the lives of his pupils.

2. He should be a master of mathematical technique and should attain to a certain proficiency in mathematics as an art. With an appreciation of its scientific aspect, he should see to it that no step be taken to impugn the ultimate aim of higher mathematical development.

3. He should insist rigidly upon clear, exact, and concise expression on the part of the pupils.

4. He should adjust his work to the condition of mind of his pupils as a result of mental growth.

5. He should make continuous application of the developed principles to practical affairs and natural science.

6. His presentation should be such as will inspire confidence on the part of the pupil in him and in the future of the subject.

**PRACTICE AND PREJUDICE IN EDUCATION.\***

By Prof. J. W. ADAMSON, B.A.

A PAPER read in the vacation by a teacher to an assemblage of teachers would seem to furnish a good opportunity for reviewing principles which are commonly understood to guide the work of term-time, more particularly as the exacting nature of that work, once begun, leaves but scanty leisure and little energy for such a survey. It is indeed in the full tide of term that he who prides himself on being before all things a *practical* teacher is most ready to set theory over against practice in such a way that reality is only allowed to the latter. In moments less strenuous he may be disposed to admit that this is an extreme statement of the facts; but he will hardly be brought to confess that the only possible antithesis in this case is not that between theory and no theory, but between sound theory and unsound theory. It is pure prejudice which prevents the ultra-practical person from perceiving that he himself, being a man with ends to achieve and dependent upon means for achieving them, must needs hold a theory in which these ends and means are implied. Too frequently the theory of the severely "practical man" is formed by a casual and even fragmentary process which causes it to be narrow, uncritical, destitute of the historical sense, and, in general, far too ready to deal in abstractions. In short, some of the principles which underlie practice on severely empirical lines turn out on inspection to be prejudices.

It will be advisable at this point to put in a disclaimer. There may be some who rejoice in being described as practical teachers amongst those who do the writer of the paper the honour of being present, and he himself would be sorry to be without claim to be so called. The prejudices with which he proposes to meddle are not confined to schoolmasters nor to any type of teacher, but are entertained more or less by most of those classes of the community that take an active interest in education. The consideration of prejudices so largely shared is therefore less an offensive mode of finding fault with one's neighbour than a species of open confession, and the writer may disclaim the rôle of the purely censorious person. In the spirit of that disclaimer it is proposed to examine some of the reasons which are alleged in defence of practice.

**PREJUDICE OF SPECIAL EXERCISE.**

Probably there is no belief dealing with the activity of the mind which is more widely held than the belief that educational profit of a general diffused kind may be derived from exercises of a very special character. Thus it is said that the exact computation of long "sums" in addition or multiplication in "square" or "cube root" is a valuable task, as it tends to make pupils accurate persons—that is, persons whose intellectual and moral habit is to be accurate in all or in most circumstances. The careful and laborious writing out of a set of sums, of a piece of dictation, or other similar exercise is thought to have its chief value in establishing "neatness" as a general characteristic of the pupil who is so employed. Learning by heart almost any collocation of words is thought to be useful, because the practice "strengthens the memory"; and so on.

There is, of course, some small confirmation of this belief in the facts of habit; the belief itself has long been held, and can appeal to great names for support. Bacon has this passage in the Second Book "Of the Advancement of Learning":

There is no defect in the faculties intellectual but seemeth to have a proper cure contained in some studies; as, for example, if a child be bird-witted, that is, hath not the faculty of attention, the mathematics giveth a remedy thereunto; for in them, if the wit be caught away but a moment, one is new to begin. And as sciences have a propriety toward faculties for cure and help, so faculties or powers have a sympathy towards sciences for excellency or speedy profiting; and therefore it is an enquiry of great wisdom, what kinds of wits and natures are most apt and proper for what sciences.

The thesis is also to be found in Bacon's essay, "Of Studies."

But does the belief stand the test of experiment? Apart from the obvious fallacy of Bacon's prescription of mathematics as a cure for inattention (as though to convict a person of inattention were to cure him of it), is the reliance upon particular exercises as a means of developing general faculty justified by results? Surely, most cases of educational failure say No! while the

limited abilities of those whose education is commonly regarded as successful may also be cited in the negative. How many who, in school or University, were expert in mathematical method, in logic, or in some other specialized mode of "reasoning," exhibit in later life an equal ability in dealing inferentially with the various circumstances of their lives and fortunes?

Students of education of the experimental school have, of late years, carefully investigated this alleged general ability consequent upon special exercise, and their studies may help us to disentangle the thread of prejudice which runs through the belief we are considering. One of the best known American experimentalists is Prof. E. L. Thorndike, whose book, "The Principles of Teaching based on Psychology," contains records of observations and experiments, some of which bear directly upon our point. Thus, thirty-five girls were each subjected to two tests—one intended to gauge the capacity of observation, the other the power of readily associating ideas related in a definite manner. The "observation test" measured a girl's quickness and accuracy in picking out the A's in a sheet of capital letters, in noting in a printed sheet those words which contained certain combinations of letters, and so on. "Association" was tested by noting the quickness and accuracy with which a girl named the opposites of words suggested to her. Thorndike gives the results in each of the thirty-five cases examined. It will suffice to take the first ten here, using the letters in alphabetical order to indicate girls ranked in order of their capacity of observation so tested, and setting down in a third column the rank of the same girls in power of rapid, accurate association. The figures may be commended to the attention of those who anticipate an all-round improvement of intellectual power following upon systematic exercise of a supposed faculty of observation:—

Person.	Observation.	Rank in Order of Association.
A. ....	1	5
B. ....	2	16
C. ....	3	1
D. ....	4	2
E. ....	5	29
F. ....	6	26
G. ....	7	10
H. ....	8	24
I. ....	9	27
J. ....	10	14

Again, twenty-five boys were tested in their ability to discriminate lengths, and then in their power to discriminate weights; the results in the first ten cases were as follows, making use of the same arrangement of the three columns as before:—

Person.	Rank in Order of Discriminating Lengths.	Rank in Order of Discriminating Weights.
A. ....	1	4
B. ....	2	8
C. ....	3	24
D. ....	4	12
E. ....	5	5
F. ....	6	17
G. ....	7	2
H. ....	8	14
I. ....	9	6
J. ....	10	7

The boy who stood first in the weight test was twenty-third—that is, last but two—in ability to note differences of length. So highly specialized are the forms of human capacity!

The following passage from Thorndike's book refers to observations upon the general effect of special exercises:—

Bennett found that young children at the end of several months' training in discriminating different blues had made great improvement, [that they] had improved nearly as much in telling apart different degrees of saturation of other colours, but had improved little, if any, in telling apart lengths or weights. Woodworth and Thorndike found that adults who by special practice had improved greatly in their accuracy in estimating short lines had made no improvement in their power to estimate long lines; and that adults who were trained in judging the size of surfaces of certain shapes and sizes until they had made a decided improvement, showed only about a third as much improvement with areas of a different size and shape.—(Op. cit., page 240.)

The "practical schoolmaster" may object that there is too little in common between these laboratory exercises and his own daily work for him to regard the records as convincing. He may be invited to ponder the following experiment reported by

\* Lecture delivered at the Winter Meeting of the College of Preceptors.

Dr. W. C. Bagley in "The Educative Process." Careful note was taken of the neatness with which their school work as a whole was done by certain classes of a school attached to the Montana State Normal College. These classes were then specially trained to a high degree of excellence in neatness of setting down papers in arithmetic, no special training being given meantime in the mode of setting down papers in other subjects. Finally stock was again taken of the neatness of the school work as a whole. "The results are almost startling in their failure to show the slightest improvement in language and spelling papers, although the improvement in the arithmetic papers was noticeable from the very first."

The inference from these observations and from the records of similar trials of the effect of special exercises upon general capacity is that training improves capacity within the special field, that it tends to improvement in fields allied to the special field, but that the improvement very rapidly diminishes as we pass to fields but slightly remote from these. The tea-taster's professional ability rests upon a form of memory which can be "trained," "strengthened," or "improved" by tea-tasting, but which remains impervious to "dates" and Latin grammar. An improvement in any one mode of mental activity means an improvement in those other modes which share with it a common element. Learning Latin grammar by heart will give increased capacity to memorize any other grammar and, to a less extent, a better power of learning by rote "tables," "dates," and other printed matter.

There is, in short, great exaggeration in the belief that a general and widely diffused power is the outcome of exercises quite special in their nature, the truth being that the resultant ability moves within fairly narrow limits. The psychology of habit is the explanation both of the increased power within these boundaries and of any casual overflow into adjacent spheres, as when a habit of careful manipulation of small or frail objects is occasionally set up or encouraged by work in the chemical laboratory. Bacon's definite prescription of studies as instruments of cure is not warranted by experience; still less, of course, are we entitled to expect the same general outcome to each and all of half-a-dozen different ways of teaching one and the same subject, whether it be Greek or chemistry.

The prejudice (as we now seem entitled to term it) that general power follows particular exercise in large measure affects thought and practice concerning curriculum and method in many different ways, and the prejudice is strengthened by the natural, almost instinctive, function of generalizing which marks human intelligence. The prejudice and the disposition unite in singling out as educational instruments of the highest rank such studies as more readily lend themselves to generalization and to abstraction, since these promise to be rewarded by the most wide-reaching results or by the highest return for the work expended. In the next place, the teaching addresses itself at the earliest moment to the more abstract and formal side of the studies so selected, in the mistaken belief that, in that way, the maximum of mental training will be secured.

#### MATTER AND FORM.

So it comes about that matter or content is regarded as of small importance compared with form. Throughout the history of schools their temptation has always been to adopt this attitude towards form and matter, an attitude which disregards the synthetic fashion in which the abstract and general are slowly developed from the concrete facts of our experience. Hence the rift, which sometimes becomes a yawning gulf, between life in the schoolroom and life outside its walls, and Seneca's complaint is justified, "Non vitæ, sed scholæ discimus."

This disposition to over-value the formal and abstract at the expense of the material ends in a failure to appraise positive knowledge at its just worth. They are of this temper who, with Locke, place "learning last and least," who tell us that it does not matter what we learn—the great thing is *how* we learn it.

#### GYMNASTIC STUDIES AND "USEFUL" STUDIES.

From such a prejudice it is a short step to the position that it is a profitable division of studies which separates them into those which afford training, and are therefore precious in the sight of the educator, and those which are merely "useful" and scholastically of no account. The merits of this disinterested point of view are sufficiently recognized in this country, and there is no need to rehearse them; but it is no small demerit that many of the failures and inefficiencies of "a nation of amateurs" are traceable to it.

The belief that the main business of the schoolmaster is to provide and supervise mental gymnastic is based upon the authority of an uncritical and unsound psychology, and with it should stand or fall. We are frequently assured that the conception of the mind as an aggregate of powers, ill defined in number and virtually independent of each other in their mode of activity, is a conception long since exploded, and that to deal with it seriously is but "flogging a dead horse." No psychologist accepts it as belonging to his science as that exists to-day; but the student of education comes across it daily in the schoolroom, in the Committee of the Education Authority and in the Press, as the real though unavowed explanation of opinions and practices deemed essential. The denial of the validity of that account of mental process and mental life which is known as the "Faculty Psychology" involves in very grave doubt the educational value of the theory upon which much practice is consciously or unconsciously based. Moreover, if that psychology misinterprets the facts of consciousness, it is reasonable to suppose that prejudices instigated by it are positively harmful to education.

In insisting upon the complex and organic nature of the mind which the Faculty Psychology fails sufficiently to portray, there is no necessary denial of the existence of intellectual powers—"faculties," if you will—which are susceptible of being exercised. The phenomena of habit are there to admonish all not to make such a mistake. Studies may be used to encourage, to foster, and to exercise certain instincts or aptitudes, to give rise to certain habits, or, by the preoccupation they afford, to prevent the formation of yet other habits. Ability acquired in certain definite modes of mental activity may in a small measure increase ability in yet other modes allied in their nature to the former. In this very general sense, "Abeunt studia in mores." But neither psychology nor experience permits us to indulge the exaggerated hopes frequently held out to us that any one form of exercise or study is able of itself to exert a comprehensive influence upon the mind and life of the student. It is not denied that you can make a boy habitually write neat dictation exercises; it is denied that that particular habit will make him neat in a number of other ways also, as, for example, in dress or in person.

The prepossession with form and with formal and abstract studies, which the school so frequently exhibits, issues in the prejudice that only those minds are deserving of schooling which take readily to studies of this kind. The prejudice is one to which the schoolmaster is peculiarly liable, since he owes his own career to precisely the sort of ability which succeeds in these studies. A franker recognition of the facts of life constrains us to deny that all intellectual excellence is monopolized by abstract thinkers and men of the academic type of mind in general. Schools contain not only boys and girls of this exceptional sort, but a much greater number whose excellence lies rather in concrete thinking and making or in the moral qualities of leadership and in action generally. If abilities of this kind are of service to the community, and if the schools are to discharge their social function, then the schools must provide curriculum and teaching which will cultivate the intelligence of the doer no less than that of the formal thinker. It was the failure of the sixteenth-century schools, as a whole, to try to do this, which led men of the world to found the "academies" of France and Germany, and by their means to educate the courtier, statesman, soldier, and man of action. Plato's philosopher, conceived as the ideal ruler, is neither schoolmaster nor University don, but an altogether exceptional combination of profound thinker and active man of affairs, trained and tested in the school of experience as well as in the schoolroom.

#### PUPIL'S OUTSIDE-SCHOOL KNOWLEDGE.

Plato's curriculum for the philosophers is a reminder that the school is but one of several agencies in the education of boy or man; forgetfulness of the fact is responsible for a prejudice which is perhaps confined to novices in the art of teaching. These are prone to base their practice on the assumption that a child's knowledge is limited to what his schoolmaster imparts to him. The constitution of the child's mind makes this impossible; nothing can prevent a boy from interpreting what he learns in school by the light of previous knowledge, whether that was acquired in school or elsewhere. Indeed, a school curriculum which gained no help whatever from without would furnish an education for a pedant only; and schools are mischievous to the extent that they create a world of their own which owes nothing to the common light of day. The instructor who sees in his



pupil's mind only a blank tablet wastes time, dissipates energy, and kills interest.

TEACHING THE RUDIMENTS.

This particular prejudice is, perhaps, at the back of another even more widely held—namely, that any one can teach rudiments. There are two considerations which throw doubt upon the belief. In the first place, a person who has himself only just emerged from the rudiments of a study is not in a position to teach those rudiments to another. He has not the logical comprehension of the study, the intellectual grasp of it as a whole, which is necessary to one who is expected to view details in their true relationship. He does not see the forest for the trees, and is apt to lose himself in the maze and so confound his pupil, or else to seek safety in a few stock phrases. If logical considerations only were to rule, then the best teacher of rudiments is the master of the study. But there is another consideration beside the logical. The learner of rudiments is usually young and of immature, ill informed mind. To teach him well, something more than mastery of the study is required. His teacher must know the characteristic weaknesses and strength, the normal modes of activity, of such minds as his. In other words, his teacher should be a man of experience, or at least of insight. Nevertheless, schools sometimes commit the teaching of rudiments to their rawest practitioners. Hence arises a further prejudice to the effect that teaching rudiments is dull work. In the cases just mentioned how could it be otherwise? A bungling operator neither gives nor secures pleasure.

THE MIND OF THE CLASS.

The relation of the teacher to his class, purely as a class, has developed practices which open the way to mistake and prejudice. "The mind of the class," that mind to which most of the teacher's appeals must be made, is not merely the aggregate or sum of the minds, even of the attentive minds, which are in the classroom. Every assemblage of persons intent upon a common object generates within itself a sympathy, an excitement, and an activity which differs in intensity, and sometimes even in kind, from what might be expected from any one of its members considered individually. The fact has long been known in schools, as the familiar phrase, "the sympathy of numbers," bears witness. It is this corporate mind over which the teacher establishes control by his alertness and by the infectious interest which he displays in the task of the moment.

One or two consequences flowing from the existence of this "mind of the class"—consequences which have been discovered experimentally—may be noticed. Perhaps the most striking result of class work is the tendency to bring about a common level of performance, both in quantity and in quality. This common level is in favour of the weaker members of the class, whose work it tends to improve: even the "duffers" are moved onward by the momentum of the common effort. The younger the pupils and the bigger the class the more marked the effect. This is not an argument in favour of big classes, but the contrary. The larger the class the simpler and the more mechanical any effort in common must be. David Stow's classes of two hundred children simultaneously instructed through question and answer by one man do not suggest the question, Is it possible? but, Is it worth doing?

Yet not all school exercises are done best under the stimulating presence of the "mind of the class." Meumann tested the power of concentration possessed by pupils of eight or nine years of age by uttering words of two syllables at intervals of a second, and then getting the children to write the words from memory. The tests were addressed first to pupils singly and apart, and secondly to the same pupils working as members of a class. The results, stated as averages, were as follows:—

Dictation of—	AVERAGES.			
	Single Pupils alone.	Single Pupils in Class.	Single Pupils alone.	Single Pupils in Class.
3 words .....	All words right	.....	All words right	.....
5 " .....	4:09 " .....	.....	3:4 " .....	.....
7 " .....	4:06 " .....	.....	3:2 " .....	.....

Meumann also found that exercises like "composition" which demanded imagination were done better alone than in the class. No doubt in such cases the superiority of individual work over work in class is due to the more direct appeal for his best which the former makes to the scholar. The difference between 4:06 and 3:2 in the foregoing tables is a measure of moral difference, representing either the indifference of many members of the

class to the result of the test, or their power of "spurling," according to the view taken by the reader of the figures.

In either case, the point is a significant one for the form-teacher. The advantage of "the mind of the class" to the dull and backward pupil is especially felt in such common activities (such doing rather than reflecting) as physical drill, singing, reading aloud, reciting, pronouncing French or German words in chorus. But take away the momentum afforded by simultaneous work and the dullard as an individual is no better than before; indeed, he is so much the worse, because he has been deprived of strictly individual practice. But it is the individual mind at which genuine instruction aims, and it is therefore wise to discount heavily these activities in common when gain and loss are being estimated on an individual basis. It is a question whether some of the practices named (excused though they are by the prejudice that they save time or get through a great deal of work) should be employed at all. The slovenliness and inaccuracy, to say nothing of the shirking, which so commonly accompany "simultaneous reading" in English are recognized disadvantages which should warn modern language teachers against the use of the chorus in their own teaching.

The so-called "disciplinarian" sometimes conceives of the "mind of the class" in a manner altogether illegitimate; his point of view is that there is only one mind (or body) in the class, and that in consequence the appropriate procedure resembles that of the drill-sergeant. All heads must be poised in one way, all arms must occupy the same position, one and the same reply to a question is expected from all pupils and no other is accepted. In a word, the individuality of the members of the class is studiously discouraged, and even repressed. The only comfort to be extracted from the situation lies in the thought that the stronger natures will find a way of escape, that the outrage on mind and body will not in their case entirely succeed. But for the others the consequence is only too likely to be the machine-made and machine-like mind which is but a caricature of education, and which ought not to be the lot of even those who are only moderately endowed with intelligence.

(To be continued.)

MEETING OF THE COUNCIL OF THE COLLEGE OF PRECEPTORS.

A MEETING of the Council was held at the College, Bloomsbury Square, on March 14. Present: Sir Philip Magnus, M.P., President, in the chair; Prof. Adams, Prof. Adamson, Dr. Armitage Smith, Mr. Baumann, Mr. Brown, Mr. E. A. Butler, Mr. J. L. Butler, Mr. Charles, Miss Dawes, Mr. Eve, Mr. Maples, Mr. Millar Inglis, Dr. Moody, Miss Punnett, Rev. Dr. Scott, Mr. Starbuck, Mr. Storr, and Mr. Vincent.

The minutes of the last meeting were read and confirmed.

The Secretary reported that the Professional Preliminary Examination had been held on the 3rd to the 5th of March, and had been attended by 295 candidates.—He read a letter from the Board of Education in reference to the Memorial of the Council respecting representation of the College on the Teachers' Registration Council to be constituted under the Education (Administrative Provisions) Act of 1907.

The Diploma of Licentiate was granted to Miss E. M. Greenough, and that of Associate to Miss M. A. Hughes, who had satisfied the prescribed conditions.

The report of the Education Committee was submitted. The report referred to the proceedings at a Conference which was held at the College on February 29 to consider proposals for the constitution of a Registration Council.—The report was adopted, and it was resolved that the Council of the College express their general acceptance of the scheme for the constitution of the Registration Council as embodied in the resolutions passed at the Conference.

The following persons were elected members of the College:—

- Miss F. A. Caley, Collegiate School for Girls, Crescent Road, Wokingham.
- Mr. E. M. Eagles, M.A. Cantab., 5 Winsham Grove, Clapham Common, S.W.
- Mr. C. E. Prior, A.C.P., Lincoln House, Harrow.
- Miss F. A. Wood, L.C.P., Home and Colonial College, Wood Green, N.

The following books had been presented to the Library since the last meeting of the Council:—

- By the AUTHOR.—Waldegrave's Examples in Metric System Arithmetic.
- By G. BELL & SOSS.—Hall's Selections from Rende's 'The Cloister and the Hearth'; Luckhurst's Scott's Legend of Montrose (abridged).
- By BLACKIE & SON.—Blackie's English Texts (Cowley's Essays, Ruskin's Byzantine Churches of Venice, and Thucydides' Siege of Syracuse); Bagnall and Vivier's Melere's L'Avare et Les Femmes Savantes; and Racine's Athalie et Andromaque; Barbe's Deslys' L. Zouave, Ac.; Mrs. Fraser's Le Chalet Forenet;

Guiton's *Morax's La Princesse Feuille-Morte*; Michell's *Mérimée's Le Coup de Pistolet*; Park's *About's Le Roi des Montagnes*; Robb's *Selections from Scott's Tales of a Grandfather*.  
 By the CAMBRIDGE UNIVERSITY PRESS.—Barnes's *The Two Books of the Kings* (Cambridge Bible for Schools).  
 By the CLARENDON PRESS.—Collins's *More's Utopia*.  
 By MACMILLAN & Co.—*The International Geography*, Section I.; *Brooksbank's Essay and Letter Writing*; *Cotterill's More's Utopia*.  
 By J. MURRAY.—*Proceedings of the Classical Association, 1907*; *Croker's Stories from the History of England*; *Hall's Latin Translation at Sight*; *Hartog's Sand's La Mare au Diable*.  
 By G. PHILIP & SON.—*Bennett and Hand's Play-Drill*; *Young's Rational Geography*, Part II.  
 Calendars of the University of Wales and of the Transvaal University College.  
 Register of Members of the General Council of the University of Glasgow.

**COLLEGE OF PRECEPTORS.**

**PRACTICAL EXAMINATION FOR CERTIFICATES OF ABILITY TO TEACH.**

The following is a list of successful candidates at the Examination held in February, 1908:—

*Class I.*  
 Crabtree, J. D.

*Class II.*  
 Shackleton, Miss M. H.

**PROFESSIONAL PRELIMINARY EXAMINATION—PASS LIST. MARCH, 1908.**

The Professional Preliminary Examination was held on the 3rd, 4th, and 5th of March, in London, and at seven other local centres, viz., Birmingham, Bristol, Cardiff, Leeds, Liverpool, Manchester, and Newcastle-on-Tyne. The following candidates obtained Certificates:—

**First Class [or Senior].**

*Pass Division.*

Barr, D. H. Gillett, S. H. Jones, O.  
 Brooks, Miss A. D. *e.f.l.* Hobkirk, R. L. Pocock, F. P.

**Second Class [or Junior].**

*Honours Division.*

Cooper, L. G. *l.* Greville, E. R. G. McKay, W. K.  
 Cresswell, T. H. *l.* Hanreck, S. Pitt, E. *f.l.*  
 Fox, R. Kinnear, J. *g.l.* Sinderson, H. C.

*Pass Division.*

Anderson, A. D. Hanafin, J. G. Rowe, A. R.  
 Bain, J. L. *a.l.* Hill, F. T. *l.* Russ, S. H.  
 Bovill, Miss R. H. Hoffmeister, N. Salsbury, A. F.  
 Briscoe, E. V. Horder, I. W. G. *l.* Sampson, W. E. A.  
 Brock, E. A. Jackson, F. Saunders, G. V.  
 Brown, T. A. Kemp, J. W. Seedhouse, C. N.  
 Buckell, W. D. W. Kind, R. G. Simpson, R. J.  
 Buer, W. B. Lewis, J. M. *l.* Slaughter, C. A.  
 Butler, M. K. *a.* Macintosh, E. H. Smith, F. W.  
 Cockcroft, W. L. *f.l.* Mason, H. B. *l.* Smith, J. M.  
 Cooke, H. H. Matson, R. C. Spicer, H. W.  
 Cutting, J. A. W. Maurice, C. H. P. Stebbings, J. M.  
 Davies, W. McGregor, D. A. S. Stickland, H. J.  
 Deeks, G. Moore, G. K. Thomas, E. W. *l.*  
 Dermer, E. R. Napier-Ford, G. S. Thorman, F. E. A.  
 Drew, A. J. Ormsby, F. L. *l.* Thwaites, L. T.  
 Emmerson, C. L. Packham, A. L. Wallace, Miss H. J.  
 Evans, C. H. *l.* Palmer, C. N. Ward, E.  
 Fisher, T. H. Peak, N. Watson, G. W.  
 Fortnum, J. Phillips, P. Watson, J.  
 Galbraith, D. H. A. Price, H. P. Welstead, E. M.  
 Gick, R. W. *g.* Pullan, W. G. White, C. F. T.  
 Glaibsy, L. N. *l.* Reeson, T. F. Williams, H. B.  
 Gordon, M. Roberts, E. R. Wilson, G. R. C. *f.*  
 Graham, K. J. M. *f.* Robertson, G. D. Woods, F. H.  
 Green, A. Roe, C. W. Wooster, C. D. H.  
 Griffith, E. W.

N.B.—The small italic letters denote that the candidate to whose name they are attached was distinguished in the following subjects respectively:—

*a* = Arithmetic. *f* = French.  
*a.l.* = Algebra. *g* = Geography.  
*e* = English. *l.* = Latin.

**CLERGY MUTUAL ASSURANCE SOCIETY,**

2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

[FOUNDED 1828.]

Patrons—THE ARCHBISHOP OF CANTERBURY; THE ARCHBISHOP OF YORK.  
 President—THE BISHOP OF LONDON. Vice-President—THE LORD HARRIS.  
 Chairman—THE DEAN OF CANTERBURY. Deputy-Chairman—SIR PAGET BOWMAN, BART.  
 Secretary—W. N. NEALE, Esq. Actuary and Manager—FRANK B. WYATT, Esq., F.I.A.

The Society offers the BENEFITS of MUTUAL LIFE ASSURANCE without personal liability on highly favourable terms to  
**THE CLERGY AND THEIR RELATIVES.**

**ALL PROFITS BELONG TO THE MEMBERS.**

Accumulated Fund, £4,242,820. Annual Income, £453,897.

Bonuses Distributed, £4,256,464.

**LOW PREMIUMS. LARGE BONUSES.** Notwithstanding the lowness of the Premiums charged, the BONUSES are on an EXCEPTIONALLY HIGH SCALE.

**NEW AND SPECIAL POLICIES.** Application is invited for the PROSPECTUS, and Leaflets explaining two new Policies, with valuable Options.

**1. WHOLE-LIFE CONVERTIBLE ASSURANCES.** Very Low Premium—about one-half the usual rate—during first ten years.

**2. PENSION POLICIES.** Premiums returnable with compound interest in case of death or surrender before pension age. Option to commute for cash.

Assurances without profits, at low rates of premium, may be effected, and Life Annuities on favourable terms may be purchased, by any person irrespective of any special qualification by relationship to the Clergy.

**SPECIMEN OF RATES FOR £1,000, WITH PROFITS.**

Age next Birthday.	£1,000 Payable at Death.			£1,000 Payable at Age 60 or earlier Death.		
	£.	s.	d.	£.	s.	d.
25	20	1	8	27	3	4
30	23	3	4	32	10	10
35	26	10	0	40	1	8
40	31	1	8	51	5	0

NOTE.—Under the Reduced Premium System (explained in Prospectus) four-fifths only of these Premiums need be paid, the other one-fifth remaining a charge to be repaid out of Bonus.

No Agents employed and no Commission paid for the introduction of business, whereby £10,000 a year is saved to the Members.

Assurances can be effected by direct communication with the Office, 2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

# BLACKIE & SON'S LIST

JUST PUBLISHED.

### Magnetism and Electricity and The Principles of Electrical Measurement.

By S. S. RICHARDSON, B.Sc., Associate of the Royal College of Science, London; Lecturer in Physics, Municipal Technical School, Liverpool. Crown 8vo, cloth boards, 5s. net.

The object of this book is to provide a sound and systematic course of study in the main principles of Electricity and Electrical Measurement. It is written to meet the requirements of students who have already, in a first year's course, made some acquaintance with the elementary descriptive parts of the subject, and are commencing the study of Electricity in its more quantitative aspects—either as a branch of pure Physics or as a preparation for a course of Applied Electricity.

### Elementary Electrical Engineering.

By JOHN M. SHAXBY, B.Sc., Assistant Lecturer, University College of South Wales, Cardiff. Copiously Illustrated. 3s. net.

Written to meet the needs of practical students, as an aid to class work, and for private reading.

### Heat Shadows.

By WALTER JAMESON, B.Sc., Author of "Graphs for Beginners." 6d. net. Some New Experiments in the Conduction and Radiation of Heat; for Junior Class work.

### A Text-Book of Organic Chemistry.

English Translation from the German of A. BERTHESEN, Ph.D. Edited by J. J. SCDDBOROUGH, Ph.D., D.Sc., F.I.C. New Edition. Revised to date. 674 pp., crown 8vo, cloth, 7s. 6d. net.

### Systematic Inorganic Chemistry from the Standpoint of the Periodic Law. A Text-Book for Advanced Students.

By R. M. CAVEN, D.Sc., and G. D. LANDER, D.Sc. Crown 8vo, cloth, 6s. net.

### Elementary Geometry of the Straight Line, Circle, and Plain Rectilinear Figures.

By CECIL HAWKINS, M.A., Senior Mathematical Master at Haileybury College. Crown 8vo, cloth, with or without Answers, 3s. 6d.

### The Longer French Texts.

Printed in large Type. Cloth limp, 81. each. Brief Notes, Questionnaire, Memory List of Useful Phrases and Vocabulary. Among the volumes now ready are:

- About—*Le Rol des Montagnes.*
- Deslys—*Le Zouave.*
- Moreau—*Contes à ma Sœur.*
- Chateaubriand—*Le Dernier Abencérage.*

### The Little French Classics.

Price 4d. each book. All French authors in prose and verse, from the *Chansons de Geste* to *Daudet* and *Paul Bourgot*.

### Récits tirés des Classiques français.

6d. each. Edited by MME. C. BAGNALL, of Clapham High School, and MLE. VIVIER.

The Stories of the great Dramatists told in simple French, suitable for Lower and Middle Forms.

- Cornille—*Le Cid et Horace.*
- Racine—*Athalie et Andromaque.*
- Molière—*L'Avare et Les Femmes Savantes.*
- Hugo—*Hernani et Ruy Blas.*

### The Little German Classics.

Price 6d. each volume. The leading German authors in poetry, story, and drama.

### A Brief Survey of European History.

By ARTHUR HASSALL, M.A. An excellent general sketch of European History from Charlemagne to the present time. Crown 8vo, cloth, 4s. 6d.

### Landmarks of European History.

By E. H. M'DONOGALL, M.A. Oxon., late Assistant in the Tewfikieh School and Training College, Cairo. With many Coloured and Sketch Maps, Index, &c. 3s. 6d.

### Heroes of the European Nations.

From Early Greece to Waterloo. By A. R. HOPE MONCRIEFF. 1s. 6d.

### Readings in English History.

From Original Sources. Edited by R. B. MORGAN, B. Litt., and E. J. BAILEY, B.A. Illustrated. Vol. I., B.C. 54 to A.D. 1154, 2s. Vol. II., 1154 to 1485, 2s. 6d. Vol. III., 1485 to 1683, 2s. 6d. (*Just ready*).

### A Brief Survey of British History.

By G. TOWNSEND WARNER, M.A. With Tables, Summaries, Maps, Notes, &c. 1s. 6d.  
"The best English History for younger pupils. Used in all leading Preparatory Schools, and the Royal Naval College, Osborne."

## BLACKIE'S ENGLISH TEXTS.

Edited by W. H. D. ROUSE, Litt.D.,  
Head Master of the Perse School, Cambridge.

EXCELLENT MATERIAL FOR THE LITERARY STUDY OF ENGLISH.

In cloth covers, price 6d. each.

- |  |                                     |
|--|-------------------------------------|
| Froissart— <i>Border Warfare.</i>      | Malory— <i>Coming of Arthur.</i>    |
| Froissart— <i>Reign of Richard II.</i> | Malory— <i>Knights of the Round</i> |
| Froissart— <i>Crecy and Poitiers.</i>  | Cowley's <i>Essays.</i> [Table.]    |
| Irving— <i>England's Rural Life.</i>   | Ruskin— <i>Sesame and Lilies.</i>   |

The above volumes have recently been added. Complete List on application.

### Combined Course of Literary Reading and Composition.

Illustrated from Famous Pictures. Edited by LEWIS MARSH, M.A. 2s.

### English Poetry for the Young.

Selected by S. E. WINBOLT, M.A. A chronological selection of English poetry, clearly printed and well bound in cloth. 1s.

### The Plain Text Shakespeare.

The greater Plays. Text only. No Notes. In limp cloth cover. Price 4d. each.

JUST PUBLISHED.

### The Teaching of English.

By A. E. ROBERTS, M.A., Principal Lecturer in English at the Islington Day Training College, and A. BARTER, L.L.A., late Head Mistress of the Braintree Pupil-Teacher School. Price 2s. net.

Much pioneer work lies before the English teacher, and the present book is an attempt to suggest some of the lines along which he may proceed. No space has been devoted to the teaching of reading and writing as mechanical processes, since these subjects have been frequently treated of in books on school method. The emphasis has been laid on the teaching of literature and of composition.

Strongly bound in cloth, 4s. 6d. net. 872 pages, containing 2546 columns.

### The Student's English Dictionary.

By JOHN OGILVIE, LL.D. Edited by CHARLES ANNANDALE, M.A., LL.D., Editor of "Ogilvie's Imperial Dictionary," &c., &c. With many hundreds of Illustrations in the Text and a Series of useful Appendices.

The well-known Student's Dictionary is now issued at a greatly reduced price in the belief that thereby it will appeal to a very much wider circle of readers, and will meet with a correspondingly increased sale. It would not be practicable to publish such a large and handsome volume for the money were it not that a largely extended sale may be depended on. There is no difference between this issue and the previous paper, printing, binding, &c., are equally good, though the volume may now be had for 4s. 6d.

## BLACKIE'S LATIN TEXTS.

General Editor: Dr. W. H. D. ROUSE.

This Series is intended for use during the first two or three years of Latin.

Price 6d. and 8d. net each Book.

The following Scholars are contributing volumes to this Series:—

- |                       |                          |
|-----------------------|--------------------------|
| Prof. J. P. Postgate. | Mr. S. E. Winbolt.       |
| Prof. J. S. Reid.     | Mr. W. H. S. Jones.      |
| Dr. W. H. D. Rouse.   | Mr. E. Seymour Thompson. |

### A General Vocabulary to Virgil.

Prepared under the Editorship of A. GRAHAM, M.A. Crown 8vo, cloth, 1s.

### A General Vocabulary to Caesar's Gallic War.

Prepared under the Editorship of A. GRAHAM, M.A. Crown 8vo, cloth, 1s.

These vocabularies have been prepared for use in schools where the pupils are not at first provided with Latin Dictionaries of their own. They contain all the words that occur in the *Æneid*, *Bucolics* and *Georgics* of Virgil, and *De Bello Gallico* of Caesar. The advantage of these Vocabularies is that they can be used with any Edition of these Classics.

### A Latin Course.

By E. H. SCOTT, B.A., and FRANK JONES, B.A. First Course, cloth, 1s. 6d. Second Course, cloth, Illustrated, 2s. 6d.

### A First Latin Grammar.

By E. H. SCOTT, B.A., late Head Master of Boys' Secondary School, Barbeton, Transvaal; and FRANK JONES, B.A., Assistant Master, King Edward's School, Aston, Birmingham. Crown 8vo, cloth, 2s.

Write for full particulars to BLACKIE & SON, LTD., 50 OLD BAILEY, E.C.

## THE ONLY EFFECTIVE & ECONOMIC METHOD

Of "WEIGHTING" and LAYING the

# DUST

(See the Official Memorandum on the Cleansing and Disinfecting of Schools)

IS TO USE

# FLORIGENE

(Regd.)

(Awarded BRONZE MEDAL of the ROYAL SANITARY INSTITUTE)

or "**FLORIGENE**" (No. 2)

which in addition is a powerful

**GERMICIDAL DISINFECTANT.**

Either of the above Preparations should be applied to ALL WOOD, LINOLEUM, and other FLOORS in

## SCHOOLS, LABORATORIES,

ART GALLERIES, LIBRARIES, MUSEUMS, &c.

FLOORS may be dressed during the School Term, but TO OBTAIN THE BEST RESULTS it is advisable that they should be treated

## EARLY IN THE EASTER VACATION

(THREE TIMES A YEAR ONLY),

so as to allow as long as possible for the fluid to be absorbed, but the Floors can be walked upon immediately after treatment if desired.

"FLORIGENE" also purifies the Atmosphere, Preserves the Floors, Saves Time and Labour.

"FLORIGENE" is a fluid which can be easily and quickly used by the unskilled, and each application lays the dust for 2 to 4 months, or longer, according to the wear.

It is not sticky, but the dust and dirt absorb the "FLORIGENE" from the impregnated floors and thus become "weighted," so that when the floors are swept in the ordinary manner, the sweepings do not rise, but roll in front of the broom.

No Scrubbing or Sprinkling of Floors necessary, but Floors may be washed if preferred.

BOOKS, FURNITURE, APPARATUS, etc., seldom require dusting or cleaning.

"FLORIGENE" is an aid to the Prevention of Throat Irritations and School Epidemics. The additional Cost (if any) is small compared with the HYGIENIC, LABOUR SAVING and other IMPORTANT ADVANTAGES.

"FLORIGENE" can be applied with a Cloth or Mop, but we recommend our unequalled

### PATENT IMPROVED SPREADER

(which can be used by any novice) for better distribution and saving in labour and fluid. We also supply

specially designed "FLORIGENE" BROOMS.

"FLORIGENE" is extensively used in H.M. Royal Colleges, Science and Art and other Government Buildings, also Public and Private Colleges, Laboratories, Schools, Libraries, Museums, &c. &c.

For EXTRACTS from the EDUCATION DEPARTMENT BLUE BOOK on "The Cleansing and Disinfecting of Schools," also

Further Particulars, Prices, Reports, and Testimonials, write

THE "**DUST-ALLAYER**" CO.

Offices: 165 QUEEN VICTORIA STREET, LONDON, E.C.

CONTRACTORS TO H.M. GOVERNMENT, &c.

## A GOOD ADVERTISEMENT

is not of much use unless you have a good Prospectus to send to Enquiring Parents, and

## A GOOD PROSPECTUS

is of no use unless Parents see it.

## LET US PREPARE

you a good Prospectus, and give your School a

## GOOD ADVERTISEMENT

in our

## PATON'S LIST OF SCHOOLS AND TUTORS

which now has a World-wide Circulation.

---

*The Eleventh Edition is now in hand for Press.*

---

## WRITE US,

with copy of your present Prospectus, and we will send you (without any charge) Specimens and Full Particulars, with proof of value.

## OUR GOLD MEDALLIST

Photographs Schools within reasonable distance of London—expert work only.

---

**J. & J. PATON,**

EDUCATIONAL AGENTS,

143 CANNON STREET, LONDON, E.C.

Telephone—5053 Central.  
Digitized by Google

# Science and Art Examinations.

(BOARD OF EDUCATION.)

## BOOKS FOR THE FIRST STAGE.

- I.—**Practical Plane and Solid Geometry.** By G. F. BURN. *Second Edition.* 2s.
- III.—**Building Construction.** By BRYSSON CUNNINGHAM, B.E., Assoc. M.Inst. C.E. *Revised Edition.* 2s. 6d.
- V.—**Mathematics.** Containing all the Algebra and Euclid required. Edited by Dr. WM. BRIGGS. 2s.
- VI. A.—**Mechanics (Solids).** By F. ROSENBERG, M.A., B.Sc. 2s.
- VI. B.—**Mechanics of Fluids.** By G. H. BRYAN, Sc.D., F.R.S., and F. ROSENBERG, M.A., B.Sc. *Second Edition.* 2s.
- VIII.—**Sound, Light, and Heat.** By JOHN DON, M.A., B.Sc. 2s.
- IX.—**Magnetism and Electricity.** By R. H. JUDE, M.A., D.Sc. 2s.
- X.—**Inorganic Chemistry (Theoretical).** By G. H. BAILEY, D.Sc., Ph.D. Edited by Dr. WM. BRIGGS. *3rd Ed.* 2s.
- X. P.—**Inorganic Chemistry (Practical).** By Dr. F. BEDDOW. 1s.
- XI. P.—**Organic Chemistry (Systematic Practical).** By G. M. NORMAN, B.Sc., F.C.S. 1s. 6d.
- XIV.—**Human Physiology.** By G. N. MEACHEN, M.D., B.S. Lond. 2s.
- XV.—**Biology (Section One).** By W. S. FURNEUX. 2s.
- XVII.—**Botany.** By A. J. EWART, D.Sc., Ph.D., F.L.S. 2s.
- XXII.—**Steam.** By J. W. HAYWARD, M.Sc. *Second Edition.* 2s.
- XXIII.—**Physiography (Whole).** By A. M. DAVIES, B.Sc., F.G.S. 2s.
- XXIII.—**Physiography (Section One).** Edited by R. WALLACE STEWART, D.Sc. Lond. 2s.
- XXV.—**Hygiene.** By R. A. LYSTER, M.B., B.Sc., D.P.H. 2s.
- XXVI.—**Elementary Science of Common Life (Chemistry).** By W. T. BOONE, B.A., B.Sc. 2s.

## BOOKS FOR THE SECOND STAGE.

- V.—**Mathematics.** Being the Additional Algebra and Euclid with the Trigonometry required. Edited by Dr. WM. BRIGGS, M.A., B.Sc., F.R.A.S. 3s. 6d.
- VI. A.—**Mechanics.** By Dr. WM. BRIGGS, M.A., B.Sc., F.R.A.S., and G. H. BRYAN, Sc.D., M.A., F.R.S. Vol. I.—DYNAMICS. Vol. II.—STATICS. 3s. 6d. each Vol.
- VIII. C.—**Heat.** By R. W. STEWART, D.Sc. Lond. 3s. 6d.
- IX.—**Magnetism and Electricity.** By R. WALLACE STEWART, D.Sc. Lond. *Second Edition, Rewritten.* 3s. 6d.
- Technical Electricity.** By Prof. H. T. DAVIDGE, B.Sc., and R. W. HUTCHINSON, B.Sc. 4s. 6d.
- X.—**Inorganic Chemistry.** By G. H. BAILEY, D.Sc. 4s. 6d.
- X. P.—**Inorganic Chemistry (Practical).** By Dr. WM. BRIGGS, B.Sc., F.C.S., and R. W. STEWART, D.Sc. 2s.
- XI. P.—**Organic Chemistry (Systematic Practical).** By G. M. NORMAN, B.Sc., F.C.S. 1s. 6d.
- XVII.—**Botany.** By J. M. LOWSON, M.A., B.Sc., F.L.S. 3s. 6d.
- XX. } **Modern Navigation.** By W. HALL, B.A., R.N. 6s. 6d.
- XXI. B. }
- XXV.—**Hygiene.** By A. E. IKIN, B.Sc., and R. A. LYSTER, M.B., B.Sc., D.P.H. *Second Edition.* 3s. 6d.

## FOR ART SUBJECTS.

Perspective Drawing, The Theory and Practice of.  
By S. POLAK. 3s.

University Tutorial Press, Ed.

W. B. CLIVE, 157 Drury Lane, London, W.C.

## ADVERTISEMENT SCALE.

Whole Page—Ordinary	£4 10 0	.....	Position	£5 10 0
Half Page	2 10 0	.....	"	3 0 0
Quarter Page	1 10 0	.....	"	1 15 0
Per inch in broad column (half width of page)	...		"	0 7 0
Narrow Column (one-third page)	.....		"	2 0 0

General Scholastic Advertisements (Colleges, Schools, Classes, Tuition, &c.), 3s. 6d. for 6 lines, or 4s. 6d. the inch.  
Situations Vacant and Wanted—30 words or under, 2s.; each additional 10 words, 6d. (For 1s. extra, Replies may be addressed to the Publishing Office, and will be forwarded post free.)

## CURRENT EVENTS.

At the meeting of members of the College of Preceptors on April 1, Sir Edward Busk will deliver an address on "Moral Education," with special reference to the approaching International Congress. The chair will be taken by Lord Avebury.

M. LE PASTEUR RAMETTE will address the Société Nationale des Professeurs de Français en Angleterre on "Sully Prud'homme et son Poème 'Le Bonheur'" at the College of Preceptors, on April 25, at 4 p.m.

UNDER the auspices of the Geographical Association, Mr. A. T. SIMMONS, B.Sc., will submit "Notes on Geographical Laboratories" at University College, London, on April 10, at 8 p.m. Tickets (1s. each) from Mr. J. F. UNSTEAD, 5 Wiverton Road, Sydenham, S.E.

MR. M. FRIEDEBERGER, Ph.D., will lecture to the Child Study Society, London (Parkes Museum, Margaret Street, W.), on "The Mechanism of Speech and Stammering," on April 2, at 8 p.m.

VACATION Courses for Teachers of Young Children will be held during the first fortnight of August at the Froebel Educational Institute, Talgarth Road, West Kensington. Lectures on "Child Nature," by Miss A. RAVENHILL and by Dr. SLAUGHTER; on "Methods" (illustrated by a Demonstration Class), by Miss M. E. FINDLAY. Courses on "Nature Study" and expeditions. Prospectuses from Miss M. E. FINDLAY, Briar Cottage, Leigh-on-Sea, Essex.

MR. JOHN RUSSELL, M.A., will give a specimen moral lesson on "England expects every Man to do his Duty," at 18 Buckingham Street, Strand (Moral Instruction League), on April 6, at 7 p.m. Open.

A TRAINING Course for Lecturers, arranged by the London University Extension Board and consisting of 10 weekly meetings, will be held in the Summer Term, commencing April 27 (6-8 p.m.). Four lectures on "The Art of Lecturing" will be given by Prof. ADAMS, in the University, and four lectures and demonstrations on "The Management of the Voice" by H. H. HULBERT, Esq., M.A. Oxon., M.R.C.S., L.R.C.P., Lecturer on Voice Training at the London Day Training College and for the London County Council. These will be followed by six meetings for practical work in voice production and lecturing. Particulars from the Registrar of the University Extension Board, University of London, South Kensington, S.W.

THE Cambridge Local Lectures Summer Meeting will be held July 18-August 13 inclusive. The chief subject of study will be Ancient Greece: but lectures have been arranged in Natural Science, Education, Social Economics, and Theology, with courses mainly for foreign students.

Inaugural lecture by the Master of Trinity. Full programme ready in May. Forms of entry, &c., from the Rev. D. H. S. Cranage, M.A., Syndicate Buildings, Cambridge.

THE National Agricultural Examination Board (16 Bedford Square, W.C.) will hold an examination for the National Diploma in Agriculture at the University of Leeds on April 27.

THE International Congress for the History of Religions will hold its third meeting at Oxford in September.

THE fifteenth International Congress of Orientalists will be held at Copenhagen, August 14-20.

THE third International Congress for the Development of Drawing and Art Teaching is to be held in London from August 3 to 8.

THE Board of Education have just issued a list of twenty-eight holiday courses to be held at various places on the Continent at different times during the present year, showing dates, fees, fares, cost of boarding, principal subjects of instruction, address of local secretary, and other details. Copies free on application to the Board of Education Library, St. Stephen's House, Cannon Row, London, S.W.

THE Dover Pageant, under direction of Mr. Louis N. Parker, is fixed for July 27 to August 1. A Folk Play will be enacted in the grounds of Dover College (5,000 seats); booking office open daily on and after February 1 (2 Effingham Crescent, Dover).

THE University of Oxford has conferred Honours. the honorary degree of M.A. upon Major Martin Hume; and the honorary degree of D.Litt. upon Mr. C. M. Doughty, author of "Travels in Arabia Deserta."

THE University of Durham has conferred the honorary degree of D.C.L. upon Baron Heyking, who for some years has been the Russian representative in the North-East of England and in Scotland, and has now been appointed Russian Consul-General for India.

THE following have been appointed Fellows of University College, London:—

Mr. Henry Higgs, LL.B., M.A., F.R.E.S., F.S.S.; Mr. Edward Charles Cyril Baly, F.I.C.; Dr. Gilbert Charles Chubb, D.Sc.; Mr. Clive Cuthbertson, B.A.; Dr. Archibald Montague Henry Gray, M.D., B.S., M.R.C.P., M.R.C.S.; Mr. Philip Maynard Heath, M.S., M.B., F.R.C.S.; Prof. George R. Murray, M.D., M.A., F.R.C.P., M.R.C.S.

THE Senate of Glasgow University have resolved to confer the following honorary degrees (April 22):—

D.D.—Rev. John Brownlie, United Free Church, Port-Patrick; Rev. J. Estlin Carpenter, M.A., D.Litt., Principal of Manchester College, Oxford; Rev. John Ferguson, Linlithgow; Rev. Prof. C. Lucien Gautier, Ph.D., Geneva; Rev. David Smith, M.A., St. Andrew's United Free Church, Blairgowrie; Rev. Robert Thomson, M.A., Rubislaw Parish, Aberdeen.

LL.D.—George T. Beilby, F.R.S., F.I.C., F.C.S., Chairman of the Governors of the Glasgow and West of Scotland Technical College; Colonel David Bruce, C.B., M.B., F.R.S., D.Sc., War Office, London; James J. Dobbie, M.A., D.Sc., F.R.S., Director of the Royal Scottish Museum, Edinburgh; Robert Kidston, F.R.S., F.G.S., Stirling; David M. Cowan, Honorary Treasurer of the Glasgow Royal Infirmary; John C. M'Vail, M.D., County Medical Officer, Stirlingshire and Dumbartonshire; Neil Munro, author and journalist; Right Hon. Charles S. Parker, P.C., M.A., Hon. Fellow of University College, Oxford, formerly M.P. for Perth; John S. Templeton, Glasgow.

THE University of Calcutta, on occasion of its jubilee, has conferred the following honorary degrees:—

D.Litt.—Sir Andrew Fraser, Lieut.-Governor of Bengal.  
D.Sc.—Prof. Arthur Schuster, Manchester; Rev. Father E. Lafont, S.J., C.I.E., Rector of St. Xavier's College; T. H. Holland, F.R.S., Director of the Geological Survey of India; G. Thibaut, Ph.D., C.I.E., the Sanskrit scholar.

LL.D.—Sir Subbaiyar Subramania Aiyar, Dewan Bahadur, K.C.I.E., Judge of the High Court, Madras; Hon. Mr. Justice Pratulechandra Chatterjee, Rai Bahadur, M.A., B.L., C.I.E., Judge of the Chief Court of the Punjab.

M.D.—Surgeon-General G. Bomford, M.D. Lond., C.I.E., Director-General of the Indian Medical Service.

Ph.D.—Dr. R. Gopal Bhandarkar, M.A., Hon. Ph.D. Gött., Hon. LL.D. Bombay, C.I.E., Sanskritist and Historian; Sir H. H. Risley, B.A., C.S.I., Ethnographer and Anthropologist; Dr. P. Ray, D.Sc. Edin., Professor of Chemistry, Presidency College, Calcutta.

THE Turin Academy of Science has conferred the Bressa Prize of 9,600 lire (£384) on Dr. Ernest Rutherford, Professor of Physics, Victoria University, Manchester.

THE Hulme Trust has enabled Brasenose College, Oxford, to apply £1,000 a year to general University purposes and another £1,000 a year to special objects that will benefit both the University and the College.

THE late Baroness Lingen, widow of Lord Lingen, formerly Secretary to the Committee of Council on Education and Permanent Secretary to the Treasury, bequeathed £2,000 upon trust to found a Lingen Memorial Fund for the study of Latin and Greek in Trinity College, Oxford.

MR. HENRY WILDE, Hon. D.C.L., F.R.S., already a liberal benefactor of Oxford University, has offered £4,000 to found a Lectureship in Natural and Comparative Religion.

THE Oxford University Endowment Fund, which was inaugurated in May last, amounts to over £72,000 (out of £250,000 required). The donations range from £10,000 down to £1 and less.

THE Goldsmiths' Company have offered £10,000 to the Oxford University Appeal Fund for the establishment of a Readership in English Language and Literature, and £10,000 to the University of Cambridge for the establishment of a Readership in Metallurgy.

AN anonymous donor has offered to Cambridge University £300 a year for five years towards the stipend of a new Professor of Biology, who should devote himself to the chief subjects of Charles Darwin's life work. The gift has been accepted.

THE Mercers' Company have granted £525 towards the fund for the incorporation of King's College in the University of London.

THE Drapers' Company have given £50 towards the commercial education expenses and prize funds of the London Chamber of Commerce.

MR. GEORGE HARRISON, retired cotton spinner, Manchester, has left £10,000 to Owens College for scholarships and fellowships.

MRS. LINTON, Shirley, Derbyshire, has presented to the University of Liverpool a valuable herbarium collected by her late husband, the Rev. W. R. Linton, M.A.

Mr. A. F. Warr has contributed to Liverpool University

Library a valuable collection of original and early editions of the works of Cardinal Newman, together with an autograph letter.

\* \* \*

MR. HENRY RUTSON has given a second donation of £1,000 towards a scholarship in memory of his late brother, Mr. John Rutson, in the University of Leeds.

\* \* \*

SIR FREDERICK WILLS has contributed a second £5,000 to the fund for establishing a University of Bristol.

\* \* \*

MRS. MACKIE, Struan, Bearsden, has left £1,000 to Glasgow University, for general purposes.

\* \* \*

MRS. GORDON and Miss Peters have given £4,000 to University College, Dundee, for the erection of a Laboratory of Electrical Engineering, in memory of their late brother, Lord Dean of Guild Peters.

\* \* \*

SIR COWASJEE JEHANGHIR, a Parsee merchant, has given four lakhs of rupees (£26,666) for the promotion of science teaching in Bombay.

—————

A COMBINED examination for 67 entrance Scholarships and prizes. Exhibitions at Pembroke, Gonville and Caius, King's, Jesus, Christ's, St. John's, and Emmanuel Colleges, Cambridge, will be held on December 1 and following days. Candidates to be not more than nineteen years of age on October 1. Application forms and further information from W. S. Hadley, M.A., Pembroke; the Master, Gonville and Caius; W. H. Macaulay, M.A., King's; A. Gray, M.A., Jesus; Rev. J. W. Cartmell, M.A., Christ's; J. R. Tanner, Litt.D., St. John's; the Master, Emmanuel. Forms, &c., to be returned by November 24.

\* \* \*

EMMANUEL COLLEGE, Cambridge, will award an exhibition of £50 for two years to an advanced student at the beginning of October. Apply, with two certificates of character and precise account of career and studies (past and projected), to the Master of Emmanuel by October 1.

\* \* \*

SCHOLARSHIPS, exhibitions, &c., are offered in Classics at Oxford:—December 1, at Exeter, Oriel, Brasenose, and Christ Church; December 8, at University, New, and Corpus Christi; March 16, 1909, at Magdalen.

\* \* \*

BEDFORD COLLEGE FOR WOMEN offers three entrance scholarships in June: (1) the Reid in Arts, £31. 10s. for the first year and £28. 7s. for the second and third years; and (2) and (3) the Arnott and the Pfeiffer in Science, each £48 for three years. Examinations, fourth Wednesday in June. Entry forms, obtainable from the Principal, to be returned by June 1.

\* \* \*

RIPON CLERGY COLLEGE offers exhibitions of £10 to £40, upon testimonials, not upon special examinations. Apply to the Principal.

\* \* \*

THE London College of Music offers 12 open scholarships—4 for Singing, 2 for Pianoforte playing, 2 for Violin playing, 1 for Viola, 1 for Harmony and Counterpoint, 1 for Organ playing, 1 for an Orchestral Instrument—giving free tuition for two years. Competition on or about April 23. Entry forms to be returned by April 16.

THE Drapers' Company offer (1) 3 scholarships, £60 each for two or three years, to girls between 17 and 19; and (2) 2 scholarships, £60 each for two or three years, to boys between 16 and 18. Particulars from the Clerk to the Company, Drapers' Hall, Throgmorton Street, E.C.

\* \* \*

THE proprietors of the *World's Work* offer £100 for "the best letter in each of the series appearing in the March, April, and May numbers"; and other smaller prizes. Also three prizes (5, 3, and 2 guineas) "for the best single letter" (not included in the successful sets).

—————

PROF. J. J. THOMSON, F.R.S., &c., Cavendish Professor of Experimental Physics in the University of Cambridge, has been nominated President of the meeting of the British Association to be held at Winnipeg next year.

\* \* \*

THE following have been elected by the Council of the British Association to be Presidents of Sections at the meeting of the Association to be held in Dublin in September next under the general presidency of Mr. Francis Darwin, F.R.S.:—

Section A (Mathematical and Physical Science), Dr. W. N. Shaw, F.R.S., Director of the Meteorological Office. Section B (Chemistry), Prof. F. S. Kipping, F.R.S., Professor of Chemistry in University College, Nottingham. Section C (Geology), Prof. J. Joly, F.R.S., Professor of Geology and Mineralogy in the University of Dublin. Section D (Zoology), Dr. S. F. Harmer, Superintendent of the University Museum of Zoology, Cambridge. Section E (Geography), Major E. H. Hills, C.M.G. Section F (Economic Science and Statistics), Lord Brassey. Section G (Engineering), Mr. Dugald Clerk, M.Inst.C.E. Section H (Anthropology), Prof. W. Ridgeway, Professor of Archaeology in Cambridge University. Section I (Physiology), Dr. John Scott Haldane, F.R.S., University Reader in Physiology at Oxford. Section K (Botany), Dr. F. F. Blackman, F.R.S., Professor of Botany in the University of Leeds. Section L (Educational Science), Prof. L. C. Miall, formerly Professor of Biology in the University of Leeds.

Invitations to deliver evening discourses during the meeting of the Association at Dublin have been accepted by Prof. H. H. Turner, F.R.S., Savilian Professor of Astronomy at Oxford, who will take as his subject "Halley's Comet"; and Prof. W. M. Davis, of Harvard University, whose lecture will be entitled "The Lessons of the Colorado Cañon."

\* \* \*

THE REV. DR. T. K. CHEYNE, Fellow of Oriel, will shortly resign the Professorship of the Interpretation of Holy Scripture in the University of Oxford.

\* \* \*

SIR HUBERT PARRY has resigned the Professorship of Music in Oxford University.

\* \* \*

MR. BENJAMIN KIDD has been appointed Herbert Spencer Lecturer at Oxford. He will deliver the lecture next term.

\* \* \*

MR. R. H. BIFFEN, M.A., University Lecturer, has been appointed Professor of Agricultural Botany in the University of Cambridge.

\* \* \*

PROF. MARSHALL has decided to retire from the Chair of Political Economy at Cambridge, which he has held since 1885, when he succeeded Prof. Fawcett.

\* \* \*

SIR ERNEST M. SATOW, G.C.M.G., has been appointed Rede's Reader in the University of Cambridge for the present year. He will deliver the Rede lecture on June 13.

MR. ALEXANDER GOW, M.A., B.Sc., formerly Scholar of Gonville and Caius College, Cambridge, Director of Education and Principal of the Technical School, Blackburn (for the past four years), has been appointed Secretary to the Technical College of Science and Technology.

MR. DAVID HERON, M.A., and Miss E. M. Elderton have been reappointed respectively Research Fellow and Research Scholar in the Francis Galton Laboratory for National Eugenics for the year 1908-9.

AT Trinity College, Dublin, Mr. C. F. Bastable, LL.D., Professor of Political Economy, has been appointed Regius Professor of Laws in succession to Dr. Brougham Leech, resigned; and Mr. J. S. Baxter, Reid Professor and deputy for Dr. Leech, has been appointed to the Chair of Civil Law and General Jurisprudence.

AT Leeds University, Dr. Croft has been appointed Lecturer in Gynaecology, in the place of Dr. Hellier, who has been appointed Professor of Obstetrics; Mr. Andrew Hunter, M.B., Demonstrator of Physiology; Mr. R. Veitch Clark, M.B., Honorary Demonstrator in Public Health; Dr. W. G. Smith (Assistant Lecturer in Botany), Lecturer in Agricultural Botany; Mr. A. S. Galt, additional Lecturer in Horticulture; and Mr. P. N. Ure, M.A., Assistant Lecturer in Classics.

MR. D. H. MACGREGOR, M.A. Edin. and Cantab., Fellow of Trinity College, Cambridge, has been appointed Professor of Economics in the University of Leeds, in succession to Prof. Clapham.

ROYAL HOLLOWAY COLLEGE (University of London) requires (1) a Lecturer in Mathematics and (2) an Assistant Lecturer and Demonstrator in Botany, both resident. Apply to the Principal by April 16.

DR. J. C. BRIDGE, M.A., F.S.A., Organist of Chester Cathedral, has been appointed Professor of Music in the University of Durham, in succession to the late Dr. Armes. He is a brother of Sir Frederick Bridge, and was conductor of the Chester Triennial Musical Festivals.

PROF. BOSANQUET will resign the Chair of Moral Philosophy in the University of St. Andrews at the end of the current academical year.

MISS E. N. THOMAS, B.Sc. Lond., Assistant in Botany at University College, has been appointed Lecturer and Head of the Department of Botany, Bedford College for Women.

DR. R. STEWART MACDOUGALL, Lecturer in Biology, Edinburgh and East of Scotland College of Agriculture, has been appointed Lecturer in Botany in Edinburgh.

MR. G. ROBERTSON WATT, B.A. Cantab., Lecturer in Greek History and Assistant in Greek, Aberdeen University, has been appointed Professor of English and Philosophy in the Presidency College, Calcutta.

MR. WALTER W. REED, B.Sc., Isaac Roberts Scholar of University College, Bangor, has been appointed Assistant Lecturer and Demonstrator in Chemistry at the Technical College, Huddersfield.

MR. WILLIAM DAWSON, M.A., B.Sc., Carnegie Fellow, has been appointed Lecturer in Forestry at the Aberdeen and North of Scotland College of Agriculture.

MR. A. H. HILL, Head Master of the L.C.C. Mile End Pupil-Teachers' Centre, has been appointed an Assistant Inspector under the London Education Committee.

MR. T. A. EAVES has been appointed Inspector of Elementary Schools under the Newport (Mon.) Education Committee.

THE REV. E. J. W. HOUGHTON, M.A., Head Master of St. Edmund's (Clergy Orphan) School, Canterbury, has been appointed Head Master of Rossall School.

MISS JULIAN M. BOYS, M.A., Assistant Mistress, Princess Helena College, Ealing, has been appointed Head Mistress of St. Margaret's School, Bushey (Clergy Orphan Corporation).

MISS E. M. JULIAN has been appointed Principal of the Avery Hill Training College (L.C.C.).

THE REV. E. T. LEA, M.A., House Master at Cranleigh School, has been appointed Head Master of Steyning Grammar School, in succession to the Rev. A. Harre.

MR. J. MOORE, B.A. Lamp., has been appointed Head Master of the Bishop's High School, Poona.

THE University of London requires one Examinership. Examiner in each of the following Matriculation subjects:—English, Mathematics, Latin, Greek, French, German, Elementary Physics, Ancient History, Modern History, Logic, Physical and General Geography, Geometrical and Mechanical Drawing, Elementary Chemistry, and Elementary Botany. Particulars from the Principal. Applications to be lodged by April 15.

**Literary Items.** THE Oxford University Press is issuing the Greek versions of "The Testaments of the Twelve Patriarchs," edited from nine MSS., together with the variants of the Armenian and Slavonic versions and some Hebrew fragments, by Dr. R. H. Charles.

THE Spring List of the Oxford University Press, while containing important works in language, history, and science, is specially strong in English literature, original and critical. Apart from school books, we note particularly "The Shakespeare Apocrypha"—14 plays at some time attributed to Shakespeare—edited by C. F. Tucker Brooke.

MESSRS. LONGMAN are publishing Stubbs's "Germany in the Early Middle Ages, 476-1250," edited by Mr. Arthur Hassall.

MR. FISHER UNWIN has just added to the "Story of the Nations" series a volume on "The Roman Empire, B.C. 29 to A.D. 476," by Mr. H. Stuart Jones, M.A., Fellow of Trinity College, Oxford.

MR. J. LEWIS PATON contributes a piquant article on "The Need of Actuality in Teaching" to *Cassell's Magazine* for April.



*Modern Language Teaching* (March) gives a very interesting "Report on the condition of Modern (Foreign) Language Instruction in Secondary Schools," and a discussion on "The Place of Translation," on the basis of a paper by Mr. F. B. Kirkman.

\* \* \*

UNDER the title "Travel the Teacher," *T.P.'s Weekly* has started a series of articles (inaugurated by Mr. J. H. Yoxall) outlining the educational opportunities and enjoyments open to readers that may be visiting, on holiday, various countries, districts, or towns.

\* \* \*

MESSRS. A. & C. BLACK announce a work of great sociological interest, "Kafir Socialism," by Mr. Dudley Kidd, who has known the Kafirs under their native conditions.

—•••—

SIR EDWARD BUSK, M.A., LL.B., and Mr. General. C. A. Russell, B.A., LL.B., K.C., have been nominated to represent the Senate of the University of London, and Sir Thomas Raleigh, K.C.S.I., K.C., and Mr. W. English Harrison, K.C., to represent King's College, on the Commission to be appointed under the King's College, London (Transfer), Act. The fifth Commissioner, who will be Chairman, is to be appointed by His Majesty in Council.

\* \* \*

LORD ROSEBERY has been nominated for the Chancellorship of Glasgow University, and apparently will not be opposed.

The candidates for the Lord Rectorship of Glasgow University are Sir Henry Campbell-Bannerman (L.), Lord Curzon (C.), and Mr. Keir Hardie (Socialist).

The candidates for the Lord Rectorship of Edinburgh University are Mr. Winston Churchill (L.) and Mr. Wyndham (C.).

The candidates for the Lord Rectorship of Aberdeen University are Mr. Asquith (L.) and Lord Milner (C.).

\* \* \*

BEDFORD COLLEGE FOR WOMEN (York Place, Baker Street, W.) has taken additional premises, to which the Department for Secondary Training will be moved at the beginning of Easter Term.

\* \* \*

It is proposed to erect in London a monument in memory of Shakespeare. The Committee aspire to raise £200,000. Prof. Gollancz is honorary secretary.

\* \* \*

MR. ERIC WILLIAMS gave a highly successful "Patriotic Recital" at Margate on March 19, when some 500 pupils of the local schools and colleges took part in the choruses; and he is open to repeat it anywhere in the kingdom for the same object—namely, to increase the Veterans' Relief Fund. The object is in the highest degree praiseworthy.

\* \* \*

PROF. LUDWIG SCHRÖDER, who had for more than forty years directed and successfully developed the famous People's High School at Askov in South Jutland, died on February 7, just over seventy-two years of age.

\* \* \*

THE French Ministry of Public Instruction have recently decided that for the future the sum of £16, previously payable by English Répétitrices in French Ecoles Normales, shall no longer be demanded. English Répétitrices in these institutions will henceforward be appointed "au pair."

\* \* \*

A FRANCO-CHINESE University is being established at Hanoi. The French Government hopes by means of it to raise the standard of education in China, or at least in the south of China.

## SCIENCE IN CORRELATION WITH GEOGRAPHY AND MATHEMATICS.

At the Evening Meeting of the members of the College of Preceptors on Wednesday, March 18, Mr. W. C. BROWN, M.A., in the chair, Dr. T. PERCY NUNN, M.A., D.Sc., read the following paper:—

If an attempt were made to estimate the influence of pedagogical theory upon pedagogical practice during the last century, there would be little difficulty, I think, in establishing at least this clear result—that those in whose hands the instruction of boys and girls actually lies recognize that the nature and order of that instruction must wait upon the psychological development of the pupil. Even the Head Masters' Conference admits, at least in principle, that the curriculum and method of teaching at eleven must be determined in the first place by the intellectual characteristics and requirements of the boy of eleven and only in the second place by the intellectual characteristics and requirements of the boy of sixteen.

### "STUDY THE CHILD"—ONLY A HALF-TRUTH.

It is one of my objects to-night to suggest that this all-important principle has, when properly regarded, two sides, of which one alone has hitherto received an adequate amount of attention. This side is represented in the recommendation that the young teacher should "study the child rather than the subject"—study him, that is, so as to master his ways of thought, his modes of intellectual assimilation, at each stage of his development. I wish to suggest that the view expressed in this maxim, valuable as it is, contains only half the truth and stands, therefore, in need of correction.

### THE CHILD'S MIND.

It appears to me to assume that we have, on the one hand, a world of "facts" to be known—eternal and immutable like the "ideas" of Plato—and on the other hand a "mind" which is an instrument fashioned for the purpose of "knowing" these facts. It attaches great weight to the recognition that the instrument changes in character as the individual advances from infancy to childhood, from childhood to boyhood, from boyhood to manhood; but it thinks of the mind and its changes precisely as it would think of the development of a physical organ. Just as growth in strength and skill is the direct result and expression of the growth and organization of the muscular system, so the changes in amount and character of the intellectual performances of the boy are to be regarded as the direct result and expression of the growth and organization of his mind. We should not, in view of the great usefulness of this conception, allow ourselves to forget that it is, strictly, not a *statement* of facts, but an *interpretation* of facts. In the case of the physical organ, both organ and function are indubitable facts. The boy's biceps is there, even though it is not functioning in connexion with any of the uses of peace or war. But who has ever demonstrated the existence of a "mind" apart from the functions which we distinguish as mental—a mind which is neither feeling nor knowing nor willing? Surely, a "mind" conceived apart from mental functions is logically on the same level as "matter" stripped of its "properties"—it is an abstraction which we may lawfully hypostatize for certain purposes, but must not, when hypostatized, confound with a *fact*.\*

If you admit the force of this argument, you will recognize that the "nature" of a boy's mind at any epoch consists simply in the details of its "contents" and their order of succession, and that the development of his mind is simply the history of the succession of these contents. Thus to study the mind of a child is to make oneself acquainted, as far as is possible, with the details of these contents, their modes of sequence and recurrence.—using the term "contents" in the widest sense to cover every type of conscious element. Now, while it is true that the development of the minds of a group of children may show in detail an almost infinite variety, yet it is also true that their differences are not so great that they may not be regarded as merely deviations from a norm typical at least of the community to which the children belong. In other words, in the case of children brought up under substantially identical conditions their mental development will take over much of its cross-section

\* It may be well to add that I am disputing the existence neither of a "spiritual principle" nor of a real world, but only of the "mind" as a kind of curtain between the two.

a substantially identical course. This is obviously the circumstance that makes class-teaching possible. It is only another way of making the same statement to say that the curriculum through which a boy has passed has been at the various stages of his career a definite part of his mind. But, to realize the full value of this statement, we must recognize that a programme of the instruction which a boy has received, however detailed it may be, implies much more of the content that goes to make his mind than it actually records. The programme *records* merely the substantive "objects of thought" with which the boy has had commerce from day to day and from term to term: it *implies*, in addition, an almost equally definite contexture of impulsive and emotional elements into which the substantive intellectual elements were interwoven during the actual process of apprehension. Moreover, the relation between the intellectual nuclei and the interstitial impulsive and emotional material is not the merely external relation that the word "interwoven" might suggest: it is essentially a *functional* relation, as close and indispensable as the relation of one organ of the body to another. Thus the programme of instruction in any "subject" of the curriculum may not inaptly be compared with the skeleton of an organism which may indeed be preserved and exhibited for an indefinite time, but is really meaningless apart from the warm pulsating tissues whose life it supported and with whose growth it grew.

In the last sentence I have not only used for the first time the word "subject" in its technical sense; I have also indicated the way in which, from this point of view, a subject of the curriculum must be regarded. It is not sufficient to say that the boy's mind is a growing tissue of conscious elements—impulsive, emotional, intellectual—nor even to correct the account by adding that it is a whole, a unity, not merely a collection of contents. We must, besides this, recognize the fact that as the contents grow in number and variety they tend to consolidate into structural systems having each a more or less clearly marked individuality and enjoying a more or less complete autonomy within the empire of the mind as a whole. Among these systems will be some—such as the boy's "hobbies"—which, being relatively deficient in intellectual elements, may take a form almost entirely peculiar to himself and hardly capable of being conceived as existing apart from him. On the other hand, there will be others which are relatively so rich in intellectual elements that we can exhibit the latter in the form of a detailed programme—as it were the continuously connected and articulated skeleton of the mental structure. These systems will be the great "subjects" of the curriculum—mathematics, history, religion, and so forth. The predominance in these of intellectual contents which may, at the same time, be present in an indefinite number of other "minds" has led to the mistaken belief that their individuality consists simply in the nature and relations of these elements and to the ignoring of the impulsive and emotional contents which the former imply as necessarily as the skeleton implies the flesh and blood. Thus we have the hypostasis of a "subject" conceived as having an individuality of its own apart from the "minds" in which it appears as a psychological system, answering to the hypostasis of a "mind" having an individuality of its own apart from its intellectual contents. Both these abstractions are legitimate or useful on special occasions; they become equally dangerous on others if we allow ourselves to forget that they are only abstractions.

#### INTELLECTUAL DEVELOPMENT—RACIAL AND INDIVIDUAL.

We are now, I think, in a position where we can see in what lies the value of the principle—so often applied as a maxim of pedagogical method—that the intellectual development of the individual repeats that of the race. This famous principle, which many people accept somewhat hastily upon the strength of a rather doubtful biological analogy, may easily lead to error if used incautiously. It seems obvious that no profitable comparison can be made between the *whole* contents of the mind of a modern boy of any age and that of an Englishman of the fourteenth century. The differences would be, on the whole, much more important than the resemblances: they would show the former still a boy and the latter a man. But, if we confine our attention to one of the great systems of which we spoke as individualized about a strong and well defined intellectual framework, the applicability of the principle appears equally evident. Thus the great, strongly individualized system which constitutes "modern mathematics" was represented in the mind of the Englishman of the fourteenth century by a group of relatively unsystematized impulses and trains of thought motivated by

these—a group which, in respect of the character both of the impulses and of the intellectual content, and again in respect of their lack of co-ordination and system, may quite profitably be compared with the mathematical knowledge and the connected impulses in the mind of a modern child just beginning the subject at school. Moreover, since the mathematical system has had a continuous development in the minds of thinkers of successive generations from its sporadic beginnings in early times to the highly consolidated structure of to-day, and since this system arises in our pupils from similar centres and moves towards the same goal, it seems highly probable that the historical development of the subject marks out for us the steps by which the mathematical system may most naturally move towards the form which characterizes it in the minds of adult mathematicians to-day. There are certain qualifications of this doctrine which good sense will always make without the stimulus of theory. Just as the physical system does not always find the best path of development and may show, in its later stages, the persistent effects of earlier morbid states, so the development of the great intellectual systems has not always been completely healthy, and in its later stages has exhibited disfigurements and weaknesses which we should not allow our children to incur. But the teacher who consults the history of a subject for guidance in developing it in school must not forget that the stages in its history present him with those parts only of the developing system that are capable of preservation. They are like the palaeontological record of an animal race: they are merely the "hard parts" of the successive forms in which the continuous life of the *phylum* has displayed itself. From these fossils the teacher must reconstruct, by criticism, the complete system at each step of its development, supplying the context of impulses and emotions for which the character of the intellectual structure as a rule yields sufficient evidence.

#### THE SCIENTIFIC SYSTEM: THREE MAIN STAGES.

It would be impossible, in the compass of one lecture, to apply this reconstructive criticism to any of the great systems which have terminated in the modern sciences. Standing in this place a few years ago, I endeavoured to show how inadequate for the purposes of the teacher is the view that would regard the sciences merely as great collections of "truths," and sought to indicate the necessity of recognizing them as *structures* bearing throughout the marks of human activity. In other places I have since tried to indicate the characteristics of the scientific systems at the principal stages in their development, and ask your permission to assume the results of these studies here.

Three main stages, or levels, may be established in the development of the scientific system. These are distinguished from one another by the nature of the non-intellectual elements present in them and by their differing degrees of systematization. The lowest stage is that of "Nature study"—using the term to connote a relatively unsystematized body of inquiries which are directed indifferently towards the heaven, the earth, and the waters under the earth, wherever and whenever wonder calls and naive curiosity leads the way. The highest stage is that which is at once most completely systematized and most predominantly intellectual, when the impulses and emotions that support and direct thought urge it only towards its own systematic completeness. This is the position of the modern physicist like Clark Maxwell, the modern biologist like Darwin, the modern mathematician like Cayley.

Between these is the stage to which our attention is to be confined to-night. Inquiries which were at first prompted by wonder, by fear, or by curiosity generally pass into intellectual efforts directed to the establishment of control over the source of wonder or alarm. The primitive astronomer ceases to study the phenomena of the eclipse with the curiosity that springs from terror; he no longer contents himself with reflecting that he cannot bind the sweet influences of Pleiades or loosen the bands of Orion. He penetrates the secret of the eclipses, reducing their recurrences to law and order, and thus is, in a measure, forearmed, since forewarned, against their baleful influences; he makes the stars wait upon his needs and divide for him his times and his seasons. And so, wherever the primitive motives of wonder, delight, fear, and curiosity have led inquiry, the less primitive motive has followed that continues and widens the inquiry for the sake of ministering to the inquirer's needs.

#### MIDDLE STAGE—SCIENCE CURRICULUM.

The character of the portion of the curriculum in science that answers to this stage in the evolution of the sciences seems

perfectly clear. It must consist in the study of *problems* whose solution is a matter of practical interest and requires the application of instruments and methods of exact determination. That is, the problems will, in general, involve quantitative and often mathematical treatment, while their practical character will arise from their intimate connexion with life and industry—either, out of doors, the tillage of the land and of the sea, or, indoors, the labours and operations of the workshop, the kitchen, the laundry.

The very fact that we are conceiving this work as a section of a developing curriculum lying between the specialized and highly systematic pursuit of the special sciences above, and the general and largely unsystematic study of the more striking aspects of Nature below, implies a gradual transition in its own character from the latter to the former. As the boy approaches the age at which his studies in science should assume the systematic form—say at sixteen—the problems to which his attention is directed will become so closely connected with one another that they will be woven into a continuous argument. When this is the case it is natural and easy to effect the shifting of emphasis that causes the pursuit and completion of the argument to become itself the object of the work. It will, I think, be recognized that this description holds good of the first year or two of the study of chemistry or of mechanics. It follows, therefore, that these studies should find their place at the end of the period we have in view. On the other hand, in the earlier part of the period—say from the age of ten or eleven to the age of fourteen—the problems will have rather the sporadic and disconnected character of the Nature-study period. But we are dealing with an age at which that organization of intellectual effort which is one of the chief aims of education has, having regard to the mind of the pupil as a whole, already developed to a considerable degree. We cannot, therefore, be content with a succession of problems isolated from any continuous context and accepted for study merely on their own merits as affording suitable opportunities for acquiring what is sometimes rather vaguely called “scientific method.” (Parenthetically I remark that this practice appears to me to be a somewhat serious weakness in many existing schemes of work.) We must, it would seem, arrange that our problems should be episodes, as it were, in the development of some other subject, presenting a continuous argument, until the time is reached, as I have before indicated, at which they themselves merge into a similarly continuous argument.

#### GEOGRAPHY AND MATHEMATICS.

Little difficulty can be experienced in selecting subjects suitable for affording this external support to the development of the science curriculum. Both geography and mathematics have reached, by the age of eleven, a stage of development at which their individuality is strongly marked. Moreover, both have a connexion with the scientific interest that is close, if not inevitable. They are, then, the subjects with which, in the earlier years of this intermediate period, the science instruction may most usefully be correlated. But the relations of this instruction to the two great subjects I have named must be conceived somewhat differently, and will repay a brief examination.

The subjects of the curriculum may be usefully regarded as falling into two groups: “substantive” subjects, pursued for their own sake, and “instrumental” subjects, cultivated rather for the sake of their applications within the boundaries of other subjects. So long as geography was studied in schools merely because it was necessary for the comprehension of history, it was instrumental, but, now that it is recognized as having an ideal and an individuality of its own, it has come to take a place with history and literature among the subjects indisputably of substantive rank. The recent history of mathematics as a school subject has exhibited, curiously, a movement in the opposite direction. Owing largely to the admirable efforts of Prof. Perry and his disciples, it is tending more and more to become recognized as instrumental and to abandon pretensions which entailed so great a strain upon those who were expected to support them.

Geography, conceived as a substantive subject, having for its object the study of “the surface of the earth as the home of man,” usually undertakes a careful survey of the home region, so that the pupil may acquire a first-hand acquaintance with geographical ideas and skill in interpreting the technical symbolism in which geographical fact is expressed. This part of its aim cannot be achieved without consideration of the many aspects of the home region which fall within the special provinces of the science. Thus the problem of exactly determining the characteristics of the home region with regard to these aspects

contains the points of departure of a number of important scientific “episodes.”

School mathematics, we have said, is to be regarded not as an end, but as a means, an instrument of precise analysis and exact description. But it is an instrument of an exceptional character, which soon passes out of the stage in which it is pursued episodically into the stage in which its problems—regarded as the problems of fashioning an effective apparatus of analysis and description—merge, like the problems of elementary mechanics and chemistry, into a doctrine having a certain continuity of argument and therefore a certain capability of self-subsistence.

#### TRADITION IN MATHEMATICAL PROBLEMS.

In relation to this subject the functions of such problems as we propose to correlate with it will be to act as *motives* for the fashioning and elaboration of the mathematical instruments of investigation. The experienced mathematical teacher has always pursued some such course. He has not actually followed the unfortunate suggestion of his text-book, which would urge him to introduce his new mathematical method, as it were, out of the void and *then* to show its useful applicability to concrete problems. He has taken the better course of raising some interesting concrete problem and then introducing his mathematical method as a means of dealing with it. Unhappily, tradition has limited his development of this sounder method in two ways. In the first place, it has forced him to confine himself largely to the problems of commercial life—interesting enough to the adults for whom the first treatises on arithmetic were composed, since for those adults these problems were matters of actual urgency, but having only a remote connexion with the interests of children at school. It is, perhaps, only when one has turned over the leaves of some of these early text-books—has noted, for example, that the supposititious pupil for whom Tonstall's *De arte Supputandi* (1522) is written is a mature Oxford student who is commencing the study of compound addition in order that he may defend himself against possible fraud on the part of his landlady—that one realizes how harmfully this unlucky tradition may have affected our curriculum in arithmetic. In the second place, tradition has decreed that in a mathematics lesson there shall be no accessories to paper and pen except the blackboard, the chalk, and the duster. It follows that, when a motive to mathematical enterprise is sought in other sources than in hypothetical commercial transactions, the teacher is thrown back upon a miscellaneous variety of topics—the competitive performances of pipes and cisterns, the feats of coincidence of clock-hands, and so forth—topics whose content is of such slight value that it hardly justifies the elaboration of intellectual apparatus to deal with it. It also follows, too often, that boys will work upon hypothetical data in the classroom and upon data of the same kind actually determined by themselves in the laboratory under such conditions that they are neither helped by a perception of the identity of the problems involved nor hindered by a perception of the dissimilarity of the methods by which they have been taught to deal with them. The mode of correlation which we are discussing proposes to avoid these disadvantages by using, as motives for the invention of the ordinary apparatus of mathematics, problems that have a content of positive value and interest to the boy, that involve useful physical manipulation and have a certain unity of character which enables them to develop later into a continuous physical argument. I propose now to illustrate briefly the application of these principles in the school curriculum—first in geography, then in mathematics. (It may be convenient to state that, in the main, I am describing details of the science syllabus of an elementary school associated with the work of the London Day Training College.)

#### GEOGRAPHICAL PROBLEMS—NATURE-STUDY PERIOD.

The problems arising in the geographical context that call for scientific treatment may be regarded as the development of the Nature-study observations of sky and weather. The sky observations will be devoted at this earliest stage to the contemplation of the sun and the moon simply as beautiful objects whose more obvious performances are full of interest, while to a more careful scrutiny they promise delightful surprises. That the simple and obvious facts of the behaviour of the sun and moon are in reality very little regarded and only imperfectly known has been borne in upon me by the following painful discoveries. (1) Of a large class of students on the eve of graduating the majority hold the belief that the sun rises daily at the eastern point of the horizon, sets nightly at the western point, and at noon stands directly

overhead. (2) A class, composed for the greater part of graduates, hesitated to commit themselves to any definite opinion when asked whether the waxing and waning crescents of the moon were turned the same or different ways. It seems evident that these persons, whose education in the ordinary sense was much above the average, had very little knowledge of the actual sun and moon, but bore in their minds only the memory of the insipid *simulacra* of the text-book. To avoid this distressing state of things, the children are taught to note and picture the phases of the moon on her monthly journey through the sky just as they note and picture the phases of the plants they rear. They approach the study of the sun by watching the shadow of a vertical metre rule which it casts upon the laboratory floor. The delighted surprise which greets the first perception of the rapid shifting of the shadow is a sufficient justification for placing this observation in the Nature-study stage. For the first time the restless movement of the sun is brought home to the child's mind as a fact infinitely more striking and wonderful than any deduction that "it must have moved" based upon observations of its position in the morning and evening. The impression is deepened by a simple class experiment which I do not remember to have seen described, although doubtless many teachers have invented it independently. The optical lantern is placed in a southern window, and the prism or mirror adjusted so that a clear image of the sun's disc is thrown on a screen in front of the class—for example, on a blackboard. The movement of the sun can now easily be traced, a child being called out every few minutes to outline the disc with a chalk circle. At the end of a half-hour's lesson these circles spread in my own laboratory over a distance of more than a yard. May I add that a few weeks ago one of His Majesty's senior inspectors, a couple of colleagues, and myself watched this moving disc for a full half hour with a delight which we found it impossible to disguise.

To return to our shadow. Two boys in rotation are told off every sunny day to watch the shadow about noon, to determine its direction and its length when it is shortest, and to note the time of this event by the clock. The shadow changes in length very slowly at its minimum, so that the determination of direction and time are only approximate. They are sufficiently accurate, however, to bring out the facts that when the shadow is shortest its direction is always practically the same, and that the time of shortest shadow varies from about a quarter to twelve at one season of the year to a quarter past twelve at another. We now have facts that call for a terminology, and the names, "south" and "noon" are appropriately introduced. Meanwhile the length of the shadow is recorded about once a week in a simple graph, which is practically a series of pictures of the shadow on the floor not too much reduced in size. This graph, built up gradually during the year, is a treasure which has many uses. At the epoch under consideration it serves as a striking record of the sun's annual variation in noonday height—a fact wonderful and interesting in itself. Later in the course, it is found to contain the secret of the procession of the seasons; while much later still the same graph, reduced to degrees both in its vertical and its horizontal scale, is bent round into a complete circle and becomes a model which can be interpreted as showing the inclination of the earth's axis to the plane of the ecliptic.

These simple observations on the noonday shadow fall into the Nature-study period: we see their development into the type of scientific inquiry with which we are specially concerned when in the next year—say at age ten—we endeavour to solve the two closely connected practical problems of using sun-shadows to determine the exact south direction and the time of day. I confine my remarks to the latter. The first year's work has taught us that the sun is not so constant to his time as the poet credits him with being, and we have compiled a rough table of what the astronomer calls the "equation of time," which enables us to use with understanding the more exact figures given in the invaluable "Whitaker's Almanack." A simple sundial is now set up with a vertical style, and is graduated empirically by noting the position of the shadow at certain definite hours—allowance being made for the equation of time. The task of checking the graduations is allotted, as before, to boys in rotation, and in the course of a couple of terms the whole class will have become convinced that the sundial with upright style is not a success. Thus the ten o'clock shadow moves in London over a space of about 22 degrees between winter and summer. We are now naturally led to interpret the sloping style of the sundial in the park as an attempt to overcome the difficulty we have discovered. We fit our sundial with a style having the same inclination to

the horizontal, and are at last rewarded with a trustworthy timekeeper.

But the uses of the sundial are not yet exhausted. It is of service in the solution of another practical geographical problem—the problem of fixing the position of a point on the earth's surface by easily determinable co-ordinates. Time difference, or "longitude," is one. I pass over this, except to commend to your notice Prof. R. A. Gregory's useful little "universal clock," which I use in a somewhat simplified form. The other is supplied by the characteristics of the sundial.

The class learns that at places distant from one another on a north and south line—such as the valley of the Nile—the inclination of the style must be varied, but that no such variation is necessary in the case of places on the same east and west line. Thus the number of degrees in the elevation of a correct sundial may be taken as the second co-ordinate fixing the position of the place where the dial is set up. When subsequently it is discovered that the direction of the style is also the direction of the pole star, about which the sky appears to revolve, we have all the data necessary to introduce effectively the accepted theory of the earth's rotation, and the ordinary definition of "latitude."

The great use of the moon—after the Nature-study period has been left behind—is in facilitating the interpretation of the more important behaviour of the sun, which we ascribe to the annual revolution of the earth. Very casual observation of the moon reveals in a day or two its extremely rapid movement among the stars, and establishes roughly the period of that movement. It is not difficult to adjust the pendulum of an ordinary clock so that it shall "keep time" roughly with the moon, just as the normal clock keeps time with the sun. I am at present engaged, with this end in view, in corrupting the integrity of a clock belonging to the London County Council. Such a "moon clock" will, of course, show twelve o'clock at about the time when the moon is south. Compared with the ordinary clock, it must lose about forty-eight minutes a day. Its use is that we can state that by moon time a given star—say Venus or Jupiter, which are competing so splendidly just now for the throne of the evening sky—is in a given place at constantly changing hours during the month, returning to the same place at the same time only after the completion of a complete lunar cycle. Moreover, this observation is clearly only another way of stating that the moon is moving daily among the stars. Fortified by these observations, it becomes easy to reach a convincing interpretation of the observations—spread over many months—of the varying positions at the same hour at night of the Plough and Cassiopeia, and of the successive appearances of the great constellations and single stars.

#### GEOGRAPHICAL PROBLEMS—LATER DEVELOPMENTS.

The problems that arise in succession to the simple weather observations of the Nature-study period must be treated very briefly. These early observations consist of a record, pictorial rather than graphical, of sunshine, rain, and cloud from day to day. Later, when the conventional ideas of direction have been learnt, notes on the direction and character of the winds are added. The work of the second period now begins, for we have the definite practical problem of finding a trustworthy method of determining and recording that "real" warmth or coldness of the day which we distinguish under the name "temperature" from the often conflicting and varying deliverances of our senses. The solution of this problem is, of course, the thermometer. The further problems of satisfactory construction and graduation of this instrument afford material for much practical work. Subsequently it is used to record the air temperature from day to day, and to determine the conditions of phenomena such as the freezing of water, which are of obvious geographical importance. It is easy to see that the study of the behaviour of heated bodies thus begun has sufficient intrinsic interest to justify elaboration without special reference to the geographical argument. Thus, in later years, our syllabus contains problems on the exact determination of the expansion of liquids and metals, on their freezing and melting points, and so forth. One important remark may be inserted here. These extended investigations carry inquiry only so far as the notion of temperature—regarded as a definite objective state of a body with which other states are correlated—affords sufficient guidance. When the notion of "heat" as a cause of temperature changes is invoked, we are, I think, passing out of the intermediate, utilitarian stage of our teaching into the final or systematic stage. Such work should therefore be postponed until the close of the school course. But, before this point has been reached,

many other practical problems will have arisen which comply with our original condition that they shall arise out of the geographical argument and be ancillary to its development, even though they may, owing to their intrinsic interest, be pursued further than the needs of that argument actually demand. Such problems will be those connected with the determination of the quantity of moisture in the air—problems which will start a line of investigation passing, by way of the simple seaweed or whipcord hygrometer, to the determination of dew-point, the wet and dry bulb thermometer, the maximum pressure of saturated vapours, and the relations between pressure and boiling point. The one remaining instrument of analysis of conditions that are relevant to the geographical argument—the barometer—is best taken in connexion with the problems correlated with mathematics.

#### MATHEMATICAL PROBLEMS—WEIGHING AND MEASURING.

To these problems we now turn. I will remind you that we viewed school mathematics as an instrument, but an instrument the very fashioning of which is a process that has the highest disciplinary value. Our problems must, then, not only afford adequate motives for the search for mathematical methods: they must, in addition, be adequate to prompt and stimulate the development of a relatively complete mathematical technique. The history of mathematics will aid us, for its progress is marked almost everywhere by the same constantly recurring rhythm. First there is the problem with which existing mathematical methods are insufficient to cope, so that it becomes a motive for the search for a new method. Then comes a period of technical development, a period during which the new machinery is simplified and perfected; finally the perfected apparatus finds an application over an area far wider than that of the special problems from which it arose and becomes itself a potent instrument of investigation. I venture to suggest respectfully that much admirable work which is being done in the direction I am describing is rendered imperfect by the neglect of this technical aspect of mathematics—an aspect which appears to me to be absolutely essential to a correct conception of mathematics as an instrument of analysis and investigation.

In the earlier stages of the syllabus which we are following more or less closely throughout, actual weighing and measuring in English measures is made the starting point of the arithmetical process up to and including a simple non-systematic treatment—"intuitional" as opposed to "rational"—of common fractions. In connexion with the determination of rectangular areas we find an opportunity, in the first place, of introducing certain important geometrical ideas—which we may regard here as, in the main, attempts to organize existing geometrical experiences. In the second place, this particular problem affords an excellent means of effecting the extension of the notion of multiplication which occurs when we proceed to multiply by a fraction. It is amazing to note how many of our leading textbooks slur over this most important theoretical point without reminding even the teacher of its existence. The number of square inches in the area of a rectangle  $5\frac{3}{4}$  inches by 4 inches is easily seen to be four times  $5\frac{3}{4}$ . The area of another rectangle  $5\frac{3}{4}$  inches by  $\frac{1}{2}$  inch is as easily admitted to be one half of 5 square inches. It follows that the area of a rectangle  $5\frac{3}{4}$  inches by  $4\frac{1}{2}$  inches must be the sum of these two. This area is, in square inches, four times  $5\frac{3}{4}$  plus one half of  $5\frac{3}{4}$ . Since, however, the result of this more complicated operation is continuous with the simpler one—namely, the prediction of the number of square inches in an area—and since, in simple cases, the operation was one of multiplication, there is a great gain from the point of view of technique in extending our original notion of multiplication to cover this more complicated performance, and to symbolize it in the form  $5\frac{3}{4} \times 4\frac{1}{2}$ . Subsequently, this technical reduction to one operation of what were originally two operations is seen to hold good in other cases.

#### METRIC SYSTEM—PHYSICAL MANIPULATIONS.

But the more typical problems arise at a somewhat later stage, when we enter upon the study of the metric system and consider it in connexion with work which is generally regarded as physics and is confined to the laboratory. It is important to define our attitude here. The problems of determining weight and volume, and hence of density and specific gravity, are not regarded as physical problems to which elementary mathematics can be applied. They are regarded as mathematics itself in the same sense as the pipe-and-cistern problem is regarded as mathematics.

It follows that physical manipulations must be admitted into the mathematical lesson—though, of course, the bulk of the

lessons will still be reserved for practice and the necessary elaboration of technique. This implies that the lessons in which manipulations are admitted must take place in a room furnished for the purpose. No elaborate fittings are necessary. A low and strong teak table, 6 feet long, 22 inches wide, affords excellent accommodation for two boys with all the necessary apparatus, and the class may face the teacher in the usual way. Inexpensive, and therefore movable, balances are as good as the case demands, and Mr. Cusson's excellent apparatus makes a wide range of manipulations possible. If a criterion be required to decide upon the character of the problems to be considered as belonging to the mathematical syllabus, I suggest that there are two—one practical, the other theoretical. Many teachers who have used this form of work prefer not to admit water, but confine the manipulations to solids. In my own case I have not found it necessary nor desirable to observe that limitation, but I am fortunate in having a supply of water and sinks close at hand. The theoretical limit seems to be of more importance. This work has a definite aim, not to afford an application of mathematics, but to be mathematics—that is, to supply adequate motives for the invention and elaboration of mathematical methods. Consequently there must be no interest present that would come into dangerous competition with the mathematical interest. In the case of such investigations as Archimedes' principle, experiments on liquid pressure leading up to the theory of the barometer, experiments with the ballistic balance, it appears to me that this condition is lacking. The interest in such investigation is primarily physical and not mathematical. On the other hand, determination of volume and density involves no physical hypothesis—they are problems merely of description.

This section of the work will begin, then, with the use of the physical balance and the metric system of weights. At first they are taught by their denominational names—gram, decigram, kilogram, &c. When the relations between these are well known the decimal point is introduced simply as a convenient notation rendered possible by the peculiar numerical relations of the denominations. The notion that the decimal places may have an abstract fractional significance only arises when, having applied the notation to grams and metres and their multiples and subdivisions, it occurs to us to extend it deliberately to express tenths and hundredths of an inch and other units. Meanwhile the rules for the manipulation of quantities expressed in the decimal notation have been arrived at in connexion with simple problems in weighing and measuring which call for them. We have learnt to handle decimals, to add them, to subtract them, to multiply and divide them by whole numbers before their fractional significance has received any attention. It is interesting and important to note that division at this stage involves approximation and a reference to the degree of accuracy verifiable by the instruments employed—a feature which is not only necessary under circumstances, but is also positively desirable.

The fractional aspect of the notation comes, as has been stated, with its extension to the inch. At the same time, we revert to the determination of areas, and, in connexion with the problem of determining the area of the rectangle, elaborate our technical rules for the multiplication of decimal fractions—using a well known modern form that leads naturally to approximation at a later stage. Area problems allow us to introduce also the useful practice of employing decimals to express a quotient or ratio to any required degree of accuracy. The boys cut out cardboard maps—say of Britain and Ireland—and weigh them in order to determine the proportion of their areas. The ratios will be expressed as vulgar fractions. It then becomes obvious that the vulgar fraction is a very unsuitable means of indicating how far the various results of the class agree and how far they are discordant with one another, and the moment is ripe to suggest the convenience of "expanding" the fractions into tenths, hundredths, thousandths, &c., with a view to convenience of comparison. I hope that you will agree that this mode of procedure is preferable to the academic method which proposes the problem of "converting the given vulgar fractions into decimals" without assigning any motive for that operation. Incidentally I would ask you to notice that the notion of degree of approximation is again prominent here and again demands from the boy something more than mechanical obedience to a rule. The fraction that "comes out" is not, on this plan, the rule, and the fraction which does not merely a troublesome exception for whose treatment special instruction must be obtained from the master. The number of places to be obtained in each case depends upon some definite object to be attained and can be decided, with thought, by the boy himself.

## LATER DEVELOPMENTS.

It will be unnecessary to follow any further the development of the course in detail. The study of volume succeeds the study of area. Symbolic generalization of arithmetical procedure is now useful, so that the beginnings of algebra are added to arithmetic and geometry. Volume and weight combine to yield the notions of density and specific gravity. The development of the latter topic leads straight to Archimedes' principle and so to a series of investigations which, we have said, are no longer to be considered as essentially mathematical. They are pursued in the science lesson as such, and, since they lead up to the theory of the barometer, constitute a useful link between the work allied to mathematics and the work allied to geography.

The next stage—at about thirteen years of age—continues the work already indicated and adds to it physical measurements, in which the notion of standardizing results by reduction to a percentage is introduced and developed. At the same level of instruction the idea of the tangent of an angle is acquired in connexion with the shadow problem to which attention has reverted, and is applied in simple problems of practical surveying.

At a stage yet higher the simple study of statics is begun. We are here in a region where it seems impossible to maintain that our physical problems are introduced as motives to mathematical enterprise. Statics gives excellent opportunities for the application of mathematical knowledge already acquired—including here vectors, which have been studied in the early days of our geometry—but it hardly requires new methods. On the other hand, the study of motion, apart from and preliminary to the investigation of the physical conditions of motion, certainly demands new mathematical concepts and suggests an extension of mathematical technique. Consequently an analysis of the behaviour of moving bodies—the descending surface of water in a jar, Mr. Fletcher's invaluable trolley, unequal weights connected over a pulley, Galileo's ball rolling down a groove—is an exercise that presents all the features which determine admission into the mathematical course.

At the end of a paper which must sorely have tried your patience I will only add that the same remark holds good of work such as the analysis of the motion of bodies moving harmonically, or of the variation of temperature in a rhythmically heated body, which will illustrate the extension of the method even to the work of the sixth form.

Mr. DUMVILLE said that teachers were greatly indebted to the lecturer for his valuable and suggestive paper, but he thought that there was some danger of over-estimating the practical importance of correct observations of natural phenomena. He regretted that the limitations under which class teachers were obliged to work prevented them from adopting fully the methods advocated by specialists, however admirable those methods might be.

Mr. COCK thought that, if the suggestions of the lecturer were adopted, the burden of the teacher would be considerably lightened, for, although some practical points in connexion with geography and mathematics would be dealt with in the light of general elementary science, formal science teaching would not be introduced until the later years of the school course, and philosophic science would not be included in the curriculum of elementary schools. The lecturer rightly based his proposals on the fact that in the earlier years of school life the emotional interest was stronger than the intellectual.

Mr. HAMILTON thought that much time was wasted in school in the performance of useless and uninteresting work. Studies would not be fruitful unless they appealed to the pupil as of real value in relation to his experience.

Mr. F. CHARLES said that his own experience in teaching mathematics on the lines indicated by the lecturer had shown him that it was desirable in the first place to reform the system of weights and measures at present in use, and secondly to modify the arithmetic syllabuses of examining bodies. He thought that, until these reforms were effected, a good deal of mental waste must occur. With regard to the relative advantages of teaching at an early stage decimal and vulgar fractions, he had himself discarded vulgar fractions as cumbersome and inconvenient. He introduced symbols from the first in connexion with measurement, and so tried to teach algebra concurrently with arithmetic.

The CHAIRMAN remarked that practical teachers and the exponents of the theory of education viewed educational problems from different standpoints. Both accepted the view that they must study the child, but he suspected that some masters of method had been in the habit of studying a theoretical child and not a real child. He agreed with the lecturer that in the mental equipment of children there was a common element which must not be ignored by the educationist, but this common element was so obscured by the idiosyncrasies of individual children that it could not by itself offer a trustworthy basis for educational method. Simple materials, in the hands of a skilful teacher, might be made the

means of a good deal of valuable instruction: but, if the treatment were too exhaustive, the result might only be to bore the pupils and to give them an utter distaste for the subject. He was interested to observe that the lecturer advocated a reform in science teaching which was analogous to a reform that had already been effected in the teaching of modern foreign languages: the pupil was to be allowed to observe and to accumulate a large amount of material before proceeding to generalization and precision in definition. He deprecated the view that geography teaching should be regarded merely as a means of introducing in a casual way the teaching of science. The observation of astronomical phenomena was undoubtedly important, but young children were more interested in the study of the doings and occupations of the people around them, and also in occurrences not up in the skies, but on the ground and in the fields. For this reason he would advocate geographical study in the widest sense—the study of the world, of people, of the laws of Nature—as being the centre not only of formal mathematical study, but the centre of three parts of the work of the school. Teachers would be greatly helped if they could be shown how these subjects could be correlated not only in one direction, but in every direction. In connexion with the mathematical side, he would be disposed to dispense with the English system of weights, measures, money, and also to defer to a later stage the learning of vulgar fractions. But to do this would be to come into conflict with the current practice of the outside world. He agreed with a former speaker that the teacher's task would be easier if the requirements of examining boards were made more elastic.

Dr. NIXON having replied to the remarks of the various speakers, a vote of thanks to the lecturer concluded the proceedings.

## REVIEWS.

## THE AGE OF CAESAR.

*The Greatness and Decline of Rome.* By Guglielmo Ferrero. Translated by Alfred E. Zimmern, M.A., Fellow and Tutor of New College, Oxford. In two volumes. (17s. net. Heinemann.)

These two considerable volumes form the first instalment of a comprehensive work "surveying the entire course of one of the most remarkable societies in history, from its birth to its death—from the far-distant morning when a small clan of peasants and shepherds felled the forests on the Palatine to raise altars to its tribal deities down to the tragic hour in which the sun of Graeco-Latin civilization set over the deserted fields, the abandoned cities, the homeless, ignorant, and brutalized people of Latin Europe"—a general view of the history of Rome from its foundation to the break-up of the Empire, or, rather, a history of Roman imperialism. The present instalment treats mainly the period from the death of Sulla to the death of Caesar, "covering the critical years in which Roman imperialism definitely asserted its sway over the civilized world—when, by the conversion of the Mediterranean into an Italian lake, Italy entered upon her historic task as intermediary between the Hellenized East and barbarous Europe." Five introductory chapters, however, occupying about one-third of the first volume, summarize the earlier history, with the special purpose of tracing the antecedents of the phenomena characteristic of the principal epoch under consideration.

Down to the middle of the second century before Christ, the narrative is very rapid, the author attending specially to the causes, the facts, and the results of the growth of wealth and the expansion of territory, while marking generally the constitutional and social conditions. Then at last he finds the beginnings of his main subject in practical politics:—

It was during the slow decomposition of the military, agricultural, and aristocratic society which began after Rome had won the supreme power in the Mediterranean, and through the working of the forces of commerce and capitalism, that Roman Imperialism, as we know it, was called into being. The spirit of brutality and arrogance, heightened in all classes of the community by the consciousness of controlling imperial riches and dominions, the cupidity of the nobility and the capitalists, and the widespread dismay at the demoralization of the army, transformed the wise and moderate policy of diplomatic intervention devised by Scipio into a relentless policy of aggression and annihilation. It was inaugurated by the third declaration of war against Carthage (149), followed by the conquest of Macedonia (149-148) and of Greece (146), while in 141 war broke out once more in Spain. . . . At the first symptoms of its decadence the Roman public burst out in a passion of pride and savagery which swept Corinth and Carthage clean from their foundations.

The bearings of the Land Bills of the Gracchi and the great proletarian rising under Marius are effectively indicated, and

the conservative reaction under Sulla brings us down to the debut of Caesar in Roman politics, when the narrative opens out into the broad stream of events.

"But Caesar's hour was as yet far distant. For the moment other men loomed large in the public eye." There was Pompey in Spain; there was Cicero in the Forum, Lucullus in the East. Lucullus "was introducing a new conception into Roman policy—the idea of aggressive Imperialism. The invasion of Pontus (B.C. 73) was the first symptom of that policy of the personal initiative of provincial generals which was destined, in the course of a single decade, to replace the feeble and inconsistent control of the Senate and become the strongest force in Roman government." Never has Lucullus figured so bravely—"the strangest and most isolated figure in the whole history of Rome"—

Like Napoleon eighteen centuries later, Lucullus effected a revolution in the methods of government. He substituted war for negotiation as the usual method of solving the difficulties of Eastern policy. . . . By the adoption of a strong and sustained policy of aggression he succeeded in becoming the arbiter of the entire East, reducing one State after another to helplessness in a series of almost foolhardy campaigns. In this he was as overwhelmingly successful as Napoleon himself. . . . Pompey and Caesar were to be the two great pupils of Lucullus and to reap in the field where he had sown. For Lucullus was reserved the part—pathetic, but not inglorious—of the pioneer who encounters all the risks and enjoys but the scanty first-fruits of success.

Caesar, however, eventually works his way through difficulties and dangers to the front, and the author narrates his career in full and critical detail, while providing scope for the collateral history and noting the essential points in the social evolution. Caesar's "greatest work for posterity was the conquest of Gaul, to which he himself attributed so little importance." "He went out to his duties without any definite idea of policy, and with the meagrest knowledge of the country and its inhabitants. No doubt he had a clear notion of his general line of conduct: he intended, as far as possible, to apply to Gaul the methods of Lucullus and Pompey in Asia, to let slip no real or imaginary pretext for military operations, to acquire the riches and reputation so easily picked up in the provinces to demonstrate to his fellow-citizens that he was a skilful diplomatist and a brilliant general." The "De Bello Gallico" was intended to be "a military and political essay for the benefit of outsiders, and all the seductions of its style, the simplicity of diction, were only devised to delude a credulous public" in the menacing situation at Rome in the end of B.C. 52. By the annexation of Gaul, Caesar "was pushed on to those sanguinary acts of repression which form the darkest page of his history. The civil war arose so inevitably out of the policy which he adopted in Gaul that all his efforts to avert it were doomed to failure." His victory in the civil war was "so great as to defeat his own object: ostensibly master of the Roman world, he was in reality suspended between two equally impossible alternatives—either to abandon the position he had just triumphantly captured, or, almost single-handed, with the help of a few personal adherents, to administer a huge and disorganized Empire." Prof. Ferrero freely admits that "Caesar was a genius—a man whose powers have seldom or never been equalled in history," that "in every sphere of his activity he left the imprint of greatness," and that his powers "would have made him, at any time in the world's history, one of the giants of his age." He was "a great general, a great writer, a great character"; but, *pace* Mommsen, "he failed to become a great statesman."

There were three great political objects for which he fought during his career: the reconstruction of the Constitutional Democratic party in 59, a bold adoption and extension of the Imperialism of Lucullus in 56, and the regeneration of the Roman world by the conquest of Parthia after the death of Pompey. The first and second of these ideas were taken up too late; the third was inherently impossible. The first ended in the revolutionary Radicalism of his Consulship, the second in the field of Carrhae and the horrors of the death-struggle of Vercingetorix, the third in the Ides of March.

Still, if he was not a statesman, it "was because the times forbade him to become one"—"a democracy bitten by the mad passion for power, riches, and self-indulgence." "But he was a great destroyer":

In him were personified all the revolutionary forces, the magnificent but devastating forces, of a mercantile age in conflict with the traditions of an old-world society—its religious scepticism, its indifference to morality, its insensibility to family affection, its opportunist and undisciplined politics, its contempt for precedent

and tradition, its Eastern luxury, its grasping militarism, its passion for the baser forms of commerce and speculation, its first tentative efforts towards intellectual refinement, its naive enthusiasm for art and science. There is hardly a stranger irony in history than that the rulers of Germany and Russia should have assumed the title of this prince of revolutionaries. For we fail to grasp the true significance of Caesar's career till we discern that, like Pompey and Crassus and the other great figures of his day, his mission was primarily destructive—to complete the disorganization and dissolution of the old world, both in Italy and the provinces, and thus make way for a stabler and juster system. But when he imagined that he could apply his unrivalled powers of mind and will to all the intellectual and social influences of the time, and direct them to his own purposes, he displeased all parties and was removed from the scene. . . . It is in this rôle of Titanic destroyer, therefore, that we must admire him, a rôle which demanded almost superhuman qualities of conception and achievement.

What the author claims to have demonstrated is that the Roman world-conquest "was in reality the effect, remarkable indeed for its special conditions of place and time, of an internal transformation which is continually being re-enacted in the history of societies on a larger or a smaller scale, promoted by the same causes and with the same resultant confusion and suffering—the growth of a nationalist and industrial democracy on the ruins of a federation of agricultural aristocracies." There is abundance of opportunity for discussion of his views, but that is only another way of saying that his treatment is extremely fresh and independent. The characters and events are Roman, but the spirit of the handling is eminently modern: the frequent references to modern history impart an unusual vividness and reality to the unrolment and exposition of the ancient drama. Both mental idiosyncracies and political prepossessions will arouse antagonism at crucial points. The scholarship of the author, however, is competent; his capacity is undoubted; his style, if sometimes tending to the heroic, is lucid and brisk. The volumes constitute a valuable contribution to the history of an extremely important period, and the application of the same principles to the period of the "Empire" will be awaited with keen interest. There are four appendices, discussing in some detail certain important historical points, and there is a good index.

#### A MONUMENT TO SHAKESPEARE.

*The Shakespeare Library.* General Editor, Prof. I. Gollancz, Litt.D. (Chatto & Windus.)

"The Shakespeare Library" is intended to include "a comprehensive series of works bearing directly on Shakespeare and his age—texts and studies, valuable alike for students and the ever widening circle of general readers interested in all that pertains to the great dramatist and his work." Already we have examples in four departments, and other sections are foreshadowed.

(1) *The Old Spelling Shakespeare.* This is to be "an edition of Shakespeare in such a form as would have harmonized with the poet's own orthography"; that is to say, in the spelling of the best quarto and folio texts. It is edited by Dr. Furnivall, who has given much labour to it for more than a quarter of a century, and who has had the co-operation of the late Mr. W. G. Boswell-Stone in several of the volumes. We have (1) *A Midsummer Night's Dream* and (2) *Love's Labors Lost*, edited by Dr. Furnivall; and (3) *Twelfth Night, or What You Will*, (4) *The Two Gentlemen of Verona*, (5) *The Comedie of Errors*, and (6) *The Taming of the Shrew*, edited by W. G. Boswell-Stone. There will be forty volumes, carefully printed, with the necessary differentiations of type, and with short prefaces and brief textual notes and collations ( $\frac{3}{4} \times 6$  in., 2s. 6d. net each). There can be no question that Dr. Furnivall is right in maintaining that scholars should have Shakespeare's text before them as nearly as possible in the exact form in which it left his hand; and it is a happy circumstance that the project is now well on the way to realization under his own editorship.

(2) *The Shakespeare Classics.* This section will consist of "a comprehensive series of romances, histories, plays, and poems used by Shakespeare as the originals or direct sources of his plays"—from a dozen to a score of volumes, the text in modern spelling. We have three volumes: (1) Lodge's *Rosalinde*, the original of "As You Like It," edited by W. W. Greg, M.A.; (2) Greene's *Pandosto, or Dorastus and Fawnia*, the original of "The Winter's Tale," edited by P. G. Thomas, Professor of English Literature in Bedford College for Women; and (3) Brooke's

poems of *Romeo and Juliet*, the original of "Romeo and Juliet," edited by J. J. Munro (6½ × 4½ in., 2s. 6d. net each). Introductions, textual notes, glossaries (where necessary), and appendixes furnish ample elucidation of each work; and the frontispieces reproduce in photogravure the original titles. The editors have done their work carefully and thoroughly.

(3) *The Lamb Shakespeare for the Young*. The series is, of course, based on Mary and Charles Lamb's "Tales from Shakespeare," which are freely dealt with for the special purpose: "an attempt is made to insert skillfully within the setting of prose those scenes and passages from the play with which the young reader should quite early become acquainted." The idea is tempting—to the maturer mind; but it is a ticklish business, and we shall not be surprised if the young folk skip the intrusive poetry and follow the story. However, that remains to be seen. Good illustrations of the chief scenes are furnished by artists of repute; and appended are songs from the plays, set to music arranged for school use under the direction of T. Maskell Hardy. We have three books: (1) *The Tempest*, (2) *As You Like It*, (3) *A Midsummer Night's Dream*, (1) and (3) illustrated by Miss Helen Stratton and (2) by Miss L. E. Wright. The special school edition is in limp linen (5d. each volume), and the type is large and agreeable.

(4) *Shakespeare's England*. In this section will be a series of volumes "illustrative of the life, thought, and literature of England in the time of Shakespeare." We have three interesting works: (1) *Robert Lanham's Letter* describing a part of the entertainment given to Queen Elizabeth at Kenilworth Castle in 1575—a document freely used by Scott in "Kenilworth"—edited, with elaborate and luminous introduction and notes, by Dr. Furnivall, originally issued for the Ballad Society in 1871 and now brought up to date by supplementary notes and furnished with useful illustrations (5s. net). (2) *The Rogues and Vagabonds of Shakespeare's Youth*, containing reprints of Awdley's "Fraternity of Vacabondes," Harman's "Caveat for Common Cursetors," &c., edited by Edward Viles and Dr. Furnivall, with introduction and notes, and furnished with curious reproductions from the original woodcuts (5s. net). (3) *Shakespeare's Holiashed*, containing a reprint of all the passages in the "Chronicle" used in Shakespeare's historical plays, edited with notes by W. G. Boswell-Stone, and first published in 1896—an ample, laborious, and valuable work (19s. 6d. net). All these volumes are supplied with full indexes. They will be most welcome to all students.

We have no doubt that this enterprise will be strongly supported by the vast army of Shakespeare students throughout the civilized world. The bare outline we have given will indicate the scope and importance of the undertaking and, we would hope, induce some to make acquaintance with the various sections. It is a worthier monument to Shakespeare than any that will ever be raised at Regent's Park.

#### MINER AND MATHEMATICIAN.

*A Brief Biographical Sketch of Robert Rawson*. By Robert Harley, F.R.S. (6d. net. James Clarke & Co.)

This little booklet will probably be a powerful incentive to many an ambitious worker. Its interest lies less in its literary merit than in the personality of the man whose life history is narrated. The story reads like a romance, and affords a striking instance of the fact that truth is often stranger than fiction. Of very humble parentage—for his father earned a living at times as a collier, but more often by selling nuts—Robert Rawson began his active career at seven years of age as a child worker in a Midland coal mine not far from Nottingham. For sixteen years he followed a miner's calling, suffering meanwhile many hardships incidental both to his pursuit and to his environment. His scant leisure was spent in attempts at self-education, and his natural bias for mathematics found a stimulus in the mathematical problems published in a periodical with which he first met by accident. Inquiries as to the information needed for the solution of various questions led him at different times to pick up second-hand books on various branches of mathematics. The study of such methods as would suffice to solve the particular problem in hand formed at this period the chief object of Rawson's research, and later in life the consequent want of uniformity in his standard of knowledge in various departments of the subject became a source of much regret. It was his knowledge of applied mathematics displayed in a newspaper article, bearing his signature and dealing with an actual problem affecting preparations for the construction of

Stephenson's Midland Counties Railway, which resulted in his abandonment of a collier's life and his appointment to a position in the Engineering Office of the Railway at Rochdale, where he remained until the completion of the undertaking in 1842. He then removed to Manchester, where, through Stephenson's introduction, he became acquainted with Eaton Hodgkinson, by whom he was employed to make engineering calculations. Other engineers, too, engaged his services for similar work, and he also found pupils for mathematics. At the time of the construction of the Menai Bridge Rawson was asked by Stephenson to determine the stresses on the girders. In 1847, when well qualified men were in request as masters for the recently established Royal Dockyard Schools, the vacancy at Portsmouth was offered to and accepted by Rawson at the instance of Prof. Hodgkinson. The miner mathematician contributed papers to several of the leading scientific periodicals, and accomplished, moreover, other literary work. His name is also known in the world of inventors, for he contrived the screw compass, which gives at sight the pitch of a screw. Rawson lived to the ripe age of ninety-one. The public owes a debt of gratitude to Mr. Harley for the valuable pamphlet which he has compiled and has had published at a nominal cost, thereby enabling all to become possessors of a most interesting memoir.

## GENERAL NOTICES.

### CLASSICS.

*Essays and Addresses*. By Sir Richard Jebb, Litt.D., O.M., late Regius Professor of Greek in the University of Cambridge. (10s. 6d. net. Cambridge University Press)

The seventeen papers included in this substantial and handsome volume are partly reprinted from different reviews and magazines, partly selected from addresses given to various schools and societies. They are nearly all concerned with classical subjects—Sophocles, Pindar, Lucian, Dælos, Caesar, Thucydides, Suidas, down to Erasmus, the influence of the Greek mind on modern life, and the present tendencies in classical studies; and the more modern subjects, mainly the relations of the Universities to the national life, are coloured by Greek and humanistic idea and feeling. Lady Jebb has done well to save from isolation, and so from probable neglect, these characteristic examples of Jebb's "minor literary work, which occupied the spare moments of a busy life." "Most of these writings," she says, "were struck off under pressure of many engagements. Systematic they are not; yet neither are they mere fragments. Each is, in a sense, complete in itself and all seem to bear the mark of his distinctive handling." This is true, and it means much to those that are able to appreciate the writer's scholarship, insight, and grace of expression. The treatment is in the highest sense literary, on a basis of consummate scholarship. The volume will be most welcome to all that take interest in classical learning and in modern classical influences.

*The Aeneid of Virgil*. Translated into English Verse by John Conington, M.A., late Corpus Professor of Latin in the University of Oxford. (2s. 6d. net. Longmans.)

We heartily welcome this cheap reissue. The metre of "Marmion" and "The Lord of the Isles," though "imparting that rapidity of movement which is indispensably necessary to a long narrative poem," is not so favourable to some other qualities of the original that seem no less important. But, as Conington himself remarks, "the necessity of choosing among difficulties appears to be the inevitable condition of the translator's work," and, in spite of all drawbacks, his translation is very scholarly and interesting. The present edition should spread it far and wide among readers of Virgil.

*Proceedings of the Classical Association, 1907*. Vol. V. (2s. 6d. net. Murray.)

Greek, like the Church, seems to thrive on persecution. This volume exhibits markedly the vitality of Greek study among us in spite of—perhaps also because of—the clamours of opposition. The proceedings of the fifth general meeting of the Association (October 18-19, 1907) are recorded at some length, and, besides Dr. Butler's charming presidential address, there are four papers of conspicuous ability and broadly varied interest by Prof. W. G. Hale (Chicago), Miss Harrison, Mr. R. M. Dawkins, and Mr. W. Warde Fowler. Among the appended matters are the interim report on the pronunciation of Greek and the report of the Curricula Committee on the teaching of Latin in secondary schools. The volume will be warmly welcomed by all classical students.



## MATHEMATICS.

*A Junior Arithmetic.* By Charles Pendlebury, M.A., and F. E. Robinson, M.A. (Without Answers, 1s. 6d. Bell.)

In connexion with valuable school text-books on the above subject, the names of the authors of the present publication are well known, more especially that of Mr. Pendlebury. We shall therefore merely invite attention to certain features in the volume before us. The work meets the requirements of candidates for the leading local examinations. It has been compiled in accordance with the recommendations of the Committee of the Mathematical Association. In the text decimals are now placed before vulgar fractions; use is made of graphical methods of illustration; the Metric System occupies the attention as early as possible; the old order of multiplication is entirely superseded by the new. With respect to the exercises, it may be mentioned that questions have been avoided whose chief importance lies in the practice afforded by them in carrying out elaborate pieces of calculation. The work may be obtained either with or without the answers to the exercises, and will probably become as popular as other text-books produced by Mr. Pendlebury and his colleagues.

*The Methodical Arithmetic.* Parts I.-VII. Edited by W. J. Greenstreet, M.A., F.R.A.S. (1½d., 1½d., 1½d., 2d., 3d., 3d., 4d. Dent.)

The successive Parts are for the corresponding standards in elementary schools. Each is framed with a view to satisfying the Code Regulations of the Board of Education as affecting the particular standard; and the seventh will also be useful to candidates for minor scholarships. The instruction is left entirely to oral teaching. The books before us supply the needful exercises. They have evidently been compiled with very great care, whether we consider the construction of the individual questions or their arrangement so as to obtain work of well graduated difficulty. Practical interest attaches to many of the examples, inasmuch as they convey a knowledge of a variety of useful facts.

*Elementary Concrete Algebra.* By Robert W. Holland, M.Sc., LL.B. (9d. net. Charles & Dible.)

There is much that is useful in this little text-book. The teaching contained in its pages takes into account the greater readiness with which young pupils grasp the meaning of rules when these have been built up by considering the solution of easy practical everyday problems involving in their construction familiar objects. The author also adopts the valuable method of teaching the beginner to look on algebra as generalized arithmetic. He endeavours to establish the truth of the elements of his subject on a basis of common sense, and it is, on the whole, successful.

## MODERN LANGUAGES.

*Victor Hugo: Selected Poems.* Edited, with Introduction and Notes, by H. W. Eve, M.A., formerly Fellow of Trinity College, Cambridge, late Head Master of University College School, London, Officier d'Académie. (Cambridge University Press.) (Pitt Press Series.)

Mr. Eve has selected thirty-one poems from nine different works of Hugo—a selection showing various types and representing very fairly (considering the limits of space) the poems of the author down to (and including) the first series of “*La Légende des Siècles*.” It is quite certain that “modern French poetry presents considerable difficulties to English schoolboys”; and there is no way of getting over these difficulties but by tackling some such collection as this; under such judicious and encouraging guidance as Mr. Eve furnishes. The notes are most careful and illuminative and they abound in poetical comparisons. The introduction deals briefly and pointedly with Hugo's literary work and traces the rise of the Romantic school. A full index to the notes is usefully appended. The volume is a valuable addition to an excellent series.

“*The Temple Molière.*”—(1) *Les Femmes Savantes*. (2) *La Jalousie du Barbouillé* and *Le Médecin Volant*. (3) *L'Étourdi*. With Preface, Glossary, &c., by Frederic Spencer. (1s. 6d. net each. Dent.)

The edition is charmingly got up, and Dr. Spencer furnishes adequate literary and textual explanations. The humours of (2), though historically or socially illustrative, are occasionally somewhat broad for use in schools.

“*Libros para el Maestro.*”—No. VIII., *Guías para Maestros*. Con la demostración de los principios, métodos y fines de la enseñanza común. Par Sarah Louise Arnold, Inspectora de Escuelas en Boston, Massachusetts. Traducido por Isabel Keith Macdermott. Con un suplemento por Conrado Gay-Pollot. Edición hecha por el *Monitor de la Educación Común*, Buenos Aires.

Miss Arnold's book was written for elementary teachers in the United States on a basis of large personal experience, and it cannot but prove extremely useful in its new Spanish dress. The different parts discuss and illustrate principles and methods through lessons on natural objects (plants, animals, the human body), language, reading, geography, spelling and dictation, &c. Señor Gay-Pollot's annex consists of “Ejercicios de Intuición y Lenguaje,” dealing mainly with

the “*nombre, clasificación y partes de los objetos*”—a reprint. A comprehensive and suggestive work.

*Bibliotheca Romanica.* (8d. each number. Chatto & Windus.)

The following are fresh numbers of this excellent and handy series:—(41-44) *Cinco Novelas Ejemplares* (Cervantes); (45) *Os Lusíadas*, V.-VII. (Camões); (46) *L'Avare* (Molière); (47) *I Trionfi* (Petrarca); (48-49) *Decameron*—terza giornata (Boccaccio); (50) *Cinna* (Corneille).

## ENGLISH LITERATURE.

*English Metrists in the Eighteenth and Nineteenth Centuries: being a Sketch of English Prosodical Criticism during the last two hundred years.* By T. S. Omond, M.A. Edin. and Oxon., formerly Fellow of St. John's College, Oxford. (6s. net. Frowde.)

The survey included in the present volume has grown out of all proportion to its original intention, which was to form an appendix to the author's “*Study of Metre*.” Mr. Omond has not merely enumerated and summarized treatises on English prosody throughout the whole period of systematic study of the subject; he has traced the gradual development of sounder views about verse-structure, treating more fully such works as have influenced this development. The work is an original inquiry, acute and fair, and enormously laborious. We shrink from detail: students specially interested will go to the book direct. After all, Mr. Omond concludes that one thing is certain: namely, “that we have as yet no established system of prosody.” Yet “that the synthesis will come is surely past question”; and when it does come, Mr. Omond suspects, “it will be found less and not more complex than its many predecessors,” and “it will not come on lines of Greek prosody.” “There is still room for much independent inquiry,” and Mr. Omond welcomes Prof. Saintsbury's “*History of English Prosody*” as a treatment from a different point of view—complementary, if divergent in aim.

*Ballads and Poems.* By Members of the Glasgow Ballad Club. Third Series. (7s. 6d. Blackwoods.)

Even in the workaday city of Glasgow—“in the strong City's heart”—there has been for almost a generation a nest of singing birds, and here is a third sample of their warblings, culled from the productions of the past ten years. Scarcely half-a-dozen of the writers have achieved more than local fame, and yet there is not one of these poems that we should wish to reject. The subjects range freely from patriotism to metaphysics and teleological speculation, but neither whisky nor haggis obtains traditional laudation, and there is not, we think, a single erotic strain. At the same time, there is ample suffusion of feeling, deep and delicate, skilful turns of expression on any page, and by no means seldom a genuine stroke of poetry. The collection is very interesting and highly creditable, and the vocabulary is not Scotch enough to daunt the Southron. We do not remember the previous series, and we may never see the next, but we have enjoyed this one. The mere fact of the existence of such a society is very pleasantly suggestive.

*With Byron in Italy.* Edited by Anna Benneson McMahan. (5s. net. Fisher Unwin.)

A companion volume to “*With Shelley in Italy*” by the same editress. It consists of “a selection of the Poems and Letters of Lord Byron relating to his life in Italy” during the years 1817-23, arranged in chronological order and illustrated by sixty full-page pictures from photographs. We do not vouch for it that Byron's “love for Italy, which was quite as intense” as his love for Greece, “is less generally appreciated”; but we hope that these poems and letters, written “during the most mature and most productive period of Byron's life,” will not lack adequate appreciation. The selections have been carefully made and arranged; the numerous and excellent illustrations are instructive as well as attractive; and the get-up is agreeable.

## ENGLISH REPRINTS AND NEW EDITIONS.

*The World's Classics.* (1s. net each volume. Henry Frowde.)

Another batch of volumes of this handy and agreeable series:—(1) *Emma* (Jane Austen), with introduction by E. V. Lucas; (2) the second volume of *The Poetical Works of Robert Browning*, containing “*Dramatic Lyrics*” (1842), “*Dramatic Romances*” (1845), “*Man and Woman*” (1855), and “*Dramatis Personae*” (1864); (3) *Reynolds's Discourses*, &c., with introduction by Austin Dobson, LL.D.; (4) *A Selection from William Cowper's Letters*, edited by E. V. Lucas; (5) and (6) *The Works of Edmund Burke*, Vols. V. and VI., with introductions by F. W. Raffety; (7) *Unto this Last and Munera Pulveris* (Ruskin); (8) *Doctor Faustus* (Marlowe), and *Goethe's Faust, Part I.* (Anster's translation), introduction by Dr. A. W. Ward, Master of Peterhouse. Classical writings—varied, interesting, and important.

*Nelson's Library.* (7d. each volume.)

Half-a-dozen new volumes of recent fiction, agreeably printed and tastefully and flexibly bound:—(1) *A Lame Dog's Diary*, by S. Macnaghtan; (2) *The Man from America*, by Mrs. Henry de la Pasture; (3) *Sir John Constantine*, by “Q.”; (4) *The Princess Passes*, by C. N. and A. M. Williamson; (5) *The Translation of a Savage*, by Sir Gilbert Parker; (6) *White King*, by Jack London. The group under the

above heading in our last issue belong to another series—"Nelson's Sixpenny Classics"—and ought to have been classed accordingly. We regret the accidental misplacement.

*Collins' Clear-Type Press.*

In the agreeable series of "Collins' Handy Modern Fiction" (7d. each volume) we have four new issues—(1) *A Weaver of Webs*, by John Oxenham; (2) *A Daughter of Helth*, by William Black; (3) *The Wreck of the Grosvenor*, by W. Clark Russell; (4) *Comin' thro' the Rye*, by Helen Mathers. Each volume has a coloured frontispiece and an ornamental title-page. In the excellent series of "Collins' Handy Illustrated Pocket Classics"—(1) *The Last Days of Pompeii* (Lytton), (2) *Sense and Sensibility* (Jane Austen), both illustrated by A. A. Dixon (1s. net each); and (3) *Vanity Fair* (Thackeray), illustrated by Harold Piffard, in flexible polished leather, all gilt (2s. net)—a charming edition.

*Everyman's Library.* (1s. net each volume. Dent.)

This excellent and varied collection now numbers 315 volumes. Our latest batch includes: (1) *English Traits, Representative Men*, and five other Essays (Emerson); (2) *The Water-Babies and Glaucus* (Charles Kingsley); (3) *Ungava, a Tale of Esquimaux-Land* (Ballantyne); (4) *History of the Conquest of Peru* (Prescott); (5) *Omoo, a Narrative of Adventures in the South Seas* (Herman Melville); (6) *Rollo at Work and at Play* (Jacob Abbott); (7) *The Fifteen Decisive Battles of the World* (Creasy); (8) and (9) *Tacitus' Historical Works* (Annals, History, Germania, Agricola), translated by Murphy; (10) *The Travels of Marco Polo the Venetian*; (11) *Wordsworth—The Longer Poems*; (12) *Euripides* (in English verse), Vol. II. (tragic plays).

*Heinemann's Favourite Classics.* (6d. net each volume.)

A new series of four "Selected Essays of Lord Macaulay," with very good introductions by H. W. C. Davis, and photogravure frontispieces:—(1) *Warren Hastings*; (2) *Lord Clive*; (3) *The Earl of Chatham*; (4) *Frederic the Great*. Mr. Davis, we are glad to observe, emphatically warns readers against Macaulay's serious errors of fact in the essay on Warren Hastings, and points to more recent works, where some of them are exposed and refuted; but really the essay ought always to be annotated on such points. The type, though small, is very clear, and the form is handy.

*The People's Library.* (8d. net each volume. Cassell.)

The March instalment of this astonishingly cheap and good series contains fourteen volumes pretty fairly divided between poetry and fiction:—(1-4) *The Works of Shakespeare*, each volume running to 600 or 700 pages and having a separate glossary; (5) *Goldsmith's Vicar of Wakefield, and Poems*; (6) *The Ingoldsby Legends* (Barham); (7) *Burns's Poems and Songs*; (8) *Andersen's Fairy Tales*; (9) *Sense and Sensibility* (Jane Austen); (10) *The Last of the Barons* (Lytton); (11) *The Deerslayer* (Fenimore Cooper); (12) and (13) *Oliver Twist and Barnaby Rudge* (Dickens); (14) *The Channings* (Mrs. Henry Wood). The Shakespeare quartette is an outstanding example of publishing enterprise. The whole selection is excellent in matter, and the get-up is tasteful and agreeable.

### EDUCATION.

"Pioneers in Education."—(1) *J. J. Rousseau and Education by Nature*; (2) *Herbert Spencer and Scientific Education*; (3) *Pestalozzi and Elementary Education*; (4) *Herbert and Education by Instruction*. By Gabriel Compayré, Correspondant de l'Institut, Recteur de l'Académie de Lyon. Translated (1) and (3) by R. P. Jago, (2) and (4) by Maria E. Findlay. (2s. 6d. net each. Harrap.)

This is a new series of monographs on the Great Educators "of all nations and of every age," from the indefatigable pen of M. Compayré, who is already well known to English educationists. The purpose is to describe the men and their environment—what they thought and did, and what institutions and tendencies they were influenced by or militated against; and then "to bring face to face ideas held long ago with modern opinions, with the needs and aspirations of society to-day, and thus to prepare the way for a solution of the pedagogical problems confronting the twentieth century." The form is popular, readable, and broadly suggestive; and, though not so systematic and detailed as a critical monograph would be expected to be, it yet offers a considerable amount of criticism as well as of information. The volumes are especially suitable to the general reader or to the student commencing the study of particular systems. The appended bibliographies are somewhat scanty. Thus we do not find any reference to Dr. Hayward's recent books on Herbart, to say nothing of Dr. Davidson's Leibnizian "interpretation." All the translations are admirably done. Each volume has a portrait frontispiece, and the type and get-up are excellent. The series ought to be widely read and studied.

*Education and National Progress.* By Sir Norman Lockyer, K.C.B. With an Introduction by the Right Hon. R. B. Haldane, K.C., M.P. (5s. net. Macmillan.)

The volume brings together about a score of essays and addresses dating between 1870 and 1905. The aim throughout is "to show how

vital it is, from a national point of view, that the education of every-body, from prince to peasant, should be based upon a study of things and causes and effects as well as of words, and that no training of the mind is complete which does not make it capable of following and taking advantage of the workings of natural law which dominate all human faculties." The point is that the best educated nation, given equal numbers, can "best hold its own in the struggle for existence both in peace and war." Sir Norman feels that he and his friends have been to a large extent crying in the wilderness. The sooner they are listened to the better for the national position. We have already referred to his urgent plea for largely increased endowments of the higher education and research and for the general utilization of scientific methods in all branches of the administration. The volume contains much information cogently marshalled in argument, and it ought to be very seriously studied by all having to do with government and administration as well as with education.

*The Schoolmasters Yearbook and Directory, 1908.*

(7s. 6d. net. Swan Sonnenschein.)

"Spät kommt Ihr—doch Ihr kommt"; but the editors need not worry about the somewhat later appearance of the sixth annual issue, for the book is so comprehensive and useful that a warm welcome is assured. How did we get along without it? How should we get along without it? We are pleased to note that "the editors feel that the existence of their book depends upon its accuracy," and we readily leave the point there. Any one that has had a similar experience will vividly realize the enormous difficulties of the situation and make the most liberal allowances. We ourselves thumb the volume frequently enough, and we do not complain. On the contrary, we are surprised at the fullness and the accuracy of the information. In Part I. we have a compact review of the year, an extensive account of the administration of secondary education, compendious information about educational societies and organizations, Universities and colleges, examinations and inspection, a chronicle of the year, a bibliography of educational books, and even of educational articles of importance, and so forth. Part II. is an invaluable directory. The volume is indispensable to educationists.

*The Public Schools Yearbook and Preparatory Schools Yearbook.*

(3s. 6d. net. Swan Sonnenschein.)

This very serviceable annual is now in its nineteenth year and still growing vigorously. Here, again, the editors are keen to secure accuracy as well as fullness of information, and they succeed. They lay emphasis on the fact that the volume "supplies the most detailed information regarding entry into the professions and deals with all careers open to the public-school boy." The account of each public school is practically a businesslike prospectus, from which parents and guardians can learn all they can reasonably want to know about the institution. There has been a good deal of rearranging and rewriting so as to present the matters more effectively; and, while the old sections remain in up-to-date form, various additional subjects have been introduced—"How to become a Chartered Accountant," list of educational publishers, list of public-school periodicals, &c. Evidently every effort has been made—and made successfully—to render the volume practically useful.

### MUSIC.

*School Band Music.* Edited by W. G. McNaught. (Novello.)

The series is intended to meet the needs of school string bands, and will include arrangements and original pieces of every suitable description. The first selection comprises eight numbers, containing 14 pieces all very simply arranged by Percy E. Fletcher. The parts for 1st violin, 2nd violin, viola, and violoncello are each in a separate cover (3d.). The selection is attractive, and much care has been taken to render the presentation practically helpful.

Messrs. Breitkopf & Härtel publish *First Children's Songs and Dances in Tonic Sol-fa notation* (4d.), and *New Children's Songs and Dances in Tonic Sol-fa notation* (4d.) and in old notation (6d.)—text, music, and arrangement for the stage by E. Jaques-Dalcroze, English version by R. H. Elkin. The pieces are interesting and simple.

Mr. F. H. Sikes, M.A., has composed *The Cadets' March Song* for the League of the Children of the Empire (2d. Charles & Dible). It is introduced and followed by bugles and drums, and it is sufficiently spirited.

### MISCELLANEOUS.

*Tales from the Talmud.* By E. R. Montague. (1s. 6d. Blackwoods.)

In a long introduction Mr. Montague sketches the history and scope of the "Talmud"; but "the volume is mainly confined to a collection of tales which, sometimes quaint, sometimes marvellous, often of great intrinsic beauty, and always illustrative of the inner lives and feelings of the Jewish people two thousand years ago, constitute in some respects one of the most interesting parts of the 'Talmud.'" As the "Talmud" consists of the law and commentaries, one is rather surprised to find an author culling a very interesting book of stories from it; but then "nothing less like a European code of laws can well

(Continued on page 186.)

# OXFORD UNIVERSITY PRESS.

## OXFORD LOCAL EXAMINATIONS, 1909.

### ENGLISH.

#### SELECT ENGLISH CLASSICS.

Edited, with Introductions, by A. T. QUILLER-COUCH.

Paper covers, 3d. each; cloth, 4d. each.

**Bunyan: Pilgrim's Progress, &c.** 48 pages.

(Preliminary.)

**Cowper: Poems.** 32 pages. (Preliminary and Junior.)

**Crabbe: Poems.** 32 pages. (Prel. and Jun.)

**Defoe: Prose Works.** 48 pages. (Prel.)

Together, in cloth bindings.

**Bunyan and Defoe.** 8d. (Prel.)

**Bunyan, Cowper, Crabbe, and Defoe.** 1s. 3d.

(Jun.)

**Browning: Strafford.** Edited by H. B. GEORGE. 2s. (Senior.)

**Burke: Thoughts on the Present Discontents. Speeches on America.** Edited by E. J. PAYNE. Second Edition. 4s. 6d. (Jun. and Sen.)

**Works.** Vol. II. Containing the Prescribed Speeches. ("World's Classics.") 1s. net. (Jun. and Sen.)

**Chaucer: The Prologue.** Edited by Prof. W. W. SKEAT. Third Edition. 1s. (Sen.)

**Dryden: Selections** (Prose and Verse). Edited, with Introduction and Notes, by G. E. HADOW. 2s. 6d. (Sen.)

**Macaulay: Lays of Ancient Rome.** Second Impression. ("World's Classics.") 1s. net. (Prel.)

**More: Utopia** (ROBYNSON'S Translation). Edited, with Introduction, Notes, and Glossary, by Prof. J. CHURTON COLLINS. (Special Reissue.) 2s. (Sen.)

**Scott: Lay of the Last Minstrel.** Edited by W. MINTO. Second Edition. 1s. 6d. (Jun.)

**Quentin Durward.** Edited, with Introduction, Notes, and Glossary, by P. F. WILLERT. 2s. (Sen.)

**Talisman.** Edited, with Introduction, Notes, and Glossary, by H. B. GEORGE. 2s. (Prel.)

**Shakespeare: Henry the Fifth.** Edited by W. ALDIS WRIGHT. 2s. (Jun. and Sen.)

**Macbeth.** Edited by W. G. CLARK and W. ALDIS WRIGHT. 1s. 6d. (Jun.)

**Tempest.** Edited by W. ALDIS WRIGHT. 1s. 6d. (Jun. and Sen.)

**Poems of English Country Life.** Selected and Edited by H. B. GEORGE and W. H. HADOW. Crown 8vo, 2s. (Jun.)

**The Oxford Treasury of English Literature.** Vol. II: **Growth of the Drama.** By G. E. and W. H. HADOW. 3s. 6d. (Jun. and Sen.)

### FRENCH.

**Hugo: Bug-Jargal.** Edited by L. SERS. 2s. (Jun.)

**Ma première visite à Paris.** By A. E. C. 1s. 6d. (Prel.)

### GERMAN.

**Kinderfreuden.** By A. E. C. 1s. 6d. (Prel.)

### LATIN.

**Caesar: The Gallic War, III-V.** Edited by C. E. MOBERLY. Second Edition. With Maps. 2s. 6d. (Jun. and Sen.)

**Cornelius Nepos: Lives.** Edited, with Notes, Vocabularies, and English Exercises, by J. B. ALLEN. 1s. 6d. (Prel.)

**Livy: XXII.** Edited by M. T. TATHAM. 2s. 6d. (Sen.)

**Virgil: Aeneid, I-III, IV-VI.** Edited by T. L. PAPILLON and A. E. HAIGH. 2s. each. (Jun. and Sen.)

### GREEK.

**Aeschylus: Prometheus Vincetus.** Edited by A. O. PRICKARD. Fourth Edition. 2s. (Sen.)

**Prometheus.** Translated by R. WHITELAW. With Introduction and Notes by J. CHURTON COLLINS. 1s. net. (Sen.)

**Euripides: Hecuba.** Edited by C. B. HEBERDEN. 2s. 6d. (Jun.)

**Greek Reader.** Selected and adapted with English Notes from Professor von WILAMOWITZ-MOELLENDORFF'S "Griechisches Lesebuch," by E. C. MARCHANT. Crown 8vo. Vol. I (with or without Vocabulary), 2s. (Jun.)

**Plato: The Apology.** Third Edition. 2s. 6d. **Crito.** 2s. Edited by ST. GEORGE STOCK. (Sen.)

**Xenophon: Anabasis, III and IV.** Edited by J. MARSHALL. 3s. (Jun. and Sen.)

### MISCELLANEOUS.

**ORIGIN AND GROWTH OF THE ENGLISH COLONIES** and their System of Government. With 8 Maps. By H. E. EGERTON. 2s. 6d. and 3s. 6d. (Jun. and Sen.)

**Use and Abuse of Political Terms.** By Sir G. CORNEWALL-LEWIS and Sir THOMAS RALEIGH. 3s. 6d. & 4s. 6d. (Sen.)

**Elements of Deductive Logic.** With Examples. By T. FOWLER. Tenth Edition. 3s. 6d. (Sen.)

**Elements of Inductive Logic.** By T. FOWLER. Sixth Edition. 6s. In One Volume with "Deductive Logic," 7s. 6d. (Sen.)

**History of Music in England.** By ERNEST WALKER. 8vo, 7s. 6d. net. (Sen.)

**Chart of the Rules of Harmony.** By A. SOMERVELL. 1s. net. (Jun. and Sen.)

Paper covers, 3d. each; cloth, 4d. each.

## SELECT ENGLISH CLASSICS.

Edited, with Introductions, by

A. T. QUILLER-COUCH.

### POETRY.

**Robin Hood: Old Ballads.** 48 pages.

**Shakespeare: Songs and Sonnets.** 32 pp.

**Milton: Minor Poems.** 32 pages.

**Cowper: Poems.** 32 pages.

**Crabbe: Poems.** 32 pages.

**Keats: Poems.** 32 pages.

**Hood: Poems.** 32 pages.

**Matthew Arnold: Poems.** 32 pages.

### PROSE.

**Izaak Walton: Lives and Angler.** 32 pages.

**Bunyan: Pilgrim's Progress, &c.** 48 pages.

**Defoe: Prose Works.** 48 pages.

**Boswell: Life of Johnson.** 48 pages.

**Charles Lamb: Prose Works.** 48 pages.

**Hazlitt: Prose Works.** 48 pages.

OTHERS IN PREPARATION.

SELECT LIST OF EDUCATIONAL WORKS (32 PAGES) AND COMPLETE CATALOGUE (144 PAGES) POST FREE.

London: HENRY FROWDE, Oxford University Press, Amen Corner, E.C.

be imagined." It defies system and chronology; and when a legal expositor thinks of a story he drops his law and tells his story, whether the reader is likely to see any connexion or not. A curiously interesting, instructive, and amusing book.

*St. Agnes, and other Dramas.* By E. C. Harris. (Dent.)

"St. Agnes" is, we think, a reprint; the other two are "St. Faith" and "SS. Adrian and Natalia." They all represent the constancy of martyrs during the persecution of Christians in the time of Diocletian and his immediate successors (A.D. 304-306). The verse is fluent and smooth, and the action and the characterization show considerable dramatic power.

*The Oxford Degree Ceremony.* By J. Wells, Fellow of Wadham College. (Clarendon Press.)

In this neat and handy little volume Mr. Wells sets forth the meaning of the Oxford academic forms and ceremonies and shows how much of University history is involved in them. It is a very careful compilation, and will be welcomed by many besides the sons of Oxford. The publishers have furnished seven very interesting illustrations, including the University seal and a reproduction of the portrait of a fourteenth century Chancellor.

*The Navy League Annual, 1907-8* (The Navy League, 13 Victoria Street, S.W.), makes a substantial and instructive volume. The honorary editor (Mr. Alan H. Burgoyne) traces the progress of the British Navy and of foreign navies, and there are fifteen other articles on different aspects of the subject by writers of technical experience. The illustrations and ship-plans are numerous and good.

## FIRST GLANCES.

### CLASSICS.

*Caesar, Preparation for Reading, Six Weeks.* By James Morris Whiton, Ph.D. Yale. Fifth Revised Edition, with additions by Helen Isabel Whiton, Ph.D. Col. 2s. 6d. Ginn.

[Adapted to Allen and Greenhough's, Bennett's, and Harkness's grammars. Exercises, with grammar interwoven, and practical directions. "Thoroughness has been aimed at equally with expedition."]

*Caesar, Preparatory.* (1) *De Bello Gallico.* Books II., III., 1s. 6d. (2) Book III., separately, 1s. By Frank Ritchie, M.A. Longmans.

[On the method of "First Steps in Caesar." Explanation of Roman Army organization; grammatical points; notes; vocabulary; 6 maps and plans. Excellent introductory works.]

*Cicero: In Catilinam, I.-IV.* Edited by J. F. Stout, B.A. Cantab. 2s. 6d. net. Clive (University Tutorial Series).

[Introduction and notes scholarly and adequate; useful index of proper names. Very serviceable edition.]

*Cothurnulus: Three Short Latin Historical Plays for the use of Beginners.* By Edward Vernon Arnold, Litt.D., Professor of Latin at the University of North Wales, formerly Fellow of Trinity College, Cambridge. 1s. Bell.

[The plays "stand somewhere between simplified texts and original composition." Very skilfully composed; interesting; useful. Vocabulary.]

*Delecta Biblica.* Compiled, from the Vulgate Edition of the Old Testament and arranged for the use of Beginners in Latin, by a Sister of Notre Dame. 1s. Longmans.

[56 passages, with notes and vocabulary. Useful collateral reading, though the Latin may not be Ciceronian.]

*Homer: Iliad, V., VI.* Translated by E. H. Blakeney, M.A. 1s. Bell (Classical Translations).

[Good translation, with helpful foot-notes]

*Latin Texts, Blackie's.* (1) *Caesar, Gallic War, VIII.* Edited by W. H. D. Rouse, Litt.D. 6d. net. (2) *Cornelius Nepos.* Edited by W. H. S. Jones, M.A. 8d. net.

[Very careful and useful series.]

*Vocabularies.* (1) *A General Vocabulary to Caesar's Gallic War.* (2) *A General Vocabulary to Virgil.* Prepared under the editorship of A. Graham, M.A., formerly of the High School of Stirling. 1s. each. Blackie.

[Handy companions to the plain texts.]

### MATHEMATICS.

*Arithmetic, The "A. L." Methodic.* By David Thomas, Assistant Secretary of Education for Carnarvon. Parts I.-III., 3d., 4d., 4d. Answers (separate), 9d. Complete work, 1s. 6d.; with Answers, 2s. E. J. Arnold.

[For upper classes of elementary schools, higher elementary and secondary schools, candidates for county scholarships, Oxford and Cambridge Locals, and the like. The elementary work is based on the "New Syllabus" of the Code of 1903. The complete work contains the three parts, together with some thirty pages of reprints of recent examination questions.]

*Arithmetic, The Methodical.* Edited by W. J. Greenstreet, M.A., F.R.A.S., Head Master of the Marling School, Stroud. Parts II., IV., V., VI., VII., 1jd., 2d., 3d., 4d. Dent.

[For the corresponding standards in elementary schools, in accordance with the Code of Regulations issued by the Board of Education.]

*Arithmetic Test Cards.* Standards III. and IV.—40 cards each. 1s. 3d. net each packet. Jack.

[Excellent exercises; well arranged for practice.]

*Arithmetic Test Questions, Practical, McDougall's.* Classes III. and IV. 1d. net each.

[A very useful collection.]

*Calculus, Differential and Integral, A First Course in the.* By William F. Osgood, Ph.D., Professor of Mathematics in Harvard University. 10s. 6d. Macmillan.

*Cambridge Tracts in Mathematics and Mathematical Physics.* No. 6, *Algebraic Equations*, by G. B. Matthews, M.A., F.R.S. No. 7., *The Theory of Optical Instruments*, by E. T. Whittaker, M.A., F.R.S., Sc.D., Royal Astronomer of Ireland. 2s. 6d. net each. Clay (Cambridge University Press Warehouse).

*Geometry of the Conic, The Elements of the.* By G. H. Bryan, M.A., F.R.S., Professor of Mathematics in University College, Bangor, and R. H. Pinkerton, M.A., Professor of Applied Mathematics in University College, Cardiff. 3s. 6d. Dent (Mathematical and Scientific Text-Books for Schools).

[With a chapter on the Geometry of certain Curves occurring in Applied Mathematics.]

*Geometry, Practical, for Art Students.* By John Carroll. 1s. 6d. Burns & Oates.

[A course of lessons on the construction of plane figures and scales, proportionals, geometrical tracery, and elementary solid geometry (with an appendix). 59th edition.]

*Geometry, The Elements of, in Theory and Practice.* Parts I. and II., comprising the subject matter of Euclid I., III. 1-34, and IV. 1-9 and 15, with experimental section and additional theorems and problems. 2s. 6d.; separately, 1s. 6d. and 1s. 9d. By A. E. Pierpont, B.Sc. Longmans.

[Based on the Mathematical Association Committee's report.]

*Geometry, Theoretical and Practical. Part II.* By W. P. Workman, M.A., B.Sc., Head Master of Kingswood School, Bath, and A. G. Cracknell, M.A., B.Sc., F.C.P., Science Director of University Correspondence College. 2s. Clive.

[Contains matter of Euclid II., III. 35-37, IV. 10-16, VI.]

*Graphs, Elementary, Cassell's.* By V. M. Turnbull, M.A., Senior Mathematical Master, Perse School, Cambridge. 9d.

[Unusually full and capable treatment; suitable for students of physics and engineering, as well as purely mathematical students. Examples numerous and good; answers.]

*Geometry, Practical, Constructions in.* By the Rev. H. F. Westlake, B.A. Oxon., Senior Mathematical Master of Lancing College. 1s. Philip.

[Primarily for "the minimum required of candidates in the Oxford and Cambridge School Examinations," but generally useful.]

*Infinite Series, An Introduction to the Theory of.* By T. J. F.A. Bromwich, M.A., F.R.S., Fellow and Lecturer of St. John's College, Cambridge. 15s. net. Macmillan.

*Integration, Practical.* By A. S. Percival, M.A., Trinity College, Cambridge. 2s. 6d. net. Macmillan.

[For engineers, electricians, &c.]

### PRACTICAL MATTERS

*Agricultural and Dairy College, The Midland.* Various Bulletins, giving useful Reports on Field Trials.

*Cakes: 100 Tested Receipts.* By Florence B. Jack, late Principal of the School of Domestic Arts, Edinburgh. 1s. net. Jack (Domestic Arts Series).

*Eyesight in Schools.* By C. C. Caleb, M.B., M.S. Durh., Professor of Physiology and Botany, Medical College, Lahore. Lahore: Gulab Singh.

[Written under the orders of the Director of Public Instruction, Panjab, and with the approval of the Panjab Text-Book Committee. Efficient and simple. Illustrations.]

*Housecraft, Modern: The Art of Reasonable Living.* By Lucy H. Yates. Heinemann.

["I can imagine no more important woman of business than she who successfully manages a home, even a very humble one." Sensible and informatory.]

*Infants, Care of, Lessons on the.* By Mrs. Watson. 1d. (9d. a dozen). B. Broadbent, Esq., Gatesgarth, Lindley, Huddersfield.

["Fo: use in schools." Suggestive and serviceable.]

Injured, First Aid to the. Six Ambulance Lectures. By Dr. F. Es-march, Professor of Surgery, University of Kiel. Translated from the German by H.R.H. Princess Christian. 2s. net. Smith, Elder, & Co.

[Seventh edition, revised and enlarged. Additional illustrations.]

Nursing at Home, with Chapters on the Care of Infants and Children. By J. D. E. Mortimer, M.B. Lond., F.R.C.S., and R. J. Collie, M.D. Aberd. 8d. net. Gill.

[Thoroughly good. Handy in form.]

Rafa Work. By M. Swannell. 2s. net. Philip.

[59 figures, with practical directions. Excellent.]

Shoot, How to. By E. J. D. Newitt. 6d. net. Simpkin, Marshall, & Co. ["Manual of instruction in marksmanship." "The new method of learning rifle shooting." "Prepared in harmony with the official military system."]

Soldering, Brazing, and the Joining of Metals. By Thomas Bolas, F.C.S., F.I.C., &c. 6d. net. Dawbarn & Ward ("The Home Workers" Series of Practical Handbooks).

[Third edition, revised and enlarged. Additional notes.]

Stammering: a Method of Self-Cure. By Walter Clarke. 1s. Author, The Chesnuts, Clifton, near Biggleswade, Beds.

[Written from personal experience.]

EDUCATION.

Assistant Masters, Incorporated Association of, in Secondary Schools. Seventeenth Annual Report.

Assistant Mistresses, Association of, in Public Secondary Schools Report of the Twenty-fourth Year's Work, and of the Twenty-fourth Annual Meeting.

Board of Education.—(1) List of Evening Schools in England and Wales for year ending July 31, 1908 (Cd. 3920. 5½d.). (2) Reports from those Universities and University Colleges in Great Britain which participate in the Parliamentary Grant, 1907 (Cd. 3885. 1s. 7d.). (3) Regulations and Conditions of Recognition of Elementary Schools in England (Elementary Education Act, 1876, § 48) as Certified Efficient Schools (Cd. 3944. 1d.). (4) National Competition (South Kensington) 1907: List of Awards, Reports of Examiners, 46 Full-page Illustrations (3s.). Wyman.

Co-education of Boys and Girls. Lecture by Mrs. Ennis Richmond. 3d. (4d. post free). Street (42 Albemarle Street, W.).

["Boys and girls are meant to be together."]

Columbia University. Report on Certain Educational Characteristics in England and France.

[By Dr. J. H. Canfield. "Thirty-five days were spent in England and eleven days in France." Cautious and brief summary.]

English Association, The.—(1) Leaflet No. 4: Shelley's View of Poetry—Lecture by Prof. A. C. Bradley, Litt.D. Reprinted from the *Albany Review* (February). (2) Bulletin No. 3, with Report of the Second General Meeting (January 10, 11).

Johns Hopkins University Circular, No. 1, 1908: Report of the President of the University.

L.C.C.—Report on Accommodation and Attendance in Elementary Schools for year ended March 31, 1907. No. 1134. 5s. (parcel post, 5s. 5d.). King.

Oxford Local Examinations: Regulations for 1909.

Read, Write, and Debate, How to. 1d. Leng.

[New and enlarged edition. Judiciously instructive.]

Secular Teaching, The Religious Side of. By L. H. M. Soulsby. 2d. net. Longmans.

Sweden: The Board-School Houses of Norrköping—Plans and Pictures, with some Notes on the so-called Norrköping System. By J. Bager-Sjögren, Ph.D., Superintendent of Board-Schools. Royal Swedish Committee for the Second International Congress for School Hygiene.

[Very interesting. Facts carefully stated.]

Texas, The University of: Catalogue (=Calendar), 1906-7.

[College of Arts; Departments of Education, Engineering, Law, Medicine; Schools of Medicine, Pharmacy, and Nursing. Full and interesting.]

Translation Method, A Plea for the. By Ch. V. Jogarao, Assistant Master, Maharajah's College, Vizianagram. Madras: Vaijavanti Press.

[English "has become the leading language of India." "For completing the 'Edifice of English Instruction,' translation ought to furnish the foundation." A thoughtful essay.]

MISCELLANEOUS.

Golfers' Manual, Leng's. 1d.

[Much information. Brief biographies, with portraits.]

Cricket Handbook, Leng's. 1d.

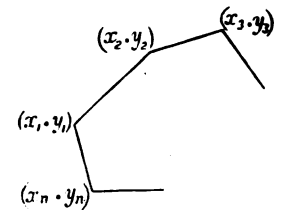
MATHEMATICS.

16361. ("SOLIDUS.")—Each vertex of a polygon is joined to the mid-point of the line joining its adjacent vertices. Prove that if all but one of these lines are concurrent, then all must be concurrent.

Solutions (I.) by S. NARAYANA AIYAR and W. F. BEARD, M.A.; (II.) by W. RIGBY, B.A.

(I.) Suppose at each vertex forces are acting proportional to and in the direction of the sides emanating from that vertex. The whole system will be in equilibrium. The resultant of the forces at a vertex is equal to twice the length of the line joining the vertex to the mid-point of the line joining its adjacent vertices. If the polygon has  $n$  sides,  $(n-1)$  of these resultant forces are, by hypothesis, concurrent, and so have themselves a single resultant which, with the resultant corresponding to the  $n$ th vertex, is in equilibrium. Therefore all the  $n$  resultants are concurrent.

(II.) Mid-point of line joining  $(x_1, y_1)$  and  $(x_2, y_2)$  is  $\frac{1}{2}(x_1 + x_2), \frac{1}{2}(y_1 + y_2)$ . The line joining



$(x_2, y_2)$  and  $[\frac{1}{2}(x_1 + x_3), \frac{1}{2}(y_1 + y_3)]$

is given by

$$(x - x_2) / [\frac{1}{2}(x_1 + x_3) - x_2] = (y - y_2) / [\frac{1}{2}(y_1 + y_3) - y_2],$$

i.e.,  $x(y_1 - 2y_2 + y_3) - y(x_1 - 2x_2 + x_3)$

$$+ (x_1y_2 - x_2y_1) - (x_2y_3 - x_3y_2) = 0.$$

Similarly line joining  $(x_3, y_3)$  to mid-point of line joining  $(x_2, y_2)$  and  $(x_4, y_4)$  is given by

$$x(y_2 - 2y_3 + y_4) - y(x_2 - 2x_3 + x_4) + (x_3y_3 - x_3y_2) - (x_3y_4 - x_4y_3) = 0,$$

and corresponding lines by

$$x(y_3 - 2y_4 + y_5) - y(x_3 - 2x_4 + x_5) + (x_3y_4 - x_4y_3) - (x_4y_5 - x_5y_4) = 0,$$

and  $x(y_{n-1} - 2y_n + y_1) - y(x_{n-1} - 2x_n + x_1) + (x_{n-1}y_n - x_ny_{n-1}) - (x_ny_1 - x_1y_n) = 0.$

On adding  $x(2y_1 - y_n - y_2) - y(2x_1 - x_n - x_2) + (x_1y_2 - x_2y_1) - (x_ny_1 - x_1y_n) = 0.$

Since the first  $n-1$  lines are concurrent, the  $n$ th line, i.e., the line through  $(x_1, y_1)$  bisecting the line joining  $(x_2, y_2)$  and  $(x_n, y_n)$  passes through the same point as the first  $n-1$  lines.

16380. (V. DANIEL, B.Sc.)—Two triangles (of given areal modulus  $\lambda^2 \equiv 1/\lambda'^2$ ) have

$$\cot A + \cot A' = \cot B + \cot B' = \cot C + \cot C' = x/\sqrt{3}.$$

If the relations of circumscription and inscription ( $A$  on  $a'$ ,  $A'$  on  $a$ , ...) are mutually interchangeable by rotation of either triangle through an angle  $\theta$  about the same point, show that

$$(x^2 - \lambda^2)(x^2 - \lambda'^2) = 4 \cos^4 \frac{1}{2}\theta \text{ or } 4 \sin^4 \frac{1}{2}\theta.$$

Solution by the PROPOSER.

Since  $\cot A - \cot B = \cot B' - \cot A'$ ,

and two others, we have by multiplication

$$\Sigma(\cot A \cot B - \cot^2 C) = \Sigma(\cot A' \cot B' - \cot^2 C').$$

Hence  $\cot \omega = \cot \omega'$ , and the general equations of my Solution 16161, Vol. XII., become

$$k - k' = l - l' = m - m' = sx/\sqrt{3} \quad \text{!}$$

$$\text{and } \cot A - \cot A' = [(1 + l + l') - (1 + m + m')]x/\sqrt{3}.$$

Now, let

$$1 + k + k' = p(k - k'), \quad 1 + l + l' = q(l - l'), \quad 1 + m + m' = r(m - m');$$

therefore

$$\lambda^2 - \lambda'^2 \equiv \Sigma(k - k')(1 + l + l') = \frac{1}{3}s^2x^2\Sigma p,$$

and

$$2(\lambda^2 + \lambda'^2) - 1 \equiv \Sigma(1 + k + k')(1 + l + l') + \Sigma(k - k')(l - l') = \frac{1}{3}s^2x^2\Sigma pq + s^2x^2,$$

also

$$\cot A - \cot A' = \frac{1}{3}s^2x^2(q - r),$$

and two others,

$$\cot A + \cot A' = x/\sqrt{3} = \dots;$$

therefore

$$4 = x^2 + \frac{1}{3}s^2x^4 \Sigma(q - r)(r - p)$$

$$= x^2 + \frac{1}{3}s^2x^4 [3\Sigma pq - (\Sigma p)^2]$$

$$= x^2 + x^2 [2(\lambda^2 + \lambda'^2) - 1 - s^2x^2] - (\lambda^2 - \lambda'^2)^2/s^2;$$

therefore

$$0 = s^4x^4 - 2(\lambda^2 + \lambda'^2)s^2x^2 + (\lambda^2 - \lambda'^2)^2 + 4s^2$$

$$= [x^2 \sin^2 \theta - (\lambda^2 + \lambda'^2)]^2 - 4 \cos^2 \theta.$$

This resolves into two quadratics for  $\cos \theta$ , giving

$$\cos \theta = \mp 1 \pm \sqrt{[(x^2 - \lambda^2)(x^2 - \lambda'^2)]};$$

therefore

$$(x^2 - \lambda^2)(x^2 - \lambda'^2) = 4 \cos^4 \frac{1}{2}\theta, \text{ or } 4 \sin^4 \frac{1}{2}\theta.$$

**16246.** (Professor LANGHORNE ORCHARD, M.A., B.Sc.)—A carpenter has a plank of wood 13 feet 4 inches long, 1 foot wide, 1 inch thick. Show how from it he can construct five boxes in descending order of magnitude, such that the smaller just fit into the larger.

*Solution by M. T. NARANIENGAR, M.A.*

Let  $x, y, z$  denote the edges in inches of the largest box. Then,  $y$  the Question,  $xyz - (x-10)(y-10)(z-10) = 1920$ . Hence

$$xy \cdot yz + xz - 10(x + y + z) + 100 = 192,$$

of which  $x = 16, y = 12, z = 10$  are solutions obviously. But this would leave no room within the fifth box. Hence a second solution should be found.  $x = 14, y = 12, z = 11\frac{1}{2}$  are also values satisfying the equation, which are more practicable.

**16368.** (Professor E. B. ESCOTT.)—Solve in integers

$$x^2 + y^2 + z^2 = u^4 + v^4 + w^4, \quad x^4 + y^4 + z^4 = u^8 + v^8 + w^8,$$

and find a general formula for the solutions. Example :

$$5^2 + 19^2 + 24^2 = 3^4 + 4^4 + 5^4, \quad 5^4 + 19^4 + 24^4 = 3^8 + 4^8 + 5^8.$$

*Solution by Lt.-Col. ALLAN CUNNINGHAM, R.E.*

Algebraically  $U^4 + V^4 + (U + V)^4 = 2(U^2 + UV + V^2)^2 = 2C^2$ , suppose. Hence every quantity  $C$  of form  $C = U^2 + UV + V^2$  gives

$$2C^2 = U^4 + V^4 + W^4,$$

where

$$W = U + V.$$

Here  $C$  is either a prime  $p = 6\omega + 1 = A^2 + 3B^2$ , or a product of such primes. And, in the latter case,  $C$  is expressible in at least two ways in this form, say  $C = C'$ ,

$$C = A^2 + 3B^2 = (A \sim B)^2 + (2B)(A \sim B) + (2B)^2 = U^2 + UV + V^2,$$

$$C' = A'^2 + 3B'^2 = (A' \sim B')^2 + (2B')(A' \sim B') + (2B')^2 = U'^2 + U'V' + V'^2.$$

Hence  $U^4 + V^4 + W^4 = 2C^2 = 2C'^2 = U'^4 + V'^4 + W'^4$ ,

where  $W = U + V, \quad W' = U' + V'$ .

Now take  $U = u^2, \quad V = v^2, \quad W = w^2 = u^2 + v^2$ .

This is satisfied by taking

$$u = \xi^2 \sim \eta^2, \quad v = 2\xi\eta, \quad w = \xi^2 + \eta^2.$$

Hereby  $u^8 + v^8 + w^8 = u^8 + v^8 + (u^2 + v^2)^4 = 2(u^4 + u^2v^2 + v^4)^2 = 2C^2 = 2(C^2) = 2(U^2 + UV + V^2)^2 = 2C'^2$ .

Here  $C = (u^2 - uv + v^2)(u^2 + uv + v^2)$  has the two forms

$$C = [u^2 \sim (\frac{1}{2}v)^2]^2 + 3(\frac{1}{2}v)^2 = u^4 + u^2v^2 + v^4 \text{ (the known form),}$$

$$C' = (u^2 \sim v^2)^2 + 3(UV)^2 = A'^2 + 3B'^2 \text{ (the second form)}$$

$$= (A' \sim B')^2 + (3B')(A \sim B') + (3B')^2$$

$$= x^2 + xy + y^2, \text{ suppose.}$$

Hence  $2C'^2 = x^4 + y^4 + z^4$ , where  $z = x + y$ , and

$$x = A' \sim B' = (u^2 \sim v^2 - uv), \quad y = 2uv, \quad z = (u^2 \sim v^2 + uv).$$

This solves  $u^8 + v^8 + w^8 = x^4 + y^4 + z^4$ .

It remains to be shown that the above values of  $u, v, w, x, y, z$  also satisfy the second condition. Since  $w^2 = u^2 + v^2$ ,

$$u^4 + v^4 + w^4 = 2(u^4 + u^2v^2 + v^4) = 2C = 2C',$$

and  $2C' = 2(x^2 + xy + y^2) = x^4 + y^4 + z^4$ , where  $z = x + y$ . Hence  $u^8 + v^8 + w^8 = x^4 + y^4 + z^4$ , as required.

Ex. 1.—Take  $t = 1, u = 2$ ; whence  $u = 3, v = 4, w = 5; A' = 7, B' = 12; x = -5, y = 24, z = 19$ .

Ex. 2.—Take  $t = 3, u = 2$ ; whence  $u = 5, v = 12, w = 13; A' = 119, B' = 60; x = 59, y = 120, z = 179$ .

**16195.** (Professor COCHEZ.)—Discuter le genre et la variété des courbes  $x^2(2-h) - 2xy + y^2 - hx - 2y + 4 - h = 0$  pour toutes les valeurs réelles du paramètre  $h$ .

*Solution by C. M. ROSS.*

The following table supplies the information required :—

Curve.	Condition.
Ellipse	$1 < (2-h)$ which gives $h < 1$ .
Parabola	$1 = 2-h$ ,, $h = 1$ .
Hyperbola	$1 > 2-h$ ,, $h > 1$ .
Rectangular hyperbola	$2-h+1 = 0$ ,, $h = 3$ .
Two straight lines, real or imaginary	$\Delta = 0$ or $9h^2 - 12h + 8 = 0$ , which gives $h = \frac{2}{3} (3 \pm \sqrt{3})$ .

The above are true for all real values of  $h$ .

**16278.** (W. J. GREENSTREET, M.A.)—Three inelastic particles of unequal masses and velocities approach from different directions, impinge, and coalesce. Find the loss of energy.

*Solution by N. KUPPUSWAMI, B.A.*

If  $u$  and  $v$  and  $w$  be the velocities of the compound body after impact along any three directions at right angles to one another, since the momentum in any direction remains the same before and after impact,

$$\text{we have } \Sigma m_1 u_1 = (\Sigma m_1) u, \quad \Sigma m_1 v_1 = (\Sigma m_1) v, \quad \Sigma m_1 w_1 = (\Sigma m_1) w;$$

$$\text{therefore } (\Sigma m_1)^2 (u^2 + v^2 + w^2) = \Sigma (\Sigma m_1 u_1)^2;$$

therefore energy after impact is  $[\Sigma (\Sigma m_1 u_1)^2] / 2\Sigma m_1$ . Energy before impact is  $\frac{1}{2} \Sigma m_1 (u_1^2 + v_1^2 + w_1^2)$ , and we know energy is always lost by impact; therefore the loss of energy is

$$\frac{1}{2} \{ \Sigma m_1 (u_1^2 + v_1^2 + w_1^2) - [\Sigma (\Sigma m_1 u_1)^2] / \Sigma m_1 \}.$$

**16371.** (M. S. NARAYANA, M.A.)—Show that

$$5^n - \frac{n \cdot 5^{n-2} \cdot 6}{1!} + \frac{n(n-3)}{2!} 5^{n-4} \cdot 6^2 - \frac{n(n-4)(n-5)}{3!} 5^{n-6} \cdot 6^3 + \dots = 2^n + 3^n.$$

*Solution by T. K. VENKATARAMAN, M.A., C. M. ROSS, and others.*

If  $a + \beta = p$ , and  $a\beta = q$ ,

$$(2 - px) / (1 - px + qx^2) \equiv 1 / (1 - ax) + 1 / (1 - \beta x).$$

Expand each side in ascending powers of  $x$  (see Chrystal's *Algebra*, Chap. xxvii.), we have

$$2 + \Sigma \left( p^n - \frac{n}{1!} p^{n-2} q + \frac{n(n-3)}{2!} p^{n-4} q^2 - \dots + (-1)^n \frac{n(n-r-1) \dots (n-2r+1)}{r!} p^{n-2r} q^r + \dots \right) x^n \equiv 2 + \Sigma (a^n + \beta^n) x^n.$$

Comparing the coefficients  $x^n$ ,

$$a^n + \beta^n = p^n - \frac{n}{1!} p^{n-2} q + \frac{n(n-3)}{2!} p^{n-4} q^2 - \dots + (-1)^n \frac{n(n-r-1) \dots (n-2r+1)}{r!} p^{n-2r} q^r \dots$$

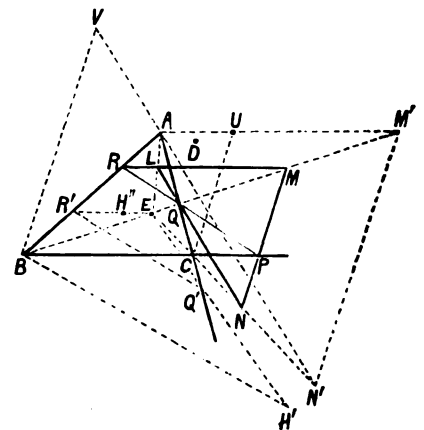
Put  $a = 3, \beta = 2$ .  $2^n + 3^n =$  the given series.

**9346.** (Professor NEUBERG.)—Soit, dans le plan d'un triangle ABC, un point D tel que les droites joignant A, B, C respectivement aux centres des cercles BCD, CAD, ABD concourent en un même point E. Démontrer (1) que la droite joignant D au centre du cercle ABC passe par E; (2) qu'entre les angles A, B, C du triangle ABC et les angles BDC =  $\alpha$ , CDA =  $\beta$ , ADB =  $\gamma$  il existe la relation

$$\begin{vmatrix} 1 & \cot A + \tan \alpha & \cot A \tan \alpha \\ 1 & \cot B + \tan \beta & \cot B \tan \beta \\ 1 & \cot C + \tan \gamma & \cot C \tan \gamma \end{vmatrix} = 0.$$

*Solution by C. E. YOUNGMAN, M.A.*

Let L, M, N, O be the centres of the circles BDC, ..., ABC. Then OL, OM, ON and MN, NL, LM are perpendicular to BC, CA, AB and AD, BD, CD respectively, and part (1) is a case of the general proposition that when any two triangles ABC, LMN have a centre of perspective E, and also centres of orthology O and D, these three centres lie in one line, perpendicular to the axis of perspective PQR. To prove this, draw EQ', ER', parallel to NL, LM, cutting CA, AB at Q', R'; this will evidently give



Q'R' parallel to QR. Find U, V the orthocentres of DCA and DAB, and let AU, AV cut BE, CE at M', N'; this will make M'N' parallel to MN, that is, to BV or CU. Consequently M'N' is the Pascal line of the hexagon BECUAV; hence the rectangular hyperbola ABCDUV goes through E, and will cut EQ', ER' at H', H'' the orthocentres of BDE, CDE. Consider then the hexagon CABH'E'H''; BH' and CH'' must meet on its Pascal line Q'R'; therefore Q'R' is parallel to BH' and CH'', that is, perpendicular to DE. Thus DE is perpendicular to PQR; and likewise also OE; so that O, D, E are collinear. (For other proofs, see the *Mathematical Gazette*, Vol. II., p. 125.)

Another figure, of course, must be used for part (2), in which

$$\angle LBC = \angle CB = \alpha - 90^\circ,$$

and the distances of L from CA and AB are  $LC \cos(C + \alpha)$  and  $LB \cos(B + \alpha)$ ; but  $LB = LC$ ; therefore the condition that AL, BM, CN meet at a point is

$$\cos(C + \alpha) \cos(A + \beta) \cos(B + \gamma) = \cos(B + \alpha) \cos(C + \beta) \cos(A + \gamma) \dots (a).$$

This being worked out agrees with the proposed equation, but fails to account for the determinant form of it.

Write  $\theta, \phi, \psi$  for the angles MDN, NDL, LDM. Then  $\theta = A + L$  and  $\beta = N + L$ ; therefore  $A + \beta = N + \theta$ , and so on; therefore (a) can be written

$$\cos(M + \psi) \cos(N + \theta) \cos(L + \phi) = \cos(L + \psi) \cos(M + \theta) \cos(N + \phi).$$

This then is the condition that lines joining L, M, N to the images of D (in MN, NL, LM) should meet at a point; hence (a) tells us that lines joining A, B, C to the images of D (in BC, CA, AB) also meet at a point. This property leads conveniently to the equation of the locus of D; for, if  $\alpha, \beta, \gamma$  be the trilinear co-ordinates of D, those of its image in BC are  $-\alpha, \beta + 2\alpha \cos C, \gamma + 2\alpha \cos B$ ;

hence the concurrence requires

$$(\beta + 2\alpha \cos C)(\gamma + 2\beta \cos A)(\alpha + 2\gamma \cos B) = (\gamma + 2\alpha \cos B)(\alpha + 2\beta \cos C)(\beta + 2\gamma \cos A).$$

On reduction this gives

$$\alpha(\beta^2 - \gamma^2)(\cos A - 2 \cos B \cos C) + \dots + \dots = 0,$$

proving that the line joining D to its isogonal  $D'$  is always parallel to OH, the Euler line of ABC. Now it may readily be proved that, if  $L'$  is the centre of the circle  $BD'C$ , the lines  $AL, AL'$  are isogonal in A, and hence that the point  $E'$  arising from  $D'$  is the isogonal of E; and  $DE, D'E'$  meet at O by part (1); therefore  $DE'$  and  $D'E$  meet at H (the isogonal of O); therefore  $DD'$  and  $EE'$  divide OH harmonically; therefore  $EE'$  bisects OH; hence the locus of E is the cubic

$$\alpha(\beta^2 - \gamma^2)(\cos A + 2 \cos B \cos C) + \dots + \dots = 0.$$

**16322.** (Professor SANJANA, M.A.)—A triangle PQR has its base resting on two fixed axes in its plane, and its sides PQ, PR passing through fixed points: if the ratio of PQ to PR be constant, prove that the locus of the vertex P is a curve of the sixth degree, and find when this curve degenerates into one of a lower degree.

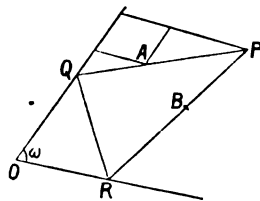
*Solution by MAHENDRA NATH, D.E., M.A., B.Sc.*

Taking the fixed axes as the axes of co-ordinates, let the co-ordinates of P be  $\alpha, \beta$ , and those of the fixed points A, B ( $x_1, y_1$ ), ( $x_2, y_2$ ), respectively.

Then, from similar triangles,

$$PQ^2/PA^2 = \alpha^2/(\alpha - x_1)^2;$$

therefore  $PQ^2 = PA^2 \cdot \alpha^2/(\alpha - x_1)^2 = \alpha^2 [(a-x_1)^2 + (\beta - y_1)^2 + 2(a-x_1)(\beta - y_1) \cos \omega]/(\alpha - x_1)^2$  (where  $\omega$  is the angle between the axes).



Similarly,

$$PR^2 = \beta^2 [(a-x_2)^2 + (\beta - y_2)^2 + 2(a-x_2)(\beta - y_2) \cos \omega]/(\beta - y_2)^2;$$

therefore, if  $PQ/PR = e$ , the locus of P is

$$\alpha^2 (\beta - y_2)^2 [(a-x_1)^2 + (\beta - y_1)^2 + 2(a-x_1)(\beta - y_1) \cos \omega] = e^2 \beta^2 (a-x_1)^2 [(a-x_2)^2 + (\beta - y_2)^2 + 2(a-x_2)(\beta - y_2) \cos \omega],$$

which is of the sixth degree in  $\alpha, \beta$ .

The curve degenerates into one of a lower degree when  $e = 1$ , as the terms of the highest degree then cancel one another.

In the particular case when AB is parallel to QR, the locus reduces to  $\alpha^2 (\beta - y_2)^2 = \beta^2 (a-x_1)^2$ , which is of the third degree in  $\alpha, \beta$  and represents a straight line and a conic.

**16347.** (T. STUART, M.A., D.Sc.)—Why is it that the factors of  $N_1 = (x + y)^6 - 45x^4y^2 - 18x^2y^4$  are always of the form  $M(18) \pm 1$ ? Prove rigidly, for all values of  $x$  and  $y$ , that the expression

$$N_2 = x^6 + 20x^3y^3 + y^6 - 3xy(x^4 + y^4) - \frac{1}{2}x^2y^2(x^2 + y^2)$$

is always composite, and find the form of the factors.

*Solution by Lt.-Col. ALLAN CUNNINGHAM, R.E.*

The first question requires some limitation, viz., (1)  $x, y$  should be mutually prime; (2)  $(x + y)$  should be prime to 3 (otherwise  $N_1$  will contain 9). With these limitations (and  $x, y$  both integers)

$$(x + y)^6 + 1 \pmod{9}, \text{ always.}$$

Hence  $N_1 \equiv +1 \pmod{9}$ , always; whence  $N_1 \equiv \pm 1 \pmod{18}$ , always.\*

\* The Proposer remarks that this, however, does not prove that the factors are of the same form.

ii. Let  $N_2 = X, Y$ . Here each of  $X, Y$  must evidently be symmetric in  $x, y$ . Assume

$$X = x^4 + Ax^3y + Bx^2y^2 + Axy^3 + y^4, \quad Y = x^2 + Cxy + y^2.$$

Then  $N_2 = x^6 + y^6 + (A + C)xy(x^4 + y^4) + (B + 1 + AC)x^2y^2(x^2 + y^2) + (2A + BC)x^3y^3.$

Identifying this with the given expression

$$A + C = -3, \quad B + 1 + AC = -\frac{1}{2}, \quad 2A + BC = 20.$$

Eliminating B, C gives  $2A^3 + 12A^2 - 3A - 11 = 0$ , whence  $A = 1$  (the only rational root). Hence  $B = -\frac{3}{2}, C = -4$ . Hence

$$N_2 = (x^2 - 4xy + y^2)(x^4 + x^3y - \frac{3}{2}x^2y^2 + xy^3 + y^4).$$

*Note.*—Mr. Blaikie also calls attention to the necessity of restricting the values of  $x$  and  $y$ .—ED.

The PROPOSER'S Solution is as follows:—

(a)  $N_1 = (x + y)^6 - 45x^4y^2 - 18x^2y^4 = x^6 + 6x^5y - 30x^4y^2 + 20x^3y^3 + 15x^2y^4 - 12xy^5 + y^6 = (x^2 + y^2 - 4xy)^3 - 9(x^2 - 2xy)^2(y^2 - 2xy) = (X + Y)^3 - 9X^2Y,$

where  $(X, Y) = (x^2 - 2xy, y^2 - 2xy).$

Writing in this  $(X, Y) = (2t + u, t - u),$

it gives  $N_2 = 9(u^4 - t^3 + 3tu^2).$

But Sylvester (*Amer. Jour. of Math.*, Vol. II., p. 282) has shown that the cubic form  $x^3 - 3x \pm 1$  contains no prime factors other than 3 or of the form  $18n \pm 1$ . Hence the prime factors of  $N_1$  are of the same form.

(b)  $N_2 = (x^2 + y^2)^3 - 3xy(x^2 + y^2)^2 - 2^2xy(x^2 + y^2) + 26x^3y^3 = (x^2 + y^2 - 4xy) [(x^2 + y^2)^2 + xy(x^2 + y^2) - \frac{1}{2}x^2y^2] = [(x - 2y)^2 - 3y^2] [(x^2 + y^2 + \frac{1}{2}xy)^2 - 3(\frac{3}{2}xy)^2].$

Hence the prime factors of  $N_2$  are either 3 or powers of 3 or of the form  $M(12) \pm 1$ .

*Note.*—The *a priori* reason why  $N_2$  must be composite depends on the fact that (1)  $2N_2$  is expressible as the sum of two cubes, (2)  $N_2$  being  $\equiv (x^2 + y^2 - xy)^3 - 54 \frac{1}{2} [xy(x - y)]^2$ , can never be a cubic residue of 2, as the equation  $xy(x - y) = 2z^3$  is insoluble; (3)  $N_2$  is either a multiple of 3 or of the form  $M(18) \pm 1$ . It then follows, by a well known theorem of Sylvester's (*l.c.*, pp. 280, 281), that  $N_2$  cannot be prime.

**16360.** (JAMES BLAIKIE, M.A.)—If in an acute-angled triangle a point is taken in each side the same distance from its mid-point as the foot of the altitude but in the opposite direction, prove that the perpendiculars drawn to the sides at these points are concurrent, and find the relation between the angles of the triangle in order that the point of concurrence may be within the triangle.

*Solution by Professor SANJANA, M.A.*

If P, O be the ortho-centre and circumcentre, D, E, F the feet of perpendiculars, X, Y, Z the mid-points, then if PO be produced its own length to  $P_1$  and the perpendiculars  $P_1D_1, P_1E_1, P_1F_1$  be drawn, it is evident that

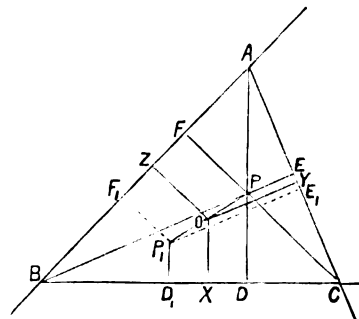
$$XD_1 = XD, \quad YE_1 = YE, \quad ZF_1 = ZF;$$

this proves the first part.

The point shall be within the triangle when none of the distances  $P_1D_1, P_1E_1, P_1F_1$  is negative. Now

$$P_1D_1 = 2OX - PD = 2R \cos A - 2R \cos B \cos C = 2R (\sin B \sin C - 2 \cos B \cos C);$$

this is positive if  $\tan B \tan C > 2$ . So also  $\tan C \tan A, \tan A \tan B$  should be greater than the same value. [Rest in Reprint.]



QUESTIONS FOR SOLUTION.

**16336.** (Correction by the Proposer.)—On the left of the first and second equations delete respectively the  $y$  and the  $x$  of the numerator.

**16400.** (H. C. KENT, B.Sc.)—Find the period of vibration of a dynamical system, possessing one degree of freedom, the equation of motion of which is  $a\ddot{\theta} + 2h\dot{\theta} + b\theta + \sin 2\theta = 0$ .

16401. (D. EDWARDES, B.A.)—Prove that

$$\int_{-1}^1 \frac{P_n(x)}{(z-x)^4} dx = \frac{2^{\frac{1}{2}}}{2n+1} [z-(z^2-1)^{\frac{1}{2}}]^{n+4},$$

where  $n$  is an integer and  $P_n(x)$  Legendre's polynomial of the first kind.

16402. (Professor NANSON.)—If  $u_1, u_2, \dots, u_n, v$  are  $n+1$  quadratic functions of  $x$ , show that the value of

$$\int \frac{u_1, u_2, \dots, u_n}{v^{n+1}} dx$$

is algebraic, provided  $v$  is harmonically related to one of the  $u$ 's.

16403. (Professor R. W. GENESE, M.A.)—Prove the following deductions from a theorem by Abel, viz.,

$$(1) \quad \phi(x+a) = \phi(x) + a\phi'(x+b) + \dots + \frac{a(a-nb)^{n-1}}{n!} \phi^n(x+nb) + \dots,$$

$$(2) \quad \phi(x) = \phi(x+b) - b\phi'(x+2b) + \dots + \frac{(-nb)^{n-1}}{n!} \phi^{n-1}(x+nb) + \dots$$

16404. (C. M. ROSS.)—Solve the equation

$$D \equiv \begin{vmatrix} \cos \theta & 1 & 0 & 0 & \dots & 0 \\ 1 & 2 \cos \theta & 1 & 0 & \dots & 0 \\ 0 & 1 & 2 \cos \theta & 1 & \dots & 0 \\ \dots & \dots & \dots & \dots & \dots & \dots \\ & & & & 1 & 2 \cos \theta & 1 \\ & & & & 0 & 1 & 2 \cos \theta \end{vmatrix} = 0.$$

where  $D$  is an  $n$ -th order determinant.

16405. (R. F. DAVIS, M.A.)—Solve the equation

$$(2x+1)(x^2+1)^2 + 4x^4 = 0.$$

16406. (Professor LANGHORNE ORCHARD, M.A., B.Sc.)—Show that the sum (to  $n$  terms) of any powers of the natural numbers may be expressed as a function of  $n$ , and of the powers of the odd numbers only.

16407. (Professor ESCOTT.)—The solutions of the equation

$$T_n^2 - 2U_n^2 = (-1)^n$$

form two recurring series

$$T_n = 1, 1, 3, 7, 17, \dots, \quad U_n = 0, 1, 2, 5, 12, \dots,$$

whose scale of relation is  $u_{n+2} = 2u_{n+1} + u_n$ . Factor completely  $U_n$ , a number of 32 digits.

16408. (T. STUART, M.A., D.Sc.)—Investigate a general method of solving in integers the equation  $x^3 = y^2 + a$ , and exhibit your method by examining the cases  $a = 107, 146, 207$ . Show that there are at least six solutions when  $a = -17$ , and give an elementary but rigid proof that the equation is impossible for  $a = 17$ , or  $-7$ . Is the equation possible when  $a = -127$ ? [The case when  $a = 17$  has been already fully discussed by Gérons, de Jonquières, and S. Realis; *N. Ann.*, 1877, 1878, 1883.]

16409. (R. W. D. CHRISTIE.)—Two sums of equal value were invested in two assurance companies for the same period. The ratio between the interest on the collective instalments at the end of the period and that on the whole sum invested for the whole period in the two companies bore the proportion of 16 to 17. Required the number of instalments in each company, supposing the interest to be the same. Generalize the theorem.

16410. (H. L. TRACHTENBERG, B.A.)—Prove that the centres of a system of conicoids having a common curve of intersection lie on a line, provided that part of the common curve is a conic at infinity.

16411. (M. T. NARANIENGAR, M.A.)—Similar segments of circles are described on the radii vectores of a curve, show that their envelope is similar to the first positive pedal.

16412. (A. M. NESBITT, M.A.)—On the axis of a parabola is taken a point  $M$ , such that  $AS = SM$ , and  $P$  is any point external to the parabola upon the line  $PM$ , which is drawn at right angles to the axis. Prove, by pure geometry, that if the polar of  $P$  cut the curve in  $Q$  and  $Q'$ , the normals at  $Q$  and  $Q'$  meet on the parabola.

16413. (Hon. G. R. DICK, M.A.)—Given a conic  $C$  and two points  $A, B$  in its plane. Tangents drawn to the conic from  $A$  meet any straight line through  $B$  in points  $T, T'$ . The other tangents from  $T, T'$  intersect on a fixed conic passing through  $A$  and touching  $C$  at the points where it is met by the polar of  $B$ .

16414. (W. J. GREENSTREET, M.A.)—A conic is inscribed in a parallelogram. Find the co-ordinates of the point of contact of the conic with the line  $px + qy - 1 = 0$ , the co-ordinate axes being the joins of mid-points of opposite sides of the parallelogram.

16415. (Professor STEGGALL.)— $A, B, C$  are fixed points on the circle  $ABPC$ ; the chord  $AP$  cuts  $BC$  in  $Q$ ; show that  $PQ$  is a maximum when the perpendicular from  $P$  on  $BC$  meets  $BC$  so that  $BQ = CP$ .

16416. (V. RAMASWAMI AIYAR, M.A.)— $S$  is a point and  $LL'$  a line in the plane of a triangle  $ABC$  such that the distances of the vertices from  $S$  are proportional to their distances from  $LL'$ .  $SIJ$  is a triangle, right-angled at  $S$ ,  $I$  being the in-centre (or any ex-centre), and  $J$  lying on  $LL'$ . Prove that, if lines  $SD, SE, SF$  be drawn to the sides of the triangle  $ABC$ , making with them, directly, the same angle that  $SI$  makes with  $IJ$ , then the circle through  $D, E, F$  will touch the inscribed circle (or the corresponding escribed circle) of  $ABC$ .

16417. (Professor SANJANA, M.A.)— $O_1, O_2, O_3, O_4$  are the circumcentres of the triangles  $BCD, CDA, DAB, ABC$  respectively, all lying in one plane; find the sides of the quadrilateral  $O_1O_2O_3O_4$  in terms of the sides and diagonals of  $ABCD$ .

16418. (W. F. BEARD, M.A.)— $ABC$  is a triangle;  $I, I_1, I_2, I_3$  are the in- and ex-centres and  $O$  is the circum-centre; the internal and external bisectors of the angles meet the opposite sides at  $D, D_1, E, E_1, F, F_1$ . Prove  $OI, OI_1, OI_2, OI_3$  are respectively perpendicular to  $D_1E_1F_1, D_1EF, DE_1F, DEF_1$ .

#### OLD QUESTIONS AS YET UNSOLVED (IN OUR COLUMNS).

11927. (Professor ORCHARD, M.A.)—The ellipse  $x^2 + 2y^2 = 2$  is revolving with constant angular velocity  $\omega$  about its minor axis, when one end of the latus rectum impinges upon a fixed obstacle; find the instantaneous change in  $\omega$ .

11950. (R. F. SCOTT, M.A.)—Snow is uniformly spread over the surfaces of a conical pinnacle and of the hemispherical dome of a building. It begins to slide off, starting at the highest point and clearing a path as it goes. Prove that the motion in the two cases is the same as that of a free particle moving on the surfaces under the action of a vertical acceleration equal to one-fifth and one-third the acceleration of gravity respectively.

12030. (Professor AIYAR.)—Prove that two given systems of co-Broccardal harmonic  $n$ -gons in a circle can be inverted into each other.

12042. (H. J. WOODALL, A.R.C.S.)—Give Maxwell's cyclic equations (in electrodynamics) in the case where the network is not wholly two-dimensional (i.e., some branches, although crossing, do not cut).

12043. (J. GRIFFITHS, M.A.)—If  $u_n, u_{n-1}$  denote rational and integral functions of two variables, of the degrees  $n$  and  $n-1$  respectively, prove, by means of the substitutions

$$x = \frac{\xi u_{n-1}(\xi, \eta)}{u_n(\xi, \eta)}, \quad y = \frac{\eta u_{n-1}(\xi, \eta)}{u_n(\xi, \eta)},$$

that the curve expressed by the equation  $u_n(x, y) = u_{n-1}(x, y)$  is unicursal.

12082. (C. J. MONRO, M.A.)—"Provided that the motion shall not be carried unless there shall be more than 200 for it or less than 40 against it." Interpret fully, taking account of suppressed premises.

#### NOTICE TO CORRESPONDENTS.

It is requested that all Mathematical communications should be sent to the Mathematical Editor,

Miss CONSTANCE I. MARKS, B.A., 10 Matheson Road, West Kensington, W.

*Vol. XII. (New Series) of the "Mathematical Reprint" is now ready, and may be had of the Publisher, FRANCIS HODGSON, 89 Farringdon Street, E.C. Price to Subscribers, 5s.; to Non-Subscribers, 6s. 6d.*

#### THE LONDON MATHEMATICAL SOCIETY.

Thursday, March 12th, 1908.—Prof. W. Burnside, President, in the Chair.

Messrs. P. E. Marrack and D. K. Picken were elected members.

The following papers were communicated:—

"On the Projective Geometry of some Covariants of a Binary Quintic," Prof. E. B. Elliott.

"The Operational Expression of Taylor's Theorem," Dr. W. F. Sheppard.

"On a Formula for the Sum of a Finite Number of Terms of the Hypergeometric Series when the Fourth Element is Unity" (Second Paper), Prof. M. J. M. Hill.

"On the Inequalities connecting the Double and Repeated Upper and Lower Integrals of a Function of Two Variables," Dr. W. H. Young.

"Note on a Soluble Dynamical Problem," Prof. L. J. Rogers.



# Messrs. LONGMANS & CO.'S LIST.

By **SAMUEL RAWSON GARDINER, D.C.L., LL.D.**

## A STUDENT'S HISTORY OF ENGLAND.

FROM THE EARLIEST TIMES TO 1901.

Vol. I.: B.C. 55–A.D. 1509. With 173 Illustrations. Crown 8vo, 4s.  
Vol. II.: 1509–1689. With 96 Illustrations. Crown 8vo, 4s. Vol. III.: 1689–1901. With 109 Illustrations. Crown 8vo, 4s.  
COMPLETE IN ONE VOLUME. With 378 Illustrations. Crown 8vo, 12s.

**PREPARATORY QUESTIONS ON THE ABOVE.** By R. SOMERVELL, M.A., Assistant Master at Harrow School. Crown 8vo, 1s.

## A SCHOOL ATLAS OF ENGLISH HISTORY.

With 66 Maps and 22 Plans of Battles, &c. Fcap. 4to, 5s.

## OUTLINE OF ENGLISH HISTORY.

B.C. 55–A.D. 1901. With 96 Woodcuts and Maps. Fcap. 8vo, 2s. 6d.

By **CYRIL RANSOME, M.A.**

## A SHORT HISTORY OF ENGLAND.

FROM THE EARLIEST TIMES TO THE DEATH OF QUEEN VICTORIA.

With Tables, Plans, Maps, Index, &c. Crown 8vo, 3s. 6d.

Or in Two Parts, 2s. each. Part I.: To 1603; Part II.: 1603 to 1901.

**A SUMMARY OF RANSOME'S SHORT HISTORY OF ENGLAND.** With 22 Maps and Plans, and 34 Genealogical Tables. 1s.

By **C. W. C. OMAN, M.A., F.S.A.**

EIGHTH EDITION, REVISED, AND WITH ADDITIONAL ILLUSTRATIONS.

## A HISTORY OF GREECE.

FROM THE EARLIEST TIMES TO THE DEATH OF ALEXANDER THE GREAT.

With 13 Maps and Plans and 84 Illustrations. Crown 8vo, 4s. 6d.

## A HISTORY OF ENGLAND.

By the Rev. **J. FRANCK BRIGHT, D.D.**

With numerous Maps and Plans.

Period I.—**MEDIAEVAL MONARCHY:** The Departure of the Romans to Richard III. 449 to 1485. 4s. 6d.

Period II.—**PERSONAL MONARCHY:** Henry VII. to James II. 1485 to 1688. 5s.

Period V.—**IMPERIAL REACTION:** Victoria. 1880 to 1901. 4s. 6d.

Period III.—**CONSTITUTIONAL MONARCHY:** William and Mary to William IV. 1688 to 1837. 7s. 6d.

Period IV.—**THE GROWTH OF DEMOCRACY:** Victoria. 1837 to 1880. 6s.

By **J. HAMBLIN SMITH, M.A.**

**ARITHMETIC.** Crown 8vo, 3s. 6d. (Copies may be had either with or without the Answers.)  
*A KEY, 9s.*

**A SHILLING ARITHMETIC.** For the use of Elementary Classes and Preparatory Schools. Fcap. 8vo, 1s.; with Answers, 1s. 6d.

**EXERCISES IN ARITHMETIC.** Arranged and adapted to the Sections in HAMBLIN SMITH'S "Treatise on Arithmetic." Crown 8vo, with Answers, 2s.; without Answers, 1s. 6d.  
*A KEY, 6s. 6d.*

**ELEMENTARY ALGEBRA.** New Edition, with a large number of Additional Exercises. With or without Answers, crown 8vo, 3s. 6d.; Answers separately, 6d.  
*A KEY, crown 8vo, 9s.*

**EXERCISES ON ALGEBRA.** Small 8vo, 2s. 6d. (Copies may be had without Answers.)

**ELEMENTARY TRIGONOMETRY.** Small 8vo, 4s. 6d.  
*A KEY, 7s. 6d.*

**ELEMENTARY STATICS.** Crown 8vo, 3s.

**ELEMENTARY HYDROSTATICS.** Crown 8vo, 3s. *KEY to Statics and Hydrostatics. 6s.*

**RIDERS IN EUCLID.** Containing a Graduated Collection of Easy Deductions from Books I., II., III., IV., and VI. of Euclid's "Elements of Geometry." Crown 8vo, 1s. 6d.

**AN INTRODUCTION TO THE STUDY OF HEAT.** Crown 8vo, 3s.

**GEOMETRICAL CONIC SECTIONS.** Crown 8vo, 3s. 6d.

**ELEMENTS OF GEOMETRY.** Containing Books I. to VI. and portions of Books XI. and XII. of Euclid, with Exercises and Notes. Arranged with the Abbreviations admitted in the Cambridge University and Local Examinations. Crown 8vo, 3s. 6d. (Books I. and II. may be had separately. Limp cloth, 1s. 6d.)  
*A KEY, 8s. 6d.*

**BOOK OF ENUNCIATIONS FOR HAMBLIN SMITH'S GEOMETRY, ALGEBRA, TRIGONOMETRY, STATICS, and HYDROSTATICS.** Small 8vo, 1s.

**THE METRIC SYSTEM OF WEIGHTS AND MEASURES.** An Elementary Treatise. Crown 8vo, 2s.

# HYGIENIC SCHOOL FURNITURE

MADE ON SCIENTIFIC PRINCIPLES.

## The "STANTON" DESK. The "FARRINGDON" ADJUSTABLE DESK.

As supplied for the use of

H.R.H. PRINCE EDWARD OF YORK and  
H.R.H. PRINCE ALBERT OF YORK

both at Marlborough House and Sandringham.

*This Desk has many special features:—*

1. It is made entirely of wood.
2. The Desk is fitted with chair seat.
3. The centre back rail is curved inwards and the upper back rail is curved outwards, so that the maximum of support is given to both the hollow of the back and the shoulders.
4. This Desk can also be fitted with a sliding pad for the back.
5. Very strongly made with dove-tailed corners.

The Locker of each of the above-mentioned Desks is made to slide backwards and forwards, allowing the edge of the Desk to be vertically over the edge of the seat when the Pupil is writing, or leaving sufficient space for the Pupil to stand comfortably.

**THESE DESKS PREVENT SCHOLARS ASSUMING ANY HARMFUL ATTITUDE.**

*Every Article of School Furniture manufactured at the Steam Factory, Stevenage.*

Laboratories have been recently fitted by the E.S.A. at Dulwich College and Charterhouse School.

*ILLUSTRATED CATALOGUE FREE ON APPLICATION.*

## "THE PREPARATORY SCHOOL" BOX OF INSTRUMENTS.

No. 9 A.—A Strong Sliding Cloth-covered Box containing:—

- 1 Patent Brass Pencil Compass to take any size of Pencil up to full size.
- 1 Divider Point. 1 Brass Semi-circular Protractor.
- 1 Black Lead Pencil ("H"). 1 Compass Pencil.
- 1 Wooden Set Square 45°. 1 Wooden Set Square 60°.
- 1 Six-inch Boxwood Rule graduated in inches, tenths of an inch, centimetres, and millimetres.

Price **1s. 4d.** per Box.

Price for orders of 6 dozen, **1s. 3d.** per Box.

" " 12 " **1s. 2d.** "

*Any article can be had separately. Prices on application.*



**Similar Boxes of Instruments prepared to meet different requirements kept in Stock. Apply for Illustrated Circular.**

## RULED PAPER FOR MATHEMATICS.

The Paper supplied by the Association is the most accurate Paper produced. It is supplied in sheets in various sizes and rulings, and also made up into Books at **2s. 3d.**, **4s. 6d.**, **6s. 6d.**, and **9s.** per dozen.

*Specimens of Paper and Books will be gladly sent post free to Principals.*

## THE STATIONERY manufactured and supplied

by the Educational Supply Association has many unique features, particularly as regards:—

**NATURE NOTE BOOKS. SCIENCE NOTE BOOKS. GRAPHICAL PAPER AND BOOKS.**

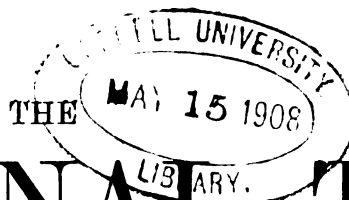
**SPECIALITIES IN EXERCISE BOOKS.**

**Rounded Corners. Stamped in Silver or Gold. Covers of Distinguishing Colours.**

*ILLUSTRATED CATALOGUE AND SAMPLES FREE ON APPLICATION.*

## EDUCATIONAL SUPPLY ASSOCIATION, Ltd.

42 HOLBORN VIADUCT, LONDON, E.C.



# EDUCATIONAL TIMES,

AND

## Journal of the College of Preceptors.

Vol. LXI.] New Series, No. 565.

MAY 1, 1908.

{Published Monthly, price, to Non-Members, 6d.; by Post, 7d. Annual Subscription, 7s.

### COLLEGE OF PRECEPTORS. (INCORPORATED BY ROYAL CHARTER.)

#### MEMBERS' MEETING.

The next Monthly Meeting of the Members will take place on Wednesday, the 13th of May, at 7.30 p.m., when Dr. HUBERT E. J. BISS will read a Paper on "School Life and Healthy Growth."

A discussion will follow the reading of the Paper.

Members have the privilege of introducing their friends.

#### EXAMINATIONS.

**Diplomas.**—The next Examination of Teachers for the Diplomas of the College will commence on the 31st of August, 1908.

**Practical Examination for Certificates of Ability to Teach.**—The next Practical Examination will be held in May.

**Certificate Examinations.**—The Midsummer Examination for Certificates will commence on the 30th of June, 1908.

**Lower Forms Examinations.**—The Midsummer Examination will commence on the 30th of June, 1908.

**Professional Preliminary Examinations.**—These Examinations are held in March and September. The Autumn Examination in 1908 will commence on the 8th of September.

**Inspection and Examination of Schools.**—Inspectors and Examiners are appointed by the College for the Inspection and Examination of Public and Private Schools.

The Regulations for the above Examinations can be obtained on application to the Secretary.

#### LECTURES FOR TEACHERS.

A.—The First Course of Lectures (Thirty-six Annual Series), by Prof. J. ADAMS, M.A., B.Sc., F.C.P., on "The Application of Psychology to the Work of the School," commenced on Thursday, February 13th, at 7 p.m.

The Course is meant to meet the needs of Teachers who wish to improve their acquaintance with what underlies the principles of their profession, whether they have any examination in view or not. The reading of the students will be guided, and problems set for their exercise. Every opportunity will be taken of making practical applications of psychological principles to the work of the classroom. The Fee for the Course is Half-a-Guinea. The Lectures are delivered on Thursday Evenings at 7 o'clock, at the College, Bloomsbury Square, W.C.

For syllabus, see page 198.

C. R. HODGSON, B.A., Secretary.

Bloomsbury Square, W.C.

### UNIVERSITY OF ST. ANDREWS.

#### L.L.A. DIPLOMA FOR WOMEN.

The attention of Candidates is drawn to the Ordinary and Honours Diplomas for Teachers, which are strongly recommended as suitable for those who are or intend to be teachers.

Examinations are held at Aberdeen, Birmingham, Blackburn, Brighton, Bristol, Cardiff, Croydon, Devonport, Edinburgh, Glasgow, Hull, Inverness, Leeds, Liverpool, London, Manchester, Newcastle-on-Tyne, Norwich, Nottingham, Oxford, St. Andrews, Sheffield, Swansea, and several other towns.

Information regarding the Examinations may be obtained from the SECRETARY, L.L.A. Scheme, The University, St. Andrews.

### BIRKBECK COLLEGE, BREEMS BUILDINGS, CHANCERY LANE, E.C.

#### DAY AND EVENING CLASSES.

Courses of Study under Recognized Teachers of the University of London for Degrees in Science and in Arts.

**Science.**—Chemistry, Physics, Mathematics (Pure and Applied), Botany, Geology, Zoology.

**Arts.**—Classics, English, French, German, Italian History, Geography, Logic, Economics, Mathematics (Pure and Applied).

Particulars on application.

### ST. GEORGE'S TRAINING COLLEGE FOR WOMEN TEACHERS IN INTERMEDIATE AND SECONDARY SCHOOLS, EDINBURGH.

This College provides a year's Professional Training for well educated women who intend to become Teachers.

The Course of Training is supervised by the Edinburgh Provincial Committee for the Training of Teachers and is recognized by the Scotch Education Department; it is also recognized by the English Board of Education, and by the Teachers' Training Syndicate of the University of Cambridge.

Bursaries of £30, £20, and £15 are offered to Students entering in October, 1908.

Prospectus and further particulars from the Principal, Miss M. R. WALKER, 5 Melville Street, Edinburgh.

### DENMARK HILL GYMNASIUM AND PHYSICAL TRAINING COLLEGE FOR TEACHERS.

Full preparation for Public Examinations. British College of Physical Education: English and Swedish systems.

Board of Education: Science.

Swimming and Sports.

For particulars apply—Miss E. SPELMAN STANGER, Trevena, Sunray Avenue, Denmark Hill, London, S.E.

### CHURCH EDUCATION CORPORATION.

#### CHERWELL HALL, OXFORD.

Training College for Women Secondary Teachers.

Principal—Miss CATHERINE I. DODD, M.A. (late Lecturer in Education in the Manchester University).

Students are prepared for the Oxford, the Cambridge, and the London Teacher's Diploma. Special arrangements made for Students to attend the School of Geography.

Exhibitions and Scholarships awarded in December and July.—Apply to the PRINCIPAL.

### Diploma Correspondence College, Ltd.

Principal—J. W. KNIFE, L.C.P., F.R.S.L.  
Vice-Principal—S. H. HOOK, B.A., Hons. Lond.

Specialty arranged Courses for  
**LONDON MATRICULATION,  
B.A., B.D., B.Sc.,  
A.C.P., L.C.P., &c.**

#### FREE GUIDES

on application to the SECRETARY.

**WOLSEY HALL, OXFORD.**

### LONDON COLLEGE OF MUSIC. (Incorporated.)

GREAT MARLBOROUGH STREET, LONDON, W.

Patron: HIS GRACE THE DUKE OF LEBDA.

Dr. F. J. KERN, Mus. Bac. Cantab., Principal.

G. AUGUSTUS HOLMES, Esq., Director of Examinations.  
EXAMINATIONS, 1908.

The NEXT EXAMINATION in PIANOFORTE PLAYING, SINGING, THEORY, and all branches of Music will be held in London and 400 Provincial Centres in JULY (June for Scotland and Ireland), when Certificates will be granted to all successful candidates.

The Higher Examinations for the Diplomas of Associate (A.L.C.M.), Licentiate (L.L.C.M.), the Teachers' Diploma, L.C.M., and Fellowship (F.L.C.M.) take place in JUNE, JULY, and DECEMBER.

Gold and Silver Medals and Book Prizes are offered for competition according to the Regulations.

LOCAL SCHOOL CENTRES.—Full particulars with reference to the formation of these Centres will be forwarded to Principals of Schools upon application.

SYLLABUS for 1908, together with Annual Report, may be had of the SECRETARY.

In the Educational Department students are received and thoroughly trained under the best Professors at moderate fees. The College is open 10 a.m. to 9.30 p.m. A COURSE of TRAINING in Pianoforte and Singing for Teachers is held at the College.

VACATION LESSONS for Teachers and others are given at Easter, August, and Christmas.

T. WEEKES HOLMES, Secretary.



### THE ASSOCIATED BOARD OF THE R.A.M. AND R.C.M.

FOR LOCAL EXAMINATIONS IN MUSIC.

PATRON: HIS MAJESTY THE KING.

PRESIDENT: H.R.H. THE PRINCE OF WALES, K.G.

LOCAL CENTRE EXAMINATIONS (Syllabus A). Examinations in Theory at all Centres in March and November; in Practical Subjects at all Centres in March-April, and in the London District and certain Provincial Centres in November-December also. Entries for the November-December Examinations close Wednesday, October 7th, 1908.

SCHOOL EXAMINATIONS (Syllabus B). Held three times a year, viz., June-July, October-November, and March-April. Entries for the June-July Examinations close Wednesday, May 13th, 1908 (or, with extra fee, May 21st).

Specimen Theory Papers set in past years (Local Centre or School) can be obtained on application. Price 3d. per set, per year, post free.

Syllabuses A and B, entry forms, and any further information will be sent post free on application to—

JAMES MUIR, Secretary.

15 Bedford Square, London, W.C.

Telegrams: "Associa, London."

## FREE GUIDE

TO

## LONDON UNIVERSITY MATRICULATION

Post free, from

THE SECRETARY,  
Burlington House, Cambridge;

or from the London Office of

University Correspondence College,  
32 Red Lion Square, Holborn, W.C.

## THE TEACHERS' GUILD OF GREAT BRITAIN AND IRELAND.

### Modern Languages Holiday Courses, 1908.

At TOURS and HONFLEUR,  
FRENCH;  
at NEUWIED (on Rhine),  
GERMAN;  
and at SANTANDER,  
SPANISH.

Students assemble at **Tours, Honfleur, and Neuwied** on August 1st, at **Santander** on August 4th. The Courses last for three full weeks.

**HANDBOOK** (price 6d.), giving full details (Syllabuses of Lectures, Lists of Householders receiving Students, Excursions, and General Information), from the OFFICE OF THE GUILD, 74 GOWER STREET, LONDON, W.C.

### UNIVERSITY OF ST. ANDREWS.

#### UNIVERSITY HALL.

Warden:  
Miss FRANCES H. MELVILLE, M.A.

**UNIVERSITY HALL**, for Women students, was opened in 1896, under the government of the University of St. Andrews.

The usual Course of Study at University Hall is in preparation for the Degree Examinations of the University of St. Andrews, of which all the Classics and Degrees in Arts, Divinity, Science, and Medicine are open to women on the same terms as to men.

The Sessions of Residence are the two University Sessions, viz. the Winter Session, October to March; the Summer Session (Optional), April to June.

University Hall fees for residence—Winter Session, £30-£50; Summer Session, £15-£25.

Matriculation and Class Fees average £10 for the Winter Session.

Next Winter Session commences October 7.

For further information, apply to the WARDEN, University Hall, St. Andrews, Fife.

## EXAMINATION PAPERS.

Set at the Examinations of the College of Preceptors.

**CERTIFICATE EXAMINATION.**—The Papers set at the Midsummer and Christmas Examinations, Sixpence each Set, by post Sevenpence. (Back Sets from Midsummer, 1882, except Midsummer, 1895, Midsummer, 1896, and Christmas, 1900, are still to be had.)

The Freehand Drawing Copies set at the above Examination can also be had, price 2d. each; or 1s. 6d. per dozen.

Also the Outline Maps for the Second and Third Classes, price 1d. each map, by post, 1½d.; or 9d. per dozen, by post, 10d.

The COLLECTED PAPERS in the following subjects for several years back may also be had in separate books, price 6d. each, by post 7d.:

Arithmetic (3 Parts).	English History (4 Parts).
Algebra (3 Parts).	French (4 Parts).
Scripture (4 Parts).	Latin Unseen (3 Parts).
Geography (3 Parts).	Music.
English Grammar (7 Pts.).	

Answers to the Arithmetic and Algebra, 1s. each.

**PROFESSIONAL PRELIMINARY EXAMINATION.**—The Papers set at the March and September Examinations. Sixpence each Set, by post Sevenpence. (Back Sets from March, 1882, still to be had.)

**LOWER FORMS EXAMINATION.**—The Papers set at the Midsummer and Christmas Examinations, price 3d. each, by post, 4d.; also the Drawing Copies, 2d. each, or 1s. 6d. the dozen.

**DIPLOMA EXAMINATION.**—These Papers are published only in the College Calendar. See page 196.

London: FRANCIS HODGSON, 89 Farringdon St., E.C.

## BADGES, HAT BANDS, CAPS

AT WHOLESALE PRICES.

Write—SCHOOLS AGENT, 1 Arundel Villas, Chelmsford Road, South Woodford, N.E.

## BEDFORD COLLEGE FOR WOMEN

(UNIVERSITY OF LONDON),  
YORK PLACE, BAKER STREET, W.  
ENTRANCE SCHOLARSHIPS.

One Reid Scholarship in Arts, value £31. 10s. first year; £28. 7s. second and third years.

One Amott Scholarship in Science, annual value £48, tenable for three years.

One Pfeiffer Scholarship in Science, annual value £48, tenable for three years, will be awarded on the results of the examination to be held in June.

Full particulars on application to the PRINCIPAL.

### DEPARTMENT FOR PROFESSIONAL TRAINING IN TEACHING.

Two Scholarships each of the value of £15 for one year are offered for the course of secondary training beginning in October, 1908.

The Scholarships will be awarded to the best candidate holding a degree in Arts or Science.

Applications should reach the HEAD OF THE TRAINING DEPARTMENT not later than July 1st, 1908.

## THE CAMBRIDGE TRAINING COLLEGE FOR WOMEN TEACHERS.

Principal—Miss H. L. POWELL,  
late Scholar of Newnham College (Hist. Tripos; Class I.), late Head Mistress of the Leeds Girls' High School.

A residential College providing a year's professional training for Secondary Teachers.

The course includes preparation for the Cambridge Teacher's Certificate (Theory and Practice), and for the Teachers' Diplomas of the London University. Ample opportunity is given for practice in teaching science, languages, mathematics, and other subjects in various schools in Cambridge.

Students are admitted in January and in September. Full particulars as to qualifications for admission, scholarships, and bursaries may be obtained on application to the PRINCIPAL, Cambridge Training College, Wollaston Road, Cambridge.

THE INCORPORATED  
**FROEBEL EDUCATIONAL INSTITUTE,**  
TALGARTH ROAD, WEST KENSINGTON, LONDON, W.  
Recognized by the Board of Education as a Training  
College for Secondary Teachers.

Chairman of the Committee—Sir W. MATHER.  
Treasurer—Mr. C. G. MONTEFIORE, M.A.  
Secretary—Mr. ARTHUR G. SYMONDS, M.A.

### TRAINING COLLEGE FOR TEACHERS.

Principal—Miss E. LAWRENCE.

#### KINDERGARTEN AND SCHOOL.

Head Mistress—Miss A. YELLAND.

Students are trained for the Examinations of the National Froebel Union and other Examinations.

TWO SCHOLARSHIPS of £20 each, and two of £15 each, tenable for two years at the Institute, are offered annually to Women Students who have passed certain recognized Examinations.

Prospectuses can be obtained from the PRINCIPAL.

## WALTER J. DICKES, B.A. (Lond.)

PRIVATE TUITION  
FOR EXAMINATIONS, &c.

BEECHEN CLIFF, THE GARDENS,  
E. DULWICH, LONDON, S.E.

I REQUIRE for my daughter, aged 17,  
a BOARDING SCHOOL or INSTITUTE,  
in the South of England, which devotes itself  
specially to the study of the English language.  
Offers, if possible in French or German, to  
W. NONNENMACHER, Lausanne, Switzerland.

Sixteenth Edition, with Map. 12mo.  
**CÆSAR'S COMMENTARIES ON  
THE GALLIC WAR.** By A. K. ISBISTER, M.A.,  
LL.B., late Dean of the College of Preceptors.

BOOKS I.-V. With Notes Critical and Explanatory, a Vocabulary of all the words in the Text, and Easy Reading Lessons for Beginners ..... price 3s. 6d.

BOOKS I.-VII. do. do. 4s. 6d.  
Do. (without the Reading Lessons) 4s. 0d.

Twenty-fifth Edition.  
BOOK I. (with Vocabulary, Reading Lessons, &c.) ..... 1s. 6d.

LONDON: LONGMANS & CO., PATERNOSTER ROW, E.C.

## The Tutorial Institute,

39 BLOOMSBURY SQUARE, LONDON.

Principal: J. F. EWEN, M.A.,  
Honours in Mathematics and Physics.

Over 2,000 Successes officially credited. Strong Staff of Experienced Tutors, Graduates in Honours.

Full Preparation by Correspondence for

**A.C.P.**—Education. £1 11s. 6d.: all subjects, £4 4s.  
**L.O.P.**—Education. £2 2s.; Language or Science Group, £1 11s. 6d.

**B.Sc.**—Single subjects, £2 2s. Special Help in Mathematics and Physics.  
**B.A.**—Special Help in English, Latin, French, Education, Mathematics. Each subject, £2 2s.; all subjects, £7 7s.

**INTER. SCIENCE.**—25 lessons: each subject, £2 2s.

**INTER. ARTS.**—Each subject, £1 11s. 6d.

**MATRIGULATION.**—All subjects, 10s. 6d. monthly.

Full course, 20 lessons: each subject, £1 1s.

**HIGHER LOCALS.**—Usual subjects, £1 11s. 6d.

**FROEBEL EXAMS.**—Each subject, £1 1s.

Guides free.

## JOINT AGENCY FOR WOMEN TEACHERS.

(Under the management of a Committee appointed by the Teachers' Guild, College of Preceptors, Head Mistresses' Association, Association of Assistant Mistresses, and Welsh County Schools' Association.)

Address—74 GOWER STREET, LONDON, W.C.

Registrar—Miss ALICE M. FOUNTAIN.

This Agency has been established for the purpose of enabling Teachers to find work without unnecessary cost. All fees have therefore been calculated on the lowest basis to cover the working expenses.

Head Mistresses of Public and Private Schools, and Parents requiring Teachers, or Teachers seeking appointments, are invited to apply to this Agency.

Many Graduates and Trained Teachers for Schools and Private Families; Visiting Teachers for Music, Art, and other special subjects; Foreign Teachers of various nationalities; Kindergarten and other Teachers are on the Register, and every endeavour is made to supply suitable candidates for any vacancy.

School Partnerships and Transfers are arranged.

Hours for interviews (preferably by appointment):—

11 a.m. to 1 p.m., and 3 to 5 p.m.

Saturdays, 11 a.m. to 1 p.m., and 2 to 3 p.m.

## THE JOINT SCHOLASTIC AGENCY.

23 Southampton Street, Bloomsbury Square, W.C.

Managed by a Committee of Representatives of the following Bodies:—

HEAD MASTERS' CONFERENCE.

INCORPORATED ASSOCIATION OF HEAD MASTERS.

COLLEGE OF PRECEPTORS. TEACHERS' GUILD.

INCORPORATED ASSOCIATION OF ASSISTANT MASTERS.

ASSOCIATION OF TECHNICAL INSTITUTIONS.

ASSOCIATION OF PREPARATORY SCHOOLS.

WELSH COUNTY SCHOOLS.

Registrar: Mr. E. A. VIRGO.

The object of this Agency is to render assistance at a minimum cost to Masters seeking appointments. The lowest possible fees are therefore charged.

A PROSPECTUS will be sent ON APPLICATION.

Interviews (preferably by appointment) 12 p.m.-1.30 p.m., and 3 p.m.-5.30 p.m. Saturdays, 12 p.m.-1 p.m.

## USE FLORIGENE (Regd.)

HYGIENIC FLOOR FLUIDS IN

Colleges, Laboratories, Schools, &c., for

"WEIGHTING" & LAYING DUST & DIRT;

Purifying the Atmosphere; Preserving Floors;

Saving Time, Labour, and Money.

No Scrubbing or Sprinkling required, only Hard Broom, when the sweepings roll, and do not rise. Dusting seldom necessary. Each application lays the dust for two to four months or longer. For particulars, bacteriological and other expert reports, and testimonials write—

The "DUST-ALLAYER" Co.,

165 Queen Victoria Street, E.C.

Contractors to H.M. GOVERNMENT, &c.

**University Tutorial College**  
(Affiliated to University Correspondence College).



**Day and Evening Classes**  
FOR  
**MATRICULATION**  
AND OTHER  
**LONDON UNIVERSITY**  
**EXAMINATIONS**

may be taken up at any time at proportionate fees.

The official Pass List of London University for the last Matriculation Examination credits University Tutorial College with nearly three times as many Successes as any other Institution.

**REVISION CLASSES**

are held for

**INTER. SCIENCE AND ARTS,**  
**B.Sc., and B.A.**

Full particulars of Classes and Private Tuition for Matriculation, Inter. Science and Arts, B.Sc. and B.A., Prelim. Sci. (M.B.), College of Preceptors, and other Examinations may be had, post free, from

**THE PRINCIPAL,**

University Tutorial College,  
Red Lion Square, Holborn, W.C.

**CORRESPONDENCE TUITION,**

Classes or Private Lessons in all Subjects for all Examinations, &c., at moderate fees. Special tuition for MEDICAL Prelims. and DIPLOMA Exams. Many recent successes.—F. J. BORLAND, B.A., L.C.P. (Science and Math. Prizeman), Victoria Tutorial College, 87 Buckingham Palace Road, S.W.; and Stalheim, Brunswick Road, Sutton, Surrey.  
Schools visited and Examinations conducted.

**THE**  
**HAMILTONIAN**  
**SYSTEM.**

A Short and Easy Method of Learning a Foreign Language by a Close Interlinear Translation.

"This System differs from the ordinary literal translations, in giving a truly literal translation placed word for word under the words of the original, which are only so far changed in order as seemed essential to the sense. The aim is to be strictly literal, and the student is at once saved all trouble about the meaning of each word."  
—Mr. RICHARD A. PROCTOR, in *Knowledge*.

Limp cloth, price 1s.

**CÆSAR'S GALLIC WAR. Book I.** With Text as well as Interlinear Translation.

Books I. to VI. Price 4s. 6d.

**VIRGIL'S ÆNEID. Books I. to IV.** Price 3s. 6d.

**EUTROPIUS.** Limp cloth, price 1s. 6d.

**FLORIAN'S FABLES.** Limp cloth, price 1s.

**PERRIN'S FABLES.** Limp cloth, price 1s. 6d.

Each Book contains the Text as well as the analytical, interlinear, and literal Translation.

Full List of the Series on Application.

**FRANCIS HODGSON, 89 Farringdon St., E.C.**

**CARLYON COLLEGE.**

55 AND 56 CHANCERY LANE.

**LONDON UNIVERSITY EXAMINATIONS.**

LONDON MATRICULATION, INTER. ARTS and SCIENCE, B.A., and B.Sc. Classes (small) Day and Evening. M.A. Classes, B.A. Honours Classes. Elementary Greek Class.

Classes and Tuition for Legal and Medical Preliminaries, Accountants', Scholarship Examinations, Professions, Responsions, and General.

Papers Corrected for Schools. Vacation Tuition. Private tuition for all Examinations. Prospectus and full details on application to R. C. B. KERIN, B.A. Lond., First of First Class Classical Honours, Editor of "Phædo," "Pro Plancio," &c.

**SUCCESSSES.**

1892-1907.—London Matric., 149; Inter. Arts, Sc., and Prel. Sci., 140, 6 in Hons.; B.Sc., 1896-1906, 25; B.A., 1891-1906, 96, 14 in Hons.; Medical Prelim., 249; Responsions and Previous, 60; Law Prelim., 62; other Successes, 400.

**B.A. (LOND.), 1906 and 1907, 15, 3 in Classical Honours. M.A., 8. INTER. ARTS, 1907, 6 out of 8.**

**FREE.**

The Principals of the Normal Correspondence College have, through the courtesy of the College of Preceptors, issued the following

**FREE GUIDES.**

1. A.C.P.	100 pages.
2. L.C.P.	84 "
3. F.C.P.	75 "
4. PREL. CERT.	120 pages.
5. CERTIFICATE.	92 "
6. MATRICULATION.	84 "
7. IRISH UNIVERSITY.	60 "
8. OXFORD & CAMBRIDGE LOCALS	100 "

These Guides are supplied gratis to all who mention this paper and state they intend sitting for examination.

"They are written by experts whose advice is the best procurable."—*Educational News*.

"Will undoubtedly help greatly towards success."—*Schoolmistress*.

**NORMAL CORR. COLLEGE,**

47 MELFORD ROAD, EAST DULWICH, S.E., and  
110 AVONDALE SQUARE, LONDON, S.E.

**SECONDHAND BOOKS AT HALF PRICES!**  
**NEW BOOKS AT 25% DISCOUNT!**

**BOOKS** for A.C.P., L.C.P., F.C.P., Matric., University, Certificate, Scholarship, L.L.A., B.A., and ALL other Examinations supplied. State wants; send for List. Books sent on approval. **BOOKS BOUGHT**, best prices given.—W. & G. FOYLE, 135 Charing Cross Road, W.C.

**COLLEGE OF PRECEPTORS.**  
(Bloomsbury Square, W.C.)

**THE CALENDAR FOR 1908**

is now ready, and may be obtained from Mr. F. HODGSON, 89 Farringdon Street, E.C. Price, free by post.

To Members of the College ... 1s. 6d.

To Non-Members ... 2s. 6d.

The Calendar contains, in addition to the Lists of Members, and of Schools sending in candidates to the Certificate Examinations, the Regulations respecting the Examinations to be held in 1908, &c., and the

**EXAMINATION PAPERS**

set at the Certificate, Lower Forms, Professional Preliminary, and Diploma Examinations held in 1907.

**Messrs.**  
**TRUMAN & KNIGHTLEY,**

**Educational Agents,**

**6 HOLLES ST., CAVENDISH SQUARE,**  
**LONDON, W.**

Telegrams — "TUTORESS, LONDON."  
Telephone—No. 1167 Mayfair.

*This Agency is under distinguished patronage, including that of the Principals of many of our leading Schools.*

**A.—EMPLOYMENT DEPARTMENT.**

(i.) **ASSISTANT MASTERS & TUTORS.**

MESSRS. TRUMAN & KNIGHTLEY introduce well qualified and experienced ENGLISH and FOREIGN MASTERS and TUTORS to Schools and Private Families.

(ii.) **ASSISTANT MISTRESSES.**

MESSRS. TRUMAN & KNIGHTLEY introduce University, Trained, and other qualified ENGLISH and FOREIGN LADY TEACHERS to Girls' and Boys' Schools.

(iii.) **LADY MATRONS AND HOUSE-KEEPERS.**

MESSRS. TRUMAN & KNIGHTLEY introduce well qualified and experienced LADY MATRONS, HOUSEKEEPERS, and HOUSE MISTRESSES to Boys' and Girls' Schools.

No charge is made to Principals, and no charge of any kind is made to candidates unless an engagement be secured through this Agency, when the terms are most reasonable.

**B.—SCHOOL TRANSFER DEPARTMENT.**

A separate Department, under the direct management of one of the Principals, is devoted entirely to the negotiations connected with the Transfer of Schools and Introduction of Partners.

MESSRS. TRUMAN & KNIGHTLEY, being in close and constant communication with the Principals of nearly all the chief Girls' and Boys' Schools in the United Kingdom, to many of whom they have had the privilege of acting as Agents, and having on their books always a large number of thoroughly genuine Schools for Sale and Partnerships to negotiate, as well as the names and requirements of numerous would-be purchasers, can offer unusual facilities for satisfactorily negotiating the TRANSFER of SCHOOLS, and arranging PARTNERSHIPS.

No charge is made to Purchasers, and there is no charge to Vendors unless a Sale or Partnership be effected through this Agency.

All communications and enquiries are treated in the strictest confidence.

**C.—PUPILS' DEPARTMENT.**

MESSRS. TRUMAN & KNIGHTLEY have a carefully organized Department for the introduction of Pupils to Schools and other Educational Establishments. No charge is made for registration.

Any negotiations entrusted to MESSRS. TRUMAN & KNIGHTLEY receive prompt and careful attention, every effort being made to save clients as much time and trouble as possible.

Prospectus, References, and full particulars will be forwarded on application.

**NEW EDITION (1907).**

With 174 Illustrations. Crown 8vo, price 3s. 6d.

# A SCHOOL FLORA.

*For the Use of Elementary Botanical Classes.*

BY

**W. MARSHALL WATTS, D.Sc. (Lond.), B.Sc. (Vict.),**  
Late Physical Science Master in the Ciggleswick Grammar School.

LONGMANS, GREEN, &amp; Co., 39 Paternoster Row, London, E.C.

## THE RUGBY PRESS

undertakes every description of Letterpress

### PRINTING FOR SCHOOLS.

*Estimates furnished. Enquiries solicited.*Address— **GEORGE OVER, Printer, Rugby.**

## IDOLA PULPITORUM: PITFALLS OF THE PRACTICAL TEACHER.

*For this series of Articles, see "THE JOURNAL OF EDUCATION."***INTRODUCTORY ARTICLE**, by Professor ADAMS [November, 1906]; **CLASSICS**, by H. G. HART [December, 1906]; **ENGLISH**, by ARTHUR BURRELL [January, 1907]; **FRENCH**, by CLOUDESLEY BRERETON [February and March, 1907]; **SCIENCE**, by T. PERCY NUNN [April, 1907]; **NATURE STUDY**, by T. RAYMONT [May, 1907]; **HISTORY**, by S. S. F. FLETCHER [June, 1907]; **PHYSICAL TRAINING**, by Colonel MALCOLM FOX [July, 1907]; **DRAWING**, by W. E. SPARKES [August, 1907]; **DOMESTIC SCIENCE**, by ALICE RAVENHILL [October, 1907]; **GEOMETRY**, by H. WINIFRED STURGE [December, 1907]; **GEOGRAPHY**, by Dr. A. J. HERBERTSON [January, 1908].

Subscription is 7s. per annum; single numbers, 8d. post free.

Offices: 3 BROADWAY, LUDGATE HILL, E.C.

## CAREY'S "GRADUS AD PARNASSUM."

WITH THE ENGLISH MEANINGS.

Revised, Corrected, and Augmented by a Member of the University of Cambridge.

*Post 8vo, cloth, price 7s.*

THE STATIONERS' COMPANY, STATIONERS' HALL, LONDON.

## EXAMINATION PAPER

AS USED BY THE

### COLLEGE OF PRECEPTORS.

*In strict accordance with the College requirements, and each Sheet bears their Watermark.*Packed in Reams of 480 Sheets ... .. per Ream, 2s.  
" " " 960 " " " " " 4s.Bookkeeping Paper, ruled for Ledger, Cash Book, and Journal, 1s. per 100 Sheets  
Music Paper, 1s. per 100 Sheets.*Remittance should accompany Order.***F. W. SHELBOURNE & CO., Wholesale and Retail Stationers,**  
63 HIGH HOLBORN, LONDON, W.C.

Eleventh Edition. Crown 8vo.

**MODERN SIDE ARITHMETIC: EXAMPLES ONLY.** By  
Rev. T. MITCHESON, B.A., late Assistant Master in City of London School.  
PART I., crown 8vo, cloth, pp. 119, 1s. (Answers, 1s.; Teachers' Copy, with Answers, 1s. 6d.)  
PART II., crown 8vo, cloth, pp. 200, 1s. 6d. (Answers, 1s.; Teachers' Copy, with Answers, 2s.)  
COMPLETE IN ONE VOLUME, crown 8vo, cloth, 2s. (Answers, 1s. 6d.; Teachers' Copy, with Answers, 3s.)

LONDON: FRANCIS HODGSON, 89 FARRINGDON STREET, E.C.

Crown 8vo, 348 pages, price 3s. 6d.

## SCHILLING'S SPANISH GRAMMAR.

Translated and Edited by FREDERICK ZAGEL.

"I have carefully read over Schilling's 'Spanish Grammar,' and I find it to be a good practical book. The rules are clearly enunciated. The irregular verbs are grouped so that their points of agreement and difference are visible at a glance. The exercises, which constitute the bulk of the book, are so arranged as to gradually familiarize the student with the chief syntactical rules and the most commonly recurring idiomatic expressions: they are specially adapted to draw out conversational power. The dialogues are most happily selected, and a most useful addition to this part of the book. The whole work is admirably adapted both for school classes and for self-instruction."—RICARDO RAMIREZ, *Professor of the Spanish Language and Literature at King's College, London; Examiner to the Society of Arts, London Chamber of Commerce, Law Society, &c.*

BY THE SAME AUTHOR AND TRANSLATOR.

Crown 8vo, 164 pages, price 2s. 6d.

## SCHILLING'S "DON BASILIO."

A Practical Guide to Spanish Conversation and Correspondence.

"This volume was written by Prof. Schilling as a companion reading-book to his excellent 'Spanish Grammar.' The first part (89 pages) consists of a series of dramatic dialogues in which Don Basilio, 'a bachelor and professor of languages' on holiday, figures variously enough to exemplify conversation under all ordinary circumstances. The talk is always bright—there is not a dull page in the Part; and any student that works through it carefully is bound to acquire an excellent working command of Spanish conversation. The second Part (66 pages) gives 100 examples of private and business letters and forms, together with lists of abbreviations, styles of address, modes of concluding a letter, &c., and a vocabulary. The volume is an admirable *mutum in parvo*. The selection and disposition of materials must have been a prolonged and exacting labour, by which the student will largely profit."—*Educational Times*, Jan., 1908.

LONDON: FRANCIS HODGSON, 89 FARRINGDON STREET, E.C.

NOW READY.

Demy 8vo, cloth, price 2s. 6d., free by post.

*To Members of the College the price is 1s., or 1s. 6d. free by post.*

## THE CALENDAR

OF

## THE COLLEGE OF PRECEPTORS

**FOR THE YEAR 1908:**

CONTAINING

*All information respecting the objects and operations of the College, Lists of Officers, Examiners, and Members, the Regulations of the various Examinations, &c., with an Appendix containing the following Examination Papers:—*

- |    |  |       |
|----|--|-------|
| 1. | Papers set at Examination of Teachers for Diplomas, Summer,      | 1907. |
| 2. | Do. do. do. Christmas,   | 1907. |
| 3. | Papers set at Examination of Pupils for Certificates, Midsummer, | 1907. |
| 4. | Do. do. do. Christmas,   | 1907. |
| 5. | Papers set at Professional Preliminary Examination, March,       | 1907. |
| 6. | Do. do. do. September,   | 1907. |
| 7. | Papers set at Lower Forms Examination ... .. Summer,             | 1907. |
| 8. | Do. do. ... .. Christmas,  | 1907. |

\* \* Nos. 3, 4, 5, and 6 may be had separately, price, free by post, 7d. each set. Nos. 7 and 8, price, free by post, 4d. each set.

*The Diploma Papers are to be had only in the "Calendar."*

FRANCIS HODGSON, 89 FARRINGDON STREET, LONDON, E.C.

EDUCATIONAL BOOKSELLERS

LARGEST STOCK  
of SECOND-HAND  
**School, Classical,  
Mathematical,  
Scientific Books**  
in London.

ESTABLISHED  
1854.

Keys and Translations.

BOOKS  
BOUGHT.

**J. POOLE & CO.,**  
104 Charing Cross Rd.,  
AND  
2 Manette Street, Soho,  
LONDON, W.C.

NEW AND SECOND HAND. WRITE TO US FOR A QUOTATION.

THE  
**School World.**

A MONTHLY MAGAZINE OF EDUCATIONAL  
WORK AND PROGRESS.

EACH NUMBER CONTAINS EIGHTY COLUMNS  
OF READING MATTER.

PRICE 6d. VOLUME IX., 1907, 7s. 6d. NET.

The aim of THE SCHOOL WORLD is to provide information of **practical and permanent value** to Schoolmasters and Schoolmistresses. To this end all important changes and developments affecting any branch of the work of teachers in secondary and other schools are dealt with by **leading authorities and experienced teachers.**

The Magazine has become indispensable to all who desire to keep in touch with modern and effectual methods of education.

MACMILLAN & CO., Ltd., LONDON.

**GEORGE GILL & SONS, LTD.,**

The following Works included in  
**The Oxford and Cambridge Edition**  
are required for the  
**1909**  
**OXFORD LOCAL EXAMINATIONS.**

**Religious Knowledge.**

- THE OXFORD AND CAMBRIDGE EDITION ST. MATTHEW.** Edited by Rev. F. MARSHALL, M.A. ... 1 6
- THE OXON. AND CANTAB. EDITION ST. MATTHEW.** Edited by Rev. F. MARSHALL, M.A. (*Preliminary*) net 1 0
- THE OXFORD AND CAMBRIDGE EDITION ACTS I.** Edited by Rev. F. MARSHALL, M.A. ... 1 6
- THE OXON. AND CANTAB. EDITION ACTS I.** Edited by Rev. F. MARSHALL, M.A. (*Preliminary*) ... net 1 0
- THE OXFORD AND CAMBRIDGE EDITION KINGS I.** Edited by Rev. F. MARSHALL, M.A. ... 1 6
- THE OXFORD AND CAMBRIDGE EDITION PRAYER BOOK.** Edited by Rev. F. MARSHALL, M.A. ... 1 0
- THE OXFORD AND CAMBRIDGE EDITION CHURCH CATECHISM.** Edited by Rev. F. MARSHALL, M.A. ... 1 6
- THE OXFORD AND CAMBRIDGE CHURCH CATECHISM.** Explained specially for Preliminary Candidates. Edited by Rev. F. MARSHALL, M.A. ... 0 6

**English.**

- THE OXFORD AND CAMBRIDGE EDITION TEMPEST.** Edited by STANLEY WOOD, M.A., and A. SYMS-WOOD, B.A. 1 6
- THE OXFORD AND CAMBRIDGE EDITION HENRY V.** Edited by STANLEY WOOD, M.A., and Rev. F. MARSHALL, M.A. 1 6
- THE OXFORD AND CAMBRIDGE EDITION MACBETH.** Edited by STANLEY WOOD, M.A. ... 1 6
- THE OXFORD AND CAMBRIDGE EDITION LAYS OF ANCIENT ROME.** Edited by Rev. G. PRESTON, M.A. ... 1 0
- THE OXFORD AND CAMBRIDGE EDITION LAY OF THE LAST MINSTREL.** Edited by Rev. F. MARSHALL, M.A. ... 2 0

*Unless otherwise stated all Volumes in the Oxford and Cambridge Edition are Crown 8vo, Cloth, Gold.*

In the above works the necessary "Notes" have been added to enable Candidates to answer questions set by the Examiners.

**GUIDE**

*to the 1909 Oxford Local Examinations, and Complete List of the "set" Books contained in the*

**Oxford and Cambridge Edition,**  
*Post free.*

**JUST PUBLISHED.**

**HISTORICAL ATLAS,**

*with CHRONOLOGICAL NOTES,*

by E. A. BENIANS, M.A., and T. H. KNIGHT, M.A. 96 pp. Crown 8vo, 8d.

Intended to provide suitable material for a general knowledge of British History and more especially for use as a supplementary work in Examination Preparation.

*Complete Catalogue post free.*

London: GEORGE GILL & SONS, Ltd., 13 Warwick Lane, E.C.

## EDUCATIONAL WORKS

By A. K. ISBISTER, M.A., LL.B.

(Late Dean of the College of Preceptors.)

Sixth Edition. 12mo, price 3s. 6d.

**THE COLLEGE EUCLID**; Comprising the First Six and portions of the Eleventh and Twelfth Books read at the Universities. Chiefly from the Text of Dr. SIMSON. With a new arrangement of the Figures and Demonstrations; the Enunciations of the Propositions separately for Self-Examination, apart from the Text; Notes and Questions on each Book; and a Series of Geometrical Problems for Solution, from the most recent University Examination Papers.

Fifteenth Edition. 12mo, price 2s. 6d.

**THE SCHOOL EUCLID**: Comprising the First Four Books. With Questions, Geometrical Exercises, &c.

**THE SCHOOL EUCLID**, Books I. & II. With Questions, Exercises, &c. 12mo, price 1s. 6d.

**THE SCHOOL EUCLID**, Book I. With Questions, &c. 12mo, price 1s.

New Edition. 12mo, price 9d.

**THE COLLEGE AND SCHOOL EXAMINER IN EUCLID**, containing the Enunciations of all the Propositions in the College and School Editions, Questions on the Definitions, Arithmetical and Algebraical Demonstrations of the Propositions in Books II. and V., and a large collection of Geometrical Problems for Solution. Designed for Class and Self-Examination, and adapted to all Editions of Euclid.

Third Edition. 12mo, price 1s. 6d.

**FIRST STEPS TO EUCLID**: Comprising the Propositions of Book I., prepared for writing out, with a recapitulation of the steps of the Demonstration appended to each. Forming a Text-book for the above.

Fifth Edition. Two Quarto Copy Books, price 6d. each.

**THE GEOMETRICAL COPY-BOOK**. Arranged for writing out the Propositions of Euclid in the Abbreviated and Symbolical Form adopted in the Universities and Public Schools.

Ninth Edition. 12mo, price 1s.; or, with Answers, 1s. 6d.

**UNITARY ARITHMETIC**. Embodying the First Book of Arithmetic of the Irish National Board. With numerous additional Examples, and selections from recent Examination Papers; and a full exposition of the "Unitary" System, or Method of Working Arithmetic without rules.

\* \* In this Edition, Questions in Proportion, Practice, Interest, Stocks, Partnership, Profit and Loss, &c., are, by the "Unitary" Method, solved by a single rule.

New Edition. 18mo, price 9d.

**THE ELEMENTS OF BOOK-KEEPING**, by SINGLE and DOUBLE ENTRY; with Practical Explanations and Exercises on the most useful Forms for Business.

4to, 1s. each.

**ENGRAVED ACCOUNT BOOKS**. Ruled and Interleaved for Copying, adapted to the above.

No. I. Business Forms. 1. Bills of Parcels and Book Debts. 2. Invoices. 3. Account Sales. 4. Receipts. 5. Promissory Notes and Drafts. 6. Bills of Exchange.

No. II. Day-Book and Cash-Book.

No. III. Ledger, Index, and Balance Sheet.

Sixteenth Edition, with Map. 12mo.

**CÆSAR'S COMMENTARIES on the GALLIC WAR**.

BOOKS I.-V. With Notes Critical and Explanatory, a Vocabulary of all the Words in the Text, and Easy Reading Lessons for Beginners ..... price 3s. 6d.

BOOKS I.-VII. do. do. do. 4s. 6d.

Do. (without the Reading Lessons) ..... 4s. 0d.

Twenty-fifth Edition.

BOOK I. (with Vocabulary Reading Lessons, &c.) ..... 1s. 6d.

Fourteenth Edition. 12mo, price 3s. 6d.

**XENOPHON'S ANABASIS**, Books I. to III. With Notes, Vocabulary of all the Words in the Text, and a Series of Easy Reading Lessons for Beginners. Designed as a First Greek Reading Book in Schools.

LONDON: LONGMANS &amp; CO., PATERNOSTER ROW, E.C.

1908.

## COLLEGE OF PRECEPTORS.

(Incorporated by Royal Charter.)

BLOOMSBURY SQUARE, W.C.

## Lectures for Teachers

ON THE

## SCIENCE, ART, AND HISTORY OF EDUCATION.

## THE APPLICATION OF PSYCHOLOGY TO THE WORK OF THE SCHOOL.

To be delivered by Professor J. ADAMS, M.A., B.Sc., F.C.P., Professor of Education in the University of London.

The First Course of Lectures (Thirty-sixth Annual Series) commenced on Thursday, February 13th, at 7 p.m.

The Course is meant to meet the needs of teachers who wish to improve their acquaintance with what underlies the principles of their profession, whether they have any examination in view or not. The lecturer will treat his subject in such a way as to fit in with the requirements of the College in connection with the examinations for the Associateship, the Licentiate'ship, and the Fellowship. The reading of the students will be guided, and problems set for their exercise. Every opportunity will be taken of making practical applications of psychological principles to the work of the classroom.

## SYLLABUS.

I. (Feb. 13.) *Nature and scope of Psychology*: border-land between physiology and psychology; characteristics of consciousness: the psychological attitude of mind: the teacher's use of psychology: Professor Munsterberg's view: the intermediary between psychology and education: genetic psychology: experimental methods: child study.

II. (Feb. 20.) *Consciousness*: its fundamental character: its polarity: its insulation: "the general consciousness": the ego or self: the subjective and objective: the unity of individual consciousness: meaning of the subconscious: advantageous position of educator as external influence.

III. (Feb. 27.) *Manipulation of Consciousness*: the various modes of being conscious: the so-called faculties: concentration and diffusion of consciousness: interest and attention: interaction between them: interest as means and as end: relation between the interesting and the easy: kinds of attention: physiological mechanism of attention.

IV. (March 5.) *Sense-perception*: nature of pure sensation: the senses, general and special: the essential mark of perception: the respective contributions of sensation and perception to knowledge: nature and scope of observation: its relation to inference: the gaping point: danger underlying the phrase "the training of the senses."

V. (March 12.) *Mental content*: the unit of mental content: the idea: laws of the interaction and combination of ideas: apperception: presented content and presentative activity: gradual modification of presentative activity: transitive and intransitive elements of thought: the static and dynamic view of the concept: the logical and psychological aspect of the concept.

VI. (March 19.) *Habit*: habit based on the laws of association: these laws not limited to ideas: association a general principle of organic development: place and value of habits in education: accommodation and co-ordination: the elimination of consciousness: convergent and divergent association: the continuum: reintegration.

VII. (March 26.) *Retention and recall*: physiological basis of memory: plasticity: memory not limited to intellectual process: personal identity: question of the possibility of improving the quality of memory: educational applications of mnemonics: learning by rote; obliviscence: element of purpose in memory.

VIII. (April 23.) *Imagination*: place of imagery in thinking: limitations imposed by images: importance of clearly imaged ends in ordinary life: practical applications in the schoolroom: the æsthetic imagination: cause of general suspicion of the "busy faculty": scientific uses of the imagination: exact meaning of "picturing out": relation of the imagination to the ideal.

IX. (April 30.) *Judgment and reasoning*: relation between logic and psychology: concept, judgment, reasoning correspond generally to term, proposition, syllogism: essential meaning of thinking is an adaptation of means to ends on the ideational plane: the purposive aspect of apperception: distinction between mere reintegration and thinking: the laws of thought as thought: the fundamental condition of all mental process: what underlies fallacies.

X. (May 7.) *Human nature*: general tendency to over-estimate the cognitive aspect: relation of knowledge to character: temperament the physical basis of character: classification of temperaments and of character types: advantages and dangers of such classifications: personality: permanency of temperaments and means by which they may be modified: types of troublesome pupils: treatment of the different temperaments in school.

XI. (May 14.) *The emotions*: value of the emotions in human life: like-sensations they are subject to the law of relativity: emotions are to be utilized, not eliminated: cause of popular depreciation of the emotions: emotions are to be regulated by ideas: classification of the emotions: their expression: Lanke-James theory of relation between emotion and its expression: element of truth in the theory and its great practical importance to teachers.

XII. (May 21.) *The will*: relation of will to feeling on the one hand and knowledge on the other: the appeal of the motive: fallacy of "the strongest motive": resolution of the dualism implied in the process of making up one's mind: metaphysical exercises obscuring the problem of the freedom of the will: the evolution of the will in its relation to desire: the possibility of the training of the will: fundamental importance of the time element in this training.

The Fee for the Course of Twelve Lectures is Half-a-Guinea.

\* \* The Lectures will be delivered on THURSDAY EVENINGS, at 7 o'clock, at the College, Bloomsbury Square, W.C.—Members of the College have free admission to the Course.



# Messrs. LONGMANS & CO.'S LIST.

By **SAMUEL RAWSON GARDINER, D.C.L., LL.D.**

## A STUDENT'S HISTORY OF ENGLAND.

FROM THE EARLIEST TIMES TO 1901.

Vol. I.: B.C. 55–A.D. 1509. With 173 Illustrations. Crown 8vo, 4s.

Vol. II.: 1509–1689, With 96 Illustrations. Crown 8vo, 4s. Vol. III.: 1689–1901. With 109 Illustrations. Crown 8vo, 4s.  
COMPLETE IN ONE VOLUME. With 378 Illustrations. Crown 8vo, 12s.

**PREPARATORY QUESTIONS ON THE ABOVE.** By R. SOMERVELL, M.A., Assistant Master at Harrow School. Crown 8vo, 1s.

## A SCHOOL ATLAS OF ENGLISH HISTORY.

With 66 Maps and 22 Plans of Battles, &c. Fcap. 4to, 5s.

## OUTLINE OF ENGLISH HISTORY.

B.C. 55–A.D. 1901. With 96 Woodcuts and Maps. Fcap. 8vo, 2s. 6d.

By **CYRIL RANSOME, M.A.**

## A SHORT HISTORY OF ENGLAND.

FROM THE EARLIEST TIMES TO THE DEATH OF QUEEN VICTORIA.

With Tables, Plans, Maps, Index, &c. Crown 8vo, 3s. 6d.

Or in Two Parts, 2s. each. Part I.: To 1603; Part II.: 1603 to 1901.

**A SUMMARY OF RANSOME'S SHORT HISTORY OF ENGLAND.** With 22 Maps and Plans, and 34 Genealogical Tables. 1s.

By **C. W. C. OMAN, M.A., F.S.A.**

EIGHTH EDITION, REVISED, AND WITH ADDITIONAL ILLUSTRATIONS.

## A HISTORY OF GREECE.

FROM THE EARLIEST TIMES TO THE DEATH OF ALEXANDER THE GREAT.

With 13 Maps and Plans and 84 Illustrations. Crown 8vo, 4s. 6d.

## A HISTORY OF ENGLAND.

By the **Rev. J. FRANCK BRIGHT, D.D.**

With numerous Maps and Plans.

Period I.—**MEDIÆVAL MONARCHY:** The Departure of the Romans to Richard III. 449 to 1485. 4s. 6d.

Period II.—**PERSONAL MONARCHY:** Henry VII. to James II. 1485 to 1688. 5s.

Period V.—**IMPERIAL REACTION:** Victoria. 1880 to 1901. 4s. 6d.

Period III.—**CONSTITUTIONAL MONARCHY:** William and Mary to William IV. 1688 to 1837. 7s. 6d.

Period IV.—**THE GROWTH OF DEMOCRACY:** Victoria. 1837 to 1880. 6s.

By **J. HAMBLIN SMITH, M.A.**

**ARITHMETIC.** Crown 8vo, 3s. 6d.. (Copies may be had either with or without the Answers.)  
*A KEY, 9s.*

**A SHILLING ARITHMETIC.** For the use of Elementary Classes and Preparatory Schools. Fcap. 8vo, 1s.; with Answers, 1s. 6d.

**EXERCISES IN ARITHMETIC.** Arranged and adapted to the Sections in HAMBLIN SMITH'S "Treatise on Arithmetic." Crown 8vo, with Answers, 2s.; without Answers, 1s. 6d.  
*A KEY, 6s. 6d.*

**ELEMENTARY ALGEBRA.** New Edition, with a large number of Additional Exercises. With or without Answers, crown 8vo, 3s. 6d.; Answers separately, 6d.  
*A KEY, crown 8vo, 9s.*

**EXERCISES ON ALGEBRA.** Small 8vo, 2s. 6d. (Copies may be had without Answers.)

**ELEMENTARY TRIGONOMETRY.** Small 8vo, 4s. 6d.  
*A KEY, 7s. 6d.*

**ELEMENTARY STATICS.** Crown 8vo, 3s.

**ELEMENTARY HYDROSTATICS.** Crown 8vo, 3s. *KEY to Statics and Hydrostatics.* 6s.

**RIDERS IN EUCLID.** Containing a Graduated Collection of Easy Deductions from Books I., II., III., IV., and VI. of Euclid's "Elements of Geometry." Crown 8vo, 1s. 6d.

**AN INTRODUCTION TO THE STUDY OF HEAT.** Crown 8vo, 3s.

**GEOMETRICAL CONIC SECTIONS.** Crown 8vo, 3s. 6d.

**ELEMENTS OF GEOMETRY.** Containing Books I. to VI. and portions of Books XI. and XII. of Euclid, with Exercises and Notes. Arranged with the Abbreviations admitted in the Cambridge University and Local Examinations. Crown 8vo, 3s. 6d. (Books I. and II. may be had separately, limp cloth, 1s. 6d.)  
*A KEY, 8s. 6d.*

**BOOK OF ENUNCIATIONS FOR HAMBLIN SMITH'S GEOMETRY, ALGEBRA, TRIGONOMETRY, STATICS, and HYDROSTATICS.** Small 8vo, 1s.

**THE METRIC SYSTEM OF WEIGHTS AND MEASURES.** An Elementary Treatise. Crown 8vo, 2s.

# Cambridge University Press

**Chaucer. The Prologue and The Knight's Tale.** Edited, with Introduction, Notes, and Vocabulary, by M. BENTINCK SMITH, M.A.

Fcap. 8vo,  
2s. 6d.

Portions of the introduction have been written with a view to the teacher rather than the pupil, the editor's aim being to give in a concise form the materials which the teacher requires to have at his disposal if the taught are to obtain an adequate conception of Chaucer's importance in the history of English literature and language. A short bibliography containing a list of authorities has been appended.

**The Modern Language Review.** A Quarterly Journal devoted to the Study of Mediæval and Modern Literature and Philology. Edited by Prof. JOHN G. ROBERTSON, with the assistance of an Advisory Board.

Contents of Vol. III. No. 3, April, 1908.

Rabelais and Geographical Discovery. II. Jacques Cartier. By Arthur Tilley.  
"Earth upon Earth." By H. G. Fiedler.  
The Inquisition and the "Editio Princeps" of the "Vita Nuova." By Paget Toynbee.  
Milton's Heroic Line viewed from an Historical Standpoint. VIII.-X. By Walter Thomas.  
Spenser and Lady Carey. By Percy W. Long.  
The Elizabethan Sonneteers and the French Poets. By L. E. Kastner.  
West Germanic "I" in Old English Saxon Dialects. By Marie A. Lewenz.  
Reviews—Minor Notices.

Vol. III., No. 3,  
2s. 6d. net.

Subscription  
Price.

"The Modern Language Review" appears four times a year—in October, January, April, and July. The annual subscription is 8s. net (post free 8s. 6d.), payable in advance. Vol. I. (1905-6) and Vol. II. (1906-7) may be had, bound in buckram, at 10s. net each.

**A Manual and Dictionary of the Flowering Plants and Ferns.** By J. C. WILLIS, M.A., Director of the Royal Botanic Gardens, Ceylon.

Third Edition,  
Crown 8vo,  
10s. 6d.

The former editions have been favourably received among travellers, residents in outlying districts, schoolmasters, and the considerable class of people who have an indirect interest in botany and need some work of general reference in that subject. In the Third Edition Part II. has been slightly enlarged and to a great extent rewritten; while Part III. has been largely added to, with the view of bringing in all technical terms likely to be met with and Colonial and American names of plants.

**The New Testament in Greek,** according to the text followed in the Authorized Version, together with the Variations adopted in the Revised Version. Edited by F. H. A. SCRIVENER, M.A., D.C.L., LL.D.

The special design of this edition is to place clearly before the reader the variations from the Greek text represented by the Authorised Version of the New Testament which have been embodied in the Revised Version, the readings adopted by the revisers being printed at the foot of the page. The publication of such an edition appeared to be all the more desirable, inasmuch as the Authorised Version was not a translation of any one Greek text then in existence, and no Greek text intended to reproduce in any way the original of the Authorised Version had ever been printed.

This edition of the New Testament in Greek is now issued in two sizes, both on white paper and on India paper, at the following prices:—  
Foolscap 8vo, cloth, 3s. net (originally published at 4s. 6d.).  
Foolscap 8vo, printed on India paper, cloth, 4s. 6d. net.  
Crown 8vo, cloth, 3s. 6d. net (originally published at 6s.).  
Crown 8vo, printed on India paper, cloth, 5s. net.  
Both sizes may also be had in leather bindings.

Revised  
Net Prices.

## Books suitable for the OXFORD LOCAL EXAMINATIONS, 1909

### THE PITT PRESS SHAKESPEARE FOR SCHOOLS.

With Introduction, Notes, Glossary, and Index, by A. W. VERITY, M.A.

**The Tempest.** Sixth Edition. 1s. 6d.

"Mr. A. W. Verity possesses learning, literary insight, and a facile pen. He has a knowledge of boys and sympathy with their difficulties; moreover, when writing for them he seldom loses himself in his subject to the extent of forgetting his audience. Consequently, as has been shown in these columns on more than one occasion, he is an almost ideal editor of school texts."—*Guardian*.

**Macbeth.** Fourth Edition. 1s. 6d.

"Seems to us to be an excellent text-book for the study of the play."—*Education*.

**King Henry the Fifth.** Fifth Edition. 1s. 6d.

"The school edition of the play."—*Guardian*.

**Macaulay. The Lays of Ancient Rome,** and other Poems. Edited by J. H. FLATHER, M.A.

Fcap. 8vo,  
1s. 6d.

"In thorough keeping with the other volumes of this series, an evidence of patient labour, and no mean tribute to Macaulay himself. The notes are brief and pointed, and two useful maps are appended. The introduction is brief, but exceedingly well done."—*School World*.

**More's Utopia.** Edited, with Introduction, Notes, Glossary, and Index of Names, by J. RAWSON LUMBY, D.D.

Fcap. 8vo,  
2s.

"Edited, in a most complete and scholarly fashion, by Dr. J. R. Lumby, whose name alone is a sufficient warrant for its accuracy. It is a real addition to the modern stock of classical English literature."—*Guardian*.

**Scott. Quentin Durward.** Edited by W. MURISON, M.A.

Fcap. 8vo,  
2s.

"Mr. Murison's introduction is a model of what is necessary for the historically unlearned, and contains neither too much nor too little for the student."—*Aberdeen Free Press*.

**Scott. The Talsman.** Edited by A. S. GAYE, B.A.

Fcap. 8vo,  
2s.

"The Editor's introduction contains a short summary of the historical events on which the story is based. The five pages of Glossary give succinctly the meaning of all hard words."—*School Guardian*.

**Scott. The Lay of the Last Minstrel.**

Fcap. 8vo,  
2s.

Edited, with Introduction, Notes, and Glossary, by J. H. FLATHER, M.A.  
"It is one of the very best edited school texts ever placed before the public."—*Guardian*.

### THE PITT PRESS SERIES, &c.

AUTHOR.	WORK.	EDITOR.	PRICE. s. d.
<b>Eckmann-Chatrian</b> .....	Histoire d'un Conserit de 1813 .....	A. R. Ropes .....	3 0
<b>Kauf</b> .....	Die Karavane.....	A. Schlottmann.....	3 0
<b>Caesar</b> .....	De Bello Gallico, Book III.....	A. G. Peckett.....	1 6
".....	" " Books IV. V. ....	" ".....	1 6
".....	" " Books III., IV. ... (With Complete Vocabulary.)	E. S. Shuckburgh es.	1 6
<b>Horace</b> .....	Odes, Book III.....	J. Gow.....	2 0
".....	" Book IV.....	".....	1 6
<b>Livy</b> .....	Book XXII.....	M. S. Dimsdale.....	2 6
<b>Virgil</b> .....	Aeneid, Books III., IV.....	A. Sidgwick..... es.	1 6
".....	" Book III..... (With Complete Vocabulary.)	".....	1 6
<b>Aeschylus</b> ...	Prometheus Vincitus.....	H. Rackham.....	2 6
<b>Euripides</b> ...	Hecuba.....	W. S. Hadley.....	2 6
<b>Plato</b> .....	Apologia Socratis.....	J. Adam.....	3 6
".....	Crito.....	".....	2 6
<b>Xenophon</b> ...	Anabasis, Books III., IV.....	A. Pretor..... es.	2 0
".....	" " " "..... (With Complete Vocabulary.)	G. M. Edwards... es.	1 6

### THE CAMBRIDGE BIBLE FOR SCHOOLS AND COLLEGES

BOOK.	EDITOR.	PRICE. s. d.
<b>*The First Book of Kings</b> (Authorised Version)	J. R. Lumby.....	2 0 net
" (Revised Version) ...	W. E. Barnes.....	2 0 net
<b>*The Gospel according to St. Matthew</b> ...	A. Carr.....	2 0 net
<b>*The Acts of the Apostles</b> .....	J. R. Lumby.....	3 0 net
<b>The Epistles to the Thessalonians</b> .....	G. G. Findlay.....	1 6 net
" " (with Greek Text)	".....	3 0
" " * Smaller Editions, 1s. each.		

### REVISED VERSION.—SCHOOL EDITION.

**The Gospel according to St. Matthew**..... A. Carr..... 1 6 net

CONTENTS.

Leader: Educational Peace .....	201	Sir Edward Busk on Moral Education: Address at the College of Preceptors .....	215
Notes .....	202	Practice and Prejudice in Education. Lecture by Prof. J. W. Adamson (concluded) .....	217
Visit of American Teachers—Secondary Schools Regulations: Deputation to Mr. McKenna—Connexion of Primary and Secondary Schools—Private Schools in America—The Pigmentation Survey of Scotland—Proposed University for Hong-Kong. ....	204	London University Developments .....	219
Summary of the Month .....	205	The Teachers' Register:	
Universities and Colleges .....	205	Council's Final Report .....	220
Oxford—London—Sheffield—Bristol—Bangor—St. Andrews—Irish University—Wales. ....	206	Educational Opinion .....	220
Correspondence: A Correction .....	206	Mr. McKenna's Attitude .....	221
The College of Preceptors:		Reviews .....	221
Meeting of the Council .....	206	The Cambridge Modern History: Vol. V., The Age of Louis XIV.—The Political History of England: Vol. XII., The History of England during the Reign of Victoria (1837-1901) (Low and Sanders)—The Makers of British Art: Richard Wilson, R.A. (H. Fletcher)—Microscopy: the Construction, Theory, and Use of the Microscope (Spitta)—Plane Geometry (Davison and Richards). ....	
Certificate Examination, December, 1907: Supplementary Lists .....	207	General Notices .....	223
The Library: List of Books recently purchased .....	209	First Glances .....	226
The Educational Ladder .....	208	Mathematics .....	228
Transition from Primary to Secondary Schools .....	210		
Current Events .....	213		
Fixtures—Honours—Endowments and Benefactions—Scholarships and Prizes—Appointments and Vacancies—Literary Items—General. ....			

The Educational Times.

Educational Peace.

THE reception of the Bishop of St. Asaph's Bill in the House of Lords, though somewhat disappointing to eager hopes of compromise, has not been without effect on the embarrassed situation, and the suggestions of the measure are probably bearing fruit in a wider sphere. We hear of conferences of keen representatives of the most antagonistic contentions and demands. The changes in the Administration may render it easier for a fresh President of the Board of Education to handle the points of difference with a more elastic touch. Apparently almost everybody now accepts the two fundamental positions maintained by the victorious party at the General Election and necessarily governing the official educational policy—public control where public funds are provided and no tests for teachers. "Subject to that," said Mr. Winston Churchill at Manchester, no doubt advisedly, "some exceptional treatment might be given," which, if it means anything at all, means that the Government have an open mind on details. Evidently there must be some give-and-take if "an effective and harmonious settlement" is to be reached, and no other kind of settlement is worth reaching. "All great alterations in human affairs," said Sydney Smith, "are produced by compromise." And the saying is to be commended to extremists.

The contracting-out plan of the Government Bill is one obvious enough mode of dealing with exceptional cases. The unfortunate thing is that the exceptions are so large as against the rule, and the proposed manner of treating them is fairly capable of being construed either as a menace of their eventual extinction or at least as a permanent danger to efficiency. We have no doubt whatever that the proposals are honestly intended to relieve a difficult situation; but the practical outcome is not necessarily determined by good intentions, and there seems to be solid ground for the gravest doubt whether the results would work out satisfactorily either for the contracting-out parties or for the interests of education. The case of the Catholic schools furnishes one of the strongest illustrations. How could the Catholics of the London district, it is asked, "do for 47s. what is at present costing 75s.?" "Moreover," runs another

appeal, "your children will be deprived of all the advantages of the pupil-teacher system, of manual training, housewifery, swimming, and other centres, of scholarships, and the benefit of expert advice, for all of which you have to help to pay in your rates." This prospect faces 1,080 schools with 400,000 school places. We have already drawn attention to the weighty resolution of the N.U.T., passed by the Executive and endorsed by the Conference at Hastings, "condemning the contracting-out clauses of the Education Bill as vitiating fatally the principles of local public control and religious freedom for teachers, which the other clauses were intended to secure."

The Bishop's Bill has the advantage of association with the tendency to a national system; it would "provide for the establishment of one type of public elementary school under full public control." It requires religious teaching "during school hours"; but it leaves undenominational religious teaching to the control and the cost of the Local Education Authority, and it asks "facilities for denominational religious teaching on three days a week to those children whose parents desire such teaching for them, but no part of the cost is to be paid by the Local Education Authority." As for the teacher, "except in accordance with his wishes, no teacher shall be required to give any religious instruction," but every teacher is left "free to offer to give either simple Christian (Cowper-Temple) teaching or teaching distinctive of a particular denomination." It may be doubted whether this will satisfy the teachers: while providing in terms for their absolute freedom, it ignores the indirect influences that would always possibly, and perhaps probably, be present, and gives no security for such fair treatment as the Bishop intends to be exercised. Here again we must look beyond intentions to the probable operation of human nature in the particular case. We suspect it will be far from easy for Nonconformist spokesmen to moderate the intensity of their expressed objections to "facilities." Moreover, St. Asaph has to reckon with Birmingham. The Bishop of Birmingham declared that "that those of them who valued most the privilege of giving distinctive religious teaching to the children of those parents who desired such teaching through teachers who believed in it could not find in this Bill the prospect of a reasonable settlement." And why? "At present their stronghold was the position of the denominational schools,"

and they would not be justified "in surrendering that stronghold for the prospect of additional facilities," which, if allowed, would probably "be very little used." The argument is, in more ways than one, very remarkable; but it represents a more or less considerable barrier in the way of the Bishop of St. Asaph's Bill.

On one or the other of these two main lines—contracting-out or special facilities—the wiser leaders of the Church appear to be looking for a settlement. The 47s. is not a rigid figure; and facilities, on the despondent view of the Bishop of Birmingham, as well as on grounds more creditable to the religious feeling of the people, need not alarm the sincerest of Nonconformists. But, of course, facilities are of no use to the Catholics, who postulate absolutely a Catholic "atmosphere" for the teaching, and for all the teaching. As between the Church and the Government, perhaps the only real difficulty will lie in the single-school areas; and it is a very serious difficulty. The Nonconformist grievance has been frankly acknowledged, however; and it may be that a practical concession will give effect to the argumentative acknowledgment. In any case, the country cries aloud for educational peace.

### NOTES.

A VERY cordial welcome will be extended by teachers and educationists generally on this side to the American expedition of "five hundred or more public-school teachers to England, Scotland, Ireland, and the Continent for the inspection of schools and teaching methods," which is to reach these shores in detachments between September and February next. The American Advisory Committee is headed by President Butler, of Columbia, who is also Chairman of the Industrial Economics Department of the National Civic Federation, under whose auspices and direction the expedition is being planned. The National Civic Federation, we may remark, is "an organization for the betterment of the people and the practical discussion of questions of public utility," and "is deeply interested in the growing demand for trade and industrial education," believing, as it does, "that trade and industrial schools will sooner or later become a part of the American public-school system, and that possibly some readjustment of the general work of the schools will be necessary to meet new conditions." On this side of the water the lead for the reception of the visitors is being taken by Mr. Alfred Mosely, who has already secured a representative and influential committee and has initiated the formation of local committees in the principal towns throughout the country. Mr. J. Bruce Ismay, of Liverpool, will now, as before, prove his interest in the movement by generous practical arrangements for transport. A large proportion of the visitors will, of course, be ladies. We are quite sure that they will be received in the friendliest manner, that they will be afforded ready facilities for seeing everything that is likely to be useful to them or to interest them, and that British hospitality will render an uncalculated return for the kindness experienced by Mr. Mosely's parties in past years. The closer the personal touch, the better the mutual understanding and the more

sympathetic the relations between the two great English-speaking countries.

THE influential deputation from the Secondary Schools Association to the President of the Board of Education (April 3) did good service in two ways at least: it gave voice to the principal complaints about the Secondary Schools Regulations, and it afforded Mr. McKenna an opportunity of explaining how matters really stand. The first point was strongly put by Sir Philip Magnus, who "suggested that the Board of Education would derive considerable advantage by consulting those connected with secondary schools in regard to any such administrative changes, and asked that notice should be given of any changes of a serious character, and opportunity afforded for the discussion of any such changes while they were still in a provisional form." To this Mr. McKenna replied that "it so happened that this year, for the first time in the history of the Board's regulations, notice was given to the public, and opportunities were afforded for the discussion of the proposed changes, and very little criticism was offered upon them at the time." Here, then, is a lesson in promptitude of action; though it is to be remembered that it takes some time to collect opinion and to bring it to a focus for practical purposes. The second point—the administration of Article 20—was not pressed very closely either by Lord Shuttleworth or by Prof. Butcher; and Mr. McKenna frankly stated the limited extent of its actual application and illustrated roughly the general principle of the Board's action. He thought the deputation would find "that there was not a shred of evidence to support the statement that the Board was impairing the education of the country as to the 25 per cent. of free places." The third object was to urge the withdrawal of Article 44, which provides that no grants shall hereafter be payable in respect of schools not on the grant list for 1906-7. Prof. Butcher made two objections: (1) non-conforming schools did not get grants and inspection was withdrawn—"a most retrograde step"; and (2) diversity of type was discouraged—a "mischievous" thing, "dealing a very serious blow to English education." Mr. McKenna replied that "up to the present moment the Board had received no evidence that the Article had worked any inconvenience." And generally he laid stress on the fact that these regulations run only for the current, and can be amended for next year, the Board being quite open to criticisms and suggestions.

THE connexion between the primary and the secondary school was one of the most interesting and practically important questions discussed by the N.U.T. at their very successful Hastings meeting. On the point of age, Mr. J. Lewis Paton, of Manchester Grammar School, held that both psychological and practical considerations indicate twelve, or even earlier, as the right age for the break; and Mr. Lishman, the head of a Bradford Municipal Secondary School, contended that, "if scholarship children are to start on level terms with their schoolfellows in certain essential subjects, they must enter the secondary school at ten or eleven." Say, then, roundly: preparatory school, seven to twelve; secondary school, twelve to sixteen. Given this

division, Mr. Lishman foresees two natural and desirable results: "one would be the unification of the teaching profession, the establishment of free trade between the two domains of education, and the abolition of the hierarchy of snobbery which now too largely prevails; the other would be the humanizing of the preparatory-school curriculum." As to the mode of transference, Mr. Lishman affirms that it is at present "on an utterly false and unjust basis": it assumes that the object is to raise a fortunate few above their fellows rather than to raise the general level of culture; competitive examination, if unavoidable under existing conditions, yet puts a premium on precocity; and "the error is intensified by the want of correlation between the two types of schools." Mr. Paton suggests a classification of the children above Standard IV. in two Divisions: "in the A Division should be placed all the children who show brightness and intellectual promise"; the rest, in the B Division. But, of course, "any scheme depends for success on the people who work it." "Column B has been swept away: let it go, and with it all that it connotes: our interests are one and indivisible." Mr. Lishman pointed out that, "while last year there were 5,300,000 children in average attendance in the primary schools, there were only 90,000 taking the recognized four years' course in schools receiving grant from the Board of Education," and that "even if we double the latter number, so as to include those above the recognized course and those in schools not receiving grant, the disparity in the numbers is appallingly great."

THE "occasional correspondent," contributing an elaborate series of articles to the *Times* on his impressions of "A Year amongst Americans," deals with outstanding points in the American educational system. From his seventh article (April 20), we quote a sentence or two about private schools and their prospects:

The spirit of democracy, which is essential in this great Republic, is maintained by many of the institutions of the country, and especially by the public schools. There are many private schools for such families as prefer their exclusive ways; it is estimated that the number of children attending these is one-twelfth of the number in public schools, and that, I understand, is about the proportion which is to be found in England. But the significant fact is that there is a steady decrease in the number of private schools and in the number of pupils attending those that survive. Private high schools for a time showed greater vitality than private elementary schools; but even in these there has been a decrease of no less than 1,500 since 1902, in spite of an increasing population. The sceptre has passed from the private schools; and in the common schools, not only rich and poor, but also natives and immigrants, meet together on a footing of strict equality, taking their places according to what they are and not what they are called, each, under its undiscriminating rule, finding his natural level, wholly regardless of the conventional circumstances of life.

Is it to be inferred, then, that in this country also the spirit of democracy will militate against the private school? At any rate, its manifestations are neither so fast nor so furious as in the transatlantic Republic; nor should there be any real conflict between the principle and the institution.

A "MEMOIR on the Pigmentation Survey of Scotland," written by Mr. John Gray, B.Sc., of the Patent Office, and published by the Royal Anthropological Institute, of which Mr. Gray is the Hon. Secretary, is one of the most interesting and important records of the anthropometric movement. The survey was initiated by Mr. Gray and

conducted by him conjointly with Mr. J. F. Tocher, Secretary of the Buchan Field Club, under the auspices of a local Committee, assisted financially from the Royal Society Government Grant Committee; and he generously declares that "perhaps the greatest credit for carrying out this survey is due to the school teachers of Scotland"; for "without their co-operation the work could not have been done with the limited financial resources at the disposal of the Committee." The method of procedure is in alliance with, and is reinforced by, the investigations of Prof. Karl Pearson and Mr. Udny Yule. Elaborate statistical tables and a score of special maps are appended to the memoir of explanation. The conclusions (under reserves) are often very curious and interesting. Thus: "There is usually in large towns an immense difference between their pigmentation and that of the surrounding country." "Industrial towns, like Glasgow and Dundee, are unhealthy for the blonde type." "Urban conditions tend to increase the percentage of red hair among men, but does not perceptibly affect that among women"; and they appear to be "favourable to the survival of brown-haired men" and "dark-haired women" and dark eyes generally. Blue eyes commonly go with fair hair; but dark eyes do not always go with dark hair. Glasgow—a very mixed population—"shows an immense deviation from the normal, both on the hair- and on the eye-colour map." The historical deductions, if to be taken with caution, are extremely suggestive, and they are largely emphasized by the representations on the maps. The memoir must have cost enormous labour, and it shows remarkable results, which will, no doubt, gain increased importance from other results in the different branches of anthropometric inquiry.

SINCE the awakening of the Far East by the roar of cannon, many young Chinamen have been sent to the Universities of the East and of the West to equip themselves with modern learning for patriotic no less than for personal ends. Sir Frederick Lugard, the energetic Governor of Hong-Kong, however, proposes to provide for their educational needs nearer home. He thinks that the geographical position of his island adapts it remarkably well to be an educational centre—in fact, "the Oxford and Cambridge of the Far East." If Hong-Kong, then, could establish a University offering facilities of an adequate character, why should it not attract a large number at least of the Chinese students that are now flocking to Japan, America, Great Britain, and the Continent of Europe? Why not bring modern learning to Hong-Kong? The idea has commended itself to Mr. H. N. Mody, a Parsee bill and bullion broker, an old citizen of the Colony, who has offered to place at his Excellency's disposal the handsome sum of 150,000 dollars, say £15,000. Even for a modest beginning, however, there would be required something like £100,000, or a yearly income of £6,000. Sir Frederick has held a public meeting on the subject and appointed a committee of inquiry to draw up reasonably precise data. The co-operation of Chinese and Europeans is invited. The Government will, no doubt, grant a suitable site; at any rate, Sir Frederick will make the recommendation. Meantime, all honour to Sir Frederick and to Mr. Mody and all success to the undertaking!

## SUMMARY OF THE MONTH.

FOLLOWING is the official suggestion of the scope and plan of the projected visit of Canadian and American teachers to the United Kingdom during the coming autumn and winter:—

1. The teachers are expected to arrive in a succession of small parties between September next and February, 1909, and will visit the principal cities and towns of the United Kingdom, investigating more particularly our primary, secondary, and technical education, manual training, and the training of teachers.

2. For this purpose they will see most of the great colleges and Universities, the principal technical institutions and polytechnics, the great public schools such as Eton, Rugby, Winchester, &c., and the preparatory schools in connexion therewith; the county schools, municipal secondary schools, colleges for girls, schools for co-education, training colleges, and schools of art. A certain number will also wish to examine into special branches of education, such as agricultural and mining colleges, reformatory schools, schools for adults and defectives, and domestic economy schools.

3. The chief centres will be London, Birmingham, Cardiff, Liverpool, Leeds, Manchester, Newcastle, Sheffield, Edinburgh, Glasgow, &c.

4. The investigations will be made under arrangements with the Local County and other Authorities concerned, and the teachers will be taken charge of by Reception Committees, headed by the mayors and other influential residents in the respective districts and education officials; with the active assistance of most of the large body of British teachers who visited America during the winter of 1906-7. The latter especially have expressed their desire to do all in their power to reciprocate the kindness shown them on the other side of the Atlantic, and to make the stay of our visitors both profitable and interesting.

ABOUT a year ago the Board of Education requested its Consultative Committee to consider and advise the Board what methods are desirable and possible, under existing legislation, for securing greater local interest in the administration of elementary education in administrative counties by some form of devolution or delegation of certain powers and duties of the Local Authority to district or other strictly local Committees. The Committee has reported to the Board, and the report has been published (Cd. 3952). A prefatory memorandum states that the findings of the Committee are under the consideration of the Board, and that the report has been published to provide information in view of the discussion arising out of the Bill recently introduced in the House of Commons to secure compulsory devolution. The Consultative Committee has arrived at certain general conclusions which should prove of value in assisting intelligent action. Every Education Committee, it is suggested, should, so far as existing powers go, secure as managers of schools the services of persons familiar with the educational needs of the locality and likely to be regarded with confidence and sympathy by parents, teachers, and the Education Authority. At the same time, there are certain duties requiring a wide outlook and broad educational experience which, the Committee thinks, should be reserved by the Authority itself. A certain number of counties exist which might with advantage create some form of local Sub-Committees and delegate to them duties appropriate to their needs and circumstances. It is very important to notice that the Consultative Committee states that it would be difficult, if not impossible, to devise any uniform system which would give general satisfaction throughout the country. It would be fatal to efficiency if a parochial spirit became predominant in the administration of education. It is desirable by all means to encourage an interest in educational matters in all districts by every legitimate means; but every step must be taken to ensure that the supply of efficient education in every locality is a national matter which must not be left at the mercies of local prejudices.

A BILL to establish compulsory continuation schools in England and Wales, and to amend the Education Acts of 1870 and 1902 in respect of the age of compulsory school attendance, has been introduced in the House of Commons by Mr. Chiozza-Money. In introducing the Bill, Mr. Chiozza-Money said that, according to the last census, there were in England and Wales 5,000,000 youths of both sexes between the ages of fifteen and twenty-one, and of these not more than 400,000 were receiving any measure of systematic training. This does not include the children of the upper and middle classes, but, if 400,000 be added, the extraordinary conclusion is arrived at that, out of 5,000,000 young people between fifteen and twenty-one years of age, only 800,000 continue training after leaving the elementary schools. The

practical result is that untrained boys and girls drift into the ranks of the incompetent, the unskilled, and the unemployed. The Bill abolishes all partial or total exemptions of boys and girls under fourteen years of age. It abolishes half-timers, making fourteen years the lowest age at which a boy or girl might leave an elementary school. A continuation scholar is defined as a boy between the ages of fourteen and seventeen, and a girl between the ages of fourteen and sixteen. The Bill makes it the duty of the Education Authority to establish continuation schools, with technical classes, and the attendance of continuation scholars is made compulsory on the parent and the employer. The hours of attendance would be six per week, spread over one, two, or three days. The cost of carrying out the provisions of the Bill would be defrayed out of money voted by Parliament.

THE accounts for the year ending July 31, 1907, of the various London polytechnics show that the total ordinary receipts of all the institutions amounted for the year to £203,952. The grants of the London County Council amounted to £77,358, or 37·93 per cent. of the total receipts. Grants from the Board of Education reached £32,844, or 16·11 per cent.; the amounts received from City Parochial Foundation were £28,330, or 13·89 per cent., and from City companies, &c., £5,917, or 2·90 per cent. The total ordinary expenditure on revenue account of all the institutions amounted to £207,519. Large increases occurred under two heads, viz., "teachers' salaries," £10,317, and "apparatus and other educational appliances and furniture," £3,116. Taking the results as shown by the accounts, it is seen that, so far as ordinary income and expenditure are concerned, there was a deficit of £3,567 on the institutions as a whole. With regard to items of an exceptional nature—principally new building works and special equipment—the total income was £15,089, of which the London County Council's grants amounted to £9,401, and the expenditure was £9,113. Of the total amount of revenue, it is interesting to note that the fees of students and members of the various polytechnics amounted in all to £47,255, or 21·57 per cent., and what are called in the accounts voluntary subscriptions reached £9,161, or 4·18 per cent., nearly twice as much as in the previous year, though other percentages were practically the same in both years.

At a meeting of the Birmingham Branch of the Association of Teachers in Technical Institutions (April 11), Dr. Slater Price read a paper on the Birmingham Technical School, sketching the growth of the school and its various departments. "It was impossible (he said) to give an estimate of the effect of the Technical School on the industries of the district. It was often said that the object of Birmingham University was to train the future captains of industry, but the Technical School had already trained, and would train in the future, a large number of such captains. In the session 1905-6 (he continued) the school made a departure in that it advertised classes for degrees in science and engineering of the University of London. The more advanced classes of the school have always contained a number of students preparing for London degrees, although no special arrangements were made for them. Now, it seems somewhat ironical that in a city which is proud of its University the Technical School should advertise classes for the University of London. I should like to see the Technical School affiliated to the University, or, at all events, such teachers as may be thought worthy might be recognized as teachers of the University of Birmingham. This is what happens in London in connexion with the evening classes of certain of their institutions, and I have never heard that it has had a bad effect on the University."

THE Scottish Education Department have issued a memorandum on Nature Study and the teaching of Science in Scottish schools. In a prefatory note it is stated that it has for years past been the policy of the Department (as expressed in the Code) to refrain from prescribing in detail the courses of instruction in the various school subjects. Teachers and managers have been left free to formulate their own proposals for consideration and approval. There is no thought of departing from this policy, which, though not without its disadvantages in certain cases, has yet given a stimulus to independent deliberation upon questions of curriculum, and thereby a directness of purpose and aim to individual work, the effects of which are becoming increasingly visible in our schools. The task of laying down a suitable course in any given subject is, however, by no means an easy one, and the Department have been repeatedly appealed to for

guidance. It is in response to these appeals that the preparation of the memoranda has been undertaken. It follows from what has been said that, as a rule, no attempt has been made to formulate a definite scheme of instruction. A definite scheme must be relative to the particular school to which it is to apply, and must take account of many circumstances, such as the size of the school concerned, the extent to which the classes are subdivided, and, above all, the contribution which the home may be depended upon to make towards the education of the children—considerations which are foreign to a general discussion. But an endeavour will be made to present clearly the end and aim of instruction in each separate branch, and the inner articulation and development of its subject matter, as well as to indicate certain leading principles which should be kept in view in the preparation of detailed syllabuses.

A SERIOUS outbreak of fire took place at Harrow School (April 2). The outbreak occurred at 10 minutes past 9 o'clock, in the top portion of Mr. Somervell's house, which is known as Stogdon's house. At the time the school was present in the Speech Room, where a lecture was being delivered. On leaving the Speech Room, Mr. Somervell was informed that his house was on fire. Perfect order was maintained by the boys, and Mr. Somervell called over the roll. The master and boys quietly walked up the street to the house, and by the time they arrived there the building was blazing furiously. The house, which is owned by Mr. Stogdon, one of the senior classical masters, is a building of four stories, contains from forty-five to fifty rooms, and accommodates thirty-eight boys, in addition to the household and servants. For some time it was feared that the flames might spread to Mr. Stogdon's present house, which is only separated by a small gap from the burning building; but this was prevented, after many willing helpers had assisted in removing pictures, valuables, &c., from the threatened premises. Shortly after 11 o'clock Mr. Somervell's house was practically destroyed, and there appeared to be no further danger of the fire spreading. Part of the building destroyed is about eighty years old, and part fairly new. Among the contents lost are many silver cups, all the name boards, and the photographs. The damage, which is estimated to amount to £8,000, is covered by insurance.

MR. ERNEST HUGH McDougall, Professor of English and History at Elphinstone College, Bombay since 1905, died (April 11) at Beaconsfield, Great Malvern, the residence of his father, the Rev. T. H. McDougall, at the age of thirty. Educated at Haileybury, and at New College, Oxford, where he graduated M.A., Mr. McDougall entered the Indian Educational Service in 1894, and in that year was appointed Professor of English Literature at Deccan College, Poona. He was a Fellow of Bombay University and the author of several educational and historical works.

#### UNIVERSITIES AND COLLEGES.

Oxford. THE report of the School of Geography for 1907 states that the students numbered 58, 63, and 74 in the three terms, as against 60, 21, 110 (most of whom attended only Lecture courses) in 1906. The number of students giving all or most of their time to geography shows a gratifying increase. Fourteen students in the Michaelmas term took the Diploma Courses, and three others took the Certificate Courses.

Dr. A. A. Macdonell, Boden Professor of Sanskrit, has just returned, after an absence of nearly seven months, from a tour of study and research in India. He has examined several public and private libraries containing nearly 80,000 Sanskrit MSS. and acquired a number of old and valuable MSS. for the University of Oxford. He has also brought home a number of photographs suitable for teaching and lecturing purposes, illustrating the architectural and sculptural antiquities of every part of India, as well as Ceylon.

LONDON. THE Report of the University College Committee states that during last session there were 1,191 students, 171 of them for post-graduate and research work. Large extensions of the buildings, together with the removal of the school to Hampstead, have provided much needed room for the Departments of Medicine and of Mechanical and Electrical Engineering. The list of original papers worked

out in many departments indicates great activity. The post-graduate courses show the extensive provision for higher work that is now to be found in London. The short reports of the students' societies give assurance that the corporate life of the College is in a healthy condition. Among the new societies is specially to be noted the Intercollegiate Law Students' Society, which is an evidence of the growth and activity of the Law Faculty, in spite of its deplorable lack of endowment. The results of the Treasury visitation are for the most part eminently satisfactory to the College. The report concludes with a summary of the urgent needs of the College if it is to meet the demands made upon it.

A DIPLOMA in Public Health has been instituted; Sheffield. and it has been resolved to admit to *ad eundem* degrees "Associates of the University College of Sheffield and of its Technical Department who had graduated at another University prior to the establishment of the University of Sheffield," and on certain other graduates who "would have been associates of the University College of Sheffield if they had graduated prior to the establishment of the University."

The following resolution has been unanimously adopted by the University Council:—"The Council desire to express their sorrow at the death of Dr. Sorby, who, as President of the Council of Firth College and of the Technical School, as Vice-President of the University College, and as a member of the Council of the University, has been associated with the University movement in Sheffield since its inception nearly thirty years ago. They recognize that to his influence and exertions, his foresight and generosity, is due in no small degree, the present position of the University. They rejoice that it was given him to see the new University established on a firm basis and in a position to take part in that extension of knowledge which he had so much at heart."

Bristol. A COMMITTEE of Educational Inquiry and Research has been formed, with the following programme:—

I. An educational library of a character, as regards works on education, similar to that known as the British Library of Political Science at the London School of Economics and Political Science, and to contain: (1) the official publications of central education authorities, British, Colonial, and foreign; (2) the official publications of selected local authorities in England and abroad; (3) the publications, prospectuses, &c., of English and foreign educational institutions; (4) a collection of typical English and foreign school text-books.

II. An educational museum of a character similar to that of the Musée Pédagogique in Paris, and to contain: (1) Examples of exercises in wood-work and in metal-work to illustrate courses of technical instruction in English and foreign schools and institutions; (2) examples of school exercises in drawing and in brushwork from England and abroad; (3) photographs, tracings of ground plans, &c., of educational establishments.

III. The publication of reports, collected statistics, &c., to supplement those of the Board of Education, and of similar institutions elsewhere, and especially with a view to elucidating local educational problems.

BANGOR. PRINCIPAL REICHEL reported at a meeting of the Governors on April 14 that, owing to deaths and other causes, the new buildings fund had been sensibly weakened. The amount of the tender for the first section of the buildings is £67,675, and the cost of furnishing will bring this up to £80,000. The amount already secured to meet this expenditure is £57,500, so that a sum of £22,500 is still needed to clear the cost of the first section of the new buildings. The movement, however, is being well taken up. A vote of congratulation was passed to Mr. Lloyd-George, and it was delicately hinted that the new Chancellor of the Exchequer might turn a friendly eye on the claims of the Welsh Colleges.

ST. ANDREWS. PRINCIPAL SIR JAMES DONALDSON gave the closing address of the session. After a brief allusion to the necessity for revising the arrangements of secondary schools, and the provision of better and wider prospects for the teachers who served in them, he observed that the summer session that was about to follow might be the last. The motives which had compelled the Universities of Glasgow, Aberdeen, and Edinburgh to establish the three-term system did not appeal to St. Andrews, where they had practically three terms already, though their summer session was not

obligatory. While they had done remarkably good work under the present arrangement, the Principal pointed out that there were various reasons why St. Andrews should fall into line with the other Universities. Accordingly, this year or next, they were sure to have an ordinance similar to those of the other Universities.

#### Irish Universities.

THE following resolution was passed at a meeting of the County of Galway (Joint) Technical Instruction Committee, held at Galway on April 8:—

That the County of Galway (Joint) Technical Instruction Committee, having had before them the text of the Irish Universities Bill, regret to observe that the Queen's College, Galway, has not been treated in a way sufficient to meet the educational needs of the Province of Connaught. The endowments and grants from all sources have hitherto been barely sufficient to enable the College to carry on its work on a scale much more limited than is now contemplated, yet the inclusive grant proposed in the new Bill practically amounts to the same sum as the combined grants hitherto received. Extension or development of College work in the future would accordingly be rendered impossible. We would, therefore, respectfully call on the Government to reconsider the financial proposals of the Bill relating to Queen's College, Galway, and to amend the same in a generous spirit, and so render possible the realization of the great hopes now entertained for the development of higher education in the West of Ireland.

The Belfast National Teachers' Association have passed a resolution emphatically protesting against the proposals in the University Bill, which exclude extern students from the University examinations and prohibit them from obtaining degrees, as has been the custom for upwards of a quarter of a century. They regard such proposals as reactionary and retrograde, and as opposed to liberal and enlightened sentiment, and call upon the Irish representatives of every creed and political faith to insist upon the removal of any clause or word from Mr. Birrell's Bill that would curtail in any degree the privileges which students who cannot attend the classes and lectures in the College enjoy under the present Royal University.

At the quarterly meeting of the Lurgan District L.O.L., a resolution was unanimously passed deprecating the action of the Government in attempting to force a State-aided Roman Catholic University in Ireland, as it would perpetuate sectarian and religious differences, and also because the Roman Catholic atmosphere would be paramount in the Galway and Cork Colleges. The proposed University for Dublin, Galway, and Cork would be managed by the Roman Catholic clergy, as they recently declared they would not consent to the control of education by the laity; Trinity College would become a purely parochial college, and the Belfast University strictly sectarian. The resolution also declared that the Bill completes the destruction of social and friendly ties between various denominations, and confidently hopes the Belfast people will repudiate such a degrading attempt to secure denominational separation. The Bill, it is stated, is a dishonest attempt to govern Ireland by the purchase of the Nationalists, and cordial appreciation is expressed at the action of the member for North Armagh in moving the rejection of the Bill in the House of Commons.

At a meeting of the professors and lecturers of Queen's College, Belfast, to discuss the Irish University Bill, resolutions were adopted expressing gratification that an earnest attempt was being made to settle the University question on a permanent basis, rejoicing that the Bill ensured that the proposed new University in Belfast should stand upon the same broad non-sectarian and purely academic basis as Queen's College, and stating that the elevation of the College to University rank would give an impetus to higher education throughout Ulster.

Prof. Leebody, President of Magee College, speaking at Derry (April 8), said that under the Government's scheme Magee College was to be treated with special disfavour, its vested interests ignored, and deprived of all the rights which it had long and worthily enjoyed. The College which it was proposed to paralyse belonged to a class of institution that depended for success on self-reliance and self-help, without a perpetual whine for State aid. The Government's action towards Magee College was indefensible.

Wales. SPEAKING to one of our representatives (says the *Western Mail*) a well known Welsh educationist said that the position of the Government in regard to University grants was absolutely inconsistent. "When training colleges are being erected," he said, "they are given two-thirds of the amount of the cost of the building, and the

same proportion ought to be applied to general University purposes. In the case of the Welsh colleges they have to be content with £4,000 each, with a special grant of £800 for agriculture in Bangor and Aberystwyth. In England special grants are made for research work and a pension fund is provided. If there is one thing more needed than another in Wales it is a pension fund, because Aberystwyth College has been in existence for thirty-six years and Cardiff and Bangor for twenty-five years, and not the slightest provision is made for members of the staffs who may break down through old age and other causes. The Welsh members of Parliament ought to exert themselves not only to secure an increase in the general grant, but to get special grants for research work and a pension fund."

## CORRESPONDENCE.

### A CORRECTION.

To the Editor of "The Educational Times."

SIR,—A treacherous memory and an imperfect note led me, in the course of a lecture reported in your last issue, to attribute to Cuthbert Tunstall what really belongs to Robert Recorde ("The Grounde of Artes," 1561 edition). Both the books—and many other early arithmetics of the utmost interest to the teacher—are contained in the late Prof. de Morgan's splendid collection which is now part of the library of the University of London.

I trust that you will be able to spare space for this correction.  
—Yours faithfully,  
T. PERCY NUNN.  
London Day Training College.

### MEETING OF THE COUNCIL OF THE COLLEGE OF PRECEPTORS.

A MEETING of the Council was held at the College, Bloomsbury Square, on April 11. Present: Sir Philip Magnus, M.P., President, in the chair; Mr. Barlet, Rev. J. B. Blomfield, Mr. Brown, Mr. E. A. Butler, Mr. Charles, Mr. Hawe, Miss Lawford, Dr. Maples, Mr. Milne, Mr. Pinches, Mr. Rushbrooke, Rev. Dr. Scott, Mr. Starbuck, Rev. J. Stewart, and Prof. Foster Watson.

The minutes of the last meeting were read and confirmed.

The Secretary reported that the Teachers' Registration Council, which was constituted by Order in Council under the Education Act of 1902, had come to an end on March 31, and called attention to a statement made in the House of Commons by the President of the Board of Education respecting the steps that were being taken by the Board for the constitution of a new Registration Council. He also called attention to the reply of the President of the Board of Education to a deputation that had waited on him to protest against certain of the regulations for secondary schools recently issued by the Board.

The diploma of Licentiate was granted to Mr. H. Banbery and that of Associate to Mr. H. B. Lal, who had satisfied the prescribed conditions.

The report of the Finance Committee was adopted.—Grants from the Benevolent Fund were made to five necessitous members of the College, their widows, or orphans; and the names of seven members were removed from the members' list on account of non-payment of the annual subscription.

Mr. E. F. Mark, M.A., Ph.D., 17 Woodgrange Avenue, Ealing Common, W., and Mr. A. W. Bain, B.A., B.Sc., F.C.S., Fairlight, Muswell Rise, N., were elected members of the Council.

Miss M. Cahill, L.C.P., St. Mary's Priory, Princethorpe, Rugby, was elected a member of the College.

The following books had been presented to the Library since the last meeting of the Council:—

- By A. & C. BLACK.—Darbshire's Plant Book for Schools; Kirkman's Deuxième Année de Français.
- By BLACKIE & SON.—Britain and Germany in Roman Times (Blackie's English Texts); Richardson's Magnetism and Electricity; Roberts and Barter's Teaching of English.
- By the CLARENDON PRESS.—Delbos' Gautier's España and Fmaux et Camées; Legouis' Pages Choieses de Auguste Angellier; Savory's Sainte-Auve's Trois Portraits Littéraires.
- By GINN & CO.—Robinson and Beard's Development of Modern Europe, Vols. I. and II.; Robson's De Maistre's Les Prisonniers du Caucase.
- By METHUEN & CO.—The Baring-Gould Selection Reader; The Baring-Gould Continuous Reader; Major's Health and Temperance Reader; Willnot-Buxton's History of Great Britain.
- By RIVINGTONS.—Hartog's Hansel et Gretel and Les Trois Corbeaux; Savory's Ebner-Eschenbach's Krambambuli.
- By WHITTAKER & CO.—Teacher's Handbook to Mackay and Curtis's First and Second French Books.
- Medical Register, 1908; Dentists' Register, 1908; Register of Veterinary Surgeons 1908.
- List of Members of the Institute of Chartered Accountants.



COLLEGE OF PRECEPTORS.—CERTIFICATE EXAMINATION, DECEMBER, 1907.

SUPPLEMENTARY LISTS.

N.B.—The small italic letters denote that the Candidate to whose name they are attached was distinguished in the following subjects respectively:—

- a. = Arithmetic. ge. = German.
al. = Algebra. gm. = Geometry.
bk. = Bookkeeping. h. = History.
ch. = Chemistry. lt. = Light and Heat.
d. = Drawing. m. = Mechanics.
du. = Dutch. ms. = Mensuration.
e. = English. ph. = Physiology.
f. = French. phys. = Elementary Physics.
g. = Geography. s. = Scripture.

Corrected Lists of Candidates who were placed in the Honours Division of the Second Class.

[The Lists are arranged in order of merit. Bracketing of names implies equality.]

BOYS.

- Allinson, B.P. gm, m, f, ge, ch, d. Wellington College, Salop
Hughes, R.G. s, h, y, bk, phys. Wilsford H., Devizes
Meadows, J. e, g, gm, ch, d. St. Olave's Gram. S., S.E.

- Pearson, H.W.R. bk, f. Weymouth Modern S.
Slater, R.A. a. Gram. S., Shoreham
Berry, S.H. Pannal Ash Coll., Hargrrove
Cook, E. Gram. S., Ashton-in-Makerfield

Additional Lists of Candidates who obtained Second Class (or Junior) Pass Division Certificates.

[The lists are arranged in alphabetical order.]

- BOYS.
Beard, A.E. High School for Boys, Hornsey Rise, N.
Bittles, L. Private tuition
Calvert, A. Pannal Ash Coll., Hargrrove

GIRLS.

- Brooker, M. Girls' High School, The Old Palace, Maidstone
Dalton, D.H. Licensed Victuallers' Girls' School, S.E.

Third Class—Honours Division.

- Oesthuysen, M. a, d, du. BOY.
Marist Bros' Coll., Uitenhage
Miller, D. GIRL.
Moorhurst, Irene, Transvaal

Additional Lists of Candidates who obtained Distinction in Scripture.

- Barlow, L. Schorne School, Winslow
Brade, R. Christ Church Higher Elementary S., Southampton
Howard, N.B. Royal Grammar School, Whalley

R. Ford, High School for Boys, Croydon, gained the second place in Geometry.

A Junior prize for General Proficiency was awarded to A. J. Hinxman, Devizes Secondary School.

### THE EDUCATIONAL LADDER.

CAMBRIDGE UNIVERSITY.—Bell Scholarships: (1) Harold Ernest Guilleband, scholar of Pembroke College; (2) Charles Cuthbert Brown, Trinity College; and Charles Ambrose Storey, minor scholar of Trinity College, equal.—Abbott Scholarship: John Kenneth Best, minor scholar of Queens' College; and Thomas Jackson Elliott Sewell, minor scholar of Queens' College.

*Gonville and Caius*.—The Musical and Organist Scholarship of £60 a year for 3 years: H. D. Statham, of Gresham's School, Holt. The Choral Exhibition of £40 a year was not awarded.

*Magdalene*.—Professorial Fellowship: Dr. George H. F. Nuttall, Sc.D., F.R.S., Quick Professor of Biology. Entrance Scholarships: C. K. Ogden, Rossall, £45, for Classics; R. W. H. Moline, King's College, Canterbury; P. J. Grigg, Bournemouth School; and A. N. Fairbourn, Kingswood School, Bath, £45 each, for Mathematics. Exhibitions: F. K. Harris, Eton, £30, for Classics; H. M. Butler, Denstone, £30, for History. Organist Exhibition of £15: R. W. Jepson, Magdalene College. Sizarships: G. L. Winterbottom, Malvern, and A. D. Waugh, Cardiff.

*Selwyn*.—Scholarships: H. A. Baxter, Alum County School, Mold, £40, for Mathematics; S. T. Burfield, Battersea Grammar School, £40, for Natural Sciences; A. D. Hodgson, Tonbridge School, £35, for Classics; F. Goatcher, St. Olave's Grammar School, £30, for Natural Sciences. Exhibitions of £20: For Mathematics, J. T. Bleasdel (St. Edmund's School, Canterbury); H. M. Gardner (Royal Grammar School, Worcester). For Classics, B. C. Blakeway (Eastbourne College); W. Ingham (St. Peter's School, York). For Natural Sciences, H. V. Griffith (Hull Technical School).

*Trinity*.—College Prize for English Essay: C. D. Broad and F. Russell Hoare, equal. Honourably mentioned, J. F. Roxburgh.

Major Scholarships.—Third year: G. I. Taylor, Mathematics and Natural Sciences; C. K. Bancroft, P. G. J. Güterbock, and J. A. Orange, Natural Sciences; J. W. Reynolds, History. Second year: R. H. A. Carter and C. E. Weatherburn, Mathematics; J. H. McCubbin and J. Meek, Classics; H. L. P. Jolly, Natural Sciences; E. A. Hughes and F. D. Purser, History. First year: E. H. Neville and B. N. Rau, Mathematics; A. G. Sutherland, Classics. Recommended in December, 1907, and now elected: R. H. Fowler, Winchester, Mathematics; F. W. Haskins, Charterhouse, and D. H. Robertson, Eton, Classics; E. D. Adrian, Westminster, for Natural Sciences. Major Scholarships Confirmed.—Third year: N. B. Michell, Classics. Second year: A. H. S. White, Mathematics. First year: P. J. Daniell and G. H. S. Pinsent, Mathematics; J. R. M. Butler, H. E. Foster, and G. G. Morris, Classics. Recommended for Prolongation of Minor Scholarships.—Second year: E. D. Clark, Mathematics; T. E. J. Bradshaw and L. R. Fawcus, Classics. Recommended for Sizarships.—Third year: W. H. A. Whitworth, Mathematics. Second year: R. W. Howard, Classics; K. R. Lewin, Natural Sciences. First year: R. W. Cheshire and H. W. Masterson, Mathematics. Recommended for Exhibitions.—Third year: T. H. Just, Natural Sciences. First year: R. V. Southwell, Mechanical Sciences. Non-resident: G. H. Geach, University College, Cardiff. Recommended for Prolongation of Exhibitions.—Second year: B. M. Bayly, Mathematics; W. J. Ward, Natural Sciences; W. R. Kingham, W. O. Smith, and C. N. S. Woolf, History.

*Local Examinations*.—Prizes of £12 to the best senior boy and girl, and of £8 to the best junior boy and girl: Senior boy (July), A. W. Bonfield, Burton-on-Trent; senior boy (December), F. Sandon, South Islington; senior girl (July), D. C. Patterson, Birmingham; senior girl (December), W. M. Gray, Eastbourne; junior boy (July), L. J. Sutton, Stourbridge; junior boy (December), E. M. Maccoby, Holloway; junior girl (July), N. Franks, Middlesbrough; junior girl (December), M. Stoddart, Wigton. The Royal Geographical Society's medals for the best senior and best junior in geography and physical geography combined:—Senior (July), no award; (December), Maurice F. Walsh, Hull; junior (July), no award; (December), Gerald G. Walsh, Hull. Medals offered by Sir Isaac Pitman and Sons to the junior candidates first and second in Shorthand:—(July), no awards; (December), silver medal, Rupert H. Gill, Watford; (December), bronze medal, Eric M. I. Buxton, Malvern. Marmaduke Levitt Scholarship:—F. C. Walker, Wolverhampton Grammar School.

CIRENCESTER: ROYAL AGRICULTURAL COLLEGE.—Honour diploma of membership, Pandit Ram Gopal. Certificate of proficiency in Practical Agriculture, J. H. Middleton. Scholarships: R. W. Carr, W. G. Wright, and H. Singh.

EASTBOURNE COLLEGE.—Entrance Scholarships: C. C. Burdge (Mr. W. Davies, St. George's School, Eastbourne), A. N. Cave (Rev. E. Earle, Bilton Grange, Rugby), R. L. Higham (Mr. G. Atkinson, The Limes, Croydon), J. Hely-Hutchinson (Mr. G. Paxmore, Charney Hall, Grange-over-Sands), R. W. Digby-Wingfield (Mr. R. H. Wyatt, Streatcham School), H. E. Yeo (Mr. G. Atkinson, The Limes, Croydon).

ELTHAM COLLEGE.—Scholarships: A. M. Pigott (Mr. R. R. Leggatt, Greenfield Hall, Holywell), H. V. Strong (Eltham College). Rotely Scholarships: F. H. St. G. Matthews (private tuition), C. H. F. Woolley (private tuition), H. E. R. Upham (Eltham College).

ETON.—Newcastle Scholarship: Finlay, ma., K.S., scholar; Bainbrigg, K.S., medallist; (selected) Grenfell, Bigg-Witten, K.S., Mitchison, ma., Pope, K.S., Matthews, K.S., Clauson, K.S., Madan, ma., K.S., and Finlay, mi., K.S.

GIRTON COLLEGE.—Entrance Scholarships and Exhibitions: Jane Agnes Chessar Foundation Scholarship in Classics, about £88 a year for 4 years, Miss E. M. Steuart (North London Collegiate School); Clothworkers' Scholarship, £60 a year for 3 years and an additional term, Miss E. B. Harvey (High School and University, Manchester), for Mathematics; the Skinners' Scholarship, £50 a year for 3 years, Miss E. S. Duckett (St. Mary's College, Paddington), for Classics, bracketed equal to Miss H. Richardson (James Allen School), who holds a Gilchrist Scholarship and is ineligible for a College Scholarship; Todd Memorial Scholarship, augmented to £50, to Miss D. V. Burch (Oxford High School) for Natural Sciences; College Scholarships of £30 each, Miss M. Soman (Norwich High School) and Miss F. E. Harmer (City of London School), bracketed equal in Modern Languages; Pfeiffer Scholarship of £20 to Miss C. Selby (Sydenham High School), for History; and a College Scholarship of £20 to Miss E. Ferguson (Croydon High School), for Mathematics. Exhibitions, £15 each: Miss D. Watson (Lancaster Grammar School), for Classics; Miss H. M. Hetley (Sydenham High School), for French and German; Miss H. D. Bugby (James Allen School), for Mathematics; Miss D. L. Beck (King Edward VI. School, Birmingham), for History; Miss W. M. Handford (Bradford Grammar School), for Mathematics; Miss E. M. Elligott (Clapham High School), for Natural Sciences. Miss I. Thwaites (private tuition), in Mathematics, and Miss E. Parfitt (Aberdare County School), in Natural Sciences, attained the standard for these Exhibitions.

HARROW.—Botfield Scholarship, G. K. M. Butler; Sayer Scholarship, F. W. W. Baynes; Fifth Form Scholarship, H. Gardner; Neeld Medal for Mathematics, C. W. K. MacMullan; Baker Mathematical Prize, R. E. Pollock; Prize for Elementary Mathematics, R. A. Fisher; Prior Divinity Prize, G. K. M. Butler; Beddington Prize for Physics, L. H. Alison; Beddington Prize for Chemistry, L. H. Alison.

LONDON: ROYAL ACADEMY OF MUSIC.—Goldberg Prize for Tenors, T. Gibbs; Charles Mortimer Prize for Composition, C. Carpenter; Sterndale Bennett Prize for Female Pianists, H. M. Dodd, who was also awarded the Louisa Hopkins Memorial Prize.

LONDON: ROYAL COLLEGE OF MUSIC.—Council Exhibitions—Singing: Jane F. Fyans, Florence S. Taylor. Piano: Mary E. Vickery. Composition: E. G. Toye. Organ: H. B. Derry. Charlotte Holmes Exhibition, Adelaide E. Parker (Organ); John Hopkinson Gold and Silver Medals for Pianoforte Playing, Ioan L. Powell and W. D. Murdoch; Henry Leslie (Herefordshire Philharmonic) Prize for Singing, Maud E. Wright; Challen Gold Medal for Pianoforte Playing, Grace A. Humphrey; Arthur Sullivan Prize for Composition, E. W. Gritton; Clementi Exhibition for Pianoforte Playing, Cordelia H. Montgomery; Scholefield Prize for String Players, Miss Bostock (violin). Operatic Class: Kate Anderson Prize, Bessie Bowness; Fanny Heywood Prize, Fannie Zausmer. Elocution Prizes, Emelie A. Ferris, Dora G. Arnell, W. Spencer Thomas; Gold Medal presented by Rajah Sir S. M. Tagore, of Calcutta, Gladys M. E. Honey; Dannreuther Prize for the Performance of a Piano Concerto with Orchestra, Ioan L. Powell; Kent Scholarship, Elsie M. Dudding (violin).

LONDON UNIVERSITY.—The Martin White Studentship of £100, lately vacated by Mr. Gerald Camden Wheeler, B.A., has been extended to him for a further period of one year, in order to enable him to accompany Dr. Rivers to the Solomon Islands for the purpose of investigating the sociology of a mother-right community. This extension has been rendered possible by the

generosity of Mr. Martin White in offering to provide a further sum of £100 for the purpose.—The Gilchrist Studentship for Women has been awarded to Miss Marion Pick, B.Sc. (1st Class Honours Mathematics, 1907), of the Royal Holloway College. [We unfortunately misprinted Miss Pick's name last month].—Mr. T. P. Hilditch, B.Sc., of University College, has been recommended to His Majesty's Commissioners for the Exhibition of 1851 for appointment to a Science Research Scholarship.—Mr. A. D. Webb, B.Sc., of the London School of Economics, has been awarded the Gladstone Memorial Prize for the year 1907.

OXFORD: LADY MARGARET HALL.—Mary Talbot Scholarship, £40 a year for 3 years (Modern History), Miss Margaret Spencer-Smith, Church of England High School, Graham Street; Scholarship of £30 (Modern History), Miss Helen B. Kenyon, Godolphin School, Salisbury; Jephson Scholarship, £50 (Mathematics), Miss Rosalind M. Fynes-Clinton, Sandecotes School, Parkstone. Miss K. M. Metcalfe, Cheltenham Ladies' College (English), and Miss K. A. Newbold, Tunbridge Wells High School and Godolphin School, Salisbury (Latin and French), were distinguished in the examination.

OXFORD: SOMERVILLE.—Clothworkers' Scholarship: M. Kingsland (Pendleton High School, Manchester), for Natural Science. Edith Coombs Scholarship: D. Sheepshanks (St. Felix School, Southwold), for Modern History. Exhibitions: D. de Zouche (Liverpool High School), C. Todd (St. Felix School, Southwold), for Modern Languages; N. Henderson (City of London School for Girls), for English; A. Horsman (private tuition), for Classics.

OXFORD: ST. HUGH'S HALL.—Hall Scholarship: Miss Jean M. Douglas (Modern History). Clara Evelyn Mordan Scholarship: Miss Edith M. Linton, St. Mary's College, Paddington (Classics).

OXFORD UNIVERSITY.—Lothian Prize: Roger H. Soltan, scholar of Pembroke. Matthew Arnold Prize: Henry Birkhead, B.A., Trinity.

All Souls.—Fellowship: Mr. A. F. Pollard, M.A. (Jesus), Professor of English History and Dean of the Faculty of Arts, University College, London.

Corpus Christi.—Classical Scholarships: Raywood I. Bottomley, Charterhouse; Edward M. H. Lloyd, Rugby; Ernest Llewellyn Woodward, Merchant Taylors'. Charles Oldham Classical Scholarship: Aubrey Cooke, Stonyhurst. Exhibitions: Richard W. Dugdale, Rugby; and Edward F. Marshall, Marlborough College and Corpus Christi College. Open Natural Science Scholarship: Leo Smith, Manchester Grammar School.

Exeter.—Modern History Scholarship: William H. Wakinsshaw, Kingswood School, Bath. Exhibitions: Edgar N. Moore, Highgate, and Anthony E. K. Slingsby, Radley.

Magdalen.—Demyships in Classics: Edward H. W. Meyerstein, Harrow School; Wilfred R. Childe, Harrow; Alexander Monro, Charterhouse; Robert F. R. Routh, Charterhouse. Exhibitions: George H. G. Smith, Winchester; Bernard M. Herbert, Harrow. Exhibitions: Stephen G. Lee, Shrewsbury, in History; William W. Sweet-Escott, Bradford, in Classics.

Merton.—Postmastership in Natural Science: Ronald H. Sutch, Batley. Exhibition, £60 a year: C. P. Sells, Magdalen College School.

New.—Open Classical Scholarships: Harry A. Siepman, Rugby; and Gilbert R. Mitchison, Eton. Open Classical Exhibitions: Robert W. T. Cox, Merchant Taylors'; and Hugh R. Pope, Eton. Open Scholarship in Natural Science: Walter R. Scott, St. Olaves.

PUBLIC SCHOOLS GOLD MEDAL (Royal Asiatic Society).—Hugh K. Lunn, Harrow.

ROSSALL.—Promoted from junior scholarships to senior scholarships: P. L. Millard, R. E. Boucher, H. V. Leonard, W. F. E. Peareth. Senior Scholarship on Entrance: E. R. Williamson (Mathematics). Foundation Scholarships: F. W. Owen, E. V. Dewar-Mathews (Mathematics). Junior Scholarships: R. V. Menzies, C. M. Reece, R. A. Beloe, Y. L. Ellis, F. Brundrett (Mathematics).

ST. BEES.—Scholarships: H. Feldtmann (St. Bees School), J. V. Brewin (Riber Castle, Buxton—the Rev. G. W. Chippett), F. H. S. Hawkesworth (The Craig School, Windermere)—Mr. W. Snow, G. S. Dix, H. N. Johnson, and T. M. Tate (Mostyn House, Parkgate, Chester)—Mr. A. G. Grenfell, J. R. Percy and H. T. Hughes (St. Bees School), E. M. Spink (Tanllwyfan, Old Colwyn—Miss Francis), H. W. Perry-Gore, H. A. Rodgers, and E. A. Frith (St. Bees School), G. W. O'Brien (Earnseat School, Arnsdale)—Mr. J. M. Barnes, A. Drescher (St. James's, Whitehaven),

W. R. Frith (Ousby Voluntary School), A. Johnston (St. Nicholas's, Whitehaven).

UPPINGHAM.—Scholarships: G. F. Cameron (Messrs. Overton and Brown, Lambrook, Bracknell), D. Newbold (Uppingham, late Mr. F. C. Heath, Rose Hill, Tunbridge Wells), A. C. E. Routh (Messrs. Campbell and Reece, Doon House, Westgate-on-Sea), R. Wheatley (Mr. J. W. Chippett, Riber Castle, Matlock), G. P. Cooke (Mr. E. F. Johns, Winton House, Winchester), P. U. Laws (T. B. Eden, Hillbrow, Rugby).

## COLLEGE OF PRECEPTORS.

### LIST OF BOOKS RECENTLY PURCHASED FOR THE LIBRARY.

- Adams, J., *The Protestant School System in the Province of Quebec*.  
 Adamson, J. W., *The Practice of Instruction*.  
*Pioneers of Modern Education, 1600-1700*.  
 Ashley, W. J., *Introduction to English Economic History and Theory*.  
 Vol. I. 2 Parts.  
 Bagehot, W., *Physics and Politics*.  
 Beazley, C. R., *The Dawn of Modern Geography*. 3 vols.  
 Blunden, G. H., *Local Taxation and Finance*.  
 Boulger, G. S., *Familiar Trees*. 3 vols.  
 Bowley, A. L., *England's Foreign Trade in the Nineteenth Century*.  
 Bradley, H., *The Making of English*.  
 Butler, S., *Hudibras*.  
 Cambridge Modern History:—  
 Vol. I. *The Renaissance*.  
 Vol. II. *The Reformation*.  
 Vol. III. *The Wars of Religion*.  
 Vol. IV. *The Thirty Years' War*.  
 Vol. V. *The Age of Louis XIV.*  
 Vol. VII. *The United States*.  
 Vol. VIII. *The French Revolution*.  
 Vol. IX. *Napoleon*.  
 Vol. X. *The Restoration*.  
*(Vol. VI. will be added as soon as it is published.)*  
 Campbell, D. H., *The Structure and Development of Mosses and Ferns*.  
*Lectures on the Evolution of Plants*.  
 Chisholm, G. G., *Handbook of Commercial Geography*.  
 Clements, F. E., *Plant Physiology and Ecology*.  
 Cooke, M. C., *Handbook of British Hepaticae*.  
 Darwin, C., *Fertilisation of Orchids*.  
 Deans, R. Storry, *The Student's Legal History*.  
 De Bary, A., *Comparative Anatomy of the Vegetative Organs of the Phanerogams and Ferns*. Translated by F. O. Bower and D. H. Scott.  
 De Coulanges, F., *The Origin of Property in Land*.  
 De Julleville, L. P., *Histoire de la Langue et de la Littérature Française des Origines à 1900*. 8 vols.  
 Dicey, A. V., *Introduction to the Study of the Law of the Constitution*.  
 Dixon, H. N., and Jameson, H. G., *Student's Handbook of British Mosses*.  
 Dowden, E., *A History of French Literature*.  
 Dryer, C. R., *Lessons in Physical Geography*.  
*Education in the Nineteenth Century*. Edited by R. D. Roberts.  
 Farrer, Lord, and Giffen, Sir R., *The State in Relation to Trade*.  
 Fowle, T. W., *The Poor Law*.  
 Fream, W., *Soils and their Properties*.  
 Freeman, W. G., and Chandler, S. E., *The World's Commercial Products (Plants)*.  
 Gatty, Mrs., *British Sea-Weeds*.  
 Gibbins, H. de B., *English Social Reformers*.  
 Gilbert, G. K., and Brigham, A. P., *Introduction to Physical Geography*.  
 Gomme, G. L., *The Village Community*.  
 Gow, J., *A Companion to School Classics*.  
 Hann, J., *Handbook of Climatology*.  
 Harrison, F., *William the Silent*.  
 Hartog, P. J., and Langdon, Mrs., *The Writing of English*.  
 Heilprin, A. and L., *Gazetteer of the World*.  
 Henslow, G., *Introduction to Plant Ecology*.  
 Herbart's Text-book in Psychology. Translated by M. K. Smith.  
*International Geography, The*. Edited by H. R. Mill.  
 Jolly, W., *Ruskin on Education*.  
 Kant, *Thoughts on Education*. Translated by A. Churton.  
 Lanson, G., *Histoire de la Littérature Française*.  
 Laurie, S. S., *Studies in the History of Educational Opinion from the Renaissance*.  
 Lindley, J., and Moore, T., *The Treasury of Botany*. 2 vols.  
 Low, Sidney, *The Governance of England*.  
 Lucas, C. P., *Historical Geography of the British Colonies*. 6 vols.  
 Massee, G., *Text Book of Plant Diseases*.  
 Morley, J., *Voltaire*.

- Morley, J., Rousseau. 2 vols.  
 ,, Diderot and the Encyclopedists. 2 vols.  
 ,, Burke.  
 ,, Oliver Cromwell.  
 ,, Critical Miscellanies. 3 vols.  
 ,, Studies in Literature.  
 ,, On Compromise.  
 ,, Life of Gladstone. 2 vols.  
 Nicholls, H. A. A., Text Book of Tropical Agriculture.  
 Odgers, W. Blake, Local Government.  
 Osterhout, W. J. V., Experiments with Plants.  
 Paston Letters, 1422-1509. Edited by J. Gairdner.  
 Ritchie, D. G., The Principles of State Interference.  
 Rogers, J. E. Thorold, The Industrial and Commercial History of England. 2 vols.  
 ,, The Economic Interpretation of History. 2 vols.  
 ,, Six Centuries of Work and Wages.  
 Rosebery, Lord, Pitt.  
 Rousseau's Emile. Abridged and translated by W. H. Payne.  
 Russell, J. W., An Elementary Treatise on Pure Geometry.  
 Schimper, A. F. W., Plant Geography on a Physiological Basis. Translated by W. R. Fisher.  
 Seebohm, F., The English Village Community.  
 Seward, A. C., Fossil Plants. Vol. I.  
 Sowerby and Johnson's Grasses of Great Britain.  
 Stebbing, W., The Poets: Chaucer to Tennyson. 2 vols.  
 Sweet, H., Anglo-Saxon Reader: Part II., Archaic and Dialectal.  
 Tarr, R. S., and McMurry, F. M., Geography in Three Books.  
 Toynebee, A., Lectures on the Industrial Revolution of the Eighteenth Century in England.  
 Vinogradoff, P., Villainage in England.  
 Ward, H. Marshall, Grasses.  
 Ware, Fabian, Educational Foundations of Trade and Industry.  
 Warner, F., The Study of Children and their School Training.  
 ,, The Nervous System of the Child.  
 Whitfield, E. E., Commercial Education in Theory and Practice.

### TRANSITION FROM PRIMARY TO SECONDARY SCHOOLS.

On one point that is perplexing our Educational Authorities (says the *Times*), there is—or was, not long ago—equal perplexity in America—namely, the transition from primary to secondary schools, and such correlation of their respective

curricula as may render the transition easy and natural. In the United States, more than with us, public education is, in theory and to some extent in practice, a continuous whole from the kindergarten to the University. Though each State makes its own educational laws, and there is no central Authority imposing uniformity of curricula and administration from the Atlantic to the Pacific, there is virtually over all that great continent a truly national system of public education, springing from the people, controlled by the people, and resting upon the fundamental principle that the first and most necessary duty of a democratic State toward its citizens, in the interest of civil order and well-being, is to educate them for the efficient discharge of their citizenship, and to give every one an equal start in life. Among the practical difficulties in the application of this theory is that of co-ordination. The Americans have not yet solved it themselves; they will, no doubt, be interested in such attempts as are being made to solve it in England. They are making many experiments, for they are freer to experiment than Whitehall allows English teachers to be; and the direction which the most fruitful of such experiments have taken is that of introducing some of the high school subjects, such, for example, as algebra, history, or Latin, into the upper grades of their primary schools.

As our own Local Authorities, to whom the Act of 1902 has given the power to deal with both primary and secondary education and the duty of co-ordinating them, get under their supervision a better supply of secondary schools, such experiments will be possible here. Of the need for facilitating the transition between elementary and secondary schools, if higher education is to be accessible to the children of the artisan classes, there can be no doubt. The more promising scholars in the higher standards of an elementary school are capable of beginning to face the difficulties of higher subjects before they leave it; and, unless their mental growth receives such fresh development, there is danger that they may stand still, and that while they are, so to speak, marking time, a valuable period of growth may be wasted, and they themselves may be unduly discouraged by the first stages of the secondary curriculum. Any hints that our own and the American teachers can give each other from their respective experiences may in time bear valuable fruit.

# CLERGY MUTUAL ASSURANCE SOCIETY,

2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

[FOUNDED 1829.]

Patrons—THE ARCHBISHOP OF CANTERBURY; THE ARCHBISHOP OF YORK.  
 President—THE BISHOP OF LONDON. Vice-President—THE LORD HARRIS.  
 Chairman—THE DEAN OF CANTERBURY. Deputy-Chairman—SIR PAGET BOWMAN, BART.  
 Secretary—W. N. NEALE, Esq. Actuary and Manager—FRANK B. WYATT, Esq., F.I.A.

The Society offers the **BENEFITS OF MUTUAL LIFE ASSURANCE** without personal liability on highly favourable terms to

**THE CLERGY AND THEIR RELATIVES.**

**ALL PROFITS BELONG TO THE MEMBERS.**

Accumulated Fund, **£4,242,820.** Annual Income, **£453,897.**

Bonuses Distributed, **£4,256,464.**

**LOW PREMIUMS. LARGE BONUSES.** Notwithstanding the lowness of the Premiums charged, the **BONUSES** are on an **EXCEPTIONALLY HIGH SCALE.**

**NEW AND SPECIAL POLICIES.** Application is invited for the **PRO-SPECTUS**, and Leaflets explaining two new Policies, with valuable Options.

**1. WHOLE-LIFE CONVERTIBLE ASSURANCES.** Very Low Premium—about one-half the usual rate—during first ten years.

**2. PENSION POLICIES.** Premiums returnable with compound interest in case of death or surrender before pension age. Option to commute for cash.

Assurances without profits, at low rates of premium, may be effected, and Life Annuities on favourable terms may be purchased, by any person irrespective of any special qualification by relationship to the Clergy.

### SPECIMEN OF RATES FOR £1,000, WITH PROFITS.

Age next Birthday.	£1,000 Payable at Death.			£1,000 Payable at Age 60 or earlier Death.		
	£.	s.	d.	£.	s.	d.
25	20	1	8	27	3	4
30	23	3	4	32	10	10
35	26	10	0	40	1	8
40	31	1	8	51	5	0

NOTE.—Under the Reduced Premium System (explained in Prospectus) four-fifths only of these Premiums need be paid, the other one-fifth remaining a charge to be repaid out of Bonus.

No Agents employed and no Commission paid for the introduction of business, whereby £10,000 a year is saved to the Members.

Assurances can be effected by direct communication with the Office, 2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

## A GOOD ADVERTISEMENT

is not of much use unless you have a good Prospectus to send to Enquiring Parents, and

## A GOOD PROSPECTUS

is of no use unless Parents see it.

## LET US PREPARE

you a good Prospectus, and give your School a

## GOOD ADVERTISEMENT

in our

## PATON'S LIST OF SCHOOLS AND TUTORS

which now has a World-wide Circulation.

*The Eleventh Edition is now in hand for Press.*

## WRITE US,

with copy of your present Prospectus, and we will send you (without any charge) Specimens and Full Particulars, with proof of value.

## OUR GOLD MEDALLIST

Photographs Schools within reasonable distance of London—expert work only.

**J. & J. PATON,**  
EDUCATIONAL AGENTS,  
143 CANNON STREET, LONDON, E.C.

Telephone—5053 Central.

## Mr. MURRAY'S LIST.

### An Introductory History of England.

From the Earliest Times till the year 1832. By C. R. L. FLETCHER, M.A., Fellow of Magdalen College, Oxford. With Coloured and other Maps, Plans, and Index.

Part I.—From the Earliest Times to the End of the Middle Ages. 5s. Part II.—From Henry VII. to the Restoration. 5s. Part III.—*In preparation.*

"This is Mr. Fletcher's second volume, and it is, if anything, better than his first."—*The Times.*

### Der Neue Leitfadern.

The Student's First German Book. By L. M. DE LA MOTTE TISCHBROCK, Bedford Modern School. 2s. 6d.

A new German Course, based on Reform Methods.

### Old Testament History. Period V.

From Hezekiah to the end of the Canon. By the Rev. J. M. HARDWICH, M.A., and the Rev. H. COSTLEY-WHITE, M.A., Assistant Masters at Rugby School. With a Map of Palestine. 2s.

This volume is intended to provide material for one term's work. The following are some of its chief features:—

1. Where possible, the text of the Biblical narrative is used.
2. Historical explanations and general commentary are inserted by the Editors in their proper place.
3. The chronological order of events has been followed.
4. The period is illustrated by reference to, and quotations from, the contemporary Prophecies and Psalms.
5. Foot-notes are added, but only where difficulties of thought or language seem to demand explanation.

### Woodwork for Schools on Scientific Lines.

A Course for Class-work or Private Study. By J. T. BAILY, Head Master of St. Albans Technical School, and S. POLLITT, B.Sc., Head Master of Southall County School. With Illustrations. In Three Parts, or complete in One Volume.

[Part I. 9d. *Just ready.*]

### Stories Selected from the History of England from the Conquest to the Revolution.

For Children. By the late Rt. Hon. JOHN WILSON CROKER, M.P. Illustrated by 24 Woodcuts. 17th Edition. 2s.

### The Year's Work in Classical Studies, 1907.

Edited for the Classical Association by W. H. D. ROUSE, M.A., Litt.D., Head Master of the Perse Grammar School, Cambridge. Index. 2s. 6d. net.

*Contributors:*—R. M. Dawkins, M.A.; W. Warde Fowler, M.A.; George Macdonald, M.A.; Lewis E. Farnell, D.Litt.; M. O. B. Caspari, M.A.; Marcus N. Tod, M.A.; Louise E. Matthaei; Arthur S. Hunt, D.Litt.; Prof. W. M. Lindsay; Arthur S. Peake, M.A.; J. E. Sandys, Litt.D.; A. J. B. Wace; James Hope Moulton; T. Ashby, M.A.

### Murray's French Texts.

For Upper and Middle Forms. Edited by W. G. HARTOG, B.A., Lecturer in French at University College, London; Oral Examiner to the London County Council and to the Army Qualifying Board.

This series will consist of selections from the masterpieces of nineteenth-century French authors.

Following the most recently approved method of our Continental neighbours, the notes (which are given *only* when necessary to clear up obscurity) are printed at the bottom of the page. Grammatical points will naturally be dealt with by the teacher in the class.

Each volume will contain a series of questions upon the text, grammatical drill upon points which arise in the course of reading, and suggestions for free composition, parsing, dictation, &c.

A biographical note (in simple French) descriptive of the career of the author serves as an introduction to each text.

*Now Ready.*

### La Mare au Diable.

Par GEORGE SAND. With Biography, Foot-notes, and Exercises. Crown 8vo, 1s. 6d.

### Confessions d'un Ouvrier.

Par EMILE SOUVESTRE. With Biography, Foot-notes, and Exercises. Crown 8vo, 1s. 6d.

*Other Volumes to follow.*

JOHN MURRAY, Albemarle Street, W.

# MACMILLAN'S NEW BOOKS.

## H.M.I.

Some Passages in the Life of one of H.M. Inspectors of Schools. By **E. M. SNEYD-KYNNERSLEY**, formerly H.M.I. North-West Division. 8vo, **8s. 6d.** net.

A highly entertaining book, containing a large number of good stories told by a *raconteur* of exceptional ability.

### The "Eumenides" of Aeschylus.

With an Introduction, Commentary, and Translation by **A. W. VERRALL**, Litt.D. 8vo, **10s.** net.  
\* \* \* Uniform with Dr. VERRALL's editions of "The Agamemnon" and "The Choephoroi." **10s.** net each.

### Herodotus, Books VII.-IX.

With Introduction, Text, Apparatus, Commentary, Appendices, Indices, Maps. By **REGINALD WALTER MACAN**, D.Litt. 3 Vols. 8vo, **30s.** net.  
[Classical Library.]  
PREVIOUSLY PUBLISHED:—Herodotus, Books IV.-VI. By the same Editor. In 2 Vols., 8vo. Reduced to **20s.** net.

### General History of Western Nations from 5000 B.C. to 1900 A.D.

By **EMIL REICH**, Doctor Juris, Author of "New Student's Atlas of English History." Vols. I. and II. 8vo, **15s.** net.

### Atlas Antiquus.

In 48 Original Graphic Maps, with elaborate Text to each Map and full Index. By **DR. EMIL REICH**. Crown 4to, **10s.** net.

### History of Italy.

By **WILLIAM HUNT**, M.A., D.Litt. New Impression, with Corrections. Globe 8vo, **3s. 6d.**  
The New Impression has been Revised throughout by the Author, and an entirely New Chapter added which brings the History up to date.

### A Short French Grammar.

Comprising Essentials of Accidence and Syntax, with a Chapter on French Sounds, Lists of Words for Practice in Pronunciation and Spelling, and Notes on French Versification and Etymology. By **OTTO SIEPMANN**. Crown 8vo, **2s. 6d.**

SIEPMANN'S CLASSICAL FRENCH TEXTS. NEW VOLUME.

### Pensées, Maximes et Réflexions de Pascal, La Rochefoucauld, Vauvenargues.

Edited by **Prof. ALFRED T. BAKER**, M.A., Ph.D. Globe 8vo, **2s.**

SIEPMANN'S FRENCH SERIES FOR RAPID READING.

### La Bibliothèque de mon Oncle.

Par **RODOLPHE TÖPFFER**. Globe 8vo, sewed, **6d.**

### Key to the Exercises in Siepmann's Primary French Course.

Parts I. and II. By **O. A. JACQUARD**. Globe 8vo, **3s. 6d.** net each.

### The International Geography.

By SEVENTY AUTHORS. Edited by **H. B. MILL**, D.Sc. With 499 Illustrations. New Edition, 8vo, complete, **12s.** net.

The following Sections are issued separately, with Exercises and Examination Papers in the Text:—Preliminary: **Principles of Geography**, 1s. 6d. (*shortly*); I. **British Isles**, 1s.; II. **Europe**, 2s. 6d.; III. **Asia**, 2s.; IV. **Australia**, 1s. 6d.; V. **North America, Central America, and the West Indies**, 2s.; VI. **South America**, 1s. 6d.; VII. **Africa**, 2s.

\* \* \* Detailed Prospectus on application.

### Essay and Letter Writing.

With Models and Outlines. By **F. E. BROOKSBANK**, B.A. Globe 8vo, **2s. 6d.**

### The Principles of Inorganic Chemistry.

By **WILHELM OSTWALD**. Translated, with the Author's sanction, by **ALEX. FINDLAY**, M.A., Ph.D., D.Sc. Illustrated. Third Edition. Medium 8vo, **18s.** net.

### Woolwich Mathematical Papers,

for Admission into the Royal Military Academy and the Royal Military College, for the Years 1898-1907 inclusive. By **E. J. BROOKSMITH**, B.A., and **E. M. MILNE**, M.A. Crown 8vo, **6s.**

### Advanced Arithmetic and Elementary Algebra and Mensuration.

A Text-book for Secondary Schools and Students preparing for Public Examinations. By **F. GOYEN**. Crown 8vo, **3s. 6d.**

The present book is a New Edition, entirely rewritten and recast, of the book formerly issued as "Higher Arithmetic and Elementary Mensuration," and now takes its place.

### Logarithmic and other Tables for Schools.

By **FRANK CASTLE**, M.I.M.E. Extra crown 8vo, sewed, **6d.**

### Graphics.

Applied to Arithmetic, Mensuration, and Statics. By **G. C. TURNER**, B.Sc., Lecturer in Mathematics and Mechanics at the Goldsmiths' College (University of London), New Cross, S.E. **6s.**

*School World*.—"The exposition of graphics given in the volume before us strikes us as possessing unusual excellence; the matter is selected with judgment; the numerous practical examples that are fully worked out lend special interest to the discussion; and the clear statement of the reasons for the various constructions adds very greatly to the value of them in the eyes of the serious student."

## COLLEGE OF PRECEPTORS' EXAMINATIONS, 1908.

### LATIN AND GREEK.

	s.	d.
<b>Caesar's Gallic War.</b> J. BOND and A. S. WALPOLE. ( <i>First, Second, and Third Class</i> ) ... ..	4	6
— <b>Gallic War.</b> Book I. A. S. WALPOLE. ( <i>First, Second, and Third Class</i> ) ... ..	1	6
— <b>Gallic War.</b> Books II. and III. W. G. RUTHERFORD. ( <i>First and Second Class</i> ) ... ..	1	6
<b>Virgil.—Aeneid.</b> Book I. A. S. WALPOLE. 1s. 6d. T. E. PAGE. ( <i>First and Second Class</i> ) ... ..	1	6
— <b>Aeneid.</b> Book X. S. G. OWEN. ( <i>First and Second Class</i> ) ... ..	1	6
<b>Horace.—Odes.</b> Book III. T. E. PAGE. 1s. 6d. Edited by the same. ( <i>First Class</i> ) ... ..	2	0
<b>Cicero.—Cataline Orations.</b> A. S. WILKINS, Litt.D. ( <i>First Class</i> ) ... ..	2	6
<b>Xenophon.—Anabasis.</b> Book I. A. S. WALPOLE. 1s. 6d. With Exercises. E. A. WELLS. ( <i>First and Second Class</i> ) ... ..	1	6
<b>Hurricanes.—Hecuba.</b> J. BOND and A. S. WALPOLE. ( <i>First Class</i> ) ... ..	1	6
<b>Eutropius.</b> Books I. and II. W. WELCH and Rev. C. G. DUFFIELD. ( <i>Third Class</i> ) ... ..	1	6

### SCRIPTURE HISTORY.

<b>Acts of the Apostles.</b> Authorized Version. With Notes. By T. E. PAGE and Rev. A. S. WALPOLE ... ..	2	6
— <b>The Greek Text.</b> With Notes. By T. E. PAGE ... ..	3	6

### ENGLISH LANGUAGE.

	s.	d.
<b>Shakespeare.—The Merchant of Venice.</b> K. DEIGHTON. ( <i>First and Second Class</i> ) ... ..	1	9
<b>Julius Caesar.</b> K. DEIGHTON. ( <i>First and Second Class</i> ) ... ..	1	9
* * * Also Eversley Edition, with Notes. 1s. each		
<b>Tennyson.—Poetical Works.</b> Globe Edition. (This volume contains "The Marriage of Geraint," "Geraint and Enid," "The Coming of Arthur," "The Passing of Arthur.") ( <i>First Class</i> ) ... ..	2	6
— <b>School Edition of Tennyson's Works.</b> Part III. (This volume contains "The Marriage of Geraint," "Geraint and Enid," "The Coming of Arthur," "The Passing of Arthur.") ( <i>First Class</i> ) ... ..	2	6
— <b>Idylls of the King.</b> (This volume contains "The Marriage of Geraint," "Geraint and Enid," "The Coming of Arthur," "The Passing of Arthur.") ( <i>First Class</i> ) ... ..	2	0
— <b>Geraint and Enid and The Marriage of Geraint.</b> G. C. MACAULAY. ( <i>First Class</i> ) ... ..	2	6
— <b>The Coming of Arthur and The Passing of Arthur.</b> F. J. ROWE. ( <i>First Class</i> ) ... ..	2	6
<b>Milton.—Comus.</b> W. BELL. ( <i>First Class</i> ) ... ..	1	3
— <b>L'Allegro, Il Penseroso, Arcades, Lycidas, Sonnets, &amp;c.</b> W. BELL. ( <i>First Class</i> ) ... ..	1	9
<b>Scott.—Marmion.</b> M. MACMILLAN. 2s. 6d. ( <i>Second and Third Class</i> ) Sewed ... ..	3	0
— <b>Marmion.</b> Cantos I. and VI. M. MACMILLAN. ( <i>Third Class</i> ) ... ..	1	0
<b>Poems of England.</b> H. B. GEORGE and A. SIDGWICK. ( <i>Third Class and Lower Forms</i> ) ... ..	2	6
<b>Longfellow.—Hiawatha.</b> H. B. COTTEBELL. ( <i>Lower Forms</i> ) ... ..	1	6

# SCIENCE AND ART EXAMINATIONS

OF THE

## BOARD OF EDUCATION.

### Books for the First Stage.

**Practical Plane and Solid Geometry.** By G. F. BURN. *Second Edition.* 2s.  
"Eminently clear and lucid."—*Guardian.*

**Building Construction.** By BRYSSON CUNNINGHAM, B.E., Assoc.M.Inst.C.E. *Revised Edition.* 2s. 6d.  
"May be confidently recommended."—*School World.*

**Mathematics.** Containing all the Algebra and Euclid required. Edited by Dr. WM. BRIGGS, M.A., B.Sc., F.R.A.S. 2s.  
"Will be especially acceptable to students preparing for the Board of Education Examinations."—*Educational Times.*

**Mechanics (Solids).** By F. ROSENBERG, M.A., B.Sc. *Fifth Edition.* 2s.  
"The only regret we feel on closing this book is that it is limited to 'First Stage' Mechanics."—*Journal of Education.*

**Mechanics of Fluids.** By G. H. BRYAN, Sc.D., F.R.S., and F. ROSENBERG, M.A., B.Sc. *Second Edition.* 2s.  
"The principles of the subject and experiments for their verification are well explained."—*Mathematical Gazette.*

**Sound, Light, and Heat.** By JOHN DON, M.A., B.Sc. 2s.  
"The facts and phenomena are clearly described and with due attention to experiment."—*Nature.*

**Magnetism and Electricity.** By R. H. JUDE, M.A., D.Sc. *New Edition, Revised.* 2s.  
"We strongly recommend this book to the notice of teachers."—*School Guardian.*

**Inorganic Chemistry (Theoretical).** By G. H. BAILEY, D.Sc., Ph.D. Edited by Dr. WM. BRIGGS. *Third Edition.* 2s.  
"Probably the best systematic introduction to chemistry yet published."—*Pharmaceutical Journal.*

**Inorganic Chemistry (Practical).** By Dr. F. BEDDOW. *Second Edition.* 1s.  
"This useful manual fully meets the syllabus."—*Guardian.*

**Organic Chemistry (Systematic Practical).** By G. M. NORMAN, B.Sc., F.C.S. 1s. 6d.  
"A thorough course in practical organic chemistry."—*Literary World.*

**Botany.** By A. J. EWART, D.Sc., Ph.D. *Second Edition.* 2s.  
"Among the many works on elementary botany the one before us deserves a high place."—*Schoolmaster.*

**Steam.** By J. W. HAYWARD, M.Sc. *Second Edition.* 2s.  
"The author is very happy in the treatment of his subject. The book is sure to give satisfaction."—*Nature.*

**Hygiene.** By R. A. LYSTER, M.B., B.Sc., D.P.H. 2s.  
"A book of real value to students and others interested in the science of health."—*Teacher.*

**Elementary Science of Common Life (Chemistry).** By W. T. BOONE, B.A., B.Sc. 2s.  
"No better guide could be found by a student preparing for the Board of Education Examination."—*Knowledge.*

### For Art Subjects.

**Perspective Drawing, The Theory and Practice of.** By S. POLAK. 5s.

"We cannot conceive of a student being better equipped for preparation for examination in this important subject than by his possession of this book. It is written by a teacher of experience, and published in an excellent manner."—*Schoolmaster.*

Detailed List of the above, including Books for the Second Stage, post free on application.

University Tutorial Press Ltd., W. B. CLIVE,  
157 Drury Lane, London, W.C.

### ADVERTISEMENT SCALE

Whole Page—Ordinary	£4 10 0	.....	Position	£5 10 0
Half Page	2 10 0	.....	"	3 0 0
Quarter Page	1 10 0	.....	"	1 15 0
Per inch in broad column (half width of page)	0 7 0	.....	"	0 7 0
Narrow Column (one-third page)	2 0 0	.....	"	2 0 0

General Scholastic Advertisements (Colleges, Schools, Classes, Tuition, &c.), 3s. 6d. for 6 lines, or 4s. 6d. the inch.

Situations Vacant and Wanted—30 words or under, 2s.; each additional 10 words, 6d. (For 1s. extra, Replies may be addressed to the Publishing Office, and will be forwarded post free.)

### CURRENT EVENTS.

At the next Evening Meeting of the members of the College of Preceptors, to take place on May 13, Dr. Hubert Biss will give a lecture on "School Life and Healthy Growth."

A SERVICE for members of the University of London will be held in Westminster Abbey on May 6, at 6 p.m. The Bishop of Birmingham will preach the sermon. Full academic dress.

A COURSE of three lectures for teachers of geography that have previously studied geology will be given by Miss C. A. Raisin, D.Sc., Morton-Sumner Lecturer in Geology, at Bedford College for Women, on May 11, 18, and 25, at 6 p.m. Registration fee, 2s. 6d. Particulars from the Principal.

PROF. J. H. B. MASTERMAN, Birmingham University, will give a second course of lectures to members of working-class organizations, at Westminster Abbey, on May 2, 9, 16, and 23.

THE London Geological Field Class, conducted by Prof. H. G. Seeley, will make the following excursions: May 9, Frant (The Wealden Watershed); May 16, Otford (Breaching the Chalk Escarpment); May 23, Purfleet (The Chalk Bar on the Lower Thames); May 30, Hampstead and Highgate (Valleys Carved by Land-springs). This is the twenty-third session. Mr. J. W. Jarvis, St. Mark's College, Chelsea, S.W., is the Hon. Secretary.

THE University of Cambridge will celebrate the hundredth anniversary of the birth of Charles Darwin, and the fiftieth anniversary of the publication of "The Origin of Species," on June 22-24. The Hon. Secretaries are Mr. J. W. Clark, Registry, and Prof. Seward.

THE Vacation Term for Biblical Study (for ladies) will meet at Oxford, July 25-August 15. Miss Beatrice Creighton, Hampton Court Palace, is Secretary.

THE Second International Congress of Popular Education will be held under the auspices of the Ligue Française de l'Enseignement, at Paris, on October 1-4. Papers to be sent in by June 30. Correspondence to M. Léon Robelin, the General Secretary, 16 Rue de Miromesnil, Paris.

THE Gloucestershire Historical Pageant will be displayed at Cheltenham, July 6-11. The profits go to the Veterans' Relief Fund.

THE University of Aberdeen has conferred the following honorary degrees:—

D.D.—Rev. James Brebner, M.A., Forgue, Aberdeenshire; Rev. James Brown Craven, St. Olaf's Episcopal Church, Kirkwall; Sir James Donaldson, M.A., LL.D., Principal of the University of St. Andrews;

Rev. Alfred Shenington Green, M.A., Professor of Biblical Literature, Wesleyan College, Richmond, Surrey; Rev. William Skinner, M.A., Principal of Madras Christian College.

LL.D.—William Dobinson Halliburton, B.Sc., M.D., F.R.S., Professor of Physiology, King's College, London; William Johnston, C.B., M.A., M.D., Colonel (retired), Army Medical Staff; Joseph Larmor, M.A., D.Sc., LL.D., D.C.L., F.R.S., Lucasian Professor of Mathematics, University of Cambridge, and Secretary of the Royal Society; George Morison Paul, M.A., Deputy Keeper of the Signet, Edinburgh; William Ridgeway, M.A., D.Litt., Disney Professor of Archaeology, University of Cambridge; George Smith, M.A., Director of Studies, Provincial Training Centre, Aberdeen.

DR. J. N. LANGLEY, Professor of Physiology at Cambridge, has been elected a Foreign Member of the Royal Danish Scientific Society.

**Endowments and Benefactions.** THE Fishmongers' Company has given £1,000 towards the fund for carrying out the incorporation of King's College with the University of London.

THE LATE MR. C. H. MONRO, M.A., Fellow of Gonville and Caius College, Cambridge, has left to his College about £35,000.

"A PRIZE FELLOW" has given £1,000 to the Bodleian Library. "The donor desires by the title to suggest a peculiar obligation on those Prize Fellows who have prospered in this world's goods to come to the help of the University."

SELWYN COLLEGE, Cambridge, on its twenty-fifth anniversary, appeals for building funds. The Master furnishes information and receives donations.

MRS. M. E. SADLER has presented a framed portrait of Prof. Sadler to University College, Reading.

At a meeting held at the Town Hall, Liverpool, there were announced donations to the Building Fund of University College, Bangor, amounting to nearly £1,500. Sir William Tate, Bart., gave £500 (in addition to a former £1,000); and Sir Alfred Jones, £500; Mr. J. W. Hughes, £250; Mr. H. R. Rathbone, £100; Mr. L. S. Cohen, £50; Vice-Chancellor Dale, £5.

THE Powell Duffryn Colliery Company has voted £1,000 a year for 5 years to the Mining School Fund of University College, Cardiff; and £100 for 5 years to each of the Universities of Oxford and Cambridge.

BISHOP'S STORTFORD COLLEGE is raising a fund of £5,000 for additional buildings. £1,000 has been contributed.

A LIST of the Scholarships and Exhibitions awarded by the University of London, Prizes, by the Schools of the University, and by Institutions where there are Recognized Teachers, is set forth in the *London University Gazette* of April 8.

WORCESTER COLLEGE, Oxford, offers three Mathematical Exhibitions (£35 and £21). Open; no age limit. Examination begins June 25. Apply, with usual testimonials, to the Provost by June 19.

LADY MARGARET HALL, Oxford, offers, in March, 1909, the Old Students' Scholarship of £40 a year for three years, a Jephson Scholarship of £45, and a Scholarship of £35.

ST. HUGH'S HALL, Oxford, offers, in March, 1909, a Hall Scholarship of £25 a year for three years and the Otley Scholarship of £40 a year for three years, the latter confined to candidates from Worcester High School.

**Appointments and Vacancies.** LORD RAYLEIGH has been unanimously elected Chancellor of the University of Cambridge, in succession to the late Duke of Devonshire.

Lord Rayleigh (then the Hon. J. W. Strutt) was Senior Wrangler and First Smith's Prizeman in 1865. He became a Fellow of Trinity, and was Professor of Experimental Physics from 1879 to 1884, succeeding Clerk Maxwell and being succeeded by J. J. Thomson, an exceptionally brilliant sequence. He was President of the Royal Society 1905. Perhaps his greatest researches have been in the Theory of Sound; he is more popularly associated with Prof. Sir William Ramsay in the discovery of argon.

MR. JOHN MORLEY, O.M., M.P., has accepted nomination for the Chancellorship of Manchester University.

LORD ROSEBERY has been appointed Chancellor of the University of Glasgow, in succession to the late Lord Kelvin.

PROF. BOYD DAWKINS is resigning the Chair of Geology and Palæontology in the University of Manchester. He has been connected with Owens College since 1870.

PROF. REDMAYNE, Head of the School of Mining, Birmingham University, has been appointed Chief Inspector of Mines under the Home Office.

MR. F. W. THOMAS, M.A., Librarian of the India Office, late Fellow of Trinity College, Cambridge, has been appointed to the new University Readership in Tibetan at University College, London.

At King's College, London, Dr. J. Charlton Briscoe has been elected Assistant Physician to King's College Hospital, and Mr. T. F. Sibley, B.Sc., Lecturer and Demonstrator in Geology at the College.

Two University Readerships—one in Ancient History at University and Bedford Colleges, and one in Greek at Bedford College—are to be instituted by the University of London. Particulars from the Academic Registrar.

At Manchester University, Mr. Edgar Prestage, B.A. Oxon., has been appointed Special Lecturer in Portuguese Literature; Mr. Henry Spenser Wilkinson, M.A. Oxon., Special Lecturer in Military History; Mr. Gerald B. Hertz, M.A., B.C.L. (Lecturer in Constitutional Law, &c.), Special Lecturer in Colonial History; and Mr. Joseph Hall, M.A., D.Litt. (Head Master of the Hulme Grammar School), Special Lecturer in Middle English.

PROF. J. R. AINSWORTH DAVIS, M.A. Cantab., Professor of Zoology and Geology, University College, Aberystwyth, has been appointed Principal of the Royal Agricultural College, Cirencester.

PROF. CRUM BROWN is retiring from the Chair of Chemistry in Edinburgh University, which he has occupied for forty years.

At University College, Bristol, the Rev. De Lacy O'Leary, M.A., B.D., has been appointed Reader in Aramaic and



Syriac; and Dr. J. M. Fortescue Brickdale, M.A., M.D., B.Ch. Oxon., Director of the Public Health Laboratory.

At University College, Reading, Mr. F. Bernard Bourdillon, B.A. Oxon., has been appointed Warden of Wantage Hall and Lecturer in German; and Mr. Herbert J. Maryon succeeds Mrs. Arthur L. Bowley as Teacher of Craft Work.

A LECTURESHIP in Classics and Philosophy is vacant at Armstrong College, Newcastle-upon-Tyne (£150 rising). Apply to the Secretary by May 7.

A HEAD MISTRESS is required for the Liverpool College for Girls (£350, without residence). Apply to the Secretary by May 15.

MISS ADELE SANDERS, second mistress Blackheath High School (Girton, Classical Honours Cambridge, M.A. Dubl.), has been appointed Head Mistress of the Tunbridge Wells High School (Girls' Public Day School Trust).

THE REV. CYRIL A. ALINGTON, M.A., assistant master, Eton (since 1897), and Fellow of All Souls (1896), has been appointed Head Master of Shrewsbury School.

MR. ALEXANDER B. STEVEN, B.Sc., Assistant Lecturer in Dyeing, Leeds University, has been appointed Lecturer in the new Dyeing, Calico-printing, and Finishing Department of the Glasgow Technical College.

MR. WILLIAM EDWARDS, M.A. Cantab., Senior Classical Master, Bradford Grammar School, has been appointed Head Master of Heath Grammar School, Halifax. He is succeeded by Mr. W. J. Goodrich, M.A. Oxon., Senior Lecturer in Classics, Manchester University.

MR. T. F. G. DEXTER, B.A., B.Sc. Lond., Head Master Finsbury Pupil-Teachers' School, has been appointed Principal of the Islington Day Training College.

MR. H. BLACKMORE, Head of the Riccall Schools, near Selby, has been appointed Normal Master and Director of Education to the Colony of British Guiana.

MR. THOMAS J. BURNETT, M.A., Assistant in Broughton Higher Grade School, has been appointed Master of Method under the Edinburgh School Board.

THE REV. M. W. BUTTERFIELD, B.A. N.Z., B.D. Dunelm., has been appointed Principal of the Maori College, Wairenga-i-hika, near Gisborne.

**Literary Items.** MESSRS. CONSTABLE promise immediately an important work, in two volumes, by Prof. Felix E. Schelling, on the "Elizabethan Drama" (1558-1642).

MESSRS. A. & C. BLACK publish the Gifford Lectures, delivered last year at Aberdeen by Dr. Hans Driesch, of Heidelberg, under the title of "The Science and Philosophy of the Organism."

MESSRS. CASSELL will shortly issue a "Pocket French and English Dictionary," abridged by Mr. de V. Payen-Payne from the well known larger edition.

MESSRS. JACK announce a new shilling series of cloth-bound volumes, "bringing together the greatest of the world's stories," under the editorship of Mr. Arthur Ransome, who will also contribute introductions and chronologies. The first two volumes (translations of three tales of Théophile Gautier and of two stories of Hoffmann) are nearly ready. Mr. Ransome's "History of Story-telling" will be published in autumn by the same firm.

MR. T. S. FOSTER, Chairman of the Committee of Educational Inquiry and Research at University College, has received letters from a number of public men expressing sympathy with the scheme to establish in Bristol a Bureau of Educational Information in connexion with the projected University of Bristol and the West of England.

THERE seems now to be every prospect that Prof. Geddes's scheme for the re-erection of Crosby Hall at Chelsea as part of a University Settlement will be carried out very shortly. The cost of the re-erection is estimated at £10,000, and of this, £5,000 has already been subscribed by a well-wisher, who has given another £5,000 towards the completion of the general scheme.

It is hoped that University College Hall, Ealing, established by a company formed of individual members of the Governing Committee and Professorial Board of University College, London, and friends, will be opened in the beginning of October. It provides a suitable home for some forty-one students.

### SIR EDWARD BUSK ON MORAL EDUCATION.

UNDER the auspices of the College of Preceptors, and in connexion with the First International Moral Education Congress, Sir Edward Busk, Chairman of Convocation and Past Vice-Chancellor of the University of London, delivered a lecture at the College of Preceptors in Bloomsbury Square on Wednesday, April 1, on the subject of Moral Education. The chair was taken by the Right Hon. Lord Avebury, P.C. Sir Edward Busk spoke as follows:—

To-day's meeting is held at a time when all who are interested in the promotion of moral education are in a state of expectancy. We are looking forward to the report of the results of the International Inquiry into Moral Instruction and Training in Schools, which began in October, 1906, and continued throughout the year 1907, and also to the First International Moral Education Congress, now being organized, which is to be held in London from September 23 to 26 next. It has, however, been thought right that, while expecting important results from this report and Congress, we should not remain in a state of suspended animation, but should meet together to consider the plan of the Congress and the subjects to be discussed at it.

#### CONDUCT AND CHARACTER.

Of the importance of the subject there can be no doubt. It is given to comparatively few persons to extend the range of knowledge and science, or even to pass their lives in studying what has been discovered by others; but every one has to act continually, and to make on frequent occasions what is, or at any rate appears to be, a free choice between different actions which present themselves to him as alternatives for adoption. Conduct is, and must be, common to all, whether they pursue their intellectual studies or not, and it is of the greatest importance that correct habits should be formed in early youth, partly because such habits will in time lead their possessor to an unconscious and apparently instinctive preference for the better of two possible actions present to his view, and partly because, in circumstances of greater difficulty or in a situation new to the agent, his past habits will have formed in him a character which will enable him to choose the higher and nobler course of action, and even to make that selection at high speed and with certainty. If a man

live continually and from day to day on a high plane, his conscience will be so trained and developed that it will not fail to guide him aright if difficult circumstances occur and present a new problem to him for solution. Conduct, in a word, creates character, and the character acquired is a guide to future conduct.

#### FORMATION OF CHARACTER.

Moreover, character is the one and only possession of which we can be sure. Our knowledge may become obsolete, our health and strength may decay, our property may take to itself wings, our friends may be severed from us by death or other causes, but our habits and character will remain throughout all these changes, and those habits which have been acquired in our early years are the most deeply rooted and least liable to change. Passing from the individual and viewing mankind at large, we find that men are connected in groups of various sizes and complexity, progressing from the family—through villages, towns, cities, and nations—to the greatest brotherhood of all—that of the human race. Besides these groups, there are large numbers of associations of various kinds and sizes, such as Churches, Universities, colleges, schools, professions, clubs, and the like. The members of all these aggregations of men have special relations to each other, involving duties to be performed, rights to be respected, discipline to be maintained. The well-being of each of these communities, whether small or large, depends on the conduct of every one of its members, and the character of each man is therefore of vital importance, not only to himself, but to his fellow-men. It is not an exaggeration to say that the greatest of all educational ends is one which cannot be attained without the moral instruction and training which it is our object to promote. Fortunately, the subject is of such a nature that children can and should receive education in it in many different ways—by direct and systematic instruction; by surrounding the instruction given in other subjects, particularly in those comprised under the head of the humanities (such as ancient and modern languages and literatures, history and composition), with a moral atmosphere; by the supervision of games with a view to prevent disorder and bad temper, and to inculcate fairness and the subordination of personal interests to the success of the side on which the pupil is playing; by sympathy and judicious kindness so as to develop individuality; and, lastly, by personal example and influence. In all these methods, but especially in the last two, home life plays an important part, and the co-operation of parents should be diligently sought.

#### NECESSITY OF INSTRUCTION.

Little progress will be made, however, without instruction, either direct or indirect, and teachers should be carefully trained in Universities or training colleges or elsewhere, so as to be competent to give it and to deal with any difficulties and objections that may be raised and the arguments that are not infrequently urged against the systematic teaching of morals. Among these we may place the following:—(1) The number and diversity of the theories of ethics, (2) the varying standards of good and evil in different countries and epochs, (3) the difficulty of treating of the imperative nature of duty without assuming some sanction either supernatural or natural.

#### DIVERSITIES OF ETHICAL THEORY.

Taking the first objection, it must be admitted that there are many theories based on different metaphysical or philosophical systems. In the old times the line of cleavage was between the permanent essence and the fleeting phenomena—a man being considered as part of the universe or as a microcosm, and all knowledge of him proceeding from the knowledge of the outside world. These systems gave rise, on the one hand, to the transcendental theory of Plato (who held that the permanent extended beyond and above the sensible world) and the immanent theories of Descartes, Malebranche, and Spinoza (who held that the permanent and sensible worlds were co-extensive), and, on the other hand, to the physical theory of Comte, according as emphasis was laid on the permanent or on the phenomenal side of the world. The more modern frame of thought is based on an antithesis, unknown to the ancient philosophers, between the knowing mind and the world outside it, proceeding from the former to the latter and thus reversing the process of the ancients; and here differences arise between the schools of thought which assert that the mind is incapable of knowing anything except phenomena and those which assert that it is capable of piercing through the shifting scenes of time and gaining a knowledge of that which underlies them. These systems of philosophy have produced, on the one

hand, the hedonistic ethics of Hobbes, Bentham, the two Mills, and Herbert Spencer, the theories of Cudworth, Clarke, and Price, and the aesthetic theories of Shaftesbury and Hutcheson; and, on the other hand, the psychological theories of Butler and Kant, who recognize in the mind a power of judging as to the relative nobility or baseness of various motives or springs of action known as propensities (or appetites), passions, affections, and sentiments.

Notwithstanding this difference of view as to its origin, all writers on ethics, ancient or modern, admit the authoritative character of a moral judgment, and that it is in practice applied to the action judged and to the man who performs it. There is therefore an underlying unity, and it is sufficient to teach children the results which form the practical side of morals without troubling them with the diversities of metaphysical or philosophical thought.

Nearly the same remarks may be made about the various religions. Religious instruction is becoming more and more systematically ethical, and, wide as may be the divergencies between religious beliefs, no one can deny that there is underlying them also a moral unity if he will consider the high codes of truth, honour, honesty, and self-sacrifice which are recognized by the Japanese, the pure Buddhists in Burma, the Sikhs, and the Bedouins. Having regard to this, one cannot be surprised to find a fundamental unity in the morals inculcated by the various churches and sects in Christendom, whose beliefs differ far less widely.

#### DIVERSITY OF STANDARDS.

The objection based on the varying standards of good and evil, the existence of which we must all admit, is effectually met by our own everyday experience that no action considered by itself is either good or bad, but that it is good when the higher of the two motives present to the mind of the agent is selected by him, and bad when he selects the lower of the two of which he is cognizant. Actions may be regarded as taking rank as nobler or baser upon a scale like that of a thermometer, and, as mankind advances, the parts of the scale known to it extend higher and higher and nobler motives of action become known, so that what at a low stage of development might have been the highest known spring of action becomes one low down on the advanced scales, and its selection instead of the other possibilities has become reprehensible. For instance, in early tribal wars it was the universal custom to kill—or even to kill and eat—the conquered. Subsequently their lives were spared; but the victors retained them as slaves. This was at that stage a distinct advance, because no other alternative was recognized; but it would afford no justification to more civilized victors if they, with their wider knowledge, should enslave their captives.

If this be the true explanation of the nature of moral judgment, it affords the best proof of the necessity for systematic moral instruction, so that all the motives of action lying open before the most advanced man may be made known to learners, and their scope and power of choice may be enlarged and improved.

#### THE QUESTION OF SANCTION.

The absence of a sanction, which is the basis of the third objection, seems to me to be of the essence of morality. If actions be chosen from fear of consequences either here or hereafter, the resulting conduct is prudent rather than moral—is governed, as Coleridge said, by worldliness or “other worldliness.” It is no good action for me to abstain from murder because I shall be hanged if I commit it. No one will need the stimulus of a system of rewards and punishments who is penetrated with the spirit of morality and turns naturally to the true and noble, shrinking from the baser thoughts and actions.

#### TEACH BY EXAMPLES.

It will be of great advantage to the teachers that they should know of these differences of opinion and arguments, as such knowledge provokes reflection and tends to prevent dogmatic and mechanical methods of instruction and also tends to charitable judgments, seeing that each person, while judging himself as responsible owing to the freedom of choice which he himself feels, may refrain from criticizing others censoriously by bearing in mind that, after all, men may not really be so free in their selection as they feel themselves to be, but may be influenced, if not by a chain of absolute necessity, yet still by the past in the form of heredity, or environment, or their own past life, and that the agent whom he is judging may not have had the opportunity of developing the scale of actions known to him, and may there-

fore have really acted in conformity with the highest motive known to them at the time.

Although teachers who are entrusted with moral education should be familiar with these and similar considerations, yet I think it would be wrong to dwell upon them in the lessons given to children. Every effort should be made to bring home to them the simple categorical imperative which results from all these theories; and, whether the instruction be direct or indirect, they should be led to entertain a deep and enthusiastic reverence for what is noble. This enthusiasm will be evoked far better, in my opinion, by holding up to their view examples of self-sacrifice undergone, duty well performed, respect for others, courtesy and loving-kindness, than by the inculcation of maxims. Fortunately the teacher will find no difficulty in citing lives of men and women who are instances of these virtues and have manifested them in such ways as to be readily understood by children and to impress them with a thrill of reverence and even awe; and instances may be taken from works of fiction in poetry and prose as well as from the accounts given in histories and biographies.

It appears to me, therefore, in short, that the instruction and training of teachers in such an institution as this, in the Day Training College of the London County Council and the College administered by the London University and other places nowadays, can hardly be too wide or complete. The fuller it is the better, but as regards the children, although I speak with great hesitation, because all this valuable information which is to be collected in foreign countries and elsewhere is still out of my reach; yet I think it is wise to educate them principally by example and influence, and then indirectly by saturating the whole teaching and the whole course of school life with these moral principles, teaching them directly rather by examples than by abstract maxims which it will be very difficult for them to understand. These examples, I think, should be selected from instances which a child will readily understand. It would be difficult, for instance, to make a child understand the great philanthropic efforts of Howard with reference to the miserable condition of the prisons in his day; and there are other cases which it might be equally difficult to bring home to a child, but many could be found which would be perfectly intelligible to the youngest child, and be more likely, I think, to awaken the admiration and enthusiasm of a child than even of an adult.

Lord AVEBURY proposed a vote of thanks to Sir Edward Busk for his thoughtful and interesting address. He himself had had the great honour and privilege of being for nearly forty years in one or the other House of Parliament, and during that time he had heard a very great number of addresses on the subject of education. These addresses had generally turned upon those great mysteries and questions upon which, as they knew, there were most diverse opinions; but he hardly remembered, with two or three exceptions, any debate, either in the House of Commons or in the House of Lords, as to the mode of teaching the more everyday subjects, such as elementary science, history, or geography; but still less on the subject of morals. He did not think this was in any way because they undervalued that great subject, but it had rather been supposed that they were all agreed upon it, and it had come to be left almost as a matter of course, as the Irish tenant said with reference to this auspicious subject: "What is everybody's business is nobody's business." Still, it was surely rather remarkable that it had been left till the last two or three years to see an organization started with the object of securing as far as possible that moral teaching and the formation of character should receive a share of attention. He thought they would all agree with Sir Edward Busk that it was a most vital part of education. But, although they were all agreed upon general principles, it was not nearly so easy to agree as to the exact method in which this could be carried out. Sir Edward had told, in his concluding words, the way he would carry it out himself, and he (Lord Avebury) had had the privilege of reading within the last few weeks a number of very interesting papers by many high authorities upon the subject; but there was still certainly a great deal of difference of opinion. He hoped that one effect of the Congress they were about to hold would be more agreement upon the subject, and he was confident that another effect, and a very good one, would be that those Education Authorities who have had their attention called to the matter would see the importance of introducing some training in this respect. Already a large number of Local Authorities who had the responsibility of carrying out the training of teachers in our schools had adopted the suggestions which had been thrown out

by the Moral Instruction League in this country, and in that respect the League had done very good service. He was sure he would be acting in accordance with the wishes of the meeting in asking them to pass a very hearty vote of thanks to Sir Edward Busk for his most interesting address.

Lady GROVE, in seconding the vote of thanks, said she was sure they all felt at one with Sir Edward about moral education, and it only remained for them to agree as to the methods which should be adopted. The lecture they had heard might well make them wish that for once in their lives they might be children again, because the kind of education that was coming was very different from the kind of education which those of them who had seen several decades since they were children had experienced in their younger days. She had been asked to say that the King had sent a message to the organizers of the Congress that he wished the Congress every success, and also that Mr. McKenna, the President of the Board of Education, and M. Doumer, the French Minister of Education, were patrons of it and had given it their strong and earnest support. She believed that there should be no outward coercion in order to keep order in the school, and that the question of discipline really solved itself when education was given on true pedagogic lines. It was anticipated that the effect on the minds of children of lessons given on sound educational principles would make it perfectly unnecessary to issue either threats or prohibitions of any kind, on account of the interest they would feel in their lessons. By moral education they would be enabled to do away with the outward form of coercion such as had been used from time immemorial, not only in schools, but in classrooms. She thought they owed a great debt of thanks to Sir Edward Busk for his illuminating address, which made them feel how eagerly they would welcome this Congress and go to it when the time should come.

Sir EDWARD BUSK, in acknowledging the compliment, said he was always glad to do what little he could for the promotion of education in London, and moved a vote of thanks to the College of Preceptors for the use of their hall for holding the meeting.

The vote of thanks was seconded by Lord AVEBURY, and unanimously adopted.

### PRACTICE AND PREJUDICE IN EDUCATION.\*

By Prof. J. W. ADAMSON, B.A.

(Continued from page 187.)

#### THE THREE R'S.

The prejudices considered thus far originate in a defective understanding of mental process. There are others which indicate a lack of historical information concerning the schoolroom and its tasks. It is a very common prejudice, for example, that the basis of all instruction, the stuff which makes "elementary education," is found in "the three R's." As a matter of fact, this triad has only been established in the schoolroom for a period which is much nearer to two than to three centuries, schools before that time refusing to consider reading in the vernacular, writing, and arithmetic as proper parts of their business. The introduction of these three studies was not brought about from any conviction of their gymnastic value, or even from a belief in their universal necessity, but from purely utilitarian motives; and the introduction was sporadic and gradual. Down to a late date in the seventeenth century, European schools in general taught their youngest pupils to read Latin in those cases only where boys had had no opportunity to learn to read in Latin previously at home. The schoolmaster's view was that such preparatory work should be done for him, just as the boy was taught to talk before entering school. It was only schoolmasters and educators with an inclination towards innovation, men such as Brinsley and Hoole in England, or Messieurs de Port Royal and de la Salle in France, who thought of teaching boys to read the vernacular; in general that accomplishment was "picked up," partly through learning to read Latin words. The common practice is reflected in the regulation laid down in 1654 for the parochial schools of Paris: "before children are put to reading French they must first know how to read Latin well in all sorts of books"—reading, that is, parrot-wise, without understanding what is read. Nearly half a century later de la Salle was called upon by his diocesan to justify the practice of teaching French charity-school boys to read French before Latin.

\* Lecture delivered at the Winter Meeting of the College of Preceptors.

Writing, again, was so little regarded as the affair of the school that in schools less well equipped no systematic provision was made for teaching it; while in schools more liberally conducted pupils needing the instruction were either handed over to a writing-master, a man of inferior standing, or else sent on *half-holidays* to a neighbouring writing school. Hoole, writing in 1660, says that "the usual way for scholars learning to write at the country grammar schools is to entertain an honest, skilful penman . . . for about a month or six weeks together, every year, in which time commonly every one may learn to write legibly." The honest penman generally arrived in May, as "days are then pretty long." Less than a century ago boys at some of the public schools resorted to an external writing master for lessons in penmanship.

Arithmetic is now often spoken of as though it were a very pillar of support to all instruction, a foundation without which no education could be stable; the opinion is backed by resort to some of those prejudices concerning mental gymnastic which have already been reviewed. It is very doubtful whether the most whole-hearted believer to-day in the merits of a "classical education" would deny arithmetic a place, even an honoured place, in the school time-table. But his seventeenth century predecessor frankly regarded arithmetic as an intrusive, "uneducative" nuisance, only tolerated by a weak-kneed surrender to the claims of "usefulness." In fact, arithmetic then "enjoyed" the position now commonly accorded to bookkeeping, shorthand, and typewriting. Here, according to the statutes of Charterhouse (whose foundation dates from 1612) is the educational function of arithmetic: "It shall be [the master's] care and the usher's charge to teach the scholars to cypher and cast an accompt, especially those that are less capable of learning and fittest to be put to trades."

No! "The three R's" are in the schoolroom not in consequence of some inherent powers of educating mind, but as the result of economic changes and altered moral ideals, which have led to the exaction of these particular forms of knowledge and skill from large numbers of the community. The arguments about gymnastic, mental training and the like are an afterthought, which must be scrutinized in the light of educational history if one would avoid prejudice.

All "theorists," and very many practical teachers who disclaim theory, denounce the so-called "alphabetic method" of teaching reading; probably most practical teachers would, under pressure, join the disclaimer. No one has denounced the method more vigorously than Lord Lytton, who says, in "The Caxtons": "A more lying, roundabout, puzzle-headed delusion than that by which we confuse the clear instincts of truth in our accursed systems of spelling was never concocted by the father of falsehood. For instance, take the monosyllable *cat*. What a brazen forehead you must have when you say to an infant *c, a, t* spell *cat*: that is, three sounds forming a totally opposite compound—opposite in every detail, opposite in the whole—compose a poor little monosyllable which, if you would but say the simple truth, the child will learn to spell merely by looking at it. How can three sounds which run thus to the ear, *see-eh-tee* compose *cat*? Don't they rather compose the sound *see-eh-tee* or *centy*?"

In spite of attack from expert and from layman, the "alphabetic method" flourishes still. If account could be taken of all the devices by which children are taught to read, it is to be feared that this discredited plan is the one most frequently employed. What is the explanation? No one, so far as I know, has had the hardihood to adduce the advantage of "mental training" on its behalf. There seems to be no other explanation than the prejudice in favour of routine, as a glance at the history of the matter suggests.

Greek syllabaries which have been unearthed during recent years in Egypt only confirm the fact, known to us on the evidence of Greek authors, that Greek children learned to read their mother tongue by means of an alphabetic method which combined letters for the purpose of giving the sounds of syllables, the latter being presented to the learner in a customary order. It is but a variant of this plan which Quintilian proposes as the best way of teaching Roman children to learn to read Latin. The method therefore came to the schools of modern nations with this weight of tradition behind it, and, as we have already seen, up to the seventeenth century those schools taught their pupils to read Latin, but not the vernacular. That they employed the traditional method of teaching children to master the Latin notation is not in itself surprising, when it is remembered that this particular synthetic plan meets no obstacles of moment

where the language is phonetically spelt. The document of 1650, already quoted as prescribing the reading of Latin before the reading of French, gives the reason for this, to our way of thinking, topsy-turvy order. "French reading," it is said, "is more difficult to pronounce than Latin reading"—that is, the alphabetic or syllabic plan, which is appropriate in mastering a regular notation like the Latin, encounters serious obstacles when applied to the much less phonetically spelt French; applied to the far less law-abiding English spelling, it falls under the castigation of Lytton.

But so ingrained is the conservatism of our profession that when at last English and French boys received instruction from schoolmasters in the art of reading the mother tongue, their teachers continued to employ the method which they had always used when teaching Latin reading, without stopping to consider whether it was equally applicable. Their tradition survives to this day.

#### METHOD IN LANGUAGE TEACHING.

The method of teaching modern foreign languages has a similar history. When these at length made their way to a tolerated place in the curriculum, they found a method of teaching language already established, full of years and honour. It would be too much to expect that any greatly different plan would at that time be adopted for teaching the modern tongues. Latin and Greek were taught by means of grammar-book, delectus, translation, and written exercises, without a thought to their conversational aspect; why should French or German be taught in any other way?

History has answered the question, and tradition has recently received another shock. The Head Masters' Conference in December last was invited to declare the opinion "that the teaching of Latin and Greek should not aim at enabling boys to speak those languages." Yet conversation was certainly one of the aims of the teaching of Latin which Erasmus and Sturmius regarded as of the first importance, and the one was as great a humanist and the other as capable a head master as any member of the Conference to-day.

This particular difference of opinion between the sixteenth and the twentieth centuries is an instructive illustration of a truth which may be usefully applied in the criticism of a good many educational prejudices. The reasons alleged at a later date for the inclusion of a particular study in the course or for the adoption of a certain mode of teaching, are frequently quite different from, and sometimes contradictory to, the reasons which moved men to introduce the one or the other. Thus, of the teaching of Latin and Greek, the Head Master of Eton declares (in Barnett's "Teaching and Organization," pages 214-5): "Putting it quite briefly, the learning of these ancient languages in its earlier stages affords an opportunity for training in precision of thought, memory, inference, and accuracy; . . . it is an unrivalled instrument for stimulating the reasoning faculties at an age in which their very existence might almost seem open to doubt." This is slippery ground on which to base a study: its adversaries are left free to object that the same opportunity exists in other studies which confer benefits over and above that of gymnastic. They will not be deterred by the obviously rhetorical flourish "unrivalled." Canon Lyttelton goes on to say that this very gymnastic quality in the learning militates against the employment of methods which put the languages to use as do modern methods of teaching foreign languages. "We do not want Latin, as we want French, as a medium of communication with other people." That is the case; but the fact is not a conclusive argument against the employment of conversation or of "free composition" as means of teaching Latin or any other language. As a matter of history, the opposite opinion was obstinately held by the head masters of the sixteenth century, who so firmly riveted the classical tradition in the schools.

The thought of these men, who, with a sturdy arm and a broad *ferula*, insisted upon conversational Latin, reminds one of a prejudice from which their memory often suffers to-day. Sturmius of Strassburg in particular, and most of the head masters of his time, are too often painted as blind pedants who differed from others of their kind only in possessing an inordinate measure of obscurantism. "The schoolmasters, with Sturm at their head, set themselves to teach *words*, foreign words, and allowed their pupils to study nothing else—not even the mother tongue" (Quick, "Essays on Educational Reformers," page 30). This is certainly meant to convey the idea that the incriminated persons deliberately shut the world and

its business outside their schoolrooms—anything which savoured of usefulness must not intrude itself upon their time-tables.

Such an interpretation of the admitted facts fails to do even bare justice to the Rector of the Strassburg Gymnasium. That liberal-minded man of affairs and trusted agent of many princes and governments owed very much of his own success in life to an ability to write a sound Ciceronian Latinity. Clear-sighted and practical, he was determined, as far as he could, to confer that accomplishment, so indispensable at that time to every ambitious public servant, upon all who came within his influence as an organizer of schools. It is, no doubt, matter for profound regret that the educational theories of the Ciceronians as applied to the schools by Sturm and Ascham ultimately drove the purer humanism of Erasmus out of the field. But it is an ignorant prejudice which fails to note how very *useful* their scheme of teaching was when judged by the conditions of their own day. Their practice suffered from the defect usually found in the work of those who fix their attention too exclusively on what is recognized as useful; that is, it suffered from a narrowness which in the end defeated its own aim.

#### THEORY AND HISTORY OF PRACTICE.

Why, it is sometimes asked, should the young teacher be burdened with theoretical considerations and with historical studies which seem remote from his daily task in the form-room? Is it not enough that he should learn to discharge that task by practising it? The answer is, that no art is so easily invested with routine as the art of teaching, and in no art is routine more damaging. A knowledge of sound theory and some familiarity with the course of educational practice in the past are amongst the best safeguards of the practitioner against the tyranny of use and wont, whilst they are indispensable factors of that enlightened critical organon which should be the possession of every thinker, administrator, and official concerned with public instruction. If a brief and imperfect consideration of some scholastic prejudices has but suggested the reasonableness of that opinion, the writer of the paper ventures to think that an hour so employed has not been altogether wasted.

#### LONDON UNIVERSITY DEVELOPMENTS.

As we briefly recorded in our last issue, Lord Rosebery, as Chancellor of the University of London, visited University College to open the new Libraries and the South Wing of the buildings. Two or three points from the speeches are well worth noting.

Lord Rosebery said: Here there is a College now which yields to few colleges in the world in its appliances, situated in the midst of the greatest metropolis in the world, educating and rearing hundreds and hundreds of students, the centre of one form of University life in this metropolis. . . . And it is not only this College that has made such an advance in London, but the whole of London at this moment seems, in one form or another, to be teeming with University life. All this life is drawn irresistibly to the University of London. To enumerate the schools of this University would take up more time than I should like to occupy this afternoon, but they are springing up almost annually, and all, or most of them, are affiliated to the University of London, and as time goes on we shall, I think, see many more; and, indeed, if this constant affiliation did not take place, though it may alarm some with the craven fear of being too great, yet such is the energy of University feeling in London that I verily believe you would run the risk of a second University in London if the University of London did not affiliate the institutions that are anxious to join it. When I read this long list of schools, when I survey this forceful life to which we cannot shut our eyes, I am sometimes tempted to ask myself if the machinery of our University is adequate to the great strain that is being put upon it by the multiplication of the institutions that are under its fostering care. It is quite true that that machinery is not old, but new circumstances are constantly arising, the conditions of our University are constantly changing, and the machinery which in other Universities would be regarded as new, in our University is apt much sooner to become superannuated. . . . I sometimes doubt, if we are to undertake new tasks and burdens, whether our constitution is sufficiently receptive and elastic to undertake them. It is quite true that we are not

an ancient University. We have not all the power that tradition gives, all the splendour of antiquity and the veneration of those other qualities a University inspires. But we have the advantage—a counterbalancing advantage which, in my opinion, outweighs those qualifications—the vigour, the adaptivity of extreme youth—and I am myself extremely anxious that we should not lose the advantage which that quality of youth gives. We are a new bottle into which new wine can be abundantly poured without risk. We are a new garment which does not fear the newest patch upon it, and, I think, when we face our great task—because in some respects no University has ever undertaken a more gigantic task than the University of London—we should take full advantage of the strength and adaptivity which our youth gives us. We should not be afraid of revising or readjusting our methods to meet the needs and the calls of the day. We should court the testing of our methods and our systems, so that, if anything is to be learned by that testing, we should profit by it.

Lord Reay said: When we see these new buildings which have been opened to-day we cannot forget the excellent work that has been done in the past by our professors and by our students in very inferior buildings and with very inadequate room. Years before we were incorporated, whilst London had only a University in name—only a University which examined—we here within these walls were keeping the flame burning, and we, at all events, prevented the great reproach being cast on the metropolis of the Empire that there was no intellectual centre worthy of the University [? the city]. . . . There are two principles to which this College has always declared its firm adhesion, and those two principles, I think, will be maintained. The first principle is that the prosperity and the vitality of this institution depend, in the first place, on the staff of its professors, and that, therefore, on the selection of the professors rests one of the fundamental acts which are to secure that prosperity. We have always been, as you know, most fortunate in the selection of our professors; only I am sorry to say that we have not been equally fortunate in keeping them and retaining them here, and, perhaps, that is the result of our selection being so good. When other attractions have been offered, I am sorry to say, they have left us. I hope that, in the future, we shall make the conditions that exist in the struggle for intellectual life in this College so attractive that, whatever temptations are held out to them, we shall be able to retain them. The other principle is that, in connexion with the University, everything depends upon the teaching, and that, if the teaching is good and the examinations are in harmony with the teaching, you may depend upon it that both teachers and examiners will have a light task. On the other hand, if our teaching is defective, however admirable our examinations may be, you will not obtain the result and the harvest that you require. Well, I hope that those two principles will remain, whatever else may happen with this college.

The Provost (Dr. Gregory Foster) said: I desire, my lord, in the name of the Professorial Board, to thank you for the allusions which you have made to the great work that has been done here in the past; but I desire even more heartily to thank you for what you have said with regard to the future. We feel here very strongly that the present machinery of the University is not adequate to the great task that it has before it—that those who reconstructed the University in the years 1899 and 1900 had no conception of the growth that would take place on the coming together of the various institutions of London; and therefore, in saying that our present machinery is inadequate, I do not in any way wish to cast a slur upon the work which was done by those commissioners; but I would assure you, my lord, that, in the suggestion which you have made of some modification of machinery to suit the new conditions, you will have the warm and appreciative sympathy and help of the Professorial Board here. There is one further point that I should like to make in connexion with the words that have been said about our work here, and it is this: that, while we may look back with a certain degree of satisfaction on the past, we who are concerned with the daily work here are from time to time oppressed—I think that I may almost say oppressed with a deep oppression—that we have not the means to meet all the calls that are made upon us. There are, I know, at the present time, at least a score of different pieces of new work that we could undertake here if the means were only provided for us; and I venture to believe, my lord, that your visit here to-day will help London to realize the great opportunities that it has in its various University centres, and that Londoners will put them in a position to meet the daily demand that is made upon them.

### THE TEACHERS' REGISTER.

#### FINAL REPORT OF THE COUNCIL.

(JANUARY, 1907, TO MARCH, 1908.)

UNDER the terms of the Order in Council of August 12, 1907, the Teachers' Registration Council ceased to hold office on March 31. The Report for 1907 has, therefore, been extended so as to cover the fifteen months to that date. The total number on the Register on February 14 last was: men, 5,782; women, 5,877. One name had been removed from the Register, 3,193 names were rejected, and 141 were withdrawn. From January 1, 1907, to February 14, 1908, applications under Column A had been received from 2 men and 13 women; the total number registered under Column B was 18 men and 15 women; the total number rejected, 6; and the total number withdrawn, 3. Applications received after February 14 stand referred to the incoming Council. The Council in their observations state that, at the date of the last report, applications for admission to the present Register had already sunk to a negligible number, and the likelihood of any revival of interest in registration was far from being assured. Still, it was gratifying to note that the recent action of Parliament had improved the outlook for the future and had been welcomed by the leading associations of teachers. Clause 16 of the Education (Administrative Provisions) Act, 1907, had settled a question on which the opinion of teachers had been seriously divided, and loyal acceptance of the decision of the profession should so far clear the ground for fresh consideration of the many problems which would have to be solved. The Council appreciated the fact that the prospective conditions of registration, in so far as they were outlined by the Act, were in harmony with the views which they had from time to time urged upon the Board; and they were, moreover, fully in sympathy with the enactment which committed the framing of a scheme under those conditions to a professional Council. It was felt that at this juncture further examination of the policy embodied in the Order in Council of March, 1902, would serve no good purpose. Those difficulties of principle which arose from the attempt to differentiate between teachers solely on the ground of the nature of their professional experience had been removed from the field of controversy. It would be premature to attempt to formulate definite regulations for the future Register before the new professional Council had been established. On the other hand, the provisions of the Order in Council dealing with the administration of the Register had given rise to certain practical difficulties, the pressure of which must still continue to be felt. Two were of sufficient importance to call for attention.

In summarizing the financial results of the working of the Register since its establishment in 1902 the Council state that, with the exception of trifling sums received under other heads, the income of the Council had been restricted to the fees paid by applicants for Column B. Those fees, together with the interest accruing therefrom, had amounted to close on £12,700, from which sum working expenses to an approximate total of £9,900 had been defrayed. Hence, on March 31, the balance standing to the credit of the Registration Fund would be roughly £2,800. It had not been possible to undertake the issue of a printed Register, as originally contemplated. That would have entailed heavy liabilities which the Board could not see their way to sanction. Of the total receipts from fees, a sum of £2,678—approximating to the balance now in hand—was furnished by applicants under a temporary clause, Regulation 5 (2) (b), which offered exceptionally lenient conditions not likely to recur; the fees of applicants who satisfied the permanent requirements of the Order had amounted to £305. By how much the latter sum would have been increased if the work of registration had not been checked, it was difficult to say; but, on the expiry of the temporary regulations, the subsequent annual income accruing from Regulation 3 would, even under the most favourable circumstances, have proved insufficient to cover the current expenses of the Register, and a steady drain on the funds in reserve must have ensued. The Council thought it desirable to emphasize those points, since it seemed improbable that any practical reconstruction of the Register could succeed in removing all risk of financial strain in the future. So long as unregistered teachers continued free from legal disabilities, it was likely that the registration fee of teachers would have to remain moderate as compared with that charged for admission to other more closely organized professions. In the Council's view, it would be disastrous if their successors should be impelled, from financial

considerations, either to admit imperfectly qualified candidates or to charge too high a registration fee.

The Council trust that the Board will recognize that the Register, if it aim at maintaining a high state of educational efficiency, cannot be self-supporting under the present conditions of the teaching profession. Had the present Register continued in existence, the Council say it must have been necessary to increase the machinery provided for its conduct. The Council lacked authority to remove from the Register the names of deceased teachers, nor did they possess any means by which the names of such persons, alterations in the names and addresses of other registered persons, and records of additional experience and qualifications could be regularly ascertained. The imposition of the small fee required under Regulation 10 had been found to deter registered teachers from keeping their record up to date. In the case of the Medical Register, the difficulty had been diminished by the fact that the death of a medical practitioner was officially notified to the Medical Council, and further by the terms of the Medical Act itself, under which the names of practitioners who failed to reply to an inquiry form issued by the Registrar were periodically erased, though they might subsequently be restored by direction of the Council. Unless some similar arrangement could be carried out in respect of registered teachers, it was difficult to see how the practical utility and authority of a Teachers' Register could be adequately safeguarded. Again, the procedure laid down by the Order in Council with regard to the issue of documentary evidence of registration must eventually have been modified. The Council urge in conclusion that, as Parliament had not yet seen fit to enforce registration by direct statutory sanctions, the purpose which a Register of Teachers could serve must continue to be dependent on the measure of practical sympathy extended to it by the Board. If such driving power as the administrative action of the Board can supply was lacking, the effort to improve the status and promote the unification of the profession through the medium of a reconstructed Register must lead to fresh disappointment. The Report ends with an expression by the Council of their grateful recognition of the help and courtesy of the Board during their six years of service, and their acknowledgment of the valuable services rendered to them by the members of their present staff.

#### EDUCATIONAL OPINION.

At a meeting of representative educationists, held at the College of Preceptors (February 29), there were present delegates from the following educational Associations:—Head Masters' Conference, Head Masters' Association,\* Head Mistresses' Association,\* Assistant Masters' Association,\* Assistant Mistresses' Association,\* Preparatory Schools Association,\* College of Preceptors,\* Private Schools Association,\* National Union of Teachers, Teachers' Guild, Association of Technical Institutions, Associations of Teachers in Technical Institutions.

The Associations marked \* were represented by their delegates to the Federal Council. Canon Bell attended as Chairman of the Federal Council.

Canon Swallow and Mrs. Bryant, D.Sc., attended by invitation and not as delegates.

The following resolution was accepted unanimously as a whole, each item in it having previously been put to the meeting as a separate resolution.

The Registration Council, representative of the teaching profession, as contemplated by the Education Act of 1907, should consist of the following members:—

- One representative of the Head Masters' Conference.
- One " " Incorporated Association of Head Masters.
- One " " Head Mistresses' Association.
- One " " Incorp. Association of Assistant Masters.
- One " " Assistant Mistresses' Association.
- One " " College of Preceptors.
- One " " Preparatory Schools Association.
- One " " Private Schools Association.
- One " " Teachers' Guild.
- One " " Asso. of Teachers in Technical Institutions.
- One Principal to be nominated by the Association of Tech. Institutions.
- Five representatives of the National Union of Teachers (viz., one representing the Union as a whole, and four representing various classes of elementary teachers—namely, one head masters, one head mistresses, one assistant masters, and one assistant mistresses).

Six members nominated by the Crown (who, it is prayed, should be persons experienced in teaching to represent the Universities, and of whom three should be women).

The Council as above constituted to have power to add to its number not more than three co-opted members.

It was further agreed that the above resolution should be printed and copies sent to one delegate from each Association, who should endeavour, within a fortnight, to procure the assent of his or her Association.

#### MR. MCKENNA'S ATTITUDE.

Sir William Anson asked the President of the Board of Education (March 25) what steps were being taken towards the formation of a Registration Council, with a view to the establishment of a Register of Teachers, as provided by the Education (Administrative Provisions) Act of last session.

Mr. McKenna replied: In view of the terms of Section 16 of the Education (Administrative Provisions) Act, 1907, which contemplated the establishment of "a Registration Council representative of the teaching profession," and assigned to such a Council, and not to the Board of Education, "the duty of forming and keeping a Register," I have thought it best to await an expression of views from as many sections as possible of the teaching profession. I was informed almost immediately after the passing of the Act that a considerable number of influential bodies in the teaching profession were going to hold a series of conferences with a view to arriving, so far as possible, at some agreed lines upon which such a Council might in their view advantageously be formed. I have only in the last day or two received information as to the points of agreement reached at these conferences, and I am considering this information, with a view possibly to seeing some of the representatives of the bodies who have been meeting, and also to discovering whether the proposals appear to command the support of "the teaching profession" of which the new Registration Council is to be "representative" under Section 16 of the Act.

## REVIEWS.

### THE EUROPE OF LOUIS XIV.

"The Cambridge Modern History."—Vol. V., *The Age of Louis XIV.* (16s. net. Cambridge University Press.)

The long reign of Louis XIV., characterized by a system of absolute government, covers roughly the period of European history treated in the present volume and represents fairly the trend of policy favoured by the large majority of contemporary rulers. During this period, indeed, there were only three important States that held themselves free from the yoke of despotism—Poland, the Dutch Republic, and Great Britain; and the contrast is remarkably instructive. Louis himself gains his prominence not from any personal ability or achievement, but merely as the artful figure-head of the most powerful State that practised the prevailing principles of autocratic government and as a cunning schemer of aggression upon neighbouring territories. "The pretences with which Louis XIV. was supplied for his long series of encroachments within the boundaries of the Empire, for his attempt to annex the Spanish, and for his subsequent invasion of the United, Netherlands, are discussed in different parts of this volume, together with the history of French intervention in the affairs of other European States; and the pacifications and other agreements and alliances which mark the successive stages of alternating advance and retreat in the progress of the French schemes, necessarily call for exposition and comment." The united resistance of Western and Central Europe inevitably brought Louis to his bearings, and the political ascendancy of France in Europe is, at the close of the period, naturally "a thing of the past." Her true ascendancy lay in other fields, notably in literature, as M. Faguet shows, somewhat sketchily, in a brief chapter. The foreign policy of Louis, however, was but one of the principal determining causes of the international relations of the European States. The Eastern Question also played its part: it took a war of fourteen years (1684–98), ending in the Peace of Carlowitz, to free Europe temporarily from "the Turkish terror." Largely useful for the designs of Louis, it bore very seriously upon the Empire, Hungary, Poland, and Venice. Moreover, there was the great Swedish or "Northern" War, which ran a course of twenty-one years, stripped Sweden of the hegemony of the North and of all her pretensions to be considered a Great Power, incidentally proved the impotence of Poland, and transferred the Baltic predominance to Russia.

The great and varied movements of the time refuse to group

themselves under a formal unity, and yet the real organic connexion is considerably more extensive and intimate than appears on the general aspect. At the same time, the unity of the volume is an insignificant matter in comparison with the efficient narrative of the characteristic groups of events with due appreciation of their radical causes and of their essential results. Such unity as may be evolved in the process is all the unity that one is entitled to expect: a history is not necessarily a drama, however dramatic some of its elements may be. Besides a clear account of the general government and of the foreign policy of Louis XIV. and of the Gallican Church in his time, we have a full and competent treatment of the Revolution in Great Britain (with the events leading up to it and the religious conditions effecting it) and of English enterprise and development in the colonies and in India; of the administrations of John de Witt and William of Orange, and of the Anglo-Dutch Wars; of the War of the Spanish Succession; of the rise and advance of Russia, including the career of Peter the Great; of Charles XII. and the Great Northern War; of the origins of the Kingdom of Prussia and its history down to the death of Frederick I.; and of the Eastern events resulting mainly from the pressure of the Turkish power. Moreover, the political survey is supplemented by various chapters on intellectual progress—on the literature of France and of England, on religious opinion (and especially on the emergence and growth of the principle of toleration), and on the developments of the ideas distinguishing the modern from the ancient and mediæval treatment of science. The multifarious subjects are all handled with such knowledge and breadth of view as to place the volume on a level with the best of its predecessors. The usual bibliographies, &c., are supplied in ample fullness and with discrimination and care.

### THE VICTORIAN PERIOD.

"The Political History of England."—*The History of England during the Reign of Victoria (1837–1901).* By Sidney Low. M.A., Fellow of King's College, London, formerly Scholar of Balliol College, Oxford, and Lloyd C. Sanders, B.A. (7s. 6d. net. Longmans.)

We may say at once that any apprehensions that may have existed as to the impartial handling of political events largely within the recollection of living men may be peremptorily dismissed. We do not think that it would be possible to put one's finger upon any paragraph in this volume and to say reasonably that it indicates the party spirit of the writer. And yet the origins and the development of the various questions that have struck out so much partisan heat are historically presented, with reticences no doubt, but still without sacrifice of essential truth. There could be no greater tribute, we conceive, to the discretion and the ability of the authors, and we have special satisfaction in recognizing the fact that they adopt the attitude of historians and not of politicians. In some quarters there will now probably be objection to the general title of the work as not properly applicable to the particular period. We do not know whether the authors consciously felt this difficulty, but at any rate they specifically indicate it in their very first sentence: "We are at the threshold of a fresh stage in the history of England and the British Empire." This question of convenience as against accuracy we merely note by the way, though its influence on national susceptibilities is by no means to be ignored. Apart from such considerations, the latest period of the national history presents other difficulties: the extraordinary development of the scope and the energy of political action; the enormous mass of accessible materials; and the inaccessibility of the inner and secret motives and processes that are no doubt, in part at least, stored up in archives. The last half-dozen years of the late Queen's reign are comparatively compressed, and social and industrial legislation (together with a brief literary survey) is, with some outstanding exceptions, relegated to a summary in a final crowded chapter. The great political movements, however, are very adequately described, as well as the foreign policy, the military operations, and the main social questions demanding political solutions. The style is easy and agreeable.

The general view of the political panorama is an adequate and trustworthy presentation. Evidently great pains have been taken with the details, not only to prevent the inevitable compression from working inaccurate effects, but generally on individual points. The statement that "the East India Company ceased to be the body nominally responsible for the government" of India in 1858 might well have been rendered clearer by an explanation of what the word "nominally" involves for the

responsibility of the Company had long ceased to be anything but nominal. Without detracting from the honours of any of the heroes of the Mutiny, we cannot but think there should have been found room for a sentence marking the distinctive services of the chief engineer in the fall of Delhi. Roberts's "great march" from Kabul to Kandahar is still made to overshadow Stewart's still greater march from Kandahar to Kabul. But it is ungracious to put any stress on such points in view of the general excellence of the workmanship. The volume should be widely read: the school histories have so little to say about recent times, and current politics pass so quickly into forgetfulness. There is the usual appendix of selected authorities, and another appendix showing the personnel of the Cabinets of the reign; and there are three serviceable maps, showing the Parliamentary representation 1867-85 and after 1885, and the British possessions all over the world in 1837 and 1901, the extreme years of the period.

RICHARD WILSON.

"The Makers of British Art." Edited by James A. Manson. *Richard Wilson, R.A.* By Beaumont Fletcher. (3s. 6d. net. Walter Scott.)

Mr. Manson's popular series of monographs on great British painters has grown into a small library, now exceeding a dozen volumes, and furnishing an instructive biographical and critical survey of a large portion of the field. Mr. Fletcher, with generous sympathy, has sought out a hero whose fame has always been less than his deserts. In spite of Wilson's originality and exquisiteness in landscape—Ruskin finds that with him the genuine art of landscape really began for England—he yet missed both the fame and the fortune that fell to other artists not his technical superiors. Mr. Fletcher does not claim more than mediocrity for Wilson's portraiture, but he makes out a strong case for his landscape painting. He investigates fully the personal considerations that entered so largely into the strength and the weakness of Wilson, and sets forth the relation between the personality and the art of the painter. The biographical facts, which are somewhat scanty, have been diligently gathered from all available sources and have been critically sifted; so that here we have the fullest and most trustworthy account of the life of the artist. Incidentally, also, there is much interesting matter illustrative of the artistic world in which Wilson lived and worked. The pictures of Wilson are critically reviewed in the light of artistic principles and of the circumstances of their production. "His finest pictures are undoubtedly those representing Italy, or subjects associated with Italy"; and we are inclined to think that Mr. Fletcher is at his best in the description of the Italian period. Wilson, "the father of British landscape," was a Welshman: "he was of pure Celtic origin, sprung of the stock of ancient royalty, born and bred amid scenery recalling historic happenings, and trained to look on the past, through the classic literature, with some of the thoughts of the classical people themselves." The tracing of the influences of "stock" and of "environment" is a very interesting element in the volume—a most delicate and difficult subject to handle, yet essential in the circumstances. On the whole, Mr. Fletcher emerges from the ordeal with much credit; and, if there are occasional repetitions, they may be needed to emphasize aspects that have been comparatively neglected.

Information of a statistical character is thrown into appendixes, and there are 20 plates admirably representing examples of Wilson's art, and a frontispiece reproduced from the original portrait of the artist by himself, now in the Diploma Gallery of the Royal Academy. Mr. Fletcher writes with discrimination in simple and lucid style, and his work challenges a reconsideration of the real artistic merits of Richard Wilson, based on study and sympathy rather than on tradition, and conducted apart from the deflecting influences of personal idiosyncrasies and social surroundings.

#### THE MICROSCOPE.

*Microscopy: the Construction, Theory, and Use of the Microscope.* By Edmund J. Spitta, L.R.C.P. Lond., M.R.C.S. Eng., &c., President of the Quekett Microscopical Club. (12s. 6d. net. John Murray.)

Mr. Spitta has followed up his well known and highly appreciated book on "Photomicrography" by a very substantial and practical volume on "Microscopy," covering the whole field. He anticipates that lecturers and demonstrators in all sorts of

scientific laboratories may save a great deal of their valuable time by referring their students to his exposition instead of teaching them the rudiments of the microscope by word of mouth; and that private workers also may be assisted to use the instrument to the greatest possible advantage. We have no doubt that in both ways his work will prove eminently advantageous. Mr. Spitta begins at the beginning, with a brief explanation of the general properties of lenses, whether as hand-magnifiers or as hand-microscopes. For more advanced students he describes fully the method of testing objectives and condensers, giving special attention to the use of the Abbe test-plate. Further, he attacks the more recondite problems of microscopy, such as "the estimation of the magnifying powers of objectives and oculars by the 'rational' method as well as by the system devised by the late Prof. Abbe; the explanation of what is really meant by the expression Numerical Aperture; upon the art of obtaining and using Oblique Light, with the theory involved in so doing; the importance of the proper use of the Substage Diaphragm; the selection and special adaptability of objectives of certain focus and numerical aperture for particular purposes; as well as an explanation of the real difference existing between the semi-apochromatic and apochromatic combinations." Moreover, in view of the special requirements of students in particular branches of the subject, he devotes a chapter to the different kinds of apparatus suitable for different investigations. And, to meet the case of the strictly philosophical student, he has obtained the expert assistance of Mr. A. E. Conrady, who expounds the principles underlying the formation of the highly magnified microscopical image, more especially of minute objects of periodic structure so small as to be commensurate with the wave-lengths of light. The volume thus appears to be thoroughly comprehensive, as it is thoroughly well informed. The exposition is lucidly disposed, scientifically exact, and simply expressed. Besides the frontispiece, there are 16 plates containing 47 half-tone reproductions from original negatives, and 215 figures in the text, all of them printed with special care and with excellent effect. The work is a solid practical contribution to the study of a scientific instrument of the utmost importance.

#### GEOMETRICAL METHODS.

*Plane Geometry.* By Charles Davison, Sc.D., and C. H. Richards. M.A. (4s. Cambridge University Press.)

In an age when there is such a pressing demand for a revision of the entire scheme of mathematical teaching, and (in so far as the subject treated in this book is concerned) of the teaching of geometry in particular, works greatly varying in excellence are constantly being written on the new lines. These all lay special stress on the value of practical and experimental work, so much so that the attraction of the theoretical side is apt to be somewhat overshadowed. Consequently, to the lover of Euclid holding comparatively conservative views on the matter, the present work will furnish a welcome contrast. The authors fully concur in the opinion that preliminary training in practical geometry is both necessary and valuable, and they take for granted a first course of the kind before their treatise is used; but they also plead the cause of theory which serves as an inspiration to the intelligent pupil; and, whilst giving due weight to the best modern ideas—for example, the use of hypothetical constructions and the separation of problems and theorems—they do not travel unnecessarily out of Euclid's road. The language of the text of the new work is precise and such as will be followed without difficulty. Some propositions are, perhaps, a little wanting in fullness, and it is therefore not out of place to draw attention here to the imperative necessity in the junior text-book for absolute completeness of reasoning, now that writers on geometry dispense with the numerical references to Euclid's propositions. Granted that constant repetition is irksome to those who can call up mentally the reason for every successive statement, and that there are limitations as to size which must be considered in the production of an elementary text-book, yet the junior student must by some method support his assertions one by one as he makes them. The plan of the present volume is good. Whilst the leading propositions appear in the form of bookwork, others scarcely less important are discussed as worked riders. A full complement of exercises for individual practice in original solution is, moreover, included, the questions being sometimes set as exercises on special propositions, and sometimes classed together as miscellaneous problems and theorems.



## GENERAL NOTICES.

## SCIENCE.

*Elementary Science for the Certificate and Preliminary Certificate Examinations. Section A., Chemistry.* By H. W. Bausor, M.A., late Scholar of Clare College, Cambridge. (2s. Clive.)

Mr. Bausor addresses himself specially to the requirements of the Board of Education Syllabus for the particular examinations in view, assuming a knowledge of the subjects of the "Introductory Section," which were admirably handled in a previous volume of the series. The treatment is mainly practical. Six chapters investigate experimentally the properties and interactions of important substances; the remaining four go on to the Atomic Theory, Gay-Lussac's Law of Volumes, Avogadro's Hypothesis, Chemical Equivalents, Valency, and Chemical Calculations. The exposition is pointed and lucid; each chapter is followed by a summary and a judicious series of questions; and there are useful appendixes, over 160 experiments, and 40 figures. A thoroughly well conceived and well executed work.

*An Elementary Treatise on Theoretical Mechanics.* By J. H. Jeans, M.A., F.R.S., Fellow of Trinity College, Cambridge, and Professor of Applied Mathematics in Princeton University. (10s. 6d. Ginn.)

Prof. Jeans writes primarily with a view to emphasize the fundamental physical principles of the subject. He necessarily uses mathematical analysis, gives practical applications in illustration of principles and results, and provides abundance of problems; but all these are subordinate and contributory to the elucidation of the fundamental physical principles. Whatever may be the future special field of study, there can be no serious question of the propriety of this procedure. The author's name guarantees that the treatment is masterly. There are 156 figures, and the volume is substantially got up.

*How to Study Geology.* By Ernest Evans, Natural Science Master, Municipal Technical School, Burnley. (3s. 6d. Swan Sonnenschein.)

The volume is well adapted to the Board of Education Syllabus, Stage I.; but at the same time it forms a practical and most helpful guide to all beginners in the study of the subject. The explanations are concise and clear and the matter is carefully arranged; practical work is proposed in large and judicious selection; testing questions are appended to each chapter; and there are 82 experiments and 112 illustrations. Both in theory and in practice the work is based on many years' teaching of numerous students. A very able and useful book.

*An Elementary Course of Practical Zoology.* By the late T. Jeffery Parker, D.Sc., F.R.S., Professor of Zoology in the University of Otago, and W. N. Parker, Ph.D., Professor of Zoology, University College, Cardiff. (10s. 6d. Macmillan.)

A second edition of an excellent work. Some parts have been extended and various minor modifications have been made as suggested by practical class experience during the eight years that have passed since first publication. The types are judiciously selected and most effectively described with the aid of 167 illustrations, and the practical directions are admirable.

Among new editions we note with satisfaction (1) *The Principles of Physics*, by Alfred P. Gage, Ph.D., revised by Arthur W. Goodspeed, Ph.D., Professor of Physics in the University of Pennsylvania—a substantial and lucid work, with numerous problems and exercises and 420 figures (6s. 6d., Ginn); (2) a third impression (second edition) of *The Higher Text-Book of Magnetism and Electricity*, by R. Wallace Stewart, D.Sc. Lond.—being Vol. IV. of "The Tutorial Physics" series—a comprehensive and capable volume, with abundance of examples and 385 figures (6s. 6d., Clive); (3) a fifth edition of *Properties of Matter*, by the late Prof. P. G. Tait, edited by W. Peddie, D.Sc., F.R.S.E., Harris Professor of Physics in University College, Dundee—a highly appreciated work carefully brought up to date (7s. 6d., A. & C. Black); and (4) a third impression (second edition) of *The Certificate General Elementary Science, Part I., Physiography*, edited by William Briggs, LL.D., M.A., B.Sc., &c.—an excellent volume, specially rewritten to meet the requirements of the Board of Education Syllabus.

## ENGLISH LITERATURE.

"The Oxford Poets."—(1) *Shelley*. Edited by Thomas Hutchinson, M.A. (2) *Campbell*. Edited by J. Logie Robertson, M.A. (3s. 6d. each. Henry Frowde.)

The Shelley volume includes materials "never before printed in any edition of the poems." Mr. Hutchinson, who recently gave us an admirable edition of Wordsworth in the same series, has again performed his editorial task—a much more difficult task this time—with patient assiduity and conspicuous success. Youthful readers will be amused, and perhaps gratified, to learn how indifferent Shelley was about spelling and punctuation. The Campbell volume, though not including absolutely "everything metrical that Campbell wrote," yet gives

"considerably more than any previous edition contains," and omits "nothing that deserved to be included." We confidently anticipate that this carefully and sensibly edited edition will help to assuage Mr. Logie Robertson's "mingled surprise and indignation," and lead a later generation to "do more honour to the poet's memory than we have done." Like Shelley, Campbell made a poor job of his punctuation: as Dr. Beattie remarks, the art of punctuation "was one of those mysteries which the poet could never comprehend." The poets, however, are permitted to be ignorant or careless in details; and Mr. Robertson, who is both a teacher and a careful poet, comes to the rescue. Both the volumes are most ably and efficiently edited, beautifully printed, and chastely bound.

*The Main Tendencies of Victorian Poetry: Studies in the Thought and Art of the Greater Poets.* By Arnold Smith, M.A., Assistant Lecturer in English Language and Literature at the University College of South Wales and Monmouthshire. (5s. net. St. George Press, Bournville, Birmingham. London: Simpkin, Marshall, Hamilton, Kent, & Co.)

Mr. Smith attempts "to portray the main tendencies of an epoch as exemplified in the writings of its greatest poets, and also, conversely, to discuss the relation in which each of these poets stood to his age, to find out by what qualities he is most distinguished, and to elucidate the peculiar merits of his style." "The main treatment is centralized around their attitude towards the problems which have chiefly interested men in the nineteenth century, especially those of the existence of God and the immortality of the soul." The volume has grown out of Extension lectures, and will be suitable for similar purposes. The chapters are informatory as well as critical, and the criticism is not too penetrating or subtle for the average understanding. The style is free, and there is a tendency to repeat the same meaning in different form or forms. The handling will be helpful and suggestive to students that have read some substantial part of the works discussed.

*Types of Tragic Drama.* By C. E. Vaughan, Professor of English Literature in the University of Leeds. (5s. net. Macmillan.)

In this volume Prof. Vaughan reproduces, with some expansion and addition, a course of lectures recently delivered to a general audience in the University of Leeds. The subjects range from Aeschylus to Ibsen, embracing outstanding examples of classical and romantic tragedy. The treatment is popular, of course, and on broad lines: the very types "have to be treated rather as landmarks in the general growth and development of the drama than on their own intrinsic merits." Prof. Vaughan speaks from comprehensive knowledge: we wish we could believe that his audience was prepared to follow him, by reasonably adequate preliminary acquaintance with the works he discussed—Greek, Latin, French, German, Italian, Spanish, Norwegian—even though most of them are accessible in English versions. However this may be, the lectures are stimulating and instructive. The limitations are inherent in the circumstances, and should have been understood without the weak apologies of the preface.

## ENGLISH READERS—LOCAL AND DESCRIPTIVE.

*The English Counties* is expressly designated "a series of supplementary readers" (8d. each. Blackie). The aim is "to quicken the interest of the pupils in their immediate surroundings, to direct their attention to the connexion to be observed among certain of the facts of their experience, and to make the school excursion, whether for Nature study or the practical study of geography, more interesting and more serviceable." We have (1) *Kent*, (2) *Surrey*, (3) *Upper Thames Counties* (Oxford, Berks, and Bucks), and (4) *Cumberland, Westmorland, and Furness*. The volumes present the salient features of the history and geography of the particular districts in simple language and direct manner, and they are liberally illustrated. The type is good, and the binding substantial. Each volume should be interesting outside as well as inside its own district.—Messrs. Blackie have also just issued *Dorset: a Reading Book for Schools*, by H. Harding, Dorset County Education Official, Certificated Master (1s.). It is agreeably written, and well illustrated; and the principal matters of interest are described systematically and in due proportion.

*Cambrensis*, edited by W. Jenkin Thomas, M.A., Head Master of Aberdare County School (1s. 6d. Edward Arnold), is "a library reading book for Welsh Schools," intended for the higher standards of elementary and the lower forms of secondary schools. It consists of varied and most interesting extracts "from the works of Welshmen who have attained distinction in literature other than Welsh and from the mass of literature written by Englishmen and others about Wales and Welshmen." We should hope that the reading of it will not be restricted to Wales. Mr. Thomas has done his work admirably.

*Our English Towns and Villages*, by H. R. Wilton Hall, Library Curator, Hertfordshire County Museum (1s. 6d. Blackie), "is intended as a reader, not as a text-book to be worked up for examination purposes," but it will be a valuable companion to the ordinary history book in the hands of older scholars. Though not pretending, of course, to be exhaustive, it furnishes a great deal of most useful information about many things mentioned in histories too often without adequate

explanation—about houses (from the cave-dwellers downwards), churches and monasteries, towns and castles, tythings and hundreds, vills and villages, fairs and markets, schools and universities, ways of life of rich and poor, business and government, &c. It will serve greatly to arouse and partly to satisfy interest; it is most suggestive throughout. It will certainly do much to cover the dry bones of history "with flesh instinct with life and vigour." There are numerous pertinent and effective illustrations.

Book III. A of *Arnold's Home and Abroad Readers* (1s. 6d.) is a supplementary descriptive volume, taking the reader over the British Isles, and pointing out the most interesting and important things, natural, historical, industrial, &c. The matter is methodically disposed, and the style is simple and agreeable. There are numerous good illustrations.

*The Story of Exeter*, by A. M. Shorto (1s. net. Exeter: Commin), fills a considerable volume "for use in schools." It implies some general knowledge of English history on the part of readers, although the author tries to supply all that is required. How interesting the story is may be inferred from the concluding remark of the writer: "As we walk through the streets and see the old Guildhall and older Cathedral, even as we say the name Exeter, and remember that there was an older name still, we feel that this our city has a glory which we would not exchange for the riches of the most prosperous town in the country." The book is well written, well printed, and well got up; and it has 10 good full-page illustrations.

#### EASTERN LANGUAGES.

*Initia Amharica: an Introduction to Spoken Amharic*. By C. H. Armbruster, M.A., Sudan Civil Service, late of H.M. Administration, British Central Africa, sometime Minor Scholar of King's College, Cambridge. Part I., *Grammar*. (12s. net. Cambridge University Press.)

This handsome volume is the first of a series intended to enable students to acquire a colloquial knowledge of spoken Amharic, the predominant language of Abyssinia at the present day, and a language of commerce in the adjoining Italian colonies, the French Somali Coast Protectorate, and the Eastern provinces of the Sudan. Mr. Armbruster has sensibly aimed at "giving some description not so much of what, in the opinion of learned Europeans and natives, Abyssinians ought to say as what in point of fact they do say." From the British position in the Sudan, the work will be, and will continue more and more to be, very important for civil servants, traders, and others. "It represents the first serious attempt to meet practical needs." It is sufficiently formidable of aspect: "the Amharic type includes 267 characters." "Amharic employs the Ethiopic syllabary, with additional signs representing sounds not occurring in Ethiopic." It is a development of a sister language to Ethiopic, which latter "is still in use as the ecclesiastical language of Abyssinia." "In its present state it is lacking in some most characteristic Semitic features, and those which it displays give one the impression of having been superimposed on an alien (possibly Hamitic) basis." Still, these forms seem to justify Mr. Armbruster in treating it as a Semitic language. The work obviously has involved prolonged labour and care. The plan of regularly adding to every Amharic word its phonetic spelling in Roman letters will be an immense help to students. The financial assistance of the Egyptian Government and the liberality of the Cambridge University Press deserve very grateful recognition.

*Elementary Arabic: First Reading Book*. By Frederic du Pré Thornton and Reynold A. Nicholson, Lecturer in Persian in the University of Cambridge, and sometime Fellow of Trinity College. (6s. net. Cambridge University Press.)

This is the second volume of "Thornton's Arabic Series," the first of which—the *Grammar*—we noticed very favourably in June, 1906. It contains extracts from the *Corān* (5), stories of Arabic warriors (4), historical extracts relating to Mohammed (3), and various other historical extracts (4)—all of them very suitable for beginners alike in matter and in form. An elaborate glossary is presented, and also a grammatical analysis of part of the text, both of which will be extremely helpful. The work offers excellent practice. A second reading book is in course of preparation.

*Hindustani for Every Day*. By Colonel W. R. M. Holroyd, M.R.A.S., Doctor of Oriental Learning, formerly Fellow of the Calcutta University and of the University of the Punjab, and Director of Public Instruction, Punjab. (8s. net. Lahore: Gulab Singh. London: Crosby, Lockwood, & Son.)

The object of the work is "to impart a sound practical knowledge of the Hindustani language as it is employed in daily life, more especially in intercourse between Indians and Anglo-Indians." The first Part contains twelve progressive chapters on pronunciation; the second Part, which is the main portion, works up the grammar and the construction of sentences concurrently through thirty-four chapters—a very laborious and thorough piece of work. The third Part consists of a single chapter treating the application of the Persian alphabet to Hindustani, with reading exercises. The whole work was revised in

consultation with an accomplished Maulawi. The volume should be exceedingly useful to Anglo-Indians and to students generally.

*English-Hindustani Pocket Vocabulary*. By Major F. R. H. Chapman, Instructor in Hindustani at the Royal Military College, Camberley. (Crosby, Lockwood, & Son.)

A very handy and carefully selected list of some 2,200 words likely to be most useful to English folk in India. A second edition, revised and enlarged.

*Tamil Grammar Self-Taught*. By Don M. de Zilva Wickremasinghe, Epigraphist to the Ceylon Government, Librarian and Assistant Keeper of the Indian Institute, Oxford. (5s. Marlborough.)

The grammar is concisely and lucidly expounded, the Tamil characters being judiciously accompanied by an English transliteration throughout. Some exercises in translation into and from Tamil (with a key) will very usefully impress the grammatical points, and a Tamil-English vocabulary is appended. The work will be very helpful to beginners or to such as wish to obtain some grip of colloquial Tamil within a comparatively short time.

*Egyptian Self-Taught (Arabic)*. By Capt. C. A. Thimm. (2s. Marlborough.)

This useful volume appears now in a third edition, revised and enlarged by Major B. A. Marriott, D.S.O.

#### HISTORY.

"The Story of the Nations."—*The Roman Empire* (B.C. 29—A.D. 476). By H. Stuart Jones, M.A., formerly Fellow and Tutor of Trinity College, Oxford, and Director of the British School at Rome, Ordentliches Mitglied des Kaiserlich Deutschen Archäologischen Instituts. (5s. Fisher Unwin. New York: G. Putnam's Sons.)

The series commenced with a general volume on "Rome." Some time back it included a volume on "Mediaeval Rome," and in several other volumes the influence of Rome made itself felt incidentally. There still remained ample room for the story of the Empire down to the fall of the Western branch. Mr. Stuart Jones weaves into a lucid and agreeable narrative the latest results of scholarship, marking the advances of absolutism, explaining the developments of governmental forms and methods, and estimating judiciously the more important characters and events. After the reforms of Diocletian and Constantine the story gets somewhat compressed, though it embraces the reigns of at least three great Emperors, ecclesiastical dissensions that shook the world, and the onrush of the barbarians. In legal matters Mr. Jones does not always show the same grasp and precision as distinguishes his handling of the political aspects. The Praetorian Edict can hardly be described from first-hand knowledge; nor, we suspect, could a layman gather from the statement of Hadrian's dealings with the K.C.'s of his time the real facts of the case, while the mode of expression seems not unlikely to be misleading as to the place of this class of jurists in the legal history of Rome. There are nine most useful genealogical tables, a very serviceable list of the Emperors, with dates, a full index, two excellent maps, and over fifty full-page illustrations. By the way, Mr. Jones gives no indication that there is any doubt about the authenticity of the Acerenza bust of Julian (which is reproduced in the volume). Gaetano Negri—though, for a special reason, he placed the bust as frontispiece to his first volume—refused to yield to the learned argument of M. Reinach.

"Cambridge Historical Series."—*Slavonic Europe. A Political History of Poland and Russia from 1447 to 1796*. By R. Nisbet Bain, Assistant Librarian, British Museum. (5s. 6d. net. Cambridge University Press.)

Mr. Nisbet Bain has already written several volumes and parts of volumes on the more important sections of his present subject, and Mr. Morfill's volumes, both on Poland and on Russia, are not to be forgotten, though only one of them is recorded in the bibliography to this work. Still, we dare say Mr. Nisbet Bain is right in his belief that "this book is the only existing compendium in English of the political history of Poland and Russia from the middle of the fifteenth to the end of the eighteenth century, when the Polish Republic disappeared from the map of Europe and the Russian Empire took its place as the head and right arm of the Slavonic world." The story is undoubtedly necessary to a just appreciation of the progress of affairs in the neighbouring countries of the West. The task of selection from the immense mass of materials and of disposition of the main points of a most complicated subject into a clear and connected outline of the whole panorama of events, with due prominence of the determining human factors, has evidently been both severe and prolonged. But the issue is highly satisfactory. The earlier history is admirably outlined. From the advent of the Romanovs the author is on very familiar ground, and the fall of Poland is described with spirit and with impartial firmness. "The first partition of Poland has sometimes been plausibly defended as a regrettable necessity; but no sophistry in the world can extenuate the villainy of the second partition"—"a great political crime," "wholly infamous." We may note also Mr. Nisbet Bain's remark that "it is often too much taken for granted that Peter the Great created modern Russia. The

# OXFORD UNIVERSITY PRESS.

COLLEGE OF PRECEPTORS, 1908.

- Milton : Comus.** Edited by R. C. BROWNE, 6d. By O. ELTON, 1s. (First Class.)
- **Lycidas.** Edited by R. C. BROWNE, 3d. By O. ELTON, 6d. (First Class.)
- **English Poems.** Vol. I (including all the prescribed Poems). Edited by R. C. BROWNE. Revised by H. BRADLEY. 4s. (First Class.)
- Scott : Marmion.** Edited by C. E. THEODOSIUS. 3s. 6d. (Second and Third Classes.)
- Shakespeare : Julius Caesar.** Edited by W. ALDIS WRIGHT. 2s. (First and Second Classes.)
- **Merchant of Venice.** Edited by W. G. CLARK and W. ALDIS WRIGHT. 1s. (First and Second Classes.)
- Cicero : In Catilinam.** Edited by E. A. UPCOTT. 2s. 6d. (First Class.)
- Virgil : Aeneid, I.** Edited by C. S. JERRAM. 1s. 6d. (First and Second Classes.)
- **X-XII.** Edited by T. L. PAPILLON and A. E. HAIGH. 2s. (First and Second Classes.)
- Euripides : Hecuba.** Edited by C. B. HEBERDEN. 2s. 6d. (First Class.)
- Xenophon : Anabasis, I.** Edited by J. MARSHALL. 1s. 6d. (First and Second Classes.)

### NEW AND RECENT BOOKS.

- Trois Semaines en France.** An Illustrated Reader, with Questions for Conversation and Grammatical Exercises. By D. L. SAVORY and L. CHOUVILLE. 2s.
- Old Testament History.** Narrated for the most part in the words of the Bible. Selected and arranged by G. CARTEE. With Maps. 2s.
- Solutions of the Examples in a Sequel to Elementary Geometry.** By J. W. RUSSELL. 3s. 6d. net.
- Sequel to Elementary Geometry.** With Numerous Examples. By J. W. RUSSELL. 6s.
- Types of Floral Mechanisms.** By A. H. CHURCH. Royal 4to. Part I, Types I-XII (Jan. to April). With 39 Coloured Plates and numerous other figures. 21s. net.
- Oxford Treasury of English Literature.** By G. E. HADOW, Tutor in English Literature, Lady Margaret Hall, Oxford; and W. H. HADOW, Fellow of Worcester College, Oxford. 3s. 6d. Vol. III.—**Jacobean to Victorian.**

Paper covers, 3d. each; cloth, 4d. each.

## SELECT ENGLISH CLASSICS.

Edited, with Introductions, by A. T. QUILLER-COUCH.

### POETRY.

- Robin Hood—Old Ballads. Shakespeare—Songs and Sonnets. Milton—Minor Poems. Cowper—Poems. Crabbe—Poems. Keats—Poems. Hood—Poems. Matthew Arnold—Poems.

### PROSE.

- Izaak Walton—Lives & Angler. Bunyan—Pilgrim's Progress, &c. Defoe—Prose Works. Boswell—Life of Johnson. Charles Lamb—Prose Works. Hazlitt—Prose Works.

Together, in cloth bindings.

- Defoe and Bunyan. 8d. Defoe, Bunyan, Cowper, and Crabbe. 1s. 3d.

London: HENRY FROWDE, Oxford University Press, Amen Corner, E.C.

# BLACKIE'S LIST

JUST PUBLISHED.

**Magnetism and Electricity and The Principles of Electrical Measurement.** By S. S. RICHARDSON, B.Sc., Associate of the Royal College of Science, London; Lecturer in Physics, Municipal Technical School, Liverpool. Crown 8vo, cloth boards, 5s. net.  
The object of this book is to provide a sound and systematic course of study in the main principles of Electricity and Electrical Measurement. It is written to meet the requirements of students who have already, in a first year's course, made some acquaintance with the elementary descriptive parts of the subject, and are commencing the study of Electricity in its more quantitative aspects—either as a branch of pure Physics or as a preparation for a course of Applied Electricity.

JUST PUBLISHED.

**The Teaching of English.** By A. E. ROBERTS, M.A., Principal Lecturer in English at the Islington Day Training College, and A. BARTER, L.L.A., late Head Mistress of the Braintree Pupil-Teacher School. Price 2s. 6d. net.  
Much pioneer work lies before the English teacher, and the present book is an attempt to suggest some of the lines along which he may proceed. No space has been devoted to the teaching of reading and writing as mechanical processes, since these subjects have been frequently treated of in books in school method. The emphasis has been laid on the teaching of literature and of composition.

**Readings in English History.** From Original Sources. Edited by R. B. MORGAN, B.Litt., and E. T. BAILEY, B.A.  
Vol. I.—*Caesar to Stephen.* 2s.  
Vol. II.—*Henry II. to Richard III.* 2s. 6d.  
Vol. III.—*1485 to 1688.* 2s. 6d.

**Brief Survey of British History.** By G. TOWNSEND WARNER, M.A. 1s. 6d. The best junior and middle school history in existence. In use in all Public schools and the textbook of the Royal Naval College, Osborne.

**A Brief Survey of European History.** By ARTHUR HASSALL, M.A. An excellent general sketch of European History from Charlemagne to the present time. Crown 8vo, cloth, 4s. 6d.

JUST PUBLISHED.

**A First Geography.** With Coloured Pictures and Diagrams on every page. By C. A. E. RODGERS, M.A., F.R.G.S., Assistant Master, Bradford Grammar School, and an Examiner in Geography to the College of Preceptors. Small 4to, cloth, 1s.  
An attempt to bring the actual teaching of geography into harmony with the improved theory of how it should be taught.

JUST PUBLISHED.

**Advanced Book-keeping.** For Commercial and Accountancy Classes. By WALTER GRIERSON, Author of "Practical Book-keeping for Commercial Classes." Crown 8vo, cloth, 2s. 6d. net.

**The Longer French Texts.** Printed in large type. Cloth limp, 8d. each. Brief Notes, Questionnaire, Memory List of Useful Phrases and Vocabulary. The volumes now ready are:  
*Deslys—Le Zouave.*  
*Moreau—Contes à ma Sœur.*  
*Chateaubriand—Le Dernier Abencérage.*  
*Abert—Le Roi des Montagnes.*

**The Little French Classics.** Price 4d. each book. All French authors in prose and verse, from the *Chansons de Geste* to *Daudet* and *Paul Bourget*.

**Récits tirés des Classiques français.** 6d. each. Edited by Mme. C. BAGNALL, of Clapham High School, and Mlle. VIVIER.  
The Stories of the great Dramatists told in simple French, suitable for Lower and Middle Forms.  
*Cornelle—Le Cid et Horace.*  
*Racine—Athalie et Andromaque.*  
*Molière—L'Avare et Les Femmes Savantes.*  
*Hugo—Hernani et Ruy Blas.*

**The Little German Classics.** Price 6d. each volume. The leading German authors in poetry, story, and drama.

**A Latin Course.** By E. H. SCOTT, B.A., and FRANK JONES, B.A. First Course, cloth, 1s. 6d. Second Course, cloth, illustrated, 2s. 6d.

**A First Latin Grammar.** By E. H. SCOTT, B.A., late Head Master of Boys' Secondary School, Barton, Transvaal; and FRANK JONES, B.A., Assistant Master, King Edward's School, Aston, Birmingham. Crown 8vo, cloth, 2s.

List of Books suitable for Oxford Locals, 1909, post free on application.

BLACKIE & SON, Ltd., 50 Old Bailey, E.C.

foundations of modern Russia were laid while he was still in his nursery." The volume is written in a very lucid and forcible style. There are three good maps, a select bibliography, and a serviceable index.

#### EDUCATION.

*Selected Writings of Thomas Godolphin Rooper.* With a Memoir by R. G. Tatton, sometime Fellow and Tutor of Balliol College, Oxford. (7s. 6d. net. Blackie.)

The selection contains nineteen essays and addresses on educational subjects. The aim of the editor has been "to include, in the first place, the most important of the author's more systematic studies in educational theory and method, and in certain subjects of school education to which he devoted special attention, and to add to these as large a selection as the limits of space allowed from those of his other writings which appear to be of most general interest and most characteristic of the writer." Every one of the papers is well worth its space. Mr. Rooper was one of the earliest advocates of Froebelian methods in our elementary schools, and later of Sloyd and all forms of manual training; and both these subjects are well represented. He was much interested also in drawing, school gardening, and geography, all of which are treated in various papers of the collection. Larger questions—the relation of teaching to the life of the children, the teaching of things as against the teaching of words, education at home as compared with education at a public school, the religious difficulty, the ideal in education, and psychological elements generally—furnish material for many most interesting and suggestive expositions. Most, if not all, of the papers have been already published, but readers will be glad to have them conveniently brought together in one volume in a permanent and well deserved record. Their special value "lies in the writer's exceptional combination of practical experience with grasp of educational theory, and in the power, which went along with this, of clear and simple exposition"; also in the impress of the author's personality. "The wide outlook, the faith in principle, the union of ideal aims with practical sense, the sympathetic insight—he writes, 'it was said of him, 'like a man and a woman rolled into one'—the understanding and love of children, the humour and gaiety of spirit, the belief in good and in human nature—these are some of the virtues which we find in his writings, and they were the virtues of the man." Undoubtedly this represents the impression of all that came into professional contact with him. Mr. Tatton supplies an adequate memoir with admirable tact and sympathy. The volume is a most engaging and valuable addition to the educational library.

*Questions d'Histoire et d'Enseignement.* Par Ch. V. Langlois. Nouvelle Série. (3fr. 50c. Hachette.)

M. Langlois publishes here for the first time in French a lecture on 'La Tradition de la France,' delivered before the University of Chicago, and a lecture on "Michelet," delivered before the University of Pennsylvania, in the autumn of 1904—both of them instructive and charming discourses. The remaining pieces have been reprinted from various periodicals. "Notes sur l'Education aux Etats-Unis" include his impressions both before and during his visit, the latter in considerable detail. "La coéducation est sans contredit le phénomène capital"; remarkable also is "le goût décidé des enfants et des jeunes gens américains pour l'école." "Il est naturel que l'école, à tous les degrés, soit aimée aux Etats-Unis, puisque rien n'est épargné pour la rendre aimable. Et c'est là, sans doute, une des leçons que le Nouveau Monde nous donne en matière d'éducation." Of the other articles the most interesting is a gently critical sketch of "Les Idées de H. G. Wells sur l'Education." Mr. Wells, as educational critic and reformer, appears to have a French double, M. P. Lacombe. A very agreeable and suggestive series of papers.

#### MISCELLANEOUS.

*Life of Goethe.* By Heinrich Düntzer. Translated by Thomas W. Lyster, Assistant Librarian, National Library of Ireland. (2s. 6d. net. Fisher Unwin.)

A popular edition of a very valuable work. Düntzer was indefatigable in gathering and sifting materials, in tracing lines and conditions of development, and generally in presenting his hero truthfully and completely. The translator has done his part ably, and he has also added many very useful foot-notes. Additional matter is given in an appendix, and there is an elaborate index. The numerous pertinent illustrations (about fifty) increase the interest of the work. All students of German literature will be grateful for such an agreeable and cheap issue of the best biography of Goethe.

*The Efficient Life.* By Luther H. Gulick, M.D., Director of Physical Training in the New York City Schools. (3s. 6d. net. Heinemann.)

Dr. Gulick justly says that the strenuous life is no end in itself: "it is only when being strenuous is an aid to efficiency that it is worth while." So with the pursuit of health. "But to live a full, rich, efficient life is an end." Accordingly he discourses briefly, but very pointedly and vividly, on the various things—mainly conditions and habits of body and mind—that tell for or against the efficiency of the individual. Dr. Gulick has plenty of sense as well as of science, and his book is worth much more than its weight in gold to any one

that has not yet learnt "how to run his physical (and mental) machinery," and is willing to learn.

*Sporting and Athletic Register*, 1908. (5s. net. Chapman & Hall.) A handsome and substantial volume of nearly seven hundred pages (9 x 6), including the results of all important events in Sport, Games, and Athletics during the year 1907, together with the records and notable achievements of past years. Part I. deals with thirty-three different departments, from Archery to Yachting. Part II. is devoted to Racing. The work is astonishingly detailed as well as comprehensive, and probably no sportsman will quarrel with its claim to be "the 'Whitaker' of the Sporting World."

#### FIRST GLANCES.

##### MATHEMATICS.

Arithmetic Test Cards, Jack's. Standards V., VI., VII. 40, 32, 32 cards. 1s. 3d. net each packet, with answers.

[Very good and serviceable series.]

Arithmetic, The Teaching of—to Simple Proportion. By J. S. Norman. 1s. net. The Yearbook Press (25 High Street, Bloomsbury, W.C.).

[Hints on methods, with types and diagrams. Lecture delivered at Conference of Head Masters of Preparatory Schools, December, 1907. "Outcome of thirty years' experience in teaching young boys." Lucid and suggestive.]

Mathematics, A Course in. By Frederick S. Woods and Frederick H. Bailey, Professors of Mathematics in the Massachusetts Institute of Technology. Vol. I. 10s. 6d. Ginn.

["For students of engineering and applied science." Vol. I. contains Algebraic Equations, Functions of one Variable, Analytic Geometry, and Differential Calculus. First year's work at an engineering school. Traditional division disregarded: "the principles of each subject are introduced as needed and the subjects developed together." Numerous problems, with answers. 219 figures.]

Mathematics, Elementary, A Scrap Book of. By William F. White, Ph.D., State Normal School, New Paltz, New York. 5s. net. Chicago: Open Court Publishing Company. London: Kegan Paul, Trench, Trübner, & Co.

["Notes, recreations, essays." "It may seem that puzzles have too largely taken the place of problems. But this is not a textbook. Moreover, amusement is one of the fields of applied mathematics." 59 figures.]

Mathematics, Preparatory. By A. Clement Jones, M.A., Ph.D., Senior Mathematical Master, and C. H. Blomfield, M.A., B.Sc., Mathematical Master, Bradford Grammar School. 1s. 6d. Nelson.

["A New Arithmetic for Junior Forms"—"preparatory to what has been usually called the first year." "An unusually large number of oral types" of exercise; "problems are the rule rather than the exception." Immense quantity of material, carefully graduated.]

Trigonometry, Theoretical and Practical; embodying Graphic and other Solutions. By B. C. Bridgett, M.A., B.Sc., F.C.S., and William Hyslop, M.A., B.Sc. 4s. 6d. Blackie.

[Treatment "based on the new and more scientific methods of geometrical teaching." Numerous examples and examination papers; answers. Many figures.]

Weighing and Measuring, A Simple Course of; including the Metric System. By H. J. Ashton, F.R.G.S. 1s. net. Philip.

[Practical handling. Examples; answers; 78 illustrations.]

Weights, Measures, and Coinage, The Metric and British Systems of. By F. Mollwo Perkin, Ph.D., Head of Chemistry Department, Borough Polytechnic Institute, London. 1s. 6d. net. Whittaker.

[Clear exposition; worked examples; 17 diagrams.]

##### HISTORY.

English History, The Abstract of. 8d. Oliver & Boyd.

[Down to the Union with Scotland. Intelligent and well written summary. Genealogical tables; 39 illustrations and maps. Very useful.]

English History, The Groundwork of. By M. E. Carter, Somerville College, Oxford, First Class in the Honours School of Modern History. 2s. Clive.

[The "salient facts," for London Matriculation; and "for class-work generally." Useful genealogical tables; 5 maps.]

English and British History, Outlines of. By E. A. Benians, M.A., Fellow of St. John's College, Cambridge. 4d. Gill.

[Revised and extended edition of the manual formerly known as "Gill's History of England, 2d." 100 lessons. Much matter well selected and clearly arranged; numerous serviceable maps.]

Great Britain, The Normal History of, 1688-1760. By Victor H. Allemandy and J. Beith. 2s. net. Normal Press.

[Pretty full, clear, and very readable. Genealogical and other tables; 5 sketch maps, somewhat meagre.]

# COLLEGE OF PRECEPTORS EXAM., 1908.

## BOOKS FOR THE SPECIAL SUBJECTS

PUBLISHED BY

### Messrs. J. M. DENT & CO.

#### ENGLISH.

**LONGFELLOW'S HIAWATHA.** With Introduction and Notes by HENRY WILLIAMS, M.A. 1s.

**THE MERCHANT OF VENICE.** Edited by R. M. WILLIAM, M.A. With Eight Illustrations by DORA CURTIS. 1s. 4d.

"This edition has much to commend it. The type is excellent, the notes concise and to the point, and the general remarks on the play are not too elaborate."—*Saturday Review*.

**JULIUS CÆSAR.** Edited by F. ARMYTAGE MORLEY, M.A., D.C.L. With Illustrations by T. H. ROBINSON. 1s. 4d.

"If the growing generation does not acquire a love for Shakespeare, it will not be the fault of editors of school books. Mr. F. Armytage Morley has furnished the play with an admirable introduction . . . comments in a style easy to be comprehended of the pupil. . . . Mr. T. H. Robinson, the artist, deserves a special word of praise."—*Scotsman*.

**MARMION.** By Sir WALTER SCOTT. Edited by R. P. DAVIDSON, M.A. (Oxon.), Assistant Master, Malvern College. With Biography, Topographical Drawings, Introduction, copious Notes, and Glossary. Crown 8vo, cloth, 1s. 4d.

#### LATIN.

**CÆSAR'S GALLIC WAR. Book I.** Edited by A. S. WILKINS, LL.D., Litt.D., late Professor of Latin, Victoria University, Manchester. With Vocabulary, 1s. 4d.

**CÆSAR'S GALLIC WAR. Books II. and III.,** in one volume. Edited by A. CROOM PATERSON, M.A. (Edin. and Oxon.), Classical Master in the Royal High School, Edinburgh. With Vocabulary, 1s. 4d.

**VIRGIL'S ÆNEID. Book I.** Edited, with Introduction, Notes, and Glossary, by Rev. H. KYNASTON, D.D. 1s. 4d.

**VIRGIL'S ÆNEID. Book X.** Edited, with Introduction, Notes, and Glossary, by H. B. WIDDOWES, M.A. 1s. 4d.

#### MODERN LANGUAGES.

*A list of new and forthcoming books in Dent's Modern Language Series can be had post free on application.*

**GERMAN DAILY LIFE.** By Dr. R. KRON. Extra fcap. 8vo, 2s. 6d. net.

**FRENCH DAILY LIFE.** By Dr. R. KRON. Extra fcap. 8vo, 2s. 6d. net.

*(The above books are prescribed by the College of Preceptors for the Oral Examination in French and German.)*

Further particulars of above and other Books for the Examination sent free on application.

**J. M. DENT & CO., ALDINE HOUSE, 29 BEDFORD STREET, LONDON, W.C.**

Great Britain, The Expansion of, 1715–1789. By Arthur Hassall, M.A., Christ Church, Oxford. 3s. Rivingtons (Text-books of English History).

[Able, lucid, and interestingly written. Genealogical and chronological tables; 7 maps.]

Mutiny, The Great, The Tale of. By W. H. Fitchett, B.A., LL.D. 6d. Newnes (Sixpenny Novels Illustrated).

[More interesting than most novels, yet as true to fact as the author could make it. A careful and stirring narrative.]

Scottish History, Outline of. By W. M. Mackenzie, M.A., F.S.A.Scot. 2s. 6d. A. & C. Black.

[Down to "The Disruption" (1843). Lucid, fluent, and trustworthy. 79 illustrations; 12 maps and plans.]

Scottish Industrial and Social History in the Eighteenth and Nineteenth Centuries, A Sketch of. By Amelia Hutchison Stirling, M.A. Edin. (1s. 6d. Blackie.)

[Cheap edition. We repeat our good opinion.]

#### RELIGIOUS AND MORAL.

A Kempis, Thomas, and the "De Imitatione Christi." By J. E. Manning, M.A. 6d. net. Galt (Manchester).

[Address at Unitarian Home Missionary College, Manchester.]

Apostles' Creed, The. By the Rev. A. E. Burn, D.D., Rector of Hands-worth and Prebendary of Lichfield, Examining Chaplain to the Bishop of Lichfield. 1s. net. Rivingtons (Oxford Church Text-Books).

[Clear, simple, painstaking.]

Bible Notes, Vol. III., The Life of Christ. By Edward Grubb, M.A. 1s. Croydon: Summer School Continuation Committee (3 George Street).

"To stimulate and guide the study of the Gospels and to indicate some of the best sources of help." Careful and suggestive. Reprinted from the *British Friend*.]

Bible Story, The: The Beginnings of the Jewish Church. By Helen N. Lawson. Revised by Frederick P. Lawson, M.A., Hon. Canon of Peterborough, Rector of Sudborough, and Diocesan Inspector for the Archdeaconry of Northampton. 3s. 6d. Macmillan.

[Covers Genesis: "The Bible has been left to tell its own story in its own way." Illustrations.]

Bible Stories for Young Readers. 1d. each. Henderson.

[Simply told; pictures every second page.]

Catechisms and Devotions for Children and Young People. By the Most Rev. Enos Nuttall, D.D., Archbishop of the West Indies. S.P.C.K.

Church of Christ, The Beginnings of the; or, The Story of the Early Church. Written for the Children of the Church by G. P. Trevelyan, M.A., and E. A. Edghill, B.A. 8d. net. Rivingtons.

[Clear and simple statement.]

Duty and Conduct, Plain Words about, for Boys and Girls at School. E. J. Arnold.

"A small code of ethical principles." Simple and sensible.]

Fallen Angels. By One of Them. 1s. Gay & Bird.

"A disquisition on human existence"—"an attempt to elucidate some of its mysteries, especially those of evil and suffering." Popular edition (eighth thousand).]

Moral Instruction, A Scheme of, for Teachers in Public Elementary Schools. Edited by E. R. Bernard, M.A., Canon of Salisbury. 6d. John Davis (successor to Thomas Laurie). Laurie's Kensington Series.

"Based on the Bible, both as to principles and illustrations." "Approved by the Salisbury Diocesan Board of Education."]

Old Testament History, Readings in. By the Rev. A. B. Whitham, M.A., Principal of Culham Training College. 2s. 6d. Rivingtons.

"The text has been confined, as a rule, to the interpretation of the Bible narrative as it stands." Primary object is "to guide intelligent boys and girls in secondary schools to grasp the connexion and unity of the different parts of the Old Testament, but, above all, to help them to understand that its real meaning and purpose are concerned with the Incarnation and the Holy Catholic Church." Notes (for the teacher). Nine maps.]

Riddle, The Old, and the Newest Answer. By John Gerard, S.J., F.L.S. 2s. 6d. net. Longmans.

[The answer of modern science to the riddle of the world. Third edition, thoroughly revised, with additions.]

Theology, The New; or, The Essence of Christianity the Flower of Freethought. By A. A. Mories. 6d. Watts.

[Claims to be "purely and frankly" both rationalist and religious. Treats of the religious instinct in the individual, in ancient thought, in Greek thought, and in Christianity.]

**MATHEMATICS.**

**16353.** (Professor R. W. GENESE, M.A.)—From a variable point P two fixed straight lines  $l_1, l_2$  are projected on to two fixed planes  $\alpha_1, \alpha_2$ . If the projections meet in a point, the locus of P is a hyperboloid of one sheet passing through  $l_1, l_2$  and the intersection of  $\alpha_1, \alpha_2$ .

*Solution by Professor NANSON.*

The planes  $Pl_1, Pl_2$  generate axial pencils which are homographic, because these planes cut the fixed line  $\alpha_1\alpha_2$  in the same point, viz., the meet of the projections. Their intersection therefore traces out a hyperboloid through  $l_1, l_2$  and  $\alpha_1\alpha_2$ . The point P has two degrees of freedom and lies on this hyperboloid, which is therefore the locus required.

**16349.** (Professor E. HERNÁNDEZ.)—Si l'on désigne par  $a$  la chiffre des unités d'un nombre, et par  $s_1$  la somme des valeurs absolues des autres chiffres, et par  $s_2, s_3, \dots, s_n, \dots$  les sommes des valeurs absolues des tranches binaires, ternaires, etc. du nombre formé par ces autres chiffres, les sommes  $a + 4s_1, a + 4s_2, \dots, a + 4s_n, \dots$  seront congrues par rapport au module 6.

*Solution by the PROPOSER.*

Quelque soit l'entier  $n$ , autre que 0, on a  $10^n \equiv 4 \pmod{6}$ , et si  $b, c, d, \dots$  sont les tranches  $n$ -ièmes à partir de la chiffre des dizaines, on a  $a \equiv a, b \cdot 10 \equiv 4 \cdot b, c \cdot 10^2 \equiv 4c, \dots \pmod{6}$ ,

et en ajoutant  $a + b \cdot 10 + c \cdot 10^2 + \dots \equiv a + 4S_n \pmod{6}$ .

Cette propriété subsiste, lors même qu' $a$  désigne la tranche formée par les  $p$  premières chiffres à droite du nombre proposé,  $p$  étant un entier quelconque.

**16382.** (M. T. NARANIENGAR, M.A.)—If forces proportional to the sides of a triangle act at any point of the N.P. circle towards the feet of the perpendiculars of the triangle, their resultant passes through the point of contact of the inscribed or escribed circle with the N.P. circle.

*Remark by Professor SANJANA, M.A.*

Let L, M, N be the feet of the perpendiculars of ABC; take

$$MR : RN = c : b, \text{ and } LQ : QR = b + c : a.$$

Then Q is always a point on the line of action of the resultant of the forces of the Question. By joining Q to the infinity of points on the nine-point circle, we get straight lines cutting the circle again in an infinity of points; and thus the resultants could not all pass through one and the same point on that circle. One of the forces must act away from the foot of its perpendicular.

**11702.** (Professor ECHOLS.)—Prove that

$$\sum_{m=0}^{n-1} (-1)^m \frac{2^{2m-1} - 1}{(2n - 2m + 1)!} B_m = 0,$$

wherein  $B_m, \dots$  represent Bernoulli's numbers.

*Solution by G. N. WATSON, B.A., and another.*

[Note.— $B_0$  is usually undefined; if we write

$$\frac{x e^x + 1}{2 e^x - 1} = \sum_{m=0}^{\infty} (-1)^{m-1} \frac{B_m}{(2m)!} x^{2m},$$

we see that it is natural to assume  $B_0 = -1$ .]

$\sum_{m=0}^n (-1)^m \frac{2^{2m-1} - 1}{(2n - 2m + 1)!} \frac{B_m}{2m!}$  = the coefficient of  $x^{2n+1}$  in the product

$$\sum_{r=0}^{\infty} \frac{x^r}{r!} \sum_{m=0}^{\infty} (-1)^m \frac{(2^{2m-1} - 1) B_m}{(2m)!} x^{2m},$$

provided  $|x| < \pi$ , so that the second series is convergent.

$$\text{This product} = e^x \sum_{m=0}^{\infty} \left\{ (-1)^m \frac{B_m}{(2m)!} \frac{(2x)^{2m}}{2} + (-1)^{m-1} \frac{B_m}{(2m)!} x^{2m} \right\}$$

$$= e^x \left\{ -\frac{1}{2} \left( \frac{2x e^{2x} + 1}{2 e^{2x} - 1} \right) + \frac{x e^x + 1}{2 e^x - 1} \right\} = \frac{x}{2} \left\{ 1 + \frac{e^{2x} + 1}{e^{2x} - 1} \right\}$$

$$= \frac{x}{2} + \frac{1}{2} \sum_{m=0}^{\infty} (-1)^{m-1} \frac{B_m}{(2m)!} (2x)^{2m}.$$

And if  $n > 0$ , the coefficient of  $x^{2n+1}$  in this series is zero; i.e., if  $n > 0$ ,

$$\sum_{m=0}^n (-1)^m \frac{2^{2m-1} - 1}{(2n - 2m + 1)!} \frac{B_m}{(2m)!} = 0.$$

**16386.** (A. M. NESBITT, M.A.)—If every element in the  $r$ -th row of a determinant of order  $n$  be  $1/r^2$ , except that in the principal diagonal

which is  $1 + 1/r^2$ , then, if  $n$  be indefinitely increased, the limiting value of the determinant will be  $1 + \pi^2/6$ .

*Solutions (I.) by Hon. G. R. DICK, M.A.; (II.) by S. NARAYANA AIYAR.*

(I.) Let  $\Delta_n = \begin{vmatrix} 1/1^2 + 1, & 1/1^2, & 1/1^2, & \dots \\ 1/2^2, & 1/2^2 + 1, & 1/2^2, & \dots \\ 1/3^2, & 1/3^2, & 1/3^2 + 1, & \dots \\ \dots & \dots & \dots & \dots \end{vmatrix}$

$$= 1/(1^2 \cdot 2^2 \cdot n^2) \begin{vmatrix} 1 + 1^2, & 1, & & \\ 1, & 1 + 2^2, & & \\ 1, & 1, & 1 + 3^2, & \\ \dots & \dots & \dots & \dots \\ 1, & 1, & 1, & 1 + n^2 \end{vmatrix}$$

$$= 1/(1^2 \cdot 2^2 \cdot n^2) \cdot 1^2 \cdot 2^2 \cdot n^2 [1 + 1/1^2 + 1/2^2 + \dots + 1/n^2],$$

by a well known result (Burnside and Panton, p. 202, 1st ed.)

$$= 1 + (1 + 1/2^2 + \dots + 1/n^2).$$

Thus the limit of  $\Delta_n$ , when  $n$  is infinite, is  $1 + \frac{1}{6}\pi^2$ .

(II.) The determinant

$$\begin{vmatrix} a_1 + x, & b_1, & c_1, & \dots, & l_1 \\ a_2, & b_2 + x, & c_2, & \dots, & l_2 \\ a_3, & b_3, & c_3 + x, & \dots, & l_3 \\ \dots & \dots & \dots & \dots & \dots \\ a_n, & b_n, & c_n, & \dots, & l_n + x \end{vmatrix},$$

where  $a, b, c, \dots, l$  are  $n$  quantities, is equal in value to

$$x^n + x^{n-1} \Sigma (a_1) + x^{n-2} \Sigma (a_1 b_2) + x^{n-3} \Sigma (a_1 b_2 c_3) + \dots + (a_1 b_2 c_3 \dots l_n).$$

Putting  $x = 1$ , and  $a_1 = b_1 = c_1 \dots = l_1 = 1/1^2$ ,

$$a_2 = b_2 = c_2 \dots = l_2 = 1/2^2,$$

$$\dots \dots \dots$$

$$a_n = b_n = c_n \dots = l_n = 1/n^2,$$

we get the determinant given in the Question, and its value is therefore equal to  $1 + (1/1^2 + 1/2^2 + 1/3^2 + \dots + 1/n^2)$ , since the determinants

$$(a_1 b_2), (a_1 b_2 c_3), \dots, (a_1 b_2 c_3 \dots l_n)$$

all vanish. But when  $n$  is infinite  $1/1^2 + 1/2^2 + 1/3^2 + \dots = \frac{1}{6}\pi^2$ ; therefore the value of the given determinant is  $1 + \frac{1}{6}\pi^2$  when  $n$  is infinite.

**16387.** (Lt.-Col. ALLAN CUNNINGHAM, R.E.)—Show how to solve in (unequal) integers

$$N = x^4 + y^4 + z^4 = x'^4 + y'^4 + z'^4 = x''^4 + y''^4 + z''^4 = \dots$$

Give the lowest numbers so expressible in two ways and in four ways.

*Solution by the PROPOSER.*

Every Quartan  $Q = (x^4 + y^4)$  is (algebraically) expressible in the form  $Q = 2u^2 - z^4$ , where  $u = x^2 + xy + y^2, z = x + y$ . Hence

$$N = x^4 + y^4 + z^4 = 2u^2.$$

Now take  $u$  any integer of form

$$u = A^2 + 3B^2 = [(B-A)^2 + (B-A)(B+A) + (B+A)^2].$$

Then  $x, y, z$  are given in terms of two arbitrary integers  $(A, B)$  by

$$x = (B-A), \quad y = (B+A), \quad z = x + y = 2B.$$

Of course  $x, y, z$  are interchangeable in the above.

Next, to solve  $N = x^4 + y^4 + z^4 = x'^4 + y'^4 + z'^4 = \dots$ ,

write  $N = 2u^2 = 2u'^2 = 2u''^2 = \dots$ ,

and take  $u = u' = u'' = \dots$  any composite number expressible in several ways in the forms

$$u = A^2 + 3B^2, \quad u' = A'^2 + 3B'^2, \quad u'' = A''^2 + 3B''^2;$$

then, as before,  $x = B-A, y = B+A, z = x + y = 2B$ ,

with similar results for  $x', y', z'$  in terms of  $A', B', \dots$ , obtained by simply accentuating all the symbols. In general,  $N$  will be expressible in the 4-ic form above in as many different ways as there are different expressions of  $u$  in the 2-ic form  $A^2 + 3B^2$ .

Ex.—Take  $u = 91 = 7 \cdot 13$ , the smallest composite expressible in two (A, B) ways.

Again, take  $u = 1729 = 7 \cdot 13 \cdot 19$  the smallest composite, expressible in four (A, B) ways.

The results  $(x, y, z), \dots$  are as follows

$u$	A	B	$x, y, z$
91 = 7.13	{ 8, 3	{ 5, 11, 6	
	{ 4, 5	{ 1, 9, 10	
	{ 41, 4	{ 37, 45, 8	
	{ 31, 16	{ 15, 47, 32	
1729 = 7.13.19	{ 23, 20	{ 3, 43, 40	
	{ 1, 24	{ 23, 25, 48	

16359. (Professor NEUBERG.)—Diviser un triangle donné ABC par une droite AD, qui rencontre BC en D, en deux triangles ABD, ACD tels qu'en tournant autour de AD ils engendrent des volumes qui soient dans un rapport donné  $m : n$ , ou tels que les surfaces engendrées par les lignes brisées ABD, ACD aient un rapport donné  $m : n$ .

*Solution by W. F. BEARD, M.A.*

(i.) Divide BC at D, so that

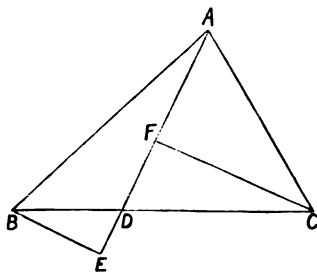
BD : DC =  $\sqrt{m} : \sqrt{n}$ .

Draw BE, CF perpendicular to AD,

vol. generated by  $\triangle ABD$   
vol. generated by  $\triangle ACD$

$$= \frac{\pi \cdot BE^2 \cdot AD}{\pi \cdot CF^2 \cdot AD} = \frac{BE^2}{CF^2}$$

$$= \frac{BD^2}{CD^2} = \frac{m}{n}$$



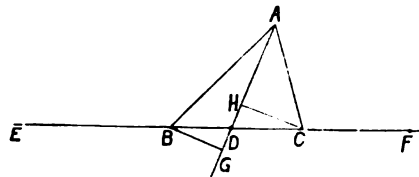
(ii.) Produce CB so that BE = BA,

and BC so that

CF = CA.

Through BE, CF describe circles whose radii are in the ratio

$\sqrt{m} : \sqrt{n}$ .



Let the circle of similitude of these circles meet BC at D. Then D is the point required. Draw BG, CH perpendicular to AD,

surface generated by ABD =  $\frac{\pi \cdot BD(AB + BD)}{\pi \cdot CD(AC + CD)} = \frac{DB \cdot DF}{DC \cdot DE}$

$$= \frac{\text{square of tangent from D to the circle through BE}}{\text{square of tangent from D to the circle through CF}} = \frac{m}{n}$$

because D is on the circle of similitude.

[N.B.—The Proposer remarks that a point D can also be found on BC produced such that it furnishes a solution of the problem.]

16386. (M. V. ARUNACHALAN, M.A.)—Solve

$$\frac{2(1-ab)x}{x+1} = \frac{(1-a^2)(x+y)}{y+1}, \quad \frac{2(1-ab)y}{y+1} = \frac{(1-b^2)(x+y)}{x+1}$$

*Solution by M. T. NARANIENGAR, M.A.*

We have at once  $\sqrt{(1-a^2)(x+1)} = \sqrt{(1-b^2)(y+1)}$ . Hence, by substitution, the equations are solved.

16350. (W. J. GREENSTREET, M.A.)—How many different coefficients may be found in the most general (possible) symmetrical homogeneous function of the  $n$ -th degree in  $x, y, z$ ?

*Solution by Hon. G. R. DICK, M.A.*

This number is evidently the number of partitions of  $n$  into three parts. These partitions are of three kinds: (1) those where the parts (zero included) are distinct, no two being the same; (2) those in which two are the same; (3) when all three are the same, in which case, of course,  $n$  is a multiple of 3. Call these sets A, B, C respectively.

(1) The number of partitions of  $n$  into  $r$  parts, 0 included, no two the same, is the coefficient of  $x^n t^r$  in

$$T \equiv (1+t)(1+xt) \dots (1+x^r t) = 1 + tX_1 + t^2 X_2 + \dots$$

suppose. Taking the logarithmic differential, we get

$$\frac{X_1 + 2tX_2 + 3t^2 X_3 + \dots}{1 + tX_1 + t^2 X_2 + \dots} = \frac{1}{1+t} + \frac{x}{1+xt} + \frac{x^2}{1+x^2 t} + \dots$$

$$= \frac{1}{1-x} - \frac{t}{1-x^2} + \frac{t^2}{1-x^3} - \dots$$

Comparing coefficients of  $t$ , we get

$$X_1 = \frac{1}{1-x}, \quad X_2 = \frac{X_1 - 1}{1-x}, \quad X_3 = \frac{X_2 - X_1}{1-x} + \frac{1}{1-x^2},$$

and so on. By substitution for  $X_1, X_2$ , we get

$$3X_3 = \frac{1}{2(1-x)^3} - \frac{3}{4(1-x)^2} - \frac{3}{4(1-x)^2} + \frac{1}{1-x^2}$$

Now A is the coefficient of  $x^n$  in  $X_3$ ; therefore

$$3A = \frac{1}{2}(n+1)(n+2) - \frac{3}{2}(n+1) - \frac{3}{2} \text{cir}(2, n) + \text{cir}(3, n),$$

where the coefficient of  $x^n$  in  $1/(1-x^r)$  ( $x, a$  integral) is denoted by  $\text{cir}(a, n)$ . The circulating function—a term due to Herschel, I believe—is 0 except when  $n$  is a multiple of  $a$ .

(2) With regard to the partition of  $n$  into the sets B and C, it is easier to proceed thus: (a) Let  $n$  be of the form  $2p$ ; then the number of partitions is 0, 0,  $2p$ ; 1, 1,  $2p-2$ ;  $p, p, 0$  or  $p+1$ . (b) Let  $n = 2p-1$ ; then the number is 0, 0,  $2p-1$ ;  $p-1, p-1, 1$ , or  $p$ , where the case of three possible equal parts is included. Both results are given by

$$\frac{1}{2}(n+1) + \frac{1}{2} \text{cir}(2, n).$$

Thus

$$B + C = \frac{1}{2}(n+1) + \frac{1}{2} \text{cir}(2, n)$$

and

$$A + B + C = \frac{(n+1)(n+5)}{3 \cdot 4} + \frac{1}{2} \text{cir}(2, n) + \frac{1}{2} \text{cir}(3, n),$$

the number required. It is clear that the number of terms in  $(x+y+z)^n$  is

$$6A + 3B + C = \frac{1}{2}(n^2-1) - \frac{3}{2} \text{cir}(2, n) + 2 \text{cir}(3, n) + \frac{3}{2}(n+1) + \frac{3}{2} \text{cir}(2, n) - 3 \text{cir}(3, n) + \text{cir}(3, n) = \frac{1}{2}[(n+1)(n+2)] \text{ as it should.}$$

To find the Equation of the Asymptotes of the Hyperbola given by the general Equation of the Second Degree.

*Another method of Solution by SARADAKANTA GANGULI, M.A.*

Let the equation of the hyperbola be

$$S \equiv ax^2 + 2hxy + by^2 + 2gx + 2fy + c = 0.$$

If the origin be transferred to the centre, this equation will be transformed into

$$ax^2 + 2hxy + by^2 + \Delta/(ab-h^2) = 0,$$

where

$$\Delta \equiv abc + 2fgh - af^2 - bg^2 - ch^2;$$

therefore the equation of the asymptotes referred to parallel axes through the centre is

$$ax^2 + 2hxy + by^2 = 0$$

or

$$ax^2 + 2hxy + by^2 + \Delta/(ab-h^2) = \Delta/(ab-h^2).$$

But the left-hand side, when retransformed to the original axes, becomes S. Therefore the equation of the asymptotes is  $S = \Delta/(ab-h^2)$ .

16388. (ROBT. W. D. CHRISTIE.)—Prove that, if  $a^2 + b^2 = c^2$  integral, then  $s-a, b, s$  are in harmonical progression, and  $s-b, a, s$  are in harmonical progression. Can the theorem be extended?

*Solution by Lt.-Col. ALLAN CUNNINGHAM, R.E., and D. M. KALKAR, B.A., L.T.*

The meaning of  $s$  is not stated; but, if  $s$  is meant to be the semi-perimeter of a right-angled triangle, whose sides are  $a, b, c$ ; then, noting that if  $x, y, z$  be in harmonical progression,  $y = 2xz/(x+z)$ ;

Here  $x = s-a, y = b, z = s = \frac{1}{2}(a+b+c), x = \frac{1}{2}(b+c-a),$

$$\frac{2xz}{x+z} = \frac{2 \cdot \frac{1}{2}(b+c-a) \cdot \frac{1}{2}(b+c+a)}{b+c} = \frac{(b+c)^2 - a^2}{2(b+c)} = \frac{b^2 + 2bc + c^2 - a^2}{2(b+c)} = \frac{2(b^2 + bc)}{2(b+c)} = b,$$

which proves the first required result. The second result by interchanging  $a, b$ . The extension is not obvious, except that the restriction to integer values of  $a, b, c$  is unnecessary. The sole condition is

$$a^2 + b^2 = c^2.$$

The PROPOSER discusses the Question as follows:—

There are at least five expressions in harmonical progression, of which the third term is  $s$ .

Let  $s = \frac{1}{2}(a+b+c)$  and  $S = \frac{1}{2}ab = rs$ ; then

$$s-a, b, s; \quad s-b, a, s; \quad 2b-s, [s(2b-s)]/b, s; \quad 2a-s, [s(2a-s)]/a, s; \quad Ss/(s-S), 2S, s, \dots$$

are all in harmonical progression, as may be proved by ordinary development.

A few geometrical results are:—

(1)  $a^2 + b^2 = c^2$ , also  $[s(2b-s)/b]^2 + \{[s(2a-s)]/a\}^2 = \text{square}$ .

(2) Let  $a = m(m+2n), b = 2n(m+n), c = m^2 + 2mn + 2n^2$ ;

then  $s = (m+n)(m+2n), S = mn(m+n)(m+2n), r = mn = S/s = (s-c) r_1 = S/(s-a) = s-b, r_2 = S/(s-b) = s-a, r_3 = S/(s-c) = s$ .

(3)  $S = (s-a)(s-b) = s(s-c)$ .

(4)  $s : s-a : s-b :: s-c$  in regular proportion.

(5)  $S(s-a)(s-b) = (mns)^2 = (rs)^2$ .

(6)  $mn/(1-mn) : 2mn :: 1, \quad n/(m+n) : 2n/(m+2n) :: 1, \quad m/(m+2n) : m/(m+n) :: 1,$

are three expressions in harmonical progression having anything for the third term, ...

(7) If the cosines of the angles A, B, C of a plane triangle be in arithmetical progression, then  $s-a, s-b, s-c$  will be in harmonical progression (Ferrers and Jackson).

**16351.** (Professor SANJANA, M.A.)—Prove the following identity :—  
 $4a^2p^2 - (b^2 + q^2 - c^2 - r^2)^2 + 4b^2q^2 - (c^2 + r^2 - a^2 - p^2)^2 + 4c^2r^2$   
 $- (a^2 + p^2 - b^2 - q^2)^2 - [4q^2r^2 - (q^2 + r^2 - a^2)^2]$   
 $- [4r^2p^2 - (r^2 + p^2 - b^2)^2] - [4p^2q^2 - (p^2 + q^2 - c^2)^2]$   
 $= 2a^2b^2 + 2b^2c^2 + 2c^2a^2 - a^4 - b^4 - c^4.$

Solution by C. M. ROSS.

$$4a^2p^2 - (a^2 + p^2 - b^2 - q^2)^2 = (2ap + a^2 + p^2 - b^2 - q^2)(2ap - a^2 - p^2 + b^2 + q^2)$$

$$= [(a + p)^2 - (b^2 + q^2)][-(a - p)^2 + (b^2 + q^2)]$$

$$= -(a^2 - p^2)^2 + 2(a^2 + p^2)(b^2 + q^2) - (b^2 + q^2)^2 \dots (1),$$

$$4b^2q^2 - (b^2 + q^2 - c^2 - r^2)^2 = -(b^2 - q^2)^2 + 2(b^2 + q^2)(c^2 + r^2) - (c^2 + r^2)^2 \dots (2),$$

$$4c^2r^2 - (c^2 + r^2 - a^2 - p^2)^2 = -(c^2 - r^2)^2 + 2(c^2 + r^2)(a^2 + p^2) - (a^2 + p^2)^2 \dots (3),$$

Adding (1), (2), (3),

$$\Sigma [4a^2p^2 - (a^2 + p^2 - b^2 - q^2)^2] = -2\Sigma a^4 - 2\Sigma p^4 + 2\Sigma (a^2 + p^2)(b^2 + q^2) \dots (4).$$

Again,

$$-\Sigma [4q^2r^2 - (q^2 + r^2 - a^2)^2] = -\Sigma (2qr + q^2 + r^2 - a^2)(2qr - q^2 - r^2 + a^2)$$

$$= -\Sigma [(q + r)^2 - a^2][-(q - r)^2 + a^2]$$

$$= \Sigma [(q^2 - r^2)^2 - 2a^2(q^2 + r^2) + a^4]$$

$$= 2\Sigma p^4 - 2\Sigma q^2r^2 - 2\Sigma a^2(q^2 + r^2) + \Sigma a^4 \dots \dots (5).$$

Adding (4) and (5),

$$\Sigma [4a^2p^2 - (a^2 + p^2 - b^2 - q^2)^2] - \Sigma [4q^2r^2 - (q^2 + r^2 - a^2)^2] = 2\Sigma b^2c^2 - \Sigma a^4.$$

**16375.** (C. JOSS, M.A.)—Prove geometrically that the envelope of the sides of the triangles in a given circle with a common orthocentre is an ellipse.

Solution by S. NARAYANA AIYAR.

All these triangles have the same circum-centre, orthocentre, and circum-radius. But it is a well known proposition that the ellipse, described with the circum- and orthocentres as foci, and the transverse axis equal to the circum-radius, always touches the sides of the triangle, i.e., the envelope of the sides of all these triangles is this ellipse.

**16266.** (Professor E. B. ESCOTT.)—Find a line which is both tangent and normal to the cardioid.

Solution by the PROPOSER.

It is well known that the evolute of an epicycloid is a similar epicycloid. The evolute of a cardioid is a cardioid with the radius of the base circle  $\frac{1}{3}$  of the radius of the base circle of the given cardioid. Since the tangent is to be normal to the curve, it must be tangent to the evolute. The problem may then be stated: To find the common tangent of the cardioid and its evolute.

The equation of the curve with the centre of the base circle O as origin is

$$x = a(2 \cos \theta + \cos 2\theta), \quad y = a(2 \sin \theta + \sin 2\theta).$$

The tangent at the point  $\theta_1$  is

$$y - \frac{\cos \theta_1 + \cos 2\theta_1}{\sin \theta_1 + \sin 2\theta_1} x + 3a \frac{1 + \cos \theta_1}{\sin \theta_1 + \sin 2\theta_1},$$

or it may be written

$$y = -\cot \frac{3}{2}\theta_1 \cdot x + \frac{3a \cos \frac{1}{2}\theta_1}{\sin \frac{3}{2}\theta_1}.$$

The evolute is

$$x = -\frac{1}{3}a(2 \cos \phi + \cos 2\phi), \quad y = \frac{1}{3}a(2 \sin \phi + \sin 2\phi);$$

and its tangent  $y = \cot \frac{3}{2}\phi_1 \cdot x + a \cos \frac{1}{2}\phi_1 / \sin \frac{3}{2}\phi_1.$

Since these two tangents must be the same,  $-\cot \frac{3}{2}\theta_1 = \cot \frac{3}{2}\phi_1$ , i.e.,

$$\sin \frac{3}{2}(\phi + \theta) / \cos \frac{3}{2}\phi \cos \frac{3}{2}\theta = 0, \quad \frac{3}{2}(\phi + \theta) = n\pi,$$

$$\phi + \theta = \frac{2}{3}n\pi, \quad \phi = \frac{2}{3}n\pi - \theta.$$

Substituting and equating the constant terms in the equations of the tangents, we have

$$\cos(\frac{1}{3}n\pi - \frac{1}{2}\theta) / \sin(n\pi - \frac{3}{2}\theta) = 3 \cos \frac{1}{2}\theta / \sin \frac{3}{2}\theta.$$

Solving, we have  $\tan \frac{1}{2}\theta = -(3 + \cos \frac{2}{3}n\pi) / \sin \frac{2}{3}n\pi.$

- (a) If  $n = 0$ ,  $\tan \frac{1}{2}\theta = \infty$ ; therefore  $\theta = \pi$ .
- (b) If  $n = 1$ ,  $\tan \frac{1}{2}\theta = \frac{5}{3}\sqrt{3}$ .
- (c) If  $n = 2$ ,  $\tan \frac{1}{2}\theta = -\frac{5}{3}\sqrt{3}$ .

(a)  $n = 0$ , tangent line is  $y = 0$ . Tangent at cusp.  
 (b)  $n = 1$ , tangent line is  $y = -\frac{9}{10}\sqrt{3}x - \frac{2}{5}a\sqrt{3}$ . Co-ordinates of point of tangency,  $(-\frac{13}{10}a, \frac{1}{5}a\sqrt{3})$ . Point at which tangent is normal to the curve,  $(-\frac{1}{10}a, -\frac{3}{5}a\sqrt{3})$ .

(c)  $n = 2$ . Symmetrical to the last.

QUESTIONS FOR SOLUTION.

**16419.** (S. NARAYANA AIYAR.)—Integrate

(a)  $\int \frac{\cos(\phi_0 + \phi_1 + \phi_2 + \dots + \phi_n)}{\rho_0\rho_1\rho_2 \dots \rho_n} d\theta,$   
 (b)  $\int \frac{\sin(\phi_0 + \phi_1 + \phi_2 + \dots + \phi_n)}{\rho_0\rho_1\rho_2 \dots \rho_n} d\theta,$

where  $\phi_p = \tan^{-1} \sin \theta / (p + \cos \theta)$  and  $\rho_p = \sqrt{1 + 2p \cos \theta + p^2}.$

**16420.** (Rev. F. H. JACKSON, M.A.)—Transform

$$1 + ax + a^2x^2 + a^3x^3 + \dots$$

into  $\frac{1}{1-x} + \frac{(a-1)x}{(1-x)(1-qx)} + \frac{(a-1)(a-q)}{(1-x)(1-qx)(1-q^2x)}$   
 $+ \frac{(a-1)(a-q)(a-q^2)}{(1-x)(1-qx)(1-q^2x)(1-q^3x)} + \dots,$

with easily obtained conditions for convergence. Similarly transform

Gauss's series,  $\frac{x}{1-q} + \frac{x^2}{1-q^2} + \frac{x^3}{1-q^3} + \dots$

into  $\frac{x}{(1-q)(1-x)} - \frac{qx^2}{(1-q^2)(1-x)(1-qx)}$   
 $+ \frac{q^2x^3}{(1-q^3)(1-x)(1-qx)(1-q^2x)} - \dots$

The numerator of the n-th term being  $q^{n(n-1)x^n}.$

**16421.** (D. BIDDLE.)—It is well to be forearmed against the invasion into the domain of mathematics, of the general feeling of insecurity which even now prevails in other spheres of thought, in which case direct methods of procedure will be out of favour. The four primary rules of arithmetic will not escape. Therefore, taking A and B as two given unequal integers, of which B is the smaller, (1) without adding B to A, find their sum; (2) without subtracting B from A, find their difference; (3) without multiplying A by B, find the product; (4) without dividing A by B, find the quotient.

**16422.** (Lt.-Col. ALLAN CUNNINGHAM, R.E.)—Give the general solution of, and also the lowest solution in integers of,

$$(x^4 + y^4 + z^4)^2 = 2(x^8 + y^8 + z^8).$$

**16423.** (T. STUART, M.A., D.Sc.)—Prove rigidly that the prime factors of  $N \equiv 2x^2 - y^2$ , where  $x = 3tu(t+u)$ ,  $y = t^2 - 3tu^2 - u^2$ , are always of the form  $\pm 1 \pmod{18}$ , e.g.,

$$2 \cdot 36^2 - 17^2 = 109 \cdot 811, \quad 2 \cdot 18^2 - 1^2 = 107 \cdot 109, \quad 19^2 + 2 \cdot 18^2 = 18523.$$

Show further that, if

$$t = u' [2(t' \cdot u')^2 - u'^2], \quad u = (t' + u') [2t'^2 - (t' + u')^2],$$

where  $t', u'$  are any integers, then N is expressible algebraically in the form  $X^2 - 27Y^2$ , and find X and Y.

**16424.** (R. W. D. CHRISTIE.)—Let  $a^2 + b^2 = c^2$  integral, e.g.,

$$209^2 + 120^2 = 241^2,$$

then  $(a+d)^2 + (b+x)^2 = (c+d)^2, \quad 240^2 + 128^2 = 272^2,$

$$(a+e)^2 + (b+2x)^2 = (c+e)^2, \quad 273^2 + 136^2 = 305^2,$$

$$\dots \quad \dots \quad \dots \quad \dots \quad \dots$$

ad inf. ad inf.

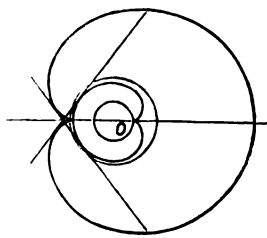
It is required to find the constants  $d, e, x.$

**16425.** (I. ARNOLD.)—Show how as many numbers as we please may be determined, such that their squares, when expressed in the decimal notation, (i.) may all terminate in the same  $n$  figures; and (ii.) may all terminate in the same  $n$  given figures.

**16426.** (Professor NANSON.)—Find the equation of the surface traced out by a straight line which moves so as to be at given distances from the three rectangular axes.

**16427.** (A. THOMPSON.)—A sphere touches a plane at O, and a curve in the plane is projected on to the sphere, the centre of the sphere being the vertex of projection. If  $t$  be the intercept on the tangent great circle at a point of the spherical curve, between the point and the foot of the arcual perpendicular from O; and if K be the geodesic curvature at the point and  $K'$  the curvature at the corresponding point of the plane, then  $K' = K \cos^2 t.$

**16428.** (Professor NEUBERG.)—Un angle droit tourne autour de son sommet A, ses côtés rencontrent une droite donnée  $d$  aux points B et C. Trouver le lieu des sommets et celui des foyers des paraboles qui passent par les points A, B, C et dont les diamètres sont perpendiculaires à  $d.$





**16429.** (C. E. YOUNGMAN, M.A.)—In a cardioide with cusp C and vertex V, chords PQ, QR, RP equidistant from the cusp are drawn; prove that C is the centre of PQR, and that the ex-centres trace a parabola; also that the circle PQR touches the double tangent of the cardioide and the circle on diameter CV, the chord of contact passing through C.

**16430.** (W. J. GREENSTREET, M.A.)—BP, BQ are perpendicular chords from B, where BB' is the minor axis of an ellipse. Show analytically that BP, B'Q intersect on a fixed line. If the tangent at P cut this line in Z, and the tangent at B in X, then shall BP bisect the angle ZBX.

**16431.** (W. F. BEARD, M.A.)—Two conics S, S' cut one another in A, B, C, D; the pole of AB with regard to S lies on S'. Prove that the pole of CD with regard to S also lies on S'.

**16432.** (JAMES BLAIKIE, M.A.)—Prove by sub-division and super-position of parts (the number of parts to be as small as possible) that two triangles with equal bases and equal altitudes are equal in area.

**16433.** (A. M. NESBITT, M.A.)—Find two points P, Q, on the sides of a triangle OAB, such that PQ is bisected by AB, and the triangle OPQ has a given area.

**16434.** (W. GALLATLY, M.A.)—If OI meet the sides of ABC in A', B', C', prove that the circles on AA', BB', CC' as diameters pass through the Feuerbach point of contact of the in- and nine-point circles.

**16435.** (Professor SANJANA, M.A.)—The Brocard points of a triangle are known, and the value of the Brocard angle (which is fixed) is known to be half of that of one angle of the triangle (say B). Prove that the angular points of the triangle move on fixed straight lines, and show how to construct it.

**16436.** (M. S. NARAYANA, M.A.)—In any triangle (1) from the formula  $b^2 \sin 2C + c^2 \sin 2B = 2bc \sin A$ , deduce that

$$\cos \frac{1}{2}B + \cos \frac{1}{2}C - \cos \frac{1}{2}A = 4 \cos \left[ \frac{1}{4}(\pi - A) \right] \sin \left[ \frac{1}{4}(\pi - B) \right] \sin \left[ \frac{1}{4}(\pi - C) \right];$$

$$(2) \text{ prove that } (b \cos^2 B + c \cos^2 C) \cot 2(B + C) = (b \cos^2 B - c \cos^2 C) \cot 2(B - C).$$

#### OLD QUESTIONS AS YET UNSOLVED (IN OUR COLUMNS).

**8677.** (Professor WOLSTENHOLME, M.A., Sc.D.)—Prove that the area between an infinite branch of the curve

$$(x^2 - y^2)(x^2 + y^2)^2 = 27a^2(4a^2 - x^2 + y^2)^2$$

and the two corresponding asymptotes is  $9a^2$ .

**8787.** (Professor SYLVESTER, F.R.S.)—Prove that the solution of the general algebraical equation of the 11th degree may be made to depend on another of that degree in which the 2nd, 3rd, 4th, and 5th coefficients are all zeros, and the remaining coefficients are expressible as explicit algebraical functions of the roots of an equation of the 6th degree.

**8958.** Show that the differential equation to a uniform flexible surface hanging under the action of gravity and bounding forces is

$$f(y)r + \phi(x)t = m(1 + p^2 + q^2)^{\frac{1}{2}},$$

where  $f(y)$  and  $\phi(x)$  are arbitrary functions to be determined by the boundary conditions.

**9012.** (R. TUCKER, M.A.)—Prove that the side of the inscribed equilateral triangle of a given triangle

$$= 4R \sin A \sin B \sin C / (\cos \frac{2}{3}(A - B) + \dots + \dots).$$

**9233.** (Professor K. S. PUTNAM.)—Find the average difference of all pairs of numbers of three digits selected arbitrarily by two persons.

**9785.** (W. J. C. SHARP, M.A.)—If  $m \nless m'$ , there are in general  $(m-1)^{2m} (n+1)$  points which have the same linear polar with respect to each of two loci of orders  $m$  and  $m'$  in space of  $n$  dimensions. Hence deduce the conditions that the loci may touch.

#### NOTICE TO CORRESPONDENTS.

It is requested that all Mathematical communications should be sent to the Mathematical Editor,

MISS CONSTANCE I. MARKS, B.A., 10 Matheson Road, West Kensington, W.

*Vol. XII. (New Series) of the "Mathematical Reprint" is now ready, and may be had of the Publisher, FRANCIS HODGSON, 89 Farringdon Street, E.O. Price to Subscribers, 5s.; to Non-Subscribers, 6s. 6d.*

# THE LAST WORD IN FRENCH BOOKS

**NOT OLD-FASHIONED.  
NOT NEW-FANGLED.**

"They combine all the advantages of the New Method, without sacrificing anything of the Old."



## Omega Press French Series.

### PRACTICAL FRENCH GRAMMAR.

By W. H. FRASER, B.A., and J. SQUIR, B.A., Professors of the Romance Department, Toronto University. With an Introduction by WILLIAM ROBERTSON, M.A., Examiner in Modern Languages for the University of Aberdeen (1901-4). Crown 8vo, 3s. 6d.

A very practical and thorough course, with composition and conversation exercises. Special help has been given in pronunciation, and the exercises deal with topics of everyday life, and make provision for regular oral as well as written practice.

Mr. Robertson, in his Introduction, says:—"I believe that a full and fair examination of this work will compel every competent judge to pronounce it the best of its kind."

This estimate has been fully justified by the success of the book in practice. Many of the leading Institutions of Great Britain and Ireland have adopted it. The following are a few of the many important schools which have introduced this book:—

Aberdeen Grammar School.  
Belfast, Royal Academical Institution.  
Belfast, Victoria College.  
Bradford Grammar School.  
Carnarvon County School.  
Derby, High School.  
Edinburgh, George Watson's College.  
Edinburgh, Royal High School.  
Edinburgh, The Ladies' College.  
Glasgow, The Academy.  
Greenwich, Roan School.  
High Wycombe, County High Schools.  
Horsham, Christ's Hospital.  
King's College (over 2,000 pupils).

Leeds, The Yorkshire College.  
Newcastle-on-Tyne, Allan's Endowed School.  
Oundle School.  
Oxford, Diploma Correspondence College (2,000 pupils).  
Oxford, Wolsey Hall.  
Pontefract, Ackworth School.  
Reading, High School.  
St. Olave's Grammar School, Southwark.  
Strand School, London.  
Swansea Grammar School.  
Warwick, King's High School.  
Wellingboro' Grammar School.  
Wolverhampton Grammar School.

In Canada the book is used in every Collegiate Institute where French is taught in the province of Ontario, and it is in use in practically all the High Schools from Ontario to the Pacific coast, besides in many schools throughout Nova Scotia, New Brunswick, &c., &c.

In the United States its success has been so general that a partial list of the Colleges and Schools using it occupies some seventeen pages of print, and this list includes:—

YALE UNIVERSITY,  
CORNELL UNIVERSITY,  
JOHNS HOPKINS UNIVERSITY,  
CHICAGO UNIVERSITY,  
LELAND UNIVERSITY, and  
49 Other Universities.

### PRACTICAL FRENCH COMPOSITION.

For Middle and Senior Classes. By J. E. MANSION, B. ès L., Royal Academical Institution, Belfast. Crown 8vo, 2s.

Compiled for use with Fraser and Squir's "Practical French Grammar," to which references are repeatedly made. Carefully graduated extracts arranged in four sections, from very easy French to the standard of University and Civil Service Examinations. Full Vocabulary.

### PRACTICAL FRENCH READER.

By J. F. DAVIS, D.Litt., M.A. (Lond.), Assistant Examiner in the University of London, and F. THOMAS, B.A., B.Sc., Assistant Examiner in the University of London. With full Vocabulary. Crown 8vo, 2s.

*Specimens post free for three-quarters published price.*

**SPECIAL TERMS TO SCHOOLS.**

# OMEGA PRESS, OXFORD.

# RECENT ADDITIONS TO NELSON'S LIST.

## PREPARATORY MATHEMATICS.

By A. CLEMENT JONES, M.A., Ph.D., and C. H. BLOMFIELD, M.A., B.Sc.,  
*Mathematical Masters in Bradford Grammar School.*

**With or without Answers. Price 1s. 6d.**

This book has been prepared for Junior Forms in Secondary Schools and Upper Standards in Primary Schools. It provides a complete course in Elementary Number Work preparatory to the study of more formal Mathematics. Each example appeals to youthful interest, and is of a practical and interesting character. There are numerous Oral Examples, and the volume not only treats of Elementary Arithmetic, but also provides an introduction to Algebra and Practical Geometry.

### Short Studies in English Literature.

An entirely New Series designed to meet the requirements of the Board of Education in English Literature for Secondary Schools.

**Each 100 pages. Cloth boards, 6d.**

**With Frontispiece, Short Appendix, and Foot-notes.**

#### LIST OF THE SERIES.

1. SELECTIONS FROM TENNYSON'S POEMS.
2. SELECT COMEDIES FROM LAMB'S TALES.
3. AN INTRODUCTION TO SHAKESPEARE'S COMEDIES.
4. THE GREAT STONE FACE AND OTHER STORIES  
(*Hawthorne*).
5. PEN PORTRAITS FROM CARLYLE.
6. SLEEPY HOLLOW AND OTHER TALES (*Irving*).
7. LONGFELLOW'S "EVANGELINE."
8. WORDSWORTH'S SHORTER POEMS.
9. PEN PICTURES FROM MACAULAY.
10. CARLYLE'S "HERO AS DIVINITY," and ARNOLD'S  
"BALDER DEAD."
11. SELECT TRAGEDIES FROM LAMB'S TALES.
12. AN INTRODUCTION TO SHAKESPEARE'S TRAGEDIES.

### A CYCLE OF SONG.

A New Series of School Poetry Books, containing selections from the Best Poets.

**Each 48 pages. Paper, 2d.; cloth, 3d.**

#### LIST OF THE SERIES.

- |                              |                                 |
|------------------------------|---------------------------------|
| 1. Songs of the Nursery.     | 13. Songs of the Border.        |
| 2. Songs of Childhood.       | 14. Songs of Dreamland—Part I.  |
| 3. Songs for Boys and Girls. | 15. Songs of Dreamland—Part II. |
| 4. Songs of Youth.           | 16. Songs of Endeavour.         |
| 5. Songs of Maidenhood.      | 17. Songs of Quiet.             |
| 6. Stories in Song—Part I.   | 18. Songs of the Streams.       |
| 7. Stories in Song—Part II.  | 19. Sacred Songs.               |
| 8. Songs of England.         | 20. Songs of the Seasons.       |
| 9. Songs of Scotland.        | 21. The Poet's Lyre.            |
| 10. Songs of Britain.        | 22. Songs of the Sea.           |
| 11. Songs of the Empire.     | 23. Songs of the Country.       |
| 12. Songs of the Nations.    | 24. Songs of the City.          |

A New Series of carefully graduated Reading Books designed to form a Ladder to Literature.

### The Royal Treasury of Story and Song.

The First Series of Literary School Books in which each reading is complete in itself, and of sufficient length to arouse and sustain juvenile interest. Each volume beautifully illustrated with numerous full-page Pictures in colour and black and white, as well as marginal Drawings of an interesting and charming character.

**The Royal Treasury will be published in Seven Parts, of which the following are now ready:—**

- Part I. **DOORS OF GOLD.** 128 pages. 10d.  
Select fairy tales, simply written, with familiar rhymes and verses. Illustrations on almost every page.
- Part II. **FAIRY FAVOURS.** 160 pages. 1s.  
Imaginative tales from good literary sources, select folk-tales of a romantic and humorous character, with a selection of some of the best fairy poetry in the language. Fully illustrated.
- Part III. **THE HALL OF HEROES.** 208 pages. 1s. 3d.  
Tales of early heroes of the chief European nations, including Jason, Theseus, Hercules, Beowulf, Siegfried, Arthur, Conall, and Roland; with narrative poetry, mostly of a simple ballad character. Fully illustrated.
- Part IV. **GOLDEN GIFTS.** 272 pages. 1s. 6d.  
Romantic tales and narrative poetry.

Parts V., VI., and VII. are in active preparation.

### CAMEOS OF LITERATURE.

A Series of Literary Studies for Middle Forms of Secondary Schools and Upper Standards of Primary Schools, prepared in accordance with the newest ideas on the teaching of English Literature.

**Fully Illustrated with Reproductions of Prints and Paintings.**

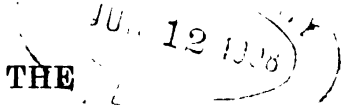
**Cloth boards, 1s. 6d. each.**

- Vol. I. **SOME ENGLISH ESSAYS.** 256 pages.  
Thirty-six selected papers drawn from the works of the best essayists from Bacon to Stevenson.
- Vol. II. **THE HARP OF YOUTH.** 288 pages.  
A book of poetry for school and home, arranged in chronological order from the seventeenth century to the present day.
- Vol. III. **THE GLEEMAN.** 288 pages.  
Fourteen story-poems of greater length than can be included in the ordinary school anthology.

**\*\* Other Volumes in active preparation.**

**THOMAS NELSON AND SONS,**

**35 & 36 Paternoster Row, London, E.C.; Edinburgh, Dublin, and New York.**



# THE EDUCATIONAL TIMES,

AND

## Journal of the College of Preceptors.

Vol. LXI.] New Series, No. 566.

JUNE 1, 1908.

Published Monthly, price, to Non-Members, 6d.; by Post, 7d. Annual Subscription, 7s.

### COLLEGE OF PRECEPTORS. (INCORPORATED BY ROYAL CHARTER.)

#### EXAMINATIONS.

**Diplomas.**—The next Examination of Teachers for the Diplomas of the College will commence on the 31st of August, 1908.

**Practical Examination for Certificates of Ability to Teach.**—The next Practical Examination will be held in October.

**Certificate Examinations.**—The Christmas Examination for Certificates will commence on the 8th of December, 1908.

**Lower Forms Examinations.**—The Christmas Examination will commence on the 8th of December, 1908.

**Professional Preliminary Examinations.**—These Examinations are held in March and September. The Autumn Examination in 1908 will commence on the 8th of September.

**Inspection and Examination of Schools.**—Inspectors and Examiners are appointed by the College for the Inspection and Examination of Public and Private Schools.

The Regulations for the above Examinations can be obtained on application to the Secretary.

C. R. HODGSON, B.A., Secretary.

Bloomsbury Square, W.C.

### UNIVERSITY OF ST. ANDREWS.

#### L.L.A. DIPLOMA FOR WOMEN.

The attention of Candidates is drawn to the Ordinary and Honours Diplomas for Teachers, which are strongly recommended as suitable for those who are or intend to be teachers.

Examinations are held at Aberdeen, Birmingham, Blackburn, Brighton, Bristol, Cardiff, Croydon, Devonport, Edinburgh, Glasgow, Hull, Inverness, Leeds, Liverpool, London, Manchester, Newcastle-on-Tyne, Norwich, Nottingham, Oxford, St. Andrews, Sheffield, Swansea, and several other towns.

Information regarding the Examinations may be obtained from the SECRETARY, L.L.A. Scheme, The University, St. Andrews.

### UNIVERSITY OF ST. ANDREWS.

#### UNIVERSITY HALL.

Warden:  
Miss FRANCES H. MELVILLE, M.A.

UNIVERSITY HALL, for Women students, was opened in 1896, under the government of the University of St. Andrews.

The usual Course of Study at University Hall is in preparation for the Degree Examinations of the University of St. Andrews, of which all the Classes and Degrees in Arts, Divinity, Science, and Medicine are open to women on the same terms as to men.

The Sessions of Residence are the two University Sessions, viz. the Winter Session, October to March; the Summer Session (Optional), April to June.

University Hall fees for residence—Winter Session, £30-£50; Summer Session, £15-£25.

Matriculation and Class Fees average £10 for the Winter Session.

Next Winter Session commences October 7. For further information, apply to the WARDEN, University Hall, St. Andrews, Fife.

### THE TEACHERS' GUILD OF GREAT BRITAIN AND IRELAND.

#### Modern Languages Holiday Courses, 1908.

At TOURS and NONFLEUR, FRENCH;  
at NEUWIED (on Rhine), GERMAN;  
and at SANTANDER, SPANISH.

Students assemble at TOURS and Nonfleur on August 1st, at Neuwied on July 31st, and at Santander on August 4th. The Courses last for three full weeks.

HANDBOOK (price 6d.), giving full details (Syllabuses of Lectures, Lists of Householders receiving Students, Excursions, and General Information), from the OFFICE OF THE GUILD, 74 Gower Street, London, W.C.

### LONDON INTER-COLLEGIATE SCHOLARSHIPS BOARD. MEDICAL ENTRANCE SCHOLARSHIPS AND EXHIBITIONS.

Twenty-three MEDICAL SCHOLARSHIPS and EXHIBITIONS, ranging in value from £20 to £180, and of an aggregate value of about £1,500 for men and women, tenable in the Faculties of Medical Sciences of UNIVERSITY COLLEGE and KING'S COLLEGE, and in the MEDICAL SCHOOLS of KING'S COLLEGE HOSPITAL, ST. GEORGE'S HOSPITAL, WESTMINSTER HOSPITAL, and the LONDON SCHOOL OF MEDICINE FOR WOMEN, will be offered for competition on Tuesday, September 22nd, and following days. Entries will close on Tuesday, September 15th.

Full particulars and forms of entry may be obtained on application to the SECRETARY OF THE BOARD (ALFRED E. G. ATTOB), University College, Gower Street, London, W.C.

### BIRKBECK COLLEGE, BREAMS BUILDINGS, CHANCERY LANE, E.C.

#### DAY AND EVENING CLASSES.

Courses of Study under Recognized Teachers of the University of London for Degrees in Science and in Arts.

**Science.**—Chemistry, Physics, Mathematics (Pure and Applied), Botany, Geology, Zoology.

**Arts.**—Classics, English, French, German, Italian History, Geography, Logic, Economics, Mathematics (Pure and Applied).

Particulars on application.

### Diploma Correspondence College, Ltd.

Principal—J. W. KNIFE, L.C.P., F.R.S.L.  
Vice-Principal—S. H. HOOKE, B.A., Hons. Lond.

#### Specially arranged Courses for LONDON MATRICULATION,

**B.A., B.D., B.Sc.,  
A.C.P., L.C.P., &c.**

#### FREE GUIDES

on application to the SECRETARY,  
**WOLSEY HALL, OXFORD.**

### LONDON COLLEGE OF MUSIC. (Incorporated.)

GREAT MARLBOROUGH STREET, LONDON, W.  
Patron: HIS GRACE THE DUKE OF LEEDS.  
Dr. F. J. KARN, Mus. Bac, Cantab., Principal.  
G. AUGUSTUS HOLMES, Esq., Director of Examinations.  
EXAMINATIONS, 1908.

The NEXT EXAMINATION in PIANOFORTE PLAYING, SINGING, THEORY, and all branches of Music will be held in London and 400 Provincial Centres in July (June for Scotland and Ireland), when Certificates will be granted to all successful candidates.

The Higher Examinations for the Diplomas of Associate (A.L.C.M.), Licentiate (L.L.C.M.), the Teachers' Diploma, L.C.M., and Fellowship (F.L.C.M.) take place in JUNE, JULY, and DECEMBER.

Gold and Silver Medals and Book Prizes are offered for competition according to the Regulations.

LOCAL SCHOOL CENTRES.—Full particulars with reference to the formation of these Centres will be forwarded to Principals of Schools upon application.

SYLLABUS for 1908, together with Annual Report, may be had of the SECRETARY.

In the Educational Department students are received and thoroughly trained under the best Professors at moderate fees. The College is open 10 a.m. to 9.30 p.m.

A COURSE of TRAINING in Pianoforte and Singing for Teachers is held at the College.

VACATION LESSONS for Teachers and others are given at Easter, August, and Christmas.

T. WEEKES HOLMES, Secretary.



### THE ASSOCIATED BOARD OF THE R.A.M. AND R.C.M.

FOR LOCAL EXAMINATIONS IN MUSIC.

PATRON: HIS MAJESTY THE KING.

PRESIDENT: H.R.H. THE PRINCE OF WALES, K.G.

LOCAL CENTRE EXAMINATIONS (Syllabus A). Examinations in Theory at all Centres in March and November; in Practical Subjects at all Centres in March-April, and in the London District and certain Provincial Centres in November-December also. Entries for the November-December Examinations close Wednesday, October 7th, 1908.

SCHOOL EXAMINATIONS (Syllabus B). Held three times a year, viz. October-November, March-April, and June-July. Entries for the October-November Examinations close Wednesday, October 7th, 1908.

Specimen Theory Papers set in past years (Local Centre or School) can be obtained on application. Price 3d. per set, per year, post free.

Syllabuses A and B, entry forms, and any further information will be sent post free on application to—

JAMES MUIR, Secretary.

15 Bedford Square, London, W.C.

Telegrams: "Associa, London."

## FREE GUIDE

TO

## LONDON UNIVERSITY MATRICULATION

Post free, from THE SECRETARY,  
Burlington House, Cambridge;

or from the London Office of University Correspondence College, 32 Red Lion Square, Holborn, W.C.

**UNIVERSITY COLLEGE OF NORTH WALES, BANGOR.**

(A Constituent College of the University of Wales.)  
Principal—**SIR H. R. REICHEL, M.A., LL.D.**

Next Session begins September 29th, 1908. The College Courses are arranged with reference to the Degrees of the University of Wales; they include most of the subjects for the B.Sc. Degree of the London University. Students may pursue their first year of Medical study at the College. There are special Departments for Agriculture (including Forestry) and Electrical Engineering, a Day Training Department for Men and Women, and a Department for the Training of Secondary and Kindergarten Teachers.

Sessional fee for ordinary Arts Course, £11. 1s.; for Intermediate Science or Medical Course, £15. 15s. The cost of living in lodgings in Bangor averages from £20 to £30 for the Session. There is a Hall of Residence for Women Students; fee, from Thirty Guineas for the Session.

At the Entrance Scholarship Examination (held in September) more than 20 Scholarships and Exhibitions, ranging in value from £40 to £10, will be open for competition.

For further information and copies of the various Prospectuses apply to

**JOHN EDWARD LLOYD, M.A.,**  
*Secretary and Registrar.*

**CHURCH EDUCATION CORPORATION.**

**CHERWELL HALL, OXFORD.**

Training College for Women Secondary Teachers.

Principal—**MISS CATHERINE I. DODD, M.A.** (Late Lecturer in Education in the Manchester University).

Students are prepared for the Oxford, the Cambridge, and the London Teacher's Diploma. Special arrangements made for Students to attend the School of Geography.

Exhibitions and Scholarships awarded in December and July.—Apply to the PRINCIPAL.

**DENMARK HILL GYMNASIUM AND PHYSICAL TRAINING COLLEGE FOR TEACHERS.**

Full preparation for Public Examinations. British College of Physical Education: English and Swedish systems.

Board of Education: Science, Swimming and Sports.

For particulars apply—**MISS E. SPELMAN STANGER,** Trevena, Sunray Avenue, Denmark Hill, London, S. E.

**French Holiday Course, LISIEUX, NORMANDY,**

DURING THE MONTHS OF JULY AND AUGUST.

Conversation, Phonetics, Literature, B.A. French. Apply—**MR. H. BULL,** Grammar School, Tamworth, Staffordshire.

**CANTERBURY COLLEGE, CHRIST-CHURCH, NEW ZEALAND.**

Applications are invited for the position of PROFESSOR OF MATHEMATICS at Canterbury College, Christchurch, New Zealand (an Institution affiliated to the University of New Zealand). Salary £600 without fees. Applications must be made on Forms to be obtained at the Office (13 Victoria Street, London, S.W.) of the HIGH COMMISSIONER FOR NEW ZEALAND, and delivered thereat not later than the 3rd of June next. Particulars of the duties and conditions attached to the appointment can be obtained at the office of the High Commissioner. April 28th, 1908.

**HERTFORDSHIRE COUNTY COUNCIL.**

**HERTFORD SCHOOL OF ART. ART MASTER.**

The Hertfordshire County Council invite applications for the appointment of ART MASTER from September, 1908, at the Hertford School of Art, at a salary of £175 per annum, the Master appointed being required to give his whole time to the duties.

Full particulars and application form may be obtained from the Education Department, Hertford, which form must be received not later than 13th June, 1908.

**C. E. LONGMORE,**  
May 26th, 1908. *Clerk of the County Council.*

Fourteenth Edition. 12mo, price 3s. 6d.

**XENOPHON'S ANABASIS, Books I. to III.** By A. K. ISBISTER, M.A., LL.B. With Notes, Vocabulary of all the Words in the Text, and a Series of Easy Reading Lessons for Beginners. Designed as a First Greek Reading Book in Schools. LONDON: LONGMANS & Co., PATERNOSTER ROW, E.C.

**BEDFORD COLLEGE FOR WOMEN**

(UNIVERSITY OF LONDON),  
YORK PLACE, BAKER STREET, W.

ENTRANCE SCHOLARSHIPS.

One Reid Scholarship in Arts, value £31. 10s. first year; £28. 7s. second and third years.

One Arnott Scholarship in Science, annual value £48, tenable for three years.

One Pfeiffer Scholarship in Science, annual value £48, tenable for three years, will be awarded on the results of the examination to be held in June.

Full particulars on application to the PRINCIPAL.

**DEPARTMENT FOR PROFESSIONAL TRAINING IN TEACHING.**

Two Scholarships each of the value of £15 for one year are offered for the course of secondary training beginning in October, 1908.

The Scholarships will be awarded to the best candidate holding a degree in Arts or Science.

Applications should reach the HEAD OF THE TRAINING DEPARTMENT not later than July 1st, 1908.

**THE CAMBRIDGE TRAINING COLLEGE FOR WOMEN TEACHERS.**

Principal—**MISS H. L. POWELL,** late Scholar of Newnham College (Hist. Tripos, Class I.), late Head Mistress of the Leeds Girls' High School.

A residential College providing a year's professional training for Secondary Teachers.

The course includes preparation for the Cambridge Teacher's Certificate (Theory and Practice), and for the Teachers' Diploma of the London University. Ample opportunity is given for practice in teaching science, languages, mathematics, and other subjects in various schools in Cambridge.

Students are admitted in January and in September. Full particulars as to qualifications for admission, scholarships, and bursaries may be obtained on application to the PRINCIPAL, Cambridge Training College, Wollaston Road, Cambridge.

**S.T. GEORGE'S TRAINING COLLEGE FOR WOMEN TEACHERS IN INTERMEDIATE AND SECONDARY SCHOOLS, EDINBURGH.**

This College provides a year's Professional Training for well educated women who intend to become Teachers.

The Course of Training is supervised by the Edinburgh Provincial Committee for the Training of Teachers and is recognized by the Scotch Education Department; it is also recognized by the English Board of Education, and by the Teachers' Training Syndicate of the University of Cambridge.

Bursaries of £30, £20, and £15 are offered to Students entering in October, 1908.

Prospectus and further particulars from the Principal, **MISS M. R. WALKER,** 5 Melville Street, Edinburgh.

**THE INCORPORATED FROEBEL EDUCATIONAL INSTITUTE, TALGARH ROAD, WEST KENSINGTON, LONDON, W.**

Recognized by the Board of Education as a Training College for Secondary Teachers.

*Chairman of the Committee*—**SIR W. MATHER.**  
*Treasurer*—**MR. C. G. MONTEFIORE, M.A.**  
*Secretary*—**MR. ARTHUR G. SYMONDS, M.A.**

**TRAINING COLLEGE FOR TEACHERS.**

Principal—**MISS E. LAWRENCE.**  
**KINDERGARTEN AND SCHOOL.**  
Head Mistress—**MISS A. YELLAND.**

Students are trained for the Examinations of the National Froebel Union and other Examinations.

TWO SCHOLARSHIPS of £20 each, and two of £15 each, tenable for two years at the Institute, are offered annually to Women Students who have passed certain recognized Examinations.

Prospectuses can be obtained from the PRINCIPAL.

**I REQUIRE for my daughter, aged 17, a BOARDING SCHOOL or INSTITUTE, in the South of England, which devotes itself specially to the study of the English language.**

Offers, if possible in French or German, to **W. NONNENMACHER,** Lausanne, Switzerland.

**SECONDHAND BOOKS AT HALF PRICES! NEW BOOKS AT 25% DISCOUNT!**

**BOOKS** for A.C.P., L.C.P., F.C.P., Matric, University, Certificate, Scholarship, L.I.A., B.A., and ALL other Examinations supplied. State wants: send for List. Books sent on approval. **BOOKS BOUGHT,** best prices given.—**W. & G. FOYLE,** 135 Charing Cross Road, W.C.

**JOINT AGENCY FOR WOMEN TEACHERS.**

(Under the management of a Committee appointed by the Teachers' Guild, College of Preceptors, Head Mistresses' Association, Association of Assistant Mistresses, and Welsh County Schools' Association.)

Address—**74 GOWER STREET, LONDON, W.C.**

Registrar—**MISS ALICE M. FOUNTAIN.**

This Agency has been established for the purpose of enabling Teachers to find work without unnecessary cost. All fees have therefore been calculated on the lowest basis to cover the working expenses.

Head Mistresses of Public and Private Schools, and Parents requiring Teachers, or Teachers seeking appointments, are invited to apply to this Agency.

Many Graduates and Trained Teachers for Schools and Private Families; Visiting Teachers for Music, Art, and other special subjects; Foreign Teachers of various nationalities; Kindergarten and other Teachers are on the Register, and every endeavour is made to supply suitable candidates for any vacancy.

School Partnerships and Transfers are arranged.

Hours for interviews (preferably by appointment):—  
11 a.m. to 1 p.m., and 3 to 5 p.m.

Saturdays, 11 a.m. to 1 p.m., and 2 to 3 p.m.

**THE JOINT SCHOLASTIC AGENCY.**

23 Southampton Street, Bloomsbury Square, W.C.

Managed by a Committee of Representatives of the following Bodies:—

**HEAD MASTERS' CONFERENCE.**

**INCORPORATED ASSOCIATION OF HEAD MASTERS.**

**COLLEGE OF PRECEPTORS. TEACHERS' GUILD.**

**INCORPORATED ASSOCIATION OF ASSISTANT MASTERS.**

**ASSOCIATION OF TECHNICAL INSTITUTIONS.**

**ASSOCIATION OF PREPARATORY SCHOOLS.**

**WELSH COUNTY SCHOOLS.**

Registrar: **MR. E. A. VIRGO.**

The object of this Agency is to render assistance at a minimum cost to Masters seeking appointments. The lowest possible fees are therefore charged.

A PROSPECTUS will be sent ON APPLICATION.

Interviews (preferably by appointment) 12 p.m.-1.30 p.m., and 3 p.m.-5.30 p.m. Saturdays, 12 p.m.-1 p.m.

**NEW ZEALAND.**—Applications are invited for the appointment of MISTRESS to teach FRENCH and GERMAN at the Girls' Grammar School at Auckland. Salary £175. Passage allowance £50. Applicants to be from 25 to 35 years of age. For further particulars and Application Forms apply to the HIGH COMMISSIONER FOR NEW ZEALAND, 13 Victoria Street, London, S.W.  
May, 1908.

New Edition. 18mo, price 9d.

**THE ELEMENTS OF BOOK-KEEPING,** by SINGLE and DOUBLE ENTRY, with Practical Explanations and Exercises on the most useful Forms for Business. By A. K. ISBISTER, M.A. LL.B., late Dean of the College of Preceptors.

LONDON: LONGMANS & Co., PATERNOSTER ROW, E.C.

DURING THE WHITSUN VACATION

USE **FLORIGENE** (Regd.)

SCIENTIFICALLY PREPARED ODOURLESS, OR POWERFUL GERMICIDAL DISINFECTANT,

FLOOR FLUIDS IN

Colleges, Laboratories, Schools, &c., for "WEIGHTING" & LAYING DUST & DIRT;

Purifying the Atmosphere; Preserving Floors; saving Time and Labour.

No Scrubbing or Sprinkling of Floors necessary; only Hard Broom, when the sweepings roll, and do not rise. Books, furniture, apparatus, &c. seldom require dusting or cleaning. Each application lays the dust for two to four months or longer. For particulars, bacteriological and other expert reports, and testimonials write—

The "**DUST-ALLAYER**" Co.,  
165 Queen Victoria Street, E.C.

Contractors to H.M. GOVERNMENT, &c.

**University Tutorial College.**  
LONDON.

(Affiliated to University Correspondence College.)



**REVISION & VACATION CLASSES**

ARE HELD FOR

**LONDON UNIVERSITY EXAMINATIONS.**

**Matriculation.**—Morning Classes are held continuously through the Summer for the September Examination. The Classes may be taken up at any time at proportionate fees.

At the last Examination (January, 1908), the official Pass List of the University credits University Tutorial College with nearly three times as many Successes as any other Institution.

**Inter. Science, Arts, and Prelim. Sci. (M.B.)**—Revision Classes commence Tuesday, June 16th, and meet daily. All the more salient points of the syllabus are taken up and special attention is paid to practical work.

Classes for beginners in Practical Science are held during August.

**B.Sc. and B.A.**—Revision Classes are held during August, commencing Tuesday, August 4th, 1908.

**Private Tuition** may be taken up for all examinations at any time of the year, either during term or the ordinary school vacations.

Particulars may be had, post free, from

THE PRINCIPAL,  
University Tutorial College,  
Red Lion Square, Holborn, W.C.

**CORRESPONDENCE TUITION,**

Classes or Private Lessons in all Subjects for all Examinations, &c., at moderate fees. Special tuition for **MEDICAL PRELIMS. and DIPLOMA EXAMS.** Many recent successes.—**F. J. BORLAND, B.A., L.C.P.** (Science and Math. Prizeman), Victoria Tutorial College, 87 Buckingham Palace Road, S.W.; and **Stalheim, Brunswick Road, Sutton, Surrey.**

Schools visited and Examinations conducted.

**WALTER J. DICKES, B.A. (Lond.)**

PRIVATE TUITION  
FOR EXAMINATIONS, &c.  
BEECHEN CLIFF, THE GARDENS,  
E. DULWICH, LONDON, S.E.

**THE HAMILTONIAN SYSTEM.**

A Short and Easy Method of Learning a Foreign Language by a Close Interlinear Translation.

“This System differs from the ordinary literal translations, in giving a truly literal translation placed word for word under the words of the original, which are only so far changed in order as seemed essential to the sense. The aim is to be strictly literal, and the student is at once saved all trouble about the meaning of each word.”  
—Mr. **RICHARD A. PROCTOR**, in *Knowledge*.

Limp cloth, price 1s.

**CÆSAR'S GALLIC WAR.** Book I. With Text as well as Interlinear Translation.

Books I. to VI. Price 4s. 6d.

**VIRGIL'S ÆNEID.** Books I. to IV. Price 3s. 6d.

**EUTROPIUS.** Limp cloth, price 1s. 6d.

**FLORIAN'S FABLES.** Limp cloth, price 1s.

**PERRIN'S FABLES.** Limp cloth, price 1s. 6d.

Each Book contains the Text as well as the analytical, interlinear, and literal Translation.

Full List of the Series on Application.

**FRANCIS HODGSON, 89 Farringdon St., E.C.**

**FREE.**

The Principals of the **Normal Correspondence College** have, through the courtesy of the College of Preceptors, issued the following

**FREE GUIDES.**

- |                  |            |
|------------------|------------|
| 1. <b>A.C.P.</b> | 100 pages. |
| 2. <b>L.C.P.</b> | 84 "       |
| 3. <b>F.C.P.</b> | 75 "       |

And have also published the following Guides.

- |   |            |
|---|------------|
| 4. <b>PREL. CERT.</b>                   | 120 pages. |
| 5. <b>CERTIFICATE.</b>                  | 92 "       |
| 6. <b>MATRICULATION.</b>                | 84 "       |
| 7. <b>IRISH UNIVERSITY.</b>             | 60 "       |
| 8. <b>OXFORD &amp; CAMBRIDGE LOCALS</b> | 100 "      |

These Guides are supplied gratis to all who mention this paper and state they intend sitting for examination.

“They are written by experts whose advice is the best procurable.”—*Educational News*.

“Will undoubtedly help greatly towards success.”—*Schoolmistress*.

**NORMAL CORR. COLLEGE,**

47 MELFORD ROAD, EAST DULWICH, S.E., and  
110 AVONDALE SQUARE, LONDON, S.E.

**CARLYON COLLEGE.**

55 AND 56 CHANCERY LANE.

**LONDON UNIVERSITY EXAMINATIONS.**

LONDON MATRICULATION, INTER. ARTS and SCIENCE, B.A., and B.Sc. Classes (small) Day and Evening, M.A. Classes, B.A. Honours Classes, Elementary Greek Class.

Classes and Tuition for **Legal and Medical Preliminaries, Accountants', Scholarship Examinations, Previous, Responses, and General.**

Papers Corrected for Schools. Vacation Tuition.

Private tuition for all Examinations.  
Prospectus and full details on application to **E. C. B. KERN, B.A. Lond.**, First of First Class Classical Honours, Editor of “*Phædo*,” “*Pro Plancio*,” &c.

**SUCCESSSES.**

1892-1907.—London *Matric.*, 149; *Inter. Arts. Sc.*, and *Prel. Sci.*, 140, 6 in *Hons.*; *B.Sc.*, 1896-1906, 25; *B.A.*, 1891-1906, 95, 14 in *Hons.*; *Medical Prelim.*, 249; *Responses* and *Previous*, 60; *Law Prelim.*, 62; other Successes, 400.

**B.A. (LOND.)**, 1906 and 1907, 18, 3 in *Classical Honours. M.A.*, 8.  
**INTER. ARTS**, 1907, 6 out of 8.

**BADGES, HAT BANDS, CAPS**

AT WHOLESALE PRICES.

Write—SCHOOLS AGENT, 1 Arundel Villas, Chelmsford Road, South Woodford, N.E.

A Complete French Class Book.

**HALL'S "FIRST FRENCH COURSE AND FRANCE AND THE FRENCH."** New and Revised Edition. 1s. 6d. Key, 1s. 8d. Contains Easy Lessons on Pronunciation, nearly 200 Progressive Exercises (English and French, alternately), Easy French Reading Lessons on France and the French, Elementary Grammar, Questionnaire, Simplified French Syntax, Vocabulary, Maps, &c.

London: SIMPKIN, MARSHALL, and all Booksellers.

Sixteenth Edition, with Map. 12mo.

**CÆSAR'S COMMENTARIES ON THE GALLIC WAR.** By A. K. ISESTER, M.A., LL.B., late Dean of the College of Preceptors.

BOOKS I.-V. With Notes Critical and Explanatory, a Vocabulary of all the words in the Text, and *Easy Reading Lessons for Beginners* ..... price 3s. 6d.  
BOOKS I.-VII. do. do. 4s. 6d.  
Do. (without the Reading Lessons) 4s. 0d.

Twenty-fifth Edition.  
BOOK I. (with Vocabulary, Reading Lessons, &c.) ..... 1s. 6d.  
LONDON: LONGMANS & CO., PATERNOSTER ROW, E.C.

Messrs.  
**TRUMAN & KNIGHTLEY,**  
LTD.,  
Educational Agents,

158 to 162 OXFORD STREET,  
LONDON, W.

Telegrams—“TUTORESS, LONDON.”  
Telephone—No. 1136 City.

*This Agency is under distinguished patronage, including that of the Principals of many of our leading Schools.*

**A.—EMPLOYMENT DEPARTMENT.**

(i) ASSISTANT MASTERS & TUTORS.

MESSRS. TRUMAN & KNIGHTLEY introduce University and other qualified ENGLISH and FOREIGN MASTERS and TUTORS to Schools and Private Families.

(ii) ASSISTANT MISTRESSES.

MESSRS. TRUMAN & KNIGHTLEY introduce University, Trained, and other qualified ENGLISH and FOREIGN LADY TEACHERS to Girls' and Boys' Schools.

(iii) LADY MATRONS AND HOUSE-KEEPERS.

MESSRS. TRUMAN & KNIGHTLEY introduce well qualified and experienced LADY MATRONS, HOUSEKEEPERS, and HOUSE MISTRESSES to Boys' and Girls' Schools.

No charge is made to Principals, and no charge of any kind is made to candidates unless an engagement be secured through this Agency, when the terms are most reasonable.

**B.—SCHOOL TRANSFER DEPARTMENT.**

A separate Department, under the direct management of one of the Principals, is devoted entirely to the negotiations connected with the Transfer of Schools and Introduction of Partners.

MESSRS. TRUMAN & KNIGHTLEY, being in close and constant communication with the Principals of nearly all the chief Girls' and Boys' Schools in the United Kingdom, to many of whom they have had the privilege of acting as Agents, and having on their books always a large number of thoroughly genuine Schools for Sale and Partnerships to negotiate, as well as the names and requirements of numerous would-be purchasers, can offer unusual facilities for satisfactorily negotiating the TRANSFER of SCHOOLS, and arranging PARTNERSHIPS.

No charge is made to Purchasers, and there is no charge to Vendors unless a Sale or Partnership be effected through this Agency.

All communications and enquiries are treated in the strictest confidence.

**C.—PUPILS' DEPARTMENT.**

MESSRS. TRUMAN & KNIGHTLEY have a carefully organized Department for the introduction of Pupils to Schools and other Educational Establishments. No charge is made for registration.

Any negotiations entrusted to MESSRS. TRUMAN & KNIGHTLEY receive prompt and careful attention, every effort being made to save clients as much time and trouble as possible.

Full particulars will be forwarded on application.

**NEW EDITION (1907).**

With 174 Illustrations. Crown 8vo, price 3s. 6d.

**A SCHOOL FLORA.***For the Use of Elementary Botanical Classes.*

BY

**W. MARSHALL WATTS, D.Sc. (Lond.), B.Sc. (Vict.),**  
Late Physical Science Master in the Giggleswick Grammar School.

LONGMANS, GREEN, &amp; Co., 39 Paternoster Row, London, E.C.

**IDOLA PULPITORUM:  
PITFALLS OF THE PRACTICAL TEACHER.***For this series of Articles, see "THE JOURNAL OF EDUCATION."***INTRODUCTORY ARTICLE**, by Professor ADAMS [November, 1906]; **CLASSICS**, by H. G. HART [December, 1906]; **ENGLISH**, by ARTHUR BURRELL [January, 1907]; **FRENCH**, by CLOUDESLEY BRERETON [February and March, 1907]; **SCIENCE**, by T. PERCY NUNN [April, 1907]; **NATURE STUDY**, by T. RAYMONT [May, 1907]; **HISTORY**, by S. S. F. FLETCHER [June, 1907]; **PHYSICAL TRAINING**, by Colonel MALCOLM FOX [July, 1907]; **DRAWING**, by W. E. SPARKES [August, 1907]; **DOMESTIC SCIENCE**, by ALICE RAVENHILL [October, 1907]; **GEOMETRY**, by H. WINIFRED STURGE [December, 1907]; **GEOGRAPHY**, by Dr. A. J. HERBERTSON [January, 1908].

Subscription is 7s. per annum; single numbers, 8d. post free.

Offices: 3 BROADWAY, LUDGATE HILL, E.C.

**LARGEST STOCK**  
of SECOND-HAND**School, Classical,  
Mathematical,  
Scientific Books**  
**in London.**ESTABLISHED  
1854.*Keys and Translations.***BOOKS  
BOUGHT.****J. POOLE & CO.,**

104 Charing Cross Rd.,

AND

2 Manette Street, Soho,

LONDON, W.C.

NEW AND SECOND HAND. WRITE TO US FOR A QUOTATION.

**SCHOOL PRIZES.**

BICKERS &amp; SON have the largest and most varied stock in London of BOOKS handsomely bound in Calf and Morocco, suitable for SCHOOL PRIZES.

They have had more than seventy years' experience, and have long had the reputation of being one of the best Bookbinding Firms in England.

They guarantee the binding to be better and cheaper than three-fourths of the usual School Prize Work. Inspection and comparison invited.

*Catalogues post free.***School Books and Stationery supplied  
at discount prices and by return.**

BICKERS &amp; SON, LIMITED, LEICESTER SQUARE, LONDON, W.C.

**EXAMINATION PAPER**

AS USED BY THE

**COLLEGE OF PRECEPTORS.**

In strict accordance with the College requirements, and each Sheet bears their Watermark.

Packed in Reams of 480 Sheets... .. per Ream, 2s.  
" " 960 " " " " 4s.

Bookkeeping Paper, ruled for Ledger, Cash Book, and Journal, 1s. per 100 Sheets.

Music Paper, 1s. per 100 Sheets.

*Remittance should accompany Order.***F. W. SHELBOURNE & CO., Wholesale and Retail Stationers,**  
63 HIGH HOLBORN, LONDON, W.C.

THE

**School World.****A MONTHLY MAGAZINE OF EDUCATIONAL  
WORK AND PROGRESS.**EACH NUMBER CONTAINS EIGHTY COLUMNS  
OF READING MATTER.

PRICE 6d. VOLUME IX., 1907, 7s. 6d. NET.

The aim of THE SCHOOL WORLD is to provide information of practical and permanent value to Schoolmasters and Schoolmistresses. To this end all important changes and developments affecting any branch of the work of teachers in secondary and other schools are dealt with by leading authorities and experienced teachers.

The Magazine has become indispensable to all who desire to keep in touch with modern and effectual methods of education.

MACMILLAN &amp; CO., Ltd., LONDON.

# MESSRS. BELL'S NEW BOOKS.

## MASON'S NEW ENGLISH GRAMMARS.

Revised in accordance with Modern Requirements by

A. J. ASHTON, M.A.,

Senior English Master, Kelvinside Academy, Glasgow; and Examiner in English to the College of Preceptors.

Now Ready. Crown 8vo. 125 pages. 1s.

## MASON'S JUNIOR ENGLISH GRAMMAR.

This new edition of MASON'S ENGLISH GRAMMARS has been augmented and revised so as to embody the results of the advances that have been made in the teaching of English Grammar since these grammars were last revised by Mr. Mason. The new edition will consist of three courses—Junior, Intermediate, and Senior—and will be printed in good bold type and strongly bound in cloth. The Intermediate and Senior volumes are in active preparation.

## BELL'S ENGLISH TEXTS FOR SECONDARY SCHOOLS.

General Editor: A. GUTHKELCH, M.A.

NEW VOLUMES.

**CHARLES READE: THE CLOISTER AND THE HEARTH.** Abridged and Edited by the Rev. A. E. HALL, B.A., Assistant Master, Bancroft's School. 1s.

**SCOTT: A LEGEND OF MONTROSE.** Abridged and Edited by F. C. LUCKHURST, Assistant Master, Sir Walter St. John's School, Battersea. 1s.

**ENGLISH ODES.** Selected and Edited by E. A. J. MARSH, M.A., Assistant Master, Hanley Secondary School. 1s.

Detailed Prospectus sent on application.

Third Edition, Revised and much Enlarged. Reset throughout. Crown 8vo. 666 pages. 6s.

## AN INTRODUCTION TO ENGLISH LITERATURE.

By HENRY S. PANCOAST.

For this new edition the first half of the book has been practically rewritten, and the chapters dealing with the Early and Middle English periods have been considerably enlarged. Greater space has also been given to the literature of the Queen Anne and Victorian periods, and separate lives of Bunyan, Dryden, Steele, Cowper, and others have been added.

Crown 8vo. With the original Maps. 2s.

## JOSEPH HALL MUNDUS ALTER ET IDEM.

(AN OLD WORLD AND A NEW.)

Edited for School use, with Introduction, Notes, and Vocabulary, by

H. J. ANDERSON, M.A.,

Inspector of Training Colleges in Cape Colony; late Classical Master at Hillhead Public School, Glasgow.

This abridged edition of Bishop Hall's famous satire is intended for use as a Latin Reader at the awkward period which immediately precedes the reading of difficult authors. The notes have been made as brief as possible, but there is a Vocabulary and an Index of Proper Names.

Just Published. Crown 8vo. 1s. 6d.

## ESSENTIALS OF FRENCH GRAMMAR.

AN EXERCISE BOOK FOR JUNIOR CLASSES.

By HECTOR WILSHIRE, M.A.

A THREE YEARS' COURSE IN PRACTICAL PHYSICS.

Now Ready. Crown 8vo. With numerous Diagrams. 1s. 6d.

## A THIRD YEAR'S COURSE IN PRACTICAL PHYSICS.

By JAMES SINCLAIR, M.A. Glas., B.Sc. Lond., Head Science Master in Shawlands Academy, Glasgow.

This volume continues the work of the "First Year's Course" and "Second Year's Course," already published, and deals with Light.

London: GEORGE BELL & SONS, York House, Portugal Street, W.C.

# GEORGE GILL & SONS, LTD.,

A Selection of Works included in

## The Oxford and Cambridge Edition

required for the

# 1909

## OXFORD AND CAMBRIDGE LOCAL EXAMINATIONS.

### Religious Knowledge.

<b>OXFORD AND CAMBRIDGE EDITION ST. MATTHEW.</b> Edited by Rev. F. MARSHALL, M.A. ...	1 6	} Oxford and Cambridge Locals, 1909.
<b>OXON. AND CANTAB. EDITION ST. MATTHEW.</b> Edited by Rev. F. MARSHALL, M.A. (Preliminary Candidates) ...	net 1 0	
<b>OXFORD AND CAMBRIDGE EDITION ACTS I.</b> Edited by Rev. F. MARSHALL, M.A. ...	1 6	} Oxford and Cambridge Locals, 1909.
<b>OXON. AND CANTAB. EDITION ACTS I.</b> Edited by Rev. F. MARSHALL, M.A. (Preliminary Candidates) ...	net 1 6	
<b>OXFORD AND CAMBRIDGE EDITION KINGS I.</b> Edited by Rev. F. MARSHALL, M.A. ...	1 6	} Cambridge Local, 1909.
<b>OXFORD AND CAMBRIDGE EDITION EZRA.</b> Edited by Rev. F. MARSHALL, M.A. ...	1 0	
<b>OXFORD AND CAMBRIDGE EDITION NEHEMIAH.</b> Edited by Rev. F. MARSHALL, M.A. ...	1 0	} Cambridge Local, 1909.
<b>OXFORD AND CAMBRIDGE EDITION CHURCH CATECHISM.</b> Edited by Rev. F. MARSHALL, M.A. ...	1 6	
<b>OXFORD AND CAMBRIDGE CHURCH CATECHISM.</b> (Explained for Preliminary Candidates.) Edited by Rev. F. MARSHALL, M.A. ...	0 6	} Oxford and Cambridge Locals, 1909.
<b>OXFORD AND CAMBRIDGE EDITION PRAYER BOOK.</b> Edited by Rev. F. MARSHALL, M.A. ...	1 0	

### English.

<b>OXFORD AND CAMBRIDGE EDITION TEMPEST.</b> Edited by STANLEY WOOD, M.A., and A. SYMS-WOOD, B.A. ...	1 6	} Oxford Local, 1909.
<b>OXFORD AND CAMBRIDGE EDITION HENRY V.</b> Edited by STANLEY WOOD, M.A. ...	1 6	
<b>OXFORD AND CAMBRIDGE EDITION MACBETH.</b> Edited by STANLEY WOOD, M.A. ...	1 6	} Cambridge Local, 1909.
<b>OXFORD AND CAMBRIDGE EDITION JULIUS CAESAR.</b> Edited by STANLEY WOOD, M.A., and A. SYMS-WOOD, B.A. ...	1 6	
<b>OXFORD AND CAMBRIDGE EDITION RICHARD II.</b> Edited by STANLEY WOOD, M.A., and Rev. F. MARSHALL, M.A. ...	1 6	} Cambridge Local, 1909.
<b>OXFORD AND CAMBRIDGE EDITION LAMBS' TALES FROM SHAKESPEARE.</b> (Selection Set for 1909 Exam.) ... (Shortly) ...	1 4	
<b>OXFORD AND CAMBRIDGE EDITION LAYS OF ANCIENT ROME.</b> Edited by G. PRESTON, M.A. ...	1 0	} Oxford Locals, 1909.
<b>OXFORD AND CAMBRIDGE EDITION LAY OF THE LAST MINSTREL.</b> Edited by Rev. F. MARSHALL, M.A. ...	2 0	

In the above works the necessary "Notes" have been added to enable Candidates to answer questions set by the Examiners.

All Volumes in the Oxford and Cambridge Edition are Crown 8vo, Cloth, Gold.

GUIDES to the 1909 "Local" Examinations, in the press, will be forwarded post free on application.

London: GEORGE GILL & SONS, Ltd., 13 Warwick Lane, E.C.

# Messrs. LONGMANS & CO.'S LIST.

## LONGMANS' GEOGRAPHICAL SERIES.

- Book I.—**The First Book of Geography.** With 17 Illustrations and 52 Maps (38 of which are coloured). Crown 8vo, 1s. 6d.
- Book II.—**The World.** For Junior Students. With 35 Illustrations and 87 Maps (79 of which are coloured). Crown 8vo, 3s.
- Book III.—**The World.** For Senior Students. With 42 Illustrations and 121 Maps (112 of which are coloured). Crown 8vo, 4s. 6d.
- Book IV.—**The British Empire.** With 38 Illustrations and 78 Maps (71 of which are coloured). Crown 8vo, 3s. 6d.
- Book V.—**A Primary Physical Geography.** By JOHN THORNTON, M.A. With 135 Illustrations and 14 Maps (1 of which is coloured). Crown 8vo, 2s.

By **CYRIL RANSOME, M.A.**

## A SHORT HISTORY OF ENGLAND.

FROM THE EARLIEST TIMES TO THE DEATH OF QUEEN VICTORIA.

With Tables, Plans, Maps, Index, &c. Crown 8vo, 3s. 6d.

Or in Two Parts, 2s. each. Part I.: to 1603; Part II.: 1603 to 1901.

**A SUMMARY OF RANSOME'S SHORT HISTORY OF ENGLAND.** With 22 Maps and Plans and 34 Genealogical Tables. 1s.

By **SAMUEL RAWSON GARDINER, D.C.L., LL.D.**

## A STUDENT'S HISTORY OF ENGLAND.

FROM THE EARLIEST TIMES TO 1901.

Volume I: B.C. 55—A.D. 1509. With 173 Illustrations. Crown 8vo, 4s.

Vol. II.: 1509—1689. With 96 Illustrations. Crown 8vo, 4s. Vol. III.: 1689—1901. With 109 Illustrations. Crown 8vo, 4s.

COMPLETE IN ONE VOLUME. With 378 Illustrations. Crown 8vo, 12s.

**PREPARATORY QUESTIONS ON THE ABOVE.** By R. SOMERVELL, M.A., Assistant Master at Harrow School. Crown 8vo, 1s.

## A SCHOOL ATLAS OF ENGLISH HISTORY.

With 66 Maps and 22 Plans of Battles, &c. Foolscap 4to, 5s.

## OUTLINE OF ENGLISH HISTORY.

B.C. 55—A.D. 1901. With 96 Woodcuts and Maps. Foolscap 8vo, 2s. 6d.

By **C. W. C. OMAN, M.A., F.S.A.**

EIGHTH EDITION, REVISED, AND WITH ADDITIONAL ILLUSTRATIONS.

## A HISTORY OF GREECE.

FROM THE EARLIEST TIMES TO THE DEATH OF ALEXANDER THE GREAT.

With 13 Maps and Plans and 84 Illustrations. Crown 8vo, 4s. 6d.

Works by **JAMES SULLY, M.A., LL.D.**

*Emeritus Professor of Philosophy of Mind and Logic at University College, London.*

FOURTH EDITION, REWRITTEN AND ENLARGED.

Crown 8vo, 6s. 6d.

**The Teacher's Handbook of Psychology.**

NEW EDITION, REVISED AND LARGELY REWRITTEN.

Crown 8vo, 9s.

**Outlines of Psychology.**

NEW EDITION. 8vo, 12s. 6d. net.

**Studies of Childhood.**

With 52 Reproductions of Drawings by Young Children.

Crown 8vo, 4s. 6d.

**Children's Ways.**

Being Selections from the Author's "Studies of Childhood," with some Additional Matter. With 25 Figures in the Text.



# Messrs. LONGMANS & CO.'S LIST.

By **BENJAMIN HALL KENNEDY, D.D.,**

*Late Regius Professor of Greek in the University of Cambridge.*

## THE REVISED LATIN PRIMER.

Crown 8vo,  
2s. 6d.

## A SHORTER LATIN PRIMER.

Crown 8vo,  
1s.

## EXERCISES ON THE SHORTER LATIN PRIMER.

By M. G. and J. KENNEDY, and H. WILKINSON, M.A. Crown 8vo, 1s. 6d.

*A KEY, for the use of Masters only. 2s. 9d. net, post free.*

By **H. R. HEATLEY, M.A.,** and **H. N. KINGDON, M.A.**

**GRADATIM.** An Easy Latin Translation Book for Beginners. With Vocabulary. Fcap. 8vo, 1s. 6d.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

**EXERCISES ON GRADATIM.** By H. R. HEATLEY, M.A., and the Rev. A. SLOMAN, M.A. Fcap. 8vo, 1s. 6d.

**EXCERPTA FACILIA.** A Second Latin Translation Book. Containing a Collection of Stories from various Latin Authors. With Notes at end, and a Vocabulary. Crown 8vo, 2s. 6d.

*A KEY, for the use of Masters only. 5s. 3d. net, post free.*

By **H. G. LIDDELL, D.D.,** and **ROBERT SCOTT, D.D.**

**GREEK-ENGLISH LEXICON.** 4to, 36s.

**GREEK-ENGLISH LEXICON.** Abridged from the above. Revised throughout. Square 12mo, 7s. 6d.

By **FRANCIS DAVID MORICE, M.A.**

**STORIES IN ATTIC GREEK.** With Notes and Vocabulary. Crown 8vo, 3s. 6d.

By **ARTHUR SIDGWICK, M.A.**

**A FIRST GREEK WRITER.** Crown 8vo, 3s. 6d.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

**INTRODUCTION TO GREEK PROSE**

**COMPOSITION.** With Exercises. Crown 8vo, 5s.

*A KEY, for the use of Masters only. 5s. 3d. net, post free.*

**AN INTRODUCTION TO GREEK VERSE COMPOSITION.** By ARTHUR SIDGWICK, M.A., and F. D. MORICE, M.A. With Exercises. Crown 8vo, 5s.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

**SCENES FROM GREEK PLAYS.** Rugby Edition. Abridged and Adapted for the use of Schools. Fcap. 8vo, 1s. 6d. each.

**ARISTOPHANES.—THE CLOUDS. THE FROGS. THE KNIGHTS. PLUTUS.**

**EURIPIDES.—IPHIGENIA IN TAURIS. THE CYCLOPS. ION. ELECTRA. ALCESTIS. BACCHAE. HECUBA. MEDEA.**

By **LÉON CONTANSEAU, M.A.**

**A PRACTICAL DICTIONARY OF THE FRENCH AND ENGLISH LANGUAGES.**

Price  
3s. 6d.

**A POCKET DICTIONARY OF THE FRENCH AND ENGLISH LANGUAGES.**

Price  
1s. 6d.

\*\* *Special Edition for Travellers and Pocket Use, bound in leather tuck, price 3s. 6d. net.*

**FIRST STEP IN FRENCH.** An Easy Method of Learning the Elements of the Language: 1. Vocabulary of Words for Exercise in Pronunciation; 2. Rules of Grammar; 3. Exercises in French and English, with Conversations; 4. Entertaining Pieces for Reading and Translation. 12mo, 2s. 6d.

**MODERN FRENCH GRAMMAR.** Comprising Vocabulary, Conversational Lessons, and copious Exercises composed from the best French Authors of the Present Day. 12mo, 4s.

**ELEMENTARY FRENCH COURSE.**

**ACCIDENCE,** 8d.

**SYNTAX,** 8d.

**CONVERSATION BOOK,** 8d.

**FIRST EXERCISE BOOK,** 8d.

**SECOND EXERCISE BOOK,** 8d.

**TRANSLATION BOOK,** 8d.

**EASY FRENCH DELECTUS,** 8d.

**FIRST FRENCH READER,** 8d.

**SECOND FRENCH READER,** 8d.

**FRENCH AND ENGLISH DIALOGUES,** 8d.

By **A. A. SOMERVILLE, M.A.**

## A FIRST FRENCH WRITER.

For the use of Lower and Middle Forms of Schools. Crown 8vo, 3s. 6d.

# Cambridge University Press

**Sophocles. Trachiniae,** with a Commentary, abridged from the larger edition of Sir RICHARD C. JEBB, Litt.D., by GILBERT A. DAVIES, M.A., Professor of Greek in the University of Glasgow.

Crown 8vo,  
4s.

Uniform with the abridged editions of the plays of Sophocles already published by the Cambridge University Press: "Oedipus Tyrannus," edited by Sir R. C. JEBB; "Ajax," edited by A. C. PEARSON, M.A.; "Antigone," "Philoctetes," and "Oedipus Coloneus," edited by E. S. SHUCKBURGH, Litt.D.

**Chaucer. The Prologue and The Knight's Tale.** Edited, with Introduction, Notes, and Vocabulary, by M. BENTINCK SMITH, M.A.

Fcap. 8vo,  
2s. 6d.

Portions of the introduction have been written with a view to the teacher rather than the pupil, the editor's aim being to give in a concise form the materials which the teacher requires to have at his disposal if the taught are to obtain an adequate conception of Chaucer's importance in the history of English literature and language. A short bibliography containing a list of authorities has been appended.

**The New Testament in Greek,** according to the text followed in the Authorised Version, together with the Variations adopted in the Revised Version. Edited by F. H. A. SCRIVENER, M.A., D.C.L., LL.D.

Revised  
Net Prices.

The special design of this edition is to place clearly before the reader the variations from the Greek text represented by the Authorised Version of the New Testament which have been embodied in the Revised Version, the readings adopted by the revisers being printed at the foot of the page. The publication of such an edition appeared to be all the more desirable, inasmuch as the Authorised Version was not a translation of any one Greek text then in existence, and no Greek text intended to reproduce in any way the original of the Authorised Version had ever been printed.

This edition of the New Testament in Greek is now issued in two sizes, at the following prices:—

- Foolscap 8vo, cloth, 3s. net (originally published at 4s. 6d.).
- Foolscap 8vo, printed on India paper, cloth, 4s. 6d. net.
- Crown 8vo, cloth, 3s. 6d. net (originally published at 6s.).
- Crown 8vo, printed on India paper, cloth, 5s. net.

## Books suitable for the CAMBRIDGE LOCAL EXAMINATIONS, JULY AND DECEMBER, 1909

### THE PITT PRESS SHAKESPEARE FOR SCHOOLS

With Introduction, Notes, and Glossary by A. W. VERITY, M.A.

**Julius Caesar.** Tenth Edition. 1s. 6d. [*Juniors & Seniors.*]

"Another of Mr. Verity's admirable school editions of Shakespeare's plays."  
—*Guardian.*

**King Richard II.** Sixth Edition. 1s. 6d. [*Seniors.*]

"Every page shows careful scholarship and a ripe literary judgment; it would be difficult to praise this work (or this series) too highly."  
—*School World.*

**Lamb's Tales from Shakespeare.** A Second Selection (A Midsummer Night's Dream, The Winter's Tale, Much Ado About Nothing, Macbeth, The Comedy of Errors, Othello). Edited, with Introduction, Glossary, and an Appendix of Extracts from Shakespeare, by J. H. FLATHER, M.A. 1s. 6d. [*Preliminary.*]

**Ballads and Poems Illustrating English History.** Edited by FRANK SIDGWICK. 1s. 6d. [*Juniors.*]

"The ancient saying that the songs of a nation are more important than its laws seems to have inspired the compilation of 'Ballads and Poems.'... Fortunate will be those young pupils whose lessons in history are imprinted on the memory by learning these poems. The selection has been carefully made."  
—*Tribune.*

**Scott. A Legend of Montrose.** Edited by H. F. MORLAND SIMPSON, M.A., Rector of Aberdeen Grammar School. 2s. 6d. [*Juniors.*]

**Bacon's Essays.** Edited by ALFRED S. WEST, M.A. 3s. 6d. [*Seniors.*]

### THE CAMBRIDGE SCHOOL HISTORY OF ENGLAND

**History of England for Use in Schools.**

By ARTHUR D. INNES, M.A. Complete in One Volume, or in Three Parts. Part I., To 1509 A.D. Part II., 1509-1714 A.D. Part III., 1689-1901 A.D. A separate Part is also issued containing the Period "From the Wars of the Roses to the Death of Elizabeth" (1399-1603).

Crown 8vo,  
with 13 Maps  
and 8 Plans,  
4s. 6d.  
Parts, 2s. each.

"Though written primarily as a school history, this volume of some 600 pages may well be recommended to the average reader as a standard book of reference for facts and dates in English history. Proportion, thoroughness, and accuracy of detail are its outstanding features, while for the student the demands of the examiner have been kept steadily in view."  
—*Glasgow Herald.*

### THE PITT PRESS SERIES, &c.

AUTHOR.	WORK.	EDITOR.	PRICE. s. d.
Malet	Remi et ses Amis (With Vocabulary.)	M. de G. Verrall	2 0
Molière	Le Bourgeois Gentilhomme	A. C. Clapin	1 6
Brokmans-Chatrion	Madame Thérèse	A. R. Ropes	3 0
Andersen	Eight Stories from (With Vocabulary.)	W. Rippmann	2 6
Goethe	Boyhood	W. Wagner and J. W. Cartmell	2 0
Caesar	De Bello Gallico, Books IV. and V. " " " Books IV. and V. (With Complete Vocabularies) ...	A. G. Peckett	1 6
Cicero	Pro Milone	E. S. Shuckburgh	ca. 1 6
Livius	Book XXII.	J. S. Reid	2 6
Plautus	Trinummus	M. S. Dimsdale	2 6
Vergil	Aeneid, Book XI. Also an Edition with Complete Vocabulary.	J. H. Gray	3 6
Herodotus	Book VI.	A. Sidgwick	1 6
Homer	Iliad, IX. and X.	E. S. Shuckburgh	4 0
Plato	Crito	J. C. Lawson	2 6
"	Euthyphro	J. Adam	2 6
Sophocles	Antigone	Sir R. C. Jebb and E. S. Shuckburgh	4 0
Xenophon	Anabasis, Book II. " " " Book II. (With Complete Vocabulary) ...	A. Pretor	2 6
"	"	G. M. Edwards	1 6

### THE CAMBRIDGE BIBLE FOR SCHOOLS AND COLLEGES

BOOK.	EDITOR.	PRICE. s. d.
*First Book of Kings	J. R. Lumby	2 0 net
" " " (Revised Version)	W. E. Barnes	2 0 net
*Gospel according to St. Matthew	A. Carr	2 0 net
*Acts of the Apostles	J. R. Lumby	3 0 net
Epistles to the Thessalonians	G. G. Findlay	1 6 net

\* Abridged Editions, 1s. each.

## CONTENTS.

	Page		Page
Leader: Attempts at Educational Advance.....	241	Current Events .....	253
Notes .....	242	Fixtures—Honours—Endowments and Benefactions—Scholarships and Prizes—Appointments and Vacancies—Literary Items—General.	
Irish University Legislation—Institutions for Colonial Studies— Unselfishness of American Teachers—The Sunday School and the Day School in America—American Teachers of English for German Schools—An Appreciation of the late Otto Salomon.		School Life and Healthy Growth: Lecture at the College of Preceptors by Dr. Hubert E. J. Biss .....	256
Summary of the Month.....	244	The School System of Mannheim. By A. J. Pressland, M.A., The Academy, Edinburgh .....	260
Universities and Colleges.....	246	The Federal Council .....	261
Oxford—Cambridge—London—Birmingham—Wales—New Irish University.		Reviews .....	262
The Educational Ladder .....	248	The Cambridge History of English Literature: Vol. II., The End of the Middle Ages—Elementary Trigonometry (Hawkins)—The International Geography (Mill).	
The College of Preceptors: Meeting of Council .....	248	General Notices .....	263
Conférences Françaises: Sully Prudhomme et "Le Bonheur"— Address by M. le Pasteur Ramette.....	249	First Glances .....	266
		Mathematics .....	267

## The Educational Times.

### Attempts at Advance.

THE anomalies, apparent or real, in our educational proposals must be somewhat perplexing to the inquiring stranger, for they occasion uneasy remark even within our own gates. The homogeneity of the United Kingdom is seen to be still considerably defective. The English Education Bill turns mainly upon ecclesiastical, not to say sectarian, differences: the education of the child, at least in reference to the things of this world, is practically forgotten in the remote background, while the live contention is for the upper hand in his scholastic nurture in religion, as to the essential elements of which it seems impossible for the combatants to agree. "It is interesting," says a contemporary, "to notice how much larger a part educational matters pure and simple take in the Scottish Bill compared with Education Bills affecting England." Interesting? Very much so, and instructive as well. The Scottish people have settled definitively the so-called religious question, and there is no room for any clause on the subject in a Bill dealing with Scottish education; nor do the people or the children seem to be a whit the worse. Again, in the debate on the Irish University Bill, it was cleverly pointed out that, while the Government were labouring to exclude denominationalism from English schools, they were labouring to establish Universities in Ireland practically on a denominational basis. The answer is sufficiently obvious; but the cause of the apparent anomaly lies again in the stress placed upon the religious element in education.

The largest concern centres in the English Bill, were it only for the wider applications involved in it. A month ago there seemed to be a wave of feeling in favour of conciliation and settlement, but since then the appearances have wavered uncertainly. The Archbishop of Canterbury needs all his authority and persuasiveness to keep his natural followers together on the lines he advises: both in the Convocation of Canterbury and in the Representative Church Council the omens have not been encouraging. The real difficulty is to get men—perfectly honest and well disposed men—to take their eyes off one or other particular aspect of the question,

and to look steadily at it on all sides. Especially important is it to regard the negative aspect of the whole matter, and to face the alternative that threatens in the event of the failure of the Bill—an alternative that would disappoint the wishes and the hopes of the people far more than the acceptance of the most objectionable elements of the Bill, and that would be still more distressing to Churchmen themselves, and distressing in proportion to the sincerity of their convictions. It is also well to remember, what is always apt to be overlooked in the heat of conflict, that the results of a practical course taken deliberately by a large section of the people are likely to be surprisingly less disastrous than the imagination of opponents naturally pictures them in anticipation. The Act of 1902 looks remarkably innocent to-day, in comparison with the fervid anticipations of opponents at the time it was under discussion. The objectors to the policy of bringing the tram lines over Westminster Bridge can hardly but be amazed at the results: the man that would propose to tear up the rails would be regarded as a fanatic. We do not for a moment lose sight of the importance of the interests that the opponents of the Bill seek to conserve: we simply desire to have the other aspects of the measure taken into fair account, and some reasonable compromise effected, so as to relieve education, at once and permanently, from the disturbing influences of an embittered contest. Although Mr. Balfour showed a stiff front on the second reading, and no doubt means—as he is fully entitled, and indeed bound—to stand out for the best terms, we cannot believe that he is capable of treating the question as a mere political pawn, and "desires that the religious difficulty should be unsolved at the next general election." At all events, the olive branch was held out very frankly by the Prime Minister, and it seems the part of wisdom to grasp it promptly and firmly.

In Scotland the trouble is that educational legislation lags far behind the public sentiment. Four or five Bills in succession have come to nothing, and even the present Bill is considered to be inadequate to the requirements of the time. It does not extend the administrative areas—a reform that is widely regarded as urgent, both in the public interest and specially for the better protection of teachers. A reduction of the number of School Boards would be a reduction of official expenditure. The narrow area secures opportunity for concentration of local interest, but it also gives scope

for local worry of the teacher on grounds that are professedly educational, though possibly irrelevant to education. This is an unfortunate risk of the system, and recently there have been several ugly cases. We are not in a position to dogmatize; but it may, we suspect, be doubted whether, as a rule, the teacher that gets into trouble with his parish Board would escape trouble with a two-parish Board. However, the Bill takes a first step to make continuation classes compulsory up to the age of seventeen. School Boards are required to provide continuation classes and are empowered to make, vary, and revoke by-laws regulating attendance at such classes. Moreover, in granting exemption certificates, they may impose as a condition of exemption such attendance as they think fit between the ages of fourteen and seventeen, either at a day school or at a continuation class or at both. Nay, it is to be a punishable offence to employ a boy or a girl at any time when his or her attendance is required by by-law at a continuation class, and the parents are subjected to fine if they fail to assist the local School Board in such a case of conflicting requirements. The operation of these clauses of the Bill will be watched with special interest by the promoters of the system of continuation classes in English schools. The Bill further proposes to invest School Boards with additional general powers to supply meals to hungry children (with provisos for defraying expenses), to arrange for the conveyance of children to school from outlying districts, and to collect and distribute information as to employments open to children on leaving school. It also tightens the grip on parents that may neglect to see that their children are obtaining efficient education between the ages of five and fourteen. If not quite so comprehensive and thorough-going as the country is prepared for, the Bill yet attempts an advance on several important lines, and there will be deep dissatisfaction if it shares the fate of its last half-dozen predecessors.

### NOTES.

"THE main thing for Ireland, now that the Universities in Dublin and Belfast look as if they are to become accomplished facts, is," says the *Leinster Leader*, "to see that these institutions are as efficient and as thoroughly tuned to the natural wants of the country as it is possible for them to be. . . . They must touch the nation at every vital point, energizing and developing it along its own natural and rational lines." But these Universities are not yet accomplished facts, and it is rather early to be very confident about the probabilities of the future. Dr. O'Dwyer has sounded a strongly dissonant note in the *Irish Educational Review*; the right of Mr. Dillon to speak for the Catholics is contested; and Rome has not yet spoken. In any case it is plain that modifications of considerable importance will be claimed by the Catholic spokesmen. Even Protestants protest against patent inequalities. Thus, Judge Shaw remonstrates with his friends of the National Assembly:

Let them try to conciliate Roman Catholic opinion, to allay the suspicions and soothe the susceptibilities of their Roman Catholic neigh-

bours, by seeking for a fair representation of the Roman Catholics of Ulster on the Senate of the new University. Is there only one Roman Catholic gentleman in the whole province who is fit to be on the Senate? Why should there be seven Protestants on the Senate of the new University at Dublin and only one Roman Catholic on the Senate at Belfast? Why should we allow ourselves to be outdone in generosity and liberality by our Roman Catholic countrymen? Why should we lay ourselves open to the reproach that we are always non-sectarian for others, and always sectarian for ourselves?

"Let the Assembly's Commission," he adds, "use all its Assembly powers to widen the basis of the government of the new University and to make it a home of learning for the whole province, and not merely for a sect, and then they will give assurance to the world that they are non-sectarian in deed and in truth."

THERE need be no hesitation in agreeing with the *Morning Post* that it is "at least deserving of consideration whether this country ought not to follow the example set by France and Germany in establishing separate institutions for the pursuit of colonial studies." The Colonial School at Paris dates from 1889—nearly twenty years ago—and we dare say has done useful work in its time, though we have had no opportunity of studying the results. Germany is only planning a start. Herr Dernburg, the German Colonial Minister, has got the Hamburg Senate to agree to establish a Colonial Institute, which will receive a certain number of students every year from the German Colonial Office, and will associate with these "the prospective merchant and settler." And "in this way it is hoped to create sympathetic relations that will in time break down the bureaucratic barriers which separate the official classes in the German colonies from the rest of the community, white as well as black, and which offer such a serious obstacle to progress." The task is as formidable as it is wise. We wish it every success. The British Empire is another affair. There is certainly "no reason why a knowledge of colonial history and colonial conditions should be supposed to be unnecessary in the case of those who take up British colonial appointments." We should imagine, however, that any man taking up such an appointment would be able to make himself tolerably familiar with all the essentials of the history and conditions of the colony he is going to during the course of his voyage out. Once there, he comes within the official tradition, to which he must conform, whatever his previous book studies have taught him. A good deal may be learnt by intending emigrants in practical matters, such as agriculture; but the official appointee must learn on the spot. The first and the last lesson should be on the laying aside of prejudices and the cultivation of broad human sympathy—a lesson that the German bureaucrat is less ready to teach or to learn than even the British official.

THE *Times* correspondent that is giving his experiences of "A Year amongst Americans" states that he has "found teachers the most attractive class in the nation, because more than any other class, not excepting the clergy, they are free from sordid aims." This is a very handsome testimonial, especially when the writer points out that "the average salary is small and inadequate"—that "neither in school nor in college will a teacher's ordinary income carry

him much above want." The following two positions point a striking contrast :

"Americans spend vast sums of money upon every part of their schools' equipment, except the human, which alone is indispensable."

The great majority of representative educators and educationists assembled in convention at Los Angeles repudiated the movement led by Miss Margaret Haley for the organization of a teachers' union in federation with labour unions for common ends—repudiated it "as derogatory to themselves and their profession and antagonistic to the principles of public education at public expense."

There is one alleviation, however, of a very marked character—the "Sabbatical year"—one year's holiday in seven on full pay, the understanding being that the teacher shall spend it in rest and travel, usually on the continent of Europe, for the further study of educational and economic conditions. The principle of the Sabbatical year is well worth consideration in other countries.

COMPARISONS over a wide field by a single observer are too difficult to be received without caution, but the following statements of the *Times* correspondent have a certain interest :

In America, more completely perhaps than in England, teachers keep the roots of their being fed by the cultivation of their individual tastes in books, amusement and travel. . . . It should also be said that, by the intermingling of the teachers of the several States, there is being fostered a sense of fraternity in effort, achievement, and destiny; and thus a vital relation between the schools in all parts of the vast continent is being established and is already having a beneficial influence upon the educational interests of each part, especially in raising the standard of education in those parts where hitherto it has been lower than the average which prevails. In consequence, there is an approach towards uniformity in the educational standards of the different States, although there is not even the semblance of national control.

"I have met," says the correspondent, "few serious teachers of either sex who did not deplore the excessive preponderance of women on the teaching staffs of secondary schools and the higher classes of elementary schools." His remarks on the teaching of religion in a secular State are opportunely suggestive :

Religious teaching, excluded from the day schools, is being systematically and thoroughly promoted in the Sunday schools, which in America, although they are still shamefully inferior to the public schools, are greatly superior in their teachers, their methods, their equipment, their curriculum, their grading, and their results, to similar institutions in England. The Sunday school has not become, but it is becoming, entitled to rank as part of the educational system of the United States. The State sees that democracy cannot rest upon an ignorant *demos*, and by the secular education of the children is ensuring general enlightenment and a great increase of material wealth. The Churches see that democracy cannot rest upon an unspiritual *demos*, and by the religious education of the children are ensuring that the wealth of the nation shall not be a mere mass of "things" in which a nation's, as a man's, "life consisteth not."

"This," he adds, "is the most hopeful feature of American life; for America is committed, apparently irrevocably, for weal or for woe, to exclusively secular education in the public schools."

WITH all respect for the Royal Society of Literature, one cannot but think that its honorary membership is a somewhat meagre recognition of the eminence of the President of the German Shakespeare Association and Professor of English in the University of Berlin. Still the Society did its best to honour Prof. Alois Brandl on his recent visit, and the fault does not lie with it. Possibly Prof. Brandl's opinions about the relative purity of English and American English have deflected the judgment of our greater literary societies. One can understand his condemnation of the "Cockney twang"; but the land of Cockayne is not yet

quite so extensive as England, nor is the "twang" characteristic of England. There are, however, many English dialects, and these mar what Cockneydom has spared. Moreover, Prof. Brandl has conducted continuous systematic observations on American students at German Universities during twenty years, and he has studied the speech of students at various American Universities and Colleges and listened critically to thirty-five American orators representative of different parts of America; and his conclusion is that the English of the ordinary educated American is quite on an equality with that of the ordinary educated Englishman. We gather from the report that "English" in this high argument is not so much a matter of vocabulary and composition, but rather of speech, delivery, or accent. Now we must look to our accent, for there is practical, not to say imperial, importance in it. We were remiss enough not to take up with enthusiasm the project of an exchange of teachers between Germany and England: the projectors consequently turned their eager gaze to America; and Prof. Brandl has now assured the German Ministry of Education "that the quality of the English which would be acquired by German children from the American teachers will be quite as desirable as that which would be acquired from English teachers." And so "the exchange of teachers between Germany and America will be carried out without further delay." We can console ourselves only by asking helplessly why an official interchange of teachers of English and of German should be in the least necessary, and by expressing our gratification that such as do consider it necessary are able to obtain a satisfactory supply somehow.

WE are very glad that Sir Harry Reichel has reprinted the personal appreciation of the late Otto Salomon that he contributed to the first number of the new organ of the Educational Handwork Association—"An Appreciation by an Old Nääs Student." Some fourteen years ago, when he was already Vice-Chancellor of the University of Wales, Sir Harry, finding there was no one on the governing body of the secondary schools in Wales familiar with the principles of school handwork, devoted two consecutive summer holidays to the study of Sloyd, going through the courses as an ordinary student. He has thus been able to give educational handwork its fitting place in Welsh schools; and he has also done great service to the movement in England by organizing an influential Examination Board, recognized by the chief Education Authorities, to give diplomas to qualified teachers. Sir Harry, with a few skilful touches, places Salomon before us, describing how for him religion and philosophy were inextricably interwoven, and drawing attention to his keen sense of humour and strength of will, to his clearness of vision and whole-hearted devotion to his ideal, and to his skill in wielding the Socratic method and in answering difficult questions so as to leave the impression that "his knowledge was entirely his own, that each problem had been thought out by himself, and that he had dug down by his own unaided efforts to the bedrock of first principle." Above all, Salomon showed by his own example and in all his teaching that "personality and not machinery is the life of education."

## SUMMARY OF THE MONTH.

At the Annual Conference of the Private Schools Association at Bath (April 23), Mr. H. R. Beasley gave an address on "Private Enterprise in Education." Without such enterprise, he said, they would have an official, stereotyped, and monotonous system. The best interests of education would be served by the encouragement of private schools and colleges. If we had a universal State system and the private schools were crushed out by reason of underselling and unfair competition, the future of education would be dark. In other countries—Germany, France, America, and even in far-off Japan—it was found that a State system would not do all that was necessary, and that the best elements of education were found in private enterprise. To-day private enterprise in education was distinctly under a cloud. Hundreds of private schools had been obliged to close their doors not because the schools were at all inefficient, but because of underselling. He believed that the people of England to-day did not know the danger which threatened education. If they would but make common cause with other national associations which might have more numbers and which could not be considered as advocating the interest of a section or class, they would find that the people of this country would ignore the fact that municipal public secondary schools were established, and they would send their children to their schools because in their schools, and only in their schools, did they link together the best influences of home and school. That was the keynote of their position. It was a most remarkable fact that the elementary-school teachers of this country, who had not one penny piece invested in the schools in which they taught, had a very powerful union, while the principals of private schools who had all their capital invested did not think of union, and therefore they found their interests so little advertised as was the case to-day.

In the course of a discussion of the Board of Education's new Register of Recognized Schools, the President of the P.S.A.I. (Dr. Sibly) pointed out that the Royal Commission emphatically recommended that schools that did not wish to be brought under the control of the Board of Education should not be asked to submit to any inspection whatever, except in so far as was necessary to secure sanitary conditions. The wishes of the Royal Commission were being trampled upon, and the country was being hurried in exactly the opposite direction to what the Commissioners recommended. As the result of the discussion, the following resolution was unanimously adopted:—"That, while this meeting advises the members of this Association to seek the assistance which comes of an advisory inspection, it recommends them in the interests of English education generally and in the interests of private enterprise in education in particular, to have nothing whatever to do with the new Register of Recognized Schools, and to submit to no inspection which gives the inspecting body the right to dictate to the proprietor of the school."

THE Education Society of the Teachers' Guild proposes from time to time to conduct investigations into and discuss educational questions, and it has been suggested that many teachers in secondary schools who may not be members of the Guild would be willing to co-operate in such work. As first steps in this direction the hon. secretary of the Society would be pleased (1) to hear of any schools where the teachers of one subject or group of subjects form a committee for the general consideration of method or curriculum pertaining to that subject or group, with the name of any one to whom inquiries could be addressed as to the opinion of such committee on methods of teaching, or desirable reforms in the treatment of such subjects, (2) to receive any suggestions as to questions arising in the course of school work which would well repay consideration. Replies should be addressed to the Hon. Secretaries, Teachers' Guild Education Society, 74 Gower Street, London, W.C.

THE Catholic Education Council has unanimously reaffirmed the three resolutions passed in March, 1906, defining the Catholic position in regard to the education question as follows:—

(1) That no settlement of the education question can be accepted by Catholics which takes away from Catholic parents their right (a) to have for their children Catholic schools, in which the teachers shall be Catholics and shall give definite religious instruction under Catholic control during school hours; (b) to have new Catholic schools recognized

and maintained and enlargement of existing schools sanctioned where the needs of the Catholic population so demand.

(2) That no settlement can be accepted which does not safeguard the Catholic character of Catholic schools, either by retaining the existing proportion and powers of the foundation managers or by some equally effective means.

(3) That no settlement can be accepted which does not provide for the continuance and maintenance of the existing Catholic training colleges and Catholic pupil-teacher centres, and which does not grant facilities for extending the means of giving Catholic training to Catholic teachers.

The Council further unanimously passed the following resolutions:—

(4) That this Catholic Education Council declares that it will not accept any settlement of the education question which places Catholic teachers in a position of inferiority either as regards status or salary to Council school teachers, or which does not make sufficient grants from public funds to maintain Catholic schools on the same level of efficiency as Council schools.

(5) That, inasmuch as the secondary-school regulations hamper religious freedom and penalize Catholics on account of their religion, the Catholic Education Council renews its protest against them, and invites Catholic electors to bring pressure on their members of Parliament to demand their withdrawal.

DR. O'DWYER, Roman Catholic Bishop of Limerick, contributes an interesting article to the May number of the *Irish Educational Review* on the subject of Mr. Birrell's Universities Bill. He says that the Bill is a great disappointment in many respects and hurts the religious sense of Irish Roman Catholics who have been working all these years for an institution in accordance, to some extent at least, with their religious principles. This is one reason for the national attitude of rather quiet expectancy. Another is that the people are awaiting, "with a reserve that does them infinite credit, the authoritative guidance of the Bishops on the Bill that is before the country." Dr. O'Dwyer proceeds to criticize the Bill on the grounds that it makes no provision for religion and that there is a total omission of the Bishops from the governing body. It seems to him that the claim to direct representation of the Bishops on the Senate ought to be pressed as a matter of principle, and he is confident that the intelligent opinion of Irish Roman Catholics will support that claim. He admits that the general plan of constituting the governing body is much better than he had expected, but thinks that it might still be considerably improved. Under the proposed constitution, for instance, there is to be no protection for the religious beliefs of students, and it will be possible to appoint a Protestant to a Chair of History without being able to prevent him from teaching it with a Protestant bias. The Bishop urges strongly that the new University in Dublin should be residential and that the sum proposed for the building and equipment of the new University and college is utterly inadequate. In conclusion, he says that the future status of Maynooth is a point of vital importance. It would seem that the Maynooth is not to be a constituent college of the University, and it is doubtful whether it will be admitted in the humble position of an affiliated college. "Speaking entirely for myself," Dr. O'Dwyer says, "I think that this is intolerable, and the real motive is distrust and dislike of the Irish priesthood."

LADY RÜCKER presided over the annual conference of the Association of Teachers of Domestic Science, which was held at the Finsbury Town Hall (May 9), and largely attended by delegates from all parts of the country. The country (said Lady Rücker) was waking up in all directions to the importance of domestic science. It was one of the most far-reaching results of the Victorian era of scientific discovery that there was need for scientific training in every curriculum. In too many homes it was still true that the woman's privilege of inaccuracy and carelessness was accepted. Why should our rate of infantile mortality be still nearly double that of Norway? It was due to an amount of ignorance which was a blot upon fifty years' higher educational work among women. But those fifty years, in the face of strenuous opposition and misrepresentation, were necessary. Women had had to win the right to be educated at all, and they had had to prove they were worthy of as good an education as men. Now they had to go a step further, and show that the highest education could only be attained by the women who carried research into those fields of activity which must ever be women's work in the world. They must get rid of the horrible idea that household duties could be left to the family duffer, and show instead that the best brains of the country were needed for the work. True,

the work had been despised, very largely because it had been badly done. And their great aim must be to get University recognition of a course of household economics. An ideal course would give the complete science of the efficient management of a house in all its branches—a big institution and a home, large or small. The whole subject would be covered from the purchase of a site to the bacteria of the larder, the chemistry of the kitchen and the chemistry of the washtub, the economic principles underlying its ruling, the psychology and ethics of its moral government, and the culture which would help to enlarge the minds of those who lived in the home. A number of interesting papers were read by experts in the subject.

At the ninth annual Examination for the National Diploma in Agriculture, held at Leeds University, the record number of 102 candidates entered, and of these 99 were present. In Part I. 32 (out of 52) candidates passed; in Part II. 29 passed, 4 with honours. Of these four, two came from the West of Scotland Agricultural College, Glasgow, one from the Royal College of Science, Dublin, and one from the North of Scotland Agricultural College, Aberdeen. Among the passes in Part I. we note three Indians and one Chinaman. One of the Indians (Pandit Ram Gopal), as we recorded in our last issue, had gained an Honour Diploma of membership at his College—the Royal Agricultural College, Cirencester.

THE Diocesan Inspector's Report to the Bishop of London states that the statistics of the Church schools in the diocese of London show that there are decreases of 28 in the number of inspected departments, 7,365 children on the books, 6,523 average attendance, and 7,013 present at examinations. Twelve departments have been closed during the inspection year, and four transferred to the Local Authority. The steady improvement of past years is well maintained. Though 28 fewer departments were inspected than in 1906, the number marked "excellent" has increased by one. Better results have never been reported with regard to the religious teaching in the diocese, notwithstanding that the work has been considerably interrupted on account of building alterations.

THE new buildings of the Bedford Modern School were opened (May 12) by Sir Arthur Rücker. The scheme of reconstruction includes 16 commodious classrooms, a large and well equipped gymnasium, new shops for metal- and wood-work, a library, newly equipped laboratories for physics and chemistry, and a range for Morris tube practice. In an address upon the progress of education, Sir Arthur Rücker said too much stress should not be laid upon pessimistic views. They had been passing through times of great change, and, although there were still many weak points, it was not fair to represent that all the intellect and attention given to education during the last half-century had produced no result. A great advance had taken place. There was a certain want of correlation between educational bodies, but it was not desirable that our educational system should be made too rigid. He should be sorry to see the whole of education placed under the strict domination of the Board of Education or that each University should dominate particular districts, so as to leave the schools no choice; but he thought proper relations might be introduced, not in a rigid way by external authority, but voluntarily and by greater freedom to introduce educational experiment and reform.

THE Regulations for English Secondary Schools for the year beginning August 1 next, just published by the Board of Education (Cd. 4037), are in substance the same as those of last year. Owing to difficulties in interpretation, the regulations as to the provision of free places have been further defined. It is made clear that boys and girls applying for such free places may be required to pass an entrance test of attainments and proficiency, having due regard to the age of the applicants, the subjects in which they have been receiving instruction, and the standard of attainments and proficiency required for the admission of fee-paying pupils. Pupils entering as bursars or as pupil-teachers must not be counted in estimating the number of free places provided. In examinations held for the selection of boys and girls to occupy free places, importance is to be attached to the report of the candidate's own teachers, and the masters or mistresses of the secondary school are to be associated with teachers familiar with elementary-school conditions in conducting the examination. The regulations also make provision

for greater elasticity in the way of adapting the instruction to the requirements of the pupil, though precautions are taken to see that this privilege is used with proper moderation. To meet the difficulty of providing secondary education in rural areas and less populous urban or semi-urban districts, the Board is prepared next year to recognize secondary schools with fifteen instead of sixteen as the normal leaving age, but this concession is made only where local circumstances show that it will be of distinct educational advantage to the district and that a longer school life is not possible under actual conditions.

A COMMITTEE was appointed last year to draw up a scheme for the reconstitution of the Royal Agricultural College, Cirencester, for the approval of the Board of Agriculture and the Local County Authorities, to bring the College into line, not only in constitution, but in the scope and character of its work, with the kindred establishments of modern development. The Committee have completed their task to the satisfaction of the Board of Agriculture, and after the current term the College will be managed by a representative governing body, and will be eligible to obtain grants from the Board of Agriculture and from the County Council of Gloucestershire, and perhaps the adjoining counties. The modifications have involved the resignation of the Principal, the Rev. J. B. McClellan, who has occupied his position with distinction for twenty-seven years, and the voluntary retirement of one who has been so closely identified with the success of the College is the only regrettable incident connected with the change. Prof. Ainsworth Davis, the new Principal, is well qualified to take up the direction of the institution. There is every reason to anticipate the maintenance of the social standing and educational pre-eminence of the College, while the additional provision made for placing facilities at the service of farmers' sons and others in the contributing counties not desirous of taking the full course should enhance its general usefulness and local influence. At all events, the extended scope of the future operations will remedy a defect which has hitherto existed in the western district as compared with most other parts of the country, as under the new regime it will be possible for the County Councils to co-operate with the College in furthering local agricultural education.

THE Education Committee of the London County Council has resolved to recommend the Council to hold open-air schools from June 1 to October 31 (or for a period of five months, commencing as soon as possible after June 1) at Birley House, Forest Hill, the grounds of Shrewsbury House, Shooter's Hill, and Montpelier House, Kentish Town. It is proposed that the schools shall be mixed schools, each providing for 75 children, the total expenditure being estimated at £1,962. "With a view to awakening in the minds of the children attending the schools a true sense of the responsibilities attaching to their inheritance as children of the Empire, and of the close family tie which exists among all British subjects," the Committee have made arrangements to celebrate Empire Day in the schools.

THE Education Committee of Leicestershire have adopted a scheme for the examination of secondary schools in the county, whereby each school can have the alternative of placing its annual examination in the hands of either the Oxford and Cambridge Examining Board or the University of Birmingham. The Education Committee will defray the cost of examining such schools or accept the latter alternative, and these schools will be subject to occasional inspection by the Professor of Education of the University of Birmingham. The same committee have also established ten scholarships for aiding teachers of the administrative county to enter the training college attached to the University, the awards being made on the results of examinations held by the University, and the scholarships being divided between men and women as from time to time may seem best.

THE BISHOP OF HEREFORD, speaking at the annual meeting of the Bristol and District Workers' Educational Association, agreed with the chairman (Mr. A. A. Senington) that a great deal remained to be done to open the way for talent in all grades of life, but at the same time he assured his hearers that in comparing Bristol with what it was forty-five years ago they had good reason to be thankful for the progress that had been made, and he amusingly describing himself as a sort of survivor of the bad old times. After mentioning a number of educational efforts

with which he was associated when in Bristol, his lordship put in a strong plea on behalf of the University scheme. He was not sure, he said, that the citizens generally grasped the extent of the advantages that would accrue to Bristol from a University. He urged that Bristol should maintain her position amongst the great cities by crowning her system of educational institutions with a University for the West of England. In the course of his remarks he emphasized the importance of Churchmen, Nonconformists, and in fact all citizens, uniting to carry the University scheme to a successful issue.

THE new University established by the Legislature of Alberta at the capital of that province will open its first term next September. The site selected for its buildings is a very fine one of 250 acres at Strathcona, on the Saskatchewan River, opposite Edmonton, the provincial capital. The plans, however, have not yet been prepared, and meanwhile the University will have the use of a large school building in Edmonton itself. The scheme of the University's work and buildings is very comprehensive, but in the first term there will only be one combined Faculty, of Arts and Science, giving B.A. and B.Sc. degrees. Dr. H. M. Tory, the President, formerly a professor at McGill University, Montreal, says he expects to begin with forty or fifty students. The province has set apart for the revenue of the University one-fifth of the educational land tax and one-fifth also of the tax on joint-stock companies, and the Legislature will make special grants for building. The Convocation consists of the University graduates resident in Alberta, numbering 364, about half of whom are *alumni* of Toronto University. This body of graduates also elects five of the fifteen members of Senate.

LT.-COL. ALLAN CUNNINGHAM, late R.E., writes: "General regret will be felt among the readers of the mathematical columns of *The Educational Times* at the recent death of Mr. R. W. D. Christie, of Stanley College, Liverpool. Mr. Christie has been a constant contributor to these pages since 1884: he was one of the most prolific setters of problems, and has thereby contributed not a little to the vitality of this portion of the paper. His speciality has lain, of late, in Factorization, in the Pellian equation and in Diophantine problems; and his problems were looked for with interest by students of those subjects, to most of whom he was probably known only in this connexion."

MISS LOUISA STEVENSON, LL.D., the elder of two sisters who made their mark on the social and educational life of Edinburgh, died on May 13 in her seventy-third year. Miss Stevenson was one of the principals in the establishment of the Association for the University Education of Women and a pioneer in the agitation for the medical education of women. It was under her auspices also (says the *Scotsman*) that the Council of that Association further pressed their claims, which resulted successfully, for the admission of women to the Universities themselves. Before the Commission on University Education Miss Stevenson gave evidence which impressed the Commissioners by its clearness and the intimate knowledge and grasp of principles which it exhibited. Miss Stevenson was the first lady to be elected to a parochial board in Edinburgh, and she devoted her energies and influence to improving the nursing arrangements in one of the poorhouses of that city. She took much interest in the Scottish branch of the Jubilee Nurses' Institution and in the colonial nursing scheme, and it was her interest in this now important branch of women's work that induced her to become a member of the Edinburgh Royal Infirmary Board. She was a keen supporter also of the movement for giving the Parliamentary vote to women and other phases of social reform. In 1906 Edinburgh University conferred the degree of LL.D. upon Miss Stevenson, as it had done upon her sister, the late Miss Flora Stevenson, for many years Chairman of the Edinburgh School Board.

## UNIVERSITIES AND COLLEGES.

(From our own Correspondent.)

**Oxford.** AFTER the inclement way in which term started—snow and then floods and cricket grounds turned into lakes—the weather which has accompanied the "Eights" has been a real pleasure, and sunshine and summer frocks altered the outward aspect of things.

The floods had proved a serious hindrance to the boats in practice, and from the rowing point of view it would have been an advantage if they could have come a week later, but so long as "Greats" are fixed for the sixth week of term (the one exception of the Final Honour schools) so long will the "Eights," we imagine, remain in the fourth week. There really seems little reason why "Greats" should not fall into line with the other schools.

As far as the "Eights" are concerned, the racing at the top has not been very exciting, and Christ Church are secure of their headship: the innovation of allowing colleges to enter second eights (the members of which are not debarred from rowing afterwards in the Torpids) has resulted in "three divisions" for the first time in History. Five colleges put on second Eights, and there have been two examples of an "over-bump" (by which a boat goes up three places), the first being furnished by Christ Church Second and the second by Magdalen Second.

Among meetings of the month pride of place must perhaps be assigned to Mr. Haldane's meeting in the Town Hall, when he discoursed on his scheme for a reserve of officers and his views of the relation of the University to the Army. It was a really great meeting and had been excellently organized. Opinions differ somewhat as to Mr. Haldane's speech, some considering it most effective, others as rather "playing to the gallery." General Sir Ian Hamilton, who was another of the speakers, had a great reception.

But there have been many other meetings and lectures. We have had Mr. Benjamin Kidd, of "Social Evolution" fame, as Romanes Lecturer. It was an interesting appointment, though possibly Mr. Kidd's name was more widely known at Oxford a few years ago. We have had Mr. Mackail (than whom there is no more finished stylist) on "Sophocles"; we have had the "Licensing Bill," Prof. Price (in an Inaugural Lecture) on "Economics"; Prof. Raleigh, on "Dr. Johnson and Shakespeare"; we have also had "General" Booth explaining the secret of the success of the Salvation Army. Altogether we have had fine mixed feeding for those who find their relaxation in attendance at lectures.

Otherwise there has not been in the University at large much excitement. The Chancellor has not again honoured us with his presence, and details of the exact progress of his fund for the relief of the University have not been recently published. At present the University is largely dependant for extra help on the contributions from the more prosperous colleges. According to the *Oxford Magazine*, which may be taken to be more accurate than some of the critics in the London papers, the contributions of the colleges for University purposes amount to £40,000 a year, Magdalen being the largest contributor with £9,000.

Owing to the weather, we have not had much cricket to look at, and there has been up to date only one "foreign match"—against Lancashire—and very little play in that. There was no match, as there is usually, in Eights week. Mr. Wright is again Captain, but Mr. G. N. Foster (who would naturally be qualified to play against Cambridge) does not appear to be in residence.

(From our own Correspondent.)

**Cambridge.** MR. HALDANE has paid us a visit this term, and explained to us exactly what he expects from the University as a recruiting school for the army.

The suggestions he placed before us were eminently workmanlike, and there is no doubt that many men will embrace the opportunity of entering the reserve of officers on the terms stated. Put briefly, the Secretary's idea is that service in a cadet corps, followed by a course of military education up here, tested by two professional examinations, will qualify the candidate to be posted for further training of four months with a regular unit at home, or possibly in India. After this service, and a further examination, the budding officer will qualify for regular employment. There are many men who will utilize the few months after taking their degree in this military course, and will be ready to serve their country as qualified officers if need should arise.

Our new Chancellor was inaugurated on the 1st of May, and is to be installed on June 17th. The ceremony at Carlton Gardens, though nominally at a meeting of the Senate, was only attended by a few representative people. The proceedings appear to have been dignified, though brief, and we must look forward to the installation as a ceremony that will show the University at its best in the trappings of pomp. The Vice-Chancellor is well able to maintain the dignity of the place on occasions such as this.



The Senate discussed in the early part of the month a report by the Botanic Garden Syndicate. Parenthetically it may be remarked that the botany department is one of the best organized and staffed that we possess in this University. The syndicate asked for an increased allowance of £220 per annum for the upkeep of the gardens and the proper remuneration of the staff there employed. The Financial Board, with characteristic generosity, consented to a grant of £100! A few facts might prove illuminating. Mr. Lynch, the Curator, has worked and slaved for twenty-nine years for the improvement of the gardens, and a rise in his stipend would be a simple act of businesslike prudence; skilled gardeners are now sparsely employed, and recourse is had to the "out-of-works" for economy, or rather for cheapness—economical it cannot be. For a quarter of a century the purchase of new plants has practically cost the University nothing. Mr. Lynch, by his skill in producing new forms of vegetable life, and his acumen in disposing of them at the best market price, has practically struck the item of plant purchase out of the list of expenses of the Garden. We shall next hear of the abolition of some laboratory to endow a new professorship.

The new scheme for the Agricultural Special has met with a tolerably favourable reception. The Professor of Geology objected to his pet subject being relegated to the position of an "option"; but, on the whole, the schedule seems a fair one, and necessitates only a minimum of scientific knowledge before taking the more purely agricultural work. The election of Mr. R. H. Biffen to the chair of Agricultural Botany was a timely recognition of merit which saved to the University an expert whose enthusiasm is only equalled by his ability. It is an open secret that Mr. Biffen has been prompted by patriotic rather than pecuniary motives to devote himself to the building up of our Agricultural Department.

The election to the Professorship of Biology will take place early in June. The name of Mr. Bateson, of St. John's, is freely mentioned in connexion with the new chair.

The retirement of Prof. Marshall from the chair of Political Economy will probably lead to the promotion of Mr. H. S. Foxwell, though a dangerous rival will be Mr. Pigou, of King's, who at present holds the office of Girdlers' Lecturer in Economics. It is understood that Archdeacon Cunningham is not at present contemplating an assault upon this chair, for which, by common consent, he is admirably fitted.

Through the generosity of the Royal Geographical Society two new lecturers are to be appointed for (a) Regional or Physical Geography, and (b) Surveying and Cartography. The contribution of the University will serve to endow the third lecturer, whose province will be Historic and Economic Geography.

Through the energy of Prof. Giles and the liberality of some of his friends, the University has become possessed of a valuable collection of Chinese books.

The undergraduate world is abnormally quiescent. Triposes and Generals absorb the energies of most, and even the cricket team has to do without the services of some of its most useful members at the bidding of the inexorable coach. But there will be opportunity in June to make up for lost time, and the "May" week promises to be longer and livelier than ever.

We are to be honoured by a visit from many distinguished members of the Pan-Anglican Conference, and it is announced that in connexion with that function honorary degrees will be conferred upon a number of bishops.

The report on the General is not yet out. For the present the searcher after the humorous must be content with *Punch*.

THE Principal, Sir Arthur Rücker, was unfortunately absent, through illness, on Presentation Day (May 6), and was therefore unable to deliver his valedictory address. His report (read by the Secretary to the Senate) showed continued progress. Matriculation candidates were 7,356 in 1907-8, compared with 7,112 in 1906-7 and 7,036 in 1905-6. Of the 7,356, however, only 3,277 were admitted. Eighty-five graduates of other Universities, and others similarly qualified, have taken advantage of Statutes 113 and 129, and are now studying in London as internal students, with the view of taking a higher degree of the University. Gifts amounting to £24,667 had been received during the past year. "For three-quarters of a century," said the Principal, "all efforts for the establishment of University education in London were spasmodic, disconnected, and sometimes even avowedly antagonistic. Eight years of an attempt to substitute for this

condition of chaos a common policy and such common government as may be compatible with the free play of individual effort have justified those who supported and carried the great reform which took effect in the autumn of 1900." The presentees included eleven Doctors of Science (eight in Science, one in Engineering, and two in Economics), thirty-three Doctors of Medicine and eight Masters of Surgery, one Doctor of Literature, and one Doctor of Divinity.

The University exhibit at the Franco-British Exhibition is very interesting and comprehensive. It consists mainly of photographs, publications, and charts. An exhibit representing medical education in London, and another illustrating the social and athletic life of the students, have been specially organized. One of the most valuable exhibits is a collection of publications by teachers of the University and their students in the year 1907. A special catalogue of this collection is to be published. The University will publish a special handbook containing a catalogue of the University exhibit. The medical schools have prepared a large and fully illustrated handbook on medical education in London; and the Students' Representative Council has published a students' handbook dealing especially with the social and athletic life of the student. Copies of all these publications will be available for visitors to the exhibition.

THE donors and subscribers to the Women's Birmingham. Hall of Residence Fund have offered to present to the University the hall now being erected on a site in Edgbaston Park Road near to the new University buildings. The offer has been unanimously accepted by the Council, who are inviting the committee representing the donors and subscribers to remain in office with a view to their completing the erection and equipment of the building. The Hall of Residence is very conveniently near to the new buildings, and will provide accommodation for about sixty residents. It will probably be ready for occupation at the end of the year.

The Ingleby Lectures this year are being delivered by Dr. Christopher Martin.

Wales. PRINCIPAL ROBERTS, in his report to the half-yearly meeting of the Court of Governors of the University College, Aberystwyth, said that the Commission appointed by Mr. Asquith had now visited the three Welsh University Colleges, and had inquired fully into the work of each. The present was a time of rapid and decisive forward movements in University education. In Wales they were in the position of having to overtake the neglect of centuries. The oldest State-aided college was only thirty-five years old, and the total grants now made to the three was only equal to the annual grant proposed to be given to Galway, the smallest of the colleges to be included in the new Irish University scheme. If this condition of things was to continue the colleges would obviously not continue to hold a place on the University level, not to speak of advancing, and could not therefore have the status or fulfil the work for which they were designed.

Addressing the Welsh University Guild of Graduates at Bangor, Prof. Edward Edwards, Warden of the Guild, said the founders of the University had a very lofty conception of the functions and duties of the Guild of its own graduates, and intended the Guild should have an important voice in the government of the University through its numerous representatives in the University Court. They looked to the graduates as its best support in popularizing the University and as a connecting link between the University and other Welsh educational bodies, and in shaping and guiding public opinion on questions of general educational policy. He considered that in all these respects the graduates had not fallen short of the charter's noble ideals; for he was sure no body of students anywhere was more loyal to its Alma Mater or did more solid work for the cause of education, and no keener, more enthusiastic, or more thoroughly trained men were turned out anywhere than out of the Welsh University. The Guild had done a good deal and intended doing much more work of a solid and permanent character. Its literary section had done admirable work by publishing reprints of Morgan Llwyd's, Theophilus Evans's, and Maurice Kyffin's works. In the dialect section articles had been contributed supplying very good material for the issue of a large standard dictionary in Welsh on the lines of the "Oxford English Dictionary." Again, a most valuable work had been done, and was being vigorously carried on, in the anthropological section in the way of scientific head measurements, which, though

slow, was work which would ultimately lead to the location of various Welsh tribes. Work was also being done in regard to place-names, which was of the greatest importance as throwing light on early tribal customs and social institutions. Besides all this, the publication of a Welsh mediæval dictionary was to be proceeded with immediately.

#### Irish Universities.

The provisions in the draft charters of the new Universities in Dublin and Belfast for the affiliation of outside colleges, and for the granting of degrees to extern students, will be studied (says the *Irish Independent*) with special interest. In the charters of both the proposed Universities, power is given to affiliate "other colleges or institutions, or branches or departments thereof," but the exercise of this power, otherwise than on the representations of one of the constituent colleges, is subject to the consent of all the constituent colleges. The "manner to be provided by the statutes," in which the Universities are to satisfy themselves of the general character and standing of the colleges proposed for affiliation is a question on the answer to which a great deal will turn. As to extern students, degrees and other academic distinctions may be granted, provided that such students shall not be admitted to medical examinations, and "that the power to admit them to a final examination for an initial degree shall expire after the end of five years from the dissolution of the Royal University, and the power to admit them to previous examinations shall expire after previous periods to be defined in the statutes." Without inclining to the rather extreme views that have been expressed by some graduates of the Royal University about the consequences of depriving poor students in the country of the chance of obtaining a University degree, we believe this provision in the charters of the new Universities should be very carefully considered with a view to its modification.

#### THE EDUCATIONAL LADDER.

CAMBRIDGE UNIVERSITY.—Lightfoot Scholarship: A. A. Seaton, B.A., Pembroke.—Winchester Reading Prizes: (1) W. B. Brierley, Christ's; (2) E. H. P. Muncey, St. John's, and E. G. Selwyn, King's, and M. A. Young, King's, equal.—Stewart of Rannoch Scholarships—In Hebrew (open): (1) K. M. Robathan, Gonville and Caius; (2) E. C. Inman, Gonville and Caius. Honourably mentioned: F. V. Nicholson, Queens'.—In Greek and Latin: Robert W. Howard, Trinity, and Algernon Vere-Walwyn, Peterhouse.—In Sacred Music: The restricted scholarship to J. C. M. Ferguson, Emmanuel, and the open scholarships to W. C. Denis Browne, Clare, and M. H. Spinney, Selwyn, equal.—Le Bas Prize: E. F. Oaten, B.A., LL.B., Sidney Sussex.

Christ's.—Skeat Prize: Alfred Park Senior, Scholar of the College.

St. John's.—Exhibitions (on results of Cambridge Senior Local Examination, December, 1907): F. C. Walker, Wolverhampton Grammar School (Classics); R. O. Street, Bournemouth School (Mathematics).

LONDON: Associated Board of the ROYAL ACADEMY OF MUSIC and the ROYAL COLLEGE OF MUSIC for Local Examinations in Music.—Advanced Grade Gold Medal: Gwendda D. O. Davies, Hull Centre (Pianoforte). Advanced Grade Silver Medal: Dora Garland, Hastings Centre (Violin). Intermediate Grade Gold Medals: Mabel A. J. McBride, Nottingham Centre (Harmony), and Winifred Bradshaw, Southport Centre (Harmony), equal. Intermediate Grade Silver Medal: Cecilia O'Hear, Glasgow Centre (Pianoforte).

LONDON UNIVERSITY.—

University College.—Quain Studentship in Biology (£100 for 3 years): E. J. Salisbury, B.Sc.

OXFORD UNIVERSITY.—Ellerton Theological Essay: Norman Powell Williams, B.A., Fellow of Magdalen; *proxime accessit* (additional prize, 10 guineas) Edward Stephen Gladstone Wickham, B.A., New College.—Cobden Prize: Reginald Vivian Lennard, B.A., Exhibitioner of New College.—Gladstone Memorial Prize: M. L. R. Beaven.—Gaisford Prizes. Greek Prose: Leslie W. Hunter, scholar of New College. Greek Verse: Ronald A. Knox, scholar of Balliol (son of the Bishop of Manchester).—Stanhope Historical Prize: Edward S. Lyttel, University College.—Leathersellers' Exhibitions: M. A. Dell (History); G. P. Furneaux (Chemistry).—Boden (Sanskrit) Scholarship: Mukand Lal Puri, Exeter College.

The following have satisfied the examiners in the examination in the Theory, History, and Practice of Education:—Wilfred Fanshaw, B.A., Queen's; John Maclean, Worcester; Lionel H. W. Sampson, B.A., Hertford; Clement Trenchard, B.A., Christ Church; Ethel Mary Barke, M.A. Dublin, Girtton College; Henrietta E. T. Christie, Somerville College; Jeannie Dow, Royal Holloway College; Marion C. Hargreaves, Victoria University of Manchester; Maria L. Lardelli, Oxford; Margaret F. Moor, Somerville College; Grace G. T. Muir, Somerville College.

MANCHESTER UNIVERSITY.—Dennison Naylor Scholarship: Thomas E. E. Morris, Chetham's Hospital.

EXETER SCHOOL.—House Scholarships: H. N. Smith, Plymouth College; R. E. Santo, Mr. Drew's, The Limes, Shrewsbury; H. Boissier, All Saints' School, Bloxham, Banbury; and H. R. Hall, Exeter School.

#### THE COLLEGE OF PRECEPTORS.

##### MEETING OF THE COUNCIL.

A MEETING of the Council was held at the College, Bloomsbury Square, on May 13. Present: Mr. Eve, in the chair; Prof. Adamson, Dr. Armitage Smith, Mr. Bain, Mr. Barlet, Mr. Baumann, Rev. J. O. Bevan, Mr. Charles, Miss Dawes, Mr. Easterbrook, Mr. Holland, Miss Jebb, Mr. Kelland, Miss Lawford, Rev. R. Lee, Prof. Lyde, Dr. Maples, Dr. Marx, Mr. Millar Inglis, Mr. Morgan, Mr. Rushbrooke, Rev. J. Stewart, Rev. J. Twentymen, Mr. Vincent, and Mr. Walsley.

The minutes of the last meeting were read and confirmed.

The Secretary reported that arrangements had been completed for the examination of pupils in schools in Newfoundland, which the College had been asked to conduct on behalf of the Newfoundland Council of Higher Education. These examinations, which were instituted by the Newfoundland Council fifteen years ago, comprised four grades, corresponding approximately to the four grades of the College of Preceptors Certificate and Lower Forms Examinations. They had been found to be of great value in raising the standard of education in the schools of the colony, and it was now desired to bring them into still closer relationship with the scheme of the College. The examinations this year were to be held at a hundred centres, and the total number of entries exceeded 2,700.

The Board of Education's Regulations for Secondary Schools were the subject of discussion in connexion with a letter received from the head master of a public secondary school, in which attention was called to the restrictions imposed by the Board on the liberty of action of heads of schools by prohibiting them from availing themselves of the facilities for testing the results of their teaching afforded by external examinations. The further consideration of the subject was referred to the Examination Committee.

The Education Committee presented a report expressing cordial approval of the proposal of the University College of Bristol to establish in Bristol a Bureau of Educational Information in connexion with the projected University of Bristol and the West of England. The report was adopted.

The following persons were elected members of the College:—

Mr. T. W. Lewis, A.C.P., Cranfield, Beverley Street, Port Talbot.  
Mr. E. G. Mills, A.C.P., University School, Southport.

The following books had been presented to the Library since the last meeting of the Council:—

By the AUTHOR.—Reichel's Otto Salomon.

By BLACKIE & SON.—Anchmuty's Dumas' Le Bourreau de Charles Premier; Bagnall and Vivier's Hernani et Ruy Blas; Grierson's Advanced Book-keeping; Rodgers's First Geography; Scott's Earl of Montrose (Blackie's Story Book Readers); Walpole's Letters on the American War.

By the CAMBRIDGE UNIVERSITY PRESS.—Edwards's Altera Colloquia Latina.

By METHUEN & CO.—Ford's School Latin Grammar.

By J. MURRAY.—Hardwich and Costley-White's Old Testament History (from Hezekiah to the End of the Canon).

Supplement to R.U.I. Calendar, 1908.

Yearbook of the Incorporated Society of Musicians, 1908.

#### CONFÉRENCES FRANÇAISES.

SOCIÉTÉ NATIONALE DES PROFESSEURS DE FRANÇAIS.

##### SULLY PRUDHOMME ET "LE BONHEUR."

Le samedi, 25 avril, M. le Pasteur Ramette nous entretenait de Sully Prudhomme, et en particulier nous analysait son poème "Le Bonheur."

Sully Prudhomme (1839-1907) semble avoir tenu de son père, un négociant de Paris, la faculté rigoureuse du raisonnement, et de sa mère, personne de complexion nerveuse, la sensibilité du poète. Faut-il dire de lui ce qu'il a écrit de Van Dyck:

C'est ta mère, après Dieu, qui t'a fait ton génie?

Orphelin de père dès l'âge de deux ans, placé de bonne heure comme interne au lycée, il souffre de la privation du foyer et de

la famille. Il s'est toujours, en son âme solitaire et travaillée, quelque peu senti orphelin :

J'écoute en moi pleurer un étranger sublime  
Qui m'a toujours caché sa patrie et son nom.

Suivant tour à tour les deux tendances de son esprit, il s'adonne à l'étude des sciences et à celle des lettres. A l'âge de 18 ans, une crise religieuse, au moment où il est arrêté par une maladie des yeux, est sur le point de faire de lui un moine. La lecture d'ouvrages de critique le plonge dans le doute, sans lui ôter, cependant, le respect de la foi.

Employé pendant dix-huit mois dans les bureaux des grands établissements du Creusot, il cultive le poète-philosophe Lucrèce, dont il traduit, en des vers remarquables, le premier livre du "De Natura Rerum."

La poésie finit par le prendre tout entier et en 1865 paraît son premier volume, "Stances et Poèmes," qui obtient les plus grands éloges du célèbre critique littéraire, Sainte-Beuve. Cinq volumes sortent successivement de ses méditations de 1865 à 1888: "Le Bonheur" clôt la série. Après cela, il n'écrit plus guère qu'en prose, et, entre autres, une étude sur "La Vraie Religion d'après Pascal," ce penseur chrétien vers qui l'attire une secrète affinité.

Ses deuils de famille, suivis la même année de la terrible épreuve nationale qu'a été la guerre franco-allemande, approfondissent les questions que son esprit aime à creuser. Il en fait sortir son poème sur la Justice, et il s'écrie dans ses sonnets sur la France :

. . . Plus je suis Français, plus je me sens humain.

Sa poésie, tirée de la vieille lyre classique à laquelle ses doigts, avec un art prodigieux, font rendre des sons en harmonie avec les pensées de notre temps, sa poésie, toujours si sincère, n'est que l'écho des âpres exigences de sa raison et ses nobles aspirations de son cœur. C'est son cœur qui l'a sauvé du pessimisme et de la désespérance. Les hauts exemples d'héroïsme et de charité, les arts, la musique, sont pour son âme comme des appels de l'au-delà.

Tel fut l'homme qui a écrit ce rêve un peu agité mais austèrement beau, "Le Bonheur," à l'intention de ceux qui éprouvent une inquiétude plus ou moins latente sur "l'avenir d'outre-tombe."

Ce poème comprend trois tableaux: les "Ivresses," la "Pensée," le "Suprême Effort." Le premier nous fait assister, dans un autre monde, où se retrouvent Faustus et Stella (le poète lui-même et son idéal), à la jouissance insouciante: jouissance des sens au milieu des enivrements d'une nature enchanteresse; jouissance esthétique dans la contemplation des formes plastiques ici réalisées par les esclaves du monde antique, que la mort affranchit de toutes les oppressions; jouissance du cœur sous l'effet merveilleux de la pure mélodie dans laquelle Stella chante le bonheur des deux amis maintenant sans mélange. Et ces jouissances les rendent sourds aux voix de la terre montant à travers les espaces.

Le second acte nous montre une nouvelle phase, celle de la recherche fiévreuse succédant à l'insouciante jouissance. Faustus, tourmenté par le mal de l'inconnu, demande aux maîtres de la pensée leur aide pour arracher à l'inconnu son secret. Mais le long effort de la philosophie antique s'achève dans la volupté et le suicide; celui de la philosophie moderne expire dans un appel au néant; les sciences positives elles-mêmes, dans leur explication des faits, ne disent pas d'où vient la flamme qui, vague étincelle chez les bêtes, est flambeau sous le front humain. Désormais donc réduit à ses seules ressources, il apprend par la joie des enfants qui jouent dans la vallée que le bonheur vient d'aimer. Aimer! répètent Stella et Pascal lui-même dont la voix s'est fait entendre aussi à Faustus. Cependant les voix de la terre continuent de monter.

Acte troisième. Enfin les voix de la terre ont atteint les oreilles et le cœur de Faustus. Comment être heureux quand d'autres souffrent? Faustus retournera sur la terre pour sauver les hommes. L'ange de la mort l'emporte avec Stella. Mais voici, il est trop tard: l'humanité a disparu du globe. Trop tard! Oh! douleur! Oh! remords! Il faudrait créer une humanité nouvelle. Redoutable aventure! L'ange tranche la difficulté en les remportant, avec cette consolante parole que Dieu leur a pardonné à cause du regret qu'ils éprouvent et du sublime soupir de leur cœur, et "La charité des sacre habitants du vrai ciel."

Il nous est difficile, dans un compte-rendu aussi sommaire, de rendre pleine justice tant au poète qu'au conférencier. M. le Pasteur Ramette est un maître en son art, et sa chaude parole, sa belle diction ont su captiver un nombreux auditoire dont la reconnaissance s'est traduite en chaleureux applaudissements.

## UNIVERSITY TRAINING OF TEACHERS.

### THREE YEARS, OR FOUR?

FROM several sources (says the *Liverpool Daily Courier*) we hear the suggestion of a four years' course for the University training of teachers. Twenty years ago a two years' course was the normal one in the only colleges then existent—the residential training colleges. With the inception of the day training colleges it was recognized that a three years' course was necessary—necessary, that is, for the student to gain a degree. The direct training, such as it was, had to be taken in fragments during the intervals of academic work, and, indeed, part was taken during the vacation.

The University student occasionally remains for a fourth year, just as in former days the exceptional man would stay at the residential training college for a third year. Are we to see the three years' course develop into four years in the case of the U.T.C.'s? Would such an alteration in system be to the general good? We will run the risk of exposing the obvious, and say that the merit of the system rests on two foundations—the quality and preparedness of the student on entering and the character of the training undergone. Does the suggested course contemplate the student passing direct from his school to the University? If it does, it has our hearty condemnation. Would the suggested course for the first three years run much on the lines of the present degree course and take a post-graduate course in pedagogy for the fourth year? If it would, we see no advantage in it over the present three years' course; indeed, we see comparative defects. It is beside the point to urge that this plan of training is applied to students reading for a secondary schools diploma. Even if the plan is successful in the case of these students, it does not at all follow that it is applicable to the elementary-school teacher.

### LARGE CLASSES.

There are, it seems to us, two very marked differences between the environments of the two teachers—the difference in the age of the pupils met by the respective men and the difference in the sizes of the classes dealt with. The controlling, interesting, and educating of a small class of older scholars is a trifling task compared with the work of educating a class of three times the size made up of younger children. We deplore the size of class which the elementary-school teacher is required to manage, we rejoice that evidences of a tendency towards reducing the numbers are not wanting; but we regretfully admit that for another generation the elementary scholar will be deprived of the blessing of that degree of individual teaching which his more favoured secondary brother enjoys. It is because we know the difficulty of acquiring this gift of controlling large classes, because we have known the failure of the student trained only academically, and have learnt something of his regrets and humiliations when his best efforts meet with failure—it is because of these things that we urge the need of testing and training in practical teaching before the University is entered. The student must give preliminary evidence of his fitness for the work of an elementary-school teacher. It is too late for him to realize a defect four years later, and it is not right to burden the elementary teaching profession with people who have no aptitude for the calling. The University, by its entrance examination, requires a student to show scholastic ability; we want the University to require the prospective teacher, in addition to this, to give proof of his capacity for the work. He should spend a year as a student-teacher after leaving school. He is then young enough to adapt himself to surroundings which he cannot come into sympathy with later, and, if he finds that he has no love for the work, he is young enough to turn his hand to something else.

### PEDAGOGY.

Having given proof of professional fitness he may enter the University. Then comes the question of the length of his stay. For several reasons we should regret the passing of the three years' scheme. We do not consider that its possibilities have yet been fully sounded. The exceptional man can always stay for a fourth year if it is desirable that he should do so. But, if the student has to look forward to a hard-and-fast four years' course as a condition of his entering a U.T.C., we can only say that ways and means are often too predetermined and too narrow to permit it. Cannot the three years' system be improved? A

great advance was made when education was included as a subject for the degree. Cannot this reform go further? The width of training we look for is hardly possible on the present degree lines. The "Arts" and "Science" courses, as they stand, are not likely to develop the best type of teacher.

We should like to see a combined course formed with a resulting diploma in education. This might be called an education diploma, a bachelorship of education, a bachelorship of arts with honours in education, or whatever it might be desired to call it. Our plea is that the man who holds it should be capable in the work he professes. And we think that this capacity would be best developed by a more definite pedagogic training and by the study to a moderate degree of intensity of some six subjects. We want to see the subject of pedagogy brought well into the foreground in the forming of the teacher. Discussions and lectures on pedagogical subjects, observation visits, criticism, and model lessons are excellent so far as they go. But, to bring out their real merit, they must be associated with the student's own practical teaching; and this work does not receive the consideration it deserves. The plan of Septembering the school practice is weak. It is impossible for those responsible for the work to get more than a perfunctory glance at the individual student when all are at work at the same time, and the student cannot receive that criticism, example, and help which he ought to have.

#### THE PRACTICE PERIOD.

Incidentally the fixing of the practice period outside the University session encourages an undesirable attitude (unconscious, no doubt) on the part of the student towards the work. It is something to be got rid of, something to be swept out of the way before the real work of the session commences. And we cannot blame him if he regards most of his pedagogic work as something to be relegated to odd snatches of minutes, and to be performed with more than a half doubt as to its real value in the life which lies before him. Why should not the month of school practice be taken at any part of the session according to the convenience of those responsible for the training? The obvious answer is that the student would suffer through want of contact with the academic lecturer during this period. We doubt if there is much in this point when the period of absence is so short. The man would still meet his fellow-students, and would know the direction in which the work was going, and, although he would meet the lecturer less, we make bold to say that he would gain considerably by the closer and more intimate contact with his training authorities. But during this month a combination of practice and lecture might be effected. Why should not the student during the practice attend one weekly lecture in each subject he is taking? These could be attended on Saturday morning or on afternoons of other days after the close of the elementary school. An occasional lecture which could not be taken at any of these times might be legislated for separately.

#### A SATISFACTORY COURSE.

In the curriculum, independent of the pedagogic course, we should like to see English (chiefly literature and essay writing), a language other than English, elementary mathematics, and a combination of physical and biological science taken by all students throughout the three years of training. One or two additional subjects, determined by the tendency of the students' thought, should be added, and all subjects could with advantage be read up to the intermediate examination standard. A student especially capable in one subject might be allowed to read it up to the ordinary final standard, but he should combine with it the four above-mentioned subjects.

We do not hesitate to say that, if a course were drawn up on lines such as these, a three years' training would be valuable, and in most cases sufficient. The exceptional man could always spend a fourth year at the University, if good were likely to come from it.

At the approaching Oxford Commemoration the honorary degree of D.C.L. will be conferred upon Mr. Lloyd-George, Chancellor of the Exchequer, and Sir Ernest M. Satow, late British Minister at Peking.

CAMBRIDGE UNIVERSITY intends to confer honorary degrees upon the Prime Minister, the Duke of Northumberland, Lord Halsbury, Admiral Sir John Fisher, Sir Hubert Von Herkomer, the Hon. C. A. Parsons, Sir G. O. Trevelyan, Sir J. Henry Ramsay, Sir A. Noble, Sir W. Crookes, and Mr. Rudyard Kipling.

A FELLOWSHIP at Newnham College, Cambridge, has been awarded to Miss Sellers, at present engaged upon historical research work.

# BLACKIE'S LIST

**Magnetism and Electricity and The Principles of Electrical Measurement.** By S. S. RICHARDSON, B.Sc., Associate of the Royal College of Science, London: Lecturer in Physics, Municipal Technical School, Liverpool. Crown 8vo, cloth boards, 5s. net. [Just Published.]

**The Teaching of English.** By A. E. ROBERTS, M.A., Principal Lecturer in English at the Islington Day Training College, and A. BARTER, L.L.A., late Head Mistress of the Braintree Pupil-Teacher School. Price 2s. 6d. net. [Just Published.]

## BLACKIE'S LATIN TEXTS.

General Editor: Dr. W. H. D. ROUSE.

This Series is intended for use during the first two or three years of Latin.

The long vowels are marked throughout. Each volume has a short Introduction dealing with the author and subject of the book. A new and important feature in the Introduction is a brief note on the MSS. and the principles of textual criticism. No other notes are given.

Price 6d. net each Book.

The following Scholars are contributing volumes to this Series:—

Prof. J. P. Postgate.	Mr. S. E. Winbolt.
Prof. J. S. Reid.	Mr. W. H. S. Jones.
Dr. W. H. D. Rouse.	Mr. E. Seymer Thompson.

### A General Vocabulary to Virgil.

Prepared under the Editorship of A. GRAHAM, M.A. Crown 8vo, cloth, 1s.

### A General Vocabulary to Caesar's Gallic War.

Prepared under the Editorship of A. GRAHAM, M.A. Crown 8vo, cloth, 1s.

These Vocabularies have been prepared for use in schools where the pupils are not at first provided with Latin Dictionaries of their own. They contain all the words that occur in the *Aeneid*, *Bucolics* and *Georgics* of Virgil, and *De Bello Gallico* of Caesar. The advantage of these Vocabularies is that they can be used with any edition of these Classics.

### A Latin Course.

By E. H. SCOTT, B.A., and FRANK JONES, B.A. First Course, cloth, 1s. 6d. Second Course, cloth, illustrated, 2s. 6d.

### A First Latin Grammar.

By E. H. SCOTT, B.A., late Head Master of Boys' Secondary School, Barberton, Transvaal; and FRANK JONES, B.A., Assistant Master, King Edward's School, Aston, Birmingham. Crown 8vo, cloth, 2s.

## BLACKIE'S ENGLISH TEXTS.

6d. each. Blue limp cloth covers. 77 volumes. To be used in correlation with the study of **English Literature and History**.

Among the leading Authors are:—

Malory.	Gibbon.	Drake.	Thucydides.	Dickens.
Froissart.	Macaulay.	Raleigh.	Plutarch.	Charles Lamb.
Bacon.	Carlyle.	Arson.	Livy.	Kingsley.
Burke.	Prescott.	Hawkins.	Marcellinus.	Swift.
Ruskin.	Josephus.	Cook.	Lucian.	Borrow.

### A First Geography.

With Coloured Pictures and Diagrams on every page. By C. A. E. RODGERS, M.A., F.R.G.S., Assistant Master, Bradford Grammar School, and an Examiner in Geography to the College of Preceptors. Small 4to, cloth, 1s. [Just Published.]

### Advanced Book-keeping.

For Commercial and Accountancy Classes. By WALTER GRIERSON, Author of "Practical Book-keeping for Commercial Classes." Crown 8vo, cloth, 2s. 6d. net. [Just Published.]

### The Longer French Texts.

Printed in large type. Cloth limp, 8d. each. Brief Notes, Questionnaire, Memory List of Useful Phrases and Vocabulary.

### The Little French Classics.

Price 4d. each book. All French authors in prose and verse, from the *Chansons de Geste* to *Daudet* and *Paul Bourget*.

### Récits tirés des Classiques français.

6d. each. Edited by Mme. C. BAGNALL, of Clapham High School, and Mlle. VIVIER.

The Stories of the great Dramatists told in simple French, suitable for Lower and Middle Forms.

Messrs. BLACKIE & SON will be pleased to send a List of Books suitable for the Oxford and Cambridge Locals, 1909, on application.

BLACKIE & SON, Ltd., 50 Old Bailey, E.C.

# Mr. MURRAY'S RECENT BOOKS

## Old Testament History. Period V.

**From Hezekiah to the End of the Canon.** By the Rev. J. M. HARDWICH, M.A., and the Rev. H. COSTLEY-WHITE, M.A., Assistant Masters at Rugby School. With a Map of Palestine. 2s.

This is the fifth (or concluding) portion of the "Old Testament History," other volumes of which are now in active preparation. Each is intended to provide material for one term's work. The following are some of the chief features of the series:—

1. Where possible, the text of the Biblical narrative is used.
2. Historical explanations and general commentary are inserted in their proper place.
3. The chronological order of events has been followed.
4. The period is illustrated by reference to, and quotations from, the contemporary Prophecies and Psalms.
5. Foot-notes are added, but only where difficulties of thought or language seem to demand explanation.

## An Introductory History of England.

**From the Earliest Times till the Year 1832.** By C. E. L. FLETCHER, M.A., Fellow of Magdalen College, Oxford. With Coloured and other Maps, Plans, and Index.

Part I.—From the Earliest Times to the End of the Middle Ages. 5s.

Part II.—From Henry VII. to the Restoration. 5s.

Part III.—In preparation.

"This is Mr. Fletcher's second volume, and it is, if anything, better than his first."—*The Times*.

## MURRAY'S FRENCH TEXTS.

FOR UPPER AND MIDDLE FORMS.

Edited by W. G. HARTOG, B.A., Lecturer in French at University College, London; Oral Examiner to the London County Council and to the Army Qualifying Board.

### La Mare au Diable.

Par GEORGE SAND. With Biography, Foot-notes, and Exercises. 1s. 6d.

### Confessions d'un Ouvrier.

Par EMILE SOUVESTRE. With Biography, Foot-notes, and Exercises. 1s. 6d.

This series will consist of selections from the masterpieces of nineteenth-century French authors. Each volume will contain a series of questions upon the text, grammatical drill upon points which arise in the course of reading, and suggestions for free composition, parsing, dictation, &c. A biographical note (in simple French) descriptive of the career of the author serves as an introduction to each text.

*Other volumes to follow.*

## MURRAY'S ENGLISH LITERATURE SERIES.

A COURSE FOR SCHOOLS AND COLLEGES.

By E. W. EDMUNDS, M.A., B.Sc. Lond., Senior Assistant Master at the Luton Secondary School; and

FRANK SPOONER, B.A. Lond., Director of Education for Bedfordshire.

*Athenæum* (September 14, 1907).—"For inculcating an intelligent and lasting acquaintance with its subject, the present series is likely, in our opinion, to prove the best of its kind."

### The Story of English Literature.

Vol. I.—The Elizabethan Period, 1558-1625. 3s. 6d.

Vol. II.—Seventeenth and Eighteenth Centuries, 1625-1780. 3s. 6d.

Vol. III.—Nineteenth Century, 1780-1880. 3s. 6d.

*Athenæum*.—"In this, the first volume of the 'Story,' Mr. Edmunds has been most successful: it is lucid, eminently readable, and never dull. In addition, the author's criticism, though he lays no claim to originality, is freshly expressed and often suggestive."

### Readings in English Literature.

I.—The Elizabethan Period, 1558-1625.

Junior Course, 2s. 6d. Intermediate Course, 2s. 6d.  
Senior Course, 3s. 6d.

II.—Seventeenth and Eighteenth Centuries, 1625-1780.

Junior Course, 2s. 6d. Intermediate Course, 2s. 6d.  
Senior Course, 3s. 6d.

III.—Nineteenth Century, 1780-1880.

Junior Course, 2s. 6d. Intermediate Course, 2s. 6d.  
Senior Course, 3s. 6d.

*Academy*.—"The terribly uninspiring 'School Reader' of the early Victorian days is happily a thing of the past, but in spite of the many excellent modern collections we have found few as extensive or as representative as the volumes of 'Readings in English Literature.'"

*Prospectus on application.*

JOHN MURRAY, Albemarle Street, W.

# J. & J. PATON,

Educational Agents,

143 CANNON STREET, LONDON, E.C.,

Telephone 5053 Central,

## PRINT PROSPECTUSES.

Specimens with estimate of cost sent free of charge.

## SUPPLY BLOCKS.

Finest Half-Tone Copper Blocks at reasonable prices.

## RECEIVE ADVERTISEMENTS

for the educational columns of all London, Provincial, Indian, Colonial, and Continental Papers. Estimates and advice as to most suitable Papers sent free of charge.

## RECOMMEND SCHOOLS.

Prospectuses filed and forwarded free of charge to Parents.

# Paton's List of Schools and Tutors.

PUBLISHED ANNUALLY.

AN AID TO PARENTS IN THE SELECTION OF SCHOOLS.

11th Edition will be published in June, 1908.

**J. & J. PATON,**  
EDUCATIONAL AGENTS,  
143 CANNON STREET, LONDON, E.C.

# CLERGY MUTUAL ASSURANCE SOCIETY,

2 &amp; 3 THE SANCTUARY, WESTMINSTER, S.W.

[FOUNDED 1829.]

Patrons—THE ARCHBISHOP OF CANTERBURY; THE ARCHBISHOP OF YORK.  
 President—THE BISHOP OF LONDON. Vice-President—THE LORD HARRIS.  
 Chairman—THE DEAN OF CANTERBURY. Deputy-Chairman—SIR PAGET BOWMAN, BART.  
 Secretary—W. N. NEALE, Esq. Actuary and Manager—FRANK B. WYATT, Esq., F.I.A.

The Society offers the **BENEFITS of MUTUAL LIFE ASSURANCE** without personal liability on highly favourable terms to  
**THE CLERGY AND THEIR RELATIVES.**

**ALL PROFITS BELONG TO THE MEMBERS.**

Accumulated Fund, **£4,242,820.** Annual Income, **£453,897.**

Bonuses Distributed, **£4,256,464.**

**LOW PREMIUMS. LARGE BONUSES.** Notwithstanding the lowness of the Premiums charged, the **BONUSES** are on an **EXCEPTIONALLY HIGH SCALE.**

**NEW AND SPECIAL POLICIES.** Application is invited for the **PROSPECTUS**, and Leaflets explaining two new Policies, with valuable Options.

**1. WHOLE-LIFE CONVERTIBLE ASSURANCES.** Very Low Premium—about one-half the usual rate—during first ten years.

**2. PENSION POLICIES.** Premiums returnable with compound interest in case of death or surrender before pension age. Option to commute for cash.

Assurances without profits, at low rates of premium, may be effected, and Life Annuities on favourable terms may be purchased, by any person irrespective of any special qualification by relationship to the Clergy.

## SPECIMEN OF RATES FOR £1,000, WITH PROFITS.

Age next Birthday.	£1,000 Payable at Death.			£1,000 Payable at Age 60 or earlier Death.		
	£.	s.	d.	£.	s.	d.
25	20	1	8	27	3	4
30	23	3	4	32	10	10
35	26	10	0	40	1	8
40	31	1	8	51	5	0

NOTE.—Under the Reduced Premium System (explained in Prospectus) four-fifths only of these Premiums need be paid, the other one-fifth remaining a charge to be repaid out of Bonus.

No Agents employed and no Commission paid for the introduction of business, whereby £10,000 a year is saved to the Members.

Assurances can be effected by direct communication with the Office, 2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

## PROFESSOR MEIKLEJOHN'S SERIES.

**A NEW GEOGRAPHY ON THE COMPARATIVE METHOD.** With Coloured Maps and Diagrams, and an Outline of Commercial Geography, and Full Index. By J. M. D. MEIKLEJOHN, M.A. Thirty-seventh Edition. Crown 8vo, 630 pp. ... 4s. 6d.

**THE BRITISH EMPIRE: Its Geography, Resources, Commerce, Landways, and Waterways of the British Dominions Beyond the Seas, with Full Index.** By J. M. D. MEIKLEJOHN, M.A. Eighth Edition (Revised to 1906). Crown 8vo, 360 pp. 3s.

**THE ENGLISH LANGUAGE: Its Grammar, History, and Literature.** By J. M. D. MEIKLEJOHN, M.A. Twenty-eighth Edition, Enlarged, with Exercises and Additional Analysis. Crown 8vo, 486 pp. ... 4s. 6d.

"Exactly suited to the wants of pupil-teachers and of candidates for the Government Certificates."—Miss M. GODDARD, Training College, Warrington.

**THE ART OF WRITING ENGLISH.** A Manual for Students. With Chapters on Paraphrasing, Essay Writing, Précis Writing, Punctuation, and other matters. By J. M. D. MEIKLEJOHN, M.A. Sixth Edition. Crown 8vo, 340 pp. ... 2s. 6d.

**SHAKESPEARE'S THE MERCHANT OF VENICE.** With an Introduction and Notes. Edited by FRANCIS STORR, B.A. Crown 8vo, 200 pp. ... 1s. 6d.

"There is everything in this book which a student would want for the preparation for an examination. . . . It is the most carefully prepared exhaustive book on the play for school use we have seen."—*The Teacher's Aid.*

**A NEW HISTORY OF ENGLAND AND GREAT BRITAIN.** With Maps and Tables. By J. M. D. MEIKLEJOHN, M.A. Twenty-third Edition. Crown 8vo, 740 pp. ... 4s. 6d.

"Your books are simply indispensable to students preparing for the Certificate Examination and to pupil-teachers."—H.M. INSPECTOR.

**A SCHOOL HISTORY OF ENGLAND.** By J. M. D. MEIKLEJOHN, M.A., and M. J. C. MEIKLEJOHN, B.A., sometime Adam de Brome Exhibitioner, Oriel College, Oxford. Fifth Edition. Crown 8vo, 470+viii pp. ... 2s. 6d.

**TEST QUESTIONS IN HISTORY.** Selected from Public Examination Papers, Arranged by A. T. FLUX. 8vo ... 1s.

**A NEW ALGEBRA.** As far as the Binomial Theorem. Including a Chapter on Graphs. By G. COLLAR, B.A., B.Sc. (Joint-Author of "A NEW ARITHMETIC"). Crown 8vo, 438+viii pp. ... 4s. 6d.

"We are confident of the book's success."—*The Teacher.* "An able, careful, and attractive work."—*The Educational Times.*

**A NEW ARITHMETIC.** Theoretical and Practical. By G. A. CHRISTIAN, B.A. (Lond.), and G. COLLAR, B.A. (Lond.). Thirteenth Edition. Crown 8vo, 562 pp. ... 4s. 6d.

"We recommend teachers and students to judge for themselves what a powerful auxiliary to success has been given them by the experience and judgment of the able authors."—*The Schoolmaster.*

Complete Catalogue will be sent on application.

MEIKLEJOHN & HOLDEN, 11 Paternoster Square, E.C.

# COLLEGE OF PRECEPTORS' CERTIFICATE EXAMINATIONS.

Set Subjects, 1908.

- CAESAR.—GALLIC WAR, BOOK I.** By A. H. ALLCROFT, M.A. Oxon., and F. G. PLAISTOWE, M.A. Camb. 1s. 6d. Vocabulary. 1s.
- CAESAR.—GALLIC WAR, BOOK II.** By A. H. ALLCROFT, M.A., and W. F. MASOM, M.A. 1s. 6d. Vocabulary. 1s.
- CICERO.—IN CATILINAM, I.—IV.** By J. F. STOUT, B.A. Camb. 2s. 6d.
- EURIPIDES.—HECUBA.** By T. T. JEFFERY, M.A. Camb. 3s. 6d.
- HORACE.—ODES, BOOK III.** By A. H. ALLCROFT, M.A. Oxon., and B. J. HAYES, M.A. Camb. With complete Alphabetical Lexicon. 1s. 6d.
- VIRGIL.—AENEID, BOOK I.** By A. H. ALLCROFT, M.A. Oxon., and W. F. MASOM, M.A. Camb. With complete Alphabetical Lexicon. 1s. 6d.
- VIRGIL.—AENEID, BOOK X.** By A. H. ALLCROFT, M.A. Oxon., and B. J. HAYES, M.A. Lond. and Camb. With complete Alphabetical Lexicon. 1s. 6d.
- XENOPHON.—ANABASIS, BOOK I.** By A. H. ALLCROFT, M.A. Oxon., and F. L. D. RICHARDSON, B.A. 1s. 6d.
- HISTORY, PRELIMINARY CERTIFICATE BRITISH.** By C. S. FRARENSIDE, M.A. Periods for First Class: (I.) 1017-1399; (II.) 1399-1603; (III.) 1603-1714. 1s. each Part.
- SHAKESPEARE.** Edited by Prof. W. J. ROEHR, D.Litt. *Merchant of Venice.* 2s. *Julius Caesar.* 2s. 6d.

*Complete Catalogue of the University Tutorial Series, and List of Books for Oxford and Cambridge Locals, College of Preceptors, and London University Examinations, post free on application.*

University Tutorial Press, Ltd.,

W. B. CLIVE, 157 Drury Lane, London, W.C.

## THE STEREOSCOPE IN EDUCATION.

"It is difficult to discover a subject in school curricula which cannot be helped by means of the Stereoscope," says G. F. DANIELS, B.Sc., in the *School World*.

For class room work the Stereograph is unequalled, and far surpasses anything in the way of illustration that has ever been placed in the hands of the teacher. By its proper use the attention of the class is more easily secured; there is created an incentive for more diligent study; the interest of the dullest boy is aroused; the dormant faculties of the child are stimulated and awakened, and many points that were previously abstract and difficult of comprehension become simple and are easily understood.

"We are much pleased with your set of Stereoscopic Slides to illustrate the teaching of Solid Geometry which we have just purchased, and think they will prove very helpful in enabling a pupil to grasp quickly and thoroughly the principles of the problems illustrated.

"We are glad you have thought of this addition to your other very useful sets of Stereoscopic views—they make the work of teacher and pupil much lighter than it could possibly be without them."—C. E. and B. M. STEVENS, Young Ladies' School, Brighton.

**Solid Geometry through the Stereoscope.** Prepared by EDWARD M. LANGLEY, M.A., of Bedford Modern School.

**Geography through the Stereoscope: Teachers' Manual. Geography through the Stereoscope: Students' Field Guide.** Prepared by PHILIP EMERSON, Principal of Cobbett School, Lyn, Mass., and WILLIAM CHARLES MOORE, Instructor in Geography at State Normal School, Salem, Mass.

The Underwood System of Instruction by means of Stereographs, sometimes called the Laboratory Method, has come to be used in a large array of the best schools of this country, and educational experts have pronounced it the most practical means at hand of teaching the subjects to which it applies.

Send for particulars to—

UNDERWOOD & UNDERWOOD, School Department, 104 High Holborn, London, W.C.

### ADVERTISEMENT SCALE

Whole Page—Ordinary	£4 10 0	.....	Position	£5 10 0
Half Page	" 2 10 0	.....	"	3 0 0
Quarter Page	" 1 10 0	.....	"	1 15 0
Per inch in broad column (half width of page)	...			0 7 0
Narrow Column (one-third page)	.....			2 0 0

General Scholastic Advertisements (Colleges, Schools, Classes, Tuition, &c.), 3s. 6d. for 6 lines, or 4s. 6d. the inch.

Situations Vacant and Wanted—30 words or under, 2s.; each additional 10 words 6d. (For 1s. extra, Replies may be addressed to the Publishing Office, and will be forwarded post free.)

### CURRENT EVENTS.

M. L. GRAVELINE will address the Société Fixtures. Nationale des Professeurs de Français en Angleterre, at the College of Preceptors, on "La Femme dans l'Histoire de France," on June 27, at 4 p.m.

THE Foundation Day Oration at University College, London, will be delivered by Mr. J. Lewis Paton, M.A., High Master of Manchester Grammar School, on June 4 (evening; not afternoon, as previously arranged).

THE Annual Conference of the Association of Head Mistresses will be held at Manchester High School on June 19 and 20. Mrs. Woodhouse, President.

THE London Geological Field Class will make excursions: June 13, to Sheppey or Herne Bay (Sea Work and River Work); June 20, to Radley (Union of Isis and Thames). Hon. Sec.: J. W. Jarvis, F.G.S., St. Mark's College, Chelsea, S.W.

VACATION Courses for Foreigners will be held at the Lycée de Jeunes Filles de Versailles, August 3-22 and August 31-September 19. Directeur honoraire: M. Emile Bourgeois, Professeur à l'Université de Paris. Apply to Mme. E. Kahn, Professeur Agrégée de l'Université, Lycée de Jeunes Filles, Versailles, 9 Avenue de Paris (Directrice des Cours).

THE Sixteenth International Congress of Americanists will be held under the presidency of Baron Weckbecker at the University of Vienna, September 9-14. The object of the Congress is to promote scientific inquiries into the history of both Americas and of their inhabitants. Further information from Herr Franz Heger, Vienna (Austria), I., Burging 7.

THE University of Oxford has conferred the Honours. honorary degree of D.Sc. upon Prof. William James, LL.D., late of Harvard University, and the honorary degree of D.Litt. upon Prof. T. Northcote Toller, M.A.

THE University of Oxford has conferred the degrees of Mus. Doc. and M.A. upon Sir Walter Parratt, the new Professor of Music.

THE University of Cambridge proposes to confer the honorary degree of LL.D. (June 20) upon the Archbishops of Cape Town and of the West Indies, and the Bishops of Calcutta, Missouri, London, Salisbury, Massachusetts, Southwark, Birmingham, Liverpool, and Uganda.

It is also proposed to confer the honorary degree of M.A. upon Sir E. T. Candy, C.S.I., Teacher of Indian Law, and Mr. A. Henry, Reader in Forestry.

THE University of Wales has conferred the honorary

degree of LL.D. upon the Rt. Hon. D. Lloyd-George, M.P., Chancellor of the Exchequer.

PORTRAITS of Emeritus Professor Robertson and Emeritus Professor McKendrick, and a medallion of Prof. Cleland, have been presented to the University of Glasgow.

PROF. H. POINCARÉ, on resigning the Chair of Astronomy in the École Polytechnique, Paris, has been appointed Honorary Professor.

PROF. HUME BROWN, of Edinburgh University, has been appointed Historiographer Royal for Scotland, in succession to the late Prof. Masson.

THE RIGHT HON. HERBERT HENRY ASQUITH, Hon. D.C.L., K.C., M.P., Prime Minister, formerly Fellow of Balliol College, Oxford, has been elected an Honorary Fellow of that Society.

MR. JAMES R. THURSFIELD, M.A., has been elected an honorary Fellow of Jesus College, Oxford. He was Fellow and Tutor of Jesus 1864-81, and is a well known writer on naval matters.

PROF. SEWARD has been elected an honorary Fellow of Emmanuel College, Cambridge.

THE REV. T. C. TWITCHELL, B.A., Bishop-designate in Polynesia, has been elected a Fellow of King's College, London.

THE schoolmasters participating in the Dick Bequest (counties of Aberdeen, Banff, and Elgin) have presented an illuminated address to Prof. Laurie on his retirement from the position of Visitor and Examiner for the Dick Trust after more than fifty years' service; with a suitable gift to Mrs. Laurie.

**Endowments and Benefactions.** MR. THOMAS WEBB, of Kensington and Tunbridge Wells, has left £5,000 to University College, London, and £5,000 to University College, Cardiff (for physical research); also to the same Colleges, subject to contingencies, his residuary estate in equal shares.

DR. HENRY CLIFTON SORBY, F.R.S., of Sheffield, has left £15,000 upon trust to the Royal Society of London for a Fellowship or Professorship for conducting original researches; £6,500 to the University of Sheffield for a Professorship in Geology; and £500 to the Literary and Philosophical Society of Sheffield.

COLONEL J. E. CUTLER has transferred to the University of Sheffield, for its general purposes, freehold ground rents of the annual value of £49 (= a capital of some £1,300).

THE trustees of the fund (over £1,500) raised by medical graduates in London has been handed over to the trustees of Lord Curzon's Endowment Fund, the interest to be applied to the needs of the Department of Pathology in Oxford University.

THE bronze copy of Mr. Goscombe John's statue of the seventh Duke of Devonshire, Chancellor of Cambridge Uni-

versity, 1862-91, has been presented to the University on behalf of subscribers.

DR. ALDIS WRIGHT, Vice-Master of Trinity, proposes to transfer to the library of the University of Cambridge all the documents in his possession connected with the Revision of the New Testament and the Apocrypha. Mrs. Troutbeck, widow of the late Secretary of the Revision Committee, will complete the series by depositing in the same library the documents connected with the Revision of the New Testament that were, at Dr. Troutbeck's death, deposited in the Chapter Library, Westminster.

THROUGH the generosity of a few prompt subscribers, a notable addition of books has been made to the Chinese department of the Cambridge University Library—51 separate works, numbering 1,203 volumes in all. Several important lacunæ have been filled up.

THE REV. J. D. GRAY, Vicar of Nayland, has given some 4,000 specimens of British plants to the Herbarium of the Botany School, Cambridge University.

A MEMBER of the University of Cambridge has offered £300 a year for five years towards the stipend of the proposed Professorship of Biology, and to increase the gift to £400 a year for such portion of the five years as the Professor may hold a Professorial Fellowship.

THE University of Leeds is still £10,000 short of the £100,000 stipulated for by the Privy Council on recommending the grant of its charter. But Lord Ripon, the Chancellor, boldly appeals to the city of Leeds and the county of York for £30,000.

THE LATE MR. J. W. CROMBIE, M.P., left to Aberdeen University, subject to contingencies, one-fourth of the ultimate residue of his estate for laboratories or educational apparatus or such other educational purposes as the University Court, with consent of his trustees, shall see fit.

LORD BARNARD has given £1,000 to the Agriculture Department of Armstrong College, Newcastle-on-Tyne.

THE Court of Common Council of the City of London has founded at the City of London School a scholarship of £100 a year for three years, tenable at Oxford or Cambridge, in commemoration of Mr. Asquith's accession to the Premiership. Mr. Asquith is an "old boy" of the City of London School.

THE Gilchrist Educational Trust has promised a grant of £50 for two years to the Women's Department, King's College, London, for the special courses in Home Science and Household Economics. (See "Scholarships.")

**Scholarships and Prizes.**

AT Oxford, Scholarships, &c., will be offered for competition as follows:—June 2, Classics, and Law (Brasenose); June 9, Classics (Exeter); June 12, Music (Balliol); June 25, Classics, Mathematics, History, English, Modern Languages (Worcester); June 30, Natural Science (Balliol, Brasenose); December 1, Classics (Exeter, Oriol, Brasenose, Christ Church); December 8, Classics (University, New, Corpus Christi); March 16, 1909, Classics (Magdalen). June 16, Exhibitions (no age limit) in Mathematical and Natural Science (St. John's): apply to Senior Tutor by June 6.



EXETER COLLEGE, Oxford, offers (June 9) an open Classical Scholarship (£60), a Classical Exhibition (£30), and a Divinity Exhibition (£60). Further information from the Rector.

A COMBINED examination for 41 Scholarships and various Sizarships and Exhibitions, at Trinity, Clare, Trinity Hall, Peterhouse, and Sidney Sussex Colleges, Cambridge, will commence December 1. Particulars from any of the Tutors of the several Colleges.

TRINITY HALL, Cambridge, offers two or more open scholarships (not less than £40) to candidates undertaking to enter in due course for the Law Tripos. Examination, June 17. Apply to the Tutor.

ROYAL HOLLOWAY COLLEGE offers ten Entrance Scholarships (£50 to £60) and several Bursaries (not more than £30) tenable for three years. Examination, June 29 to July 4. Names to be entered by May 30. Forms, &c., from the Secretary.

KING'S COLLEGE, Women's Department, offers a scholarship of £30 a year for one year (part of the Gilchrist Trust grant, see "Endowments") to a graduate of an approved University of not more than three years' standing (from December last). Apply to the Vice-Principal, 13 Kensington Square, W., by June 10.

THE International Peace Bureau, Berne (Switzerland), offers a prize of 1,500 francs (£60) for "the preparation of a Manual for Teachers in schools of all kinds, explaining the principles of International Peace and their application."

#### Appointments and Vacancies.

Manchester.

In the preliminary draft of the articles of charters for the proposed new University in Ireland, Dr. D. J. Coffey is nominated President of the Dublin College; Dr. Bertram C. A. Windle, of the Cork College; and Dr. A. Anderson, of the Galway College.

SIR WALTER PARRATT has been appointed Professor of Music in the University of Oxford, in succession to Sir Hubert Parry.

MR. C. FREWEN JENKIN, B.A. Cantab., A.M.I.C.E., has been appointed Professor of Engineering in Oxford University. Prof. Jenkin is a son of the late Prof. Fleeming Jenkin, F.R.S., of Edinburgh University.

MR. W. H. BRAGG, M.A., F.R.S., Professor of Mathematics and Physics in Adelaide University (since 1886), has been appointed to the Cavendish Chair of Physics in the University of Leeds.

PROF. STANLEY DUNKERLEY, D.Sc., M.I.C.E., has resigned the Chair of Engineering in Manchester University through ill-health, after three years' tenure.

THE REV. PROF. SKINNER, M.A., D.D., Westminster College, Cambridge, has been appointed Principal of the College, in succession to Dr. Oswald Dykes, resigned.

THE REV. E. E. NOTTINGHAM has resigned, through ill-health, the Principalship of the York Training College.

MISS H. M. STEPHEN, Warden of the Alexandra Hall of Residence, University College, Aberystwyth, has resigned her post, through ill-health.

MR. H. L. SMITH, B.Sc., A.I.C., has been appointed Lecturer in Chemistry in King's College, London.

MR. J. W. BEWS, M.A., Lecturer in Economic Botany, Manchester University, has been appointed Lecturer in Plant Physiology in Edinburgh University.

MR. A. C. B. BROWN, B.A., Assistant Lecturer in Classics, Manchester University, has been appointed to a Mastership at Marlborough College.

MR. A. H. WHIPPLE, M.A., B.Sc., Director and Secretary of Education at Walsall, has been appointed Director of Education for Blackburn.

MR. F. H. COLSON, M.A., has resigned the Head Mastership of Plymouth College, which he has held since 1889.

MR. L. HANSEN BAY, Head Master of Deacon's School, Peterborough, has been appointed Head Master of Wirksworth Grammar School.

MR. A. J. FREEMAN, P.-T. Centre, Bristol, has been appointed Head Master of Callington Secondary School.

THE REV. J. H. NEWSHAM-TAYLOR, B.A. Oxon., has been appointed Senior Classical Tutor at Llandovery College.

MR. G. MORRIS, M.A., has been appointed Classical Master, and Mr. H. Lonsdale, B.A., French Master, at Maidenhead Modern School.

MR. J. D. SUTHERLAND, M.A., has been appointed Mathematical Master at the Normal High School, Edinburgh.

#### Literary Items.

MESSRS. CHATTO & WINDUS announce a new series of "beautiful books in the choicest types"—the Florence Press books, printed from a new fount designed by Mr. Herbert P. Horne after "the finest types used by the Italian Master-Printers of the Quattrocento and Cinquecento." "The Books may be original works or reprints, but all will be of the highest intrinsic value, and usually works dealing with Italian Art, Literature, and History."

MR. J. H. FOWLER'S paper on "English Literature in Secondary Schools," read before the English Association (January 11), is now published as one of the Association's Leaflets (No. 5).—The English Association's Bulletin No. 4 (May) is also just issued.

MR. MURRAY publishes in pamphlet form the addresses delivered by the Vice-Chancellor of the University of London and by Professors Hobhouse and Westermarck at the Inauguration of the Martin White Professorship of Sociology

(1s. net).—Also the Creighton Memorial Lecture, on "The Wardens of the Northern Marches," delivered by Dr. Hodgkin (1s. net).

MESSRS. PHILIPS'S "Library of Optical Lantern Slides, specially prepared for Educational purposes" (6d. net), is a very ample and varied catalogue of admirable means of illustration of many subjects—Physiography, Geography, History (modern and classical), Botany, Astronomy, Human Anatomy, &c.

THE University of Liverpool has approached the Convocations of Manchester, Leeds, and Sheffield, "with a view to joint action being taken to obtain, at the earliest opportunity, a Parliamentary representative for the four Northern Universities." In Manchester Convocation a motion in favour of the proposal was defeated by 20 votes to 17 (May 8).

THE Bristol City Council has passed with enthusiasm a resolution in favour of the proposal "to establish a University for Bristol and the West of England, and agreeing to give financial assistance to such University in the event of a charter for its establishment being obtained, provided arrangements as to the constitution of the University satisfactory to the Council have been made."

THE KING, accompanied by the Queen, will open the new buildings at Leeds University in July.

LORD ROSEBERY is to be installed Chancellor of the University of Glasgow on June 12.

MR. LLOYD-GEORGE has been adopted as Liberal Candidate for the Lord Rectorship of Glasgow University, in room of the late Sir Henry Campbell-Bannerman.

A LECTURESHIP in Geography is to be established in the University of Glasgow.

A PROFESSORSHIP of Biology is to be established in the University of Cambridge. (See "Endowments.")

THE University of Sheffield has resolved to establish a Faculty of Law.

A TRAINING COLLEGE for Women is to be established at Cambridge for the provision of teachers for the Eastern counties, at an estimated cost of £30,000. Towards this the Board of Education will provide £21,000, the balance to be found by the associated Authorities.

THE READERSHIP IN GEOGRAPHY AT CAMBRIDGE comes to an end at Michaelmas of this year, it having been instituted for only a limited period, owing to the uncertainty of its financial position. The Board of Geographical Studies have been in consultation with the Council of the Royal Geographical Society, and the Council recognizing, in view of the great extent of the ground to be covered, the necessity for increased specialized instruction, have generously offered to contribute to the Geographical Education Fund a sum of £200 a year for three years from Michaelmas, 1908, to be apportioned to two Lectureships—£150 to a Lectureship in Regional, or Physical, Geography, and £50 to a Lectureship in Surveying and Cartography, each Lectureship to bear the name of the Royal Geographical Society. The Readership at present existing will, therefore, be allowed to lapse when its renewal comes up for consideration at Michaelmas, and the Board will contribute £200 a year for three years to the Geographical Education Fund.

### SCHOOL LIFE AND HEALTHY GROWTH.

At the Evening Meeting of the members of the College of Preceptors on Wednesday, May 13, the Rev. J. O. BEVAN in the chair, Dr. HUBERT E. J. BISS, M.A., M.D., D.P.H., read the following paper:—

I took as the title of this lecture the words "School Life and Healthy Growth" because the child is a growing animal, and anything that acts unfavourably on him produces disorder or deformity in some of the functions or structures of his body; whilst for the proper unfolding of his faculties and for the proper development of his frame, his surroundings and conditions of life must be of a fit and health-giving character. As a matter of fact, I nearly used the expression "Physical Development" instead of "Healthy Growth," but I remembered that by a conventional perversion of language these words have come to signify, to the minds of most, either certain dreary Scandinavian acrobatic contortions or those agile feats performed before breakfast with pieces of elastic nailed to the bedroom door, which diligent advertisement has induced people to think are requisite for their temporal salvation. I think it is hardly necessary to say to an audience of practical school teachers like yourselves that these performances are neither normal nor essential to the healthy growth and proper physical development of the normal child. I shall deal presently with the questions of exercise and games, but here I should merely like to remark that healthy growth connotes happiness, and that the trouble expended in cultivating healthfulness is amply rewarded by the corresponding relief from the burden of management. I suppose the name Herbert Spencer is one of the bugbears of the school-teacher's life. I will inflict on you but one quotation from his "Essay on Education." "Vigorous health," he says, "and its accompanying high spirits are larger elements in happiness than any other things whatever; the teaching how to maintain them is a teaching which yields in moment to no other whatever."

Now, though I have been given a roving commission to range over the whole subject of school hygiene, the severe limits of an hour will not allow me to make more than a very partial use of it, and I hope that you will not conceive the idea that because I say very little that is useful there is very little that is useful to be said. If you were given 60 minutes into which to compress the history of England from the accession of Charles I. to the death of Queen Anne, you would be able to appreciate my dilemma.

#### THE GROWTH OF THE BODY.

Let us consider first the growth of the body. The growth of the tissues is the measure of the benefit they obtain from the nourishment (using that word in the widest sense) supplied them. But, important as positive growth is, the significance of proportional growth is greater still, and the relative increase of body and brain, of chest and abdomen, of trunk and limb, are indications on which the child's guardian may found, and should found, the ordering of his life and studies. It is regrettable that we have not in this country that mass of authenticated statistics on these points which alone can tell the proper mean for the rate of growth for children of all ages, varieties of parentage, disposition, and social grade. Figures there are, of course, in abundance in this country, but they are yet mostly very crude, and generally merely represent the result of a single series of observations on the children in a certain town. But what is really called for is full information as to the rate of growth in both sexes, at all ages, and under all circumstances affecting growth. Such figures are not yet compiled, but, lying as they do at the root of all intelligent and accurate child study, it is much to be hoped that those in charge of children will set to work diligently to compile them. Even the figures we have, properly used, may often yield valuable information. For instance, we have, let us say, a lad of twelve, of Anglo-Saxon lineage and born of parents in good circumstances. We expect his height to be 4 ft. 9 in. and his weight 5 stone 10 lb. But he only measures 4 ft. 7½ in. and weighs 5 stone 4 lb. Is this pathological? Is it the result of any defect of nutrition? As stated, we cannot say. He may come of a stock whose shortness of stature is hereditary; or he may have just recovered from a severe attack of scarlet fever, which arrested his growth for the time; or he may have been very small when he was younger, and now he is increasing by leaps and bounds. But, if his parent or master is able to say that a year ago his height was 4 ft. 7 in. and his weight 5 stone 3 lb., then we know that there is some faulty

factor in his health, for, whereas he was normal in height and weight a year ago, and should normally have gained 2 in. in height and 7 lb. in weight, he has only gained  $\frac{1}{2}$  in. in height and 1 lb. in weight. To arrive at this result, however, accurate methodical records of his progression in height and weight must be forthcoming. Now suppose, during this period, he has shown undue brilliancy in class, or that he has been working for a junior scholarship, or that he has developed a great aptitude for the violin, and has been practising three hours a day out of school, we shall probably conclude that the nutrition which should have gone to build up his body has been diverted to feed his brain. And this surely is information fraught with the most momentous consequences to the child himself. By ordering him away to live for six months on a farm, where there are no books and no violins, the balance of nutrition may be restored, and a mental or nervous breakdown, or an attack of tuberculosis or similar disaster, may be averted. To accomplish this beneficent end no more complicated machinery than a foot-rule and weighing apparatus is required, and no greater qualities than common sense and a little foresight.

Let us take another example. A girl of Celtic parentage, with dark hair and eyes, is growing at the rate of two inches a year. At the age of fifteen she only increases an inch, and the next year half an inch, her total height being only 5 ft.  $1\frac{1}{2}$  in. But she weighs 8 stone, and her mental faculties, though bright, are not sufficient to raise her above the middle of her class. Is the fall in the increase of her height a cause for anxiety? Is she becoming stunted, and is there any reason to suspect perverted nutrition? Other things being equal, the answer would be, No. At that age, in a girl of that type, without any other concomitant signs, the reasonable conclusion is that she is approximating to the mean, that she is not going to be tall, and that her growth is ceasing at about the normal period and the normal rate.

Now, though I have given these two examples, I am loth that you should think that they are intended to be anything more than illustrations. Badly as we want statistics of every kind of child, at every age, of every race, under every circumstance of climate and surroundings, even if we had these figures worked out to ten decimal places and purged of every statistical fallacy, the truth remains that every child is to a certain extent a law unto itself. Some children grow with uniform velocity others, by fits and starts; some thrive under the most adverse circumstances, others are affected by every unkind breeze: physical characteristics, in a word, are wellnigh as variable as moral dispositions. With a fuller knowledge of the science of puericulture and with full information about the individual child, far greater accuracy could be obtained in forming an opinion of the causes of departures from the normal in any given case; but even now, with a trustworthy history of a child's development, previous life, and present circumstances, it is possible to do much to regulate their school life on lines which give the greatest play to their natural aptitudes and restrict the opportunities for harm of their natural deficiencies.

#### THE DEVELOPMENT OF THE BRAIN.

The brain is the organ of the mind. Nothing will induce me to discuss here whether the brain secretes thoughts or thoughts secrete the brain; whether the mind is the same as the soul, or whether the soul resides in the pineal gland or is the attribute of the brain as a whole. All are agreed, however, that the brain is the organ through which the mind operates, and that on the development of the brain depends the subtlety and range and force of the mind, as we find them exhibited in the external life of the individual. The object of education is to encourage this development. Now the brain is an organ composed of nervous tissue, which, like all other tissues, requires for its sustenance and growth a due supply of blood. It is by the supply of healthy blood that the elaboration of the brain-tissue takes place, and the channels of communication between its various parts are opened up and established. Different parts of the brain perform different functions, and it is exercise which increases the blood supply of the parts, makes them grow in size and become functionally more active and more closely *en rapport* with each other. A quick-witted person is one in whose brain the paths which the stimuli traverse are well opened and free of access; in a stupid person, the brain-paths are few and little developed. Education, by increasing the blood supply, both nourishes the centres of thought and action in the brain and encourages the growth of passages of facile communication. The brain, in a word, grows physically, and the parts of the brain grow physically also. The full development of the brain in a man is not

attained till between thirty and forty, and, though it seems ungallant to say so, truth compels one to admit that in woman full growth ceases ten years earlier.

From these facts, it needs no particular strain on the imagination to deduce that education is doing useful and healthful work for exactly as long as it is directing a full stream of pure blood to the brain; that it does harm when through fatigue the blood-vessels are no longer delivering a full stream or a pure stream; and, further, that it does even greater harm when it continues to flood the brain with blood which cannot be removed by the veins at a proper rate, so that an accumulation takes place and the organ is congested. Moreover, as has been pointed out before, the direction of the blood-stream to the brain correspondingly diverts it from the rest of the body, and corporal nutrition and growth are perverted. It may be news to some of you that congestion of the brain is capable of being seen by the human eye. Although the brain itself is locked up in its bony case—the skull—there is a delicate prolongation of the brain, known as the optic nerve, which passes from the base of the organ to the back of the eye, and by means of the ophthalmoscope—an instrument which throws light through the clear window in the front of the eye—the termination of this nerve can be seen and its condition as to healthiness judged of.

As the brain depends for its development on the blood supply, it follows that if, through bodily ill-health or debility or malnutrition, the blood be not in a condition of health, not only may brain development be retarded, but the development may take place in a morbid direction and the groundwork of mental trouble be laid for life.

#### SCHOOL CONDITIONS OF HEALTHY GROWTH.

Let us turn now to the school conditions which make for healthy growth of mind and body. Here we find ourselves involved in a mass of considerations which might fruitfully occupy twenty lectures; a few only can be touched upon, and those only with the lightest possible hand. Drains I must not worry you with. They constitute a complicated and not very seductive subject. Moreover, most educated people nowadays understand that good drains are a prime essential of good health, and take care that their drains are "seen to." I would, however, add that every schoolmaster and mistress ought to know the general principles of house drainage, and be able to criticize plumbing work. Builders are only human, and if they know their customer is utterly ignorant, they even now are apt to palm off the most awful atrocities under the sacred name of modern sanitation. Drains suggest the site of the school, and here again, beyond saying that the school should be built on dry ground, which is easily drained, and that it should be capable of enjoying the maximum of sunlight and fresh air, I must not tarry.

#### PLAIN FOOD: PLENTY OF SUGAR AND FAT.

A prime condition of growth is the supply of material to form new tissue: the body, like the appetite of some people, grows by what it feeds on. The food of the growing child is the raw material of his increase in wisdom and stature, and a due proportion of plain healthy food, in which the elements of proteid, fat, carbo-hydrate, salts, and water, are judiciously combined, it is the duty of his guardians to provide.

Jerome Cardan, writing three hundred years ago, made the remark: "Trust a schoolmaster to teach, but not to feed your children." The advice was timely, no doubt, then and for most of three centuries following, but, though food is perhaps stunted now in some of the cheaper boarding schools, from what I know of middle- and upper-class schools the tendency is now rather to provide rich and unsuitable food than to underfeed. I was consulted the other day by a cook in service at a school for little boys, from whom I learned, in course of conversation, that sausages and kidneys were regular breakfast dishes. Though one could not but admire the generosity of the head master, one felt that it might have been better tempered with discretion. For insufficiency in diet there can surely be no excuse. I was recently told by a practical schoolmaster that he fed his whole establishment like fighting cocks on an average of 7s. a week. I do not know if sausages and kidneys entered largely into his dietary scale, but I know that game, poultry, and fish figured prominently. The £14 a year or so that this arrangement implied must bear a very small ratio to the fees charged. The motto, then, for school-catering should be "Nec prodigus, nec avarus." In quality, food should be plain, nutritious, and easily digestible, and if these conditions be observed the child can generally be trusted not to over-eat itself. Few

boys stuff themselves to repletion with mutton, and girls seldom surfeit themselves with oatmeal porridge. For the growing child, two elements in food need to be forthcoming in abundance—namely, sugar and fat. It is not merely an excess of gluttony that leads children to spend their pennies in sweets—rather is it an expression of a bodily craving which the ordinary diet fails to fulfil, just as to natives in some parts of Africa salt is the most delicious treat they can have. In children chocolates and fondants produce that sense of *bien-être*, which, when adult, they find in alcoholic liquors. And, as man obtains relief from the discomforts of his surroundings in a draught of whisky or a couple of glasses of port, the child makes up for the defect he feels in his scholastic entourage with jujubes and other nauseating compounds. In both the craving may take on morbid dimensions, and lead to undue indulgence; but the proper method of weaning the child from tuck is to give him plenty of sugar, fruit, jam, and golden syrup with his meals.

Fat is another element of diet which the child should be plentifully supplied with. Both fat and carbo-hydrate (sugar and starch) form the reserve stores upon which the body draws in exercise. They are easily used up, and in the restless period of childhood their abundant replenishment is called for. Fat, however, is not very digestible in all its forms. Suet pudding has always been a popular school-dish, but it is notoriously heavy; and many children are not partial to the fat of meat. On the other hand, butter is generally much liked, and cream is a seldom failing draw. The dislike of fat is a real difficulty in the case of many children, and it is one that even the most Spartan firmness cannot always conquer or eradicate. Many people carry this dislike throughout their lives, and I am sure that Dickens was one of them. It has frequently struck me that, when he wants to suggest disgust, he speaks of fat as though it were the most loathsome thing even his lively imagination could conjure up. Another fat-hater, I think, must be Mr. Anstey. Who can forget how Mr. Bultitude's stomach turned when a cold sardine floating in oil was served up to him for his first school breakfast, in lieu of the "meat" which he had paid for, and which he looked forward to with such hungry solicitude? By the contrariness of nature, as a rule, the children who hate fat are just those who need it most: lean, neurotic, fastidious little creatures. No pains should be spared in circumventing their dislike. Where butter and cream have both failed, the despised but wholesome margarine may sometimes succeed. At any rate, it is worth trying.

#### OPEN WINDOWS: FRESH AIR.

Ventilation is another factor in growth. From the very word many people have learned to recoil in alarm. Visions of tubes, and valves and hoppers spring instantly to the mind, and the miseries of freezing feet and burning cheeks, icy draughts down the back of the neck, and flapping noises in the chimney, rise to the memory as marking the incursion of some ventilation-crank into the peaceful, stuffy home. Our ancestors knew as little of ventilation—at any rate since they could afford glass in their windows—as they did of hot baths and other necessities of civilized existence; and I think that those folk who have grown up to middle age without knowing the blessings of the open window are more or less inured to the effects of breathing into their lungs the vapours that other people have breathed out of theirs. But for the young a plentiful supply of oxygen and the tonic properties of fresh air are inestimable boons, especially if they are to grow up better men than their sires. I would, however, emphasize the expression just used—the *tonic properties of fresh air*—for there be those who attempt so-called "scientific" systems of ventilation, which after pumping air through cotton wool, straining it through mats, and spraying it with water, drive the residue through the rooms with fans, and think the atmospheric millennium has arrived. People inhabiting institutions so furnished complain of lethargy and sleepiness, just as do those who sit in stuffy rooms—the reason being that their mentors have taken all life and freshness out of the air. The difference is that between the insipid taste of boiled water and the buoyance and sparkle of a draught from the spring. Fresh air is fresh because it is fresh, and it is laid on fresh to every home in illimitable quantities. The open window is the best of all systems of ventilation and the cheapest. Fresh air is the heritage of the growing child, and nothing but driving rain should cause the closure of his window night or day.

#### CLOTHING.

Clothing as affecting growth must be dismissed very curtly, though a whole lecture might well be devoted to it. Any garment

which constricts or presses on any part of the body impedes its proper development; and I pass from the subject with a plea in favour of the sweater as a substitute for the waistcoat, the usual, but apparently ineffective, anathema against stays, and the observation that pure wool is not the ideal underwear for children who perspire freely.

#### SEATS AND DESKS.

The whole design of the school buildings has a far-reaching influence over the growth of the pupil. I have so recently spoken in this room of the construction and design of the schoolroom with a view to obviating eye-strain that I will not go over the ground again, beyond saying that there is hardly a question in school hygiene of more vital moment than that of encouraging the healthy development of the eye by every known means.

I want, at the moment, to speak particularly of the school desk as a factor in development, for to the desk the child is chained for five or six hours a day, and its faulty construction is responsible for much perverted and stunted growth. With desks may be included seats. The objects to be aimed at in the construction of seats and desks are that the child may sit upright comfortably, but cannot lounge comfortably; that contact with the seat shall come where pressure is harmless, and that there be no pressure where it can do harm; that the child can read and write without stooping; and that they shall be adapted to the size of the particular child. In order to effect the last object, it follows that the ideal desk, from the health point of view, is a single one, and that a supply of desks adjustable to various sizes should be at hand to suit children of all dimensions. There are certain practical drawbacks, such as the increased space that single desks take up and the additional strain on the teacher's voice thereby entailed; but the single desk is the ideal. The child should be able to sit erect, head and trunk upright, thighs at right angles to the trunk, knees bent at a right angle, and feet square and flat on the floor. The back of the seat should be curved backward away from the buttocks and come forward to plant a suitable rest in the concavity of the back in the lumbar region and a cross-piece for the shoulders. These provide sufficient support to the back, especially if the hips are received comfortably into the concavity of the upright. The seat should be about two-thirds the length of the thigh, slightly higher in front than behind to prevent sliding forwards, and rounded anteriorly to obviate pressure on the blood-vessels at the back of the lower part of the thigh and knee. The desk itself should be a plain board or box on two side uprights, and situated at such a distance from the child that the near point for work is 12 inches from the eye. In order that this desideratum may be accomplished, the top of the desk should be adjustable to various slopes—for writing, 15° to 20°; for reading, 35° to 40°. Now, in order that the desk may be suitable for all these purposes, and in order that it may be suitable for other school purposes—such as standing up, moving in and out, and so on—and in order that the edge of the desk may not press on the front of the chest, it should also be capable of adjustment to various distances in relation to the front of the seat. Such, then, are the characteristics of the ideal desk and seat.

#### CURVATURE OF THE SPINE.

The deformities likely to be associated with unsuitable desks are lateral curvatures of the spine, round shoulders, flat chests, and the production of eye defects. Lateral curvature of the spine is more common in girls than in boys, but it is seen in the latter not very infrequently. The spine is a bony pillar situated in the centre of the back, and composed of a number of separate, flat, irregular bones, jointed to each other by elastic ligaments. To these bones are attached the muscles of the back and some of those of the upper limbs, and when the muscles are normally developed the pull exercised on each side of the spine is approximately equal. A balance is thus struck, and the spine remains straight. A slight, but inconsiderable, degree of curvature is common enough in healthy persons, owing to the greater use of the right upper limb, but in the young, especially about the age of puberty, when the bones are soft and growth is rapid, the muscles of the back are apt to be unequal to the strain placed on them. Faulty positions at school, sprawling, lolling, leaning on one elbow, inclining the head, and so on, are very apt to lead to one set of muscles being developed less than those which oppose them. One shoulder thus "grows out," as it is termed, and, what is sometimes more noticeable, the hip "grows out." Examination of the back then shows that the spine is curved laterally, and as that structure is

the pivot of the whole body, deformity of the chest, shoulder, hip, neck, and other parts follows unless early and strenuous efforts are made to correct the fault. The point especially to be remembered is that, though this deformity is a bony one, it is due to muscular weakness, and that both prevention and cure depend on strengthening the muscles. Curvature of the spine is greatly aided, too, by long standing in class. Relief from the strain of making weak muscles support growing bones is sought by the child, and he adopts the position of "standing at ease," that is, with the left foot advanced, the left knee bent, and the weight of the body thrown on the right lower limb. Letting down the left shoulder, the head is thrown towards the right to counterbalance the drag, and curvature of the spine towards the left follows as the night the day.

#### ROUND SHOULDERS AND FLAT CHESTS.

Desks which induce the child to stoop forward, especially children with eye defects, conduce to round shoulders and flat chests. Ugly as these deformities are, and ugly as spinal curvatures are, the baneful influence does not stop at mere æsthetic offence. The chest is a box whose contents exactly fit it, and every deformity of the chest leads to corresponding deformity of the important organs it contains. Nowhere does Nature more surely abhor a vacuum than in the chest; and the lungs, which fill up the greater part of its cavity, are applied closely to the inner surfaces of the chest-wall, and suffer correspondingly in development with every phase of distortion or compression to which they are subject. It is a commonplace of medicine that the type of person whose lungs are most likely to become a prey to tuberculosis is that in which the front is flattened, the shoulders rounded, and the shoulder blades tilted out behind.

#### FLAT FEET.

There are many other deformities connected with injudicious school conditions. You have probably all seen pictures of the hideous deformities of the liver associated with wearing corsets, and I hope that, like the pictures of the lower world which used to be shown to children, they have frightened you into abhorring the evil they portray. Flat feet are common in girls, and are not very uncommon in boys. Like spinal curvature, flat-foot is due to muscular weakness. If certain muscles of the legs, which by their tendons hold up the arch of the foot, are not fully up to their work, they prove unequal to the strain and the arch of the foot sinks. Though not dangerous to health, flat-foot is a most ungainly deformity, and it is reckoned to disqualify the possessor for some walks of life. Besides long standing and insufficient exercise, a potent factor in its production is the habit of letting girls wear slippers indoors. Boys generally put on boots after breakfast and do not take them off till tea-time at least; whereas girls, in wet weather especially, run about much of the day in slippers—a habit which, while saving to the nerves and to the carpets, denies them the support of the stout leather during the formative period of the feet. Deformities of the nose and throat, with their consequent troubles in the ear and in the chest, generally result from faulty pre-scholastic conditions, but many of the defects of the eyes are due to bad lighting, bad print, bad sewing materials, bad desks, and night-work. They are too numerous to enter on lightly here.

#### GROWING PAINS.

Certain conditions are associated with rapid or abnormal growth. I have already said that if growth of any part is taking place with more than normal vigour, other parts suffer from starvation of their blood supply. This is especially noteworthy in connexion with the relative development of the body and the nervous system. Irritability, easy fatigue, restless sleep, inability to remain at one task for long or to concentrate the mind—those signs which the observant teacher learns to associate with nervous over-strain—are more frequently found during periods of rapid bodily growth than any other. We have all heard of growing pains, but few of us have clear ideas as to what growing pains are. The tendency of modern medicine is to attribute growing pains to rheumatism, and, as you may know, the close relationship of rheumatism to chorea, or St. Vitus's dance, is well established. Medical belief is that rheumatism and St. Vitus's dance, so common in children and so potent for lifelong evil, are connected with so-called growing pains in a very real manner, and that they are danger signals of ominous import. I cannot illustrate this belief better than by quoting a case I saw recently. A mother brought her little girl, aged four, to see me. She was a thin, pale, nervous child. Her father had died of rheumatic heart disease, and her sister suffered from

St. Vitus's dance. The child was always complaining of flitting pains in the joints and had developed odd little nervous tricks, such as shrugging her shoulders and making grimaces. In the light of her family history, these "growing pains" and nervous tricks assumed a significance which might otherwise have been easily overlooked, and I merely refer to them to warn you not to make little of these apparently trivial pains. There are many conditions of abnormal growth on which one might expand—epilepsy, minor epilepsy, nervous defects, and those most interesting conditions classed as neurotic; all of the highest importance in connexion with the development of the nervous system.

#### REST.

After what has been said about growth, you can see that the more rapid the period of growth, the greater the need of rest. There is no gain in proportion to size so astonishing as that which takes place in the new-born infant in the first three months of his existence—roughly speaking, he doubles in size. Yet this is the period when the child sleeps most. Beyond the moments he devotes to obtaining necessary refreshment, the infant hardly ever has his eyes open. And thereby hangs the tale that the greater the growth, the more the need for rest. The young brain is only stimulated to unnatural growth, with its corresponding dangers, if the rule of rest be not observed. Whereas the risk of the healthy child unduly tiring himself by physical exercise is not great, the risk of his pastor and master unduly tiring his nerve centres by too great eagerness for his mental welfare is of some considerable magnitude. It has been calculated experimentally that the periods for which a child's attention can be fixed without undue fatigue are as follows:—At age 6, 15 minutes consecutively; at ages 7 to 10, 20 minutes; 10 to 12, 25 minutes; 12 to 16, 30 minutes. I fear that these periods are rarely observed, or, indeed, anything approaching them. The immediate result of neglect is want of attention in the less conscientious members of the class, and inaccurate work among the more studious. Moreover, two lessons following one another are sufficient for the average mind; there should always be a spell of play after the double strain. Some subjects notoriously require much more concentration of attention than others; mathematics certainly demand undivided thought, and are at enmity with the natural man. There are a few people who revel in mathematics, but allowing, as this study does, little or no play to the imaginative faculties, its pursuit is a very real strain on the growing mind. Morning, when the brain is fresh, is the time for mathematics; only the more human subjects—history, scripture, and literature—should be tackled after dinner.

Full rest is only obtained in sleep, and here the hours are often unduly short. Children of 4 need 12 hours' sleep, of 7 need 11 hours, of 9 need 10½ hours, of 14 need 10 hours, of 17 need 9½ hours, of 21 need 9 hours, even though at the later ages they usually object to be called children. To get the full benefit of these hours preparation for repose is desirable, and no lessons or frantic romps should be allowed for half an hour previous to retiring. A collateral, but not designed, advantage of the lengthy evening devotions that used to be the fashion in some houses was that they formed a salutary hypnotic preparation for young and ardent brains.

#### GAMES: FORMAL EXERCISES.

To praise games to the present generation of schoolmasters is to paint the lily. Long may their ardour in that good cause continue! Schoolgirls, too, play hockey, swim, and ride with zest and agility. At two schools I know in the summer term girls wield the willow in such workmanlike fashion that I fancy I should funk fielding at point left-handed. If there be food for criticism in our school games, it lies rather in the direction that too much of the quality which Aristotle called *σπουδαιότης*, and Matthew Arnold translated "high seriousness," may be devoted to them, to the exclusion of that same quality in the weightier matters of the law. The risk is greater at the Universities than at school, and the influence of good games, well played, is too momentous a factor in physical and moral growth to tempt a growl from the most carping medical critic. In adopting compulsory games as the best method of organizing exercise, however, have we not left out of sight too much the individual tastes of the children themselves? I mean, have we given sufficient play for that individuality which is the most precious asset in after life? I have in my mind one of Tom Brown's schoolfellows, whom Dr. Arnold treated with a stupid want of consideration, I refer to Martin. Martin's devotion to

natural objects; his love of birds, beasts, and fishes; his relief of the moods and tenses of Nature were not only the greatest factor in the growth of his brain and body, but the discipline his superior knowledge exercised over the other lads when he took them on his expeditions was the finest kind of discipline. I know you will reply that the Martins are few and the Stalkies are heads of a large Co.; but I think Martin ought to have his chance.

I spoke, at the beginning of this lecture, on the craze for physical exercises which has penetrated to this country, chiefly from Sweden. Now though these exercises and others like unto them have a value as remedial agents in the treatment of the weak-backed and weak-kneed, they are infinitely inferior to games as factors in physical development. Their chief virtue lies in the fact that they are generally given in school hours and that thereby the children get more exercise and less schooling. Not infrequently I pass a certain school in the middle of the morning. If it happens to be a little before eleven I see rows of boys standing in ecstatic attitudes, apparently ringing imaginary celestial bells or learning the process of choking with the maximum of discomfort. At eleven these interesting gyrations cease. The lads go in, and the girls come out. Immediately begins the jolliest sight imaginable, as these happy youngsters rush about, playing "touch-last," hide and seek, and all the old favourite games of chase and catch, laughing, shouting, and struggling without a moment's intermission till they are called in to their books. No doubt the kindly managers of this establishment fancy that the boys are receiving the latest benefits of science, whilst the girls, being of less importance, are let off more easily. The contrast this picture presents admirably illumines the central principle on which exercise should be made to hinge. I mean that the psychological correlative of the physiological attitude should be as lively as the state which induces it. Exercise which does not brace and stimulate the mind has not the same health-giving effect as that which wakens the faculties and draws out of them the best exertion. The mind is a strong individualist and requires incentive to make it put its best foot foremost.

Love goes towards love, as schoolboy from his books,  
But love from love, toward school, with heavy looks.

So formal exercises, however well they may be theoretically adapted to train groups of muscles, are dreary businesses at best, and for normal children are quite superfluous when they can gambol in their natural blithesome fashion. Of all the strange exotics which the physical developing cranks would have us adopt, the strangest, perhaps, are so-called "breathing exercises." In children with certain predispositions to disease breathing exercises are very useful adjuncts to treatment, but that the ordinary individual needs to be taught to breathe is to me the most astonishing doctrine of latter-day pseudo-physiology. As long as youngsters can chase rabbits, climb trees, and swim in baths or rivers, we need have little fear of their respiration. I imagine that among the few outlets left for the future attention of those ingenious gentlemen are novel methods of teaching our hearts to beat and our spleens to pulsate.

What I should like to leave with you as my parting word is that school hygiene is not only a definite but a vitally important and perfectly sane science; not to be confounded by the extravagant veneer with which some of its more ardent exponents would overlay it. Its object indeed is well expressed in an ode familiar to us all; it is to secure for its protégés—

Their buxom health of rosy hue  
Wild wit, invention ever new,  
And lively cheer of vigour born;  
The thoughtless day, the easy night,  
The spirits pure, the slumbers light  
That fly the approach of morn.

Dr. Biss having replied to questions from members of the audience, a vote of thanks concluded the proceedings.

PROF. P. SAVJ-LOPEZ, in the *Rassegna Contemporanea*, urges in forcible language the need of a thorough reorganization of the Italian Universities. They are, he declares, quite out of touch with the needs and the ideals of modern life. Every one of the twenty-one Universities of the Peninsula aspires to have Chairs in every branch of learning, and every student is compelled by statute to study so many subjects that, in effect, he studies none. The students' riots, so frequent a feature of University towns, are, in the writer's opinion, mainly the result of the young men realizing the futility of the course of instruction they are compelled to follow.

## THE SCHOOL SYSTEM OF MANNHEIM.

By A. J. PRESSLAND, M.A., The Academy, Edinburgh.

OF late years Mannheim has been prominent in educational circles for its *Sonderklassen*—classes which introduce classification according to ability into the primary schools. These classes have played as great a part in the primary schools as the *Reformschulen* have played in the secondary schools. The main idea was not new; for some large secondary schools had been divided into two divisions, A and B. Promotion took place once a year, in the A division at Easter and in the B division at Michaelmas. A pupil unable to gain promotion in one school was transferred to the division of the same name in the other school, so that the interval between promotions, normally twelve months, became eighteen in exceptional cases.

The application of this principle to the primary schools of Mannheim was due to the inability of good pupils to pass the entrance examination of the secondary schools. Investigation showed that the organization of the primary school was seriously at fault, and the work of remodelling it, undertaken by Dr. Sickinger, has made Mannheim the Mecca of the primary-school reformer.

In many respects Mannheim shows the bustle of the American town, but this statement does not imply that the school system was impulsively scrapped. Extensive inquiries were made in South Germany and Switzerland before a decision was arrived at, and the foundations of the present system are stable beyond all question.

The primary schools of Mannheim comprise the *Volksschule* and the continuation schools. The former is arranged in two divisions—the *Bürgerschule* and the elementary school. Both are *Simultanschulen*—that is, open to children of all religious denominations. The *Bürgerschule* is a fee-paying primary school for clever children—fee ninepence per week. There are eight standards, each representing a year of school life, and the pupil who passes successfully through all eight is exempted from attendance at the continuation school. French is taught in the four senior classes; but, before they reach these classes, pupils who are destined for the secondary schools usually make the transfer. Attendance at the elementary school is free and obligatory between the ages of six and fourteen. After passing through it the pupil is obliged to attend continuation classes for two more years if a boy, for one year only if a girl.

The elementary school has to deal with children of all degrees of mental capacity, and cannot reject at an entrance examination or superannuate, as the *Bürgerschule* does. The outstanding feature of the Mannheim schools is that in this elementary school classification according to ability has been introduced.

The *Hauptklassen*, for the normal child, consist of eight standards. Below them are the *Förderklassen*, of six standards, for the dullards; and below these are the *Hilfsklassen*, of four standards, for the mentally defective; and below the *Hilfsklassen* are the special institutions for the blind, deaf, epileptic, and crippled. There are also special classes for clever pupils, which prepare them to enter the secondary schools after four years at the primary schools. For pupils in their final year of attendance some modification of the syllabus is made, so that their future can be discussed, a warning given of the pitfalls of society, and the duties of a citizen reviewed. The normal career of the Mannheim child may be described as follows:—In the May following its sixth birthday it is brought to school, examined for contagious disease and interrupted development by the school doctor, and turned into Standard I. Two other medical examinations follow at suitable intervals—one to test the pupil's anatomy and the second to test the functions of his eyes, ears, and teeth.

The whole of the work is taken with the same teacher, who sorts out his class and manages to make conditions easier for the weaker members. At the end of a year those who have not gained promotion are kept back to do the work again. After a second year in the class some pupils receive the normal promotion. Others show that they are fit for promotion if conditions are favourable; these are sent to *Förderklassen* II. The remainder become *Förderklasse* I. The *Hilfsklassen* are derived from the *Förderklassen* in the same way that the latter are derived from the *Hauptklassen*.

It is possible, though rare, for the pupil to rise in grade, in which case the original depression was usually due to illness.

But normally the pupil in the Förderklassen remains in his own grade. The Hauptklassen are thus freed from a terror—the overgrown, stupid residue of older pupils who set a bad example to younger members. By removing these pupils to separate classes and altering their syllabus so that it becomes more suitable, a spirit of rivalry is introduced. To this and to the prominent part played by manual training is attributed their improved appearance in the continuation school, where some of them can be placed in practical classes from the commencement.

As a further assistance to poor children, payments are made out of school funds towards clothing and food. Charitable effort organizes day homes, holiday colonies, and town colonies, and the homes of the very poor are visited by lady health visitors. The result is that “the Sonderklassen have showed themselves hygienically valuable for sickly children, for those with defects of sight and hearing, for the badly nourished and the anæmic.”

The number of pupils in the highest classes of the Hauptklassen is 40, in the lower classes 45, and in the Förderklassen 35 is the maximum. In the Hilfsklassen 20 is considered a large class. The ruling principle is: “the more unfavourable the physical and mental capacity of the pupil, the more favourable must be the conditions under which he is taught.”

It is often assumed that with a description of the Sonderklassen an account of the Mannheim schools has been completed. Nothing could be more erroneous. The constitution of the Education Authority, the organization of the secondary schools, the classification of the continuation schools, and the administration of charitable endeavour are alike noteworthy. On the Mannheim Education Authority the teachers have equal voting power with the clergy. Each of the professions has five representatives on the Board of twenty-three, on which the school doctor, the Director of Education, and two parents, mothers of past or present pupils, sit. This representative and expert body controls over 3,300 pupils in the secondary schools—viz., 600 in the nine-class Gymnasium, 650 in the nine-class Realgymnasium, 675 in the Oberrealschule and Commercial Secondary School, 500 in the Reformschule, 900 in the Girls' High School—at none of which schools is there a higher fee than £7. 10s. per annum.

The Board also administers a Volksschule, comprising Bürgerschule—1,150 boys, 1,100 girls; Volksschule—Hauptklassen, 9,200 boys, 9,100 girls; Förderklassen, 1,050 boys, 1,250 girls; Hilfsklassen, 80 boys, 48 girls; and a continuation class of 1,100 boys and 1,200 girls, at which classes are held during business hours.

The Education Authority is not afraid to spend money. Quite recently a new school that will hold 1,370 primary, 720 commercial, and 970 technical pupils has been built at a cost of £75,000, which represents about one-half the normal annual expenditure on education. All this is regarded as insurance. The city fathers believe that increased demands will be made on them in the future if preventive measures are not taken. In the words of one of them: “It is cheaper; if we don't spend the money now we shall have to find five times as much in twenty years.”

In the endeavour to improve the educational facilities of the town great assistance is rendered by Employers' Societies and Trade Unions. Continuation classes are organized to suit the pupils' trades, and masters and senior workmen drop in to hear lectures and have a chat with the teacher, remaining often to discuss the requirements of their trades. One large factory, at which many girls are employed, offers as a reward for good services an occasional free hour if the girl will spend it at a sewing and mending class, and makes no deduction of wages. In the girls' continuation classes housekeeping is taught; but one year is scarcely sufficient for the purpose, so every winter a canvass is carried on and every likely girl is asked to join. In fact, everything is done to produce that miracle, the German Hausfrau who can keep a husband in efficient condition and a family respectable on twenty-five shillings per week.

The girl being thus taught her duty as a wife, the boy is taught his duty as a workman. The increase in attendance at trade courses is giving rise to some apprehension lest it overtake the supply of competent teachers, and the Board is arranging courses for the training of trade teachers with all expedition, so that the attitude of the workman may be unswervingly loyal to the best interests of education.

Twenty years ago the visitor to Heidelberg would see from the Castle Terrace the huge patchwork of the Rhine valley with its variegated allotments. To the south rose the cathedral of Speyer, and, to the north, a trail of smoke indicated the presence

of Mannheim. In the middle distance villages slumbered among orchards. Now each village has outgrown its bounds and red-tiled roofs are encroaching on the plain, while the smoke of Mannheim issues from a forest of chimneys. Here, written on the broad Rhineland, is the story of the rise of German industry. Proud of its achievements, the nation is determined to augment them, and public authority is ready to assist, not in the spirit of the gambler, but with the conviction of the statesman, who, seeing what scientific method has done for the nation, regards it as the harbinger of future victories.

### THE FEDERAL COUNCIL.

THE Federal Council held two meetings in the year ending April 30, and the members of the Council formed the greater part of the conference which met on February 29 to discuss proposals for the constitution of the new Registration Council. The chief matters of interest considered by the Council, besides the Registration of Teachers, have been (1) the Board of Education grants for preparatory courses in secondary schools, (2) curricula of secondary schools, (3) Workmen's Compensation Act, (4) Inhabited House Duty and Income Tax assessments as affecting school buildings and boarding houses, and (5) salaries and pensions of assistant masters in secondary schools; in connexion with which a report has been made from which the following facts are taken (by the *A.M.A.*).

*Salaries.*—Information has been gained as to more than three-fourths of the Local Authorities concerned. In seven counties at least there are scales for both salaries and increments, and in two others methods of providing increments have been approved or are under consideration. In no case does a County Authority appear to have adopted a full Pension Scheme. In no less than twenty-seven county boroughs (since increased to twenty-nine) there are scales of salaries and increments, and in six of these there is also a Pension Scheme.

*Pensions.*—These are few: most of them are to be found in Local Authority schools. Examples are: (1) Birmingham: retiring age sixty; pension  $\frac{1}{6}$  of salary for each year of service; maximum  $\frac{4}{5}$  of salary for last year of service.—(2) Bootle: retiring age sixty; 3 per cent. of annual salary (optional contribution);  $\frac{1}{30}$  of annual salary (taken at average of last three years) for each year of service; minimum of twenty-five years' service; if a contributor retires earlier, his contributions to be returned with 2 per cent. interest.—(3) Manchester: retiring age sixty-five; contribution (obligatory)  $3\frac{1}{2}$  per cent. of salary, the corporation adding  $1\frac{1}{4}$  per cent; accumulations reckoned at  $\frac{1}{4}$  per cent.; lump sum or annuity to be taken at pleasure.—(4) Newcastle-on-Tyne: retiring age sixty-five (or after forty years' service); contribution 2 per cent. of salary, the city adding an equal amount; after ten years' service  $\frac{1}{30}$  of salary (taken at average of last five years), plus  $\frac{1}{60}$  for each completed year of service.—Of endowed schools, Bedford Grammar School (where salaries are very low and a contributory scheme would be ridiculous) has a special scheme with the Scottish Provident: retiring age sixty; pension, £100; or lump sum of £1,200. All premiums are paid by the governing body. All the Haberdashers' (Aske's) Schools have a scheme with the Norwich Union, and about a hundred policies have been taken out with a £10 annual premium. There still exist nearly a hundred policies (in eighteen schools) under the old scheme of the Incorporated Association of Head Masters, and nearly three hundred under a similar scheme of the Head Mistresses' Association. Both these schemes are with the Alliance, which took over the Imperial Life Assurance Company's business. The pension scheme proposed for the Welsh Intermediate Schools has not, so far as appears from returns made, been carried into effect in any instance.

THE educational programme of the British Association (Dublin, September 2-9) is varied and stimulating. Inquiries relating to the work of the Education Section should be addressed to Mr. W. D. Eggar, Eton College, Windsor; Mr. Hugh Richardson, Bootham School, York; or Prof. R. A. Gregory (Recorder), 39 Blenheim Road, Bedford Park, London, W. The Local Secretaries of the Section are Prof. E. P. Culverwell, Trinity College, Dublin, and Mr. George Fletcher, Department of Agriculture and Technical Instruction, Dublin.

## REVIEWS.

## THE CAMBRIDGE ENGLISH LITERATURE.

*The Cambridge History of English Literature.* Edited by A. W. Ward, Litt.D., F.B.A., Master of Peterhouse, and A. R. Waller, M.A., Peterhouse. Vol. II.: *The End of the Middle Ages.* (9s. net, in buckram. Cambridge University Press.)

The editors of this comprehensive and laborious undertaking are pushing it forward with laudable energy: the next volume, covering the Renaissance and the Reformation, is already in the press and may be expected before the year is out. Meantime the second volume takes us from Piers the Plowman down to the end of the fifteenth century. The most striking chapter is the very first, in which Prof. J. M. Manly, of the University of Chicago, presents the results of a fresh and independent examination of the poems grouped under the general title of "The Vision of William concerning Piers the Plowman." "Their early popularity," says Prof. Manly, "has resulted in the confusion of what is really the work of five different men, and in the creation of a mythical author of all these poems and one other; and the nature of the interest of the sixteenth-century reformers has caused a misunderstanding of the objects and aims of the satire contained in the poems separately and collectively. Worst of all, perhaps, the failure of modern scholars to distinguish the presence of several hands in the poems has resulted in a general charge of vagueness and obscurity, which has not even spared a portion of the work remarkable for its clearness and definiteness and structural excellence." Prof. Manly has no space here to set forth his argument in full; he simply outlines the basis of his dissent from the ruling opinions of Skeat and Jusserand; but no doubt he will by and by expound his views in detail, and meantime he furnishes ample ground for a distinct challenge. The evidence is entirely internal, and, while the similarities of the texts have mainly impressed previous students, Prof. Manly acutely investigates the differences—"differences in diction, in metre, in sentence structure, in methods of organizing material, in number and kind of rhetorical devices, in power of visualizing objects and scenes presented, in topics of interest to the author, and in views on social, theological, and various miscellaneous questions." Previous writers, indeed, have noted some of such differences, but have explained them "as due to such changes as might occur in any man's mental qualities and views of life in the course of thirty or thirty-five years, the interval between the earliest and the latest version"—an explanation that Prof. Manly regards as untenable in view of the nature of the differences and of the fact that sometimes the authors of the later versions have failed to understand their predecessors. It might have been anticipated that Prof. Skeat would have written this chapter: now we look to him for an answer to Prof. Manly's criticisms. This one chapter signalizes the critical advance made by the volume.

It is interesting to follow the development of English prose writing, which is traced in three chapters by Miss Alice D. Greenwood. The definite movement that ensured the doom of French "took place in the grammar schools, after the Black Death, when English instead of French was adopted as the medium of instruction"—a reform initiated by John Cornwall and his disciple, Richard Pencrich, according to Trevisa, who himself translated into the vernacular "what may be called the standard works of the time on scientific and humane knowledge." By the time of Caxton "prose is no longer to be merely the vehicle of information, but conscious literature." As for the English poetry of the period, it may be enough to say of John Gower that he is treated by Mr. G. C. Macaulay, and of Chaucer and the English Chaucerians that they are treated by Prof. Saintsbury. Here, again, there is something of a surprise: a separate chapter is devoted to Stephen Hawes, a solitary survivor of the Chaucerian tradition in a new age. The writer, Mr. William Murison, of the Aberdeen Grammar School, justifies the prominence of Hawes, were it only by working out the question of Spenser's indebtedness to him by an enumeration of the more striking points of resemblance. The chapters on Songs and Ballads come from America, the Transition English Song Collections being brought into deserved prominence by Prof. Padelford, of Washington University; and the Ballads being handled by Prof. Gummere, of Haverford College—a subject on which we should have liked a chapter from Prof. Ker. The Scottish language and literature of the time claims four chapters, three by Prof. Gregory Smith, and one—on the earliest Scottish

literature—by Dr. Giles. Prof. Gregory Smith is quite at home in his subjects: he points out clearly how far "Scots" is "Ynglis," and he handles the whole of the matters with distinctive knowledge and ability. Dr. Giles is very careful and canny, and as sober over Wallace as in discussing questions of comparative philology. He is clear enough that Blind Harry was not "born blind"; but he does not point out that the epithet does not imply that Harry was "blind" in the absolute modern English sense. Does he not remember "Blin' Bob," who could see sharply enough when he liked? Generally, however, Dr. Giles's chapter is a conspicuously able contribution. There are also chapters on the Religious movements in the fourteenth century, the Political and Religious Verse to the close of the fifteenth century, and the introduction of Printing and the early work of the Press. A special chapter is also devoted to Education, reviewing the work of the Universities and public schools down to the time of Colet. The Bibliography and the Index fill between them fully a hundred pages. Altogether this volume impresses one more favourably than even the former one, and serves to establish confidence in the value and success of the undertaking.

## TRIGONOMETRY.

*Elementary Trigonometry.* By CECIL HAWKINS, M.A. (4s. 6d. Dent.)

This little text-book illustrates well the trend of what may be termed "progressive" ideas as to the teaching of mathematics. Apart, however, from any consideration of the special views which it advocates, it is intrinsically interesting and valuable. The author first tries to stimulate desire for a knowledge of his subject by showing that it possesses practical utility. To that end the early chapters are devoted to a review of some of the possible applications of trigonometry; as, for example, its use in the calculations incidental to the conduct of field-measuring and other kindred operations. Again, the writer describes a number of the instruments which are of service in the solution of outdoor problems and offers suggestions as to the construction of simple apparatus which will give results sufficiently accurate for many purposes. The earlier part of the work is mainly descriptive of processes, and but little attempt is made to establish their accuracy in detail, the author reasonably relying on his reader's previous acquaintance with elementary geometry and such other truths as may be required. The trigonometrical ratios and the principal propositions connected with them are gradually introduced, whilst the discussion of special uses of each immediately follows the theory.

Referring to this portion of the subject, the preface to the volume directs attention to one of its noteworthy features as follows:—

I have discarded the right-angled triangle with its preliminary definitions only applicable to acute angles, and have adopted definitions applicable to angles of any magnitude dependent on the knowledge of co-ordinates which is now imparted at an early stage. . . . In the proofs of theorems, I have avoided proofs which are only applicable to special cases, and given proofs of a general nature wherever I could do so without making them too hard.

The geometrical demonstrations of the formulæ for the sines and cosines of compound angles deserve special comment. They are, if not actually original, at least unlike those given in most text-books, and are well worth study on account both of their simplicity and of their easy applications to the general angle. The exercises are, as will be anticipated, very numerous, and the answers are furnished. The book is fully illustrated, but the diagrams, though on a useful scale, are somewhat roughly executed, and therefore not altogether satisfactory.

## GEOGRAPHY.

*The International Geography.* By Seventy Authors. Edited by Hugh Robert Mill, D.Sc. Edin., LL.D. St. Andr., &c. (15s. Macmillan.)

The date of first publication was 1899. The results of the various Census Reports for 1900 and 1901 were incorporated in the later editions; and now "the chapters have been thoroughly revised by the editor as well as by the authors or by competent specialists," and "the illustrations have been revised and many of them redrawn, and the lists of standard books improved." The object of the work is "to present in one volume an authoritative summary of the whole of geography as fully as space permits." It is neither a gazetteer nor an encyclopædia, but "a readable account of all countries as regards land and people



in language which is neither technical nor childish." Part I. deals with the principles of geography and their applications in the most general sense; it aims rather to illustrate the principles by their application to actual cases than to present a theoretical disquisition. It occupies 120 pages out of more than 1,000. Part II. surveys the continents and countries of the world in systematic detail, each article involving the application of some or all of the general principles set forth in Part I. The general plan yields in particular cases to the essential requirement of an explanation of the peculiarities of the national life; "but in every case the groundwork is a true description of the country as it is to-day." "With few exceptions, each country is treated by an experienced traveller, a resident, or a native." A glance at the list of seventy contributors shows at once the authoritative character of the work. The distribution of space and the amount of detail accord, as far as may be, with the importance of the various countries, or with the desirability of bringing into stronger relief their nature and people. The Index is judiciously full. There are 489 illustrations. The volume has been prepared and kept up to date with scrupulous care, and may be safely accepted as authoritative within its limits. It will be extremely useful to teachers in supplement of the ordinary class-book, and at the same time an agreeable repertory of geographical information for the general reader.

## GENERAL NOTICES.

### MATHEMATICS.

*The Beginner's Arithmetic.* (Part I., 4d.; Part II., 6d.; complete (cloth), 1s. Heath.)

Used by, and under the guidance of, the competent teacher, the large and varied supply of material contained in this little work is likely to be very helpful in building up a knowledge of elementary arithmetical principles and processes. The text is in large clear type, and fully illustrated.

*Elementary Algebra.* By G. A. Wentworth. (5s. Ginn.)

As a writer on algebra the author is already known to many, and in America probably more so than in England. His present work is arranged for use principally in secondary schools. The care with which the text has been prepared is everywhere evident, and with respect to exercises the writer has endeavoured to provide teachers with an entirely fresh collection large enough to meet their requirements fully. There are in number nearly four thousand exercises. Some useful tables of working formulæ appear in the sections on arithmetical and geometrical progressions, and clear diagrams illustrate the pages on graphical work. The book is well brought out.

*Elementary Solid Geometry.* By Frank Stanton Carey, M.A. (2s. 6d. Edward Arnold.)

The volume, one of a series of mathematical text-books in course of issue by Mr. Arnold, is already familiar to a large number of college students, for it is a new and not a first edition of Prof. Carey's work, and the contents are based on the course of instruction he gives to his own classes. Nevertheless, it will be as well to point out some of the important features of the work and to mention its standard, namely, that required by the first-year University student. The theory of parallel lines and planes is treated with the aid of elements situated at infinity. Ranges and pencils are brought forward early, a plan suggestive of the value of viewing geometry, plane and solid, as a single subject of study. Some useful additions to the usual course on solid geometry have been made by the brief treatment of rotation and translation. The text of the previous edition has been both rewritten and enlarged.

### SCIENCE.

*An Introduction to Electricity.* By Bruno Kolbe, Professor of Physics at St. Anne's School, St. Petersburg. Translated by Joseph Skelton, late Assistant Master at Beaumont College, Old Windsor. (10s. 6d. net. Kegan Paul, Trench, Trübner, & Co.)

The translation is from the second edition of "Einführung in die Elektrizitätslehre" (Berlin: Springer, 1904-5), with many alterations and corrections (both in text and in illustrations) by the author himself. The exposition is quite simple and judiciously progressive. The mathematical equipment assumed is very elementary and the experiments are fresh, readily followed, and reproducible without much difficulty or expense. Incidentally the main points in the historical development of the science are noted, and Prof. Kolbe "has rescued many and luminous experiments from the back numbers of the scientific periodicals, in which they lay buried from the gaze of the general public." The volume will prove attractive not only to the student, but to all persons of fair acquirements and intelligence that wish to understand the elements and history of the subject. There are 160 figures and an index.

*A Text-Book of Light,* by R. Wallace Stewart, D.Sc. Lond., the third volume of "The Tutorial Physics," appears in a fifth impression (fourth

(Continued on page 264.)

# OXFORD UNIVERSITY PRESS.

## COMPLETION OF THE WORK.

### Oxford Treasury of English Literature.

By G. E. HADOW, Tutor in English Literature, Lady Margaret Hall, Oxford; and W. H. HADOW, Fellow of Worcester College, Oxford. 3 Vols., 3s. 6d. each. Vol. III.—**Jacobean to Victorian.**

*Guardian.*—"It would be difficult to name a more complete work of its kind even in the matter of selections, while the literary criticism is illuminating and original."

*Previously Published.*

Vol. I.—**Old English to Jacobean.** Second Edition.

Vol. II.—**Growth of the Drama.**

### The Writing of English.

By PHILIP J. HARTOG, Academic Registrar of the University of London, with the assistance of Mrs. A. H. LANGDON. Second Edition. With a new Introduction. 2s. 6d.

*Athenæum.*—"If parents and schoolmasters will pay heed to the good counsel and practical suggestions in this handy and valuable little work, no future writer on literary studies in our schools will, we think, be able to begin his first chapter—as Mr. Hartog begins his—with the discouraging statement, 'The average English boy cannot write English.'"

### Selections from Dryden.

Chosen and Edited by G. E. HADOW, Tutor in English Literature, Lady Margaret Hall, Oxford. 2s. 6d.

*Liverpool Post.*—"These selections are chosen with acumen, and are finely edited."

### Select English Classics.

Edited, with Introductions, by A. T. QUILLER-COUCH.

**Poetry and Prose.** Thirteen now ready. Paper covers, 3d. each; cloth, 4d. each.

*Athenæum.*—"The series is excellent. The brief introductions by 'Q' are lively and tasteful."

### Oxford Library of Translations.

Extra Fcap. 8vo, 3s. 6d. net per Volume.

**Tacitus: Dialogus, Agricola and Germania.** (Oxford Translation Series.) Translated, with Introduction and Notes, by W. HAMILTON FYFE. With Maps.

NEW VOLUMES IN THE PRESS.

**The Works of Hesiod.** Translated by A. W. MAIR.

**Virgil.** Translated by J. JACKSON.

**Statius Silvae.** Translated by D. A. SLATER.

### The Oxford Book of French Verse. Thirteenth Century to Nineteenth Century.

Chosen and edited by ST. JOHN LUCAS. Second Impression. Fcap. 8vo, 6s. net; on Oxford India paper, 7s. 6d. net.

*Athenæum.*—"The best selection that has been printed in England. The Introduction, in fewer than thirty small pages, gives a rapid and brilliant survey of French poetry from the thirteenth century to the nineteenth."

### Trois Semaines en France.

An Illustrated Reader, with Questions for Conversation and Grammatical Exercises. By D. L. SAVORY, French Lecturer at Goldsmiths' College, University of London; and L. CHOUVILLE, B. ès L., Assistant Master at the Perse School, Cambridge. 2s.

*Journal of Education.*—"The narrative is simple and natural. . . . The questionnaire provides a searching test."

### Old Testament History.

Narrated for the most part in the words of the Bible. Selected and arranged by G. CARTER, Head Master of New College School, Oxford. With Maps. 2s.

*Sunday School Chronicle.*—"The idea is an excellent one, and it is admirably carried out. The editor in his explanatory and connecting notes gives just what is required."

### A Study of Mathematical Education, Including the Teaching of Arithmetic.

By B. BRANFORD, Divisional Inspector to the London County Council. [Shortly.]

### Solutions of the Examples in a Sequel to Elementary Geometry.

By JOHN WELLESLEY RUSSELL, M.A., formerly Fellow of Merton College, Mathematical Lecturer of Balliol and St. John's Colleges, Oxford. 3s. 6d. net.

### Types of Floral Mechanism.

Part I, Types I-XII (Jan. to April). With Diagrams and 39 Coloured Plates. By A. H. CHURCH. 21s. net.

*Educational Catalogue (32 pages) and List of Books set for various Examinations 1908 and 1909, post free.*

London: HENRY FROWDE, Oxford University Press, Amen Corner, E.C.

edition), revised and enlarged by John Satterley, B.Sc., late Assistant in Physics at the Royal College of Science (4s. 6d., Clive).—An *Introduction to Metallurgical Chemistry* for the use of Technical Students, by J. H. Stansbie, B.Sc. Lond., F.I.C., Lecturer in the Birmingham Municipal Technical School (4s. 6d., Edward Arnold), has very deservedly reached a second edition.—*Elementary Practical Chemistry, Part I., General Chemistry*, by Frank Clowes, D.Sc. Lond., Emeritus Professor of Chemistry in University College, Nottingham, and J. Bernard Coleman, A.R.C.Sc., Head of the Chemical Department in the South-Western Polytechnic, Chelsea (2s. 6d. net, Churchill)—a well known work, thoroughly competent and practical—is in a fifth edition.

(1) *A Text-Book in General Zoology*. By Henry R. Linville, Ph.D., Head of the Department of Biology, De Witt Clinton High School, New York City, and Henry A. Kelly, Ph.D., Director of the Department of Biology and Nature Study, Ethical Culture School, New York City. (7s. 6d.) (2) *A Course in Vertebrate Zoology: A Guide to the Dissection and Comparative Study of Vertebrate Animals*. By Henry Sherring Pratt, Ph.D., Professor of Biology at Haverford College and Instructor in Comparative Anatomy at the Marine Biological Laboratory at Cold Spring Harbor, L.I. (7s. Ginn.)

(1) "The treatment of the phyla is in a descending order from the Arthropoda to the Protozoa and in an ascending order from the fishes to man." It is open to question whether the "order of evolution," from the Protozoa upwards, is not preferable; but, at any rate, the exposition will lend itself, without much drawback, to that order. The authors recognize the proper relation of the text-book to the laboratory work. They proceed, as far as may be, on the inductive method. Besides describing the appearance and the structure and functions of the organs of selected specimens, they note, in appropriate connexions, the economic importance of animals, the geographical distribution and the geological history of races, and even points of comparative psychology and of ecology. The last chapter is devoted to a brief sketch of the historical development of the science. These excursions into allied subjects, however, are but trimmings that lend a collateral interest. The essential portion of the work, which appears to have run the gauntlet of criticism by many colleagues, seems to be clear and careful. There are 233 illustrations, mainly of external appearances.—(2) Prof. Pratt's volume is laid out on a plan similar to that of his "Invertebrate Zoology," which came before us a few years ago. "Its principal aim is to furnish a guide to the dissection of types of the most important groups of vertebrates." The types given are the dogfish, the perch, necturus, the frog, the turtle, the pigeon, and the cat. The directions are practical and sufficiently detailed, and numerous exercises are proposed. Both volumes have indexes.

#### MODERN LANGUAGES.

*Oxford Higher French Series*. Edited by Leon Delbos, M.A. (Clarendon Press.)

Half a dozen additional volumes to this excellent series are: (1) *L'Oiseau*, par Jules Michelet, edited by Louis Cazamian, Maître de Conférences à l'Université de Bordeaux (2s. net); (2) *Poésies Choisies d'André Chénier*, edited by Jules Derocquigny, Professor Adjoint à la Faculté des Lettres de Lille (2s. 6d. net.); (3) *Espania et Emaux et Camées*, par Théophile Gautier, edited by C. Edmund Delbos, First Modern Language Master, Upper Canada College, Toronto, late of Loretto School (2s. net); (4) *Poésies Choisies de François Coppée*, edited by Leon Delbos, M.A. (édition classique autorisée par M. Alphonse Lemerre) (2s. 6d. net); (5) *Pages Choisies de Auguste Angellier—Prose et Vers*, edited by Emile Legouis, Professeur à l'Université de Paris (seule édition autorisée) (3s. 6d. net); (6) *Trois Portraits Littéraires*, by Sainte-Beuve, edited by D. L. Savory, M.A., Lecturer in the University of London, Goldsmiths' College, late Assistant Master in Marlborough College (3s. net). Introduction and notes afford ample assistance.

*A New French-English English-French Pocket Dictionary*. Abridged from the larger Dictionary by de V. Payen-Payne, Assistant Examiner in French to the University of London, Principal of Kensington Coaching College. (1s. 6d. net. Cassell.)

Mr. Payen-Payne has performed his difficult task with much judgment. He has retained all words of ordinary every day use, literary or colloquial, and phrases necessary to the beginner, the words omitted being chiefly scientific and technical, many of which are identical in both languages. The get-up is very convenient, substantial, and tasteful.

*Living Greek Language compared with the Ancient*.

By Prof. George Spyridis.

Prof. Spyridis offers a "practical grammatical method for Universities and colleges, and for those wishing to become self-taught, speak it in six months, and read the Gospel in its original text." It is a laborious work, and a wary student of some experience may get a good deal out of it, but it is sadly marred for lack of the critical assistance of an English scholar. It should be drastically revised.

#### ENGLISH LITERATURE.

"The King's Classics." General Editor, Prof. I. Gollancz, Litt.D. (1s. 6d. net. each volume. Chatto & Windus.)

(1) *Chaucer's Prologue, The Romaunt of the Rose, and Minor Poems*, and (2) *Chaucer's The Parliament of Birds and The House of Fame*, done into

modern English by Prof. Skeat, Litt.D., with brief introductions and notes. (3) *Sir William Temple upon the Gardens of Epicurus*, with other seventeenth century Garden Essays; introduction by Albert Forster Sieveking, F.S.A. (4) *The Castle of Otranto*, by Horace Walpole, with Sir Walter Scott's Introduction, and Preface by Caroline F. E. Spurgeon. (5) *The Poets Royal of England and Scotland*, edited by William Bailey-Kemping. These are good specimens of the noteworthy works in widely differing matter and style, not readily accessible in cheap form or in modern English, that are offered in this excellent series in beautiful type and artistic get-up at an extremely moderate price. They are all edited by most competent hands, and each has its frontispiece. The series largely extends the field of the general reader in the most agreeable way.

*The People's Library*. (8d. net a volume. Cassell.)

The April contingent of this excellent series includes (1) *The Little Minister* (Barrie); (2) *The Natural History of Selborne* (Gilbert White); (3) *Uncle Tom's Cabin* (Mrs. Beecher Stowe); (4) *Thoughts of Life and Philosophy* (Marcus Aurelius, Long's translation), with M. Arnold's Essay and Melmoth's translation of Cicero's Essay on Friendship; (5) *Sartor Resartus*, and Essays on Burns and Scott (Carlyle); (6) *The Two Paths*, Lectures on Architecture and Painting, Pre-Raphaelitism, and Notes on the Turner Gallery (Ruskin); (7) *Tales from Shakespeare* (Lamb); (8) *The Pathfinder* (Fenimore Cooper); (9) *Fairy Tales* (Grimm); (10) *The Woman in White* (Wilkie Collins). Also (11) *Barrie's The Little Minister* in the agreeable and flexible leather binding (1s. 6d. net).

*Select English Classics*. Edited, with introduction, by A. T. Quiller-Couch. (3d. each; cloth, 4d. Frowde, Clarendon Press.)

Here is an attractive new series. We have (1) *Shakespeare, songs and sonnets*; (2) *Bunyan, nine extracts*; (3) *Defoe, nine extracts*; (4) *Cowper, verse passages*; (5) *Crabbe, eight selections*; (6) *Hazlitt, nine passages*; (7) *Izaak Walton, nine passages*; (8) *Keats, odes and lyrics (with four sonnets)*; (9) *Matthew Arnold, eleven poems*. The selections are very suitable, and the type and get-up (whether in paper or in cloth) are excellent. The series will no doubt be cordially welcomed in the schools.

#### ART—DRAWING—DESIGN.

*Nelson's New Drawing Course*, by J. Vaughan, Superintendent of Drawing and Manual Instruction under the Glasgow School Board, has reached Stage VI. (15s.)—a most elaborate and thoughtfully planned series, admirably produced. Set VI. contains 10 sheets 25 x 20 in., on the same plan as the previous examples, each sheet forming the basis of about a month's work in drawing from Nature, from objects, &c. Both sides of each sheet present (1) large drawings, for demonstration of principles in class, for setting a standard of execution, and for illustration of ornamental renderings, and (2) small drawings as suggestions for exercises of similar difficulty. Drawing and colouring are excellent. The containing portfolio is artistic and serviceable.

*How to Draw in Pen-and-Ink*. By Harry Furniss. (3s. 6d. net. Chapman & Hall.)

Mr. Furniss is not to be tied down to a methodical exposition in detail, but he deals broadly with main matters generally and on some particular subjects. He is discursive, but always interesting, and he gets many good points inserted by the way. His personal method attracts and impresses. There are numerous effective illustrations, and the author smiles from the frontispiece as if it were all very easy. A charming and suggestive volume.

*Ambidextrous and Free-Arm Blackboard Drawing and Design*. By F. F. Lydon, Art Master at Parmiter's School and East London College, &c. (3s. 6d. Philip.)

This is a second edition, deservedly attained. The directions and the exposition are lucid, and the subject is progressively unfolded with much practical judgment. There are numerous illustrative plates, with full and careful description.

#### RELIGIOUS AND MORAL.

*The Wisdom of the East Series*. Edited by L. Cranmer-Byng and Dr. S. A. Kapadia. (Murray.)

(1) *Brahma-Knowledge* (2s. net), by L. D. Barnett, M.A., Litt.D., Professor of Sanskrit, University College, London, presents an outline of the philosophy of the Vedānta as set forth by the Upanishads and by the Śāṅkara, without any attempt either to justify or to refute the ideas.—(2) *The Sayings of Confucius* (2s. net), by Lionel Giles, M.A. Oxon., Assistant in the Department of Oriental Books and Manuscripts of the British Museum, consists of "a new translation of the greater part of the Confucian Analects," with a considerable and instructive introduction and useful foot-notes. "Confucius is one of the few supremely great figures in the world's history."—(3) *The Conduct of Life; or, The Universal Order of Confucius* (1s. net), by Hu Hung Ming, M.A. Edin., is "a translation of one of the four Confucian books hitherto known as 'The Doctrine of the Mean.'" The idea of moral obligation, here set forth, "forms the basis of human conduct and social order in the scheme of the Chinese civilization," which the editor pronounces "a wonderful success."—(4) *Arabian Wisdom* (1s. net), by John Wortabet, M.D., consists of selections and translations from the Arabic. All these volumes are most instructive additions to an excellent series.

# MACMILLAN'S Books Suitable for Prizes.

## ANTIQUITIES.

- CIVIL WAR AND REBELLION IN THE ROMAN EMPIRE, A.D. 69-70.** By B. W. HENDERSON, M.A. With Maps and Illustrations. 8vo, 8s. 6d. net.
- A GRAMMAR OF GREEK ART.** By PERCY GARDNER, Litt.D. With Illustrations. Extra crown 8vo, gilt top, 7s. 6d.
- A HANDBOOK OF GREEK SCULPTURE.** By ERNEST ARTHUR GARDNER, M.A. New Edition, with Appendix. Extra crown 8vo. Parts I. and II., 5s. each. Complete in One Vol., 10s.
- ANCIENT ATHENS.** By ERNEST ARTHUR GARDNER. With numerous Illustrations, Plans, and Maps. 8vo, gilt top, 21s. net.
- LIFE IN ANCIENT ATHENS:** The Social and Public Life of a Classical Athenian from day to day. By Prof. T. G. TUCKER, Litt.D. Illustrated. Extra Crown 8vo, 5s.
- LIFE IN THE HOMERIC AGE.** By Professor THOMAS DAY SEYMOUR. Illustrated. 8vo, 17s. net.
- ROMAN PUBLIC LIFE.** By A. H. J. GREENIDGE. Extra crown 8vo, 10s. 6d.
- ATLAS OF CLASSICAL ANTIQUITIES.** By T. H. SCHREIBER. Edited by Prof. W. C. F. ANDERSON. 4to, 21s. net.
- A COMPANION TO SCHOOL CLASSICS.** By JAMES GOW, M.A., Litt.D. Illustrated. Third Edition. Crown 8vo, 6s.
- RAMBLER AND STUDIES IN GREECE.** By J. P. MAHAFY, C.V.O. Fifth and Cheaper Edition. Globe 8vo, 5s. net.
- SCHOOLS OF HELLAS.** An Essay on the Practice and Theory of Ancient Greek Education from 600 to 300 B.C. By the late KENNETH J. FREEMAN, Scholar of Trinity College, Cambridge. Edited by M. J. RENDALL, with the assistance of Dr. SANDYS, Dr. HENRY JACKSON, E. D. A. MORSEHEAD, and others. Illustrated from Greek Vases. Second Impression. 8vo, 4s. net.

## COLLECTED WORKS, ESSAYS, MISCELLANEOUS WORKS.

- ENGLISH PROSE SELECTIONS.** With Critical Introductions by Various Writers, and General Introductions to each Period. Edited by Sir HENRY CRAIK, K.C.B., LL.D. In Five Vols. Crown 8vo. Vol. I.—14th to 16th Century, 7s. 6d. Vol. II.—16th Century to Restoration, 7s. 6d. Vol. III.—17th Century, 7s. 6d. Vol. IV.—18th Century, 7s. 6d. Vol. V.—19th Century, 8s. 6d.
- A SHORT HISTORY OF ENGLISH LITERATURE.** By Prof. G. SAINTSBURY. Crown 8vo, 8s. 6d.
- THE ESSAYS OF ELIA.** By CHARLES LAMB. Edited by Canon AINGER. Globe 8vo, 4s. net.
- THE LETTERS OF CHARLES LAMB.** Newly arranged with Additions. Edited with Introduction and Notes, by the late ALFRED AINGER. Two Vols. Globe 8vo, 8s. net.
- H.M.I. SOME PASSAGES IN THE LIFE OF ONE OF H.M.I. INSPECTORS OF SCHOOLS.** By E. M. SNEYD-KYNNERSLEY, formerly H.M.I. North-West Division. 8vo, 8s. 6d. net.
- THE CHOICE OF BOOKS.** By FREDERIC HARRISON. Globe 8vo, 4s. net.
- THE MEANING OF HISTORY.** By FREDERIC HARRISON. Globe 8vo, 4s. net.
- THE PLEASURES OF LIFE.** By Lord AVEBURY. Globe 8vo, 2s. 6d.
- THE USE OF LIFE.** By Lord AVEBURY. Globe 8vo, 3s. 6d.
- GREEK STUDIES.** By WALTER PATTER, M.A. 8vo, 10s. 6d.
- ESSAYS IN CRITICISM.** By MATTHEW ARNOLD. Globe 8vo, 4s. net.
- ESSAYS IN CRITICISM.** Second Series. By MATTHEW ARNOLD. Globe 8vo, 4s. net.
- MISCELLANIES.** By JOHN MORLEY. Three Vols. Globe 8vo, 4s. net each.
- LECTURES AND ESSAYS.** By Canon AINGER. Edited by Canon BEECHING. Two Vols. Crown 8vo, 15s. net.
- ESSAYS IN HISTORICAL CHEMISTRY.** By T. E. THORPE. 8vo, 12s. net. Contains Lives of R. Boyle, J. Priestley, C. W. Scheele, H. Cavendish, J. Watt, A. L. Lavoisier, M. Faraday, T. Graham, F. Wohler, J. B. A. Dumas, H. Kopp, V. Meyer, D. I. Mendelēef, and S. Cannizzaro.
- THE SCENERY OF ENGLAND, AND THE CAUSES TO WHICH IT IS DUE.** By the Rt. Hon. Lord AVEBURY. With numerous Illustrations and Diagrams. Third Edition. Crown 8vo, 6s.
- SCIENTIFIC LECTURES.** By Lord AVEBURY. Third Edition. 8vo, 6s. net.

## HISTORY.

- MODERN EGYPT.** By Lord CROMER. With Portraits and Map. 2 Vols. 8vo, 24s. net.
- A SHORT HISTORY OF THE ENGLISH PEOPLE.** By JOHN RICHARD GREEN, LL.D. With Maps and Tables. Crown 8vo, 8s. 6d. Illustrated Edition in Four Vols. Super royal 8vo, 10s. net each.
- THE EXPANSION OF ENGLAND.** Two Courses of Lectures. By Sir J. R. SEELEY, M.A. Globe 8vo, 4s. net.
- HISTORY OF ROME.** By Dr. MOMMSEN. Abridged. Crown 8vo, 7s. 6d.
- A HISTORY OF ROME TO THE BATTLE OF ACTIUM.** By E. S. SHUCKBURGH, M.A. Crown 8vo, 8s. 6d.
- A HISTORY OF GREECE.** By J. B. BURY. Crown 8vo, 8s. 6d.
- FAMOUS FIGHTERS OF THE FLEET.** Glimpses through the Cannon Smoke in the Days of the Old Navy. By EDWARD FRASER. With Illustrations. Crown 8vo, 3s. 6d.
- A NEW STUDENT'S ATLAS OF ENGLISH HISTORY.** By Dr. EMIL REICH. Small 4to, 10s. net.
- GENERAL HISTORY OF WESTERN NATIONS FROM 5000 B.C. to 1900 A.D.** By Dr. EMIL REICH. Vols. I. and II. 8vo, 15s. net.
- FORTY-ONE YEARS IN INDIA.** By LORD ROBERTS. With 44 Illustrations. Extra crown 8vo, 6s.

## HISTORY—continued.

- A HISTORY OF THE INDIAN MUTINY.** By T. RICE HOLMES, M.A. Second Edition. Extra crown 8vo, 12s. 6d.
- CAWPOPE.** By Sir GEO. OTTO TREVELYAN. Crown 8vo, 3s. 6d. net.
- THE CHRONICLES OF FROISSART.** Translated by Lord BERNERS. Edited by G. C. MACAULAY, M.A. In extra gilt binding, crown 8vo, 3s. 6d.
- A HISTORY OF ETON COLLEGE, 1440-1875.** By Sir H. C. MAXWELL LYTE, M.A. With Illustrations. Medium 8vo, 21s. net.

## SPORT AND TRAVEL.

- THE STORY OF THE GUIDES.** By Col. G. J. YOUNGHUSBAND. Illustrated. 8vo, 7s. 6d. net.
- THE MAN-HATES OF TEAVO.** By Lieut.-Colonel J. H. PATTERSON, D.S.O. With numerous Illustrations. 8vo, 7s. 6d. net.
- AFRICAN NATURE NOTES AND REMINISCENCES.** By F. C. SELOUS. Illustrated. 8vo, 10s. net.
- A HUNTER'S WANDERINGS IN AFRICA.** Being a Narrative of Nine Years spent amongst the Game of the Far Interior of South Africa. By F. C. SELOUS. Illustrated. Fifth and Cheaper Edition. Extra crown 8vo, 7s. 6d. net.
- GREAT BOWLERS AND FIELDERS: THEIR METHODS AT A GLANCE.** By GEORGE W. BELDAM and CHARLES B. FRY. Illustrated by over 475 Action-Photographs. Medium 8vo, 10s. 6d. net.
- GREAT BATSMEN: THEIR METHODS AT A GLANCE.** By G. W. BELDAM and C. B. FRY. Illustrated by over 600 Action-Photographs. Medium 8vo, 10s. 6d. net.
- GREAT GOLFPERS: THEIR METHODS AT A GLANCE.** By GEORGE W. BELDAM. With Contributions by HAROLD H. HILTON, J. H. TAYLOR, JAMES BRAID, ALEX. HEED, and HARRY VARDON. Illustrated by 268 Action-Photographs. Second Impression. Medium 8vo, 10s. 6d. net.
- GREAT LAWN TENNIS PLAYERS.** By G. W. BELDAM and P. A. VAILE. Illustrated by 229 Action-Photographs. Med. 8vo, 10s. 6d. net.

## NATURAL HISTORY.

- CURIOSITIES OF NATURAL HISTORY.** By FRANCIS T. BUCKLAND. In Four Vols. Crown 8vo, 2s. 6d. each; cloth gilt, 3s. 6d. each.
- NATURAL HISTORY AND ANTIQUITIES OF SELBORNE.** By GILBERT WHITE. Edited by FRANK BUCKLAND. Crown 8vo, 3s. 6d. net.
- NATURAL HISTORY OF SELBORNE.** 8vo, 3s. 6d. net; Roxburgh binding, 5s. net.
- LIFE AND HER CHILDREN: GLIMPSES OF ANIMAL LIFE FROM THE ANTERA TO THE INSECTS.** By ARABELLA B. BUCKLEY. With upwards of 100 Illustrations. 18th Thousand. Crown 8vo, 6s.
- A HANDBOOK OF BRITISH INLAND BIRDS.** By A. COLLETT. With coloured and outline Plates of Eggs. Crown 8vo, 6s.
- A YEAR WITH THE BIRDS.** By W. WARDE FOWLER, M.A. Illustrated. Crown 8vo. Prize Edition, 2s. 6d.; cloth gilt, 3s. 6d.
- TALES OF THE BIRDS.** By W. WARDE FOWLER, M.A. Crown 8vo. Prize Edition, 2s. 6d.; cloth gilt, 3s. 6d.
- MORE TALES OF THE BIRDS.** By W. WARDE FOWLER, M.A. Crown 8vo, 3s. 6d.
- SUMMER STUDIES OF BIRDS AND BOOKS.** By W. WARDE FOWLER, M.A. Crown 8vo, 3s. 6d.
- INSECT LIFE.** By J. H. FABRE. Translated. With Illustrations. Crown 8vo, 6s.; Prize Edition, 2s. 6d.
- THE NATURAL HISTORY OF AQUATIC INSECTS.** By Prof. L. C. MIALL, F.R.S. Crown 8vo, 3s. 6d.
- ROUND THE YEAR: SHORT NATURE STUDIES.** By Prof. L. C. MIALL, F.R.S. Crown 8vo, 3s. 6d.

## SELECTIONS FROM THE GLOBE LIBRARY.

### PRESENTATION EDITION.

- Bound in green leather limp, full gilt backs, and gilt edges. Crown 8vo, 5s. net each.
- BOSWELL'S LIFE OF JOHNSON.** Edited, with an Introduction, by MOWBRAY MORRIS.
- BURN'S POEMS, SONGS, AND LETTERS.** Being the Complete Works of Robert Burns. Edited from the best printed and Manuscript Authorities, with Glossarial Index and Biographical Memoir, by ALEXANDER SMITH.
- THE WORKS OF GEOFFREY CHAUCER.** Edited by ALFRED W. POLLARD, H. FRANK HEATH, MARK H. LIDDELL, and W. S. MCCORMICK.
- THE POETICAL WORKS OF WILLIAM COWPER.** Edited, with Notes and Biographical Introduction, by W. BENJAMIN, B.D.
- THE POETICAL WORKS OF JOHN DRYDEN.** Edited, with a Memoir, Revised Texts, and Notes, by W. D. CHRISTIE, M.A.
- THE DIARY OF JOHN EVELYN.** With Introduction and Notes by AUSTIN DOBSON.
- THE MISCELLANEOUS WORKS OF OLIVER GOLDSMITH.** With Biographical Introduction by Prof. MASSON.
- THE POETICAL WORKS OF JOHN KEATS.** Edited, with Introduction and Notes, by WILLIAM T. ARNOLD.
- THE POETICAL WORKS OF JOHN MILTON.** With Introductions by Prof. MASSON.
- PEPYS'S DIARY.** With Introduction and Notes by G. GREGORY SMITH.
- THE POETICAL WORKS OF ALEXANDER POPE.** Edited, with Notes and Introductory Memoir, by Dr. A. W. WARD.
- POETICAL WORKS OF SIR WALTER SCOTT.** With a Biographical and Critical Memoir by F. T. PALGRAVE.
- THE WORKS OF WILLIAM SHAKESPEARE.** Edited by W. G. CLARK, M.A., and W. ALDIS WRIGHT, M.A.
- THE COMPLETE WORKS OF EDMUND SPENSER.** Edited, from the Original Editions and Manuscripts, by R. MORRIS. With a Memoir by J. W. HALES, M.A.
- TENNYSON'S POETICAL WORKS.** Also in extra cloth, gilt edges, 4s. 6d.

"Rivingtons' Handbooks to the Bible and the Prayer Book."—

(1) *St. John*, by the Rev. W. C. E. Newbolt, M.A., Canon and Chancellor of St. Paul's. (2s. 6d. net.) (2) *Acts of the Apostles*, Chapters I–XV., and (3) *Acts of the Apostles*, Chapters XVI–XXVIII., by the Rev. Bernard Reynolds, M.A., Archbishop's Inspector of Training Colleges, (Chief Diocesan Inspector of London, and Prebendary of St. Paul's, and the Rev. G. H. S. Walpole, Rector of Lambeth, Hon. Canon of Southwark, formerly Principal of Bede College, Durham. (2s. 6d. net, and 2s. net.)

The series is "for the use of teachers and students," and both classes may derive much help from the volumes both by direct information and by reference and suggestion. (1) seems more largely addressed to teachers: the outline lessons are very full. The "blackboard sketches" form a pointed feature of all the volumes. Each volume has a useful map of Palestine, and (2) and (3) show maps of the missionary journeys.

#### BOOKS OF REFERENCE.

*The Schoolmasters Yearbook and Directory*, 1908. (7s. 6d. net. Swan Sonnenschein.)

This is the sixth annual issue of a volume that is now indispensable to educationists. The editors are naturally anxious about the proper date of publication, which the Christmas and January conferences practically force some way down the Calendar; but we should imagine that the essential point is to have the book once a year and to have it full and accurate when it comes. The volume is laid out on the usual lines, and evidently great efforts have been made—and successfully made—to bring the information thoroughly up to date.

*The Girls' School Yearbook (Public Schools)*, 1908–9, with Index of Schoolmistresses. (2s. 6d. net. Swan Sonnenschein.)

The volume is a record, at once comprehensive and concise, of all matters of interest to parents, schoolmistresses, and girls in connexion with secondary education. Part II., which deals chiefly with the after-school career of girls, has been carefully revised, considerably rewritten, and enlarged. The information continues to be full, and obviously much trouble has been taken to make it accurate. The work thoroughly deserves success. This is its third annual appearance.

*Paton's Guide to Continental Schools*, 1908.

This is the third annual issue. The volume deals with schools in Switzerland, France, Germany, and Belgium—"only really good schools," so far as can be ascertained—and consists of four divisions: (1) selected lists of schools; (2) brief descriptions of educational centres; (3) boys' schools; and (4) girls' schools. Illustrations of nearly all the institutions, as well as a full outline of information about them, are presented; and a very detailed continental map is prefixed. The compilation ought to be extremely serviceable to English-speaking parents and guardians in search of a continental school, whether for boys or for girls.

*The City of London Directory*, 1908. (12s. 6d. Collingridge.)

Messrs. W. H. & L. Collingridge, of the *City Press*, now issue the thirty-eighth annual edition of the City of London Directory. The work has established itself as an indispensable office guide, containing all sorts of local information that is likely to be needed and disposing the details in the clearest possible arrangement. The Official section is very full; the Streets section is brought carefully up to date—always a very arduous business after the numerous changes of the first three months of the year; the Livery Companies section furnishes the usual special information; the Educational section sets out the advantages and opportunities afforded by the city schools, with much historical detail; and the Biographical section (with portraits) is very interesting as well as ornamental. There is also a carefully corrected map in colours, marking the boundaries of the wards and parishes and recording the street alterations of the past twelvemonth.

*Nelson's Annotated Scotch Code*, 1908. Edited by John Kerr, M.A., LL.D., late H.M. Chief Inspector of Schools and Inspector of Training Colleges. (2s. 6d. net. Nelson.)

This is the tenth annual issue of "the *vade mecum* of Scottish Education." It covers all the grades and forms of schools, and provides all necessary information and explanations regarding school work, many official circulars and other documents on important points being quoted textually. The Continuation Classes Code is incorporated; and the useful memoranda on the teaching of particular subjects recently issued by the Scotch Education Department are reprinted in full. The honoured name of the editor is an ample guarantee for completeness, thoroughness, and accuracy.

*Nelson's Sixpenny Guides*.

Here is a new series of cheap guide-books to the chief holiday resorts of England and Wales, a round dozen of them. The matter is taken from Baddeley's well known "Thorough Guides"; and the tourist will find in them all that he needs to enable him to see everything worth seeing in the localities with intelligence and ease. Each volume has about 80 pages of letterpress in spacious type, a large and detailed map of the district in three colours, and several smaller maps, plans, or illustrations. The get-up is agreeable, and the form is convenient for the pocket.

In the same style is *Nelson's Guide to Paris* (9d., or 1 fr.); and *London* (Guides Nelson) (fr. 1.25, or 1s.), which is in French, and is specially opportune.

#### FIRST GLANCES.

##### MATHEMATICS.

Arithmetic, Advanced, and Elementary Algebra and Mensuration: a Text-Book for Secondary Schools and Students preparing for Public Examinations. By P. Goyen, Chief Inspector of Schools, Otago, New Zealand. 3s. 6d. Macmillan

[“A new edition, entirely rewritten and recast, of a book formerly issued as ‘Higher Arithmetic and Elementary Mensuration.’”]

Arithmetic, Pitman's Correlated. Book I. (Scheme II., Departmental Suggestions). By T. W. Trought, B.A., Head Master, Camden Street Council School, Birmingham, formerly Lecturer at Chester Training College. 3d.

Arithmetic, The "A.L." Methodic. By David Thomas, Assistant Secretary of Education for Carnarvonshire, formerly Senior Assistant Master, Friars School, and Head Master of an Elementary School. Books A, B, C, D (for Grades or Standards I., II., III., IV.). 3d. each book. Answers (to all the four books), 9d.

[Compiled to meet the latest requirements of the Code, and arranged in accordance with the new Syllabus set forth in Schedule VI.]

Dynamics, Elementary. By W. M. Baker, M.A., formerly Scholar of Queens' College, Cambridge, Head Master of the Military and Civil Department at Cheltenham College. 3rd ed. 4s. 6d. George Bell.

[Excellent work. Some minor corrections made. In our March number we noted the publication of a full key to the examples.]

##### SCIENCE.

Chemistry, A Method of Teaching, in Schools. By A. M. Hughes, B.Sc. Lond., Science Mistress of the L.C.C. Secondary School, Eltham, and R. Stern, B.Sc. Lond., Science Mistress of the North London Collegiate School. 3s. net. Cambridge University Press.

[Sound and attractive. 55 figures; other illustrations.]

Chemistry, Practical. By Geoffrey Martin, B.Sc., Ph.D., Lecturer and Demonstrator in Chemistry, University College, Nottingham. 2s. net. Crosby Lockwood & Son.

[Short course of practical work for Army and Matriculation students and for use in Secondary Schools. Judicious experiments, exercises, and directions. Very useful. 72 figures.]

Heat Shadows. By Walter Jamieson, B.Sc. Lond., A.M.I.E.E., Science and Mathematical Master, Provanside Higher Grade School, Glasgow. 6s. net. Blackie.

[“Some new experiments in Conduction and Radiation of Heat.” An attempt to bring quantitative experiments on these points within the scope of young students of elementary physics. Ingenious and interesting.]

Physics, A Second Year's Course in Practical. By James Sinclair, M.A., B.Sc., Head Science Master, Shawlands Academy, Glasgow. 1s. 6d. George Bell.

[Deals with Heat. Adopts some of Mr. Jamieson's results, see above, "Heat Shadows"). Experiments judiciously chosen and clearly set out; numerous exercises (with answers) and figures. Extremely useful.]

##### ENGLISH LITERATURE.

Blackie's English Texts. 6d. each volume.—(1) Border Warfare (Froissart); (2) The Reign of Richard II. (Froissart); (3) Crecy and Poitiers (Froissart); (4) The Hero as Divinity and the Hero as Man of Letters (Carlyle); (5) The Hero as Poet and the Hero as King (Carlyle); (6) Byzantine Churches of Venice (Ruskin); (7) Sesame and Lilies (Ruskin); (8) Britain and Germany in Roman Times (Caesar and Tacitus); (9) The Coming of Arthur (Malory); (10) The Knights of the Round Table (Malory); (11) Plutarch's Life of Julius Caesar; (12) The Siege of Syracuse (Thucydides); (13) The Capture of Mexico (Prescott); (14) Bacon's Essays; (15) Cowley's Essays; (16) England's Rural Life and Christmas Customs (Washington Irving).

[Matter varied and excellent; good type and get-up.]

Clarendon Press.—(1) Selections from Dr. Johnson's "Rambler." Edited, with Preface and Notes, by W. Hale White. (2s. 6d. net.) (2) Mary Wollstonecraft's Original Stories. With Introduction by E. V. Lucas. 2s. 6d. net.

[Beautiful type, and artistic get-up.]

Elzevir Library.—(1) The Fancy and Humour of Charles Lamb. (2) Wit and Imagination of Benjamin Disraeli. (3) Vignettes from Oliver Goldsmith. The Passages selected and arranged by George Sampson. Seeley.

[A charming series, delightfully got up.]

Grant Richards's Penny Classics.—(1) David Copperfield; (2) Tennyson's Poems, 1830–33; (3) Shakespeare's The Merchant of Venice; (4) Ruskin's Sesame and Lilies. 1d. each.

[Each book gives 40 large pages in double columns. "David Copperfield" will take about a dozen books. Type good; paper and (consequently) pictures not so good—but then the price!]

Macmillan's Pocket Classics.—The Use of Life (Lord Avebury). 2s.

[Very agreeable edition. Portrait frontispiece.]

Nelson's Library (7d. each).—(1) Monsieur Beaucaire, and The Beautiful Lady (Booth Turkington). (2) The Octopus (Frank Norris); (3) Woodside Farm (Mrs. W. K. Clifford); (4) The Recipe for Diamonds (C. J. Cutcliffe Hyne).

[Liberally printed and flexibly and agreeably bound.]

Nelson's Sixpenny Classics.—(1) Silas Marner (George Eliot). (2) Notre Dame (Victor Hugo). (3) Kate Coventry (Whyte Melville).

[Liberally printed and flexibly and plainly bound.]

Treasury of English Literature.—Selected and arranged by Kate M. Warren, Lecturer in English Language and Literature at Westfield College (University of London). Section III., Elizabethan Literature. Section IV., Bacon to Milton. 1s. net each. Constable.

[Introduction by Stopford A. Brooke. Excellent selection; spicuously printed and nicely got up.]

EDUCATION.

Board of Education. (1) Regulations for Secondary Schools (from August 1 next) in England. Cd. 4037. 2d. (2) Regulations for the Preliminary Education of Elementary School Teachers (from August 1 next) in England. Cd. 4038. 2½d. (3) List of Training College Students who completed their periods of training on July 31, 1907, and are qualified by examination for recognition as Certificated Teachers. 6d. (4) List of persons who have passed the Certificate Examination of the Board of Education for Teachers in Elementary Schools, 1907. 6d. Wyman.

Cambridge University Local Examinations. Subjects for July and December, 1909. Complete Regulations of 1909 can be obtained June 20 next.

Certificate Examinations of the Board of Education, 1908-9, "The Teacher" Guide to the; with questions set in 1907 and solutions to the papers in mathematics. Compiled by James Bell, B.A., Director of Certificate Classes, Stockport. 1s. net. Pitman.

[Useful explanations and directions.]

Chart of the Centuries from the Norman Conquest. By W. S. Child-Pemberton. Large (on metal ledge), 2s. net; small (scholar's edition), 1d. net.

[Graphical device to help the imagination.]

Johns Hopkins University Circular, 1908. No. 2, Commemoration Day; Enumeration of Classes. No. 3, The Political Science Seminary, 1907-08.

L.C.C. (1) Report on Elementary Day Schools, for year ended March 31, 1907. No. 1143. 7s. 6d. (parcel post free, 8s.). (2) Report on Industrial and Reformatory Schools, for year ended March 31, 1907. No. 1145. 1s. (post free, 1s. 2d.). King.

Normal Tutorial Series.—(1) The Certificate Guide, 1908-09. 6d. net. (2) Notes of Lessons and How to write them, by William Smith, B.A., B.Sc. 3rd edition. 1s. net. (3) Guide to Oxford and Cambridge Locals. 6d. net.

MISCELLANEOUS.

Art and Trade: their Alliance in Foreign Competition. Speech by Sir Swire Smith in support of the Third International Art Congress. Published at the Offices of the Congress (151 Cannon Street, E.C.).

Books for the Bairns. No. 140, The Babes in the Wood. A Fairy-Tale Play. No. 147, A Book of Nonsense. By Edward Lear. Illustrated. "Books for the Bairns" Office (39 Whitefriars Street, E.C.).

Calendar, A Simplified, A Proposal for. By Alexander Philip, LL.B. 6d. net. Kegan Paul, Trench, Trübner, & Co.

[The essential feature is "that one day in each year and the intercalary day in every fourth year shall not be enumerated as days of the week or month." Ingenious.]

Chemical Appointments. Official List of. Compiled by Richard B. Pilcher, Registrar and Secretary of the Institute of Chemistry. Second Edition, revised and enlarged. 2s. net. Institute of Chemistry (30 Bloomsbury Square, W.C.).

Fairy Tales, Aunt Kate's. No. 3, Stories from Hans Andersen. 1d. No. 4, More Stories from Hans Andersen. 1d. Leng.

Letter-Writer, Leng's. New and Revised Edition. 1d.

Natural Sciences, On the Influence of the, on our conceptions of the Universe. Address by Prof. Ladenburg (Chemistry), Breslau. Translated by Dr. C. T. Sprague. 2d. Watts.

Peace, The Principles of. By Joseph Rowntree. Copies on application to the Author, Clifton Lodge, York.

Rome, Wintering in. By A. G. Welsford, M.D., B.C. Cantab., F.R.C.S., D.P.H., &c. With Introduction by G. Sandison Brock, M.D., C.M. Edin., M.D. Rome, Physician to the British Embassy at Rome. Second Edition. 2s. net. Health Resorts Bureau (27 Chancery Lane, W.C.).

[Full and trustworthy. Three illustrations.]

Temperance Reform in the United States. 2d. King.

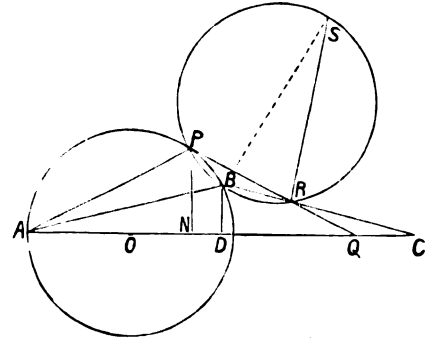
W.G. Systems, Ltd. Specimens of Squared Paper used in "W.G. Business Barometers" and "W.G. Graphic Charts." [Obviously serviceable in many businesses.]

MATHEMATICS.

16310. (V. RAMASWAMI AIYAR, M.A.)—Prove that a variable tangent to a three-cusped hypocycloid moving with uniform angular velocity meets any fixed tangent in a point whose motion is simple harmonic.

Solutions (I.) by M. T. NARANIENGAR, M.A.; (II.) by V. MADHAVARAO, M.A.

(I.) Let O be the centre of the fixed circle whose radius is 3a. Describe a concentric circle of radius a, and take two points B and P, the first fixed and the second variable. Then, if BD, PN be perpendiculars on the fixed diameter AO, and DC, NQ are measured equal to AD, AN, it will be seen that BC is a fixed tangent, and PQ a variable tangent to the three-cusped hypocycloid.



Now,  $\angle BRP = \angle BAP$ ; therefore R lies on a circle BPR equal to that constructed; so that, if BS be its diameter, SR is perpendicular to BC, and therefore the motion of R is simple harmonic. [Locus of S is evidently a circle with centre D.]

(II.) The tangent at a point of the three-cusped hypocycloid, defined by

$$x = 2a \cos 2\theta + a \cos 4\theta, \quad y = 2a \sin 2\theta - a \sin 4\theta,$$

is

$$x \sin \theta + y \cos \theta = a \sin 3\theta$$

This cuts the tangent, at a fixed point for which  $\theta = \alpha$ , in the point where

$$x = a [\cos 2\alpha + \cos 2\theta + \cos 2(\alpha + \theta)] \dots \dots \dots (1).$$

If  $\psi$  be the inclination of the tangent at the point  $\theta$  to the x-axis,  $\tan \psi = -\tan \theta$ . Also  $d\psi/dt = \omega$  = the uniform angular velocity therefore  $\theta = k - \omega t$ , where k is a constant.

Hence (1) takes the form  $x - a \cos 2\alpha = p \cos 2\omega t + q \sin 2\omega t$ ; p, q being constants. This shows that the motion of the projection of the point of intersection on the x axis is simple harmonic, and hence the motion of the point itself on the fixed tangent is simple harmonic.

16266. (Professor E. B. ESCOTT.)—Find a line which is both tangent and normal to the cardioid.

Solution by the PROPOSER.

It is well known that the evolute of an epicycloid is a similar epicycloid. The evolute of a cardioid is a cardioid with the radius of the base circle  $\frac{1}{3}$  of the radius of the base circle of the given cardioid. Since the tangent is to be normal to the curve, it must be tangent to the evolute. The problem may then be stated: To find the common tangent of the cardioid and its evolute.

The equation of the curve with the centre of the base circle O as origin is

$$x = a(2 \cos \theta + \cos 2\theta),$$

$$y = a(2 \sin \theta + \sin 2\theta).$$

The tangent at the point  $\theta_1$  is

$$y = -\frac{\cos \theta_1 + \cos 2\theta_1}{\sin \theta_1 + \sin 2\theta_1} x + 3a \frac{1 + \cos \theta_1}{\sin \theta_1 + \sin 2\theta_1},$$

or it may be written

$$y = -\cot \frac{3}{2}\theta_1 \cdot x + \frac{3a \cos \frac{1}{2}\theta_1}{\sin \frac{3}{2}\theta_1}.$$

The evolute is

$$x = -\frac{1}{3}a(2 \cos \phi + \cos 2\phi), \quad y = \frac{1}{3}a(2 \sin \phi + \sin 2\phi);$$

and its tangent  $y = \cot \frac{3}{2}\phi_1 \cdot x + a \cos \frac{1}{2}\phi_1 / \sin \frac{3}{2}\phi_1$ .

Since these two tangents must be the same,  $-\cot \frac{3}{2}\theta_1 = \cot \frac{3}{2}\phi_1$ , i.e.,

$$\sin \frac{3}{2}(\phi + \theta) / \cos \frac{3}{2}\phi \cos \frac{3}{2}\theta = 0, \quad \frac{3}{2}(\phi + \theta) = n\pi,$$

$$\phi + \theta = \frac{2}{3}n\pi, \quad \phi = \frac{2}{3}n\pi - \theta.$$

Substituting and equating the constant terms in the equations of the tangents, we have

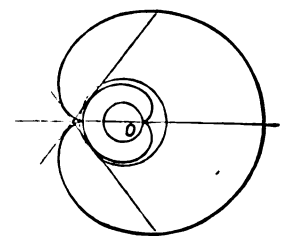
$$\cos(\frac{1}{3}n\pi - \frac{1}{2}\theta) / \sin(n\pi - \frac{3}{2}\theta) = 3 \cos \frac{1}{2}\theta / \sin \frac{3}{2}\theta.$$

Solving, we have  $\tan \frac{1}{2}\theta = -(3 + \cos \frac{2}{3}n\pi) / \sin \frac{2}{3}n\pi$ .

(a) If  $n = 0$ ,  $\tan \frac{1}{2}\theta = \infty$ ; therefore  $\theta = \pi$ .

(b) If  $n = 1$ ,

$$\tan \frac{1}{2}\theta = \frac{2}{3}\sqrt{3}.$$



- (c) If  $n = 2$ ,  $\tan \frac{1}{2}\theta = -\frac{2}{3}\sqrt{3}$ .
- (a)  $n = 0$ , tangent line is  $y = 0$ . Tangent at cusp.
- (b)  $n = 1$ , tangent line is  $y = -\frac{2}{3}\sqrt{3}x - \frac{2}{3}a\sqrt{3}$ . Co-ordinates of point of tangency,  $(-\frac{1}{3}\sqrt{3}a, \frac{1}{3}\sqrt{3}a)$ . Point at which tangent is normal to the curve,  $(-\frac{1}{3}\sqrt{3}a, -\frac{2}{3}\sqrt{3}a)$ .
- (c)  $n = 2$ . Symmetrical to the last.

**15956.** (W. W. ROUSE BALL.)—The Proposer desires to restate the question as follows:—In 1850 Mr. Kirkman proposed as a problem the determination of 7 arrangements of 15 schoolgirls, each arrangement consisting of 5 sets of triplets, so that no two girls will occur together in any triplet more than once. The question was discussed by numerous mathematicians, notably by the author, Cayley, and Sylvester, and several solutions have been given. The generalized problem consists in finding  $\frac{1}{2}(3m-1)$  arrangements of  $3m$  things, each arrangement consisting of  $m$  sets of triplets, so that no two things will occur together in any triplet more than once. This has been solved for various values of  $m$ , in particular when  $m = 1, 3, 5, 7, 9, 13, 15$ . It seems probable that there is a solution when  $m = 11$ . Can any readers of the *Educational Times* give the solution when  $m = 11$ ?

*Solution by* HENRY E. DUDENEY.

The following solution, with the application of its method to analogous cases, will perhaps be found interesting. The problem, generally, is to enable  $n$  schoolgirls to walk out in triplets on  $\frac{1}{2}(n-1)$  days, so that no two girls shall ever walk twice together. It must be understood that I am only writing of cases where  $n$  is of the form  $6m+3$ .

The girls being represented by the consecutive numbers  $1, 2, 3, \dots, n$ , the possible cyclical differences between these numbers are  $1, 2, 3, \dots, \frac{1}{2}(n-3)$ , and  $\frac{1}{2}(n-1)$ , which latter difference I reserve for the first column in association with  $n$ , repeated. For example, here is my solution for  $n = 9$  :—

9 SCHOOLGIRLS.

		4	1 2 3	1 2 3
1st day	...	9 1 5	3 4 6	7 8 2
2nd day	...	9 2 6	4 5 7	8 1 3
3rd day	...	9 3 7	5 6 8	1 2 4
4th day	...	9 4 8	6 7 1	2 3 5

It will be seen that  $9(n)$  repeats in the column, while the other numbers descend cyclically,  $1, 2, 3, \dots, 8, 1, 2, \dots$ . The differences are, of course, not numerical, but cyclical, so that  $8-2$  in the first line is not 6 but 2, since  $8-6 = 2$ . All the differences above (1, 2, and 3) may occur twice, except the 4, which, if continued, will repeat, for obvious reasons.

Now, the differences  $1, 2, 3, \dots, \frac{1}{2}(n-3)$  will always sum to  $\frac{1}{2}(n^2-4n+3)$  for any value of  $n$ . This sum will be even only when  $n$  is of the form  $24p+3$  or  $9$  (where  $p$  may be 0 or any integer), and my present method only applies to these even cases, such as  $n = 3, 27, 51, \dots$ , and  $9, 33, 57, \dots$ .

I have given the solution in the case of 9 girls. The simple case of 3 girls I write 3 1 2, the differences 1, 2, ...  $\frac{1}{2}(n-3)$  here being 0. I will give the analogous solutions for 27, 33, and 51 girls respectively, and I need only show one line (for the first day), it being understood, as explained above, that  $n$  repeats and all other numbers descend cyclically,  $1, 2, 3, \dots, (n-1), 1, 2, \dots$ .

27 SCHOOLGIRLS.

		13	5 1 4	5 1 4	2 8 6	2 8 6
1st day	...	27 8 21	2 23 24	15 10 11	5 7 25	18 20 12
			11 12 3	11 12 3	10 9 7	10 9 7
			1 16 4	14 3 17	6 22 13	19 9 26

It will be seen that every one of the differences 1, 2, ... 12 occurs twice, and twice only, and that the numbers in the second triplet of a pair with similar differences belong to the cycle of the first triplet of such pair. (Thus, in the previous solution for 9 girls, if we continue cyclically the second column, we get into the third; if we continue the third, we get the second.) These cycles I call complementary, and, in order that they shall not clash, it is necessary that the difference between similarly situated numbers in the paired groups shall always be  $\frac{1}{2}(n-1)$ . Thus, above,  $2+13 = 15$ ,  $23+13 = 36 = 10$ , and  $24+13 = 37 = 11$ . Therefore it is obvious that, when we write out our full solution for the 13 days, no two numbers will ever be found twice together. Also, since the difference 13 is only taken once on each of 13 occasions, there can be no repetition here. Finally, 27, being repeated, is associated with every other number once and once only. The solution thus proves itself.

33 SCHOOLGIRLS.

		16	1 11 12	1 11 12	13 6 7	13 6 7
1st day	...	33 15 31	1 2 13	17 18 29	9 22 16	25 6 32
			10 4 14	3 5 2 3	5 2 15 9 8	15 9 8
			30 8 12	14 24 28	23 26 21	7 10 5
				3 20 11	19 4 27	

This first line, as in the last case, carries its own proof, and the arrangements for the remaining 15 days (that is, 16 in all) may be at once written out.

If the sum of the differences be odd, it is evident that this method will not apply without modification, for this reason: if we take the three differences proper to any triplet, two of them must always sum to the third. Thus, above,  $1+11 = 12$ ,  $6+7 = 13$ ,  $10+4 = 14$ ,  $2+3 = 5$ ,  $9+8 = 17 = 15$ . Therefore the sum of the three differences in every triplet must be even, and the sum of them all even. Such a case as the last ( $9+8 = 17 = 15$ ) will not alter this fact, for  $n-1$  is always even, so that if an odd number be deducted from it, the remainder will be odd; if an even number, the remainder will be even.

Therefore the cases where the sum of the differences is odd (that is, where  $n = 24p+15$  or  $21$ ) require special treatment.

[Rest in Reprint.]

**16405.** (R. F. DAVIS, M.A.)—Solve the equation  $(2x+1)(x^2+1)^2+4x^4=0$ .

*Solutions (I.) by* Lt.-Col. ALLAN CUNNINGHAM, R.E., Prof. E. HERMANDEZ, and C. M. ROSS; (II.) by B. C. WALLIS, F.C.P., B.Sc. (Econ.); (III.) by MARK J. ERDBERG.

(I.) Let  $f(x) = (2x+1)(x^2+1)^2+4x^4=0$ .

Here  $x = -1$  gives  $f(x) = 0$ , so that  $-1$  is one root.

Let  $f_1(x) = f(x)/(x+1)$ ; here  $x = -1$  gives  $f_1(x) = 0$ , so that  $-1$  is a second root.

Let  $f_2(x) = f_1(x)/(x+1)$ ; here  $x = -1$  gives  $f_2(x) = 0$  is a third root. And  $f_2(x)/(x+1) = 2x^2-x+1$ . The roots of the quadratic  $2x^2-x+1 = 0$  are  $x = \frac{1}{4}(1 \pm \sqrt{-7})$ . Hence the five roots required are  $-1, -1, -1, \frac{1}{4}(1 \pm \sqrt{-7})$ .

(II.) Equation is  $2x^5+5x^4+4x^3+2x^2+2x+1=0$ .

By inspection of coefficients  $(x+1)^3$  is a factor which gives

$$(x+1)^3(2x^2-x+1)=0,$$

which gives three roots  $-1$ , and also the roots  $\frac{1}{4}(1 \pm \sqrt{-7})$ .

(III.)  $(2x+1)(x^2+1)^2+4x^4=0$

$$\begin{aligned} &= [(x+1)^2-x^2][(x+1)^2-4x(x+1)^2+4x^2]+4x^4=0 \\ &= (x+1)^6-x(x+4)(x+1)^4+4x^2(x+1)^3=0 \\ &= (x+1)^3[(x+1)^3-x(x+4)(x+1)+4x^2]=0 \\ &= (x+1)^3[(x+1)^3-x(x+1)^2-3x(x+1)+4x^2]=0 \\ &= (x+1)^3(x+1)^2-3x(x+1)+4x^2=0 \\ &= (x+1)^3(2x^2-x+1)=0; \end{aligned}$$

therefore roots of equation are  $-1, \frac{1}{4}(1 \pm \sqrt{-7})$ , the first repeated three times.

**16392.** (C. E. YOUNGMAN, M.A.)—On the cardioid  $r = 2a(1 - \cos \theta)$  the points PQR are such that the cusp is their orthocentre. Prove that the circle PQR has radius  $a(\sqrt{2}+1)$  and that its centre lies on a circle with radius  $a(\sqrt{2}-1)$ , centrally placed on the axis of the cardioid; also that the in-circle of PQR has radius  $a$ .

*Solution by* M. T. NARANIENGAR, M.A.

We know that if the focus of a parabola be the in-centre of an inscribed triangle PQR, then the circum-circle PQR touches the circle having double contact with the parabola at the ends of the latus rectum, and also the tangent at the vertex. For, if  $\alpha, \beta, \gamma$  be the perpendiculars from PQR on the axis or the latus rectum we see that  $p\alpha+q\beta+r\gamma=0$  where  $pqr$  denote the sides of PQR. But  $\alpha, \beta, \gamma$  are proportional to the tangents from P, Q, R to the circle, having double contact with the curve at the points where it is met by the parallel to the axis. Hence  $pt_1+qt_2+rt_3=0$ . Applying Dr. Casey's theorem, this relation expresses the condition that the circle PQR should touch the circle having double contact with the parabola. Evidently in the parabola one of the two circles having double contact is the tangent at the vertex.

Investing the above with respect to a circle of radius  $2a$ , we see at once that (1) the inverse of the parabola is the cardioid  $r = 2a(1 - \cos \theta)$ , (2) the inverse of the tangent at the vertex is a circle of radius  $2a$  passing through the focus, (3) and that the inverse of the circle having double contact with the parabola at the ends of the latus rectum is a circle of radius  $2a\sqrt{2}$ . Thus, the circum-circle of a triangle inscribed in the cardioid so as to have its orthocentre at the cusp, touches the circles (2) and (3) above, which have for their common centre X, the foot of the directrix. Hence, if  $\rho$  be the radius of this circle and O its centre,

$$XO = \rho - 2a = 2a\sqrt{2} - \rho.$$

Therefore

$$\rho = a(\sqrt{2}+1).$$

Also  $XO = a(\sqrt{2}+1) - 2a = a(\sqrt{2}-1)$ ,

i.e., the locus of O is a circle of radius  $a(\sqrt{2}-1)$ , having its centre at X.

The Proposer writes:—As to the in-radius: let P, Q, R on the cardioid invert into P', Q', R' on the parabola, and then let P', Q', R' reciprocate into  $qr, rp, pq$ ; these will be parallel to the sides of PQR. But the parabola becomes the in-circle of  $pqr$ , passing through the

focus; which being itself the in-centre of  $P'Q'R'$  must be the circum-centre of  $pqr$ . Hence in  $PQR$  also the circum-centre lies on the incircle, and  $R^2 - 2Rr = r^2$ ; therefore  

$$r = R(\sqrt{2}-1) = a(\sqrt{2}+1)(\sqrt{2}-1) = a.$$

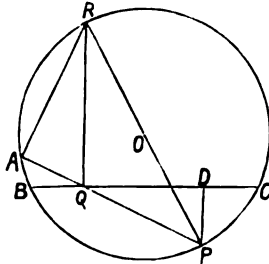
**16415.** (Professor STEGGALL.)—A, B, C are fixed points on the circle ABPC; the chord AP cuts EC in Q; show that PQ is a maximum when the perpendicular from P on BC meets BC in D so that  $BQ = CD$ .

Solutions (I.) by R. F. DAVIS, M.A.; (II.) by HENRY RIDDELL, M.E.

(I.) If A be a fixed pole, and any radius vector APQ be drawn intersecting given curves in P, Q respectively; then PQ is a maximum or minimum when the normals at P, Q intersect on the line through A perpendicular to APQ.

[For  $r-r'$  is a maximum or minimum when  $dr/d\theta = dr'/d\theta$  or the length of the subnormal is the same.]

In the present case draw the diameter POR so that PAR is a right angle. Then, in the position sought, QR is perpendicular to BC and  $BQ = CD$ .



(II.) Since

$$AQ \cdot QP = BQ \cdot QC,$$

if we assume PQ constant, we have

$$d(AQ)/d(BQ) = (CQ - QB) \cdot AQ.$$

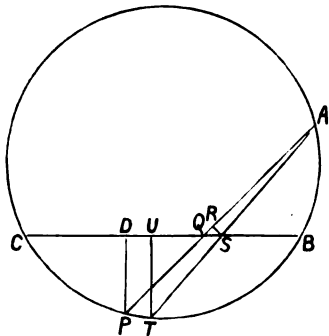
So that in the position at which PQ is maximum the above equation holds, as there is no minimum between B and C. Take a mean position AT cutting BC in S. Draw SR perpendicular to AQ, and we have always

$$RQ \cdot QP = SQ \cdot QD$$

$$\text{or } RQ/SQ = QD/QP.$$

But as the two positions approach

in the limit, we have  $RQ/SQ = d(AQ)/d(BQ)$ , and therefore in the limit  $QD = CQ - QB$ ; therefore  $CD = QB$ .



**10800.** (Professor HUDSON, M.A.)—If two circles can be drawn each to have double contact with an ellipse internally, the points of contact being the ends of conjugate diameters, and to touch one another, prove that the eccentricity of the ellipse must be greater than  $\frac{2}{3}$ .

[Greater than  $\frac{2}{3}$  or  $> \frac{2}{3}$  as probably originally written should read  $\sqrt{\frac{2}{3}}$ .—Ed.]

Solutions (I.) by the PROPOSER; (II.) by A. H. GILLSON.

(I.) Let G be centre of circle touching ellipse centre C, eccentricity  $e$ , at P and Q,  $G'$  centre of circle touching ellipse at  $P'$  and  $Q'$ , also touching former circle, where  $PCP'$ ,  $QCQ'$  are conjugate diameters of the ellipse.

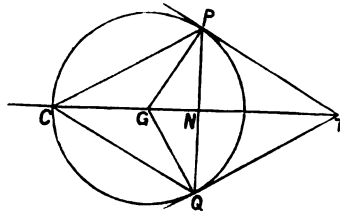
Let TP, TQ,  $TP'$ ,  $TQ'$  be tangents at P, Q,  $P'$ ,  $Q'$ ; and let CT intersect PQ in N.

Now  $TP = TQ$ , being tangents to a circle, and because they are tangents to an ellipse at the ends of conjugate diameters  $CP = CQ$ ; therefore CP, CQ are equally inclined to the axis, therefore CGT is the axis and therefore is perpendicular to PNQ.

So also  $CG'T'$  is the axis, and  $GG'$ , the join of the centres of the circles, passes through their point of contact, which is therefore C.

The radii CG, PG, QG are equal, and each bisects at right angles the opposite side of the triangle CPQ.

Therefore G is the centre of gravity of CPQ, therefore  $CG = \frac{2}{3}CN$ , therefore  $e^2 = \frac{2}{3}$ , therefore  $e = \sqrt{\frac{2}{3}}$ . [Rest in Reprint.]



**16863.** (R. F. DAVIS, M.A.)—If  $\tan^3 \theta = 1 - \sin \theta$ , prove that either  $\tan \theta = \cos \theta$  or  $\tan^2 \theta = -\operatorname{cosec} \theta$ .

Solutions (I.) by Professor NANSON, JAMES BLAIKIE, M.A., and many others; (II.) by F. G. W. BROWN, B.Sc., L.C.P.

(I.) If  $s = \sin \theta$ , the given equation reduces to the quintic

$$s^4 = (1-s)(1-s^2)^2,$$

which is manifestly satisfied if either the cubic  $1-s^2 = -s^3$  or the quadratic  $1-s^2 = s$  is satisfied. But these two equations have no root in common, and give respectively  $\tan^2 \theta = -\operatorname{cosec} \theta$ ,  $\tan \theta = \cos \theta$ . Hence one of these is necessarily true.

$$\begin{aligned} \text{(II.) } \tan^4 \theta &= 1 - \sin \theta = [(1 - \sin \theta) \cos^2 \theta] / \cos^2 \theta \\ &= (\cos^2 \theta - \sin \theta \cos^2 \theta) / \cos^2 \theta = (\cos^2 \theta - \sin \theta + \sin^3 \theta) / \cos^2 \theta \\ &= -(\sin / \cos^2 \theta) + (\sin^3 / \cos^2 \theta) + 1 \\ &= -(\tan^3 \theta / \sin \theta) + \cos \theta \tan^3 \theta + 1; \end{aligned}$$

$$\text{therefore } \tan^3 \theta = -(\tan \theta / \sin \theta) + \cos \theta \tan^3 \theta + (1 / \tan \theta),$$

$$\text{or } \tan^3 \theta + (\tan \theta / \sin \theta) - \cos \theta \tan^3 \theta - (1 / \tan \theta) = 0;$$

$$\text{therefore } \tan^3 \theta + (\tan \theta / \sin \theta) - \cos \theta \tan^3 \theta - (\cos \theta / \sin \theta) = 0;$$

$$\text{or } (\tan \theta - \cos \theta)(\tan^2 \theta + \operatorname{cosec} \theta) = 0;$$

$$\text{hence either } \tan \theta = \cos \theta, \text{ or } \tan^2 \theta = -\operatorname{cosec} \theta.$$

**16401.** (D. EDWARDES, B.A.)—Prove that

$$\int_{-1}^1 \frac{P_n(x)}{(z-x)^{n+1}} dx = \frac{2^n}{2n+1} [z - (z^2-1)^{1/2}]^{n+1},$$

where  $n$  is an integer and  $P_n(x)$  a Legendre's polynomial.

Solution by Hon. G. R. DICK, M.A.

If  $x$  and  $a$  are each less than 1 we have

$$(1-2ax+a^2)^{-1} = P_0(x) + aP_1(x) + \dots + a^n P_n(x) + \dots,$$

where  $P_n$  is Legendre's polynomial: the series is uniformly convergent and may therefore be integrated term by term.

$$\text{Thus } \int_{-1}^1 \frac{P_n(x) dx}{(1-2ax+a^2)^{n+1}} = \int_{-1}^1 (P_0 P_n + a P_1 P_n + \dots) dx$$

$$= \int_{-1}^1 a^n P_n^2 dx$$

$$\left( \text{since } \int_{-1}^1 P_m P_n dx = 0 \text{ except when } m = n \right) = \frac{2a^n}{2n+1}.$$

Therefore, setting  $a = z - \sqrt{(z^2-1)}$  we get

$$\int_{-1}^1 \frac{P_n(x) dx}{(z-x)^{n+1}} = \frac{2^n}{2n+1} [z - \sqrt{(z^2-1)}]^{n+1}.$$

The PROPOSER'S solution is as follows:—

It is easily proved that the integral  $u = \int_{-1}^1 \frac{(x^2-1)^n}{(z-x)^{n+1}} dx$  satisfies the differential equation

$$(z^2-1)(d^2u/dz^2) + z(du/dz) - (n+\frac{1}{2})^2 u = 0,$$

which may be written

$$d^2z(z^2-1)(du/dz)^2 - (n+\frac{1}{2})^2 du^2/dz = 0,$$

the two particular independent solutions of which are therefore

$$[z + (z^2-1)^{1/2}]^{n+1} \text{ and } [z - (z^2-1)^{1/2}]^{n+1}.$$

By Rodrigues' formula,  $P_n(x) = 1/2^n n! \cdot d^n/dx^n (x^2-1)^n$ .

Successive integration by parts thus reduces the proposed integral to depend on  $u$ , the integrated parts vanishing at the limits; and, since it vanishes when  $z$  is infinite, we have

$$\int_{-1}^1 \frac{P_n(x)}{(z-x)^{n+1}} dx = C_n [z - (z^2-1)^{1/2}]^{n+1},$$

where  $C_n$  is a constant. Now

$$\int_{-1}^1 x^m P_n(x) dx = 0,$$

when  $m < n$ , and when  $m = n$ , its value is  $2 \cdot \frac{n!}{1 \cdot 3 \dots 2n+1}$ . Also

$$[z - (z^2-1)^{1/2}]^{n+1} = 2^{-n-1/2} z^{-n-1/2} + \dots$$

Expanding  $(z-x)^{-1}$  in rising powers of  $x$  and equating coefficients of the leading term in  $z^{-n-1/2}$  on either side, we have

$$\frac{1 \cdot 3 \dots 2n-1}{2^n n!} \cdot \frac{2^{-n-1/2}}{1 \cdot 3 \dots 2n+1} = \frac{C_n}{2^{n+1}};$$

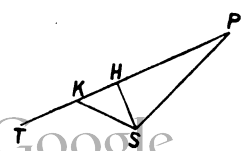
therefore

$$C_n = 2^{1/2} / (2n+1).$$

**16411.** (M. T. NARANIENGAR, M.A.)—Similar segments of circles are described on the radii vectors of a curve, show that their envelope is similar to the first positive pedal.

Solution by Professor SANJANA, M.A.

The envelope of semicircles on the radii vectors (SP) is the first positive pedal or locus of foot (H) of the perpendicular from S on the tangent PT. If the segment containing a given angle ( $\alpha$ ) described on SP meet PT in K,  $\angle KSH$  is fixed, and  $SK : SH$  is also fixed. Hence the envelope, which is the locus of K, is a similar curve.



## QUESTIONS FOR SOLUTION.

**16437.** (T. K. VENKATARAMAN, M.A.)—S, S' are the foci of an ellipse, P a variable point on it. G is a fixed point (0, -h). Investigate the turning values of the length PG. Under what conditions is the position of symmetry a true maximum? Apply the above to find the position of equilibrium of any lamina symmetrical about the perpendicular bisector of SS' (any two fixed points), hung by a string tied to S, S' and passing over a smooth peg.

**16438.** (H. C. KENT, B.Sc.)—Find the general term of

$$\int_{-1}^{+1} [a_0 + a_1 P_1(\mu) + a_2 P_2(\mu) + \dots + a_m P_m(\mu)]^n d\mu,$$

where  $P_m(\mu)$  is Legendre's polynomial of order  $m$ .

**16439.** (R. J. DALLAS.)—Show that  $\frac{1}{1} \frac{2}{2} \frac{3}{3} \dots$  is equal to  $1/(e-1)$ .

**16440.** (V. RAMASWAMI AIYAR, M.A.)—In the expansion of  $(1+x)^m$  by the Binomial theorem, prove that the remainder after  $n$  terms has the same sign as the  $(n+1)$ th term, and lies in value between  $G$  times and  $L$  times the  $(n+1)$ th term where  $G$  is the greatest and  $L$  the least of the quantities

$$(1+x)^m, 1, (1+x)^{-1}, \text{ and } (1+x)^{-1-m}.$$

**16441.** (Professor SANJANA, M.A.)—Prove that  $3^{111} + 1$  is the product of the factors

$$4; 7; 223; 2,019,210,335,106,439;$$

64,326,272,436,179,833; 112,570,976,472,749,341; and  $12^{46} + 1$  of

$$7; 13; 19; 31; 421; 1,657; 1,801; 19,141; 35,671;$$

$$8,554,703,697,721; 9,298,142,299,081.$$

**16442.** (Lt.-Col. ALLAN CUNNINGHAM, R.E.)—Let

$$\tau_n^2 - 2\nu_n^2 = -1, \quad \tau_n^2 - 2\nu_n^2 = +1.$$

Resolve  $\nu_{66}$  into its prime factors. [This number contains 51 figures.]

**16443.** ("λ, μ.")—Resolve into three linear factors

$$(a + \beta + \gamma)^2 - 9(a^2\beta + \beta^2\gamma + \gamma^2a).$$

**16444.** (Professor LANGHORNE ORCHARD, M.A., B.Sc.)—Let  $S_n, S'_n$  denote respectively the sums, each to  $n$  terms, of the two series

$$2^4 + 4^4 + 6^4 + 8^4 + \dots, \quad 1^4 + 3^4 + 5^4 + 7^4 + \dots,$$

$n$  being any even number. Then

$$S_n - S'_n = 4(47 + 591 + 2383 + 6191 + \dots \text{ to } \frac{1}{2}n \text{ terms}) + n.$$

**16445.** (Professor NANSON.)—Salmon has shown that the locus of the focus of a parabola described about a triangle is an octavic, but Hudson has shown (*Reprint*, New Series, Vol. XI., p. 103) that the locus is a quintic. Reconcile these results.

**16446.** (C. E. YOUNGMAN, M.A.)—Given the cusp, the base, and a point P of a cardioide, construct by line and circle the points Q, R at which the tangent at P will cut the curve again.

**16447.** (K. S. PATRACHARI.)—Find the pedal equation of the curve in which the area bounded by the initial line, the curve, and any radius vector OP varies as the cube of the inclination of the tangent at P to the initial line.

**16448.** (A. M. NESBITT, M.A.)—Prove that the equation

$$a^2(b-c) + \beta^2(c-a) + \gamma^2(a-b) = 0,$$

in ordinary trilinear co-ordinates, represents a hyperbola; and find its asymptotes. Show also that it cannot be equilateral.

**16449.** (H. L. TRACHTENBERG, B.A.)—A straight line meets the sides of a triangle in L, M, N. Through L, M, N straight lines are drawn to meet the sides of the triangle again in  $L_1L_2, M_1M_2, N_1N_2$ . Prove that  $L_1, L_2, M_1, M_2, N_1, N_2$  lie on a conic.

**16450.** (Professor NEUBERG.)—Étant donné un triangle ABC, on projette un point M extérieur au plan ABC sur le plan en O; puis on projette O en A', B', C' sur les côtés du triangle ABC. On peut prendre pour coordonnées de M les quantités  $\text{tg OMA}' = \alpha$ ,  $\text{tg OMB}' = \beta$ ,  $\text{tg OMC}' = \gamma$ . Connaissant l'équation  $F(\alpha, \beta, \gamma) = 0$  d'une surface décrite par M, construire la normale en M.

**16451.** (Hon. G. R. DICK, M.A.)—Denoting by I the tangent common to the nine-point circle and the inscribed circle of a triangle ABC, and by  $J_1, J_2, J_3$  the tangents common to the nine-point circle and the three escribed circles respectively, show that the pencil formed by the line joining A to  $(I, J_1)$ , the line joining A to  $(J_2, J_3)$  and the sides AB, AC is harmonic; similarly the pencils formed by the lines joining B and C to the corresponding points and the corresponding pairs of sides.

**16452.** (SARADAKANTA GANGULI, M.A.)—Bisect a triangle by a straight line drawn through a given point in its plane.

**16453.** (Professor COCHEZ.)—Inscrire dans un cercle un trapèze, connaissant sa hauteur et la demi-somme  $2l$  de ses bases.

**16454.** (W. F. BEARD, M.A.)—Two circles X and Y touch one another internally at D; from any point A on the outer circle X tangents are drawn to Y to meet the common tangent at D in B, C; show that the sum of the radii of the in-circles of ABD, ACD is constant.

## OLD QUESTIONS AS YET UNSOLVED (IN OUR COLUMNS).

**11199.** (C. L. PEIRCE, M.A.)—From a cannon the axis of whose bore is on a level with and three feet above the surface of a horizontal plane, a ball weighing 100 lbs. is discharged with a velocity of 1,500 ft. per second. Were it possible to weigh the ball at the instant it left the cannon, find (1) what the ball would weigh, (2) at what distance from the cannon it will strike the plane, and (3) the weight of the ball when its velocity is so reduced that it is rolling on the plane at 264 ft., 176 ft., 88 ft., and 44 ft., respectively, per second.

**11233.** (D. BIDDLE.)—A smooth equilateral triangular plate is suspended at the three angles, so that these can be raised or lowered at discretion, and a particle is placed within the in-circle, whilst the plate is horizontal. Describe the manipulation of the angles requisite to make the particle describe a circle concentric with the in-circle.

**11396.** (G. S. CARR, M.A.)—With a ruler and pencil only within a given  $n$ -gon inscribe another  $n$ -gon to circumscribe a given conic.

**11469.** (G. F. HOWSE.)—The locus of the centres of gravity of triangles inscribed in a central conic and self-polar to a parabola is a straight line.

**11594.** (Professor LEMOINE.)—De combien de manières peut on replier, sur un seul, une bande de  $p$  timbres-poste?

**11818.** (R. W. D. CHRISTIE.)—Given a simple method of resolving any very large integer into three trigonals, and test your solution with a number such as  $822512 = 818560 + 3916 + 36$ .

## NOTICE TO CORRESPONDENTS.

It is requested that all Mathematical communications should be sent to the Mathematical Editor,

Miss CONSTANCE I. MARKS, B.A., 10 Matheson Road, West Kensington, W.

## THE LONDON MATHEMATICAL SOCIETY.

Thursday, April 30th, 1908.

Prof. W. Burnside, President, in the Chair.  
Mr. T. J. Garstang was admitted into the Society.

The following papers were communicated:—

"On a General Convergence Theorem and the Theory of the Representation of a Function by a Series of Normal Functions," Dr. E. W. Hobson.

"On the Ordering of the Terms of Polars and Transvectants," Mr. L. Isserlis.

"Oscillating Successions of Continuous Functions," Dr. W. H. Young.

"The Relation between the Convergence of Series and Integrals," Mr. T. J. I'A. Bromwich.

"On the Multiplication of Series," Mr. G. H. Hardy.

"Porisms," Mr. H. Bateman.

"The Influence of Viscosity on Wave Motion," Mr. W. J. Harrison.

Informal communications were made as follows:—

(i.) "On Mersenne's Numbers," (ii.) "On Quartans with numerous Quartan Factors," Lt.-Col. A. Cunningham.

Thursday, May 14th, 1908.

Prof. W. Burnside, President, in the Chair.

The following papers were communicated:—

"On the Invariants of the General Linear Homographic Transformation in Two Variables," Major P. A. MacMahon.

"On the Order of the Group of Isomorphisms of an Abelian Group," Mr. H. Hilton.

"On the Calculation of the Normal Modes and Frequencies of Vibrating Systems (Preliminary Note)," Prof. A. E. H. Love.

"A Question in Probability," Prof. J. E. A. Steggall.

## THE RUGBY PRESS

undertakes every description of Letterpress

PRINTING FOR SCHOOLS.

Estimates furnished. Enquiries solicited.

Address— GEORGE OVER, Printer, Rugby.



**NOW READY**

# A CYCLE OF NATURE STUDY

Suitable for Children under Twelve Years of Age

BEING SUGGESTIONS FOR TEACHERS IN TOWN AND COUNTRY SCHOOLS

BY M. M. PENSTONE,

*Late Head Mistress Home and Colonial School Society's High School for Girls and Training College for Kindergarten Teachers, Highbury, London.*

In Fifty-Two Chapters. With numerous Illustrations. Price **3s. 6d.**

**A SIXTEEN-PAGE PROSPECTUS, SHOWING THE SCOPE AND ARRANGEMENT OF THE ABOVE WORK AND GIVING SPECIMEN PAGES, WILL BE SENT ON APPLICATION.**

London: NATIONAL SOCIETY'S DEPOSITORY, 19 Great Peter Street, Westminster. S.W.

**RELFE BROTHERS, Ltd.,** have the **best** and **most varied** Stock in London  
in **all Bindings**

**PRIZE**

**BOOKS**

Now in Stock and on View. Catalogue on application.

**SPECIAL VALUE IN REMAINDERS.**

**RELFE BROTHERS, LTD., 8 CHARTERHOUSE BUILDINGS, ALDERSGATE, LONDON, E.C.**

NOW READY. Demy 8vo, cloth, price 2s. 6d., free by post.

To Members of the College the price is 1s., or 1s. 6d. free by post.

## THE CALENDAR OF THE COLLEGE OF PRECEPTORS FOR THE YEAR 1908:

*Containing all information respecting the objects and operations of the College, Lists of Officers, Examiners, and Members, the Regulations of the various Examinations, &c., with an Appendix containing the following Examination Papers:—*

- |   |   |
|---|---|
| 1. Papers set at Examination of Teachers for Diplomas, Summer, 1907.      | 5. Papers set at Professional Preliminary Examination, March, 1907. |
| 2. Do. do. do. Christmas, 1907.   | 6. Do. do. do. September, 1907.                                     |
| 3. Papers set at Examination of Pupils for Certificates, Midsummer, 1907. | 7. Papers set at Lower Forms Examination ... Summer, 1907.          |
| 4. Do. do. do. Christmas, 1907.   | 8. Do. do. ... Christmas, 1907.                                     |

\*.\* Nos. 3, 4, 5, and 6 may be had separately, price, free by post, 7d. each set. Nos. 7 and 8, price, free by post, 4d. each set.

**The Diploma Papers are to be had only in the "Calendar."**

# MESSRS. THOMAS NELSON & SONS'

## Publications for the Preparatory School.

NUMBER WORK FOR JUNIOR PUPILS.

### PREPARATORY MATHEMATICS.

By A. CLEMENT JONES, M.A., Ph.D., and C. H. BLOMFIELD, M.A., B.Sc.,  
Mathematical Masters in Bradford Grammar School.

With or without Answers. Price 1s. 6d.

For Preparatory Pupils and Junior Forms in Secondary Schools, providing an Introduction to more formal Mathematics of an exceptionally interesting character.

THE PREPARATION FOR HISTORY.

### HIGHROADS OF HISTORY.

Six Volumes, carefully graduated, for the Lower School.  
Beautifully Illustrated with Reproductions from great Historical Paintings.

*List of the Series.*

Book	Price	Book	Price
I. TALES OF THE HOMELAND ...	10d.	IV. OTHER DAYS AND OTHER	
II. STORIES FROM BRITISH HIS-		WAYS ...	1s. 6d.
TORY ...	1s.	V. TUDOR AND STUART ...	1s. 8d.
III. BRITONS OF RENOWN ...	1s. 3d.	VI. MODERN BRITAIN ...	2s.

THE PREPARATION FOR LITERATURE.

### THE ROYAL TREASURY OF STORY AND SONG.

A New Series of Literary Reading Books designed to prepare the Pupil  
step by step for Imaginative Literature of the best kind.

Beautifully illustrated with Coloured Plates, Black-and-white Pictures, and Marginal Illustrations.

*List of the Series.*

Part	Price	Part	Price
I. DOORS OF GOLD ...	10d.	IV. GOLDEN GIFTS ...	1s. 6d.
II. FAIRY FAVOURS ...	1s.	V. THE ENCHANTED GARDEN ...	1s. 8d.
III. THE HALL OF HEROES ...	1s. 3d.		

[Part VI. in the press.]

### SHORT STUDIES IN ENGLISH LITERATURE.

A New Series of Small Volumes containing Selections from  
Standard Literature.

Each 100 pages, cloth boards, price 6d.

- |   |   |
|---|---|
| 1. SELECTIONS FROM TENNYSON.                | 8. WORDSWORTH'S SHORTER POEMS.                                  |
| 2. COMEDIES FROM LAMB'S TALES.              | 9. PEN PICTURES FROM MACAULAY.                                  |
| 3. EXTRACTS FROM SHAKESPEARE'S<br>COMEDIES. | 10. CARLYLE'S "HERO AS DIVINITY"<br>and ARNOLD'S "BALDER DEAD." |
| 4. STORIES BY NATHANIEL HAW-<br>THORNE.     | 11. TRAGEDIES FROM LAMB'S TALES.                                |
| 5. PEN PORTRAITS FROM CARLYLE.              | 12. EXTRACTS FROM SHAKESPEARE'S<br>TRAGEDIES.                   |
| 6. STORIES BY WASHINGTON IRVING.            | 13. SESAME AND LILIES.  |
| 7. LONGFELLOW'S EVANGELINE.                 | 14. EXTRACTS FROM DUNBAR'S POEMS.                               |

### CAMEOS OF LITERATURE.

A New Series of Modern Literary Studies for Older Pupils.

Each Volume fully illustrated with Reproductions from high-class Prints and Paintings.  
Cloth boards, pott 8vo, price 1s. 6d. each.

- I. **SOME ENGLISH ESSAYS.** Edited by RICHARD WILSON, B.A. Thirty-six Selected Papers, mostly of a Narrative Character, and arranged in Chronological Order.
- II. **THE HARP OF YOUTH.** Edited by W. JENKYN THOMAS, M.A. A Book of Poetry for School and Home.
- III. **THE GLEEMAN.** Edited by RICHARD WILSON, B.A. Containing fourteen Story Poems of considerable length.

Each Volume is provided with Foot-notes and Commentary.

### The Natural Method of Teaching Modern Languages.

MESSRS. THOMAS NELSON & SONS have recently issued an entirely NEW SERIES of School and College Text-books, specially suited to the needs of Teachers who desire to use in their classes books arranged in accordance with the latest and most modern scientific methods of instruction. The following are, in many respects, in advance of any Text-books hitherto published at home or abroad.

By **ALEX CRAN, M.A.**,  
Senior French Master, Royal High School,  
Edinburgh.

BOOK I.

#### ELEMENTARY OBJECT LESSONS IN FRENCH.

Illustrated. 189 pages. Cloth, 1s. 6d.

BOOK II.

#### OBJECT LESSONS IN FRENCH.

Containing a series of somewhat more advanced conversational lessons.

Illustrated. 169 pages. Cloth, 1s. 6d.

BOOK III.

#### ADVANCED OBJECT LESSONS IN FRENCH.

This book completes the series of three books.

Illustrated. 112 pages. Cloth, 1s. 6d.

#### A GRADUATED FRENCH READER FOR BEGINNERS.

A Course of Easy Readings for the First Two Years of Study.

164 pages. Cloth, 2s.

\*\* Complete Catalogue post free on application.

THOMAS NELSON & SONS, 35 and 36 Paternoster Row, London, E.C.  
And at Edinburgh, Dublin, and New York.

# THE EDUCATIONAL TIMES,

AND

Journal of the College of Preceptors.

Vol. LXI.] New Series, No. 567.

JULY 1, 1908.

*Published Monthly, price, to Non-Members, 6d.; by Post, 7d. Annual Subscription, 7s.*

## COLLEGE OF PRECEPTORS. (INCORPORATED BY ROYAL CHARTER.)

### GENERAL MEETING.

The Half-Yearly General Meeting of the Members of the Corporation will be held at the College, Bloomsbury Square, W.C., on Saturday, the 18th of July, 1908, at 3 p.m.

### LECTURES FOR TEACHERS.

On Thursday, 1st of October, JOHN ADAMS, M.A., B.Sc., F.C.P., Professor of Education in the University of London, will commence a Course of Twelve Lectures on

#### "THE PRACTICAL TEACHER'S PROBLEMS."

The matters to be dealt with are such as interest all classes of teachers, and will be treated with that frankness that is possible in an unreported discourse, but is out of the question in a printed book. While the Lecturer will lose no opportunity of indicating how present educational conditions may be improved, he will take the present conditions as the basis and show how to make the best of things as they are. The Lectures will be copiously illustrated by references to actual experience in all kinds of Schools. The Syllabus will be published in the August issue of the *The Educational Times*. The Lectures will be given on Thursday Evenings at 7, beginning on October 1st.

The Fee for the Course is Half-a-Guinea. Members of the College have free admission to this Course.

### EXAMINATIONS.

**Diplomas.**—The next Examination of Teachers for the Diplomas of the College will commence on the 31st of August, 1908.

**Practical Examination for Certificates of Ability to Teach.**—The next Practical Examination will be held in October.

**Certificate Examinations.**—The Christmas Examination for Certificates will commence on the 8th of December, 1908.

**Lower Forms Examinations.**—The Christmas Examination will commence on the 8th of December, 1908.

**Professional Preliminary Examinations.**—These Examinations are held in March and September. The Autumn Examination in 1908 will commence on the 8th of September.

**Inspection and Examination of Schools.**—Inspectors and Examiners are appointed by the College for the Inspection and Examination of Public and Private Schools.

The Regulations for the above Examinations can be obtained on application to the Secretary.

C. R. HODGSON, B.A., *Secretary*  
Bloomsbury Square, W.C.

## UNIVERSITY OF ST. ANDREWS.

### L.L.A. DIPLOMA FOR WOMEN.

The attention of Candidates is drawn to the Ordinary and Honours Diplomas for Teachers, which are strongly recommended as suitable for those who are or intend to be teachers.

Examinations are held at Aberdeen, Birmingham, Blackburn, Brighton, Bristol, Cardiff, Croydon, Devonport, Edinburgh, Glasgow, Hull, Inverness, Leeds, Liverpool, London, Manchester, Newcastle-on-Tyne, Norwich, Nottingham, Oxford, St. Andrews, Sheffield, Swansea, and several other towns.

Information regarding the Examinations may be obtained from the SECRETARY, L.L.A. Scheme, The University, St. Andrews.

## UNIVERSITY OF ST. ANDREWS.

### UNIVERSITY HALL.

Warden:

Miss FRANCES H. MELVILLE, M.A.

UNIVERSITY HALL, for Women students, was opened in 1896, under the government of the University of St. Andrews.

The usual Course of Study at University Hall is in preparation for the Degree Examinations of the University of St. Andrews, of which all the Classes and Degrees in Arts, Divinity, Science, and Medicine are open to women on the same terms as to men.

The Sessions of Residence are the two University Sessions, viz. the Winter Session, October to March; the Summer Session (Optional), April to June.

University Hall fees for residence—Winter Session, £30-£50; Summer Session, £15-£25.

Matriculation and Class Fees average £10 for the Winter Session.

Next Winter Session commences October 7. For further information, apply to the WARDEN, University Hall St. Andrews, Fife.

## Diploma Correspondence College, Ltd.

Principal—J. W. KNIFE, L.C.P., F.R.S.L.  
Vice-Principal—S. H. HOOKE, B.A., Hons. Lond.

*Specially arranged Courses for*

LONDON MATRICULATION,  
**B.A., B.D., B.Sc.,**  
A.C.P., L.C.P., &c.

### FREE GUIDES

on application to the SECRETARY.

WOLSEY HALL, OXFORD.



THE ASSOCIATED BOARD  
OF THE R.A.M. AND R.C.M.  
FOR LOCAL EXAMINATIONS IN MUSIC.

PATRON: HIS MAJESTY THE KING.

PRESIDENT: H.R.H. THE PRINCE OF WALES, K.G.

LOCAL CENTRE EXAMINATIONS (Syllabus A). Examinations in Theory at all Centres in March and November; in Practical Subjects at all Centres in March-April, and in the London District and certain Provincial Centres in November-December also. Entries for the November-December Examinations close Wednesday, October 7th, 1908.

SCHOOL EXAMINATIONS (Syllabus B). Held three times a year, viz., October-November, March-April, and June-July. Entries for the October-November Examinations close Wednesday, October 7th, 1908.

Specimen Theory Papers set in past years (Local Centre or School) can be obtained on application. Price 3d. per set, per year, post free.

Syllabuses A and B, entry forms, and any further information will be sent post free on application to—

JAMES MUIR, *Secretary*.

15 Bedford Square, London, W.C.

Telegrams: "Associa, London."

NOTICE.—The **AUGUST** Number of "THE EDUCATIONAL TIMES" will contain the CLASS LISTS of SUCCESSFUL CANDIDATES at the MIDSUMMER EXAMINATIONS of the COLLEGE OF PRECEPTORS.

## LONDON COLLEGE OF MUSIC.

(Incorporated.)

GREAT MARLBOROUGH STREET, LONDON, W.

Patron: HIS GRACE THE DUKE OF LEBDS.

Dr. F. J. KARR, Mus. Bac. Cantab., Principal.

G. AUGUSTUS HOLMES, Esq., Director of Examinations.

EXAMINATIONS, 1908.

The NEXT EXAMINATION in PIANOFORTE PLAYING, SINGING, THEORY, and all branches of Music will be held in London and 400 Provincial Centres in DECEMBER, when Certificates will be granted to all successful candidates.

The Higher Examinations for the Diplomas of Associate (A.L.C.M.), Licentiate (L.L.C.M.), the Teachers' Diploma, L.C.M., and Fellowship (F.L.C.M.) also take place in DECEMBER.

Gold and Silver Medals and Book Prizes are offered for competition according to the Regulations.

LOCAL SCHOOL CENTRES.—Full particulars with reference to the formation of these Centres will be forwarded to Principals of Schools upon application.

SYLLABUS for 1908, together with Annual Report, may be had of the SECRETARY.

In the Educational Department students are received and thoroughly trained under the best Professors at moderate fees. The College is open 10 a.m. to 9.30 p.m. A COURSE of TRAINING in Pianoforte and Singing for Teachers is held at the College.

VACATION LESSONS for Teachers and others are given at Easter, August, and Christmas.

T. WEEKES HOLMES, *Secretary*.

## LONDON INTER-COLLEGIATE SCHOLARSHIPS BOARD.

MEDICAL ENTRANCE SCHOLARSHIPS AND EXHIBITIONS.

Twenty-three MEDICAL SCHOLARSHIPS and EXHIBITIONS, ranging in value from £20 to £180, and of an aggregate value of about £1,500 for men and women, tenable in the Faculties of Medical Sciences of UNIVERSITY COLLEGE and KING'S COLLEGE, and in the MEDICAL SCHOOLS of KING'S COLLEGE HOSPITAL, ST. GEORGE'S HOSPITAL, WESTMINSTER HOSPITAL, and the LONDON SCHOOL OF MEDICINE FOR WOMEN, will be offered for competition on Tuesday, September 22nd, and following days. Entries will close on Tuesday, September 15th.

Full particulars and forms of entry may be obtained on application to the SECRETARY OF THE BOARD (ALFRED E. G. ATTOR), University College, Gower Street, London, W.C.

## FREE GUIDE

TO

## LONDON UNIVERSITY MATRICULATION

Post free, from **THE SECRETARY,**  
Burlington House, Cambridge;

or from the London Office of University Correspondence College, 32 Red Lion Square, Holborn, W.C.

### UNIVERSITY COLLEGE OF NORTH WALES, BANGOR.

(A Constituent College of the University of Wales.)

Principal—Sir H. R. REICHEL, M.A., LL.D.

Next Session begins September 29th, 1908. The College Courses are arranged with reference to the Degrees of the University of Wales; they include most of the subjects for the B.Sc. Degree of the London University. Students may pursue their first year of Medical study at the College. There are special Departments for Agriculture (including Forestry) and Electrical Engineering, a Day Training Department for Men and Women, and a Department for the Training of Secondary and Kindergarten Teachers.

Sessional fee for ordinary Arts Course, £11. 1s.; for Intermediate Science or Medical Course, £15. 15s. The cost of living in lodgings in Bangor averages from £20 to £30 for the Session. There is a Hall of Residence for Women Students; fee, from Thirty Guineas for the Session.

At the Entrance Scholarship Examination (held in September) more than 20 Scholarships and Exhibitions, ranging in value from £40 to £10, will be open for competition.

For further information and copies of the various Prospectuses apply to

JOHN EDWARD LLOYD, M.A.,  
Secretary and Registrar.

### BIRKBECK COLLEGE, BREAMS BUILDINGS, CHANCERY LANE, E.C.

#### DAY AND EVENING CLASSES.

Courses of Study under Recognized Teachers of the University of London for Degrees in Science and in Arts.

**Science.**—Chemistry, Physics, Mathematics (Pure and Applied), Botany, Geology, Zoology.

**Arts.**—Classics, English, French, German, Italian History, Geography, Logic, Economics, Mathematics (Pure and Applied).

Particulars on application.

### DENMARK HILL GYMNASIUM AND PHYSICAL TRAINING COLLEGE FOR TEACHERS.

Full preparation for Public Examinations. British College of Physical Education: English and Swedish systems.

Board of Education: Science.

Swimming and Sports.

For particulars apply—Miss E. SPELMAN STANGER, Trevna, Sunray Avenue, Denmark Hill, London, S.E.

### CHURCH EDUCATION CORPORATION.

#### CHERWELL HALL, OXFORD.

Training College for Women Secondary Teachers.

Principal—Miss CATHERINE I. DODD, M.A. (late Lecturer in Education in the Manchester University).

Students are prepared for the Oxford, the Cambridge, and the London Teacher's Diploma. Special arrangements made for Students to attend the School of Geography.

Exhibitions and Scholarships awarded in December and July.—Apply to the PRINCIPAL.

### ABERDARE HALL, CARDIFF.— RESIDENCE FOR WOMEN STUDENTS OF THE UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.

Principal—Miss KATE HURLBATT.

Fees £42. 10s., £36, and £32 per annum. College tuition fees £10 per annum. Scholarships of £40, £25, and £15, and Exhibitions of £10, awarded on the result of Scholarship Examination of University College, Cardiff, to be held in September. Students prepare for the B.A. and B.Sc. Degrees of the University of Wales, and a Medical School and Department for Secondary, Elementary, and Kindergarten Training are attached to the College. Students with recognized academic qualifications can enter in October or January, for one year's Secondary Training Course. Apply to the PRINCIPAL.

### TRAVELLING SECRETARY

WANTED to organize Auxiliary work in connexion with the London Biblewomen & Nurses' Mission. Experience in speaking at Drawing-room Meetings desirable, also some knowledge of work amongst the poor. Church of England. Apply, in first instance, HON. SUPERINTENDENT, Ranyard House, 25 Russell Square, W.C.

**JEUNE HOMME, 24 ans, Catholique** français, ayant fait ses études complètes, desirerait place PRÉCEPTEUR. Pourrait enseigner Français et Latin à jeunes Garçons.—Mr. E. LUCAS, 20 rue de Montbret, Rouen.

### BEDFORD COLLEGE FOR WOMEN

(UNIVERSITY OF LONDON),

YORK PLACE, BAKER STREET, W.

Principal—Miss M. J. TUKE, M.A.

Lectures are given in preparation for all examinations of the University of London in Arts, Science and Preliminary Medicine, for the Teacher's Diploma, London; and the Teacher's Certificate, Cambridge; and for the Cambridge Higher Local Examination.

There is a special course of Scientific Instruction in Hygiene. Six Laboratories are open to students for Practical work.

Students may attend the Art School who are not taking other subjects at the College.

A single Course in any subject may be attended.

Regular Physical Instruction is given, free of cost, to students who desire it by a fully qualified woman teacher.

Students can reside in the College.

Full particulars on application to the PRINCIPAL.

#### TRAINING DEPARTMENT FOR SECONDARY TEACHERS.

Head of the Department—Miss MARY MORTON, M.A.

Students are admitted to the Training Course in October and January.

Entrance Scholarships. Applications should be sent to the HEAD OF THE DEPARTMENT.

### THE CAMBRIDGE TRAINING COLLEGE FOR WOMEN TEACHERS.

Principal—Miss H. L. POWELL, late Scholar of Newnham College (Hist. Tripos, Class I.), late Head Mistress of the Leeds Girls' High School.

A residential College providing a year's professional training for Secondary Teachers.

The course includes preparation for the Cambridge Teacher's Certificate (Theory and Practice), and for the Teachers' Diploma of the London University. Ample opportunity is given for practice in teaching science, languages, mathematics, and other subjects in various schools in Cambridge.

Students are admitted in January and in September. Full particulars as to qualifications for admission, scholarships, and bursaries may be obtained on application to the PRINCIPAL, Cambridge Training College, Wollaston Road, Cambridge.

### ST. GEORGE'S TRAINING COLLEGE FOR WOMEN TEACHERS IN INTERMEDIATE AND SECONDARY SCHOOLS, EDINBURGH.

This College provides a year's Professional Training for well educated women who intend to become Teachers. The Course of Training is supervised by the Edinburgh Provincial Committee for the Training of Teachers and is recognized by the Scotch Education Department and by the Teachers' Training Syndicate of the University of Cambridge.

A Bursary of £30 is offered to Students entering in October, 1908.

Prospectus and further particulars from the Principal, Miss M. E. WALKER, 5 Melville Street, Edinburgh.

#### THE INCORPORATED

### FROEBEL EDUCATIONAL INSTITUTE,

TALGARTH ROAD, WEST KENSINGTON, LONDON, W.

Recognized by the Board of Education as a Training College for Secondary Teachers.

Chairman of the Committee—Sir W. MATHER.

Treasurer—Mr. C. G. MONTFLORE, M.A.

Secretary—Mr. ARTHUR G. SYMONDS, M.A.

#### TRAINING COLLEGE FOR TEACHERS.

Principal—Miss E. LAWRENCE.

KINDERGARTEN AND SCHOOL.

Head Mistress—Miss A. YELLAND.

Students are trained for the Examinations of the National Froebel Union and other Examinations.

TWO SCHOLARSHIPS of £20 each, and two of £15 each, tenable for two years at the Institute, are offered annually to Women Students who have passed certain recognized Examinations.

Prospectuses can be obtained from the PRINCIPAL.

### SECONDHAND BOOKS AT HALF PRICES! NEW BOOKS AT 25% DISCOUNT!

BOOKS for A.C.P., L.C.P., F.C.P., Matric., University, Certificate, Scholarship, L.L.A., B.A., and ALL other Examinations supplied. State wants; send for List. Books sent on approval. **BOOKS BOUGHT**, best prices given.—W. & G. FOYLE, 135 Charing Cross Road, W.C.

### JOINT AGENCY FOR WOMEN TEACHERS.

(Under the management of a Committee appointed by the Teachers' Guild, College of Preceptors, Head Mistresses' Association, Association of Assistant Mistresses, and Welsh County Schools' Association.)

Address—74 GOWER STREET, LONDON, W.C.

Registrar—Miss ALICE M. FOUNTAIN.

This Agency has been established for the purpose of enabling Teachers to find work without unnecessary cost. All fees have therefore been calculated on the lowest basis to cover the working expenses.

Head Mistresses of Public and Private Schools, and Parents requiring Teachers, or Teachers seeking appointments, are invited to apply to this Agency.

Many Graduates and Trained Teachers for Schools and Private Families; Visiting Teachers for Music, Art, and other special subjects; Foreign Teachers of various nationalities; Kindergarten and other Teachers are on the Register, and every endeavour is made to supply suitable candidates for any vacancy.

School Partnerships and Transfers are arranged.

Hours for interviews (preferably by appointment):—  
11 a.m. to 1 p.m., and 3 to 5 p.m.  
Saturdays, 11 a.m. to 1 p.m., and 2 to 3 p.m.

### THE JOINT SCHOLASTIC AGENCY.

23 Southampton Street, Bloomsbury Square, W.C.

Managed by a Committee of Representatives of the following Bodies:—

HEAD MASTERS' CONFERENCE.  
INCORPORATED ASSOCIATION OF HEAD MASTERS.  
COLLEGE OF PRECEPTORS. TEACHERS' GUILD.  
INCORPORATED ASSOCIATION OF ASSISTANT MASTERS.  
ASSOCIATION OF TECHNICAL INSTITUTIONS.  
ASSOCIATION OF PREPARATORY SCHOOLS.  
WELSH COUNTY SCHOOLS.

Registrar: Mr. E. A. VIRGO.

The object of this Agency is to render assistance at a minimum cost to Masters seeking appointments. The lowest possible fees are therefore charged.

A PROSPECTUS will be sent ON APPLICATION. Interviews (preferably by appointment) 12 p.m.–1.30 p.m., and 3 p.m.–5.30 p.m. Saturdays, 12 p.m.–1 p.m.

### LADY SUPERINTENDENT OF TRAINING HOME WANTED.

Thorough Education and knowledge of Work amongst the Poor indispensable; also ability to conduct Scripture classes, &c. for Training of Mission Workers. Age 30 to 40. Church of England. Apply, first by letter, HON. SUPERINTENDENT, London Biblewomen & Nurses' Mission, 25 Russell Square, W.C.

### EXAMINATION PAPERS.

Set at the Examinations of the College of Preceptors.

**CERTIFICATE EXAMINATION.**—The Papers set at the Midsummer and Christmas Examinations, Sixpence each Set, by post Sevenpence. (Back Sets from Midsummer, 1882, except Midsummer, 1895, Midsummer, 1896, and Christmas, 1900, are still to be had.)

The Freehand Drawing Copies set at the above Examination can also be had, price 2d. each; or 1s. 6d. per dozen.

Also the Outline Maps for the Second and Third Classes, price 1d. each map, by post, 1½d.; or 9d. per dozen, by post, 10d.

The COLLECTED PAPERS in the following subjects for several years back may also be had in separate books, price 6d. each, by post 7d.:—

Arithmetic (3 Parts).	English History (4 Parts).
Algebra (3 Parts).	French (4 Parts).
Scripture (4 Parts).	Latin Unseen (3 Parts).
Geography (3 Parts).	Music.
English Grammar (7 Pts.).	

Answers to the Arithmetic and Algebra, 1s. each.

**PROFESSIONAL PRELIMINARY EXAMINATION.**—The Papers set at the March and September Examinations, Sixpence each Set, by post Sevenpence. (Back Sets from March, 1882, still to be had.)

**LOWER FORMS EXAMINATION.**—The Papers set at the Midsummer and Christmas Examinations, price 3d. each, by post, 4d.; also the Drawing Copies, 2d. each, or 1s. 6d. the dozen.

**DIPLOMA EXAMINATION.**—These Papers are published only in the College Calendar. See page 196.

London: FRANCIS HODGSON, 59 Farringdon St., E.C.

## University Tutorial College.

LONDON.

(Affiliated to University Correspondence College.)



### SEPTEMBER MATRICULATION CLASS.

Morning Classes and Private Tuition for the September Matriculation Examination of London University may be taken up at any time, as work is carried on continuously during the summer months.

A special Revision Class commences Monday, August 24th. FEE: £4. 4s.

The last official list of the University for Matriculation credits University Tutorial College with nearly three times as many Successes as any other Institution.

### AUGUST VACATION CLASSES.

Classes are held for the B.Sc. and B.A. Examinations, commencing Tuesday August 4th. All the salient theoretical points are revised, and special attention is paid to individual requirements in the Practical Work.

Classes for Beginners in Practical Chemistry, Physics, Botany, Geology, and Zoology commence Tuesday, August 4th.

Last year 82 Students of University Tutorial College passed Inter. Science and Prelim. Sci. (M.B.), and during the last three years 108 have passed the B.Sc. Examination.

### PRIVATE TUITION DURING THE SUMMER VACATION.

Private Tuition may be obtained in subjects for London University, Oxford Responsions, Cambridge Previous, City and Guilds Entrance, Hospital and University Scholarships, Legal Prelim., College of Preceptors (Medical Prelim.), and other Examinations during the Summer Vacation at University Tutorial College, 32 Red Lion Square, Holborn, W.C.

FEEs.—Eight one-hour lessons, £2. 2s.; Seventeen one-hour lessons, £4. 4s.

Further particulars may be had from THE PRINCIPAL, UNIVERSITY TUTORIAL COLLEGE, Red Lion Square, Holborn, W.C.

### CORRESPONDENCE TUITION.

Classes or Private Lessons in all Subjects for all Examinations, &c., at moderate fees. Special tuition for MEDICAL Prelims. and DIPLOMA Exams. Many recent successes.—F. J. BORLAND, B.A., L.C.P. (Science and Math. Prizeman), Victoria Tutorial College, 87 Buckingham Palace Road, S.W.; and Stalheim, Brunswick Road, Sutton, Surrey.

Schools visited and Examinations conducted.

### WALTER J. DICKES, B.A. (Lond.)

PRIVATE TUITION FOR EXAMINATIONS, &c.

BEECHEN CLIFF, THE GARDENS, E. DULWICH, LONDON, S.E.

### MATHEMATICAL BOOKS

Ancient and Modern.

Catalogue now at Press of recent Second-hand Purchases of above, free on receipt of name and address.

GALLOWAY & PORTER,

University Booksellers,

Cambridge, England.

**FOR SALE.**—A Girls' Day School in West of England Sea side Town. Old established. Principals retiring. Reasonable price. Address—V. B., c/o "Educational Times" Office, 89 Farringdon Street, London, E.C.

New Edition. 18mo, price 9d.

**THE ELEMENTS OF BOOK-KEEPING**, by SINGLE and DOUBLE ENTRY, with Practical Explanations and Exercises on the most useful Forms for Business. By A. K. ISBISTER, M.A., LL.B., late Dean of the College of Preceptors.

LONDON: LONGMANS & CO., PATERNOSTER ROW, E.C.

# FREE.

The Principals of the Normal Correspondence College have, through the courtesy of the College of Preceptors, issued the following

### FREE GUIDES.

1. A.C.P.	100 pages.
2. L.C.P.	84 "
3. F.C.P.	75 "
And have also published the following Guides.	
4. PREL. CERT.	120 pages.
5. CERTIFICATE.	92 "
6. MATRICULATION.	84 "
7. IRISH UNIVERSITY.	60 "
8. OXFORD & CAMBRIDGE LOCALS	100 "

These Guides are supplied gratis to all who mention this paper and state they intend sitting for examination.

"They are written by experts whose advice is the best procurable."—*Educational News*.

"Will undoubtedly help greatly towards success."—*Schoolmistress*.

NORMAL CORR. COLLEGE,

47 MELBOLD ROAD, EAST DULWICH, S.E., and  
110 AVONDALE SQUARE, LONDON, S.E.

## CARLYON COLLEGE.

55 AND 56 CHANCERY LANE.

### LONDON UNIVERSITY EXAMINATIONS.

LONDON MATRICULATION, INTER. ARTS and SCIENCE, B.A., and B.Sc. Classes (small) Day and Evening. M.A. Classes. B.A. Honours Classes. Elementary Greek Class.

Classes and Tuition for Legal and Medical Preliminaries, Accountants', Scholarship Examinations, Previous, Responsions, and General.

Papers Corrected for Schools. Vacation Tuition.

Private tuition for all Examinations. Prospectus and full details on application to R. C. B. KEVIN, B.A. Lond., First of First Class Classical Honours, Editor of "Phaedo." "Pro Plancio," &c.

### SUCCESSORS.

1892-1907.—London Matric, 149; Inter. Arts, Sc., and Prel. Sci., 140, 6 in Hons.; B.Sc., 1896-1906, 25; B.A., 1891-1906, 96, 14 in Hons.; Medical Prelim., 249; Responsions and Previous, 60; Law Prelim., 62; other Successes, 400.

B.A. (LOND.), 1906 and 1907, 15, 3 in Classical Honours. M.A., 8  
INTER. ARTS, 1907, 6 out of 8.

## BADGES, HAT BANDS, CAPS

AT WHOLESALE PRICES.

Write—SCHOOLS AGENT, 1 Arundel Villas, Chelmsford Road, South Woodford, N.E.

A Complete French Class Book.

**HALL'S "FIRST FRENCH COURSE AND FRANCE AND THE FRENCH."** New and Revised Edition. 1s. 6d. Key. 1s. 8d. Contains Easy Lessons on Pronunciation, nearly 200 Progressive Exercises (English and French, alternately), Easy French Reading Lessons on France and the French, Elementary Grammar, Questionnaire, Simplified French Syntax, Vocabulary, Maps, &c.  
London: SIMPKIN, MARSHALL, and all Booksellers.

Sixteenth Edition, with Map. 12mo.

**CÆSAR'S COMMENTARIES ON THE GALLIC WAR.** By A. K. ISBISTER, M.A., LL.B., late Dean of the College of Preceptors.

BOOKS I.-V. With Notes Critical and Explanatory, a Vocabulary of all the words in the Text, and Easy Reading Lessons for Beginners ..... price 3s. 6d.  
BOOKS I.-VII. do. do. do. 4s. 6d.  
Do. (without the Reading Lessons) 4s. 0d.  
Twenty-fifth Edition.  
BOOK I. (with Vocabulary, Reading Lessons, &c.) ..... 1s. 6d.  
LONDON: LONGMANS & CO., PATERNOSTER ROW, E.C.

## Messrs. TRUMAN & KNIGHTLEY, LTD., Educational Agents,

158 to 162 OXFORD STREET,  
LONDON, W.

Telegrams—"TUTORESS, LONDON."

Telephone—No. 1136 City.

This Agency is under distinguished patronage, including that of the Principals of many of our leading Schools.

### A.—EMPLOYMENT DEPARTMENT.

#### (i.) ASSISTANT MASTERS & TUTORS.

MESSRS. TRUMAN & KNIGHTLEY introduce University and other qualified ENGLISH and FOREIGN MASTERS and TUTORS to Schools and Private Families.

#### (ii.) ASSISTANT MISTRESSES.

MESSRS. TRUMAN & KNIGHTLEY introduce University, Trained, and other qualified ENGLISH and FOREIGN LADY TEACHERS to Girls' and Boys' Schools.

#### (iii.) LADY MATRONS AND HOUSE-KEEPERS.

MESSRS. TRUMAN & KNIGHTLEY introduce well qualified and experienced LADY MATRONS, HOUSEKEEPERS, and HOUSE MISTRESSES to Boys' and Girls' Schools.

No charge is made to Principals, and no charge of any kind is made to candidates unless an engagement be secured through this Agency, when the terms are most reasonable.

### B.—SCHOOL TRANSFER DEPARTMENT.

A separate Department, under the direct management of one of the Principals, is devoted entirely to the negotiations connected with the Transfer of Schools and Introduction of Partners.

MESSRS. TRUMAN & KNIGHTLEY, being in close and constant communication with the Principals of nearly all the chief Girls' and Boys' Schools in the United Kingdom, to many of whom they have had the privilege of acting as Agents, and having on their books always a large number of thoroughly genuine Schools for Sale and Partnerships to negotiate, as well as the names and requirements of numerous would-be purchasers, can offer unusual facilities for satisfactorily negotiating the TRANSFER of SCHOOLS, and arranging PARTNERSHIPS.

No charge is made to Purchasers, and there is no charge to Vendors unless a Sale or Partnership be effected through this Agency.

All communications and enquiries are treated in the strictest confidence.

### C.—PUPILS' DEPARTMENT.

MESSRS. TRUMAN & KNIGHTLEY have a carefully organized Department for the introduction of Pupils to Schools and other Educational Establishments. No charge is made for registration.

Any negotiations entrusted to MESSRS. TRUMAN & KNIGHTLEY receive prompt and careful attention, every effort being made to save clients as much time and trouble as possible.

Full particulars will be forwarded on application.

# Messrs. LONGMANS & CO.'S LIST.

By **SAMUEL RAWSON GARDINER, D.C.L., LL.D.**

## A STUDENT'S HISTORY OF ENGLAND.

FROM THE EARLIEST TIMES TO 1901.

Volume I: B.C. 55—A.D. 1509. With 173 Illustrations. Crown 8vo, 4s.  
Vol. II: 1509—1689. With 96 Illustrations. Crown 8vo, 4s. Vol. III: 1689—1901. With 109 Illustrations. Crown 8vo, 4s.  
COMPLETE IN ONE VOLUME. With 378 Illustrations. Crown 8vo, 12s.

**PREPARATORY QUESTIONS ON THE ABOVE.** By R. SOMERVELL, M.A. Crown 8vo, 1s.

## A SCHOOL ATLAS OF ENGLISH HISTORY.

With 66 Maps and 22 Plans of Battles, &c. Foolscap 4to, 5s.

## OUTLINE OF ENGLISH HISTORY.

B.C. 55—A.D. 1901. With 96 Woodcuts and Maps. Foolscap 8vo, 2s. 6d.

By **CYRIL RANSOME, M.A.**

## A SHORT HISTORY OF ENGLAND.

FROM THE EARLIEST TIMES TO THE DEATH OF QUEEN VICTORIA.

With Tables, Plans, Maps, Index, &c. Crown 8vo, 3s. 6d.

Or in Two Parts, 2s. each. Part I.: to 1603; Part II.: 1603 to 1901.

**A SUMMARY OF RANSOME'S SHORT HISTORY OF ENGLAND.** With 22 Maps and Plans and 34 Genealogical Tables. 1s.

By the **Rev. D. MORRIS, B.A.**

*This Edition has received numerous Additions, and brings up British History to the Accession of King Edward the Seventh.*

## A CLASS-BOOK HISTORY OF ENGLAND.

The One Hundred and Ninth to One Hundred and Sixteenth Thousand.

With 24 Historical Maps and Plans of Battles, and 29 Illustrations engraved on Wood. Fcap. 8vo, 3s. 6d.

### EPOCHS OF ENGLISH HISTORY.

YORK POWELL'S EARLY ENGLAND to the NORMAN CONQUEST. 1s.  
CREIGHTON'S (Mrs.) ENGLAND A CONTINENTAL POWER, 1066—1216. 9d.  
BOWLEY'S RISE of the PEOPLE and the GROWTH of PARLIAMENT, 1214—1485. 9d.  
CREIGHTON'S (Bishop) TUDORS and the REFORMATION, 1485—1603. 9d.

GARDINER'S (Mrs.) STRUGGLE against ABSOLUTE MONARCHY, 1603—1688. 9d.

BOWLEY'S SETTLEMENT of the CONSTITUTION, 1689—1784. 9d.

TANCOCK'S ENGLAND during the AMERICAN and EUROPEAN WARS, 1765—1820. 9d.

BROWNING'S MODERN ENGLAND, 1820—1897. 9d.

**Epochs of English History.** Complete in One Volume, with 27 Tables and Pedigrees and 23 Maps. Fcap. 8vo, 5s.

### EPOCHS OF ANCIENT HISTORY.

10 Vols., with Maps, 2s. 6d. each.

BEESELY'S GRACCHI, MARIUS, and SULLA.  
CAPES'S EARLY ROMAN EMPIRE.  
CAPES'S ROMAN EMPIRE of the SECOND CENTURY.  
COX'S GREEKS AND THE PERSIANS.  
COX'S ATHENIAN EMPIRE.

CURTEIS'S RISE of the MACEDONIAN EMPIRE.  
IHNE'S ROME to its CAPTURE by the GAULS.  
MERIVALE'S ROMAN TRIUMVIRATES.  
SANKEY'S SPARTAN AND THEBAN SUPREMACIES.  
SMITH'S (BOSWORTH) ROME AND CARTHAGE.

### EPOCHS OF MODERN HISTORY.

19 Vols., with Maps, 2s. 6d. each.

AIRY'S ENGLISH RESTORATION and LOUIS XIV. 1648—1678.

CHURCH'S BEGINNING of the MIDDLE AGES.

COX'S CRUSADES.

CREIGHTON'S AGE OF ELIZABETH.

GAIRDNER'S HOUSES OF LANCASTER AND YORK.

GARDINER'S THIRTY YEARS' WAR.

GARDINER'S FIRST TWO STUARTS.

GARDINER'S (Mrs.) FRENCH REVOLUTION, 1789—1795.

HALE'S FALL OF THE STUARTS, and WESTERN EUROPE, from 1678 to 1697.

JOHNSON'S NORMANS in EUROPE.

LONGMAN'S FREDERICK the GREAT and the SEVEN YEARS' WAR.

LUDLOW'S WAR OF AMERICAN INDEPENDENCE, 1775—1783.

MCCARTHY'S EPOCH OF REFORM, 1830—1850.

MOBERLY'S THE EARLY TUDORS.

MORRIS'S AGE OF ANNE.

MORRIS'S THE EARLY HANOVERIANS.

SEEBOHM'S PROTESTANT REVOLUTION.

STUBBS'S THE EARLY PLANTAGENETS.

WARBURTON'S EDWARD THE THIRD.

## LONGMANS' GEOGRAPHICAL SERIES.

ARRANGED ON THE CONCENTRIC PLAN.

Book I.—**The First Book of Geography.** With 17 Illustrations and 52 Maps (38 of which are coloured). Crown 8vo, 1s. 6d.

Book II.—**The World.** For Junior Students. With 35 Illustrations and 87 Maps (79 of which are coloured). Crown 8vo, 3s.

Book III.—**The World.** For Senior Students. With 42 Illustrations and 121 Maps (112 of which are coloured). Crown 8vo, 4s. 6d.

Book IV.—**The British Empire.** With 38 Illustrations and 78 Maps (71 of which are coloured). Crown 8vo, 3s. 6d.

Book V.—**A Primary Physical Geography.** By JOHN THORNTON, M.A. With 135 Illustrations and 14 Maps. Crown 8vo, 2s.

LONGMANS, GREEN, & CO., LONDON, NEW YORK, BOMBAY, AND CALCUTTA.

# MR. EDWARD ARNOLD'S NEW SCHOOL BOOKS.

## ENGLISH.

**Grammatical English.** By F. W. G. FOAT, D.Lit., M.A., Lecturer in English at the City of London College and Assistant Master in the City of London School. Crown 8vo, cloth, 3s. 6d.

The aim of the book is to supply a general introduction to the subject of English, in the form of practical assistance towards the formation of those habits of mind and the attainment of that permanent attitude of thought which are indispensable alike to the student of grammar and to those who must write and speak correctly in the ordinary business of life.

**Chips from a Bookshelf.** A Reading Book for Junior Forms. Uniform with "In Golden Realms." Edited by H. B. BROWNE. Illustrated with Reproductions of well known Pictures. 1s. 3d.

**Practical Spelling.** Book I., price 2d.; Book II., price 3d. The aim of these little books is to give a graded course of lessons which will enable the young pupil to reproduce correctly the words used by himself when speaking and writing.

**Dramatic Scenes from History.** By FANNY JOHNSON, formerly Head Mistress of the Bolton Girls' High School. Illustrated. Crown 8vo, cloth, 1s. 6d.

The author has endeavoured to cover, as far as space allowed, all the principal epochs in their order, from the Conversion of England (in the dialogue of "Edwin" and "Paulinus") to the England of George III. (in the dialogue of "Boswell").

## MODERN LANGUAGES.

**Petite Grammaire Française.** Par E. RENAULT, Officier d'Académie; Assistant Lecturer at the University of Liverpool. viii + 360 pages. Crown 8vo, cloth, 1s. 6d.

This book is specially written for Junior Classes, easy French words being used whenever possible. Accidence and syntax are treated together, and those parts of grammar are dealt with which a beginner needs.

**The Alphonse Daudet Reading Book.** Récit biographique et Extraits de ses Œuvres. Edited by JETTA S. WOLFF, Author of "Les Français en Ménage," &c. 1s. 6d.

**Les Deux Prisonniers.** By RODOLPHE TÖPFFER. Edited by W. H. HODGES, M.A., St. Lawrence College, Ramsgate. Crown 8vo, cloth, 1s.

**Scènes Infantines.** By KÄTE WEBER, Author of "Vier Kleine Lustspiele für die Jugend." With Vocabulary. Crown 8vo, cloth, 1s. 3d.

Eight short plays, for reading or acting. They are all written in very simple language, suitable for quite young children.

**Herr Peter Squenz.** By ANDREAS GRYPHIUS. Edited, with Introduction, Notes, and Exercises for Retranslation, by SYDNEY H. MOORE. Crown 8vo, cloth, 2s.

This text, which is full of interest from beginning to end, has also been chosen for its great literary value in the hope that it may help the tendency to make Modern Languages as great a factor in the promotion of "humanistic" education as the study of the classics.

**A First Spanish Book.** By H. J. CHAYTOR, M.A., Senior Modern Language Master at King Edward VII. School, Sheffield. With Exercises and Full Vocabulary. 224 pages. Crown 8vo, cloth, 2s. 6d.

## LATIN.

**Compendium Latinum.** By W. F. WITTON, Classical Master at St. Olave's Grammar School. 2s. 6d.

**Simplified Caesar.** A First Latin Reader and Exercise Book. By W. F. WITTON. 1s. 6d.

These two books, together with "Dies Romani" by the same author, contain all that a boy needs for three or four years' work at Latin, beyond a dictionary and a master.

## SCIENCE.

**General Elementary Botany.** By E. DRABBLE, D.Sc., Lecturer in Botany at the University of Liverpool. Crown 8vo, cloth, 2s. 6d.

**Workshop Science.** By R. J. BROWN, M.Sc., Principal of Stockport Municipal Technical School. Crown 8vo, cloth, 1s. 6d.

## CATALOGUES ON APPLICATION.

London: EDWARD ARNOLD, 41 & 43 Maddox St., W.

# GEORGE GILL & SONS, LTD.,

A Selection of Works included in  
**The Oxford and Cambridge Edition**  
required for the  
**1909**  
**OXFORD AND CAMBRIDGE LOCAL**  
**EXAMINATIONS.**

## Religious Knowledge.

<b>OXFORD AND CAMBRIDGE EDITION ST. MATTHEW.</b> Edited by Rev. F. MARSHALL, M.A. ...	1 6	} Oxford and Cambridge Local, 1909.
<b>OXON. AND CANTAB. EDITION ST. MATTHEW.</b> Edited by Rev. F. MARSHALL, M.A. (Preliminary Candidates) ...	net 1 0	
<b>OXFORD AND CAMBRIDGE EDITION ACTS I.</b> Edited by Rev. F. MARSHALL, M.A. ...	1 6	} Oxford and Cambridge Local, 1909.
<b>OXON. AND CANTAB. EDITION ACTS I.</b> Edited by Rev. F. MARSHALL, M.A. (Preliminary Candidates) ...	net 1 0	
<b>OXFORD AND CAMBRIDGE EDITION KINGS I.</b> Edited by Rev. F. MARSHALL, M.A. ...	1 6	} Cambridge Local, 1909.
<b>OXFORD AND CAMBRIDGE EDITION EZRA.</b> Edited by Rev. F. MARSHALL, M.A. ...	1 0	
<b>OXFORD AND CAMBRIDGE EDITION NEHEMIAH.</b> Edited by Rev. F. MARSHALL, M.A. ...	1 0	} Oxford and Cambridge Local, 1909.
<b>OXFORD AND CAMBRIDGE EDITION CHURCH CATECHISM.</b> Edited by Rev. F. MARSHALL, M.A. ...	1 6	
<b>OXFORD AND CAMBRIDGE CHURCH CATECHISM.</b> (Explained for Preliminary Candidates.) Edited by Rev. F. MARSHALL, M.A. ...	0 6	} Oxford and Cambridge Local, 1909.
<b>OXFORD AND CAMBRIDGE EDITION PRAYER BOOK.</b> Edited by Rev. F. MARSHALL, M.A. ...	1 0	

## English.

<b>OXFORD AND CAMBRIDGE EDITION TEMPEST.</b> Edited by STANLEY WOOD, M.A., and A. SYMS-WOOD, B.A. ...	1 6	} Oxford Local, 1909.
<b>OXFORD AND CAMBRIDGE EDITION HENRY V.</b> Edited by STANLEY WOOD, M.A. ...	1 6	
<b>OXFORD AND CAMBRIDGE EDITION MACBETH.</b> Edited by STANLEY WOOD, M.A. ...	1 6	} Cambridge Local, 1909.
<b>OXFORD AND CAMBRIDGE EDITION JULIUS CAESAR.</b> Edited by STANLEY WOOD, M.A., and A. SYMS-WOOD, B.A. ...	1 6	
<b>OXFORD AND CAMBRIDGE EDITION RICHARD II.</b> Edited by STANLEY WOOD, M.A., and Rev. F. MARSHALL, M.A. ...	1 6	} Oxford Local, 1909.
<b>OXFORD AND CAMBRIDGE EDITION LAMBS' TALES FROM SHAKESPEARE.</b> (Selection Set for 1909 Exam.) ... (Shortly) ...	1 4	
<b>OXFORD AND CAMBRIDGE EDITION LAYS OF ANCIENT ROME.</b> Edited by G. PRESTON, M.A. ...	1 0	} Oxford Local, 1909.
<b>OXFORD AND CAMBRIDGE EDITION LAY OF THE LAST MINSTREL.</b> Edited by Rev. F. MARSHALL, M.A. ...	2 0	

In the above works the necessary "Notes" have been added to enable Candidates to answer questions set by the Examiners.

All Volumes in the Oxford and Cambridge Edition are Crown 8vo, Cloth, Gold.

GUIDES to the 1909 "Local" Examinations, in the press, will be forwarded post free on application.

London: GEORGE GILL & SONS, Ltd., 13 Warwick Lane, E.C.

## SCHOOL PRIZES.

BICKERS & SON have the largest and most varied stock in London of BOOKS handsomely bound in Calf and Morocco, suitable for SCHOOL PRIZES.

They have had more than seventy years' experience, and have long had the reputation of being one of the best Bookbinding Firms in England.

They guarantee the binding to be better and cheaper than three-fourths of the usual School Prize Work. Inspection and comparison invited.

*Catalogues post free.*

**School Books and Stationery supplied at discount prices and by return.**

BICKERS & SON, LIMITED, LEICESTER SQUARE LONDON, W.C.

## IDOLA PULPITORUM: PITFALLS OF THE PRACTICAL TEACHER.

*For this series of Articles, see "THE JOURNAL OF EDUCATION."*

**INTRODUCTORY ARTICLE**, by Professor ADAMS [November, 1906]; **CLASSICS**, by H. G. HART [December, 1906]; **ENGLISH**, by ARTHUR BURRELL [January, 1907]; **FRENCH**, by CLOUDESLEY BRERETON [February and March, 1907]; **SCIENCE**, by T. PERCY NUNN [April, 1907]; **NATURE STUDY**, by T. RAYMONT [May, 1907]; **HISTORY**, by S. S. F. FLETCHER [June, 1907]; **PHYSICAL TRAINING**, by Colonel MALCOLM FOX [July, 1907]; **DRAWING**, by W. E. SPARKES [August, 1907]; **DOMESTIC SCIENCE**, by ALICE RAVENHILL [October, 1907]; **GEOMETRY**, by H. WINIFRED STURGE [December, 1907]; **GEOGRAPHY**, by Dr. A. J. HERBERTSON [January, 1908].

Subscription is 7s. per annum; single numbers, 8d. post free.

Offices: 3 BROADWAY, LUDGATE HILL, E.C.

## THE RUGBY PRESS

undertakes every description of Letterpress

**PRINTING FOR SCHOOLS.**

*Estimates furnished. Enquiries solicited.*

Address— **GEORGE OVER, Printer, Rugby.**

## CAREY'S "GRADUS AD PARNASSUM."

WITH THE ENGLISH MEANINGS.

Revised, Corrected, and Augmented by a Member of the University of Cambridge.

*Post 8vo, cloth, price 7s.*

THE STATIONERS' COMPANY, STATIONERS' HALL, LONDON.

## EXAMINATION PAPER

AS USED BY THE

COLLEGE OF PRECEPTORS.

In strict accordance with the College requirements, and each Sheet bears their Watermark.

Packed in Reams of 480 Sheets... .. per Ream, 2s.

" " " 960 " " " " " 4s.

Bookkeeping Paper, ruled for Ledger, Cash Book, and Journal, 1s. per 100 Sheets.  
Music Paper, 1s. per 100 Sheets.

*Remittance should accompany Order.*

F. W. SHELBOURNE & CO., Wholesale and Retail Stationers,  
63 HIGH HOLBORN, LONDON, W.C.

## EDUCATIONAL WORKS

By A. K. ISBISTER, M.A., LL.B.

(Late Dean of the College of Preceptors.)

Sixth Edition. 12mo, price 3s. 6d.

**THE COLLEGE EUCLID:** Comprising the First Six and portions of the Eleventh and Twelfth Books read at the Universities. Chiefly from the Text of Dr. SIMSON. With a new arrangement of the Figures and Demonstrations; the Enunciations of the Propositions separately for Self-Examination, apart from the Text; Notes and Questions on each Book; and a Series of Geometrical Problems for Solution, from the most recent University Examination Papers.

Fifteenth Edition. 12mo, price 2s. 6d.

**THE SCHOOL EUCLID:** Comprising the First Four Books.

With Questions, Geometrical Exercises, &c.

THE SCHOOL EUCLID, Books I. & II. With Questions, Exercises, &c. 12mo, price 1s. 6d.

THE SCHOOL EUCLID, Book I. With Questions, &c. 12mo, price 1s.

Third Edition. 12mo, price 1s. 6d.

**FIRST STEPS TO EUCLID:** Comprising the Propositions of Book I., prepared for writing out, with the recapitulation of the steps of the Demonstration appended to each. Forming a Text-book for the above.

LONDON: LONGMANS & CO., PATERNOSTER ROW, E.C.

## ANIMAL LIFE.

By F. W. GAMBLE, D.Sc., F.R.S.,

Lecturer in Zoology, Victoria University, Manchester.

With numerous Line and Half-Tone Illustrations. 6s. net.

*Manchester Guardian*:—"The style is very attractive, and the book is based on a very intimate knowledge of the details of the subject matter and on much experience in original investigation."

LONDON: SMITH, ELDER, & CO.

THE

# School World.

A MONTHLY MAGAZINE OF EDUCATIONAL  
WORK AND PROGRESS.

EACH NUMBER CONTAINS EIGHTY COLUMNS  
OF READING MATTER.

PRICE 6D. VOLUME IX., 1907, 7s. 6D. NET.

The aim of THE SCHOOL WORLD is to provide information of practical and permanent value to Schoolmasters and Schoolmistresses. To this end all important changes and developments affecting any branch of the work of teachers in secondary and other schools are dealt with by leading authorities and experienced teachers.

The Magazine has become indispensable to all who desire to keep in touch with modern and effectual methods of education.

MACMILLAN & CO., Ltd., LONDON.



OPPOSITE THE BRITISH MUSEUM.

# THACKERAY HOTEL

GREAT RUSSELL STREET, LONDON.

NEAR THE BRITISH MUSEUM.

# KINGSLEY HOTEL

HART STREET, BLOOMSBURY SQUARE, LONDON.

These well-appointed and commodious **TEMPERANCE HOTELS** will, it is believed, meet the requirements, at moderate charges, of those who desire all the conveniences and advantages of the larger modern Licensed Hotels. These Hotels have **PASSENGER LIFTS, ELECTRIC LIGHT THROUGHOUT, BATHROOMS ON EVERY FLOOR, SPACIOUS DINING, DRAWING, WRITING, READING, BILLIARD, AND SMOKING ROOMS, LOUNGE. HEATED THROUGHOUT.**

**Fireproof Floors. Perfect Sanitation. Telephones. Night Porters.**

Bedrooms, including attendance, from 8s. 6d. to 6s. *Full Tariff and Testimonials on application.*

**Inclusive Charge for Bedroom, Attendance, Table d'Hôte Breakfast and Dinner, from 8s. 6d. to 10s. 6d. per day.**

ALSO UNDER THE SAME MANAGEMENT.

# ESMOND HOTEL

1 MONTAGUE STREET, RUSSELL SQUARE, LONDON.

This **Temperance Hotel** adjoins the British Museum, and is exceptionally quiet and economical.

Bedrooms, including attendance, from 8s. to 4s. 6d. per night. *Full Tariff and Testimonials on application.* **Night Porter.**

**Telegraphic Addresses:**

THACKERAY HOTEL,  
"THACKERAY, LONDON."

KINGSLEY HOTEL,  
"BOOKCRAFT, LONDON."

ESMOND HOTEL,  
"AGROUP, LONDON."

## Helpful Notes on Nature-Study

(PLANT-LIFE),

Being a Syllabus of Lessons for Schools,

BY

H. E. WARD,

*Instructor in Nature-Study to the Education Committee of the Cheshire County Council.*

**Crown 8vo, 294 pp., net 3s. 6d.**

The work is arranged in Fifty Lessons, in each of which there is sufficient matter to form two or more lessons at the discretion of the Teacher.

On the left-hand page is given the **Subject-matter** of the lessons, together with **Suggestions** and **Hints on Method, Practical Work, Field Work, &c.** On the corresponding right-hand page is given **Additional Matter** for the Teacher's own information, **Comparisons and Contrasts** with other members of the same or different orders and families, &c. This additional matter is, in all cases, placed opposite the paragraph to which it refers.

The book contains a very complete **Glossarial Index**, in which the **pronunciation** of every **Scientific** and **Botanical Name** is given.

**E. J. ARNOLD & SON, Ltd., Leeds and Glasgow.**

## PRIZE DISTRIBUTION,

Midsummer, 1908.

THE

## EDUCATIONAL SUPPLY ASSOCIATION

beg to call attention to their

## NEW ILLUSTRATED CATALOGUE JUST ISSUED,

which they will gladly send post free.

The great feature of the Prize Books stocked by the **EDUCATIONAL SUPPLY ASSOCIATION** is the large range of

**INEXPENSIVE BOOKS in FULL LEATHER BINDINGS and in ARTISTIC HALF BINDINGS.**

*These Books are all suitable for stamping in gold.*

THE EDUCATIONAL SUPPLY ASSOCIATION issues a

**Unique Series of Sixty Volumes.**

**Printed from New-faced Type, On Thin, Strong, Opaque Paper.**

**Bound in Half Calf, Art Linen Sides,**

**AT 2s. 9d. PER VOLUME NET; and**

**Bound in Whole Scarlet Leather, Gilt Back and Top,**

**AT 2s. PER VOLUME NET.**

THE EDUCATIONAL SUPPLY ASSOCIATION, Ltd.,  
42 HOLBORN VIADUCT, LONDON.

# Cambridge University Press

**Old Ballads.** Edited by FRANK SIDGWICK,  
Editor of "Ballads and Poems illustrating English History."  
"Popular Ballads of the Olden Time," &c.

Fcap. 8vo,  
1s. 6d.

"The companion volume, published last year, included certain of the popular ballads which deal with historical events, and the present volume almost exhausts the rest of our national stock of ballads, in so far as they can be conscientiously adapted to school purposes. The Introduction is an attempt to put before pupils in simple language an explanation of the fundamental difference between popular literature and the other kind. The teacher will easily be able to enlarge on the subject by suggesting parallels, from Homer to nursery rhymes. The textual notes are for the most part simply explanatory, and as a rule philology goes no further than a hint at derivatives still in common use."  
—Extract from Preface.

**Ballads and Poems illustrating English History.** Edited by FRANK SIDGWICK.

Fcap. 8vo,  
1s. 6d.

"This collection differs from its predecessors in the field by the prominence given to traditional ballads. 'Durham Field,' 'The Battle of Harlaw,' 'The Rose of England,' and several other ballads appear for the first time, as far as we are aware, in a school anthology. Mr. Frank Sidgwick has already given proof of his wide range of knowledge and fine taste in English poetry, and this selection will be deservedly popular."  
—*Journal of Education*.

## BOOKS SUITABLE FOR THE

### CAMBRIDGE LOCAL EXAMINATIONS, 1909

The Pitt Press Shakespeare for Schools

With Introduction, Notes, and Glossary by A. W. VERITY, M.A.

**Julius Caesar.** Tenth Edition. 1s. 6d.

**King Richard II.** Sixth Edition. 1s. 6d.

#### The Pitt Press Series, &c.

AUTHOR.	WORK.	EDITOR.	PRICE. s. d.
	{ Ballads and Poems illustrating English History .....	F. SIDGWICK .....	1 6
Bacon .....	Essays .....	A. S. WEST .....	3 6
Lamb .....	Tales from Shakespeare..... (A Midsummer Night's Dream, The Winter's Tale, Much Ado About Nothing, Macbeth, The Comedy of Errors, Othello.)	J. H. FLATHER ...	1 6
Scott .....	A Legend of Montrose .....	H. F. M. SIMPSON	2 6
Malot .....	Remi et ses Amis .....	M. DE G. VERRALL	2 0
	(With Vocabulary.)		
Molière.....	Le Bourgeois Gentilhomme ...	A. C. CLAPIN ...	1 6
Erokmann-Chatrian }	Madame Thérèse .....	A. R. ROPES .....	3 0
Anderson .....	Eight Stories from .....	W. RIPPMANN ...	2 6
	(With Vocabulary.)		
Goethe .....	Boyhood .....	{ W. WAGNER and J. W. CARTMELL }	2 0
Caesar .....	De Bello Gallico, Bks. IV. & V.	A. G. PESKETT ...	1 6
" .....	De Bello Gallico, Bks. IV. & V. (With Complete Vocabulary.)	E. S. SHUCKBURGH ea.	1 6
Cicero .....	Pro Milone .....	J. S. REID .....	2 6
Livy .....	Book XXII. ....	M. S. DIMSDALE...	2 6
Plautus.....	Trinummus .....	J. H. GRAY .....	3 6
Vergil .....	Aeneid, Book XI. ....	A. SIDGWICK .....	1 6
	Also an Edition with complete Vocabulary	" .....	1 6

The Cambridge School History of England  
**History of England for Use In Schools.** By ARTHUR D. LINES, M.A. Complete in

One Volume, or in Three Parts. Part I., To 1509 A.D. Part II., 1509—1714 A.D. Part III., 1689—1901 A.D. A separate Part is also issued containing the period "From the Wars of the Roses to the Death of Elizabeth."

Crown 8vo,  
with 13 Maps  
and 8 Plans,  
4s. 6d.  
Parts, 2s. each.

"Though written primarily as a school history, this volume of some 600 pages may well be recommended to the average reader as a standard book of reference for facts and dates in English history. Proportion, thoroughness, and accuracy of detail are its outstanding features, while for the student the demands of the examiner have been kept steadily in view."  
—*Glasgow Herald*.

**A School Algebra Course.** By F. GORSE, M.A., Head Master of the Intermediate School, Bootle. With or without Answers. Complete in One Volume, or in Three Parts.

The Three Parts (without Answers) are divided as follows:

- Part I. To Simple Simultaneous Equations (including Factors), with Appendix.
- Part II. Factors to Quadratic Equations with Appendix.
- Part III. Surds to the Binomial Theorem, with Appendix.

Crown 8vo,  
8s.  
Parts, 1s. each.

"Altogether the Algebra is one which we have no hesitation in commending to teachers of mathematics on the outlook for a course of exercises on modern lines."  
—*Educational News*.

## BOOKS SUITABLE FOR THE

### OXFORD LOCAL EXAMINATIONS, 1909

The Pitt Press Shakespeare for Schools

With Introduction, Notes, and Glossary by A. W. VERITY, M.A.

**The Tempest.** Sixth Edition. 1s. 6d.

"Mr. A. W. Verity is an almost ideal editor of school texts."  
—*Guardian*.

**Macbeth.** Fourth Edition. 1s. 6d.

"Seems to us to be an excellent text-book for the study of the play."  
—*Education*.

**King Henry the Fifth.** Fifth Edition. 1s. 6d.

"The school edition of the play."  
—*Guardian*.

#### The Pitt Press Series, &c.

AUTHOR.	WORK.	EDITOR.	PRICE. s. d.
Macaulay .....	Lays of Ancient Rome .....	J. H. FLATHER ...	1 6
Mora .....	Utopia .....	J. R. LUMBY .....	2 0
Scott .....	Quentin Durward .....	W. MURISON .....	2 0
" .....	The Talisman .....	A. S. GAYE .....	2 0
" .....	Lay of the Last Minstrel .....	J. H. FLATHER ...	2 0
Erokmann-Chatrian }	L'Histoire d'un Conscrit de 1813 .....	A. R. ROPES .....	3 0
Hauff .....	Die Karavane .....	A. SCHLOTTMANN .	3 0
Caesar .....	De Bello Gallico, Book III. ...	A. G. PESKETT ...	1 6
" .....	De Bello Gallico, Bks. IV., V.	" .....	1 6
" .....	De Bello Gallico, Bks. III., IV. (With complete Vocabulary.)	E. S. SHUCKBURGH ea.	1 6
Horace .....	Odes, Book III. ....	J. GOW .....	2 0
" .....	Odes, Book IV. ....	" .....	1 6
Livy .....	Book XXII. ....	M. S. DIMSDALE...	2 6
Vergil .....	Aeneid, Books III., IV. ....	A. SIDGWICK ...ea.	1 6
" .....	Aeneid, Book III. ....	" .....	1 6
	(With complete Vocabulary.)		

COMPLETE EDUCATIONAL LISTS WILL BE SENT ON APPLICATION.

LONDON: CAMBRIDGE UNIVERSITY PRESS WAREHOUSE, FETTER LANE. C. F. CLAY, Manager.

## CONTENTS.

	Page		Page
Leader: Suggestions from America .....	281	Current Events .....	293
Notes .....	282	Fixtures—Honours—Endowments and Benefactions—Scholarships and Prizes—Appointments and Vacancies—Literary Items—General.	
Education at the Franco-British Exhibition—Special Rating for School Purposes in Quebec and Ontario—Religious Instruction in Ontario Schools—The Moral Instruction League on the Introduc- tion and Inspection of Moral Subjects in Schools—Better Facilities for Higher Education to Elementary Scholars in Prussia—Foghorns for Schools.		The Teachers' Register .....	297
Summary of the Month .....	283	The Teachers' Registration Council .....	297
Universities and Colleges .....	286	Conférences Françaises: Alexandre Dumas fils, par M. H. E. Berthon .....	297
Cambridge—Durham—Manchester—London: Queen's—Jews' College—Edinburgh.		The Franco-British Exhibition: Educational Section .....	298
The Educational Ladder .....	288	Modern Languages in Secondary Schools .....	299
The International Moral Congress .....	289	Reviews .....	300
The College of Preceptors:		Thucydides Mythistoricus (Cornford)—The Poems of William Dunbar (Baildon)—Letters from India (Stratton)—Algebraic Geo- metry (Baker).	
Meeting of the Council .....	290	General Notices .....	301
Practical Examination for Certificate of Ability to Teach .....	290	First Glances .....	304
		Mathematics .....	307

## The Educational Times.

### Suggestions from America.

THE Americans are justly proud of their educational institutions, and, if they are inclined to regard their public schools with the vague complacency of traditional superiority, perhaps they are not singular in that very natural attitude, and probably the most insistent and most useful critics are found in the ranks of the teachers themselves. At first blush it is somewhat startling to read in the *San Francisco Western Journal of Education* that, when we leave the region of general laudation and "come down to dry school reports and to statistics, we are confronted with a state of affairs that is little less than appalling." What alarms the writer is the remarkable rate of decrease of attendance and the apparent results in social life. "The truth," he says, "is that sixty out of every one hundred children leave school by the end of the sixth grade of the grammar school"—that is, after six years of school attendance, and "ninety per cent. leave by the end of the eighth grade," so that "only ten per cent. get to the high school"—or, as we should say, roughly, the secondary school—"and of these hardly one per cent. get through a higher institution of learning." Whether the figures be taken in New York city with a population of four million or at Los Angeles with only a twentieth of the numbers, the result is "little less than appalling." Inevitably there is a steady decrease in enrolment and a steady increase in the number of children leaving school: the striking thing is the magnitude of the exodus, in spite of compulsory attendance laws and of the excellence of the schools. It would be interesting to inquire how other countries stand in comparison with America.

The children that leave school early would no doubt fall into different classes in different countries according to special circumstances, but in the main the same causes are probably in a large degree operative. In America more than elsewhere the language difficulty causes trouble, so that children of foreign birth or foreign parentage are apt to fall behind and to get discouraged, and eventually to give up school. Other causes are "improper grading, illness, poor behaviour, constant travel from one place to another, or

any or all of similar circumstances," destroying interest in school work and prompting desire for change. Then there are the children of fourteen or thereabouts that go to work, whether from their own desire or from pressure by parents, by lack of means, or by example of their fellows. And what becomes of them all? Some go to work as cash-boy or girl, messenger, or helper in some large business; some, with more hopeful prospects, apprentice themselves to a trade; others "either do not go to work at all, or drift from one job to another on account of general incompetency or laziness." This last class—nearly all boys—"is the most hopeless problem of the day. From it are recruited the companies and regiments of the unemployed, the hoboes, the 'bums,' the hangers-on at the tough dance-halls, the prize-rings, or the saloons; in short, all those who live by their wits or by preying on the public, either as occasional offenders or as out-and-out criminals." Such, according to our writer's analysis, is the position in America. Can any system with such results, he asks, be rightly called anything but "inefficient"? Our immediate interest lies in the question how far such a description would be true in reference to our own system. There are, at least, points of similarity, if not of degree, that are calculated to induce grave reflection. The American description will come home forcibly to those of us that are concerned for the expansion of the system of continuation schools; and perhaps it will be felt also to have not a little bearing upon the general scheme of our elementary education.

There are not lacking theories of remedy. The fundamental thing is to get a clear conception of the object to be attained. Dr. John Dewey has dealt with the problem in his work, "School and Society," where he says this:

The simple facts of the case are that in the great majority of human beings the distinctively intellectual interest is not dominant. They have the so-called practical impulse and disposition. . . . While our educational leaders are talking of culture, the development of personality, &c., as the end and aim of education, the great majority of those who pass under the tuition of the school regard it only as a narrowly practical tool with which to get bread and butter enough to eke out a restricted life. If we were to conceive our educational end and aim in a less exclusive way, if we were to introduce into educational processes the activities which appeal to those whose dominant interest is to do and to make, we should find the hold of the school upon its members to be more vital, more prolonged, containing more of culture.

Prof. Burks, of Albany, and Prof. Hanus, of Harvard, advocate the elective system—"on the face of it, the least

effective remedy offered": it would complicate and overload the time-table, and there would be bewilderment in the choice of subjects. New York looks to special classes—suitable courses in language and number with at least ten hours a week handwork—during the seventh and eighth years, at any rate in industrial centres where there is a marked tendency to leave school early. Others see hope in the German *Realschulen*; but our writer declares it "impossible to found an American school on the German pattern, for many reasons." The weight of opinion favours the Chicago ideal of manual training. "We have found," says Dr. Dewey, "that handwork, in large variety and amount, is the most easy and natural method of keeping up the same attitude of the child in and out of the school. The child gets the largest part of his acquisitions through his bodily activities until he learns to work systematically with his intellect." Moreover, there is "the remarkable effect industrial art has in reducing crime." "On this point the recent census taken by the Board of Education shows that nearly 3,300 boys between the ages of fourteen and sixteen are not working and do not attend school. Almost any experienced policeman will tell you that a large percentage of our criminals, and specially those of very recent times, were under twenty-one years of age when their villainy reached its climax. If these young men had been provided earlier in life with congenial occupation to keep them away from the temptations of the streets, I have no doubt that Chicago's criminal record would be less gruesome."

A general impression also results: that American education is not yet so near finality as to justify an unrestrained enthusiasm for the adoption of American methods in our schools. Flying visits of English teachers to the United States are very well in their way; American schools no doubt in many aspects deserve frank admiration; American educational treatises often present much that is instructive: but, after all, prudence still suggests a critical attitude, with a steady eye upon English idiosyncrasies.

### NOTES.

A WRITER in the *Morning Post* asks and answers the question: What are the final impressions of the visitor who walks through the crowded Hall of Education at the Franco-British Exhibition?

Apart from the beauty of much of the work exhibited, the thought that lingers longest in his mind is perhaps that of the infinite potentialities of organized educational effort, of its many-sidedness and complexity, of its almost exuberant fertility. From the copybook of a London school child to the model of a Sheffield mechanical pile-driver, each exhibit reveals some new grace or possibility of the human spirit as it turns upon itself with deliberation, and questions its capacities. Thirty-eight years ago this country stumbled into universal education, distrustful of its effects, and grudgingly counting the expense. That spirit is dead, or, if it rises, it rises only as a ghost to haunt the debates of the House of Commons on the religious question, which is our legacy from 1870. For the tiny strip of territory which we started to plough when we said that every child should be compelled to receive education has turned into a vast territory, where thousands of workers go joyfully about their appointed tasks. Fearful of the competition of Germany and America, England set out to seek its father's asses, and it has found what is proving to be a kingdom. Every teacher, every member of an education committee, every inspector and social worker who visits this department of the Exhibition will feel, with a shock of pleasure, that, as he labours in obscure places, he is one member of a great army. Moreover, the Exhibition shows the extent to which modern education

covers the whole of life. The public schools may insist that the one avenue to culture is through the literatures (which in practice means the grammars) of Rome and of Greece. But educationists outside them have realized that education is many-sided as life is many-sided, that it is concerned with the health of the body as well as the health of the mind, with craftsmanship as well as literature, with art as well as industrial efficiency. No one will leave the Exhibition without feeling grateful to the organizers whose labours have prepared so rich a feast.

THERE has just been issued a White Paper containing a memorandum on "Special Rating for School Purposes in Quebec and Ontario." In the education debates a suggestion had been made that ratepayers desiring their educational rates to go to the support of denominational schools should be at liberty to earmark the amount for the use of the schools of their choice; in March last Mr. John Redmond pointed out that such a system prevailed in parts of Canada, and Mr. McKenna promised to make inquiry. So here are the results. In Quebec the great majority of the people are Catholics, and all the rest are entered in the rating books as Protestants: no group of ratepayers professing a faith that is neither Roman Catholic nor Protestant can obtain public funds in support of a separate school conducted on their special religious principles. Each of the two denominations, then, manages its own schools, collects the local school tax from its adherents, and receives the Provincial Government grant in proportion to the number of children it educates. In Ontario, again, which is mainly Protestant, a group of not less than five Roman Catholic heads of families can establish and maintain a separate school, allocating to its support their own part of the school tax. In 1906, there were 428 separate Roman Catholic schools in Ontario, and they received 33,540 dollars from the State, 379,117 dollars from the Roman Catholic ratepayers, and the balance of 281,333 dollars from voluntary sources.

JUST six years ago, when the Education Bill of 1902 was under discussion, we quoted from the "Regulations of the Ontario Education Department" certain provisions on the subject of religious instruction in the schools. It may be convenient to reproduce them:

97. Every public and high school shall be opened with the Lord's Prayer and closed with the reading of the Scriptures and the Lord's Prayer, or the Prayer authorized by the Department of Education. . . .

98. The Scriptures shall be read daily and systematically; the portions used may be taken from the book of selections adopted by the Department for that purpose, or from the Bible, as the Trustees by resolution may direct. Trustees may also order the reading of the Bible or the authorized Scripture selections by both pupils and teachers at the opening and closing of the school, and the repeating of the Ten Commandments at least once a week.

99. No pupil shall be required to take part in any religious exercises objected to by his parents or guardians. . . .

100. The clergy of any denomination, or their authorized representatives, shall have the right to give religious instruction to the pupils of their own church, in each school house, at least once a week, after the hour of closing the school in the afternoon. . . . Emblems of a denominational character shall not be exhibited in a public school during regular school hours.

WHEN a new subject applies for space in the school curriculum or an old subject demands more room, the applicant is properly required to justify his proposals and to suggest a method of carrying them into practical effect. The teacher is concerned also for the "results." The Code, indeed, has already laid it down that "moral instruction should form an important part of every elementary-school

curriculum," and should be given systematically as well as incidentally; but the Moral Instruction League does well to explain its requirements in a circular recently addressed to elementary-school teachers. The position taken up by the League is thus described:

(1) We deprecate any test other than a most sympathetic watchfulness on the part of inspectors as to the tone and manners of the children and the general principles animating the whole of the school work. Individual paper examinations would violently injure the usefulness of the moral lesson.

(2) We are of opinion that the time-tables now in vogue might be appreciably lightened by the omission of much of the labour now devoted to spelling and formal grammar, to arithmetic that only remotely bears upon practical life or beneficial intellectual exercise, to such reading books as are unreasonably difficult in style or uninteresting in matter, and such geography as, in spite of recent improvements, still comprises much useless information and a disproportionate mass of statistics.

(3) Nor do we view with approval the practice of introducing special teachers or lecturers for such subjects as temperance, hygiene, thrift, &c. These themes lose in moral value if treated as isolated departments of conduct. The character should be regarded as a whole, and to invest any particular habit with the distinction of an "extra subject" only confuses the child's moral sense. The teacher who, through daily and hourly intercourse, is familiar with the thoughts and sentiments of the scholars is best fitted to deal with the delicate task of training their ethical judgment.

There will probably be little disposition to quarrel with the first two sections, though the second involves much difficulty in practical adjustment. The third seems somewhat transcendental in conception; but, in any case, it is not easy to see why there should be any need for external exponents of the subjects in question.

A CORRESPONDENT of the *International* comments on the fact that the National Liberal Party in the Prussian House of Representatives is pressing the Government to afford better facilities for higher education to elementary scholars, especially with a view to their employment in the Civil Service.

It is urged that nothing can be more to the interest of the State than that its officials should be persons of the highest ability, and that the growth of an hereditary bureaucracy should be checked by the liberal infusion of new blood into the higher Government posts. The Napoleonic dictum of the marshal's baton in the private's knapsack should not be a mere empty phrase. It is also pointed out that it is not sufficient to provide scholarships at the higher colleges and Universities unless poor students are enabled to take advantage of them by providing them with the funds necessary for their subsistence during the time of study.

"The Conservative fears that this would result in unemployment in the upper strata of society are," says the correspondent, "as groundless as they are anti-social. Special abilities are too rare to cause a glut of applicants for advancement, and are likely to grow rarer still as the advancement of science makes greater and greater demands upon the student." The Conservative argument does not necessarily disclose the real grounds of Conservative opposition. But the interest of State is obvious enough; and that is to work up to the realization of Napoleon's dictum.

THE zeal of the London County Council for the schools committed to its charge is quite a remarkable feature of modern educational administration. It is but lately that the Council was credited with the expenditure of some thousands of pounds for the provision of flags to wave over the schools and to fan the sentiment of patriotism. Now we have the privilege to read of the proposed introduction of a vocal adjunct in the form of "about 150 foghorns"—

Norwegian foghorns (whether made in Norway or used in Norway, or how otherwise Norwegian, we do not know and are not informed). The prospect is lively. But the instruments are to be used only "in cases of necessity." Thus, they are to be used "as fire alarms." Public schools, we dare say, are not essentially fireproof and may at times have been burned down, or at any rate may have caught fire; but we confess we have no vivid recollection of any such calamity within the jurisdiction of the County Council, nor have we reason to estimate the probability of such an event as worth a foghorn. Again, the foghorns are to be used "in cases of fog, in instances where the ordinary school-bell has failed." Now, without inquiring into the persistence or the distribution of London fog, there is no denying the occasional visitation of fog, or the appropriateness of a foghorn to "the case of fog": the only difficulty arises from the suggestion that the foghorn would come in effectively when "the ordinary school-bell has failed." We are not able to put a just estimate on the importance of the ordinary school-bell, or to imagine why it should "fail"—except, in a friendly way, to give the foghorn an innings. However, as ratepayers, we rejoice to know that, if it should unhappily fail, the provision of the County Council will have obviated the misfortune by having the foghorn ready to operate; and presumably foghorns have not, like bells, the weakness to "fail" when their services are needed.

## SUMMARY OF THE MONTH.

THE report of the conference in Manchester between representatives of various denominations on the religious education difficulty is signed by the Bishop of Manchester (Dr. Knox) and Messrs. H. W. Chell and R. Fletcher, Church of England representatives; Monsignor Tynan, Canon Richardson, and Mr. J. Thompson, Roman Catholics; and the Rev. Dr. Adeney, Principal of Lancashire Independent College, the Rev. Dr. John Hope Moulton (Principal of Didsbury Wesleyan Training College), the Rev. Dr. A. Goodrich, and the Rev. J. Kirk Maconachie, for the Free Churches. It is laid down in the resolutions:

1. That denominations which have built schools for denominational elementary education, if those schools are no longer used for such education, have a right to retain them for denominational purposes on refunding the unexhausted value of any building grants received from the State.

2. That the principle of equity embodied in resolution 1 regarding schools built by denominations is hereby affirmed regarding all forms of school property, whether such schools be private ownership schools, family trust estate schools, &c.—i.e., they shall revert to their owners if they cease to be carried on according to the terms and conditions under which they were founded.

3. That it is not necessary that, even in single-school areas, teachers should be prohibited from giving religious instruction, provided that such safeguards can be found as shall secure their appointment from being in any way affected by their religious convictions.

4. That (a), in single-school areas, only teachers possessing a recognized qualification to give religious teaching shall be eligible for appointments involving religious teaching, and such teachers shall give only undenominational teaching; (b) if the Local Education Authority, by agreement with the trustees, makes use of an existing denominational school, it must pay an adequate rent for the use of the school building and must provide facilities during school hours for the denominational teaching required by the trust deeds, at the cost of the denomination; (c) failing such agreement, the Local Education Authority shall provide its own building and shall allow the denominations to give denominational instruction at their own cost to children whose parents desire it; (d) for the building of such a school a substantial proportion of the cost shall be provided from the Exchequer; (e) an existing school having thirty children in average attendance shall be a necessary school; (f) a single school area is defined as one in which there is only one school within reasonable distance of children bound to attend school.

5. That, in all districts where more than one school is educationally desirable, a Council school or schools shall be provided, and denominations shall have liberty to provide denominational schools, provided that fifty children shall always be considered a sufficient number to constitute a necessary school.

A Minority Report has been issued by the Rev. J. Hirst Hollowell (Rochdale), the Rev. C. Peach (Manchester), and Mr. J. Saxon (Manchester), three of the Free Church representatives. The Minority Report declares:

1. That in single-school areas where the populations are so small that, on educational and financial grounds, there can be only one school, the resolutions would leave things in a worse and more confused state than now, while in the multiple-school areas, which, of course, include the great bulk of the population, the resolutions are, in some respects, more unfair than Mr. Balfour's Act of 1902.

2. That the signatories are entirely opposed to the teachers of the State being called upon to give denominational instruction, which they could be under three of the resolutions, both in town and country.

3. That they object to teachers being required to "possess a recognized qualification to give religious teaching" as a test on appointment. To show that they are not opposed to reasonable facilities for general or special religious instruction, the Rev. J. Hirst Hollowell and his fellow-signatories point out that they proposed a scheme (which was rejected) to the effect that the Local Education Authority should give facilities for the use of the school building for voluntary religious instruction, denominational or undenominational, at the cost of those applying for it, such teaching to be given by persons other than the teachers of the school.

At a special meeting of the Archbishops and Bishops of Ireland, held at St. Patrick's College, Maynooth (June 16), Cardinal Logue in the chair, a statement on the Universities Bill containing the following points was adopted and ordered to be published:

Having given our best and most anxious consideration to the Universities Bill now before Parliament, we are of opinion that in setting up a new University in Belfast and another in Dublin, with constituent and affiliated colleges, it has been constructed on a plan which is suited to the educational needs of the country, and likely to lead to finality on the Universities question.

While we must regret, as one of the evils incidental to the present system of legislation for Ireland, that the provisions of this Bill, which regard the University of Dublin and its colleges, are not framed in accordance with the religious convictions and sentiments of this Catholic nation, we freely recognize the limitations which existing Parliamentary conditions impose upon the Government, and desire to render their task in trying to solve this grave question as easy as possible.

Within the fundamental conditions, within which, as we are informed, the Government has to act, we believe that a good deal more than is proposed in this Bill might and ought to be done to meet the legitimate requirements of the Catholics of Ireland, and as a consequence to promote the efficiency of the new University. It will readily occur to most people, for instance, that the head masters of secondary schools should, on account of their close connexion with University work, be represented on the governing body of the provincial colleges and the University, these schools being scheduled by the Commissioners of Intermediate Education.

A most important, and indeed vital, question is that of the status and condition of the college to be established in Dublin. We have seen with dismay that it is not to be residential, and, if this determination is persevered in, we feel that the consequences for the University and the College may be disastrous. From a moral and religious, as well as from an educational, point of view, we should regard it as indefensible to throw hundreds of young men on the streets of Dublin and, side by side with the splendid provision which is made at the cost of the Irish nation for the Episcopalian Protestants in Trinity College, it would reduce our students to a position of intolerable inferiority.

THE most critical of the amendments to the Irish University Bill, moved in the Standing Committee of the House of Commons, by Dr. Butler, was decisively defeated. It proposed that a two years' course of study at a constituent college be a necessary preliminary to taking a degree at the new Universities. In effect, the amendment, if carried, would have excluded Maynooth College (Roman Catholic) and Magee College, Londonderry (Presbyterian), unless the students attended the Dublin University in the first case and the University of Belfast in the second. Mr. John Redmond said he had received a copy of a statement drawn up by all the Roman Catholic Bishops of Ireland, in which they said they could not send their arts students to Dublin, and consequently the result of Mr. Butler's amendment would be to deprive them of the opportunities of gaining University degrees. Mr. Birrell resisted the amendment. He said, if they

allowed unworthy suspicions to enter, and refused to trust the Senates of the new Universities, they had better tear up the Bill. Nobody could approach Maynooth and examine its studies and its professors without discovering that the students there were securing an excellent education of a University standard. On a division the amendment was rejected by 32 votes to 16.

THE Board of Education have received from the German Embassy, through the Foreign Office, particulars of the International Congress of Historical Science, which is to be held this year in Berlin from August 6 to 12. The work of the Congress will be carried on in general and sectional meetings. There are eight sections:—(1) Oriental History; (2) History of Greece and Rome; (3) Political History, mediæval and modern; (4) History of Civilization and the History of Thought, mediæval and modern; (5) Legal, Social, and Economic History; (6) Ecclesiastical History; (7) History of Art; (8) Sciences subsidiary to History (Archives, Libraries, Chronology, Diplomatic, Epigraphy, Genealogy, Historical Geography, Heraldry, Numismatics, Palæography, Study of Seals). Many distinguished Continental historians will take part in the Congress, and the Committee contains such distinguished names as those of Professors Eduard Meyer, Adolf Harnack, Friedrich Delitzsch, Ulrich von Wilamowitz-Moellendorf, and Schmoller. At some of the general meetings lectures will be given by such well known authorities as Prof. Maspero, Prof. Cumont, Sir Frederick Pollock, Sir William M. Ramsay, and Prof. Monod.

THE eleventh annual Conference of the National Association of Head Teachers was held in the Municipal Technical College, Halifax, Mr. R. M. John, Birmingham, presiding. The annual report stated that there were now 65 local associations, with a membership of over 4,700. The Chairman said that the smoke of the battle of creeds was still resting over the land, and the real issues of education were hidden from view. The crucial question was this: Could not the admitted grievances be redressed without breaking up the system initiated in 1902? This question was not so prickly when grappled by the teachers within the school as it was made to appear outside by the champions of dogma, who forgot that it was the heart which made the theologian, and not the theologian the heart. Moral teaching might not satisfy all Christians; but where it could be shown that denominational religious teaching might be taught without violating to any serious extent the principle of popular control and management of the schools, and of the teachers' freedom from sectarian tests, for the sake of peace concessions might be made whereby Local Authorities would be empowered to allow exceptional schools scheduled as such within the national system. The Conference unanimously confirmed its opinion "that the time has arrived for the abolition of the half-time system, and that the age of school exemption should be raised to fourteen years." Other resolutions were adopted declaring that an adequate grant should be made by the Local Government Board towards the expenses of medical inspection and treatment of children attending public elementary schools, urging the Local Education Authorities that have not already done so to make provision, if they deem it necessary, for the feeding of school children and for the recovery of the cost from parents; that, while of school age, no child should be allowed to work more than twenty hours per week, and on school days only between 5 and 8 p.m.; and that certain trades—laundries, barbers, farriers, &c.—should be absolutely forbidden to children of school age.

THE representatives of German Churches spent a day of their visit at Cambridge as the guests of the Divinity Faculty of the University. They were entertained at luncheon in the hall of Trinity, the Master (Dr. Butler) presiding. Prof. Stanton, Dr. Ward (Master of Peterhouse), and the Rev. E. S. Roberts (Vice-Chancellor) made speeches of welcome, and of acknowledgment of the British debt to German scholarship—the latter two gentlemen speaking in German. Dr. Butler said he had to content himself with a language "better known to many of you than to many of us": as a distinguished Foreign Secretary had said when pressed by an ambassador to speak French, "Je voudrais si je pouvais." Prof. Rade, of Marburg, speaking in English, expressed the debt of German scholars to the indefatigable genius of Westcott and Hort. Another Cambridge man whose name was still better known, and as dear to Germany as to England, was Charles Kingsley, who, with Wichern, had done more than any other to stimulate the German Churches to an interest in social reform. Prof. von Soden, of Berlin University,

said that he had particular cause to reverence Lightfoot and Westcott and Hort as leaders in the study which aimed at reconstructing, with the utmost certainty possible, the *ipsissima verba* of the sacred Scriptures. He had long sought such an opportunity as this to offer, not only for himself, but for many future readers of the New Testament, warm thanks to the theological faculty and librarians of Cambridge for the assistance they had always extended to the young fellow-workers whom he had sent to examine the treasures of the University. There were two things in particular which Germany might learn from that University, which acted on the principle that students should be furnished with universal scientific culture instead of specializing with a view to professional equipment from the beginning as in his own country, and which strove by sport to keep in full harmony their strength of mind and body. That was what Germans admired and tried to imitate. Prof. D. Rietschel, of Leipzig, also spoke. The Mayor of Cambridge (Mr. H. G. Whibley) afterwards gave a garden party in the Botanical Gardens.

THE World's Drawing Exhibition and Congress, which is to be opened at South Kensington this month, will be attended by more than a thousand delegates. Foreign Governments are granting cheap fares to teachers, and in the United Kingdom cheap fares have been conceded by all the railway companies but one. The subscriptions amount as yet only to £2,000 of the £5,000 required.

THE University College (London) Union Society held a reception at the College (June 4), when the foundation oration was delivered by Mr. J. Lewis Paton, High Master of the Manchester Grammar School, on the subject of "The University and the Working Classes." Mr. Paton pointed out that hitherto Universities had stood aloof from the life of the common people. Literary culture was the appanage of the leisured classes: it was for those who could afford it, not for those who had the capacity to receive it. It was still the privilege of the gentleman, in the social acceptance of the term. He had nothing to say derogatory of the scholarship system, for in the main it did secure the open career for talent. The pity of it was that the movement of the scholarship system was all in one direction—that the poor boy who won his way with scholarships lifted himself out of the class to which he belonged by birth. He was educated out of his class, and in this way the working class was continually being drained of those who would otherwise be their natural leaders, directing their social and political activities, and leavening their life with a higher idealism. The scholarship system took the poor boy to the University, but it did not bring the University down to the poor; it enabled the promising boy to rise, but did not raise the class to which he belonged. The taint of "getting on" affected the whole of the scholarship system. He acknowledged to the full the great work done by the University Extension Lectures, but no occasional lecture could create the sense of fellowship which was the atmosphere for true education to grow in. He personally had found quite as much disinterested love for liberal culture among the poor as he had among those better off seeking for honours. A University which was national in name would gain immensely in inward power when she became national in reality. The training now given was crippled in its efficiency by the caste conditions imposed by society. Speaking with due deference, he believed there was not a single faculty which would not gain in practical efficiency if the students daily rubbed shoulders and interchanged ideas with thoughtful young men of the artisan class of their own age, who saw life from a different angle. Cecil Rhodes saw what a vast benefit it would be to Oxford to open her gates to men of different Colonies and other races. No one now questioned the gain in healthy-mindedness and breadth of outlook which this innovation had brought to Oxford. To know the social problem one must rub shoulders with the working man. Manual labour should form part of every man's training, as domestic labour should form part of every girl's—a doctrine as old as the Rabbis and as recent as Ruskin.

At the Pan-Anglican Congress Prof. Sadler took part in a discussion on "The Training of Teachers. Professional and Voluntary." He said that the education most indispensable to the character of a nation was that given in the home. It was in the home that habit was earliest formed; it was there that ideals were first implanted; there that thoughts were first turned to things unseen. No more blighting curse could fall upon Christian

civilization than the moral atrophy of the home. The true work of the State in making the good life more possible was not to supersede the home, but to help it to higher efficiency in its task of shelter and nurture. After the home, in its influence upon character, was the tone of the workshop or factory in which young people earned their bread. A man's daily occupation was the school in which he learnt most that coloured his outlook on life, and that employers and foremen should use their great power in making the conditions of labour healthy and free from all removable temptations to intemperance and uncleanness was the most urgent need in national education after that of making home-life pure and sound. The highest part of a teacher's training, Dr. Sadler continued, was the fostering of a sense of vocation. The vital power of all education lay in reality of conviction and in the readiness to sacrifice personal interests for the sake of those who claimed help and guidance, and whose claim was sacred because it was in essence a spiritual claim. The finest kind of training deepened the sense of vocation, but, in order to encourage this sense of vocation to bear fruit, should they not see to it that every teacher might look forward in middle life to freedom from harassing pecuniary cares and to a quiet competence in old age after long years of service?

ONE of the departments of the Hungarian Exhibition at Earl's Court illustrates the progress and present position of education in Hungary. Starting with a section devoted to kindergartens and elementary schools, all the grades of education up to the Universities, and colleges of University standing, are explained by suitable exhibits. A very interesting feature is the model State farming school, in which all branches of farm work are taught to pupils between the ages of twelve and fifteen. Nursery gardening instruction forms part of the curriculum at these schools also, and attention is paid to home and industrial work. The age at which education in Hungary is compulsory is in the kindergarten from three to six and in the ordinary elementary school from six to twelve, while evening classes are given to pupils between the ages of twelve and fifteen. A minimum collection of implements used in all elementary schools is on view, embracing a wide selection of objects—from chemical, mechanical, and electrical appliances to natural history specimens. The training college section contains excellent specimens of woodwork and equally fine articles of lace and embroidery. Another feature is the attention paid to hygiene. Every boy, when he enters, has his height measured and his strength tested. These details are entered in a register, which is kept as a record of his physical growth during his school years.

THE Thirty-fourth Annual Conference of the Incorporated Association of Head Mistresses was held (June 19 and 20) at the Manchester High School, the President, Mrs. Woodhouse (Clapham High School), in the chair. About 165 members were present. The President, in her inaugural address, alluded to many forms of educational activity distinguishing the city of Manchester, and said the past year had been an *annus mirabilis* in respect to women's work and women's interests generally. It had never before been so useful for all who were called to positions of responsibility and influence to make themselves familiar with such aspects of the social problem as are fundamentally educational. The coping stone of education was appreciation of the fact that both the *raison d'être* and the means of personal culture, of self-realization in the true sense, lie in serving others. Mrs. Woodhouse looked forward to a curriculum for school children between the ages of seven and twelve based on three main branches of instruction: (1) development of physical power, manual dexterity, and constructional skill, (2) English literature, and (3) Nature study. In the curriculum for girls between fourteen and eighteen or nineteen there was danger lest the more immediate connexion between the subjects taught and the lives, present and future, of the pupils should not be shown. Although the old Register had been closed, the question of training still occupied the minds of the profession. Papers on "Home Science and Economics" were read by Miss Bramwell, B.Sc. (L.C.C. Eltham Secondary School), Miss Burstall, M.A. (Manchester High School), Miss Gilliland, M.A. (Haberdashers' Aske's Acton Girls' School), and Miss Leahy, M.A. (Croydon High School).

On the second day of the Head Mistresses' Conference, the following resolutions were carried:—

That head mistresses of approved secondary schools in the Colonies, India, and the Dependencies, may be invited by the Executive Committee

to become Correspondents of the Association and to receive its literature on payment of a subscription of 10s., and that correspondents who are in England at the time of the Conference shall be entitled to attend the meetings.

That this Conference disapproves of external examinations for girls under fifteen years of age, and invites all members of the Association to co-operate in discouraging pupils to enter for them. (One dissentient.)

That, in all public external examinations after the age of fifteen, acting teachers in every case be associated with the University or other external authorities. (Unanimous.)

That in the opinion of this Conference, the length of the Easter holidays, or of the Easter and Whitsuntide holidays combined, in girls' secondary schools, should be not less than four weeks, and should always include Easter.

That this Conference observes with regret the delay in the constitution of the Teachers' Registration Council, for which the reasons alleged by the President of the Board of Education in answer to questions in the House of Commons do not appear to be adequate. The deputation of representative teachers referred to included representatives of technical education, and proposed the constitution of a Council on which representation should be given (1) to the Association of Teachers in Technical Institutions and (2) to the Association of Technical Institutions. The Conference is unable to understand the hesitation of the Board, unless it is intended that teachers of special subjects—*e.g.*, music, drawing, classics, science, and modern languages—should *as such* be represented on the Council.

That, in view of the fact that the Prime Minister has declared that without the overwhelming support of the women of the country the Government would not consent to embody in the contemplated Electoral Bill a proposal for their enfranchisement, the Association of Head Mistresses assembled in Conference at Manchester desires to place on record its strong conviction that the grant of the Parliamentary Franchise to women is both just and expedient. (Overwhelming majority.)

Papers on "Instruction in Holy Scripture in Public Secondary Schools" were read by Mrs. Bryant, D.Sc., and Miss Hanbidge, M.A. (Central Foundation School), and, in the absence of Miss Otley (Worcester High School), by Miss Douglas. On Friday night, members of the Conference were received by the Victoria University of Manchester in the Whitworth Hall; and on Saturday afternoon, the Dean of Manchester entertained members to tea. A visit was paid to the cathedral, where a short service was held, and the Dean delivered an address.

SPEAKING at the Pan-Anglican Congress, Mr. A. G. Fraser, Principal of Trinity College, Candy (son of Sir Andrew Fraser, Lieut.-Governor of Bengal), indicated some of the dangers of the secular education system in India and Ceylon supported by the Government. In Ceylon, as in India, the Christian schools and colleges were hurried by the secular requirements of the Government code. At his college they were bound to train their students in English, Latin, and Greek, and sometimes in French, and present them for examination in mathematics and in these tongues, when the students were unable to read or reply to letters from their parents in the vernacular. It was not clerks nor European underlings whom the educational missions wished to turn out, but national Christian leaders. It was right to have colleges on the Government plan, but the Church should be free to supplement the Government colleges and carry out her own policy. He would like to see the Church placing staff corps here and there—groups of able men who had leisure and power to think out the Church's problems. They would work towards the end of producing an intelligent apologetic in face of the native religions. They would give cohesion to the missions and continuity of policy. There was also needed devolution in the Church's educational work. They wanted to put the natives more and more into power—the men who knew the country and were less likely to make mistakes than foreigners were. It was a superfluous question to ask whether the natives were fit for responsibility; they were going to have it. No one ever learnt to walk before he tried, and the natives would learn by their mistakes. Mr. Fraser asked the Church at home to give India colleges that were small enough and staffs that were large enough to allow of personal contact between the teacher and the taught.

At a meeting of the Bristol Chamber of Commerce (June 17), a communication was read from the Committee of Educational Inquiry and Research at University College, stating that they had secured for educational purposes a valuable collection of chemical products—industrial, agricultural, and medical—covering the whole range of the chemical industries and illustrating all the processes of manufacture. The President remarked that the Committee, with a view to the future disposal of the col-

lection, desired to have the opinion of the Council of the Chamber as to its educational value from a commercial standpoint. Abroad, such museums existed in many places, and were highly valued by the commercial community. It would help the Committee in coming to a decision if they could have the views of commercial men as to the value of such exhibits as those mentioned to those engaged in commercial research in Bristol and the South-West of England, and he should therefore be glad to have the trend of opinion of the members present on the subject. After careful consideration it was decided to inform the Committee of Educational Inquiry and Research that, in the opinion of the Council, such a collection of chemicals would be of the utmost value. It would be useful in promoting commercial research, and, if it were made accessible to business men, prove of immediate benefit to those engaged in many branches of manufacture.

At the annual meeting of the Eastern Branch of the Scottish Association of Secondary Teachers, held in Edinburgh, Mr. Hutchison, the retiring President, said the desolating effects of the issue of the new Register would make Saturday, May 16, 1908, long remembered in the schools as a sort of St. Bartholomew's Day. Taking the case of his own school—Boroughmuir Higher Grade School—a week ago they were a comparatively happy, healthy, and active family. Wrath and resentment, however, burst out fiercely on receipt of the intelligence that, in spite of all diplomas, henceforth they were to be arbitrarily divided into three different grades or levels. The result of this new Register was that in large schools discord and jealousy had been sown throughout the staffs; while the worldly-wise would move speedily to a smaller staff to increase their chances of the higher title. Speaking with care and moderation, and looking simply to the facts as he knew them, the Register was not required. He protested against the institution of this public register of teachers on the grounds (1) that it was an unwarrantable exaltation of the power that controls the taxes over the power that controls the rates; (2) that it was an insidious attack on the freedom and integrity of the Universities by claiming the power to cancel at will the current values of their teaching diplomas; (3) that educationally he believed it was unsound in conception and unjust in operation; and (4) that, by limiting indirectly the freedom of head masters in the loyal disposal of their staffs, it must inevitably prove detrimental to the efficiency of secondary education in Scotland.

ONE of the chief interests of the proposed Milton Exhibition at Christ's College will consist in portraits of the poet. The two most important cannot be traced, but Mr. Lewis Harcourt is lending from Nuneham his replica of the Onslow portrait, made by Van der Gucht when the original was in Lord Onslow's possession. The celebrated drawing from Bayfordbury, which was once in the possession of Jacob Tonson, and is also believed to have been in the possession of Jonathan Richardson, is being lent by Mr. H. Clinton Baker. It has never before been seen by the public. Dr. Williamson is lending his large collection of prints and engravings, numbering considerably over a hundred, and these will be supplemented by engravings from other collections, notably from that of Mr. Shipley, so that it is expected that over a hundred and fifty will be shown. There will also be two remarkable drawings by Vertue, both of which were at one time at Strawberry Hill, and some miniatures, including one that belonged to Milton's second wife, and has never before been exhibited. An important feature of the exhibition will be the collection of early editions of Milton's works gathered from various libraries in Cambridge.

#### UNIVERSITIES AND COLLEGES.

(From our own Correspondent.)

THE visitors can hardly complain of the Clerk of the Weather, who did his best to make our annual festivities a success. Never has Cambridge been so full, and rarely has so much been crowded into the fortnight of June that still goes by the name of the May week.

Ignoring chronological order, we must first deal with the inauguration of the Chancellor. The proceedings began with a formal levee held in the Fitzwilliam Picture Galleries. The Heads of Houses, professors, doctors, and other members of the Senate filed past the new Head of the University and were



greeted with a cordial hand-shake instead of the formal bow of his predecessors in office. The same afternoon saw the conferment of honorary degrees upon such representative men as the Prime Minister, the late Lord Chancellor (Lord Halsbury), Sir John Fisher, Sir Hubert von Herkomer, Sir William Crookes, and Mr. Rudyard Kipling. The boys in the gallery gave hearty cheers for most of the distinguished men, as in duty bound, but Sir John Fisher and Mr. Rudyard Kipling were the special favourites of those who are permitted to express their feelings in the Senate House. The Public Orator was more subdued, but quite as effective as ever. Some of his points were specially neat—for instance, the saying of Jowett about our present Prime Minister, "Asquith is so direct, he will go far," was put thus: "It directo, longius ibit"; also as to Mr. C. A. Parsons, of turbine fame:

Experto credite quantus

Par pontum properet, quo turbine torquat undas.

Last of all, there were presented two Cambridge Professors, who received honorary degrees as a fitting testimony to long years of valued and unselfish work—Prof. Marshall and Prof. Liveing.

From the Senate House we adjourned to the gardens of King's College to enjoy the hospitality of the Fellows of that Society. The band of the Royal Engineers repeated the Installation March (composed by Sir C. Villiers Stanford), which had already been rendered in the Senate House yard at the installation of the Chancellor.

The evening saw yet another function—a grand reception at the Lodge of Trinity College, when most of the new doctors put in an appearance. The two attractions of this function were the emerald tiara of Lady Tullibardine (Mrs. Butler's sister) and the conversation of Mr. Rudyard Kipling. It is fortunate that Trinity possesses in the Master and Mrs. Butler a host and hostess who can with such dignity and grace entertain our visitors from the outside world.

An interesting point to note is that Sir Hubert von Herkomer has kindly offered to paint a portrait of the Chancellor for presentation to the University, and there is no doubt about the response which will be made to so graceful a suggestion.

The times are full of lists of all sorts. Many a happy parent has seen the name of the budding scion of his house figuring on those formal-looking notice boards, and a few perchance have looked in vain for what they sought. The Mathematical Tripos seems to have created some excitement in the sub-editor's department of some of the halfpenny dailies, and many Cambridge people were able to identify our leading mathematicians for the first time by means of the woodcuts of the press. It is, perhaps, worth noticing that there were 28 First Classes in the Mathematical Tripos as against 58 in the Natural Science, and 3 in the Mechanical Science Triposes, although the number of candidates in the last-mentioned examination was very considerable.

One of the first official acts of the new Chancellor was to open the extension of the Cavendish Laboratory. The occasion was signalled by a reception at which Professor and Mrs. Thompson entertained most of the leading Cambridge people. The latest scientific novelties were on view, and courteous demonstrators tried to enlighten the curious ignorance of the inquisitive guests. It was a great success.

Allusion has been made to the retirement of Prof. Marshall. His place has been taken by Mr. Pigou, of King's, an appointment which was suggested as probable in these notes last month. Prof. Pigou has youth on his side, and but for that would probably not have been successful against the very strong field he had against him.

An attempt was made lately to grant continued exemption to the Whewell Professor from the condition as to residence which is required from practically all the occupants of chairs. The proposal met with some opposition, and was eventually negatived by a substantial majority. It cannot be too plainly stated that the statutory duties of most professors are trivial and elementary. To their credit, be it said, many professors work like slaves, but we cannot hope for support from the ideal commercial benefactor until we set our house in order on business lines.

The authorities have taken in hand the subject of motor cars: those who wish to drive these dangerous machines must first satisfy their college tutors as to their physical and pecuniary fitness. Two fatal accidents in the neighbourhood of Cambridge have brought the matter into prominence, but the results of the inquests in each case showed that the respective drivers were exercising care and skill far above the average.

The balls as usual have been crowded and successful. The Hawks Ball, which has established a reputation for itself as the

opening festivity of the May week, this year fully justified expectations. The other big functions were the dances given by Trinity and the Freemasons, while smaller and hardly less enjoyable balls were given by half-a-dozen colleges on their own premises.

The races saw Trinity Hall still at the head of affairs, though at one time they were pressed by Jesus, which had a remarkably well trained crew. Among the lower boats the most successful were King's II. and Magdalene, which made five bumps each. Under the regime of Mr. Donaldson, Magdalene is rapidly regaining its position, and in a few years it will rival many of the larger and more important colleges.

Mr. William Bateson, of St. John's, has been elected to the new Professorship of Biology. This had long been a foregone conclusion. Speculation is rife as to the selection of a Professor of Chemistry to succeed Dr. Liveing; and the names of Mr. Rubemann, Mr. C. T. Heycock, and Dr. Fenton are freely mentioned—their qualifications, briefly stated, being: Mr. Rubemann, learning; Mr. Heycock, teaching power; and Dr. Fenton, brilliance in research work.

It is very noticeable how many of our leading athletes have succeeded in getting their names into the Tripos lists this year. Among others we may mention C. B. Barry (the golfer), Twelfth Wrangler; W. G. Lely (captain of the Rugby Football Team for next season), First Class Classical Tripos; D. C. R. Stuart (President of the Rowing Club) and J. W. Buchanan (the cricketer), Law Tripos; T. A. Godby and F. C. Tudsberry (football), E. W. Powell (rowing Blue), and A. E. D. Anderson (quarter-mile Blue), History; H. J. Goodwin (cricket Blue) and A. E. Herman (football), Mathematical Tripos.

Before the end of the first week of July, the men will be coming back for the real work of the vacation. At the time these notes are penned, Cambridge is quiescent and the May week only a memory.

THE Bill "to make further provision with respect to the University of Durham," introduced by Mr.

Hills, member for Durham City, proposes to appoint a body styled the University of Durham Commissioners, and consisting in the first instance of the Duke of Northumberland, the Bishop of Exeter (sometime Vice-Chancellor of the University of London), Lord Barnard, Sir Francis Mowatt, Sir W. S. Church, M.D., Mr. John Scott Fox, K.C., Chancellor of the County Palatine of Durham, the Rev. Dr. J. R. Magrath (Provost of Queen's College, Oxford), and Dr. Joseph Larmor (Lucasian Professor of Mathematics at Cambridge). Their powers are to make statutes regulating the constitution of the University and the powers and duties of its authorities and constituent bodies and the disposition of its property in accordance with a scheme scheduled as an appendix to the Bill. The other clauses are chiefly concerned with details, except that provision is made for the affiliation to the University in the faculty of science of the Technical College of the borough of Sunderland, subject to its satisfying the conditions specified by the Senate of the University. A "Council of the Durham Colleges" is to be set up, which is to carry on University College and Bishop Hatfield's Hall as residential colleges, due regard being paid to the original purpose of the endowment and to its connexion with the Cathedral Church of Durham. The two canonries of Durham annexed to professorships of Divinity and Greek in the University shall remain so annexed, the appointments being made, as now, by the Bishop of Durham. The Newcastle division of the University is to consist of the University College of Medicine and Armstrong College, Newcastle, but no Council is set up for this division.

At a meeting of the Court of the University, Dr. Hopkinson, who presided, said that the University had had under consideration

with the Authorities of the County of Cheshire the possibility of establishing a course which would lead to degrees in Agriculture. The Board of Agriculture had been asked for their assistance, and if it were granted it would help to establish a valuable extension of the work of the University. The Council had decided to revert to the old method by having a Chair of Clinical Medicine and also one of Systematic Medicine, instead of having the two combined as was the case until recently. There had been an increase in the number of students entering the University. It had not been large, but it had been steady, and that was perfectly satisfactory.

A resolution from Convocation declared that it was high time

that a common understanding was arrived at between the University of London and the Northern Universities as to the mutual recognition of matriculation certificates on terms of equivalence. The Vice-Chancellor said a concordat with Oxford and Cambridge had been established. If there was delay in the case of London it was not the fault of the Northern Universities, who had declared themselves perfectly ready to enter into an agreement. The Convocation also forwarded a resolution declaring that it was desirable, in the interests of matriculated students, who were unable, for financial and other reasons, to take the three years' course for B.A. or B.Sc. degrees, that a five years' course of evening classes should be established. This was referred to the Senate, with a suggestion that information should be obtained from the Universities of Liverpool, Leeds, and Sheffield.

Sir Frank Forbes Adam reported that a deputation from the University had succeeded in inducing Mr. Asquith to let the Government grant remain at £12,000, instead of being reduced to £10,000 as had been proposed. There was every reason to think that Mr. Asquith's successor as Chancellor of the Exchequer would at least keep the grant at the higher figure, even if he did not increase it.

**London—Queen's.** THE sixtieth anniversary of the foundation of Queen's College, 43 and 45 Harley Street, was celebrated (May 25). Canon G. C. Bell, the Principal, having read his report, the Bishop of London, the Visitor, congratulated the College on attaining its diamond jubilee and on its most flourishing condition, to which all those who knew the work done there could testify. He expressed his genuine sympathy with them in the losses they had sustained through the death of Profs. Gadsby and Hall Griffin, and said that, with regard to the happier loss of their Head Mistress, Miss Luard, he had to confess that he had something to do with the taking of her from them. The fact that she was the first lady Principal at Whitelands was an honour to Queen's College, and he was sure they all wished her great success in the work she was undertaking. The Bishop of London afterwards addressed the students on the subject of prayer. Canon Bell thanked the Bishop for his address, and a formal vote of thanks, proposed by Canon Benham and seconded by Mr. Maurice Powell, President of the Council, was carried.

**Jews' College.** DR. ADLER, the Chief Rabbi, presided at the distribution of prizes to the students of the Jews' College, Queen Square House, Guilford Street, Bloomsbury. Having presented the Rabbinic diploma to the Rev. Barnett I. Cohen, B.A., and the prizes to the students, he said that to be lifelong teachers they must be lifelong students; eloquence might be praised, but it was character that influenced men. Sir Philip Magnus, M.P., in proposing a vote of thanks to the principal, said that during the past few weeks he had been subject to a vast amount of hostile criticism owing to the part he had taken on the education question. He had been told that a Jewish M.P. should do all in his power to help his own race, provided it did not clash with the interest of the State. He agreed with that, for it applied to every Jew. He opposed the present Education Bill because, in his opinion, it would be harmful to the citizens of this country. He held that religious teaching was an essential part of elementary education, and that children should be taught their religion by ordinary school teachers and in school hours. This was in the interest of all religious communities. The highest function of elementary education was the bringing up of moral citizens, and if they were to give sound moral teaching it must be accompanied by religious instruction. Several gentlemen protested against the introduction of politics at the meeting, but the chairman ruled that, upon such an important subject, a statement ought to be made.

**Edinburgh.** THE University Court has rejected the scheme presented by the Scottish Association for the Medical Education of Women. In their opinion, there is no sufficient evidence that the Association has, since it intimated to the Court the fact of its being deprived of accommodation at Minto House, made any serious attempt in conjunction with its staff of teachers to continue the present system of teaching. In the circumstances, the Court—as they do not possess, and see no definite prospect of acquiring, resources for providing separate accommodation for the medical education of women—can do nothing. Further, they do not see their way to approve of mixed classes in the Faculty of Medicine.

### THE EDUCATIONAL LADDER.

**CAMBRIDGE UNIVERSITY.**—Tyrwhitt's Hebrew Scholarships: (1) A. E. Talbot, B.A., Emmanuel; (2) F. J. Padfield, B.A., Gonville and Caius. Mason's Prize for Biblical Hebrew: J. H. Bentley, B.A., St. John's, and A. E. Talbot, B.A., Emmanuel, equal. Wiltshire Prize (Geology and Mineralogy): W. C. Smith, scholar of Corpus; *proxime accessit* A. H. Noble, scholar of Queens'. Harkness Scholarship (Geology): T. O. Bosworth, B.A., scholar of St. John's. John Winbolt Prize (Civil Engineering): L. B. Turner, B.A., King's; honourably mentioned, E. T. Busk, King's. Gladstone Memorial Prize (History): J. E. S. Green (Peterhouse) and T. D. Purser (Trinity).

Mr. Selig Brodetsky (Jews' Free School; Central Foundation School, Cowper Street, E.C.; and Trinity) and Mr. A. W. Ibbotson (Solihull Grammar School; King Edward's School, Birmingham; and Pembroke) are bracketed Senior Wranglers. Mr. Hubert Minson (City of London School and Christ's) is Third Wrangler. Mr. Thomas Knox Shaw (Owen's School, Islington; Blundell's; and Sidney Sussex) is fourth. Miss Marjorie Long (North London Collegiate School and Girton) is equal to the Fourth Wrangler; Miss J. F. Cameron (B.A. Edin., Newnham) equal to Tenth; and Miss L. Warren Jones (Blackheath High School and Girton) equal to Twentieth.

We note with pleasure the success of two esteemed contributors to our mathematical columns: Mr. G. N. Watson, B.A. (Part II., Class I., Division 2), and Mr. W. Telfer (bracketed twenty-fourth Wrangler).

**Pembroke.**—Classical Exhibition: N. J. Symons, The Crypt School, Gloucester.

**CHARTERHOUSE.**—Entrance Scholarships: The following is the order of candidates, of whom ten at least will be elected: J. S. Arthur, A. R. Gordon, C. L. Ferguson, R. J. P. Rodakowski, C. N. H. Lock, G. L. Thorp, H. O. Lee, G. K. G. Keen, H. P. Devenish, C. O. B. Dickinson, D. N. Barbour, C. C. A. Monro, J. L. Hopkinson, G. H. Walker, the Hon. D. O'Brien, C. E. Lucette, J. D. Macleod, G. Greenish, L. A. Westmore, F. R. Hardie, and O. D. Atkinson.

**CHELTENHAM COLLEGE.**—Scholarships: I. S. O. Playfair, Cheltenham College, formerly at Mr. Johns's, Winton House, Winchester; A. D. Roberts, Cheltenham College, Junior Department; B. H. Waddy, Cheltenham College, formerly at Messrs. Chater's and Hoffgaard's, Fretherne House, London; J. C. O'G. Anderson, Cheltenham College, formerly at Mr. Mallam's, Dunchurch Hall, Rugby; W. D. Churcher, Cheltenham College, formerly at Mr. Marshall's, Belsize School, Hampstead; and S. P. M. Morgan, Cheltenham College, formerly at Mr. Carey's, Mournie Grange, Kilkeel. Honorary: F. H. Saville, Cheltenham College, Junior Department; G. K. P. Hebbert, Cheltenham College, formerly at Mr. Church's, Eilerslie, Fremington; A. L. Pemberton, Cheltenham College; V. T. Pemberton, Cheltenham College; A. V. D. Wise, Cheltenham College, formerly at Mr. Wise's, Oakfield, Rugby; A. H. G. Cox, Mr. Auden's, Glyngarth, Cheltenham; F. H. Tate, Cheltenham College; R. W. Copland, Mr. Foster's, Stubbington, Fareham; F. L. Eardley-Wilmot, Mr. Haskoll's, Pelham House, Folkestone; R. Jesson, Mr. Johns's, Winton House, Winchester; D. G. McGregor, Cheltenham College; G. L. Reid, Dr. Williams's, Summerfields, Oxford; E. T. Roberts, Mr. Vickers's, Scaitcliffe, Englefield Green; W. Scott Watson, Cheltenham College; W. H. Steavenson, Cheltenham College; and G. H. Ward, Cheltenham College. Old Cheltonian Scholarships: E. G. James, Cheltenham College, formerly at Mr. Dobie's, Moorland House, Heswall; and V. T. Pemberton, Cheltenham College. Special Army Scholarships: I. S. O. Playfair (Southwood scholar), Cheltenham College, formerly at Mr. Johns's, Winton House, Winchester; G. K. P. Hebbert (Dobson scholar), Cheltenham College, formerly at Mr. Church's, Eilerslie, Fremington; and A. L. Pemberton (Jex-Blake scholar), Cheltenham College. House Exhibitions: N. C. Aldridge, Mr. Mills's, Highfield School, Liphook; F. L. C. Hodson, Miss Knapp's, Ormond House, Dursley; and T. W. Manley, Cheltenham College.

**DUBLIN, TRINITY COLLEGE.**—Fellowship: R. W. Tate, M.A. Madden Prize and £50: Harry Thrift, B.A. Fellowship Prize (£50): Hugh Canning, B.A. Fellowship Prize (£20): J. C. Wasson, M.A. Mathematical Scholarships: Gerald R. E. Foley, William Bartley, F. T. T. Tree, D. H. Cole, T. W. H. Kingston. Classical Scholarships: S. H. Wright, W. G. E. Burnett, H. O. Holmes, J. G. Acheson, W. L. Murphy, H. G. Livington, John Tobias, H. A. Cox, Ellen K. Bryau (non-

Foundation). Marshall Porter Prize: H. de Beauvoir Bewley. Experimental Science Scholarships: James Austin and T. A. Wallace. Modern Literature Scholarships: Christabel F. Godfrey, Mary C. Michell, Phœbe Talbot-Crosbie, Vera Matheson (all non-Foundation), John W. Eaton.

DULWICH.—School scholarships—Senior (under sixteen): Classics, D. C. Thompson and A. L. Attwater; Mathematics, G. J. Heath; and Science, S. C. Bate. Junior (under thirteen): G. P. S. Jacob and W. E. Grey. School prizes—Sixth Form: Compositions in Greek Prose, Greek Verse, and Latin Prose, R. Stanton; Latin Verse, C. B. Coxwell. Remove: Greek and Latin Prose, J. Wann and C. Cullis respectively. Classical Upper Fifth: Latin Prose, J. S. Mann.

ELTHAM COLLEGE.—Medals: Royal Humane Society Medal, R. H. Whittall; Cookney Medals (for industry and good conduct), P. P. M. C. Plowden (Open Scholar of Balliol, Oxford), H. Smith (Entrance Scholar of Charing Cross Hospital), and H. N. Bennett; Mathematical Silver Medal, J. B. Odam; Classical Silver Medal, H. W. Howe; Gold Medal (the highest distinction of the school, and only given for "marked distinction"), T. K. E. Batterbury.

LONDON INTER-COLLEGIATE SCHOLARSHIPS BOARD.—Entrance Scholarships and Exhibitions awarded on the results of an examination held on May 13 and following days:

Tenable at University of London, University College.—Andrew's Languages and English History (£30): Louise W. Stone, Stroud Green High School. Science (£30): B. A. Keen, Southend Technical School. Campbell Clarke (£40 for three years): Eileen O'Rourke, City of London School. West (£30): N. L. Mackie, Bancroft's School, Woodford.

King's College, London.—Two Clothworkers' Exhibitions (£30 and £20 for two years): (1) W. Allard, (2 and 3) L. C. Budd and W. Legg (equal).

East London College.—Four Drapers' Science for Men (£40 each for three years): C. D. West, Strand School; J. W. T. Walsh, Hampton Grammar School; W. E. Hawkins, St. Dunstan's College, Catford; G. L. Matthews, Hampton Grammar School. Two Drapers' Science for Women (£40 each for three years): Winifred M. Parker, Mary Datchelor School, Camberwell; Kathleen Balls, City of London School. Two Drapers' Art for Men (£40 each for three years): A. E. Birch, Colfe's Grammar School; H. A. Auty, the Modern School, Leeds, and Battersea Polytechnic.

LONDON UNIVERSITY.—

University College.—Entrance Scholarships: See under London Inter-Collegiate Scholarships Board. Slade Scholarships (£35 for two years): A. W. F. Norris and F. C. Britton.

MARLBOROUGH.—Scholarships—Senior Classical: (1) J. F. Huntington, Middle v.; (2) J. L. Bulmer, Lower v. i.; (3) J. B. Kirkpatrick, Lower v. i.; hon. mentioned, A. Wedgwood, Middle v. Ireland Scholarship—D. E. Hodge, Lower v. i. Author's Scholarship—E. A. Pam and C. W. P. Jeppe, equal vi. Junior Classical—(1) A. J. Hopkinson (House Scholarship), Temple Grove, Eastbourne; (2) G. F. Squire, Cathedral Choir School, Oxford; (3) H. W. Roseveare, Ryde; (4) H. F. A. Turner, Matlock; (5) B. K. B. Hall, Exeter School; (6) C. H. Sorley, King's College Choir School, Cambridge; (7) R. J. Shackle, Shell a, Marlborough College. Modern School Senior—G. W. Bain, Mod. v. i. Modern School Junior—D. J. St. C. Mullaly, Mod. Upper i.; hon. mentioned, W. A. Kohn, Mod. v. i.

MERCHANT TAYLORS'.—Sir Thomas White Scholarships at St. John's College, Oxford: S. R. K. Gurner and D. G. A. Allen. Andrew Exhibition at St. John's College, Oxford: R. H. A. Newsome. School Exhibition for Hebrew and Divinity: K. M. Robathan. Parkin Exhibition for best Mathematician leaving for Cambridge: C. G. B. Stevens. Richard Hilles Exhibition for Mathematics: V. T. Ellwood. School Tercentenary Scholarship: G. L. Prestige.

OXFORD UNIVERSITY.—Gladstone Memorial Prize: M. L. R. Beaven, scholar of Exeter. Rolleston Memorial Prize: Cecil Clifford Dobell, B.A., Trinity College, Cambridge. Honourably mentioned: W. K. Spencer, B.A., and Charles H. G. Martin, B.A., both of Magdalen College. English Poem on a Sacred Subject: St. John W. L. Lucas, M.A., University College. Abbott Scholarship: Alan H. M. Salmon, Exhibitioner Elect of Worcester. Hertford Scholarship: Patrick H. Shaw Stewart, scholar of Balliol. *Proxime accessit*, Druce R. Brandt, Exhibitioner of Balliol. Highly distinguished: John D. Denniston, scholar of New College. Honourably mentioned: Eric A. Barber,

scholar of New College; Lionel G. M. Glover, scholar of Trinity; and Roderick McKenzie, scholar of Trinity.

Exeter.—Open Scholarship in Classics: George Leicester Marriott, Denstone College. Exhibition in Classics: Eric Muncaster, King Edward's School, Birmingham, Michell Exhibition: Frederick B. Bedale, Exeter College (formerly of Weymouth College).

Jesus.—Research Fellowship, tenable three years: Mr. A. H. Church, M.A., Jesus.

RUGBY.—Entrance Scholarships—(1) T. S. Morris, from Friar's School, Bangor (Benn Scholar); (2) W. L. Bateson, from Lockers Park, Hemel Hempstead; (3) T. N. Ackroyd, Rugby School; (4) J. C. Dunkin, from Rottingdean, Brighton; (5) B. W. Lindsay, from Clevedon, Somerset; (6) I. F. L. Elliot, Rugby School; (7) R. T. F. D. Roberts, from Intermediate County School, Towyn; (8) K. K. Bonnerjee, from Bilton Grange, Rugby; (9) D. E. E. Richardson, from South Lodge, Lowestoft; (10) C. N. Solly, from Mostyn House, Parkgate, Chester; (11) M. O. Marshall, from St. Winifred's, Kenley.

TONBRIDGE.—Entrance Scholarships: the two new £100 Judd Scholarships for boys under fourteen: G. E. C. Cressy (from Mr. A. L. Bickmore, Tonbridge) and E. Hale (from Rev. C. R. Carter, Maidenhead). The under-fifteen Judd Scholarship: E. C. Wood (Foundation Scholar in the school).

### INTERNATIONAL MORAL EDUCATION CONGRESS.

THE preparations for holding the first International Moral Education Congress, which will meet in the University of London from the 25th to the 29th of September, are being actively carried forward. An appeal by the Hon. Treasurer (Lord Avebury) and the British Vice-Presidents includes the following statement:—

The Congress has an essentially practical object in view—that of improving the moral education offered in schools. To attain this object the organizers have appealed for support to educationists and to educational officials the world over. Almost all the educational leaders of Europe, without distinction of religion or party, and a large number of the highest educational officials in many countries, have responded to this appeal, and have welcomed the holding of the Congress. The accession of these administrators is of special importance, since only the co-operation of Governments can ensure the realization of the suggestions which may be expected from the conference.

This is the first of a proposed series of international congresses dealing with the problems of moral education. Accordingly, this Congress restricts itself in the main to a general survey of school problems from a moral point of view. Matters of school organization, of methods of training and teaching, of discipline, of direct and indirect moral instruction, of the relation of moral education to religious, intellectual, æsthetic, and physical education, will be discussed; and everything is being done to get the ablest specialists to read papers, most of which will afterwards appear in the report, and should supply invaluable data for the furtherance of moral education all over the world.

Donations, which are urgently needed, may be sent to Messrs. Roberts, Lubbock, & Co., 15 Lombard Street, E.C.; to the Hon. Treasurer, Lord Avebury; or to the General Secretary, Gustav Spiller, 13 Buckingham Street, Strand. Further information about the Congress will be gladly supplied by the General Secretary.

A comprehensive survey of the problem of Moral Education in schools will be exhibited in a series of short papers on the main points of practical interest. The lines of inquiry are generally indicated in the following "Questions," which have been widely circulated, and to which answers are requested by August 1:—

I.—*School and Home*.—(1) (a) What is being done in the educational establishment or establishments with which you are acquainted, and (b) what do you recommend being done, to bring about an effective co-operation between school and home? (2) To what extent is such co-operation necessary or useful? (3) What do you think are the relative advantages in this respect of boarding schools and day schools?

II.—*Discipline, Moral Training*.—(4) What is being done in the educational establishment or establishments with which you are acquainted, or what do you recommend being done, in the matter of (a) developing and respecting the individuality and the sensibilities of the child, (b) encouraging friendly rather than distant relations between teacher and child, and (c) emphasizing methods of suasion and effective organization rather than the infliction of punishments (more especially corporal punishments) and the distribution of rewards? (5) To what extent do you find corporal punishment resorted to, and what do you think are its moral effects? (6) What exactly do you find to be the effect on discipline and on moral training of sound methods of teaching, of the careful

preparation of teachers, of small classes, of a moderate demand only on teachers and pupils, of tasteful school decorations, and of school organization generally? (7) (a) What, outside the usual course, is being done, and (b) what do you recommend being done, by the educational establishment or establishments with which you are acquainted, to encourage the child in acting rightly (self-government of pupils, special tasks allotted to pupils, guilds of honour, &c.)? (8) Would you name about a dozen books which you consider specially suitable ethically for children in primary schools?

III.—*Moral Instruction, Direct and Indirect.*—(9) What is being done in the educational establishment or establishments with which you are acquainted in regard to separate and in regard to indirect moral instruction? (10) In giving direct moral instruction, what form do your lessons take? (11) What are your reasons for favouring (a) separate, (b) indirect, or (c) both separate and indirect moral instruction? (12) Within the educational establishment or establishments you know (a) is moral instruction definitely aimed at? (b) are there any ethical subjects, such as hygiene, temperance, purity, or kindness to animals singled out for special treatment? (c) is there a deliberate attempt to utilize for ethical purposes one or more subjects in the curriculum? (13) How far, within your knowledge, does the teaching of civics tend to develop high-minded citizens? (14) Do you think it important in our times for the school to communicate to the young a clear idea and a distinct ideal of life and duty, and if so, do you think that separate instruction in morals is necessary or unnecessary for this? State your reasons.

IV.—*School Habits, Personality of Teacher.*—(15) What is your opinion regarding the contention that school habits (attention, industry, punctuality, order, courtesy, &c.) always, as a rule, or often, become general and permanent habits, and are therefore powerful factors in moral education? (16) What is your opinion regarding the contention that the habits of thought and feeling acquired through the study of special subjects (mathematics, history, logic, &c.), always, as a rule, or often, become general and permanent habits of thought or feeling? (17) If you are doubtful as to the contentions in (15) and (16), do you think that, by applying special educational methods, (a) "school habits" and (b) limited habits of thought and feeling acquired in the study of special subjects, may be made to become general habits? (18) What value, from the point of view of the moral training of children, do you place on the personality of the head teacher and the assistant teacher? Do you think that the personality of those who teach may be developed, at least to some extent, in the training colleges for teachers?

V.—*Training Colleges, Continuation Schools, &c.*—(19) What part in moral education does and should the training college for teachers play? (20) Do the necessities of moral education demand that all teachers—primary, secondary, and University teachers—should pass through training colleges? (21) Is there any need, and, if so, what need, to prepare intending teachers in giving moral instruction? (22) (a) What is being done, and (b) what do you recommend being done, with regard to moral education in the polytechnic, commercial, or continuation school or schools with which you are acquainted?

VI.—*Universities.*—(23) (a) What is being done in the University or in the Universities with which you are acquainted, and (b) what do you recommend being done, to promote the growth of moral character and moral insight in the students?

Mrs. Bryant, D.Sc., Litt.D., is President of the Executive Committee, and Prof. J. W. Adamson, of King's College, London, is Vice-President.

## THE COLLEGE OF PRECEPTORS.

### MEETING OF THE COUNCIL.

A MEETING of the Council was held at the College, Bloomsbury Square, on June 20. Present: Mr. E. A. Butler (Vice-President), in the chair; Prof. Adams, Prof. Adamson, Dr. Armitage-Smith, Mr. Bain, Mr. Barlet, Rev. J. O. Bevan, Rev. J. B. Blomfield, Rev. A. W. Boulden, Mr. Brown, Mr. J. L. Butler, Mr. Easterbrook, Mr. Eve, Mr. Hawe, Mr. Kelland, Mr. Ladell, Dr. Maples, Dr. Marx, Mr. Milne, Miss Punnett, Mr. Rule, Mr. Rushbrooke, Mr. Starbuck, Rev. J. Stewart, and Mr. Storr.

The minutes of the last meeting were read and confirmed.

The Secretary reported that the number of entries for the Midsummer Certificate and Lower Forms Examinations was about 5,520.

The Diploma of Associate was granted to Mr. W. J. Nevins, who had satisfied the prescribed conditions.

It was resolved that the Council should recommend the General Meeting to make a contribution towards the expenses of the International Congress on Moral Education to take place in September next.

Professor Adams was appointed to deliver the Autumn Course of Lectures on the Practice of Teaching, to commence in October next.

Saturday, July 18, was fixed as the date of the next Ordinary General Meeting of the members of the College.

The representatives of the College presented a report of the proceedings of the Federal Council of Secondary School Associations.

The Examination Committee presented a Report recommending: (a) That no change be made in the existing regulations under which candidates at the Certificate Examinations are allowed to obtain Certificates of a lower class than that for which they are entered; (b) That a detailed syllabus of geography for the Third Class Examination be drawn up, to be co-ordinated with the syllabuses already published for the First and Second Class examinations; (c) That a letter be addressed to the Board of Education pointing out the inconvenience caused to heads of schools by the Board's Regulations for Secondary Schools with regard to the entry of pupils of such schools for external examinations.—The Report was adopted.

The By-Laws Committee presented a Report recommending the following alterations in Section V. of the By-Laws:—(a) That candidates to fill the places of the twelve members of the Council retiring by rotation at the end of any year should be nominated by individual members of the College, and that the Council as a body should not nominate unless the number nominated by individual members of the College should fall short of the required number. (b) That the length of notice of nomination should be shortened from 30 to 24 days before the election. (c) That when electing members of the Council members of the College should be allowed to vote for any number from 1 to 12. (d) That notice of amendments to propositions discussed at General Meetings should not be required, except in the case of propositions relating to By-Laws. The Committee submitted an amended form of Section V., which embodied the proposed alterations and which had been approved by Counsel as being in conformity with the provisions of the Charter, and they recommended that the Council should propose the amended form for adoption at the next General Meeting of the members of the College.—The Report was adopted.

The draft Report of the Council to the General Meeting was considered, and was referred to the President, Vice-Presidents, and Dean for final revision.

The following persons were elected members of the College:—

Mr. W. A. Newsome, B.A. Lond., 25 Brownswood Road, Finsbury Park, N.

Mr. J. S. Rathbone, A.C.P., 6 Springfield Road, Guildford.

The following books had been presented to the Library since the last meeting of the Council:—

By E. ARNOLD.—Arnold's Effective Arithmetics, Books I.—VI.; Arnold's Sesame Readers (5 Books); Arnold's Literary Reading Books (Chips from a Bookshelf); Foat's Grammatical English; Moore's Gryphius' Herr Peter Squenz; Renault's Petite Grammaire Française; Van der Heyden's Algebraic Examples, Books I. and II.; Weber's Scènes Infantines; Witton's Simplified Caesar, and Compendium Latinum.

By G. BELL & SONS.—English Odes, edited by E. A. J. Marsh.

By A. & C. BLACK.—Lyde's School Text-Book of Geography, and Child's Geography of England and Wales.

By the CAMBRIDGE UNIVERSITY PRESS.—Davies's Sophocles' Trachiniae; Smith's Chaucer's Prologue and Knight's Tale.

By MACMILLAN & CO.—Baker's Pensées, Maximes et Réflexions de Pascal, La Rochefoucauld and Vauvenargues, and Word- and Phrase-Book to the same; Fynes-Clinton's Molière's L'Avare, and Word- and Phrase-Book to the same.

By MARLBOROUGH & CO.—Marlborough's Self-Taught Series (Arabic, Danish, Dutch, Egyptian, French, German, Modern Greek, Hindustani, Hindustani Grammar, Italian, Japanese, Japanese Grammar, Norwegian, Portuguese, Russian, Spanish, Swedish, and Turkish); Marlborough's Series of Foreign Commercial Correspondence (French, German, Italian, and Spanish); Travellers' Practical Manual of Conversation in English, French, German, and Italian; Ahn's French Grammar; Camphuis's Rules of French Grammar at a Glance; De Beauvoisin's French Verbs at a Glance, and First Book of Les Aventures de Gil Blas; De Marney's Toujours Prêt; Dudevant's French Reader; Franck's German Letter-Writer; Hahn's Interlinear German Reading Book; Louis's Poésies de l'Enfance; Meissner's German Language; Standing and Thimm's French Technical Words and Phrases; Thimm and von Knoblauch's German Technical Words and Phrases.

By J. MURRAY.—Martin's Practical Arithmetic Examples, Part I.

By the OXFORD UNIVERSITY PRESS.—Cestre's Quintet's France et Allemagne.

By the INSTITUTE OF CHEMISTRY.—Register of Fellows, Associates, and Students, 1908; Official Chemical Appointments, 1908.

Calendar of the Cape of Good Hope University.

N.U.T. Report, 1908.

### PRACTICAL EXAMINATION FOR CERTIFICATES OF ABILITY TO TEACH.

The following is a list of successful candidates at the Examination held in May, 1908:—

Class I.

Abbott, Miss M. H.

Class II.

Hodson, C. T.

Digitized by Google

## MR. MURRAY'S LIST.

**READY IN JULY.**

**PRICE 2s. 6d.**

### Limen. A First Latin Book.

By W. C. FLAMSTEAD WALTERS, M.A., Professor of Classical Literature in King's College, London, and R. S. CONWAY, Litt.D., Professor of Latin in the University of Manchester.

*Extract from the Preface.*—"We have tried to provide the Grammatical Staple of a three or four years' Course for boys who begin Latin when they are about eleven years old; and also, if some of the exercises be omitted, a two years' Course for those who cannot begin till thirteen or fourteen. In either case we mean our *Limen* to mark what used to be called the Fourth Form Standard—in other words, to enable the average boy or girl in the average school to matriculate in any British University, so far as Latin is concerned; and to fit a bright boy or girl in a large school to begin a more specialized course of Classics. In order to make this possible, we have sacrificed a good deal of lumber—information, that is, relating to all that is abnormal and unusual in Accidence and Syntax, but we venture to hope that we have sacrificed nothing else."

By JOHN THOMPSON, M.A., Head Master of the High School, Dublin.

### An Elementary Greek Grammar for Schools.

Crown 8vo. Part I.—Accidence, 1s. 6d. Part II.—Syntax, 1s. 6d. Complete with indexes, 3s.

The object of the present book is to give in a form suitable for beginners the elements of Greek Grammar. Owing to the great importance of the appeal to the eye in the case of young students, special attention has been paid to the type and arrangement of the printed matter. Attic Greek only has been included, and the usages of poetry distinguished throughout from those of prose. Unnecessary and unusual forms have been left out, and the author has endeavoured to state all the requisite facts both of accidence and syntax in the clearest possible manner. At the same time advantage has been taken of the developments of modern scholarship, so that the work may be thoroughly up to date.

### Greek Grammar Accidence and Syntax for Schools and Colleges. 6s.

### A NEW SYSTEM IN CHEMISTRY TEACHING.

By J. B. RUSSELL, B.Sc. (Lond.),

Formerly Senior Science Master at the Grammar School, Burnley.

#### THE TEACHER'S BOOK.

### Notes on the Teaching of Elementary Chemistry.

With a Sequence of Experiments on Air and Combustion. 3s. 6d.

#### THE PUPIL'S BOOK.

### Notes on Elementary Chemistry.

For the Use of Schools.

In this book an attempt has been made to solve the chief difficulty a teacher of chemistry has to contend with, *i.e.*, that of a text-book forestalling the practical work. A filing arrangement is used instead of the ordinary method of binding, and each lesson is printed as a detachable Section, which should not be filed by the pupil until he has written his own record of the work done.

### The Service of the State.

Four Lectures on the Political Teaching of T. H. Green. By J. H. MUIRHEAD, LL.D., Professor of Philosophy in the University of Birmingham. 3s. 6d. net.

THE PROBLEM OF THE 'SEVENTIES—THE IDEA OF THE GOOD—THE STATE AS WILL AND IDEA—IDEALISM AND POLITICS.

## Murray's French Texts.

FOR UPPER AND MIDDLE FORMS.

Edited by W. G. HARTOG, B.A., Lecturer in French at University College, London; Oral Examiner to the London County Council and to the Army Qualifying Board.

NOW READY.

### La Mare au Diable.

Par GEORGE SAND. With Biography, Foot-notes, and Exercises. 1s. 6d.

### Confessions d'un Ouvrier.

Par ÉMILE SOUVESTRE. With Biography, Foot-notes, and Exercises. 1s. 6d.

This series will consist of selections from the masterpieces of nineteenth-century French authors. Each volume will contain: Notes (which are given *only* when necessary to clear up obscurity, and are printed at the bottom of the page); a series of questions upon the text; grammatical drill upon points which arise in the course of reading; suggestions for free composition, parsing, dictation, &c., and a biographical note (in simple French) descriptive of the career of the author.

JOHN MURRAY, Albemarle Street, W.

## J. & J. PATON,

Educational Agents,

143 CANNON STREET, LONDON, E.C.,

Telephone 5053 Central,

## PRINT PROSPECTUSES.

Specimens with estimate of cost sent free of charge.

## SUPPLY BLOCKS.

Finest Half-Tone Copper Blocks at reasonable prices.

## RECEIVE ADVERTISEMENTS

for the educational columns of all London, Provincial, Indian, Colonial, and Continental Papers. Estimates and advice as to most suitable Papers sent free of charge.

## RECOMMEND SCHOOLS.

Prospectuses filed and forwarded free of charge to Parents.

## Paton's List of Schools and Tutors.

PUBLISHED ANNUALLY.

AN AID TO PARENTS IN THE SELECTION OF SCHOOLS.

Specimen Copy forwarded free on receipt of application with copy of Prospectus.

**J. & J. PATON,**  
EDUCATIONAL AGENTS,

143 CANNON STREET, LONDON, E.C.

# CLERGY MUTUAL ASSURANCE SOCIETY,

2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

[FOUNDED 1829.

Patrons—THE ARCHBISHOP OF CANTERBURY; THE ARCHBISHOP OF YORK.  
 President—THE BISHOP OF LONDON. Vice-President—THE LORD HARRIS.  
 Chairman—THE DEAN OF CANTERBURY. Deputy-Chairman—SIR PAGET BOWMAN, BART.  
 Secretary—W. N. NEALE, Esq. Actuary and Manager—FRANK B. WYATT, Esq., F.I.A.

The Society offers the **BENEFITS** of **MUTUAL LIFE ASSURANCE** without personal liability on highly favourable terms to  
**THE CLERGY AND THEIR RELATIVES.**

**ALL PROFITS BELONG TO THE MEMBERS.**

Accumulated Fund, **£4,242,820.** Annual Income, **£453,897.**  
 Bonuses Distributed, **£4,256,464.**

**LOW PREMIUMS.** Notwithstanding the lowness of the Premiums charged, the **BONUSES** are on an **EXCEPTIONALLY HIGH SCALE.**

**NEW AND SPECIAL POLICIES.** Application is invited for the **PRO-SPECTUS**, and Leaflets explaining two new Policies, with valuable Options.

**1. WHOLE-LIFE CONVERTIBLE ASSURANCES.** Very Low Premium—about one-half the usual rate—during first ten years.

**2. PENSION POLICIES.** Premiums returnable with compound interest in case of death or surrender before pension age. Option to commute for cash.

Assurances without profits, at low rates of premium, may be effected, and Life Annuities on favourable terms may be purchased, by any person irrespective of any special qualification by relationship to the Clergy.

**SPECIMEN OF RATES FOR £1,000, WITH PROFITS.**

Age next Birthday.	£1,000 Payable at Death.			£1,000 Payable at Age 60 or earlier Death.		
	£.	s.	d.	£.	s.	d.
25	20	1	8	27	3	4
30	23	3	4	32	10	10
35	26	10	0	40	1	8
40	31	1	8	51	5	0

**NOTE.**—Under the Reduced Premium System (explained in Prospectus) four-fifths only of these Premiums need be paid, the other one-fifth remaining a charge to be repaid out of Bonus.

No Agents employed and no Commission paid for the introduction of business, whereby **£10,000** a year is saved to the Members.

Assurances can be effected by direct communication with the Office, 2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

Messrs. **BLACKIE & SON, Ltd.**, desire to draw special attention to the following important text-book which they have just issued.

*The most recent Observations and Conclusions of Scientific Geographers.*

## **GEOGRAPHY** STRUCTURAL; PHYSICAL; COMPARATIVE.

A TEXT-BOOK FOR SENIOR STUDENTS.

By **J. W. GREGORY, D.Sc., F.R.S.**, Professor of Geology in Glasgow University.

With an Entirely new series of **COLOURED MAPS.** Large 8vo. Price 6s. net.

**T**HE main purpose of this book is, as Professor Gregory states in his preface, to put before the student "the most important facts concerning the Structural Geography of the Earth, and the evolution of our present continents from older lands."

This text-book marks a new departure both in aims and in method. It furnishes the student with such knowledge of the entire surface of the Earth as will ensure his acquisition of the desired sense of "geographical perspective." It keeps constantly before him the "Conception of the Surface of the Earth as the product of interacting physical forces," and so compels him to regard it intelligently as, naturally, "the scene of social activities." While avoiding a detailed and therefore too lengthy discussion of the facts on which they are based, it places before the reader the most recent observations and conclusions of scientific geographers, the data supplied by the most recent explorations and discoveries, and the conclusions to be drawn therefrom. These are put before the reader with the simplicity, clearness, and effectiveness which might be expected from a teacher of Professor Gregory's eminence.

The book is furnished with a very large number of **Illustrations** specially drawn to make clear the meaning of the terms used in it and of the theories propounded. It is furnished also with no less than forty pages of **coloured maps**, many of them of a kind not hitherto to be found in text-books of Geography.

**Write for full particulars to BLACKIE & SON, Ltd., 50 OLD BAILEY, E.C.**

# A SELECT LIST OF BOOKS

FOR

## SECONDARY SCHOOLS.

### **The School Arithmetic.**

An Edition of the *Tutorial Arithmetic* for School use. By W. P. WORKMAN, M.A., B.Sc., Head Master of Kingswood School. 3s. 6d.

"The best arithmetic for schools on the market."—*Mathematical Gazette*.

### **Geometry, Theoretical and Practical.**

By W. P. WORKMAN, M.A., B.Sc., and A. G. CRACKNELL, M.A., B.Sc. Part I.—Contains the matter of Euclid, I., III. (1-34), IV. (1-9). With or without Answers. 2s. 6d.

Part II.—(Euclid, II., III. 35-37, IV. 10-16, VI.) 2s.

"One of the best books on modern lines."—*Oxford Magazine*.

### **Plant Biology.**

By F. CAVERS, D.Sc., F.L.S., A.R.C.S., Professor of Biology at the Hartley University College, Southampton. 3s. 6d.

"The very best of the multitudinous works of this class that have passed through our hands."—*Guardian*.

### **Life Histories of Common Plants.**

By F. CAVERS, D.Sc., F.L.S., A.R.C.S., Professor of Biology at the Hartley University College, Southampton. 3s. [In the Press]

A book for beginners, containing a simple account of the laws of Plant Life and of Common British Plants.

### **The New Matriculation Heat. The New Matriculation Light. The New Matriculation Sound.**

By R. W. STEWART, D.Sc. 2s. 6d. each volume.

These volumes provide a complete school course of co-ordinated theoretical and practical work in Elementary Heat, Light, and Sound.

### **Magnetism and Electricity, The School.**

By R. H. JUDE, M.A., D.Sc. 3s. 6d.

"A useful text-book, that seems much sounder as regards fundamental conceptions than most elementary works on electricity."—*Oxford Magazine*.

### **An Introductory Course of Chemistry.**

By H. W. BAUSOR, M.A. 2s. 6d.

A text-book for beginners written on modern lines.

### **Groundwork of English History.**

By M. E. CARTER, Somerville College, Oxford, First Class Honours in Modern History. 2s.

Contains the salient facts of English History. It is specially suitable as a first text-book of history following after the historical primer.

### **The Matriculation English Course.**

By W. H. LOW, M.A., and JOHN BRIGGS, M.A., F.Z.S. 3s. 6d.

"The matter is clearly arranged, concisely and intelligently put, and marked by accurate scholarship and common sense."—*Guardian*.

### **An Anthology of English Verse.**

With Introduction and Glossary. By A. J. WYATT, M.A., and S. E. GOGGIN, B.A. 2s.

"Thoroughly representative of all that is best in English verse. The introduction is a masterpiece."—*Educational News*.

### **The Matriculation French Course.**

By ERNEST WKEKLY, M.A. *Third Edition, Enlarged*. 3s. 6d.

This book, though written primarily to meet the requirements of London University Matriculation Examination in French, is generally suitable as a school text-book, and as such has met with a wide adoption.

### **The Tutorial Latin Grammar.**

By B. J. HAYES, M.A., and W. F. MASOM, M.A. *Fourth Edition*. 3s. 6d.

"Sensible, correct, and well arranged."—*Journal of Education*.

*Complete Catalogue of the University Tutorial Series, and Lists of Books for Oxford and Cambridge Locals, College of Preceptors, and London University Examinations, post free on application.*

University Tutorial Press, Ltd.,

W. B. CLIVE, 157 Drury Lane, London, W.C.

## ADVERTISEMENT SCALE

Whole Page—Ordinary	£4 10 0	.....	Position	£5 10 0
Half Page	" 2 10 0	.....	"	3 0 0
Quarter Page	" 1 10 0	.....	"	1 15 0
Per inch in broad column (half width of page)	...		"	0 7 0
Narrow Column (one-third page)	.....		"	2 0 0

General Scholastic Advertisements (Colleges, Schools, Classes, Tuition, &c.), 3s. 6d. for 6 lines, or 4s. 6d. the inch.

Situations Vacant and Wanted—30 words or under, 2s.; each additional 10 words, 6d. (For 1s. extra, Replies may be addressed to the Publishing Office, and will be forwarded post free.)

## CURRENT EVENTS.

**Fixtures.** THE Half-yearly General Meeting of the members of the College of Preceptors will take place on Saturday, July 18.

THE Assembly of the College Faculties in the University of London, University College, will be held July 2 at 3 p.m., when the Dean of the Faculty of Arts (Prof. A. F. Pollard) will report on the work of the session, and the results of the University, Scholarship, and Class Examinations will be announced. Scholars and Medallists will be presented to the Right Hon. Sir Edward Fry, F.R.S., Fellow of the College, who will deliver an address.

At the North London Collegiate School for Girls the Prizes will be distributed on July 3, at 3.30 p.m., by Mrs. H. Montagu Butler, the Master of Trinity in the chair.

A FREE public Exhibition will be held on July 3 and 4 at the L.C.C. Central School of Arts and Crafts, Southampton Row, W.C., of selected works submitted by candidates in connexion with the art scholarships and exhibitions awarded by the London County Council. Tickets of admission on application to the Executive Officer, Education Offices (Room 165), Victoria Embankment, W.C.

THE Autumn Meetings of the Incorporated Association of Assistant Masters in Secondary Schools will be held on September 9 and 10 at the Mathematical School, Rochester.

THE University of Montpellier has organized "un véritable semestre d'études que les étrangers pourront faire dans les meilleures conditions de profit et d'agrément"—November 3 to March 15. Three series of courses: (1) Enseignement pratique du français; (2) Étude historique du français et des langues romaines; (3) Cours généraux—les mœurs et la société françaises, histoire et géographie de la France, &c. Particulars from M. le Professeur Coulet, 39 Boulevard des Arceaux, Montpellier.

A VACATION COURSE "zur Ausbildung in der deutschen Sprache und Literatur" will be held at the Kantonschule, Zug (Switzerland), August 3-29. Particulars from Prof. J. Hug, Zug.

THE University of Oxford has conferred the following honorary degrees:—

D.C.L.: H.H. Maharaja Sir Chandra Shum Shere Jung Bahadur Ranas, G.C.S.I., Prime Minister of Nepal; Right Hon. Lloyd-George, Chancellor of the Exchequer; Right Hon. Sir Ernest M. Satow, G.C.M.G., LL.D. Cantab., late British Minister in Pekin; Right Hon. Charles Stuart Parker, M.A., Hon. Fellow of University College; Sir Robert Hart, Bart., G.C.M.G., late Inspector-General of Customs in China.

D.Litt.: Dr. Ulrich von Wilamowitz-Moellendorff, Professor of Classical Philology, Berlin University; Frederic Seebohm, LL.D. Edin., Litt.D. Cantab.; Benjamin Bickley Rogers, M.A., Hon. Fellow of Wadham College (translator of Aristophanes).

D.Sc.: Dr. F. Raymond, of the Hôpital de la Salpêtrière, Professor in the University of Paris; J. J. Harris Teall, M.A., F.R.S., Director of H.M. Geological Survey; James Ward, Sc.D. Cantab., Fellow of Trinity and Professor of Mental Philosophy in Cambridge University.

In a Convocation to be holden on July 1 it will be proposed to confer the honorary degree of D.D. upon the Archbishops of York and Melbourne, the Bishops of Durham, Winchester, Bristol, Ely, Lahore, and Carpentaria, and Bishop Montgomery; and the honorary degree of D.Litt. upon the Bishop of Calcutta, Metropolitan of India.

THE University of Oxford has, by decree of Convocation, conferred the degree of M.A. upon Mr. C. Frewen Jenkin, B.A., Trinity College, Cambridge, Fellow of New College, and Professor of Engineering Science in the University.

THE University of Cambridge has conferred the following honorary degrees:—

LL.D.: Right Hon. H. H. Asquith, D.C.L., K.C., M.P., Prime Minister; the Duke of Northumberland, K.G.; Right Hon. Earl of Halsbury, ex-Lord Chancellor; Admiral of the Fleet Sir J. A. Fisher, G.C.B., O.M., First Sea Lord of the Admiralty; Sir Hubert von Herkomer, C.V.O.; Dr. Ulrich von Wilamowitz-Moellendorf, Professor of Classical Philology, Berlin University.

Litt. D.: Sir James Henry Ramsay, Bart.; Mr. Rudyard Kipling.  
Sc.D.: Hon. C. A. Parsons, C.B., M.A.; Sir Andrew Noble, Bart., K.C.B.; Sir William Crookes; Prof. Horace Lamb, M.A., Manchester University; Prof. G. Liveing, M.A., Cambridge University; Mr. Alfred Marshall, M.A., late Professor of Political Economy, Cambridge University.

THE University of Durham has conferred the following honorary degrees:—

D.C.L.: The Duke of Devonshire, the Earl of Carlisle, Sir Herbert Maxwell, Sir Charles Elliot, the Archbishop of Melbourne, Prof. William James (Harvard), Mr. A. B. Kempe, Prof. Page, Mr. J. Redmayne Murray.

D.Sc.: Mr. Clement Stephenson, Prof. Weighton, Prof. Louis, M.A., Mr. H. S. Squance, Mr. K. C. Bayley.

THE University of Manchester has authorized Viscount Morley, on the occasion of his installation as Chancellor, to confer the following honorary degrees:—Litt.D.: Mr. A. J. Evans, Mr. Farrar, Prof. Bemont. D.Sc.: Prof. Baldwin Spencer, Emeritus Prof. Gamgee.

Manchester University has also conferred the honorary degree of M.A. upon Mr. William Burton (one of the foremost authorities on pottery); and the honorary degree of M.Sc. upon Mr. William Kirkby.

Prof. Boyd Dawkins has been appointed an honorary Professor of the University.

THE University of Liverpool proposes to confer the following honorary degrees:—

LL.D.: Sir John Brunner, Principal Macalister, and Prof. Vinogradoff.

D.Sc.: Dr. Francis Darwin and Prof. J. L. Todd.

D.Eng.: Hon. C. A. Parsons.

THE University of Sheffield has conferred the honorary degree of D.Litt. upon the Duke of Norfolk, and proposes to confer the degree of D.Sc. upon Prof. W. M. Hicks, the degree of Doctor of Engineering upon Prof. W. Ripper, and the degree of Doctor of Metallurgy upon Prof. J. O. Arnold.

THE University of Glasgow, on the occasion of the installation of Lord Rosebery as Chancellor, conferred the honorary degree of LL.D. upon the Duke of Argyll, the Earl of Elgin, and Lord Newlands.

THE University of St. Andrews has resolved to confer the honorary degree of LL.D. upon the Hon. Sir Joseph H. Carruthers, ex-Premier of New South Wales, on July 1.

PROF. MARSHALL, of Cambridge, has been elected a Corresponding Member of the French Academy of Moral and Political Sciences (Political Economy Section), in succession to the late Lord Goschen.

PROF. SIR GEORGE DARWIN (Cambridge) and Prof. E. B. Tylor (Oxford) have been elected Corresponding Members of the Austrian Academy of Sciences.

M. HENRI BECQUEREL (Paris), Dr. S. Weir Mitchell (Philadelphia), Prof. F. Helmert (Berlin), and Prof. S. Kitasato (Tokio) have been added to the foreign member list of the Royal Society.

THE following gentlemen have been elected to Fellowships at New College, Oxford, for seven years:—Dr. J. S. Haldane, re-elected; Mr. A. F. Welden and Mr. L. G. Wickham Legg, Lecturers of the College; Dr. H. P. Allen, Organist of the College; and Mr. G. L. Cheeseman, formerly scholar of the College.

MR. OWEN MORGAN EDWARDS, M.A., late Fellow and Lecturer in Modern History of the College, has been elected to an Honorary Fellowship at Lincoln College, Oxford.

MR. F. A. POTTS, M.A., has been elected to a Fellowship at Trinity Hall, Cambridge.

A MEDALLION of the late Mrs. Craigie (John Oliver Hobbes) will be unveiled (July 1) at University College, London, by Lord Curzon; and the Scholarship Fund will be presented to the College.

ENDOWMENTS AND BENEFACCTIONS. GONVILLE AND CAIUS COLLEGE, Cambridge, has established a new Corporate Fellowship, called the *Monro Fellowship*. Mr. Thomas B. Wood, M.A., Drapers' Professor of Agriculture, has been elected first *Monro Fellow*.

The College has also offered to the University of Cambridge £1,000 for the *Squire Law Library*; the sum to be called the *Charles Monro Fund*, and the annual income to be devoted to the purchase and binding of foreign books.

In memory of the late Mr. C. H. Monro, M.A., Fellow of Gonville and Caius and translator and editor of portions of Justinian's "*Digest*," who recently bequeathed a large sum to the College.

THE Drapers' Company have made a grant of £22,000 to Oxford University for a new *Electrical Laboratory*.

THROUGH the generosity of a prominent Manchester citizen and in order to encourage research requiring a knowledge of Russian, a travelling studentship, tenable for two years, is to be offered to students of the University of Manchester or of other Universities. The studentship will be of the value of £40 for the first year and of £125 for the second year, and residence in Russia will be a condition of the appointment.

A *Dreschfeld Memorial Entrance Scholarship in Medicine* (open to men and women) has been established in Manchester University. It will be of the value of £30, tenable for one year, and will be awarded on the results of the *Matriculation Examination* in July of each year, the *Joint Matriculation Board* being asked to report on the work of candidates.

MR. J. P. GRIFFITH, Rathmines Castle, Dublin, has given £100 towards the building fund of University College, Bangor.

MR. JACQUES BLUMENTHAL, Queen's House, Cheyne Walk,



Chelsea, has left £2,000 to the Royal Academy of Music, £3,000 to the Royal College of Music to found scholarships, and £500 to the Royal Normal College and Academy of Music, Norwood.

UNIVERSITY COLLEGE, Oxford, has received from the family and friends of the late Sir Edwin Arnold £625, to commemorate the name and work of Sir Edwin and to encourage the study of Oriental languages and literature. The election of a scholar will take place early in Michaelmas Term, the scholarship being awarded to a selected candidate for the Indian Civil Service.

MR. F. SEEBOHM has presented to the newly instituted Maitland Library of Legal and Social History (All Souls College, Oxford) a manuscript survey of the Honour of Denbigh, drawn up in 1335.

MR. PIERPONT MORGAN has given £500 to the funds of the World's Drawing Congress, in view of the large number of American teachers coming to attend it and of the importance of their exhibit.

A COMBINED examination for 23 medical Scholarships and entrance scholarships and exhibitions of an aggregate total value of about £1,500, tenable in the Faculties of Medical Sciences of University College, King's College, and in the medical schools of King's College Hospital, St. George's Hospital, Westminster Hospital, and the London School of Medicine for Women, will be held in London by the London Inter-Collegiate Scholarship Board on September 22 and following days. Full particulars and entry forms may be obtained on application to the Secretary of the Board, University College, Gower Street, W.C., or to the Dean (or secretaries) of the medical schools concerned.

Two Entrance Scholarships in Arts, and two in Science, £50 each, instituted by St. George's Hospital Medical School, London, and tenable by St. George's students at University College or at King's College, will be open to competition in September next.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL offers an Entrance Scholarship for University Students, £50 (Anatomy and Physiology)—examination, July 21 and 22; and two Entrance Scholarships in Science (Standard: Preliminary Science, London), £150 and £60—examination, July 27-29.

KING'S COLLEGE, London, offers two Worsley Scholarships (free tuition and £20 a year for five years) for the training of medical missionaries for India, in October. Conditions from the Secretary.

THE Royal Historical Society will award the Alexander Prize (Silver Medal) March 31, 1909. Candidates may select their own subject in European or English Colonial History, but must submit it to the Literary Director. Apply to the Hon. Sec., 7 South Square, Gray's Inn, W.C.

SIR WALTER HILLIER, K.C.M.G., Professor of Chinese, King's College, London, and formerly British Consul-General in Korea, has been appointed Adviser to the Chinese Government.

DR. B. P. GREENFELL, Fellow of Queen's College, has been appointed Extraordinary Professor of Papyrology in the

University of Oxford; and Dr. A. S. Hunt, his colleague in papyrus discovery, Lecturer in the same subject.

MR. SYDNEY C. COCKERELL has been appointed Director of the Fitzwilliam Museum, Cambridge University.

MR. WILLIAM BATESON, M.A., F.R.S., Fellow and Steward of St. John's College, Cambridge, and son of the late Master (Dr. Bateson), has been elected to the new Chair of Biology in Cambridge University.

MR. A. C. PIGOU, M.A., King's College, Girdlers' University Lecturer in Economics, has been elected to the Chair of Political Economy at Cambridge, in succession to Prof. Marshall, resigned.

PROF. LIVEING has resigned the Chair of Chemistry in the University of Cambridge, which he has held since 1861.

PROF. WESTLAKE has resigned the Chair of International Law in the University of Cambridge.

DR. FAIRBAIRN has resigned the Principalship of Mansfield College, Oxford, after twenty-three years' service.

DR. JAMES WILLIAMS, D.C.L. Oxon., Hon. LL.D. Yale, Sub-Rector of Lincoln College, has been elected to the new All Souls Readership in Roman Law in the University of Oxford.

DR. W. G. PROTHERO, Litt.D., LL.D., Hon. Fellow of King's College, Cambridge, Fellow of the British Academy, and editor of the *Quarterly Review*, has been appointed Creighton Lecturer in the University of London for 1908-9.

At the University of London, University College, Mr. H. Deans has been reappointed to lecture on "Railway Engineering"; Mr. A. T. Walmisley to lecture on "Waterways, Docks, and Maritime Engineering"; and Mr. W. N. Blair to lecture on "Roads, Street Paving, and Tramways," during next session; and Dr. C. Spearman has been reappointed Reader in Experimental Psychology.

MR. H. J. MACKINDER, M.A. Oxon., has resigned the Directorship of the London School of Economics and Political Science, which he has held since 1903.

At Liverpool University, Prof. Kuno Meyer has been appointed to the new Chair of Celtic, and Mr. F. P. Barnard, M.A., F.S.A., to the new Chair of Mediæval Archæology.

THROUGH the sudden and lamented death of Prof. William Cassie, M.A., Trinity College, Cambridge, hon. secretary to the Physical Society, the Chair of Physics in Holloway College is vacant.

MR. R. N. RUDMOSE BROWN, B.Sc. Aberd., has been appointed to the new Lectureship in Geography at Sheffield University.

Mr. Brown was on the staff of the Scottish Antarctic Expedition, and was recently engaged on a scientific investigation into the Burma pearl fisheries. He is the younger son of the late Dr. Robert Brown, the well known scientist and journalist (*Standard*).

At the Jews' College, London, Prof. Adolph Buckler, Assistant to the Principal, has been appointed Principal, in succession to Dr. Michael Friedländer, appointed Emeritus Principal; and the Rev. Samuel Daiches, Ph.D., Lecturer on the Bible, Talmud, and Shulchan Aruch.

DR. GERALD LEIGHTON, M.D., F.R.C.S., has been appointed Professor of Pathology and Bacteriology, and Dr. D. A. Farquharson, M.B., M.Ch., Professor of Physiology, in the Royal (Dick) Veterinary College, Edinburgh.

THE Professorship of English and Philosophy, Presidency College, Calcutta, has been rendered vacant by the sudden death of Prof. George Robertson Watt, M.A., a month after his arrival in India.

MR. F. S. DELMER, Principal Instructor in English, Kriegsakademie, Berlin, has been appointed Professor of English in the University of Berlin.

MR. FRANK MORLEY FLETCHER, Inspector of Schools of Art in the Southern district of England, has been appointed Director of the College of Art, Edinburgh.

MR. GEORGE LOWSON, M.A., B.Sc., LL.D., Rector of Stirling High School, has been elected President of the Educational Institute of Scotland.

MR. M. O. B. CASPARI, M.A. Oxon., Lecturer in Greek, Birmingham University, has been appointed University Reader in Ancient History at University College and Bedford College (University of London).

MR. V. A. MUNDELLA, Northern Polytechnic, London, has been appointed Principal of Sunderland Technical College.

THE REV. E. G. SEALE, M.A. T.C.D., assistant master, Highgate School, has been appointed Head Master of Cork Grammar School.

A HEAD MASTER (Graduate) is required for the Royal Latin School, Buckingham (£275 initial). Apply to Henry Small, Clerk to the Governors, Town Hall, Buckingham, by July 7.

THE REV. W. F. BURNSIDE, M.A. Cantab., assistant master, Cheltenham College, has been appointed Head Master of St. Edmund's School, Canterbury.

MR. J. H. SHARPE, B.A. Lond., Assistant Master, has been promoted Head Master, Simon Langton Schools, Canterbury.

MISS LATHAM has resigned the Principalship of St. Mary's College, Paddington.

MR. F. R. STODGON, M.A. Cantab., has been appointed Classical Master at Bromsgrove School.

#### Literary Items.

THE Association of Head Mistresses have thoroughly revised and brought up to date their instructive pamphlet on "The True Cost of Secondary Education for Girls." It is published by the Educational Supply Association (42 Holborn Viaduct, E.C.) at 3d. post free.

MESSRS. CASSELL publish Part I. of a new work, entitled "The Nature Book," to be completed in 24 fortnightly parts (7d. each). The scope of the work is comprehensive; the articles are written by experts in popular style; and the illustrations are numerous and excellent. The work will include a number of Rembrandt photogravures and a series of coloured plates from pictures by famous artists. An admirable beginning!

MESSRS. CONSTABLE announce for early publication a Life of "Dorothea Beale, of Cheltenham," by Mrs. Elizabeth Raikes.

MESSRS. A. & C. BLACK announce a new translation of Diego Histado de Mendoza's "Lazarillo de Tormes," by Sir Clements Markham, from the first edition (Burgos) in the Duke of Devonshire's private collection.

THE National Association of Head Teachers have adopted *The Teacher* as their official organ, so that *The Teacher* will henceforth incorporate *The Head Teacher*.

A COMPLETE series of moral lesson books, based on all the sections of the syllabus of the Moral Instruction League, are in active preparation and will shortly be published by Messrs. Nelson.

THE magnificent Christmas number of the *Australian Traveller* describes "Australia to-day, for the Immigrant and Tourist."

THE *World's Work* for June is mainly occupied by a capital description of the Franco-British Exhibition, with profuse and excellent illustrations. The Education Department, however, is rather sketchily dealt with.

THE first and second numbers of the "Paedagogisch Tijdschrift voor het Christelijk Onderwijs" (Hilversum: G. M. Klemker) give good promise of usefulness.

OF the 511 degrees conferred by the New General York University at its seventy-sixth annual commencement, about 50 were taken by women. "Among these was a Portia, who was made a Master of Laws. Paradoxically, 11 learned young women became Bachelors of Laws."

PROF. KARNACK announced, at the Evangelical Social Congress at Dessau, where the reform of girls' education was much discussed, that, after next winter, girls will be allowed to matriculate at the Prussian Universities.

THE Directors of the Hungarian Exhibition (Earl's Court) have decided to allow children free admission when accompanied by adults. Special arrangements are made for schools.

MR. CLOUDESLEY BRERETON, Divisional Inspector to the L.C.C., has been invited as the foreign guest for the year to attend the Annual Congress at Cleveland of the National Education Association of America and to read a paper on "Vocational Education." It is estimated that the Congress will be attended by 50,000 educationists, representing all grades of education.

DR. VERA DANTSCHAKOFF, who figured at the latest Congress of the Anatomical Society in Berlin, has been officially recognized as a professor in Moscow University. She is said to be the first lady that has obtained an appointment as a University teacher in Russia.

"WE have lately become convinced," says President Eliot, of Harvard, "that accurate work with carpenters' tools, or violin, or pencil, trains well the same nerves and ganglia with which we do what is ordinarily called thinking."

"THE biggest battle of all the ages," says the *Western*

*Journal of Education* (San Francisco), "is the one just beginning against consumption. Waterloo, Gettysburg, Mukden are harmless kindergarten plays when compared with the carnage wrought every month by the foul fiend, Tuberculosis. The civilized world is getting together for a campaign against it—for it is preventable, preventable by those who have and use the proper knowledge. Now the scattering of knowledge is the special monopoly of us school teachers; wherefore it behooveth us to sit up and observe intelligently what the world is doing in this particular."

### THE TEACHERS' REGISTER.

In the House of Commons (June 17), Sir P. MAGNUS (London University), on behalf of Mr. Butcher (Cambridge University), asked the President of the Board of Education whether the Government proposed to give any compensation to those teachers who had expended time and money in qualifying for Column B of the Teachers' Register and were placed upon it before its abolition.

Mr. RUNCIMAN (Dewsbury): As the lines of the new Register for Teachers are not yet determined it would be premature for me to offer any opinion as to the proper course to adopt, in whatever respect, as regards teachers who have been registered on the Register which is already in existence, and which is not, I think, yet abolished.

Sir P. MAGNUS asked whether the funds arising from payments made for admission to the Teachers' Register were wholly expended on the maintenance of the Register. If not, in whose hands were these funds, and how was it proposed to deal with them.

Mr. RUNCIMAN: The balance, amounting to £2,971, was handed over by the late Council to the Board of Education. It would be premature to determine its further application until the new Council has been constituted.

Sir P. MAGNUS asked how the Board proposed to deal with the schools whose schemes required that the head master or assistant masters, or any of these, should have been placed on the Register.

Mr. RUNCIMAN: The requirement referred to has already been removed from 11 schemes and is in process of being removed from 67 others. Only 46 schemes remain in which the requirement exists, and in these it can easily be removed on application from the governors. Meanwhile, it is improbable that any inconvenience will be occasioned, especially as the point only arises on the change of the head master or the head mistress of the school.

### TEACHERS' REGISTRATION COUNCIL.

Questions stood in the names of Mr. Butcher, Sir P. Magnus, and Sir W. Anson (Oxford University), asking for the reasons of the delay in the constitution of the Teachers' Registration Council.

Mr. RUNCIMAN: I have nothing at present to add to the answer I gave on this point on June 1 last, except to say that the communication there referred to has not yet reached the Board of Education and that the Board are therefore not yet in a position to take the requisite steps, as then explained, towards deciding the questions relating to the representative nature of the Council as proposed by the deputation of certain educational bodies. Even if, as suggested in the question, the secondary and elementary teachers are agreed upon the subject, the Board have to bear in mind that the Council is required by the Act to be representative of the teaching profession, and not merely of teachers in elementary and in secondary schools. The representatives of the educational associations referred to were not agreed, on being asked the question, as to the particular methods by which the interests of teachers other than those in elementary schools and in secondary schools should properly be safeguarded in the constitution of the new Teachers' Registration Council. The Board are anxious to avoid any possible delay and are hoping to receive in a few days the communications from the representatives which the deputation promised would shortly be submitted.

Sir P. MAGNUS: Can the right hon. gentleman say what educational interests have not yet agreed to the constitution of the proposed Council? Have not the National Union of Teachers and the various educational associations representing head

masters of secondary schools, head mistresses, and assistant masters and mistresses, and the heads of private schools already agreed to the constitution of this Council?

Mr. RUNCIMAN: I pointed out in my reply that certain questions which were addressed to the deputation which waited on the Board in reference to the matter have not yet been answered, and these questions refer to teachers who do not come into the categories mentioned by the hon. gentleman.

Sir P. MAGNUS: Is the formation of this Council to be delayed until every teacher of swimming, or dancing, or music has agreed to its constitution?

Mr. RUNCIMAN: I do not know what justification the hon. gentleman has for sneering at teachers who are not secondary or elementary teachers in the technical sense of the word. It is perfectly obvious that the interests of the teachers engaged in technical education will have to be considered.

Sir W. ANSON asked what were the terms of engagement of the Registrar and other officers of the Registration Council under the Order in Council of March, 1902; and whether any, and what, provision was being made for those officials who, after several years' service, were thrown out of employment in consequence of the dissolution of the Registration Council on March 31, 1908.

Mr. RUNCIMAN: The agreement between the Teachers' Registration Council and the Registrar provided, *inter alia*, that the engagement should be terminable by either party on giving six calendar months' notice in writing. The agreements with the remainder of the staff of the Council provided for three months' notice. The officers of the Council were not in the service of the Board, and I cannot, therefore, admit that any responsibility, direct or indirect, rests upon the Board of finding them further employment. The Board have, however, been able to offer two of the clerks some temporary employment in the office, and it is possible that they may be able to utilize the services of another of the Council's officers from time to time in inspectorial work.

### CONFÉRENCES FRANÇAISES.

SOCIÉTÉ NATIONALE DES PROFESSEURS DE FRANÇAIS.

ALEXANDRE DUMAS FILS.

Par M. H. E. BERTHON.

LE 30 mai dernier, M. Berthon, professeur au "Taylorian Institute" d'Oxford, parlait, devant un auditoire nombreux et choisi, d'Alexandre Dumas fils comme auteur dramatique. M. Minssen occupait le fauteuil.

Et tout d'abord le conférencier s'étonne de la faillite à peu près complète du théâtre anglais depuis Shakespeare, et constate la remarquable renaissance dramatique qui se manifeste depuis une vingtaine d'années. Il ne saurait expliquer le premier phénomène ni en démêler les raisons, mais il est certain qu'après Shakespeare l'Angleterre s'est mise à l'école de la France. Sheridan s'inspire de Molière. Après lui vient une longue période où l'on ne s'inspire plus, mais où l'on imite, où l'on pille tout simplement. Puis à la renaissance, à la rénovation, ce n'est pas la tradition nationale que l'on suit, mais bien la tradition française. On ne développe plus la formule de Shakespeare, mais celle de Scribe, de Dumas, d'Augier, de Sardou. C'est là un fait curieux, presque incompréhensible. M. Berthon considère rapidement en quoi diffère la formule dramatique française de celle de Shakespeare, ce qui la rend plus pratique, plus à la portée de talents ordinaires, et conclut que la raison de son triomphe est dû à la *concentration*. Au lieu d'éparpiller l'intérêt dans un vaste tableau des époques ou des races, le drame français le concentre sur l'état d'âme des personnages, leur conscience, leur volonté. L'action en est ramassée sur un moment de leur vie, un problème de conscience, sur une crise morale qui demande une solution, sur une lutte. Ils ne sont plus les jouets des circonstances, ils sont les maîtres de leur destinée. Ils ne subissent pas la loi des événements, ils leur font la loi. Il y a donc triple lutte: contre les circonstances, contre une volonté hors de soi, contre soi-même; triple résultat: au dépens de la vie et de l'honneur (drame), de l'amour propre (comédie ou vaudeville). Mais, quel que soit le résultat, c'est la volonté au service de l'intelligence. Ce n'est plus lors un simple spectacle, un plaisir pour les yeux ou une caresse pour l'oreille, c'est un appel direct à l'intelligence et au cœur. C'est avant tout un théâtre d'idées, idées qui n'entravent ni effusion lyrique ni diffusion épique, et

qui frappent l'esprit non pas tant par des mots que par l'action. Telle est la formule autour de laquelle a évolué le théâtre français depuis Corneille, et qui aujourd'hui a triomphé partout en Europe.

➤ Au point de vue de la renaissance du théâtre anglais et de sa dette envers la France, trois auteurs dramatiques sont surtout à considérer : Dumas, Augier, Sardou. Le conférencier prend le premier, Dumas fils, non point pour donner un compte-rendu de ses pièces, mais bien un exposé de ses idées et de sa méthode; et pour leur compréhension il conseille la lecture de : 1° "Le Demi-monde," "La Question d'argent"; 2° "Denise," "Les Idées de Mme Aubray"; 3° "L'Etrangère," "La Femme de Claude," comme en marquant les périodes d'évolution.

Dumas nous fait cette déclaration : "Toute littérature qui n'a pas en vue la perfectibilité, la moralisation, l'idéal, l'utile en un mot, est une littérature malsaine, née morte." Voilà donc son but clairement, catégoriquement défini. Il croit, avec Rousseau et Mme de Staël, à la perfectibilité de l'homme; il croit que l'instrument de cette perfectibilité est la littérature; il va s'y employer de toutes ses forces, en indiquant les conditions et les moyens. Ce qui frappe chez lui c'est la part pour ainsi dire exclusive qu'il fait aux questions sociales entre les sexes. L'argent, la propriété, la question sociale proprement dite, ne sont pour lui que des problèmes de second ordre relativement au premier qui lui semble toujours plus universel, plus menaçant, primant tous les autres et duquel ils dépendent. Pour résoudre la question il s'en prend d'abord aux lois, faites seulement pour les forts; aux mœurs, plus cruelles encore. Voilà le mal. Quel sera le remède? L'intervention de la loi en faveur des faibles, négligeant peut-être trop, dans sa confiance en l'efficacité des lois, la réforme du cœur humain. Dumas a obtenu la loi sur la divorce. La société en est-elle devenue meilleure? La passion reste éternelle, et aucun article du Code ne met à l'abri de ses ravages. Et puis ses héros sont des oisifs, et partout son milieu exclusif. On lui en a fait un reproche, reproche dont le conférencier montre le bien-fondé. Ses personnages sont toujours les mêmes et ne donnent qu'une faible idée de la variété humaine. On peut presque les compter, et le conférencier les analyse, tant hommes que femmes. En somme, son univers est spécial et restreint, et il semble avoir un peu pris la partie pour le tout. En outre, ses personnages, êtres de chair et de sang tout d'abord, ont fini par ne plus être que des abstractions, et Dumas, comme beaucoup d'autres artistes contemporains, a commencé par le réalisme et fini par le symbolisme. C'est lui qui a introduit le réalisme au théâtre; puis, à force d'observer les faits, il s'est trouvé obsédé par l'idée; et il arrive un moment où il ne demande plus à la vie qu'une confirmation de ses idées, à l'art un moyen pour les démontrer. C'est le système de la *pièce à thèse*. Certes, on ne peut pas toujours peindre ce qui est sans finir par songer à ce qui devrait être. Mais alors l'individualité disparaît. Il n'y a plus place pour la nature humaine. Ce ne sont plus les caractères qui préparent le dénouement, c'est le dénouement qui crée les caractères. Et si, comme il le dit, le dénouement est un total mathématique, les volontés humaines qui forment ce total ne sont plus que des chiffres, des symboles.

Telle est la triple évolution qui s'est faite chez Dumas : il a commencé par l'observation, continué par l'abstraction, fini par le symbolisme. Cet exemple n'est pas unique; c'est un signe des temps. Tels George Eliot, Flaubert, Zola. C'était hardi. Aussi s'est-il fait un beau tapage autour des pièces de Dumas. A force d'art, il est parvenu à les faire passer.

De nos jours la littérature s'enorgueillit d'une découverte, celle de la charité chrétienne. Mme Aubray la faisait présager avant que les leçons de l'Évangile, traduites du russe et du suédois, nous aient mis sur la voie. Et l'on se refusait à trouver dans Dumas, auteur réputé immoral, la charité, la pitié, le pardon, jusqu'à ce que Lemaître nous eût démontré que toutes ces beautés existaient depuis longtemps dans ses ouvrages. Certes on ne peut lui rapporter tout le développement de la pensée contemporaine, mais il faut lui rendre cette justice qu'il y a eu sa grande part. Et puis, par un côté surtout, il est bien dans la note de notre génie national. Il a pour lui son mérite dramatique, car même alors que le moraliste se trompe, l'homme de théâtre subsiste. Il nous tient jusqu'au bout frémissants et enchaînés. Pourquoi? parce que c'est de volontés que vit le théâtre, et que précisément celui de Dumas débordait de volonté. Il a foi dans ses idées, et il fait passer en nous sa conviction. Ses personnages vont droit à leurs fins. C'est là sa force. Il ne laisse jamais oublier le drame à travers la théorie. Et ce mélange de profondeur dans le fond et d'habileté dans la forme en font un des auteurs les plus puissants du XIX<sup>e</sup> siècle.

## THE FRANCO-BRITISH EXHIBITION.

### THE EDUCATIONAL SECTION.

WHAT the Educational Section of the Franco-British Exhibition has done (says the *Morning Post*) is to bring together into manageable compass types of the best work which is being done by different bodies and institutions in different parts of Great Britain and to link them to one another in such a way that the visitor can judge each in relation to the system of which it forms a part, and is inspired by a sense of the value both of unity in the objects aimed at and of variety in the methods taken to attain them. The plan of the exhibition is to give selected specimens of the work done by a large number of different Educational Authorities, and to allow all the educational activities of certain others to appear in a continuous series. At one end of the room are the exhibits sent in by the great public schools, and by Oxford and Cambridge, comprising things new and old, photographs of buildings, facsimiles of charters, and publications of the University Presses. They are interesting and picturesque, but one must look somewhere else for signs of the straining for development and the ferment of ideas. The right hand of the room, which is bisected by a gangway running down the centre, is largely occupied with the exhibits from Manchester and London, the left with those from Scotland, Essex, and Warwick, while the lower half of the room contains specimens of the work of a large number of different authorities which are not represented in such great detail.

Of the larger exhibits the most remarkable is that of Manchester, which includes types of every educational activity of the city, elementary and higher elementary schools, secondary and evening schools, schools of art and technology, institutions for training teachers, and the University. The curious can visualize "the educational ladder" as it exists to-day in one of the greatest municipalities by inspecting the exceedingly interesting chart of educational facilities offered by Manchester. This diagram is one of several. Indeed, one of the merits of the exhibition is that it does not simply offer a text, but supplies a commentary as well. A good example is offered by the elaborate educational statistics which supplement and interpret the charts on the end wall of the hall. The figures of children attending elementary and public secondary schools have long been easily accessible. But the same is not true of the students at technical and agricultural colleges, endowed secondary schools, and the Universities. Until these figures were got out by the Committee controlling the Educational Section of the Exhibition we really had no material for knowing how Great Britain compared with other countries in the matter of, say, University education, and the time and trouble spent in extracting them have produced a really valuable result. From the few authorities whose activities are represented *in extenso* one naturally turns to examine particular exhibits. They are well set out on screens and tables, but as they are designed to explain the work done in about a hundred and sixty different institutions, and are representative of every grade and variety of education, it is difficult to do full justice to any one group. The collection which is most easily appreciated is, perhaps, that which represents the work done by typical technical schools, for the organization of which the Council of the Association of Technical Institutions was largely responsible. Weaving from Lancashire, engineering work from Birmingham, boots and shoes from Northamptonshire, and some beautiful metallurgical work from Sheffield are a few of the exhibits which attract immediate attention.

Near to these comes the arts and crafts group, which gives examples of manual training as it is carried on in the elementary school, with the object not so much of giving practical industrial training as of stimulating the brain through the hand. Then there are the very interesting screens, showing what is, perhaps, the most pregnant development of the last thirty years, the work done by public schools and colleges for girls. Nor is the medical side of education overlooked. Scotch Authorities, in particular, have recently been to the fore in seeking to lay for elementary education a firm foundation of general health, and Govan and Glasgow are conspicuous—the one with its school baths, the other with an elaborate investigation into the effect of housing conditions upon the physical growth and mental capacity of children, which shows that their weight and stature varies very closely with the number of rooms inhabited by their families and the extent to which overcrowding does or does not prevail. Bradford has sent a record of the very important experiments carried out by it with a view to ascertaining the exact effect of

underfeeding in retarding the "educability" of children—experiments which have already been described in these columns and which prove beyond a doubt (will other Education Authorities please note?) that there is, in the case of the poorest children, a wide margin of potential capacity which judicious medical aid can call into activity.

It is proposed to organize a visit of French school children and teachers for one week to the Franco-British Exhibition. In the British Education Section there will be one week during the month of July called the "Children's Week," when French and British children will take part in daily educational exercises, separately and jointly, according to a programme to be arranged for each day. These exercises will comprise—(1) Illustration of oral teaching in French and British schools by question and answer in subjects with which the children are familiar; recitations; geography of France and the British Isles; freehand drawing and such subjects as the teachers may select, in which the children will have to say or do something, the object being to show the mental faculties in activity. (2) Physical exercises in the grounds and gardens of the British Education Section laid out especially for the purpose. These exercises will illustrate the training of the bodily powers, and will comprise drill, gymnastics, and games in which the French and British children may jointly take part, as well as those exercises typical of the customs of either country. (3) To illustrate the history of both countries, for educational purposes, there will be *tableaux vivants*, representing certain events of the greatest historical value. (4) As a grand finale, a *tableau vivant* formed by French and British children combined will be displayed to symbolize the glory of peace and goodwill among the nations, and especially of the "Entente Cordiale." One feature of the symbolic group will be the delivery by a child of each nation of poems especially composed for the purpose in French and in English.

**MODERN LANGUAGES IN SECONDARY SCHOOLS.**

A REPORT recently issued by the Modern Language Association on the conditions of modern language instruction in secondary schools (says the *Morning Post*) furnishes a valuable account of the difficulties which militate against efficiency in a branch of education which is of ever-increasing importance. The report is based upon returns of 119 schools, which represent over 16,500 pupils, and which are drawn, with scarcely a dozen exceptions, from secondary local schools, grammar schools, county schools, intermediate schools, high schools, and municipal schools. Within these very comprehensive limits, therefore, it must be taken as containing information which is of a truly representative character, and as giving a bird's-eye view of the conditions of modern language teaching in four-fifths of the English secondary schools. The only modern languages of which it takes account are French and German, which alone, if the Welsh taught in the schools of the Principality be omitted, have a recognized place in the curriculum. The relative importance attached to each of these two subjects is shown by the following table, which proves the excessive and, as some will think, lamentable preponderance of French over German:—

Schools.	Number.	Pupils taught	
		French.	German.
Boys .....	52	6,782	1,862
Girls .....	40	5,291	765
Mixed ...	27	4,595	597
Total .....	119	16,668	3,224

**UNFORTUNATE POSITION OF GERMAN.**

It is no doubt easier to obtain French teachers than it is to obtain German teachers, and, difficulties of pronunciation apart, a child, particularly if he has worked at Latin, usually finds that French, at any rate in its earlier stages, is more easily grasped than German. Most boys who are learning both languages simultaneously could read La Fontaine's "Fables" with comparative fluency long before they could stumble through two sentences of Grimm's "Märchen." But it is none the less unfortunate that German should occupy the place of Cinderella in modern language teaching. The genius of the language, and particularly of its poetry, has such an affinity with that of England; the commercial relationships between the two countries are so close; the interest, sometimes almost the suspicious interest, taken by Germans in English institutions is, despite the "Entente," so

much more genuine than that of France, that it is a matter of urgent importance that the rising generation in this country should understand Germany through the medium of the German language and of the German mind. In the class of boys' school represented in this report which is typical of the majority of English schools, French and Latin are taught first, German and Greek being sometimes added later, and often only as alternatives. In the girls' and mixed schools French comes first and Latin second, while German receives a disproportionately small share of attention, and Greek is quite exceptional. In short, French is throughout the predominant language, and in a few cases the only language taught. Latin comes second, and German and Greek third in somewhat singular juxtaposition. In view of the part which Latin has played in building up European institutions, it may be wise to prefer Cicero to Demosthenes, but one wonders what Matthew Arnold would have thought of postponing Goethe to Racine.

**THE CURSE OF ECONOMY.**

But, while all modern language teaching is hampered by such great difficulties as at present, it seems almost an irreverence to criticize the precise place which different languages are given in the school curriculum. The principal disadvantage under which the teaching of all of them labours is the inadequacy of the financial provision which is made for them, and which results in preposterously large classes, in underpaid and overworked staffs, in insufficient classroom accommodation, and in the continued use of old-fashioned books and apparatus. It is obvious that in modern languages, above all other subjects, in which, unlike the classical subjects (long since Anglicized beyond recognition), accuracy of pronunciation is one of the objects to be aimed at, beginners' classes should in all cases be small in order to make possible the concentration of the teacher's attention on individual students. Yet at present the vast majority of classes are far too large to admit of sufficient linguistic instruction. Nearly a quarter of them contain more than twenty-five pupils, nearly half of these contain more than thirty, and some contain as many as fifty. The position of the teacher is almost equally unsatisfactory. The salaries of assistant modern language teachers have tended to rise owing to the increasing demand for persons qualified to teach by the so-called "Reform method," and there has been an accompanying though not corresponding rise in the standard of qualification. But, though the salary is less inadequate than it was, it is still not much more than that of the better-paid artisan, and, above all, there is the all-important fact that, except in special cases, the position of an assistant teacher, as such, offers no prospect of a permanent livelihood. As only a small minority of assistant teachers can become head masters this is a serious consideration, with which only a few authorities like the London County Council have found courage to deal. The following table of the average salary of a modern language teacher, which assumes a non-resident basis, and which leaves out of account the great public boarding schools, shows how serious the situation is:

	Initial salaries of		L.C.C.
	Assistant Masters.	Assistant Mistresses.	
Highly qualified .....	£160	£110	Assistant masters £150, rising to £300.
Well qualified.....	£125	£90	Assistant mistresses £120, rising to £220.
Minimum qualifications	£80	£80	—

Moreover, owing again to want of money, the hours are so long as to impose an excessive strain upon the teacher and to leave him no time for study out of school hours. Scholastic agents place the average hours for school work alone among modern language teachers at 26 per week, a system of organized overwork which appears monstrous when placed side by side with the practice of the French secondary schools, where the maximum hours of class work in the *lycées* is at present 17, and in the *collèges* 18. The result is that in England the unfortunate teacher is exhausted by the routine of instruction, and has no time to refresh his mind or to keep abreast with the work that is being done on the subject. It should be the object of reformers to aim at a maximum of not more than 20 hours' teaching per week. Twenty-six hours may not have been excessive under the old regime, but with the introduction of improved methods of teaching they impose an intolerable strain. Our methods have outrun our organization, and the results are often disastrous to the health of the teacher, and consequently to the efficiency of the

instruction in modern languages which he gives. It is surely time that the law intervened to protect assistant teachers by giving them a definite status and prospects, and that the Board of Education used its influence to induce the governors of secondary schools to realize that a competent teacher is a very valuable and delicate machine, which depreciates rapidly unless it is handled with sympathy and consideration.

## REVIEWS.

### "MYTHISTORIA."

*Thucydides Mythistoricus.* By Francis Macdonald Cornford, Fellow and Lecturer of Trinity College, Cambridge. (10s. 6d. net. Edward Arnold.)

By "mythistoria" Mr. Cornford means "history cast in a mould of conception, whether artistic or philosophic, which, long before the work was even contemplated, was already wrought into the very structure of the author's mind." What history, as distinguished from mere annals, can escape the definition? How can the historian step out of his environment when he takes his pen in hand? The term, however, is probably to be regarded less in general application than in special reference to Thucydides. Thucydides had the scientific mind, no doubt, and what he expressly addressed himself to do was to record the events of the Peloponnesian War and the gist of the speeches on the opposing sides—observed actions and alleged motives (official)—with the greatest possible accuracy of investigation, expressly excluding "the mythical" even at the risk of dullness. Mr. Cornford is probably right in taking the sense of "the mythical" as used by Thucydides to be chiefly "inventive embellishment," such as Herodotus employed. He also points out that Thucydides tacitly repudiates the popular superstition and dogmatic philosophy of the day. But there was one thing that Thucydides did not guard against, because he was not aware of it—for it "was the framework of his own thought, not one among the objects of reflection," "a residuum wrought into the substance of his mind and ineradicable because unperceived"—namely, "his philosophy of human nature, as it is set forth in the speech of Diodotus, a theory of the passions and of their working which carried with it a principle of dramatic construction," which transformed his reasoned purpose. Between his first sentence and his last Thucydides had many years in which to modify his original design; and, while he started with the deliberate intention of avoiding "the mythical," Mr. Cornford finds that he ended, without knowing it, as "Mythistoricus." It will be noted that Mr. Cornford in no way impeaches the trustworthiness of Thucydides: his view is "quite consistent with the literal truth of every statement of fact in the whole of his work." His object is to bring into relief an essentially artistic aspect of the work of Thucydides—to show how it came about "that even his vigilant precaution allowed a certain traditional mode of thought, characteristic of the Athenian mind, to shape the mass of facts, which was to have been shapeless, so that the work of science came to be a work of art."

The First Part of the volume—say three-tenths of the whole—deals with Thucydides as "Historicus," discussing the causes of the war and examining Thucydides' conception of history. Thucydides does not provide either party with a sufficient motive for fighting; and Mr. Cornford rejects as inadequate the current views that war (1) was promoted by Pericles from personal motives, (2) was racial, or (3) was political. He agrees with Thucydides that the war was forced upon the Spartans. But Pericles had no reason to desire war: why then did he go to war? Because the anti-Megarian policy was forced upon him by his commercial supporters in the Piræus. The whole of this argument is worked out with conspicuous ability. In the examination of Thucydides' conception of history and in the contention that it stands in striking contrast with the modern conception there are weighty elements of truth; but the distinction between "causes" and "grievances" (*aitiai*), and the psychological argument supervening, seem to us to be over-driven, under the influence of the main thesis of the volume.

The Second Part considers Thucydides as "Mythicus," and deals with the element of artistic unity not accounted for by the original design. There is first the stroke of "luck" at Pylos, certainly a remarkable combination of unexpected circumstances, though not without parallel in military history. But, if the occupation was really designed, why does Thucydides convey the impression of sheer luck? He is not moralizing, he is not

actuated by malignity to Athens or to Demosthenes or any other individual: "he really saw an *agency* called 'Fortune' at work"—he is illustrating the contrast of human foresight (*γνώμη*) and non-human Fortune (*τύχη*): he has gone over to "the mythical." Again, as to Cleon, "it is evident that the historian saw him, not purely, or even primarily, as an historic person, but as a type of character"—"an impersonation of insolent Violence and Covetousness." Cleon is "dramatized"; and "we have left the plane of pedestrian history for the 'more serious and philosophic' plane of poetry." So Thucydides' conception of Alcibiades is "mythical." And "the external form of the History shows some conscious imitation of tragedy, but it also resembles the Aeschylean drama in technical construction and in psychology"—a comparison worked out in great elaboration. To Mr. Cornford it even seems "just possible that Thucydides thought there might be some touch of madness in Pericles which explained his violence against Megara": "Megacles' descendant is urging the Athenians into a war sooner than revoke a violent decree against the descendants of his victims." Thucydides' attention, like that of his contemporaries, was occupied with such "mythical causes," "and so diverted from those factors in the economic situation which might have enabled him to read the origin of the war in the light of the Sicilian expedition." "Can we wonder that the origin of the Peloponnesian War is somewhat obscure?" Mr. Cornford's speculations are very ingenious, brightly presented, and full of interest; but his imagination has soared away from his judgment. We are afraid it is he, rather than Thucydides, that is the victim of "the mythical."

### WILLIAM DUNBAR.

*The Poems of William Dunbar.* With Introduction, Notes, and Glossary by H. Belyse Baildon, M.A. Cantab., Ph.D. Freib. i.B., Lecturer in English Language and Literature, University College, Dundee, University of St. Andrews. (6s. net. Cambridge University Press.)

Dr. Baildon's laudable object was to bring the poems of Dunbar "within easy reach of all serious students and lovers of what is best in our literature," the library editions (of the Scottish Text Society, of Prof. Schipper, and of David Laing) being rather costly, inaccessible, and not furnished with elucidations suitable to the general reader or to the college student. The text presents many and great difficulties, which the labours of previous editors have done much to overcome, but which still leave scope for Dr. Baildon's independent judgment. Dr. Baildon has wisely distinguished by a special mark his own suggestions in disputed cases. "In accordance with the express wish of the Syndics of the Cambridge University Press, the editor has made no omission from the text adopted"—a sensible decision, but a decision that confines the book as a whole to mature readers: the freedom of fifteenth-century expression does occasionally offend the conventional reserve of the twentieth. The introduction sketches with general adequacy the life of the poet, the sources of the text, the characteristics of the language, and the technique of the versification. We should doubt whether the preservation of the guttural sounds (as in "night," "loch," &c.), and the correct use of the letter *h*, in N.S. are "probably due to the influence of Gaelic, where the gutturals are numerous"; and when Dr. Baildon says that "in N.E. even the most 'correct' speakers aspirate the *h* in words like *hospital*, *humble*, and so on, whereas they ought to be silent, as in *heir*, &c.," we are puzzled by the indistinctness of his statement and reference. If *Menzies* "is pronounced *Moenis* or 'Menyis,'" it is also pronounced *Mayngiz* (with the ringing sound of *ng*). But it is very difficult to treat the peculiarities of the language in brief exposition: it needs exceptional care of expression and strict external criticism.

The leading points given by Dr. Baildon will certainly be very helpful. The notes are tolerably full and very serviceable, though unequal in quantity and in quality. "As with the *glaiakis* he wer ourgane" (3.12) seems plain enough, but the unnecessary (and misleading) note interprets it "as though he were charmed or fascinated by some spell." In the same piece (3.52-3), the heroine "strangely mingles endearment with apparent disparagement": yet the strangeness is all in the commentator's temporary lack of perspicacity. Again (57.26-7):

Quhair evir Schir Gold maid his regreess  
Of him I will no Largess cry :

"no editors seem to think these lines require comment," says Dr. Baildon. Well, of course, they don't require comment. But

Dr. Baildon makes what he would call in other commentators "a departure from the obvious," and takes the meaning to be (what it clearly is not) "wherever Sir Gold make his return (progr-ess or departure), I will not shout 'Largess' (that is, thanks)." The glossary is full and useful. The volume is very welcome, and generally it will be of great service, especially to such as have no convenient access to the library editions, but in many points of detail it needs some revision; and we regret that Dr. Baildon is no longer with us to revise it himself—with the aid of a competent critic with intimate knowledge of the language and of the ways of the Scots of the period.

#### AN AMERICAN SANSKRITIST IN INDIA.

*Letters from India.* By Alfred William Stratton. With a Memoir by his Wife, Anna Booth Stratton, and an Introductory Note by Prof. Bloomfield. (10s. 6d. Constable.)

Dr. Stratton was a Canadian of English and Irish descent, born at Toronto in 1866. He showed at an early age a keen interest in classical studies, and, after graduating at Toronto University, he got his first decided impulse to Sanskrit studies from a friend in Hamilton (where he was an assistant classical master), who "is a self-taught Sanskritist and has an enthusiastic interest in many phases of Orientalism." He spent three years (1892-95) at Johns Hopkins University, learning and teaching Sanskrit and Greek; and taught and studied three or four years in the University of Chicago. In 1899 he went to India, to succeed Dr. Stein as registrar of the Punjab University and principal of the Oriental College at Lahore. He died at Gulmarg, in Kashmir, in 1902.

The interest of the book lies in the simple and strenuous career of an ardent student, and in an "unintentional chronicle of North-Western India and Kashmir, written in a position of vantage by a leading educator and an unbiased yet sympathetic observer of Hindu life and character." Mrs. Stratton has set forth the story of her husband's life mainly in a series of his letters. The method no doubt introduces a good deal of matter that is of limited interest, yet the manner of presentation of merely personal or family concerns contributes traits to the portrait of the writer. One gets the impression of an unassuming, serene, kindly man, not without glints of quiet humour; an earnest and accomplished scholar, and an assiduous and business-like administrator. "I like the Hindus," he writes, "their looks and their ways, and their simple good-heartedness." But then he was not officially concerned with politics or public administration, an experience that seems peculiarly liable to engender dislike and distrust. Again and again he enters protests against misrepresentations of Indian character apparently resulting from ignorant misunderstandings. Holiday trips to the north give occasion to descriptions of the country and the people: two summers in Kashmir, and a visit to the Yusufsai country. The running account of his literary and official work, with incidental commentary, will offer many points of interest to scholars and others concerned for Oriental studies and for Indian education. Especially interesting will be the letters containing a fragmentary account of his search for manuscripts and oral traditions relating to the ritual of sacrifices of the Kāthas. At the time of his death, an edition of the *Kāthaka Grhya Sūtras*, with extracts from the commentary of Devāpala, was well under way; and, in 1903, all the material bearing upon the work was placed in the hands of Prof. Bloomfield of Johns Hopkins University. "In short," writes Pundit Mukund Ram, in an account of the scope of the intended work, "his ideas of extending this sort of research and of improving the Sanskrit Scriptures were doubtless so vast and generous that there would have grown a very important department of such research under his care by this time had Heaven spared him; which, to our misfortune, has not been allowed." There are ten full-page illustrations, besides a frontispiece portrait.

#### THE "SENSE" OF GEOMETRICAL LINES.

*Algebraic Geometry.* By W. M. Baker, M.A. (6s. George Bell.)

In most respects this is a good little treatise and gives abundant evidence that it is the production of an author thoroughly acquainted with the general needs of the junior student and capable of presenting the theory of his subject in an interesting and helpful manner. Many of the leading theorems are studied from more than one point of view, and the writer in a number of instances does not hesitate to make use of the valuable principles and notation of the differential calculus. The general excellence of the work makes the repeated appearance of an actual error of

principle the more to be regretted and the more surprising. It has often been necessary to deprecate in these columns the fact that writers on elementary trigonometry so frequently ignore the *sense* of lines when dealing with acute-angled triangles; they forget the important part that directed magnitudes are to play before many of their pages have been turned over, and, regardless of the intellectual confusion they are creating, they prepare for the careful student the task of reconstructing what he has lately learned, as soon as the idea of *sense* is forced into prominence. Yet there is some shadow of excuse (however faint) for the writer on trigonometry who may somewhat unwisely argue that, at the stage reached, he is still dealing with the absolute magnitudes of elementary geometry. The writer on Cartesian co-ordinate geometry has, however, no such plea at his disposal: it is impossible to justify failure on *his* part to recognize from the very beginning the fundamental inaccuracy of writing about the line *AB* (say) when it is the line *BA* that is under consideration, and of naming *positive* angles as though they were to be measured in the negative direction. Doubtless the method that has to be employed in the process of drawing the diagrams is responsible for much, but that only increases the care requisite in order to obtain accuracy for the text.

## GENERAL NOTICES.

### CLASSICS.

*The Myths of Greece and Rome: their Stories, Signification, and Origin.*

By H. A. Guerber. (Harrap.)

Mr. Guerber retells with charming simplicity the Greek and Roman myths from the beginnings of imaginative speculation down to the adventures of Ulysses and Aeneas. For these myths "have inspired so much of the best thought in English literature that a knowledge of them is often essential to the understanding of what we read," and "they have a great æsthetic value, presenting, as they do, a mine of imaginative material whose richness and beauty cannot fail to appeal even to the colder sensibilities of this more prosaic age." At the same time, Mr. Guerber has taken great care "to avoid the more repulsive features of heathen mythology," his book being intended for the instruction and the delight of young readers, as well as for adult students. Numerous quotations from classical (translated) and English poetry are interspersed. The final chapter analyses myths by the light of philology and comparative mythology, and furnishes the philological explanation of the stories related in the volume. There is a genealogical table of mythical relationships, a map showing the distribution of myths, an index to the poetical quotations, a glossary, and a general index. Also 64 full-page illustrations, chiefly after modern painters of note. The volume is artistically got up.

"Cambridge Patristic Texts." General Editor: A. J. Mason, D.D., Master of Pembroke College, Cambridge. — *The Confessions of Augustine.* Edited by John Gibb, D.D., Professor of Church History at Westminster College, Cambridge, and William Montgomery, B.D. (7s. 6d. net. Cambridge University Press.)

It seems strange that "the most famous volume in the whole library of the Fathers" should not till now have been re-edited, with annotations, in England since Pusey's edition of 1838, and only once even in Germany (by Carl von Raunur, in 1856). The present editors furnish adequate elucidation both of the language and of the thought of Augustine, drawn from an ample knowledge of his times and especially of the literature and the philosophy by which his mind and character were formed. The "Confessions," indeed, were written for the simple Christian folk around him, and touch but lightly upon the author's philosophical studies, yet these are properly reviewed in an extensive and able introduction. We cannot doubt that the editors take the true view of the much disputed relation of the "Confessions" to the "Dialogues." The text of Knöll's edition for the Vienna Academy (1896), now accepted as authoritative, has been followed; and the notes are judicious as well as scholarly. There are indexes (1) of Subjects, (2) of Scripture texts, and (3) of Latin words. The volume thoroughly justifies its place in a series of conspicuous merit and of great utility.

The Clarendon Press series of "Oxford Translations" has been reinforced by an excellent rendering of the *Dialogus, Agricola, and Germania* of Tacitus, with useful introduction and notes, by W. Hamilton Fyfe, Fellow of Merton College (3s. 6d. net).

Messrs. Macmillan have added to "The Golden Treasury Series" Mr. E. D. A. Morshead's scholarly verse translation of four plays of *Aeschylus*—"The Suppliant Maidens," "The Persians," "The Seven against Thebes," and "Prometheus Bound" (2s. 6d. net). The other three plays, if we mistake not, were given in a previous volume of the series.

The two Lectures delivered before the University of Oxford (June 3 and 4) by Prof. von Wilamowitz-Moellendorf—*Greek Historical Writing* and *Apollo*—are published in a handsome pamphlet by the Clarendon Press (2s. net). They are masterly examples of popular exposition, as

well as of learned investigation and historical method. The translation is by Dr. Gilbert Murray.

The *American Journal of Philology* contains (Vol. XXIX. 1) an elaborate article on "Virgil's Georgics and the British Poets," by Wilfred P. Mustard. The British poets, from Chaucer to Tennyson, are ransacked for references to the Georgics.

## SCIENCE.

*The Mathematical Theory of Electricity and Magnetism.* By J. H. Jeans, M.A., F.R.S., Professor of Applied Mathematics in Princeton University. (15s. net. Cambridge University Press.)

In this handsome volume Prof. Jeans limits himself to doing a piece of useful work for students, though it "has not been one of much interest," inasmuch as "the nature of the book did not permit of much newness or originality of treatment." He expounds the mathematical theory of electro-magnetism within the range of work that every student of physics may be expected to have covered with reasonable thoroughness before proceeding to the study of special branches or developments of the subject. The mathematical analysis required in the treatment is adapted to the fairly probable equipment of the student. The handling is considerably more elementary than Maxwell's. On a general view, the distribution of space for the different parts of the subject is unusual; but this apparent derangement of balance is due to the shrewd notion of introducing the questions of mathematical analysis in the places where they are first needed for the development of the physical theory, "in the belief that in many cases the mathematical and physical theories illuminate one another by being studied simultaneously." Numerous examples are given, mainly from Cambridge examination papers. It is unnecessary to say that the treatment is masterly throughout.

*Avogadro and Dalton: the Standing in Chemistry of their Hypotheses.*

By Andrew N. Meldrum, D.Sc. With a Preface by Prof. Japp. (Edinburgh: James Thin. London: Simpkin, Marshall, & Co.)

Dr. Meldrum deals with Avogadro first. He insists that Avogadro's hypothesis is neither a "law" nor a "truth," but simply a hypothesis, and doughtily contends that, in virtue of the multitude of its fruitful issues, it is the very basis and corner-stone of chemistry. "The chief issues of the hypothesis are the molecular theory, including the modern theory of solution, the atomic hypothesis, the doctrine of valency, and the periodic system of the elements"—the last a perpetual source of speculation and experiment. Strangely enough, Dr. Meldrum needs to enter on a long inquiry to find out what are the essentials of Dalton's theory, and then he reviews the systems of Berzelius, Gmelin, Gerhardt and Laurent, and Cannizzaro in the course of working out the true relation of Dalton's theory of chemistry to the modern theory. Dr. Meldrum champions Avogadro and the molecular theory. His argument is scrupulously fair in conduct and expression, and he shows a familiar grasp of the fundamental literature of the subject as well as of the scientific matters in question. It is an exceptionally able monograph.

## MODERN LANGUAGES.

"The New Mediæval Library."—(1) *The Book of the Duke of True Lovers.* (2) *Of the Tumbler of Our Lady, and other Miracles.* (3) *The Chatelaine of Vergi.* (5s. net each. Chatto & Windus.)

(1) is now for the first time translated from the fifteenth-century French of Christine de Pisan, with introduction and notes, by Mrs. Kemp-Welch, the ballads being rendered in the original metres by Laurence Binyon and Eric R. D. Maclagan. The story is probably a thinly veiled romance of the Court, and is certainly full of interest and charm. There are seven fine illustrations. (2) records nine miracles, only the first story having previously been rendered into English. Again it is Mrs. Kemp-Welch that translates from the Middle French MSS., anonymous and by Gautier de Coinci, with introductory note; and there are eight excellent illustrations. (3) "The Chatelaine of Vergi" is also translated from the Middle French by Mrs. Kemp-Welch, and the charming introduction is by Prof. Brandin, Ph.D., of University College, London. The original text (édition Regnault) is appended. There are five fine photo-gravures. This is really a second edition, thoroughly revised both in translation and in text. The whole series furnishes a delightful introduction to certain aspects of mediæval life and thought. The get-up is chastely artistic.

*First Steps: The Student's Elementary Text-Book of Esperanto.* By Leslie P. Beresford, LL.D., M.A. (2s. International Language Publishing Association, London.)

A very handy little book, giving elementary explanations concisely and clearly, with exercises followed by notes and key.

A second edition of *Der Deutsche Aufsatz in der Prima des Gymnasiums*, revised by the author, Dr. Otto Apelt, Director des Gymnasiums zu Jena (geh. M. 3.20, Teubner), is "ein historisch-kritischer Versuch" of an extremely interesting character, reviewing materials and methods of German composition on the highest gymnasial benches—in German, Roman, and Greek literature and history, and in a wide range of miscellaneous subjects. A judicious, instructive, and charming volume.

A sixth edition of Dr. Karl Krause's *Deutsche Grammatik für Ausländer jeder Nationalität*, "mit besonderer Rücksicht auf ausländische Institute in Deutschland und deutsche Institute im Auslande," revised by Dr. Karl

Nerger of Rostock, is now issued [geh. M. 3.60, J. U. Kern's Verlag (Max Müller), Bröslau]. The exposition is comprehensive and careful, with plenty of examples, but without exercises.

*Dutch Self-Taught*, with phonetic pronunciation, by Captain C. A. Thimm, appears in a second edition, revised by Carel Thieme, Examiner in Dutch for the London Chamber of Commerce. (2s., wrapper; 2s. 6d. cloth. Marlborough.)

## ENGLISH LITERATURE.

*The Oxford Treasury of English Literature.* Vol. III.: *Jacobean to Victorian.* By G. E. Hadow, Tutor in English Literature, Lady Margaret Hall, Oxford, and W. H. Hadow, Fellow of Worcester College, Oxford. (3s. 6d. Clarendon Press.)

The method of the volume follows the principle of the two preceding volumes. As before, there is no attempt to cover the whole ground, or even to notice every great or notable author: the illustrations are grouped round the points of interest from which the chief literary movements have radiated, and only such authors are cited as "best represent their age or whose influence on contemporaries or successors is most clearly apparent." The brief critical and historical sketches introducing the chapters are very suggestive for guidance; and if one sometimes dissents from an opinion—how, for example, can one admit that Thackeray was "faultless in style"?—or doubts whether a passage is the best representative available, that matters very little on the general view. Any reader that works through the three volumes will obtain a broad and vivid sense of the wealth and the movement of English Literature.

*The People's Library.* (8d. each volume. Cassell.)

The May contingent consists of the following works:—(1) *Hypatia* (Charles Kingsley); (2) *Mr. Midshipman Easy* (Captain Marryat); (3) *It is Never too Late to Mend* (Reade); (4) *Handy Andy* (Lover); (5) *Shirley* (Charlotte Brontë); (6) *Tales, Poems, and Sketches* (Bret Harte); (7) *The Pilgrim's Progress* (Bunyan); (8) *Voyages of Discovery* (Captain Cook); (9) *Lectures and Essays* (Huxley); (10) *Heroes and Hero-Worship*, &c. (Carlyle).

*Sisley's Biography Books.* (6d. each. Sisley's, Ltd.)

The series is intended to include lives of all the world's greatest men and women. The first issue consists of six volumes, simply and pleasantly written, and tastefully got up, each with a frontispiece: (1) *Mary Queen of Scots*, by Helen Williams; (2) *Lord Nelson*, edited by Owen Ellison; (3) *Napoleon the Great*, edited by Owen Ellison; (4) *Charles Dickens*, by Owen Ellison; (5) *John Constable*, by M. Y. Bankart; and (6) *Richard Wagner*, by Edith Robarts. The series ought to prove popular.

## ENGLISH GRAMMAR AND COMPOSITION.

*Old English Grammar.* By Joseph Wright, Ph.D., D.C.L., &c., and Elizabeth M. Wright. (6s. net. Henry Frowde, Oxford University Press.)

Like Prof. Wright's "Historical German Grammar," the first volume of which we noticed recently, this work belongs to "The Student's Series of Historical and Comparative Grammars," of which Prof. Wright is the general editor, and the treatment follows similar lines. It is the student, not the specialist, that the authors keep in view; and "the student who thoroughly masters the book," they justly think, "will not only have gained a comprehensive knowledge of Old English, but will also have acquired the elements of comparative Germanic grammar." Of course the volume is not exhaustive, "yet it is by far the most complete Grammar that has hitherto been written in our own language, and the first to deal with the subject in a strictly scientific manner." The Syntax will be dealt with in another volume, which is already in active preparation, and will probably be ready for press before the year is out. The book is a most laborious and able treatise, and it is very carefully printed and substantially bound.

*The Writing of English.* By Philip J. Hartog, Academic Registrar of the University of London, sometime Lecturer in the Victoria University, Manchester. With the assistance of Mrs. Amy H. Langdon. (2s. 6d. Clarendon Press.)

We gladly welcome a second edition of this pointed and stimulating, if miscellaneous and discursive, treatise. The contrast between the actual performance of French children and English children, though "English children seem to have no less aptitude than French for writing well," is a dramatic stroke, touching the nerve of English *amour propre* with usefully startling effect, whatever deductions may be necessary on a coldly critical estimate. To our mind the most telling part of the book is the description of Mr. Hartog's own experiments in the teaching of composition: they should be laid to heart by every teacher of the subject. "They were lessons in thought-training, not in grammar, still less in spelling or punctuation." That is to say, they go to the root of an essential preliminary to effective teaching of English (or of anything else). One must first "take care of the sense"; and, if "the sentence will take care of itself," well and good: if not, then one must look to the sentence—and there is a great deal to be done with the sentence. Mr. Hartog thinks it is "of extreme importance that we should not create a specialist class for English composition alone." That depends on the object in view. If the subject is not carried farther than the preliminary stage "thought-training," he may be right; if it is to be carried much farther, we have not the smallest doubt that he is disastrously wrong. If English is to be taught as thoroughly as Latin or



Greek—and the whole of our prose literature, not excluding the most belauded examples, shows how urgently such thoroughness is needed—then the thing cannot be done otherwise than by specialists. When Mr. Hartog proceeds beyond the Exercises of his Appendix to treat of the writing of literary English, he will soon discover the importance of the specialist.

#### HISTORY.

*History of Ancient Civilization.* By Charles Seignobos, Doctor of Letters of the University of Paris. (5s. net. Fisher Unwin.)

The volume appears to be a popular condensation of Dr. Seignobos's "Histoire de la Civilisation." The editor, who is modestly content to give his initials only, has usually followed the order of the two-volume edition and drawn supplementary matter from the three-volume edition. Starting with prehistoric and legendary times, he offers a broad outline of the development of civilization among the Egyptians, the Assyrians and Babylonians, the Aryans of India, the Persians, the Phoenicians, the Hebrews, the Greeks, and the Romans down to the time of Theodosius I., the end of the fourth century of our era. The task of compressing intelligently into a readable narrative the essential facts and their historical relations is all but impossible within the narrow limits prescribed. The volume, however, will be serviceable to such as wish merely a broad general view; and, in the case of the nations that receive larger treatment, especially the Greeks and the Romans, particular developments are often set forth effectively, if succinctly. Still, there is need for revision of details: the editor has indeed appended some useful modifications in foot-notes, but more are required. The statement that "all the provinces belonged to the Emperor as the representative of the Roman people" is modified by the explanation that "a few provinces, the less important, remained to the Senate, but the Emperor was always master in these as well"; but the loose expression leads to inevitable confusion in the description of administrative functions. It is quite misleading to say that "there were always at Rome at least two pretors as judges"; but non-expert writers on the law of Rome, drawing statements from summary histories without appreciating their bearings, have accustomed us to such startling assertions. There is a useful appendix of references for supplementary reading, but no index.

*The English as a Colonizing Nation.* By J. Hight, M.A., Lecturer on Political Economy and Constitutional History, Canterbury University College. (2s. 6d. Whitcombe & Tombs.)

This is Book IV. of a series of Public School Historical Readers more especially designed for the use of Australasia, and accordingly Mr. Hight has entered in fuller detail in the chapters on Australia and New Zealand. On the whole, it is a useful book, though here and there, where the writer draws his information from current books innocent of original research or special study, he fails to avoid common blunders: the enumeration of "the chief benefits India has gained from British rule" is amazingly uncritical. There are numerous sketch maps and illustrations (some of them rather poor), and the volume is well got up and strongly bound.

#### RELIGIOUS AND MORAL.

The Cambridge University Press reissues *The New Testament in Greek* "according to the text followed in the Authorised Version, together with the variations adopted in the Revised Version," edited by F. H. A. Scrivener, M.A., D.C.L., LL.D., at a reduced price (crown 8vo, 3s. 6d. net; India paper, 5s. net). Both of the editions are extremely handy and agreeable.—The same Press publishes *The Verba Christi Testament* (ruby 48mo, 1s. net, cloth), the special feature of which is that the words of our Lord are printed in red. Convenient, clear, and delightfully got up.

Mr. Frowde publishes, for the Egypt Exploration Fund, an extremely interesting *Fragment of an Uncanonical Gospel from Oxyrhynchus*, edited, with translation and adequate commentary, by Bernard P. Grenfell, M.A., D.Litt., F.B.A., &c., and Arthur S. Hunt, M.A., D.Litt. (1s. net). The fragment consists of a single vellum leaf, and the writing (45 lines) covers only a little more than two inches square. The verso is photographed for frontispiece.

*The Problem of Moral Instruction*, the Presidential Address of Prof. J. S. Mackenzie, Litt.D., to the Moral Instruction League, has been reprinted by the League from the *International Journal of Ethics* (April, 1908), and is now issued as a pamphlet. It is a very able and thoughtful address, facing the difficulties in the way of a satisfactory solution and showing that they are not by any means insuperable. Certainly it is one of the most capable and effective statements of the League's case, and many will be glad to have it in such a handy form.

Messrs. Longmans issue a second and cheaper edition of *Religious Education: How to improve it*, by the Rev. C. L. Drawbridge, M.A. (1s. net). It reviews the organizations and agencies of religious teaching with critical frankness and thoughtful suggestion, and it is brightly and forcibly written.

Mr. Murray publishes a third edition of *The Licensed Trade*, by Edwin A. Pratt (1s. net). One of the chapters ("Prohibition Abroad") has been rewritten, with a view to dealing with "the wave of prohibition" throughout the Southern States of America, and two new chapters have been added, on "Discretionary Powers of Licensing Justices" and "The Business Side of Temperance Agitation." Some appendices

(Continued on page 304.)

## OXFORD UNIVERSITY PRESS.

### **The Shakespeare Apocrypha.**

Being fourteen Plays at some time attributed to Shakespeare. By C. F. TUCKER-BROOKE, Senior Demy of Magdalen College, Oxford. 5s. net and (India paper) 7s. 6d. net.

*Daily Mail.*—"This collection will be invaluable to Shakespearean students. It has never been made before, and it has been done now admirably, and once for all. Mr. Brooke's Introduction is wonderfully interesting."

### **The Writing of English.**

By PHILIP J. HARTOG, Academic Registrar of the University of London, with the assistance of Mrs. A. H. LANGDON. Second Edition. With a new Introduction. 2s. 6d.

*Athenaeum.*—"If parents and schoolmasters will pay heed to the good counsel and practical suggestions in this handy and valuable little work, no future writer on literary studies in our schools will be able to begin his first chapter with the statement, 'The average English boy cannot write English.'"

### **A Book of Verse for Boys and Girls.**

Compiled by J. C. SMITH.

Part I. 64 pages. Paper Covers, 3d. Cloth, 4d.  
Part II. 160 pages. Paper Covers, 6d. Cloth, 8d.  
Part III. 288 pages. Paper Covers, 1s. Cloth, 1s. 3d.

The Three Parts together in Cloth, 2s.

### **Oxford Book of French Verse.**

Thirteenth Century to Nineteenth Century. Chosen by ST. JOHN LUCAS, University College, Oxford. Second Impression. 6s. net and (on Oxford India paper) 7s. 6d. net.

*Athenaeum.*—"The best selection that has been printed in England. The Introduction gives a rapid and brilliant survey of French poetry."

## THE OXFORD GEOGRAPHIES.

By A. J. HERBERTSON, M.A., Ph.D.,  
Reader in Geography in the University of Oxford.

### **The Preliminary Geography.**

Second Edition. 160 pages, with 72 Maps and Diagrams. 1s. 6d.

*Preparatory Schools Review.*—"Where a class-book of geography is first introduced, this should be the book. There is nothing else so good."

### **The Junior Geography.**

Second Edition. 288 pages, with 166 Maps and Diagrams. 2s.

*School World.*—"Is good everywhere. The sketch maps are most interesting and most instructive."

### **The Senior Geography.**

Second Edition. 370 pages, with 117 Maps and Diagrams. 2s. 6d.

*School World.*—"The relation of cause and effect is continually insisted upon, and the lesson driven home by the frequent insertion of educative maps and plans and cross sections."

### **The Position and Prospects of the Study of Economic History.**

By L. L. PRICE, Fellow of Oriel College, Oxford. 1s. net.

### **A Study of Mathematical Education, Including the Teaching of Arithmetic.**

By B. BRANFORD, Divisional Inspector to the London County Council. 4s. 6d.

Select List of Educational Works, List of Books set for various Examinations, and Complete Catalogue (144 pages) post free.

London: HENRY FROWDE, Oxford University Press, Amen Corner, E.C.

have been omitted to make room for fresh ones of more importance. We noticed the first edition in our September number last year.

*The Origins of Religion, and other Essays*—a dozen in all—by Andrew Lang, are gathered together in No. 34 of the Rationalist Press Association's "Cheap Reprints" (6d., Watts). With one exception, all the essays are reprints from published books of the author; the exception being a critical review of theories of the origins of religion. There are several illustrations.

Messrs. Watts also issue for the Rationalist Press Association a popular edition of *The Churches and Modern Thought*, by P. Vivian (1s. net). We noticed the work in our February number this year. The criticism is destructive, but Mr. Vivian writes earnestly, thoughtfully, and with considerable knowledge, and represents a large class that deserve an express and serious answer.

#### HOW TO EARN A LIVING.

*A Handbook of Employments.* By Mrs. Ogilvie Gordon, D.Sc. Lond., Ph.D. Munich, F.L.S. (1s. net. Aberdeen: The Rosemount Press.)

An elaborate compilation "especially prepared for the use of boys and girls on entering the trades, industries, and professions." After introductory matter, the volume divides into three parts: (1) Industrial occupations, with short periods of training; (2) Apprenticeship trades and occupations requiring long periods of training; and (3) Professional callings. Each of these divisions is treated in much detail—a prolonged and laborious business. The introductory remarks on the author's proposal for the establishment of local bureaux by the Local Education Authorities and School Boards in the larger cities merit particular attention.

*The Fingerpost: a Guide to Professions for Educated Women.* (1s. 6d. post free. Central Bureau for the Employment of Women, 9 Southampton Street, Holborn, W.C.)

This is a considerable volume containing over 70 articles, which present in a very readable form the chief facts relating to occupations open to educated women. The articles are grouped according to general subject; there are nine under the head of "Teaching." They are all written by experts in the various professions and may be trusted to afford sure guidance.

*Every Way of Earning a Living.* By Alfred Barnard; with introduction by Hamilton Edwards. (6d. net. Amalgamated Press, 2 Carmelite House, Carmelite Street, E.C.)

A very large amount of information is disposed in three sections—General, Civil Service, and Emigration—about a great number of ways of making a livelihood. The work should be very suggestive and helpful to young folk that are puzzling to know "what to be": and it may afford serviceable hints to such as have gone into some calling or trade and want to know how to make further progress. The facts appear to have been diligently compiled and they are clearly set out.

#### MISCELLANEOUS.

Messrs. Philips publish a *Meteorological Calendar*, consisting of 52 weekly sheets, "for recording daily observations regarding the barometer, thermometer, rainfall, direction of wind, weather, &c.," with suggestions for keeping the observation sheets (2s. net). The Calendar has been very carefully constructed and conveniently and clearly disposed. It will be found extremely handy for recording and preserving observations.

In connexion with the Franco-British Exhibition several academic publications have been issued. A volume on *Medical Education in London*, "being a guide to the schools of the University of London in the Faculty of Medicine, with notes on the general facilities for clinical study and research in the Metropolis," has been issued by the Conference of Deans of the Metropolitan Schools of Medicine. The information is very full and lucid, and there are numerous excellent illustrations. The volume is published by Messrs. Ash & Co., Southwark, S.E.—The University of London has issued (1) a *Handbook*, containing general information and a catalogue of the University exhibit at the Exhibition, and (2) a *Catalogue* of the collection of publications by teachers of the University and their students in the year 1907 included in the University exhibit.

*The University of London Students' Handbook*, prepared by the Students' Representative Council and edited by Walter W. Seton, M.A., the Secretary to University College, presents a comprehensive and compendious view of the social and athletic life of the University. We hope the brochure will be widely circulated. It will do much to impress the extent and variety of the social interests and the vitality of the student spirit.

*The Freedom of Women* (6d. net, Watts) is a vigorous "argument against the proposed extension of the suffrage to women," by Ethel B. (Mrs. Frederic) Harrison. It states "the case of that great mass of English women who do not wish to be thrust, against their will and better judgment, into active politics." Mrs. Harrison's discussion of the subject deserves attention on both sides in the struggle. Her last word is "that, in taking the vote, women will be selling their birthright for a mess of pottage."

#### FIRST GLANCES.

##### MATHEMATICS.

*Algebraical Examples, Book I.* By A. F. van der Heyden, M.A., Mathematical Master at the Middlesbrough High School, formerly Fellow of the University of Durham. 1s.; with Answers, 1s. 6d. Edward Arnold.

[Up to and including elementary quadratic equations. Useful types of questions; carefully graduated.]

*Arithmetic, Correlated, Pitman's.* By T. W. Trought, B.A., Head Master, Camden Street Council School, Birmingham, formerly Lecturer in Mathematics, &c., at Chester Training College. Book I., Answers. 1s. net. Book II., 3d.

*Arithmetic Examples, Practical, Part I.* Compiled by J. L. Martin. 6d. Murray (School Library).

[Based upon Consterline and Andrew's "Practical Arithmetic." "Suitable for Standard V. in town schools and Standards V. and VI. in rural schools." Answers to be published separately.]

*Arithmetic Papers, Modern, The Public School.* Compiled by R. Wenlock, F.R.G.S., Assistant Master, Barry County School, Glamorgan-shire. 4d.; with answers, 6d. Author: 4 Harbour Road, Barry, Glam.

[Papers A to Z, 8 questions in each. Varied and useful compilation from papers set at recent public examinations, together with original problems and model solutions to an original paper.]

*Arithmetics, Adaptable, Blackie's.* (1) Book I., Simple Rules, 4d. (2) Teacher's Hand-book to (1), 1s.

*Arithmetics, Alert, Nelson's.* By Henry Wilkinson, Head Master of Askew Road Boys' School, Gateshead. Pupil's Books, I. and II., 3d. each. Teacher's Books, I. and II., 4d. each. Nelson (Royal School Series).

[Practical examples. Illustrations.]

*Arithmetics, Effective, Arnold's.* Books I.-VI. I.-V., 2d. each; VI., 3d.

*Arithmetics, Practical, Longmans'.* By W. Knowles, B.A., B.Sc. Lond., Senior Form Master, Technical Day School, Borough Polytechnic Institute, S.E., and H. E. Howard, Head Master, St. Luke's School, Kingston-on-Thames. Teacher's Series, Book V., 1s. 6d. Pupil's Series, Book VI., 5d.

[A course of arithmetic correlated with geometry and practical work, based on the scheme of C. T. Millis, M.I.Mech.E., Principal of the Borough Polytechnic Institute.]

*Geometry, Elementary, A Sequel to: Solutions of the Examples in.* By John Wellesey Russell, M.A., formerly Fellow of Merton College, Mathematical Lecturer of Balliol and St. John's Colleges, Oxford. 3s. 6d. net. Clarendon Press.

[Very useful and suggestive.]

*Geometry for Schools: The Theorems.* Collected and arranged by E. Fenwick, M.A., LL.D. Camb., B.Sc. Lond., Head Master of Bourne-mouth School, formerly Senior Mathematical Master of Wellingborough Grammar School. 1s. 6d. Heinemann (School Series).

[Essentially a class-book; riders, examples, and explanations other than those necessary for the formal demonstration of the Theorems have been rigorously excluded.]

*Graphs: applied to Arithmetic, Mensuration, and Statics.* By G. C. Turner, B.Sc. Lond., Lecturer in Mathematics and Mechanics at the Goldsmiths' College (University of London). 6s. Macmillan.

[Numerous worked-out examples; abundant exercises; answers; 316 figures.]

*Logarithmic and other Tables for Schools.* By Frank Castle, M.I.M.E. 6d. Macmillan.

[Very serviceable and handy.]

*Mathematical Education, A Study of; including the Teaching of Arithmetic.* By Benchara Branford, M.A., Divisional Inspector to the London County Council, formerly Lecturer in Mathematics in the Victoria University. 4s. 6d. Clarendon Press.

[Based upon twenty years' experience of school and college education ranging through all grades.]

*Mensuration (Plane and Solid), The Normal.* By H. E. J. Curzon, M.A., B.Sc., late Mathematical Tutor at the Training College, Exeter. 1s. 6d. net. Normal Press.

[Clear exposition; numerous examples; answers.]

##### SCIENCE.

*Electrical Engineering, Elementary.* By John H. Shaxby, B.Sc., Demonstrator and Assistant Lecturer, University College, Cardiff. 3s. net. Blackie.

[Primarily for students engaged during the day in practical work. Avoids mathematics as far as possible, and presupposes no knowledge of the theory of magnetism and electricity. Thoughtful and clear. Exercises. 120 figures. Practical and very serviceable.]

(Continued on page 306.)

# OXFORD AND CAMBRIDGE LOCAL EXAMINATIONS, 1909.

Special Subjects Books issued by J. M. DENT & CO.

## OXFORD.

### ENGLISH.

- MACAULAY'S LAYS OF ANCIENT ROME.** With Introduction and Notes by OLIPHANT SMEATON, M.A. 1s. [*Preliminary.*]
- THE TALISMAN.** By Sir WALTER SCOTT. With Introduction and Notes by HENRY WILLIAMS, M.A. 1s. *Temple English Literature Series.* [*Preliminary.*]
- THE TALISMAN.** By Sir WALTER SCOTT. Edited, with Notes, &c., by G. L. TURNBULL, M.A. Illustrations. 1s. 6d. [*Preliminary.*]
- THE TEMPEST.** Edited by OLIPHANT SMEATON, M.A. With Eight Illustrations by WALTER CRANE. 1s. 4d. [*Juniors and Seniors.*]  
"It can be affirmed with every confidence that this issue of Shakespeare's 'Tempest' has no superior as a school edition of this well known play."—*Educational News.*
- MACBETH.** Edited by GEORGE SMITH, M.A., LL.D. With Five Illustrations by T. H. ROBINSON. 1s. 4d. [*Juniors.*]
- KING HENRY V.** Edited by W. H. HUDSON, M.A. With Eight Illustrations by DORA CURTIS. 1s. 4d. [*Juniors.*]
- THE LAY OF THE LAST MINSTREL.** By Sir WALTER SCOTT. Edited, with Notes, Glossary, and Illustrations by J. W. YOUNG, M.A., Head Master Pupil Teachers' School, Bradford. 1s. 4d. [*Juniors.*]
- QUENTIN DURWARD.** By Sir WALTER SCOTT. Edited, with Notes, Introduction, Glossary, and Examination Questions, by J. WILSON, M.A. 1s. 4d. [*Juniors and Seniors.*]
- KING HENRY V.** Edited by W. H. HUDSON, M.A. With Eight Illustrations by DORA CURTIS. 1s. 4d. [*Seniors.*]
- QUENTIN DURWARD.** By Sir WALTER SCOTT. Edited, with Notes, Introduction, Glossary, and Examination Questions, by J. WILSON, M.A. 1s. 4d. [*Seniors.*]
- UTOPIA.** By Sir THOMAS MORE. Edited, with Introduction, Notes, and Glossary, by A. J. GRIEVE, M.A. 1s. 4d. [*Seniors.*]

## OXFORD—continued.

### LATIN.

- CASSAR'S GALLIC WAR. Books II. and III.,** in One Volume. Edited by A. CROOM PATERSON, M.A. (Edin. and Oxon.), Classical Master in the Royal High School, Edinburgh. 1s. 4d. [*Juniors and Seniors.*]  
"Admirably equipped school books, which adapt to the uses of young students the last results of classical erudition, and at once attract and instruct them by many appropriate illustrations."—*The Scotsman.*
- CASSAR'S GALLIC WAR. Books IV. and V.,** in One Volume. Edited by Dr. JOHN MARSHALL, Rector of High School, Edinburgh. 1s. 4d. [*Seniors.*]

## CAMBRIDGE.

### ENGLISH.

- LAMB'S TALES FROM SHAKESPEARE.** With an Introduction. Price, limp cloth, 6d. [*Preliminary.*]  
The above has been specially issued with a view to the Preliminary Cambridge Locals and contains the several stories prescribed.
- JULIUS CÆSAR.** Edited by F. ARMYTAGE MORLEY, M.A., D.C.L. With Illustrations by T. H. ROBINSON. 1s. 4d. [*Juniors and Seniors.*]
- RICHARD II.** Edited by W. KEATH LEASK, M.A. With Illustrations by DORA CURTIS. 1s. 4d. [*Seniors.*]
- THE FAREY QUEENE. Book I.** By EDMUND SPENSER. Edited by Prof. W. H. HUDSON, M.A. With Introduction and Notes. 2s. [*Seniors.*]
- A LEGEND OF MONTEZOME.** By Sir WALTER SCOTT. Edited, with Introduction, Notes, Glossary, and Examination Questions, by R. PROUDS, B.A. 1s. 4d. [*Juniors.*]

### LATIN.

- CASSAR'S GALLIC WAR. Books IV. and V.,** in One Volume. Edited by Dr. JOHN MARSHALL, Rector of High School, Edinburgh. 1s. 4d. [*Juniors.*]

### FRENCH.

- LE BOUVEOIS GENTILHOMME. (School Edition.)** Edited, with Introduction and Notes, by Prof. FREDERICK SPENCER, M.A. 1s. 4d. [*Seniors.*]

A List of Text-Books suitable for the Oxford and Cambridge Local Examinations sent free, and the Publishers cordially invite applications for Specimen Copies. The probable number of Books required for class use should be mentioned.

J. M. DENT & CO., Aldine House, Bedford Street, London, W.C.

A New Work on the most Modern Lines.

# A RATIONAL GEOGRAPHY.

By ERNEST YOUNG, B.Sc.,

Head Master of the Lower School of John Lyon, Harrow.

In Three Parts, with numerous Maps and Diagrams, cloth, crown 8vo, 1s. 6d. each.

Part I.—CLIMATE.—THE BRITISH ISLES, EUROPE.

Part II.—TIDES, WINDS, CURRENTS, LATITUDE AND LONGITUDE.—AMERICA, AFRICA.

Part III.—MAP DRAWING, MAP PROJECTION, SURVEYING.—ASIA, AUSTRALASIA.

HINTS ON TEACHING GEOGRAPHY. By the same Author. 6d. net.

This is a new work on the most modern lines, and so arranged that it meets the requirements of all the ordinary Preliminary and Junior University Local Examinations. Though primarily intended to meet the requirements of the Board of Education's Syllabus for three out of the Four Years' Course in Geography, it is at the same time admirably adapted for candidates taking the Cambridge Examinations of 1908.

"An interesting and useful addition to school geographies. The 'modern lines' are well observed. There is plenty of cause and effect; there are useful sketches; there are questions for oral work and exercises for note-books; and there is a sufficiency of matter for reproduction by the expectant examinee."—*The School World.*

"An ideal series of manuals."—*Secondary School Journal.*

"There is much that is fresh and suggestive in this practical book, and we have great pleasure in directing the attention of teachers to the series."—*The Educational News.*

Prospectus and Specimen Pages free.

GEORGE PHILIP & SON, Ltd., 32 Fleet Street, London.

## HYGIENIC EFFECTIVE ECONOMIC

FOR "WEIGHTING" AND LAYING THE

# DUST

(See Official Memorandum on the Cleansing and Disinfecting of Schools)

# "FLORIGENE"

Regd.

(Awarded BRONZE MEDAL of the ROYAL SANITARY INSTITUTE)

**ODOURLESS or POWERFUL**

**GERMICIDAL DISINFECTANT FLOOR FLUID**

(See Important Bacteriological Report by Eminent Authority)

On all Wood, Linoleum, Stone, and other Floors in

# SCHOOLS, LABORATORIES,

ART GALLERIES, LIBRARIES, MUSEUMS, &c.

**DURING THE VACATION**

if possible. Three times a year only, as

**EACH APPLICATION**

lays the dust and dirt for 2 to 4 months.

"FLORIGENE" is an aid to the PREVENTION OF THROAT IRRITATIONS AND DISEASES.

It purifies the atmosphere, secures cleanliness and comfort, and is a **great time and labour saver.**

It is not sticky, and is easily and quickly applied by the unskilled.

**NO SCRUBBING OR SPRINKLING OF FLOORS** necessary, but Floors may be washed if preferred.

**BOOKS, FURNITURE, APPARATUS, etc.,** seldom require dusting or cleaning.

The additional cost (if any) of the "Florigene" dressing is very small compared with the hygienic, labour saving, and other important advantages.

For further particulars, Bacteriological and other Expert Reports, and Testimonials, write:

THE "DUST-ALLAYER" Co.

Offices: 165 QUEEN VICTORIA STREET, LONDON, E.C.

Contractors to H.M. GOVERNMENT, etc.

**Hydrostatics, Intermediate.** By William Briggs, LL.D., B.Sc., &c., and G. H. Bryan, Sc.D., F.R.S. 3s. 6d. Clive (University Tutorial Series).

[“Contains as much Hydrostatics as can be conveniently learned without the use of the Calculus.” Thoroughly good exposition; numerous examples and examination papers; answers. 114 figures. Excellent text-book.]

**Mechanics and Physics, Theoretical and Practical.** By A. H. Mackenzie, M.A., B.Sc., A.R.C.Sc., Head of the Physics Department, Cockburn High School, Leeds. 1s. Macmillan.

[“A Preliminary Science Course for Artisans in Evening Schools.” Wholly experimental; clear directions; numerous exercises; 57 figures. Aply conceived and worked out.]

**Physics, A School Course in: Light and Sound.** By F. C. Endecott, Science Master at Lutterworth Grammar School, formerly of Bedford Modern School. 2s. 6d. Blackie.

[Consists of lecture notes, notes on practical work, questions and exercises, and blanks for pupils' notes. Vain fear of “telling the scholar too much.” Practical exercises good and varied. Answers accompany in separate pamphlet.]

**Physics, Practical, A Third Year's Course in: Light.** By James Sinclair, M.A., B.Sc., Head Science Master in Shawlands Academy, Glasgow. 1s. 6d. George Bell.

[Simple and clear instructions. 54 experiments; well devised exercises on each; answers appended; numerous diagrams. The three courses form an excellent practical series, both for pupils and for teachers.]

**Steam and other Engines.** By J. Duncan, Wh.Sc., A.M.I.Mech.E., Head of the Department of Civil and Mechanical Engineering at the Municipal Technical Institute, West Ham. 5s. Macmillan.

[For students of engineering; explains the principles of science applicable to heat engines, and describes the essential constructional details of typical engines. Numerous exercises; answers; 338 figures. Clear, able, suitable.]

#### FRENCH.

Blackie's “Little French Classics.”—(1) *Le Lépreux de la Cité d'Aoste* (De Maistre), edited by Maurice Labesse, B.A., University of Poitiers. (2) *A Little Book of French Poetry*, for reading and recitation, edited by Miss B. Scott. (3) *Premières Méditations Poétiques—Poèmes Choisis* (Lamartine), edited by Alfred T. Baker, M.A., Ph.D., Professor of French Language and Literature, University of Sheffield. (4) *Poésies Choisis* (Alfred de Vigny), edited by Prof. Baker. (5) *Le Coup de Pistolet* (Mérimée), edited by J. E. Michell, M.A., Ph.D., Assistant Master, Westminster School. (6) *La Princesse Feuille-Morte* (René Morax), edited by A. P. Guiton, B. ès Sc., Assistant Master, Berkhamsted School. 4d. each.—In Supplementary Series: *Théâtre de la Jeunesse* (Souvestre), edited by W. Herbert Hill, M.A., formerly of Dundee High School. 8d. [Well chosen, edited, printed, and got up.]

Blackie's “Récits tirés des Classiques Français.”—(1) *Le Cid* et *Horace* (Corneille); (2) *Athalie* et *Andromaque* (Racine). By C. Bagnall, B. ès L., Senior French Mistress, Clapham High School, and H. Vivier. 6d. each.

[Stories of the plays interestingly retold in easy French.]

Dent's “Les Classiques Français.”—*Oraisons Funèbres de Bossuet*, préface de René Doumic.

[Six oraisons. Handy and tasteful get-up.]

Hachette's Popular French Authors.—*Waterloo* (Hugo: from *Les Misérables*), edited by A. Barrère, Officier de la Légion d'Honneur, Professor of French Language and Literature, Royal Military Academy, Woolwich. 4d.

[Vocabulary, with notes and idioms; retranlations.]

Nelson's French Texts.—*Mon Petit Troit* (André Lichtenberger), edited by Alex Cran, M.A., Ph.D., D. ès L. Bruss., Senior French Master, Royal High School, Edinburgh. 1s. 6d.

[Vocabulary; continuous passages for retranlation.]

Rivingtons' New Intermediate French Texts.—(1) *Waterloo* (H. Beyle-Stendhal: from *La Chartreuse de Parme*); (2) *L'Evasion du Duc de Beaufort* (Alexandre Dumas): both edited by W. G. Hartog, B.A., Lecturer in French, University College, London. 1s. each.

[Notes; exercices oraux et écrits.]

Rivingtons' New Junior French Texts.—(1) *Seulette* (Mme. E. de Pressensac); (2) *Tresor des Fèves et Fleur des Pois* (Nodier): both edited by W. G. Hartog, B.A. 1s. each.

[Notes, exercices, vocabulaire.]

#### GERMAN.

Blackie's German Plays for acting in School or at Home.—(1) *Grossväterchen und Grossmütterchen*. Von Kate Weber. (2) *Froschkönig* (dramatisiertes Märchen). Von Henny Koch. (3) *Das Märchen vom Dornröschen*. Von Henny Koch. 4d. each.

[Suitable; amusing; good for practice in German.]

Blackie's Little German Classics.—*Der Kriegsfreiwillige von 1870-1871* (Otto Delfs). Edited by J. M. Morrison, M.A., Master in Modern Languages, Aberdeen Grammar School. 6d.

[Able and instructive edition.]

Ginn's International Modern Series.—*Das Verlorene Paradies* (Ludwig Fulda). Edited by Paul H. Grumann, Professor of Modern German Literature, University of Nebraska. 2s.

[Notes; Fragen; vocabulary. “Fulda's plays are particularly rich in colloquial German.” Careful and useful edition.]

Heath's Modern Language Series.—*Elementary Texts*: (1) *Easy German Stories* (Hedwig Levi). Edited by Mrs. Luise Delp, Senior German Mistress (Visiting) at the Sydenham and East Putney High Schools for Girls. 1s. 3d. (2) *Das Peterle von Nürnberg* (Viktor Blüthgen). Edited by Wilhelm Bernhardt, Ph.D. 1s. 6d.—*Intermediate Texts*: *Das Fahlein der Sieben Aufrechten* (Gottfried Keller). Edited by W. G. Howard and A. M. Sturtevant. 1s. 6d.

[Good and interesting matter. (1) 10 stories, notes, vocabulary. (2) A Middle Age romance, charmingly told; notes, vocabulary, retranlation; 3 illustrations (Nürnberg). (3) Picture of Swiss life and love story; original somewhat abbreviated and otherwise adapted; notes and vocabulary; portrait.]

Teubner's Deutsche Schulausgaben (Herausgegeben von Direktor Dr. H. Gaudig und Dr. G. Frick).—*Torquato Tasso* (Goethe). Edited by Dr. G. Frick. Geb. Mk. '60.

[A few useful foot-notes, brief; historical and literary “Anhang,” suggestive as well as informatory.]

Rivingtons' Direct Method Elementary German Texts (edited by D. L. Savory, M.A.)—(1) *Das Gespensterschiff* (Hauff); (2) *Die Geschichte des jungen Herrn Anton* (Seidel); (3) *Krambambuli* (Marie von Ebner-Eschenbach). 1s. 6d. each.

[Good reading. Matter divided into sections, each followed by Fragen and Grammatisches; vocabulary; illustrations. Carefully edited, well printed, and substantially bound.]

#### EDUCATION.

Assistant Masters in Secondary Schools, Incorporated Association of. Annual List of Members.

Board of Education.—(1) Report for 1906 on the Victoria and Albert Museum, the Royal Colleges of Science and Art, the Geological Survey and Museum, and on the work of the Solar Physics Committee. Cd. 3978. 1s. 3½d. (2) Regulations for the Preliminary Education of Elementary-School Teachers (from August 1 next). Cd. 4038. 2½d. (3) Scheme of the Conventional Signs used in Official Maps, showing Schools and Colleges and other Educational facilities existing in Local Education Authorities' areas. 2d. (4) Supplementary List of Training College Students who completed their Training on July 31, 1906, and have since qualified by examination for recognition as Certificated Teachers. 1d. Wyman.

Cambridge University. (1) Local Examinations, 1907: The Fiftieth Annual Report of the Syndicate, with Supplementary Tables for December, 1907, and Lists in order of merit of the Senior and Junior Students who obtain the Mark of Distinction in each subject. 2s.; post free, 2s. 4d. London: Cambridge University Press Warehouse (Fetter Lane, E.C.). (2) Higher Local Examinations: Regulations for the Examinations in December, 1908, and in June, 1909.

City and Guilds of London Institute; Department of Technology. (1) Report of the Council, 1908. (2) Programme for Session 1908-9. 9d. Murray.

Clark College Record (Worcester, Mass., U.S.A.), April, 1908.

[Mainly an account of the chief steps of progress, in view of the approach of the College's seventh year.]

Daughters, For our: a Plea for the Co-education of our Boys and Girls. By Mrs. Ennis Richmond, Principal of St. Leonard's School for Boys and Girls, Baldock, Herts. 3d. Letchworth: Wheeler, Odell, & Co. London: Street, 42 Albemarle Street, W.

[Reasoned and moderate.]

Education Riddle Answered: How to solve the Problem—by means of a new policy (non-party and unsectarian). By J. K. C. Publishers, Addison House, Woodfield Road, Westcliff-on-Sea.

Johns Hopkins University Circular. No. 4 (April), The Collegiate Instruction, 1908. No. 5 (May), The Economic Seminary, 1907-8.

London University and Union Society: Annual Report, 1906-07.

[Shows much useful activity.]

L.C.C.—(1) Conference of Teachers, January 2-4, 1908: Report of Proceedings. No. 1139. 1s.; post free, 1s. 3d. (2) Report by the Educational Adviser on German Experiments in connexion with Open Air Schools, and a Joint Report of the Medical Officer and the Executive Officer on the Bostall Wood Open Air School (July 22-October 19, 1907). P. S. King & Son.

[(1) Interesting and instructive papers and discussions on Nature Study, the Teaching of Botany, Commercial Education, Manual Work in the Lower Standards, and Educational Experiments in Elementary Schools.]

United States and Canada, Education in the: Report of a Tour with the Mosely Commission of Teachers 1906-7. By G. P. Dymond, M.A. Lond., Principal of the Hoe Grammar School, Plymouth. 6d. To be obtained from the Secretary, Hoe Grammar School, Plymouth.

**MATHEMATICS.**

**16390.** (Professor NEUBERG.) — Soient A'B'C'D' et ABCD deux tétraèdres polaires réciproques par rapport à une sphère de centre O. Démontrer que

$$\frac{\text{vol OB'C'D'}}{\text{vol OBCD}} = \frac{\text{OC'D'A'}}{\text{OCDA}} = \frac{\text{OD'A'B'}}{\text{ODAB}} = \frac{\text{OA'B'C'}}{\text{OABC}}$$

*Solutions (I.) by A. M. NESBITT, M.A.; (II.) by M. T. NARANIENGAR, M.A.*

(I.) If A', B', C', D' have for co-ordinates (x<sub>1</sub>y<sub>1</sub>z<sub>1</sub>), (x<sub>2</sub>y<sub>2</sub>z<sub>2</sub>), (...), (...), the equations to BCD, CDA, ..., will be

$$xx_1 + yy_1 + zz_1 = c^2, \quad xx_2 + \dots = c^2 \dots \dots \dots (1, 2),$$

and two similar (3), (4).

Now if big letters denote co-factors of corresponding small letters in the determinant | x<sub>1</sub> y<sub>1</sub> z<sub>1</sub> w<sub>1</sub> | ≡ ∇, the co-ordinates of B with signs changed are

$$c^2 X_2/W_2, \quad c^2 Y_1/W_2, \quad c^2 Z_3/W_2,$$

so that six times the tetrahedron OBCD

$$= \begin{vmatrix} X_2 & Y_2 & Z_2 \\ X_3 & Y_3 & Z_3 \\ X_4 & Y_4 & Z_4 \end{vmatrix} \times c^6/W_2 W_3 W_4.$$

But the determinant | X<sub>2</sub> Y<sub>3</sub> Z<sub>4</sub> | = w<sub>1</sub>∇<sup>2</sup>, so that the above reduces to c<sup>6</sup>w<sub>1</sub>∇<sup>2</sup>/W<sub>2</sub>W<sub>3</sub>W<sub>4</sub>. Also six times the tetrahedron OB'C'D' is at once seen to be W<sub>1</sub>; therefore the Proposer's first ratio becomes W<sub>1</sub>W<sub>2</sub>W<sub>3</sub>W<sub>4</sub>/c<sup>6</sup>.w<sub>1</sub>∇<sup>2</sup>; and, since w<sub>1</sub>, w<sub>2</sub>, ... are all unity, the four ratios are clearly equal.

(II.) Let a, a' denote OA, OA', and θ, θ' their inclinations to the planes of BCD and B'C'D'. Also let p, p' denote the perpendiculars from O on BCD and B'C'D', and V, V' the volumes of ABCD and A'B'C'D'.

Then evidently p.a' = p'.a = R<sup>2</sup>, where R is the radius of the sphere, and θ = θ', since OA, OA' are respectively perpendicular to B'C'D' and BCD. Hence

$$V = \frac{1}{3} (\text{area } \triangle BCD)(p + a \sin \theta) = \frac{1}{3} \Delta (R^2 + aa' \sin \theta)/a' \dots \dots \dots (1),$$

$$V' = \frac{1}{3} (\text{area } \triangle B'C'D')(p' + a' \sin \theta) = \frac{1}{3} \Delta' (R^2 + aa' \sin \theta)/a \dots \dots \dots (2);$$

therefore  $V : V' = a : a' \Delta : a' \Delta'$ .

But OB'C'D' : OBCD = p'Δ' : pΔ = a'Δ' : aΔ.

Thus OB'C'D' : OBCD = V' : V, &c.

**16420.** (Rev. F. H. JACKSON, M.A.)—Transform

$$1 + ax + a^2x^2 + a^3x^3 + \dots$$

$$\text{into } \frac{1}{1-x} + \frac{(a-1)x}{(1-x)(1-qx)} + \frac{(a-1)(a-q)x^2}{(1-x)(1-qx)(1-q^2x)} + \frac{(a-1)(a-q)(a-q^2)x^3}{(1-x)(1-qx)(1-q^2x)(1-q^3x)} + \dots,$$

with easily obtained conditions for convergence. Similarly transform

$$\text{Gauss's series, } \frac{x}{1-q} + \frac{x^2}{1-q^2} + \frac{x^3}{1-q^3} + \dots$$

$$\text{into } \frac{x}{(1-q)(1-x)} - \frac{qx^2}{(1-q^2)(1-x)(1-qx)} + \frac{q^2x^3}{(1-q^3)(1-x)(1-qx)(1-q^2x)} - \dots$$

The numerator of the n-th term being q<sup>n(n-1)</sup>x<sup>n</sup>.

*Solution by S. T. SHOVELTON, M.A.*

If in the identity

$$(1-a_1) + a_1(1-a_2) + a_1a_2(1-a_3) + \dots + a_1a_2 \dots a_n(1-a_{n+1}) = 1 - a_1a_2 \dots a_{n+1},$$

we put

$$a_r = \frac{(a-q^{r-1})x}{1-q^{r-1}x},$$

we obtain

$$\frac{1-ax}{1-x} + \frac{(a-1)x(1-ax)}{(1-x)(1-qx)} + \dots + \frac{(a-1)(a-q) \dots (a-q^{n-1})x^n(1-ax)}{(1-x)(1-qx) \dots (1-q^n x)} = 1 - \frac{(a-1)(a-q) \dots (a-q^n)x^{n+1}}{(1-x)(1-qx) \dots (1-q^n x)}.$$

If |q| < 1 and |ax| < 1 the limit of the right-hand side is unity; therefore, &c.

$$\text{Again, let } f(x) = \frac{x}{1-q} + \frac{x^2}{1-q^2} + \frac{x^3}{1-q^3} + \dots$$

$$\text{Then } f(x) - f(qx) = x + x^2 + x^3 + \dots = \frac{x}{1-x} \text{ if } |x| < 1.$$

If in the above equation we put a = 0, we obtain

$$1 = \frac{1}{1-x} - \frac{x}{(1-x)(1-qx)} + \frac{qx^2}{(1-x)(1-qx)(1-q^2x)} - \dots;$$

$$\text{therefore } \frac{x}{1-x} = \frac{x}{(1-x)(1-qx)} - \frac{qx^2}{(1-x)(1-qx)(1-q^2x)} + \dots \dots + (-1)^n \frac{q^{n(n-1)}x^n}{(1-x)(1-qx) \dots (1-q^n x)} \dots$$

$$\text{But } \frac{1}{(1-x)(1-qx) \dots (1-q^n x)} = \frac{1}{(1-q^n)} \left\{ \frac{1}{(1-x) \dots (1-q^{n-1}x)} - \frac{q^n}{(1-qx) \dots (1-q^n x)} \right\};$$

$$\text{therefore } \frac{x}{1-x} = \phi(x) - \phi(qx),$$

$$\text{where } \phi(x) = \frac{x}{(1-q)(1-x)} - \frac{qx^2}{(1-q^2)(1-x)(1-qx)} + \frac{q^2x^3}{(1-q^3)(1-x)(1-qx)(1-q^2x)} - \dots;$$

therefore f(x) - φ(x) = f(qx) - φ(qx) if |x| < 1 and |q| < 1.

By continued application of this equation, we obtain

$$f(x) - \phi(x) = f(q^n x) - \phi(q^n x),$$

and this is seen to be zero by letting n become infinite; therefore

$$f(x) = \phi(x).$$

The solution by the PROPOSER is as follows:—

Both transformations are examples of the following generalization of Mortmort's theorem,

$$\sum_{n=0}^{\infty} u_n x^n = \frac{x}{(1-x)} u_1 + \frac{x^2}{(1-x)(1-qx)} \Delta u_1 + \frac{x^3}{(1-x)(1-qx)(1-q^2x)} \Delta^2 u_1 + \dots,$$

in which Δu<sub>n</sub> = u<sub>n+1</sub> - u<sub>n</sub> = (D-1)u<sub>n</sub>, Δ<sup>2</sup>u<sub>n</sub> = (D-1)(D-q)u<sub>n</sub>,

$$\dots \dots \dots \Delta^n u_n = (D-1)(D-q) \dots (D-q^{n-1}) u_n,$$

shortly to be published, *Messenger of Mathematics*, 1908.

**16419.** (S. NARAYANA AIYAR.)—Integrate

$$(a) \int \frac{\cos(\phi_0 + \phi_1 + \phi_2 + \dots + \phi_n)}{\rho_0 \rho_1 \rho_2 \dots \rho_n} d\theta,$$

$$(b) \int \frac{\sin(\phi_0 + \phi_1 + \phi_2 + \dots + \phi_n)}{\rho_0 \rho_1 \rho_2 \dots \rho_n} d\theta,$$

where φ<sub>p</sub> = tan<sup>-1</sup> sin θ / (p + cos θ) and ρ<sub>p</sub> = √(1 + 2p cos θ + p<sup>2</sup>).

*Solution by S. T. SHOVELTON, M.A.*

Denoting the two integrals by C and S, we have

$$C + iS = \int \prod_{p=0}^{n-1} \frac{e^{i\phi_p}}{\rho_p} d\theta.$$

$$\text{Now } \frac{e^{i\phi_p}}{\rho_p} = \frac{(p + \cos \theta) + i \sin \theta}{(p + \cos \theta)^2 + \sin^2 \theta} = \frac{1}{p + e^{-i\theta}}$$

$$\text{and } \prod_{p=0}^{n-1} \frac{1}{p + e^{-i\theta}} = \prod_{p=0}^{n-1} \frac{(-1)^p}{p! (n-p)!} \cdot \frac{1}{p + e^{-i\theta}};$$

therefore

$$C + iS = \prod_{p=0}^{n-1} \frac{(-1)^p}{p! (n-p)!} \int \frac{d\theta}{p + e^{-i\theta}} = \prod_{p=0}^{n-1} \frac{(-1)^p}{p! (n-p)!} \left[ \frac{\log(pe^{i\theta} + 1)}{ip} \right] = \prod_{p=0}^{n-1} \frac{(-1)^{p-1}}{p! (n-p)!} \left[ i \log \sqrt{(p^2 + 2p \cos \theta + 1)} - \tan^{-1} \frac{p \sin \theta}{1 + p \cos \theta} \right],$$

whence the values of C and S are obvious.

**16381.** (E. J. EBDEN, B.A.) — ABC is any plane triangle. (A) Through A, B, C lines are drawn trisecting the angles CAB, ABC, BCA respectively. Let (A, B) denote that trisector of the angle CAB which is nearest to the side opposite the angle B, ...; show geometrically (or otherwise) that the triangle determined by the points

(B, A), (C, A); (C, B), (A, B); (A, C), (B, C) ..... (1, 2, 3)

is equilateral.

(b) Let the exterior angles be trisected. Let AB, AC be produced, and let the trisectors of the exterior angle at B nearest to BC, and to AB produced be denoted by (B', A) and (B', C) respectively; then the triangle determined by the points

(A, C), (B', C); (A, B), (C', B); (B', A), (C', A)

is equilateral. So also the triangles determined by producing BA, BC; CA, CB respectively, and applying the same construction, are equilateral.

(c) The triangle determined by the points

(B', A), (C', A); (A', B), (C', B); (A', C), (B', C)

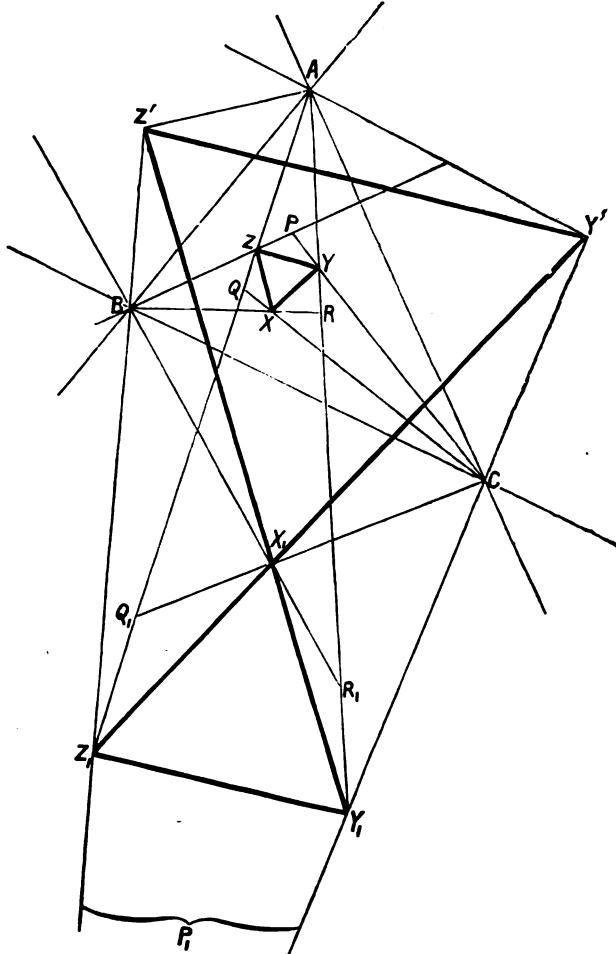
by producing AB, AC; BA, BC; CA, CB respectively is equilateral.

(d) The property (a) holds good when one vertex is at infinity, and the triangle degenerates into a finite straight line and two parallels drawn in the same direction through its extremities.

The lines trisecting the vertical angle at infinity are represented by two lines drawn parallel to the infinite sides from the points of trisection of the finite side.

*Solution by M. SATYANARAYANA.*

(a) To show that XYZ, the triangle formed by the points (B, A), (C, A); (C, B), (A, B); and (A, C), (B, C), is equilateral.



From triangle BPC,

$$BP \sim CP = 2R \sin A \left\{ \left[ \sin \frac{2}{3}B / \sin \frac{2}{3}(B+C) \right] \sim \left[ \sin \frac{2}{3}C / \sin \frac{2}{3}(B+C) \right] \right\} \\ = [2R \sin A \sin \frac{1}{3}(B+C)] / \sin \frac{1}{3}(B+C).$$

Also  $BZ \sim CY$

$$= [(2R \sin C \sin \frac{1}{3}A) / \sin \frac{1}{3}(A+B)] \sim [(2R \sin B \sin \frac{1}{3}A) / \sin \frac{1}{3}(A+C)] \\ = 2R \sin \frac{1}{3}A \left\{ \left[ \sin(A+B) / \sin \frac{1}{3}(A+B) \right] \sim \left[ \sin(A+C) / \sin \frac{1}{3}(A+C) \right] \right\} \\ = 2R \cdot 4 \sin \frac{1}{3}A \sin \frac{1}{3}(2A+B+C) \sin \frac{1}{3}(B+C) \\ = 2R \sin \frac{1}{3}(B+C) \sin A / \sin \frac{1}{3}(B+C);$$

therefore

$$BP \sim BZ = CP \sim CY;$$

therefore

$$ZP = PY.$$

Similarly

$$QZ = QX, \quad RX = RY.$$

Now

$$\angle YZX = 180^\circ - \angle BZQ - \angle QZX - \angle PZY \\ = (A+B+C) - \frac{1}{3}(A+B) - \frac{1}{3}(A+C) - \frac{1}{3}(B+C) \\ = \frac{1}{3}(A+B+C) = 60^\circ.$$

Similarly

$$\angle ZYX = \angle YXZ = 60^\circ.$$

Hence XYZ is equilateral.

(b) To prove that  $X_1Y_1Z_1$  is equilateral.

As in the previous case  $AZ_1 \sim AQ_1 = CQ_1 \sim CX_1$ ; therefore

$$Q_1X_1 = QZ_1, \dots,$$

$$\angle Z_1X_1Y_1 = 180^\circ - \angle Q_1X_1Z_1 - \angle R_1X_1Y_1 - \angle CX_1R_1;$$

$$\text{but } \angle Q_1X_1Z_1 = \frac{1}{3}(180^\circ - \angle X_1Q_1Z_1) = \frac{1}{3}[(A+B+C) - \frac{2}{3}A - \frac{1}{3}(3C+A+B)] \\ = \frac{1}{3}B, \quad \angle R_1X_1Y_1 = \frac{1}{3}C,$$

$$\text{and } \angle CX_1R_1 = \frac{1}{3}(A+C) + \frac{1}{3}(B+A) = \frac{1}{3}(2A+B+C);$$

therefore

$$\angle Z_1X_1Y_1 = \frac{1}{3}(A+B+C) = 60^\circ.$$

Similarly

$$\angle X_1Y_1Z_1 = \angle Y_1Z_1X_1 = 60^\circ.$$

(c) To show that  $X_1Y_1Z_1$  is equilateral.

In this case  $BZ' + BP_1 = CY' + CP_1$ ;

therefore

$$P_1Z' = P_1Y', \dots,$$

$$\angle X_1Y_1Z_1 = \angle P_1Y_1Z_1 + \angle AY'X_1 - \angle AY'C;$$

but  $\angle P_1Y_1Z_1 = \frac{1}{2}[(A+B+C) - \angle BP_1C]$

$$= \frac{1}{2}\{(A+B+C) - [180^\circ - \frac{2}{3}(A+C) - \frac{2}{3}(A+B)]\} \\ = \frac{1}{2}(2A+B+C).$$

Similarly

$$\angle AY'X_1 = \frac{1}{2}(2C+B+A),$$

because  $Y'A$  and  $X_1B$  produced form the sides of an isosceles triangle,

and  $\angle AY'C = 180^\circ - \frac{1}{3}(B+C) - \frac{1}{3}(A+B) = \frac{1}{3}(2A+B+2C)$ ;

therefore

$$\angle X_1Y_1Z_1 = \frac{1}{2}(A+B+C) = 60^\circ.$$

Similarly

$$\angle Y_1Z_1X_1 = \angle Y'X_1Z_1 = 60^\circ.$$

(d) This easily follows from (a) or (b).

11759. (Professor RAMASWAMI AIYAR, M.A.)—Find loci in space for the movable points A, B, C, D, such that  $AB \cdot CD = AC \cdot BD$ .

*Solution by M. T. NARANIENGAR, M.A.*

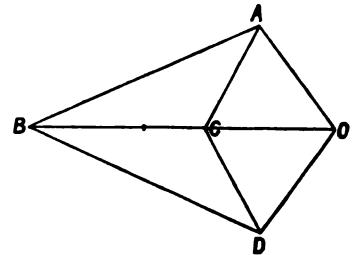
If  $AB \cdot CD = AC \cdot BD$ ,

$$AB : AC = BD : CD.$$

Hence A and D must lie on a circle having B and C for inverse points. Thus, if O be the centre of this circle,

$$OC \cdot OB = OA^2 = OD^2.$$

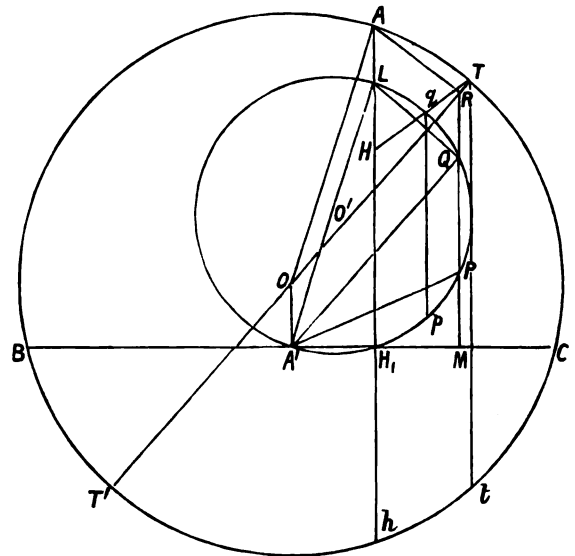
Therefore the circle is orthogonal to the circles BCA, BCD. We may therefore regard A, B, C, D as the intersections of an orthogonal circle with two coaxial circles. In space the locus may be conceived as the common section of two spheres and an orthogonal sphere, &c.



*Note on the Nine-Point Circle.*

*By W. GALLATLY, M.A.*

Let  $A'B'C'$  be the mid-point triangle of ABC, P any point on the nine-point circle. Draw MPQ perpendicular to BC, noting that  $A'Q$  is parallel to the Simson-line of P with regard to  $A'B'C'$ . Draw diameter TOT' parallel to  $A'Q$ .



(1)  $\angle PA'M = \angle AOT$ .

For, since OQ is a parallelogram,  $A'Q$  is equal and parallel to OR. Also  $A'L$  is equal and parallel to OA. Therefore the triangles AOR,  $LA'Q$  are equal in all respects,

$\angle ARO = \angle LQA' = \text{a right angle}$  and  $\angle AOT = \angle LA'Q = \angle PA'C$ ,

since  $\text{arc LQ} = \text{arc PH}_1$ .

(2) The Simson-lines of T and T' with respect to ABC pass through P. Draw chord Tt perpendicular to BC. Join HT, cutting arc LQ in q, so that  $Hq = qT$ .

The Simson-line of T passes through q, and is parallel to At.

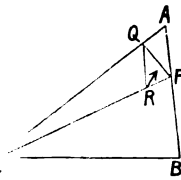
Draw chord qp parallel to PQ.

Then, since  $\angle PO'H_1 = 2\angle PA'H_1 = 2\angle AOT$ , and the radii are as 1 : 2,

therefore  $\text{arc PH}_1 = \text{arc LQ} = \text{arc AT}$ .



16471. (V. DANIEL, B.Sc.)—A line CPQR... is drawn from one angle of a triangle, as in the figure, each  $(n + 2)$ -th portion terminated by the  $n$ -th portion, and is such that the ratio in which each portion of the line divides the angle from which it starts is alternately  $\tan^2 \alpha$  or  $\cot^2 \alpha$ ,  $\alpha$  being a constant. If  $\theta_n$  denote the  $n$ -th angle so divided, and  $\phi_n$  its complement, show that



- (1)  $\phi_\infty = 0$ ,
- (2)  $p_n \sin \theta_n = p_{n-1} \sin(\theta_n \cos^2 \alpha) - p_{n-2} \sin(\theta_n \sin^2 \alpha)$ ,

where  $p_r$  is the perpendicular from C on the  $r$ -th portion of the line. Will any solver contribute a method of determining the co-ordinates of the limiting point?

16472. (R. F. DAVIS, M.A.)—XYZ is a triangle whose circumcentre is O and orthocentre H; and the images of X, Y, Z in YZ, ZX, XY are A, B, C respectively. The celebrated Dutch problem (first proposed about 1899), "Given A, B, C to find X, Y, Z," which leads to an equation of the seventh degree has been recently discussed by Mr. C. E. McVicker, M.A., in the March, 1908, number of the *Educational Times*. Prove geometrically that, if A'B'C' be the triangle having A, B, C for the middle points of its sides; then (1) there are six triplets of similar triangles

- OXB, CXA, OCA',
- OXC, BXA, OBA',
- OYA, CYB, OCB',
- OYC, AYB, OAB',
- OZA, BZC, OBC',
- OZB, AZC, OAC'.

(2)  $OA.OA' = OB.OB' = OC.OC' = OA.OB.OC/OX$ .

OLD QUESTIONS AS YET UNSOLVED (IN OUR COLUMNS).

8076. (ÂSĀTOSH MUKHOPĀDHĀY, F.R.A.S.)—The normal plane of a curve constantly touches a quadric; investigate the nature of the quadric in order that the curve may be rectifiable.

8360. (D. BIDDLE.)—A liqueur is ordered to consist of four spirits A, B, C, D, in the proportions 1, 2, 3, 10. When an eighth part is drawn off from the full vessel and consumed, it is found that B has been omitted, and that an excess of D has taken its place. Without necessarily refilling the vessel, introduce B, and rectify the proportions of the several spirits, with the least possible loss of material, and at the least possible extra expense, the relative cost of A, B, C, and D being  $1, \frac{1}{2}, \frac{1}{3}, \frac{1}{6}$ , and allowance being made for the difference in cost between the interchanged B and D.

8364. (D. EDWARDS.)—Two circles of radii  $r_1, r_2$  touch internally a parabola, and touch each other at the focus; prove that

$$r_1^{-1} + r_2^{-1} = 4l^{-1}$$

where  $l$  is the latus rectum of the parabola.

8535. (ARTEMAS MARTIN, LL.D.)—A given right cone is cut by a plane, so that the section is an entire ellipse; find its average area.

8598. (Professor NILKANTHA SARKAR, M.A.)—An equilateral triangle ABC is drawn on a sphere, and any point P is taken within it; (1) find the constant relation between PA, PB, PC; and (2) prove that their sum is less than two-thirds of the perimeter of the triangle.

8670. (R. KNOWLES, B.A.)—Prove that the sum of the series

$$1 + \frac{5.2}{1.2} \left(\frac{1}{2}\right)^1 + \frac{5.2.11.8}{1.2.3.4} \left(\frac{1}{2}\right)^2 + \frac{5.2.11.8.17.14}{1.2.3.4.5.6} \left(\frac{1}{2}\right)^3 + \dots \text{ ad inf.} \\ = \frac{1}{2} (4^3)(1 + 7^{-1}).$$

NOTICE TO CORRESPONDENTS.

It is requested that all Mathematical communications should be sent to the Mathematical Editor,

Miss CONSTANCE I. MARKS, B.A., 10 Matheson Road, West Kensington, W.

THE LONDON MATHEMATICAL SOCIETY.

Thursday, June 11th, 1908. — Prof. W. Burnside, President, in the Chair.

Mr. F. M. Saxelby was elected a member.

The President announced that the Council had awarded the De Morgan Medal for 1908 to Dr. J. W. L. Glaisher for his researches in Pure Mathematics.

The following papers were communicated:—

- "Relations between the Divisors of the First  $n$  Natural Numbers," Dr. J. W. L. Glaisher.
- "Electrical Resonance," Prof. H. M. Macdonald.
- "A Form of the Eliminant of Two Binary Quantics," Mr. A. L. Dixon.
- "Perpetuant Syzygies of the  $n$ th Kind," Mr. H. Piaggio.

NOW READY.

Demy 8vo, cloth, price 2s. 6d., free by post.  
To Members of the College the price is 1s., or 1s. 6d. free by post.

# THE CALENDAR

OF

## THE COLLEGE OF PRECEPTORS

FOR THE YEAR 1908 :

CONTAINING

All information respecting the objects and operations of the College, Lists of Officers, Examiners, and Members, the Regulations of the various Examinations, &c., with an Appendix containing the following Examination Papers:—

1. Papers set at Examination of Teachers for Diplomas, Summer, 1907.
2. Do. do. do. do. Christmas, 1907.
3. Papers set at Examination of Pupils for Certificates, Midsummer, 1907.
4. Do. do. do. do. Christmas, 1907.
5. Papers set at Professional Preliminary Examination, March, 1907.
6. Do. do. do. do. September, 1907.
7. Papers set at Lower Forms Examination ... ... Summer, 1907.
8. Do. do. do. do. ... ... Christmas, 1907.

\* Nos. 3, 4, 5, and 6 may be had separately, price, free by post, 7d. each set. Nos. 7 and 8, price, free by post, 4d. each set.

The Diploma Papers are to be had only in the "Calendar."

FRANCIS HODGSON, 89 FARRINGTON STREET, LONDON, E.C.

## SEELEY & CO.'S Books for Prizes.

### PROFESSOR CHURCH'S HISTORICAL STORIES.

- |  |  |
|--|--|
| The Crown of Pine. 5s.                 | The Children's Iliad. 5s.                                  |
| The Crusaders. 5s.                     | The Children's Odyssey. 5s.                                |
| Greek Story. 5s.                       | The Burning of Rome. 3s. 6d.                               |
| Helmet and Spear. 5s.                  | The Hammer. 5s.  |
| Stories from Homer. 5s.                | Heroes of Chivalry. 5s.                                    |
| Stories from Virgil. 5s.               | The Count of the Saxon Shore. 5s.                          |
| Stories from the Greek Tragedians. 5s. | With the King at Oxford. 5s.                               |
| The Greek Comedians. 5s.               | Last Days of Jerusalem. 3s. 6d.                            |
| Stories of the East. 5s.               | Three Greek Children. 2s. 6d.                              |
| The Story of the Persian War. 5s.      | Stories from English History. 3s. 6d.                      |
| Stories from Livy. 5s.                 | Stories of Charlemagne and the Twelve Peers of France. 5s. |
| Roman Life in the Days of Cicero. 5s.  | The Chantry Priest. 2s. 6d.                                |
| The Story of the Iliad. 5s.            | A Young Macedonian. 2s. 6d.                                |
| The Fall of Athens. 3s. 6d.            | Heroes of Eastern Romance. 2s. 6d.                         |
| The Story of the Odyssey. 5s.          | To the Lions. 1s. 6d. and 2s. 6d.                          |

### THE LIBRARY OF ROMANCE.

- With many Illustrations. Extra crown 8vo, each 5s.  
"This series has won a considerable and well-deserved reputation."—*Guardian*.
- THE ROMANCE OF PLANT LIFE. G. F. SCOTT ELLIOT, M.A.
  - THE ROMANCE OF ANIMAL ARTS AND CRAFTS. H. COUPIN, D.Sc., and JOHN LEA, B.A.
  - THE ROMANCE OF MISSIONARY HEROISM. Rev. J. C. LAMBERT.
  - THE ROMANCE OF EARLY EXPLORATION. ARCHIBALD WILLIAMS.
  - THE ROMANCE OF MODERN EXPLORATION. ARCHIBALD WILLIAMS.
  - THE ROMANCE OF MODERN MECHANISM. ARCHIBALD WILLIAMS.
  - THE ROMANCE OF MODERN INVENTION. ARCHIBALD WILLIAMS.
  - THE ROMANCE OF MODERN ENGINEERING. ARCHIBALD WILLIAMS.
  - THE ROMANCE OF MODERN LOCOMOTION. ARCHIBALD WILLIAMS.
  - THE ROMANCE OF MODERN MINING. ARCHIBALD WILLIAMS.
  - THE ROMANCE OF POLAR EXPLORATION. G. FIRTH SCOTT.
  - THE ROMANCE OF MODERN ELECTRICITY. CHARLES R. GIBSON.
  - THE ROMANCE OF THE ANIMAL WORLD. EDMUND SELOUS.
  - THE ROMANCE OF INSECT LIFE. EDMUND SELOUS.
  - THE ROMANCE OF THE MIGHTY DEEP. AGNES GIBBERNE.
  - THE ROMANCE OF MODERN PHOTOGRAPHY. C. R. GIBSON.
  - THE ROMANCE OF MODERN SIEGES. Rev. E. GILLIAT.
  - THE ROMANCE OF THE WORLD'S FISHERIES. SIDNEY WRIGHT.
  - THE ROMANCE OF SAVAGE LIFE. G. F. SCOTT ELLIOT.

### THE LIBRARY OF ADVENTURE.

- With 16 Illustrations. Extra crown 8vo, each 5s.  
"Delightful books of adventure, tastefully got up."—*Educational Times*.
- ADVENTURES IN THE GREAT FORESTS. By H. G. HYRST.
  - ADVENTURES ON THE HIGH MOUNTAINS. By R. STEAD.
  - ADVENTURES IN THE GREAT DESERTS. By R. STEAD.
  - ADVENTURES ON THE GREAT RIVERS. By H. G. HYRST.

LONDON: SEELEY & CO., LTD., 38 GREAT RUSSELL STREET, W.C.



# Messrs. BELL'S NEW BOOKS

## MASON'S NEW ENGLISH GRAMMARS.

Revised, in accordance with modern requirements, by

**A. J. ASHTON, M.A.,**

Senior English Master, Kelvinside Academy, Glasgow; and Examiner in English to the College of Preceptors.

Now ready. Crown 8vo, 125 pages, 1s.

## MASON'S JUNIOR ENGLISH GRAMMAR.

This new edition of MASON'S ENGLISH GRAMMARS has been augmented and revised so as to embody the results of the advances that have been made in the teaching of English Grammar since these grammars were last revised by Mr. MASON. The new edition will consist of three Courses—Junior, Intermediate, and Senior—and will be printed in good bold type, and strongly bound in cloth. The Intermediate and Senior Volumes are in active preparation.

Third Edition, Revised and much Enlarged. Reset throughout. Crown 8vo, 656 pages, 5s.

### AN INTRODUCTION TO ENGLISH LITERATURE.

By HENRY S. PANCOAST.

For this new edition the first half of the book has been practically rewritten, and the chapters dealing with the Early and Middle English periods have been considerably enlarged. Greater space has also been given to the literature of the Queen Anne and Victorian periods, and separate lives of Bunyan, Dryden, Steele, Cowper, and others have been added.

### ENGLISH READINGS.

A New Series of Selections from the Works of the Great Writers. Edited for use in Schools.

**BURKE.—SELECTIONS.** Chosen and edited with a full Introduction, by BLISS PERRY, editor of the "Atlantic Monthly." xxvi+298 pp. 16mo. 2s. 6d.

**BYRON.—SELECTIONS.** Edited, with Introduction and Notes by P. I. CARPENTER, Assistant Professor in the University of Chicago. lviii+412 pp. 16mo. 2s. 6d.

**COLERIDGE.—PROSE SELECTIONS.** Selections chosen and edited, with Introduction and Notes, by HENRY A. BEERS, Professor in Yale University. xxix+146 pp. 16mo. 2s.

**DRYDEN.—ESSAYS ON THE DRAMA.** Edited by WILLIAM STRUNK, JUNR., Assistant Professor in Cornell University. xxxviii+180 pp. 16mo. 2s.

**SWIFT.—PROSE SELECTIONS.** Edited by FREDERICK C. PRESCOTT, Assistant Professor in Cornell University. xliii+229 pp. 16mo. 2s. 6d.

**TENNYSON.—THE PRINCESS.** Edited, with Notes and Introduction by L. A. SHERMAN, Professor in the University of Nebraska. lxi+185 pp. 16mo. 2s.

**THACKERAY.—ENGLISH HUMOURISTS.** Edited, with an Introduction and Notes, by WILLIAM LYON PHELPS, Professor in Yale University. xii+360 pp. 16mo. 2s. 6d.

Crown 8vo. With the Original Map. 2s.

### JOSEPH HALL.—MUNDUS ALTER ET IDEM

(An Old World and a New).

Edited for School Use with Introduction, Notes, and Vocabulary by H. J. ANDERSON, M.A., Inspector of Training Colleges in Cape Colony, late Classical Master at Hillhead Public School, Glasgow.

This edition of Bishop HALL'S famous satire is intended for use as a reader in the awkward period which immediately precedes the reading of difficult authors, and will be found an admirable preparation for them.

### BELL'S ILLUSTRATED CLASSICS.

Pott 8vo. With many Illustrations. With or without Vocabulary. Price 1s. 6d. each.

NEW VOLUMES.

**VERGIL.—AENEID. Book X.** Edited, with Introduction and Notes, by L. D. WAINWRIGHT, M.A., Assistant Master at St. Paul's School. Ready.

**VERGIL.—AENBID. Book IX.** Edited, with Introduction and Notes, by L. D. WAINWRIGHT, M.A. Preparing.

Crown 8vo. 1s.

**COTHURNULUS. Three Short Historical Latin Plays for Beginners.** With Vocabulary. By EDWARD VERNON ARNOLD, Litt.D., Professor of Latin at the University College of North Wales, formerly Fellow of Trinity College, Cambridge.

A COMPLETE HISTORY READER FOR LOWER FORMS.

Crown 8vo. 254 pages. With 66 Illustrations. 1s. 6d.

**A JUNIOR HISTORY OF ENGLAND.** By E. NIXON, Late Head Mistress of Junior School, Specialist in History, Ladies' College, Cheltenham.

This History is intended to follow the reading of a simpler one, and to be a preparation for the study of much fuller books. It aims at giving an idea of the development of the Constitution and growth of the Empire, while telling of those who have lived, fought, and died for King and Country.

Now Ready. 5s. net each.

### BELL'S CONTOUR CHARTS.

An aid to the Reading of Ordnance Survey Maps.

Full Prospectus on application.

## Cambridge Local Examinations, 1909.

## Messrs. Bell's Editions of Books Set.

**SHAKESPEARE.—JULIUS CAESAR.** Edited, with Introduction and Notes, by T. DUFF BARNETT, B.A. 2s. (Bell's English Classics.) Notes, separately, 1s.

**CAESAR.—DE BELLO GALLICO. Books IV. and V.** Edited, with Introduction and Notes, by the Rev. A. W. URCOTT, M.A., and A. REYNOLDS, M.A. With Illustrations. 2s. 6d. Also separately, 1s. 6d. each. (Bell's Illustrated Classics.)

**Translation.** By W. A. McDEVITTE. Books I.-IV. 1s. Books V.-VII. 1s. (Bell's Classical Translations.)

**VERGIL.—AENEID. Book XI.** Professor Conington's Edition. Abridged. 1s. 6d. (Cambridge Texts with Notes.)

**Translation.** By A. HAMILTON BRYCE. 1s. (Bell's Classical Translations.)

**LIVY, Book XXII.** Edited by L. D. DOWDALL, M.A. 2s. (Public School Series.)

**Translation.** By J. B. BAKER. 1s.

**PLAUTUS.—TRINUMMUS.** Edited, with Notes, by W. WAGNER, Ph.D. 4s. 6d. (Public School Series.)

**Translation.** 1s. By HENRY T. RILEY. (Bell's Classical Translations.)

**XENOPHON.—ANABASIS. Book II.** Edited, with Introduction and Notes, by E. C. MARCHANT, M.A. Illustrated. 1s. 6d. (Bell's Illustrated Classics.)

**Translation.** By the Rev. J. S. WATSON. 1s. (Bell's Classical Translations.)

**PLATO.—APOLOGY AND CRITO.** Edited, with Notes, by Prof. WAGNER. 2s. 6d. (Bell's Classical Translations.)

**SOPHOCLES.—ANTIGONE.** Edited, with Introduction and Notes, by G. H. WELLS, M.A. Illustrated. 2s. 6d. net. (Bell's Classical Translations.)

**Translation.** 1s. (Bell's Classical Translations.)

**MOLIERE.—LE BOURGEOIS GENTILHOMME.** Edited by M. GASC. 6d. (Bell's Modern Translations.)

**Translation.** 1s. (Bell's Modern Translations.)

London: GEORGE BELL & SONS, York House, Portugal St., Kingsway, W.C.

JUST PUBLISHED. **AN IMPORTANT NEW SCHOOL ARITHMETIC.**

# A SCHOOL ARITHMETIC. By H. S. HALL, M.A., AND F. H. STEVENS, M.A.

Complete, with Answers, 4s. 6d.; without Answers, 3s. 6d.

Or in two parts—Part I., with Answers, 2s. 6d.; without Answers, 2s. Part II., with Answers, 2s. 6d.; without Answers, 2s. Answers, 1s. Key in preparation.

THIS work follows closely the recommendations of the Mathematical Association. Some of the principal features are as follows:—

- (i.) British and Foreign Weights and Measures are introduced and illustrated side by side.
- (ii.) Algebraical methods are used whenever they seem conducive to clearness and simplicity.
- (iii.) Decimals and the Metric System are discussed together.
- (iv.) Special attention has been bestowed on the sections dealing with Decimal Approximation.
- (v.) The principles of Ratio, Proportion, and Percentage are introduced in a simple manner in connection with Fractions, and are more fully developed in later sections.
- (vi.) Though the Unitary Method is dealt with in an early chapter, it gives way later to more direct and scientific methods in all questions depending on Proportion.
- (vii.) A chapter is given explaining all that is necessary for a clear understanding of Simple Graphs. In subsequent chapters graphical methods are frequently used for the purpose of illustration—especially in connection with Proportion and Variation.
- (viii.) The use of Four-Figure Logarithms is fully explained. Tables of Logarithms and Anti-Logarithms are supplied, together with a large variety of examples for practice in logarithmic work.

**H.M.I.**

Some Passages in the Life of one of H.M. Inspectors of Schools. By **E. M. SNEYD-KYNNERSLEY**, formerly H.M.I. North-west Division. 8vo, 8s. 6d. net.

A highly entertaining book, containing a large number of good stories told by a *raconteur* of exceptional ability.

## CAMBRIDGE LOCAL EXAMINATIONS, 1909.

### RELIGIOUS KNOWLEDGE.

- THE GOSPEL ACCORDING TO ST. MATTHEW.** Greek Text. With Introduction and Notes. By Rev. Canon SLOMAN, M.A. 2s. 6d. [*Preliminary, Junior, and Senior.*]  
**THE ACTS OF THE APOSTLES.** Greek Text. With Notes. By T. E. PAGE, M.A. 3s. 6d. [*Junior and Senior.*]  
**THE ACTS OF THE APOSTLES.** Authorised Version. With Notes. By T. E. PAGE, M.A., and Rev. A. S. WALPOLE, M.A. 2s. 6d. [*Junior and Senior.*]  
**THE EPISTLES TO THE THESSALONIANS.** Greek Text. With Commentary. By Rev. G. MILLIGAN, D.D. 12s. [*Senior.*]  
**THE FIRST EPISTLE TO THE THESSALONIANS.** By C. J. VAUGHAN, D.D. 1s. 6d. [*Senior.*]  
**THE FIRST EPISTLE TO THE THESSALONIANS.** Analysis and Notes. By Rev. G. W. GARROD, B.A. 2s. 6d. net. [*Senior.*]  
**THE SECOND EPISTLE TO THE THESSALONIANS.** Analysis and Notes. By Rev. G. W. GARROD, B.A. 2s. 6d. net. [*Senior.*]

### ENGLISH.

- LAMB.—TALES FROM SHAKESPEARE.** Edited by Rev. A. AINGER, LL.D. Contains—"A Midsummer Night's Dream," "The Winter's Tale," "Much Ado About Nothing," "Macbeth," "The Comedy of Errors," "Othello." 2s. 6d. net. [*Preliminary.*]  
**SHAKESPEARE.—JULIUS CAESAR.** With Introduction and Notes. By K. DEIGHTON. 1s. 9d. [*Junior and Senior.*]  
**JULIUS CAESAR.** Eversley Edition. With Notes. 1s. [*Junior and Senior.*]  
**JULIUS CAESAR.** (Text only.) Sewed, 6d. [*Junior and Senior.*]  
**RICHARD II.** With Introduction and Notes. By K. DEIGHTON. With an Appendix. 1s. 9d. [*Senior.*]  
**RICHARD II.** Eversley Edition. With Notes. 1s. [*Senior.*]  
**SCOTT.—A LEGEND OF MONTROSE.** 2s. net. [*Junior.*]  
**SPENSER.—THE FAERIE QUEENE.** Book I. With Introduction and Notes. By H. M. PERCIVAL, M.A. 3s. [*Senior.*]  
**TENNYSON.—GERAINT AND ENID, AND THE MARRIAGE OF GERAINT.** With Introduction and Notes. By G. C. MACAULAY, M.A. 2s. 6d. [*Senior.*]  
**GARETH AND LYNETTE.** With Introduction and Notes. By G. C. MACAULAY, M.A. 2s. 6d. [*Senior.*]  
**TENNYSON FOR THE YOUNG.** Edited by Rev. A. AINGER, LL.D. 1s. net. [*Preliminary.*]  
**BACON.—ESSAYS.** With Introduction and Notes. By F. G. SELBY, M.A. 3s. [*Senior.*]  
**GIBBON.—THE AGE OF THE ANTONINES.** The History of the Decline and Fall of the Roman Empire. By E. GIBBON. Chapters I.—III. Edited by J. H. FOWLER, M.A. 1s. [*Senior.*]

### LATIN AND GREEK.

- CAESAR.—THE INVASION OF BRITAIN.** By W. WELCH, M.A., and Rev. C. G. DUFFIELD, M.A. Selections from Books IV. and V., adapted for Beginners. With Exercises. 1s. 6d. [*Preliminary.*]  
**DE BELLO GALLICO.** Book IV. With Notes and Vocabulary. By C. BRYANS, M.A. 1s. 6d. [*Junior.*]  
**DE BELLO GALLICO.** Book V. With Notes and Vocabulary. By C. COLBECK, M.A. 1s. 6d. [*Junior.*]  
**VIRGIL.—AENEID.** Book XI. With Notes and Vocabulary. By T. E. PAGE, M.A. 1s. 6d. [*Junior and Senior.*]  
**LIVY.—Book XXII.** With Notes and Vocabulary. By Rev. W. W. CAPES, M.A., and J. E. MELHUSH, M.A. 1s. 6d. [*Senior.*]  
**Books XXI. and XXII.** Edited by Rev. W. W. CAPES, M.A. 4s. 6d. [*Senior.*]  
**CICERO.—PRO MILONE.** Edited by F. H. COLSON, M.A. 2s. 6d. [*Senior.*]  
**XENOPHON.—ANABASIS.** Book II. With Notes and Vocabulary. By Rev. A. S. WALPOLE, M.A. 1s. 6d. [*Junior.*]  
**SOPHOCLES.—ANTIGONE.** Edited by Rev. M. A. BAYFIELD, M.A. 2s. 6d. [*Junior and Senior.*]  
**HERODOTUS.—Book VI.** Edited by Prof. J. STRACHAN, M.A. 3s. 6d. [*Senior.*]  
**PLATO.—EUTHYPHERO, APOLOGY, CRITO, and PHAEDO.** Translated by F. J. CHURCH, M.A. 2s. 6d. net. [*Senior.*]  
**HOMER.—ILIAD. Books I.—XII.** Edited by W. LEAF, Litt.D., and Rev. M. A. BAYFIELD, M.A. 6s. [*Senior.*]

### FRENCH AND GERMAN.

- MOLIERE.—LE BOURGEOIS GENTILHOMME.** Edited by L. M. MORIARTY, M.A. 1s. 6d. [*Senior.*]  
**LE BOURGEOIS GENTILHOMME.** Edited by Dr. BRAUN-HOLTZ, M.A., Ph.D. [*In the press. Senior.*]  
**SCHILLER.—DIE JUNGFAU VON ORLEANS.** Edited by JOSEPH GOSTWICK. 2s. 6d. [*Senior.*]  
**DIE JUNGFAU VON ORLEANS.** Edited by W. HUMPHREYS. 3s. 6d. [*Senior.*]

MACMILLAN & CO., LTD., ST. MARTIN'S STREET, LONDON, W.C.



THE

# EDUCATIONAL TIMES,

AND

## Journal of the College of Preceptors.

Vol. LXI.] New Series, No. 568.

AUGUST 1, 1908.

{ Published Monthly, price, to Non-Members, 6d.; by Post, 7d. Annual Subscription, 7s.

### COLLEGE OF PRECEPTORS. (INCORPORATED BY ROYAL CHARTER.)

#### LECTURES FOR TEACHERS.

On Thursday, 1st of October, JOHN ADAMS, M.A., B.Sc., F.C.P., Professor of Education in the University of London, will commence a Course of Twelve Lectures on

#### "THE PRACTICAL TEACHER'S PROBLEMS."

The matters to be dealt with are such as interest all classes of teachers, and will be treated with that frankness that is possible in an unreported discourse, but is out of the question in a printed book. While the Lecturer will lose no opportunity of indicating how present educational conditions may be improved, he will take the present conditions as the basis and show how to make the best of things as they are. The Lectures will be copiously illustrated by references to actual experience in all kinds of Schools. The Lectures will be given on Thursday Evenings at 7, beginning on October 1st.

For Syllabus, see page 332.

The Fee for the Course is Half-a-Guinea.

Members of the College have free admission to this Course.

#### EXAMINATIONS.

**Diplomas.**—The next Examination of Teachers for the Diplomas of the College will commence on the 31st of August, 1908.

**Practical Examination for Certificates of Ability to Teach.**—The next Practical Examination will be held in October.

**Certificate Examinations.**—The Christmas Examination for Certificates will commence on the 8th of December, 1908.

**Lower Forms Examinations.**—The Christmas Examination will commence on the 8th of December, 1908.

**Professional Preliminary Examinations.**—These Examinations are held in March and September. The Autumn Examination in 1908 will commence on the 8th of September.

**Inspection and Examination of Schools.**—Inspectors and Examiners are appointed by the College for the Inspection and Examination of Public and Private Schools.

The Regulations for the above Examinations can be obtained on application to the Secretary.

C. R. HODGSON, B.A., Secretary

Bloomsbury Square, W.C.

### UNIVERSITY OF ST. ANDREWS.

#### L.L.A. DIPLOMA FOR WOMEN.

The attention of Candidates is drawn to the Ordinary and Honours Diplomas for Teachers, which are strongly recommended as suitable for those who are or intend to be teachers.

Examinations are held at Aberdeen, Birmingham, Blackburn, Brighton, Bristol, Cardiff, Croydon, Devonport, Edinburgh, Glasgow, Hull, Inverness, Leeds, Liverpool, London, Manchester, Newcastle-on-Tyne, Norwich, Nottingham, Oxford, St. Andrews, Sheffield, Swansea, and several other towns.

Information regarding the Examinations may be obtained from the SECRETARY, L.L.A. Scheme, The University, St. Andrews.

### LONDON COLLEGE OF MUSIC. (Incorporated.)

GREAT MARLBOROUGH STREET, LONDON, W.

Patron: His GRACE THE DUKE OF LEEDS.

Dr. F. J. KERN, Mus. Bsc. Cantab., Principal.

G. AUGUSTUS HOLMES, Esq., Director of Examinations-EXAMINATIONS, 1908.

The NEXT EXAMINATION in PIANOFORTE PLAYING, SINGING, THEORY, and all branches of Music will be held in London and 400 Provincial Centres in DECEMBER, when Certificates will be granted to all successful candidates.

The Higher Examinations for the Diplomas of Associate (A.L.C.M.), Licentiate (L.L.C.M.), the Teachers' Diploma, L.C.M., and Fellowship (F.L.C.M.) also take place in DECEMBER.

Gold and Silver Medals and Book Prizes are offered for competition according to the Regulations.

LOCAL SCHOOL CENTRES.—Full particulars with reference to the formation of these Centres will be forwarded to Principals of Schools upon application.

SYLLABUS for 1908, together with Annual Report, may be had of the SECRETARY.

In the Educational Department students are received and thoroughly trained under the best Professors at moderate fees. The College is open 10 a.m. to 9.30 p.m. A COURSE of TRAINING in Pianoforte and Singing for Teachers is held at the College.

VACATION LESSONS for Teachers and others are given at Easter, August, and Christmas.

T. WERKES HOLMES, Secretary.

### UNIVERSITY COLLEGE, BRISTOL.

The SESSION 1908-9 will commence on OCTOBER 1st, 1908. Prospectus and full particulars of any of the following will be forwarded on application:—

FACULTY OF ARTS AND SCIENCE—

DEPARTMENT OF SEMITIC STUDIES.

SECONDARY TRAINING DEPARTMENT.

DAY TRAINING COLLEGES FOR ELEMENTARY TEACHERS (MEN AND WOMEN).

DEPARTMENT OF ENGINEERING.

APPLIED CHEMISTRY.

DEPARTMENT OF ECONOMIC BIOLOGY.

FACULTY OF MEDICINE—

DENTAL DEPARTMENT.

DIPLOMA IN PUBLIC HEALTH OR STATE MEDICINE.

PUBLIC HEALTH LABORATORY.

COURSES FOR THE DEGREE EXAMINATIONS OF THE UNIVERSITY OF LONDON.

EVENING LECTURES, CLASSES, AND LABORATORY INSTRUCTION.

EXTENSION LECTURES.

HALLS OF RESIDENCE FOR ELEMENTARY TEACHERS.

Scholarships, Studentships, and Prizes.

JAMES RAFTER, Registrar.

### Diploma Correspondence College, Ltd.

Principal—J. W. KNIFE, L.C.P., F.R.S.L.

Vice-Principal—S. H. HOOKE, B.A., Hons. Lond.

Specialty arranged Courses for

LONDON MATRICULATION,

B.A., B.D., B.Sc.,

A.C.P., L.C.P., &c.

FREE GUIDES

on application to the SECRETARY.

WOLSEY HALL, OXFORD.

#### MEDICAL SCHOOLS.

GUY'S HOSPITAL MEDICAL SCHOOL.  
LONDON HOSPITAL MEDICAL COLLEGE.  
MIDDLESEX HOSPITAL MEDICAL SCHOOL.  
CHARING CROSS HOSPITAL MEDICAL COLLEGE.  
ROYAL DENTAL HOSPITAL.  
ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE.

(For particulars of the above, see following pages.)

#### TRAINING COLLEGES, &c.

CAMBRIDGE TRAINING COLLEGE.  
MARIA GREY TRAINING COLLEGE.  
ST. MARY'S COLLEGE, PADDINGTON.  
ST. GEORGE'S TRAINING COLLEGE.  
CHERWELL HALL, OXFORD.  
KING'S COLLEGE, LONDON.

(For particulars of the above, see following pages.)

#### OTHER COLLEGES, &c.

UNIVERSITY OF WALES.  
UNIVERSITY COLLEGE OF NORTH WALES.  
UNIVERSITY COLLEGE, LONDON.  
BEDFORD COLLEGE FOR WOMEN.  
UNIVERSITY OF EDINBURGH.  
UNIVERSITY TUTORIAL COLLEGE.  
ASSOCIATED BOARD OF THE ROYAL ACADEMY OF MUSIC AND THE ROYAL COLLEGE OF MUSIC.

CARLYON COLLEGE.  
NORMAL CORRESPONDENCE COLLEGE.  
ST. GEORGE'S CORRESPONDENCE CLASSES.  
CITY AND GUILDS OF LONDON INSTITUTE.  
BIRKBECK COLLEGE.  
NORTHAMPTON INSTITUTE.  
FROEBEL EDUCATIONAL INSTITUTE.

(For particulars of the above, see following pages.)

### UNIVERSITÉ DE RENNES (France). FRENCH COURSE FOR FOREIGNERS OF BOTH SEXES.

WINTER TERM: From 15 Nov. 1908 to 15 Feb. 1909.  
SUMMER TERM: From 1 March to 8 June, 1909.

DIPLOMAS.  
Diplômes de Langue et Littérature Françaises; Doctorat.  
Reduction of 50% on railway fares from Dieppe or Calais to Rennes. Apply for Prospectus to Prof. FEUILLEBAT, Faculté des Lettres, Rennes.

## FREE GUIDE

TO

## LONDON UNIVERSITY MATRICULATION

Post free, from

THE SECRETARY,  
Eurlington House, Cambridge;

or from the London Office of

University Correspondence College,  
32 Red Lion Square, Holborn, W.C.

Digitized by Google

## UNIVERSITY COLLEGE OF NORTH WALES, BANGOR.

(A Constituent College of the University of Wales.)

Principal—Sir H. R. REICHEL, M.A., LL.D.

Next Session begins September 29th, 1908. The College Courses are arranged with reference to the Degrees of the University of Wales; they include most of the subjects for the B.Sc. Degree of the London University. Students may pursue their first year of Medical study at the College. There are special Departments for Agriculture (including Forestry) and Electrical Engineering, a Day Training Department for Men and Women, and a Department for the Training of Secondary and Kindergarten Teachers.

Sessional fee for ordinary Arts Course, £11. 1s.; for Intermediate Science or Medical Course, £15. 15s. The cost of living in lodgings in Bangor averages from £20 to £30 for the Session. There is a Hall of Residence for Women Students; fee, from Thirty Guineas for the Session.

At the Entrance Scholarship Examination (held in September) more than 20 Scholarships and Exhibitions, ranging in value from £40 to £10, will be open for competition.

For further information and copies of the various Prospectuses apply to

JOHN EDWARD LLOYD, M.A.,  
Secretary and Registrar.

### PRIFYSGOL CYMRU.

## UNIVERSITY OF WALES.

The SIXTEENTH MATRICULATION EXAMINATION will commence on Monday, September 7th, 1908. Particulars from the REGISTRAR, University Registry, Cathays Park, Cardiff, from whom forms of entry can be obtained. Application for entry forms must be made not later than Monday, August 17th, 1908.

### PRIFYSGOL CYMRU.

## UNIVERSITY OF WALES.

TWO PRICE DAVIES SCHOLARSHIPS to the University of Wales, each of the value of £30 per annum, and tenable for three years at either the University College of Wales, Aberystwyth, or the University College of North Wales, Bangor, will be awarded in September, 1908. Particulars may be obtained from the REGISTRAR, the University Registry, Cathays Park, Cardiff.

## A BERDARE HALL, CARDIFF.—RESIDENCE FOR WOMEN STUDENTS OF THE UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.

Principal—Miss KATE HURLBATT.

Fees £42. 10s., £36, and £32 per annum. College tuition fees £10 per annum. Scholarships of £40, £25, and £15, and Exhibitions of £10, awarded on the result of Scholarship Examination of University College, Cardiff, to be held in September. Students prepare for the B.A. and B.Sc. Degrees of the University of Wales, and a Medical School and Department for Secondary, Elementary, and Kindergarten Training are attached to the College. Students with recognized academic qualifications can enter in October or January, for one year's Secondary Training Course. Apply to the PRINCIPAL.

### THE INCORPORATED

## FROEBEL EDUCATIONAL INSTITUTE, TALGARTH ROAD, WEST KENSINGTON, LONDON, W.

Recognized by the Board of Education as a Training College for Secondary Teachers.

Chairman of the Committee—Sir W. MATHER.

Treasurer—Mr. C. G. MONTEFIORE, M.A.

Secretary—Mr. ARTHUR G. SYMONDS, M.A.

## TRAINING COLLEGE FOR TEACHERS.

Principal—Miss E. LAWRENCE.

### KINDERGARTEN AND SCHOOL.

Head Mistress—Miss A. YELLAND.

Students are trained for the Examinations of the National Froebel Union and other Examinations.

TWO SCHOLARSHIPS of £20 each, and two of £15 each, tenable for two years at the Institute, are offered annually to Women Students who have passed certain recognized Examinations.

Prospectuses can be obtained from the PRINCIPAL.

## SECONDHAND BOOKS AT HALF PRICES! NEW BOOKS AT 25% DISCOUNT!

BOOKS for A.C.P., L.C.P., F.C.P., Matic. University, Certificate, Scholarship, L.L.A., B.A., and ALL other Examinations supplied. State wants; send for List. Books sent on approval. BOOKS BOUGHT, best prices given.—W. & G. FOYLE, 136 Charing Cross Road, W.C.

## BEDFORD COLLEGE FOR WOMEN

(UNIVERSITY OF LONDON),

YORK PLACE, BAKER STREET, LONDON, W.

Principal—Miss M. J. TUKE, M.A.

The Session 1908-9 will open on Thursday, October 8. Students enter their names on Wednesday, October 7.

Lectures are given in preparation for all examinations of the University of London in Arts and Science, for the Teacher's Diploma (London), for the Teacher's Certificate (Cambridge), and for the Cambridge Higher Local Examination.

A single Course in any subject may be attended. There is a Special Course of Scientific Instruction in Hygiene.

Six Laboratories are open to students for Practical work.

Regular Physical Instruction is given, free of cost, to students who desire it by a fully qualified woman teacher.

THREE ENTRANCE SCHOLARSHIPS (two in Arts and one in Science) will be offered for competition in June, 1909.

Students can reside in the College.

Full particulars on application to the PRINCIPAL.

### TRAINING DEPARTMENT FOR SECONDARY TEACHERS.

Head of the Department—Miss MARY MORTON, M.A.

Two Scholarships (one of the value of £20, one of the value of £15, for one year) are offered for the Course of Secondary Training beginning in January, 1909. The Scholarships will be awarded to the best Candidate holding a Degree or equivalent in Arts or Science.

Applications should reach the HEAD OF THE TRAINING DEPARTMENT not later than December 12.

## THE CAMBRIDGE TRAINING COLLEGE FOR WOMEN TEACHERS.

Principal—Miss H. L. POWELL,

late Scholar of Newnham College (Hist. Tripos, Class I.), late Head Mistress of the Leeds Girls' High School.

A residential College providing a year's professional training for Secondary Teachers.

The course includes preparation for the Cambridge Teacher's Certificate (Theory and Practice), and for the Teachers' Diploma of the London University. Ample opportunity is given for practice in teaching science, languages, mathematics, and other subjects in various schools in Cambridge.

Students are admitted in January and in September. Full particulars as to qualifications for admission, scholarships, and bursaries may be obtained on application to the PRINCIPAL, Cambridge Training College, Wollaston Road, Cambridge.

## THE MARIA GREY TRAINING COLLEGE FOR WOMEN TEACHERS

offers a full Course of Professional Training to Ladies who desire to become Teachers in Secondary Schools or in Kindergartens. Students are admitted in September and January.

TEN SCHOLARSHIPS, covering tuition fees, are offered to candidates residing in the Administrative County of Middlesex who wish to prepare for teaching in Secondary Schools, besides various Scholarships open to Graduates and others. For further particulars as to qualifications for entrance, terms, Scholarships, Hall of Residence, &c., apply to the Principal, Miss ALICE WOODS, at the College, Salisbury Road, Brondesbury, London, N.W.

## ST. GEORGE'S TRAINING COLLEGE FOR WOMEN TEACHERS IN INTERMEDIATE AND SECONDARY SCHOOLS, EDINBURGH.

This College provides a year's Professional Training for well educated women who intend to become Teachers.

The Course of Training is supervised by the Edinburgh Provincial Committee for the Training of Teachers and is recognized by the Scotch Education Department and by the Teachers' Training Syndicate of the University of Cambridge.

A Bursary of £30 is offered to Students entering in October, 1908.

Prospectus and further particulars from the Principal, Miss M. R. WALKER, 5 Melville Street, Edinburgh.

## CHURCH EDUCATION CORPORATION.

### CHERWELL HALL, OXFORD.

Training College for Women Secondary Teachers.

Principal—Miss CATHERINE I. DODD, M.A. (late Lecturer in Education in the Manchester University).

Students are prepared for the Oxford, the Cambridge, and the London Teacher's Diploma. Special arrangements made for Students to attend the School of Geography.

Exhibitions and Scholarships awarded in December and July.—Apply to the PRINCIPAL.

## UNIVERSITY OF LONDON.

## UNIVERSITY COLLEGE.

Provost—T. GREGORY FOSTER, Ph.D.

The Session 1908-09 in the Faculties of Arts, Laws, Medical Sciences, Science, and Engineering will begin on Monday, October 5th.

The Provost and Deans will attend on Monday, October 5th, and on Tuesday, October 6th, from 10 a.m. to 1 p.m., for the admission of students. Intending students are invited to communicate with the Provost as soon as possible.

The Slade School of Fine Art will open on Monday, October 5th, and students may be admitted on or before that date.

### FACULTY OF MEDICAL SCIENCES.

Examination for Entrance Scholarships on the 22nd and 23rd of September, 1908.

The following Prospectuses are now ready, and may be had on application to the Secretary:—

Faculty of Arts (including Economics).

Faculty of Laws.

Faculty of Medical Sciences.

Faculty of Science.

Faculty of Engineering.

Indian School.

Slade School of Fine Art.

School of Architecture.

Department of Public Health.

Scholarships, Prizes, &c.

Post Graduate Courses and Arrangements for Research.

Special provision is made for Post-Graduate and Research work in the various subjects taught at the College.

WALTER W. SETON, M.A.,  
Secretary.

University College,  
London (Gower Street).

## BIRKBECK COLLEGE, BRAMS BUILDINGS, CHANCERY LANE, E.C.

### DAY AND EVENING CLASSES.

Courses of Study under Recognized Teachers of the University of London for Degrees in Science and in Arts.

Science.—Chemistry, Physics, Mathematics (Pure and Applied), Botany, Geology, Zoology.

Arts.—Classics, English, French, German, Italian History, Geography, Logic, Economics, Mathematics (Pure and Applied).

Particulars on application.

## ENGINEERING AND TECHNICAL OPTICS.

## NORTHAMPTON POLYTECHNIC INSTITUTE.

CLERKENWELL, LONDON, E.C.

## ENGINEERING DAY COURSES IN MECHANICAL, ELECTRICAL, and HOROLOGICAL ENGINEERING.

Full Day Courses in the Theory and Practice of the above will commence on Monday, 5th October, 1908. ENTRANCE EXAMINATIONS on Wednesday and Thursday, 30th September and 1st October, at which FOUR ENTRANCE SCHOLARSHIPS will be offered. The Courses for Mechanical and Electrical Engineering include periods spent in commercial workshops and extend over four years, and they also prepare for the Degree of B.Sc. in Engineering at the University of London. Fees for either of these Courses, £15 and £11 per annum.

### DAY COURSES IN TECHNICAL OPTICS.

Full and Partial Day Courses, Practical and Theoretical, in Technical Optics will also commence on the date given above. These Courses deal with all branches of Optical Science and Practice, and are well adapted for those seeking a career in this department of Applied Science.

The Laboratories, Workshops, and Lecture Rooms of the Institute are fully equipped for the most advanced teaching in the subjects dealt with.

Full particulars can be obtained on application at the Office of the Institute, or to

R. MULLINEUX WALMSLEY, D.Sc., Principal.

## TRAINING COLLEGE FOR TEACHERS OF THE DEAF,

EATON RISE, EALING, LONDON, W.

The Training College affords a professional training as Teachers of the Deaf upon the Pure Oral System to young women, who are received as Resident or Non-resident Students. The Training College is recognized by the Board of Education for a Third Year Students' Course, and has a Practising School attached to it. Apply to the PRINCIPAL.

**CARLYON COLLEGE.**  
55 AND 56 CHANCERY LANE.

**LONDON UNIVERSITY EXAMINATIONS.**  
LONDON MATRICULATION, INTER. ARTS and SCIENCE, B.A., and B.Sc. Classes (small) Day and Evening. M.A. Classes. B.A. Honours Classes. Elementary Greek Class.

Classes and Tuition for Legal and Medical Preliminaries, Accountants', Scholarship Examinations, Previous, Responses, and General.

Papers Corrected for Schools. Vacation Tuition. Private tuition for all Examinations. Prospectus and full details on application to R. O. B. KRIB, B.A. Lond., First of First Class Classical Honours, Editor of "Phaedo," "Pro Plancio," &c.

**SUCCESSSES.**

1892-1907.—London Matric., 149; Inter. Arts, Sc., and Prel. Sci., 140, 6 in Hons.; B.Sc., 1896-1906, 25; B.A., 1891-1906, 96, 14 in Hons.; Medical Prelim., 249; Responses and Previous, 60; Law Prelim., 62; other Successes, 400.

**B.A. (LOWD.), 1906 and 1907, 15, 3 in Classical Honours. M.A., 8. INTER. ARTS, 1907, 6 out of 8.**

**FREE.**

The Principals of the Normal Correspondence College have, through the courtesy of the College of Preceptors, issued the following

**FREE GUIDES.**

1. A.C.P.	100 pages.
2. L.C.P.	84 "
3. F.C.P.	75 "
And have also published the following Guides.	
4. PREL. CERT.	120 pages.
5. CERTIFICATE.	92 "
6. MATRICULATION.	84 "
7. IRISH UNIVERSITY.	60 "
8. OXFORD & CAMBRIDGE LOCALS	100 "

These Guides are supplied gratis to all who mention this paper and state they intend sitting for examination.

"They are written by experts whose advice is the best procurable."—*Educational News*.  
"Will undoubtedly help greatly towards success."—*Schoolmistress*.

**NORMAL CORR. COLLEGE,**

47 MELFORD ROAD, EAST DULWICH, S.E., and 110 AVONDALE SQUARE, LONDON, S.E.

**CORRESPONDENCE TUITION,**

Classes or Private Lessons in all Subjects for all Examinations, &c., at moderate fees. Special tuition for MEDICAL Prelims. and DIPLOMA Exams. Many recent successes.—F. J. BORLAND, B.A., L.C.P. (Science and Math. Prizeman), Victoria Tutorial College, 87 Buckingham Palace Road, S.W.; and Stalheim, Brunswick Road, Sutton, Surrey.  
Schools visited and Examinations conducted.

**WALTER J. DICKES, B.A. (Lond.)**

**PRIVATE TUITION FOR EXAMINATIONS, &c.**

BEECHEN CLIFF, THE GARDENS, E. DULWICH, LONDON, S.E.

**THE Behnke Method of Voice**

Training for Speakers, Singers, and Stammerers. Apply to Mrs. EMIL BEHNKE, 18 Earl's Court Square, London.

"Pre-eminent success."—*Times*.  
"Highly successful methods."—*Medical Times*.  
"I have confidence in advising speech sufferers to place themselves under the instruction of Mrs. Behnke."—*Editor Medical Times*.  
"Mrs. Behnke is well known as a most excellent teacher upon thoroughly philosophical principles."—*Lancet*.  
"Mrs. Behnke's work is of the most scientific description."—*The Medical Magazine*.  
"STAMMERING" (Cleft palate Speech, Lipping), 1s. net, postage 1/2d.

**University Tutorial College.**

LONDON.

(Affiliated to University Correspondence College.)



**SEPTEMBER MATRICULATION CLASS.**

Morning Classes and Private Tuition for the September Matriculation Examination of London University may be taken up at any time, as work is carried on continuously during the summer months.

A special Revision Class commences Monday, August 24th. FEE: £4. 4s.

The last official list of the University for Matriculation credits University Tutorial College with nearly three times as many Successes as any other Institution.

**PRIVATE TUITION DURING THE SUMMER VACATION.**

Private Tuition may be obtained in subjects for London University, Oxford Responses, Cambridge Previous, City and Guilds Entrance, Hospital and University Scholarships, Legal Prelim., College of Preceptors (Medical Prelim.), and other Examinations during the Summer Vacation at University Tutorial College, 32 Red Lion Square, Holborn, W.C.

FEES.—Eight one-hour lessons, £2. 2s.; Seventeen one-hour lessons, £4. 4s.

Further particulars may be had from THE PRINCIPAL, UNIVERSITY TUTORIAL COLLEGE, Red Lion Square, Holborn, W.C.

**AUGUST VACATION CLASSES.**

Classes are held for the B.Sc. and B.A. Examinations, commencing Tuesday August 4th. All the salient theoretical points are revised, and special attention is paid to individual requirements in the Practical Work.

Classes for Beginners in Practical Chemistry, Physics, Botany, Geology, and Zoology commence Tuesday, August 4th.

Last year 82 Students of University Tutorial College passed Inter. Science and Prelim. Sci. (M.B.), and during the last three years 102 have passed the B.Sc. Examination.

**ST. MARY'S COLLEGE, PADDINGTON, W. TRAINING COLLEGE**

(attached to High School and Kindergarten). Recognized by the Board of Education as a Training College for Secondary Teachers.

In connexion with London University.  
Principal—Miss J. L. LATHAM, M.A. Dublin, Girton College, Cambridge, Mathematical Tripos, Oxford University Diploma in Teaching, assisted by

Miss M. H. WOOD, M.A. (Lond.), D.Litt. Dublin, Girton College, Cambridge, Classical Tripos, Cambridge University Diploma in Teaching. Students Prepared for the London or Cambridge Teacher's Diploma.

Practice in Secondary and Primary Schools. All London advantages. Hostel for Students at 30, 32, 34 Warrington Crescent, W. Fees Sixty Guineas per annum. Apply—PRINCIPAL.

**DENMARK HILL GYMNASIUM AND PHYSICAL TRAINING COLLEGE FOR TEACHERS.**

Full preparation for Public Examinations. British College of Physical Education: English and Swedish systems. Board of Education: Science, Swimming and Sports. For particulars apply—Miss E. SPERMAN STANGER, Trevena, Sunray Avenue, Denmark Hill, London, S.E.

**ST. GEORGE'S CORRESPONDENCE CLASSES.**

5 MELVILLE STREET, EDINBURGH. (Established in 1876.)

Preparation for the Preliminary Examination of the Scottish Universities, all of which grant Degrees to Women. Fees from 12s. per term.

Postal preparation for the L.L.A. Title and Diploma of St. Andrews University. Pass Courses (20 lessons), £2. 2s.; Honours (30 lessons), £3. 3s.

Help given in home study to non-candidates in Literature, History, Languages, &c. Special Art Classes: Schools of Painting as represented in the National Gallery; Studies in Heraldry.

Numerous Oral Classes also conducted. Large staff of efficient and experienced Tutors. Prospectus, post free, from the Secretary, Miss S. E. MURRAY, 5 Melville Street, Edinburgh.

**Messrs. TRUMAN & KNIGHTLEY, LTD.,**  
Educational Agents,

158 to 162 OXFORD STREET, LONDON, W.

Telegrams—"TUTORESS, LONDON."  
Telephone—No. 1136 City.

This Agency is under distinguished patronage, including that of the Principals of many of our leading Schools.

**A.—EMPLOYMENT DEPARTMENT.**

(i.) ASSISTANT MASTERS & TUTORS. MESSRS. TRUMAN & KNIGHTLEY introduce University and other qualified ENGLISH and FOREIGN MASTERS and TUTORS to Schools and Private Families.

(ii.) ASSISTANT MISTRESSES. MESSRS. TRUMAN & KNIGHTLEY introduce University, Trained, and other qualified ENGLISH and FOREIGN LADY TEACHERS to Girls' and Boys' Schools.

(iii.) LADY MATRONS AND HOUSE-KEEPERS. MESSRS. TRUMAN & KNIGHTLEY introduce well qualified and experienced LADY MATRONS, HOUSEKEEPERS, and HOUSE MISTRESSES to Boys' and Girls' Schools.

No charge is made to Principals, and no charge of any kind is made to candidates unless an engagement be secured through this Agency, when the terms are most reasonable.

**B.—SCHOOL TRANSFER DEPARTMENT.**

A separate Department, under the direct management of one of the Principals, is devoted entirely to the negotiations connected with the Transfer of Schools and Introduction of Partners.

MESSRS. TRUMAN & KNIGHTLEY, being in close and constant communication with the Principals of nearly all the chief Girls' and Boys' Schools in the United Kingdom, to many of whom they have had the privilege of acting as Agents, and having on their books always a large number of thoroughly genuine Schools for Sale and Partnerships to negotiate, as well as the names and requirements of numerous would-be purchasers, can offer unusual facilities for satisfactorily negotiating the TRANSFER of SCHOOLS, and arranging PARTNERSHIPS.

No charge is made to Purchasers, and there is no charge to Vendors unless a Sale or Partnership be effected through this Agency.

All communications and enquiries are treated in the strictest confidence.

**G.—PUPILS' DEPARTMENT.**

MESSRS. TRUMAN & KNIGHTLEY have a carefully organized Department for the introduction of Pupils to Schools and other Educational Establishments. No charge is made for registration.

Any negotiations entrusted to MESSRS. TRUMAN & KNIGHTLEY receive prompt and careful attention, every effort being made to save clients as much time and trouble as possible.

Full particulars will be forwarded on application.



## GUY'S HOSPITAL MEDICAL SCHOOL.

(UNIVERSITY OF LONDON.)

The WINTER SESSION commences on Thursday, October 1. ENTRANCE SCHOLARSHIPS of the combined value of £410 are awarded annually, as also numerous Prizes and Medals.

All Hospital appointments are made strictly according to merit. The Dental School provides the full curriculum required for the L.D.S. Examination.

A Handbook of information for those about to enter the Medical Profession will be forwarded on application.

For Prospectus of the School, with particulars of new scheme for payment of composition fees, course of study advised, regulations for residence in the College, and of the Clubs Union, &c., apply personally, or by letter, to the DEAN, Guy's Hospital, London Bridge, S.E.

## LONDON HOSPITAL MEDICAL COLLEGE.

(UNIVERSITY OF LONDON.)

The WINTER SESSION COMMENCES on October 1. The Hospital is the largest in England: 922 beds are in constant use: in-patients last year, 14,288, out-patients, 228,279; accidents 18,702; major operations, 4,121.

APPOINTMENTS.—Ninety qualified Appointments are made annually; more than 150 Dressers, Clinical Clerks, &c., every three months.

SCHOLARSHIPS and PRIZES.—Thirty-seven Scholarships and Prizes are given annually. Seven Entrance Scholarships will be offered in September. Enlargement of the Hospital and College.

Athletic Ground, Residence, &c.  
For Prospectus and full information apply personally, or by letter, to  
MUNRO SCOTT, Warden,  
Mile End, E.

## ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, ROYAL COLLEGE OF SURGEONS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

Copies of Regulations for the Triple Qualification of this Board (L.R.C.P.E., L.R.C.S.E., and L.F.P. & S.G.), containing dates of Professional Examinations for year 1908, Curriculum, &c., may be had on application to JAMES ROBERTSON, Solicitor, 54 George Square, Edinburgh, Inspector and Treasurer for Edinburgh; or from ALEXANDER DUNCAN, B.A., LL.D., Faculty Hall, 242 St. Vincent Street, Glasgow, Inspector and Treasurer for Glasgow.

## ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE.

(UNIVERSITY OF LONDON.)

The WINTER SESSION will begin on Thursday, October 1st, 1908.

Students can reside in the College within the Hospital walls, subject to the Collegiate regulations.

The Hospital contains a service of 744 beds. Scholarships and Prizes of the aggregate value of nearly £900 are awarded annually.

The Medical School contains large Lecture Rooms and well appointed Laboratories for Practical Teaching, as well as Dissecting Rooms, Museum, Library, &c.

The Club Ground of the Students' Union (10 acres) is at Winchmore Hill, within easy reach of the Hospital.

The New Buildings, recently completed, give increased accommodation to Medical and Surgical Out-patients, and Eight Special Departments, as well as Reading and Luncheon Rooms for the Students' Union and Residential Quarters for the House Surgeons and House Physicians.

For further particulars apply, personally or by letter, to the DEAN OF THE MEDICAL SCHOOL, St. Bartholomew's Hospital, E.C.

A Handbook forwarded on application.

## BADGES, HAT BANDS, CAPS

AT WHOLESALE PRICES.

Write—SCHOOLS AGENT, 1 Arundel Villas, Chelmsford Road, South Woodford, N.E.

## THE MIDDLESEX HOSPITAL MEDICAL SCHOOL.

### A SCHOOL OF THE UNIVERSITY OF LONDON.

The Medical School of the Middlesex Hospital has been largely rebuilt and equipped to meet the most recent educational requirements.

#### HOSPITAL APPOINTMENTS.

In addition to Clerkships and Dresserships, Sixteen Resident Appointments are annually open to all General Students. Also Medical, Surgical, and Obstetric Registrars are appointed annually.

#### SCHOLARSHIPS AND PRIZES.

Scholarships and Prizes to the value of £860 are awarded annually.

Full particulars may be obtained on application to

H. CAMPBELL THOMSON, M.D., F.R.C.P.,  
Dean of the Medical School,  
Middlesex Hospital, London, W.

## THE ROYAL DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY,

LEICESTER SQUARE, LONDON, W.C.

The WINTER SESSION, 1908-9, will commence on Thursday, October 1st.

The Royal Dental Hospital was founded in 1858 at Soho Square, and in March, 1874, was removed to Leicester Square. The increased demands made on it by the public and the rapid growth of the Medical School necessitated the erection of an entirely new building. The new Hospital was opened in March, 1901, and is complete in every detail with modern appliances, and the School portion of the building thoroughly equipped for teaching purposes. The clinic of the Hospital is unrivalled. In 1907 104,745 operations were performed.

The following SCHOLARSHIPS and PRIZES are open for competition.

The ENTRANCE SCHOLARSHIP, of the value of £20, awarded in October.

The SAUNDERS SCHOLARSHIP, of the value of £20. The STORER-BENNETT RESEARCH SCHOLARSHIP, of the value of £50.

The ALFRED WOODHOUSE SCHOLARSHIP, of £30. The ROBERT WOODHOUSE PRIZE, of the value of £10.

#### INSTRUCTION IN MECHANICAL DENTISTRY.

The instruction in Mechanical Dentistry as required for the Dental Curriculum can be obtained at this Hospital.

Further particulars concerning Fees, Scholarships, &c., can be obtained on application to

THE DEAN.

## CHARING CROSS HOSPITAL MEDICAL COLLEGE.

(UNIVERSITY OF LONDON.)

The WINTER SESSION, 1908-9 will be opened on Thursday, October 1st, by the delivery of the Seventh Biennial Huxley Lecture on "Recent Advances in Science and their Bearings on Medicine and Surgery," in the Out-Patients' Hall at the Hospital, at 4 p.m., by Sir PATRICK MANSON, K.C.M.G., M.D., F.R.C.P., F.R.S.

The College is complete in all Departments. SPECIAL TEACHERS for all Preliminary and Intermediate Subjects. EIGHT ENTRANCE SCHOLARSHIPS are awarded annually of the aggregate value of £430. Twenty-two Hospital and Teaching APPOINTMENTS are made yearly.

For Prospectus and details of fees apply to—  
Mr. F. C. WALLIS, Dean.

## KING'S COLLEGE, LONDON.

(UNIVERSITY OF LONDON.)

The General Education at King's College, London, is conducted in several distinct but connected Faculties and Departments, viz.:

1. THE FACULTY OF THEOLOGY.—(1) Morning Course; (2) Evening Course.
2. THE FACULTY OF ARTS, including (1) General Literature, Secondary Teachers' Training Course, Day Training College, and Oriental Studies; (2) The Department of Architecture; (3) Division of Laws, Day and Evening Classes.
3. THE FACULTY OF SCIENCE.—(1) Natural Science Division (Day and Evening Classes); (2) Medical Division (Preliminary and Intermediate Studies); (3) Department of Bacteriology; (4) Department of Public Health.
4. THE FACULTY OF ENGINEERING (including Mechanical, Electrical, and Civil Engineering). Day and Evening Classes.
5. THE FACULTY OF MEDICINE (Advanced Medical Studies at King's College Hospital).
6. THE WOMEN'S DEPARTMENT (at 13 Kensington Square).
7. KING'S COLLEGE SCHOOL (Wimbledon Common).
8. THE CIVIL SERVICE DEPARTMENT.—(1) Evening Classes for the Civil Service; (2) Day Classes for Female Appointments in G.P.O.
9. STRAND SCHOOL, suitable for Commerce, the Professions, and the Civil Service.

A separate Prospectus is prepared for each of these Faculties and Departments, and will be forwarded on application to the SECRETARY, King's College, Strand, W.C.

## KING'S COLLEGE, LONDON.

(UNIVERSITY OF LONDON.)

### FACULTY OF ENGINEERING AND APPLIED SCIENCE AND DIVISION OF ARCHITECTURE.

SESSION 1908-9 COMMENCES WEDNESDAY, SEPTEMBER 30TH.

#### Professors:—

Engineering ... ..	David S. Capper, M.A., M.Inst.C.E., M.I.M.E. H. M. Wayforth, A.M.Inst.C.E., A.M.I.M.E. M. Curry, M.Inst.C.E.
Electrical Engineering	E. Wilson, M.I.E.E.
Natural Philosophy ...	H. Wilson, D.Sc.
Architecture ... ..	R. Elsey Smith, A.R.I.B.A.
Chemistry ... ..	J. M. Thomson, F.R.S., F.I.C. H. Jackson, F.I.C.
Mathematics ... ..	S. A. F. White, M.A. J. E. Dale, M.A.
Metallurgy ... ..	A. K. Huntington, A.R.S.M., M.I.M.E.
Geology & Mineralogy	H. G. Seeley, F.R.S.

#### Large Staff of Lecturers and Demonstrators.

#### EVENING CLASSES

are held for Mechanical and Electrical Engineering, Architecture and Building Construction, Drawing, Mathematics, Physics, and other Science Subjects.

For Prospectuses and all information apply to the SECRETARY, King's College, Strand, W.C.

## KING'S COLLEGE, LONDON.

(UNIVERSITY OF LONDON.)

### DEPARTMENT FOR TRAINING TEACHERS FOR SECONDARY SCHOOLS.

*Theory, Practice, and History of Education:*  
J. W. ADAMSON, B.A., Professor of Education (Head of the Department).

#### Ethics:

Rev. A. CALDECOTT, D.Lit., D.D., Professor of Mental and Moral Philosophy.

#### Psychology:

C. S. MYERS, M.A., M.D., Professor of Psychology.

The Department is recognized by the Board of Education as a Training College for Secondary Teachers. The Course, which includes practical work in Secondary Schools, extends over one academic year, beginning in October or January. It is suitable for those who are preparing to take the Teacher's Diploma, University of London, or the Certificate of the Teachers' Training Syndicate, University of Cambridge.

The fee is £20 for the year, if paid in advance, or 8 guineas per term (three terms in the year).

Two Scholarships, of £20 each for one year, tenable from October 1, 1908, are offered to suitable Candidates (men) who are Graduates of a British University.

Application should be made to Prof. ADAMSON, King's College, Strand, W.C.

## KING'S COLLEGE, LONDON.

### CLASSES FOR THE LONDON UNIVERSITY MATRICULATION AND PROFESSIONAL PRELIMINARY EXAMINATIONS.

Individual Tuition in all subjects required for the Examinations. Fee for Half-yearly Course £3. 3s. Students may join at any time at proportional fees.

Apply to the SECRETARY, King's College, Strand, W.C.

# UNIVERSITY OF EDINBURGH.

**Chancellor:** The Right Hon. A. J. BALFOUR, M.P., D.C.L., LL.D., &c.  
**Rector:** The Right Hon. R. B. HALDANE, K.C., M.P., LL.D., &c.  
**Principal and Vice-Chancellor:** Sir WILLIAM TURNER, K.C.B., D.C.L., LL.D., D.Sc., M.B., &c.  
**Secretary of Senatus:** Professor Sir LUDOVIC J. GRANT, Bart., B.A., LL.D.

The **Winter Session** begins about the beginning of October, and closes towards the end of March; the **Summer Session** extends from the beginning of May to the end of July.

The University embraces **Six Faculties**, viz.: **Arts, Science, Divinity, Law, Medicine and Surgery, and Music**, in all of which full instruction is given and Degrees are conferred. There are many different avenues to the **Arts Degrees**, the graduation subjects embracing English, History, Modern Languages, Science, &c., besides Ancient Languages, Philosophy, Mathematics, &c.; and it has been shown by successes of Edinburgh students in the Civil Service Examinations that it is possible to combine study for Degrees in Arts, Science, or Law with preparation for this and other Special Examinations. In addition to the Ordinary and Honours Degrees in Arts, the Higher Degrees of D.Litt., D.Phil., and D.Sc. are conferred. Education in Military subjects is given in connexion with the Scheme of allotment of Army Commissions to Graduates of the University. Degrees in **Science** (B.Sc. and D.Sc.) may be taken in **Pure Science, Engineering, and in Public Health**, and the Degree of B.Sc. in **Agriculture** and in **Forestry**. There are fully equipped Science Laboratories, and other necessary appliances, in all these Departments. The curriculum in **Divinity** affords a thorough training in Theological subjects, and in Hebrew, Arabic, and Syriac. The Degree of Bachelor of Divinity (B.D.) is conferred. The **Law Faculty**, besides furnishing the professional equipment necessary for those intending to practise in Scotland, contains Chairs in Jurisprudence and Public International Law, Constitutional Law and History, Roman Law, and Political Economy, and Lectureships in International Private Law and Administrative Law, and is thus adapted for students preparing for the Civil Service Examinations, and for legal, political, and administrative appointments generally. The Degrees of Bachelor of Laws (LL.B.) and Bachelor of Law (B.L.) are conferred. The Faculty of **Medicine** has a full curriculum in Medicine and Surgery, and is equipped with very extensive Laboratories and all other necessary appliances for Practical Teaching. Ample facilities are afforded for Clinical Instruction at the Royal Infirmary, Maternity Hospital, Royal Hospital for Sick Children, Hospital for Infectious Diseases, and Royal Asylum for the Insane. Four Degrees in Medicine and Surgery are conferred by the University, viz.: Bachelor of Medicine (M.B.), Bachelor of Surgery (Ch.B.), Doctor of Medicine (M.D.), and Master of Surgery (Ch.M.), and these Degrees qualify for practice throughout His Majesty's dominions, and for admission to the Naval, Military, and other Public Medical Services in the United Kingdom. A **Diploma in Tropical Medicine and Hygiene** (D.T.M. & H.) is conferred on Graduates in Medicine of the University, and a University **Certificate in Tropical Diseases** is also conferred on qualified Medical Practitioners who have attended Courses in the University on practical Bacteriology and Tropical Diseases. In **Music** there is a full course of study for graduation, and the Degrees of Mus.B. and Mus.D. are conferred.

The University Staff consists of 41 Professors, 53 Lecturers, and over 50 Assistants and Demonstrators. The annual amount available for Fellowships, Scholarships, Bursaries, Prizes, &c., is about £18,500. Facilities are afforded for research in scientific and other subjects.

Women may attend the Classes in Arts, Science, Divinity, Law, and Music, and they are admitted to graduation in Arts, Science, Law, Medicine, and Music, the training for Degrees in Medicine being afforded by well equipped extra-academical Schools.

Information regarding Matriculation, the Curricula of Study for Degrees, &c., the Examinations for Fellowships, Scholarships, &c., may be obtained from the DEANS of the FACULTIES, or from the CLERK of SENATUS; and full details are given in the University Calendar, published by JAMES THIN, 55 South Bridge, Edinburgh—price 3s. 4d. by post. The Preliminary and Degree Examination papers in each of the Faculties are also published by Mr. JAMES THIN, viz.—Arts and Science Preliminary papers and Bursary papers, 1s.; Medical Preliminary papers, 6d.; Degree papers: Arts, 1s.; Science, 9d.; Divinity, Law, Medicine, and Music, 6d. each.

August, 1908.

By authority of the Senatus,

L. J. GRANT, Secretary of Senatus.



## THE ASSOCIATED BOARD OF THE R.A.M. AND R.C.M. FOR LOCAL EXAMINATIONS IN MUSIC.

PATRON: HIS MAJESTY THE KING.

PRESIDENT: H.R.H. THE PRINCE OF WALES, K.G.

**LOCAL CENTRE EXAMINATIONS (Syllabus A).** Examinations in Theory at all Centres in March and November; in Practical Subjects at all Centres in March–April, and in the London District and certain Provincial Centres in November–December also. Entries for the November–December Examinations close Wednesday, October 7th, 1908.

**SCHOOL EXAMINATIONS (Syllabus B).** Held three times a year, viz., October–November, March–April, and June–July. Entries for the October–November Examinations close Wednesday, October 7th, 1908.

Specimen Theory Papers set in past years (Local Centre or School) can be obtained on application. Price 3d. per set, per year, post free.

Syllabuses A and B, for 1908 or 1909, entry forms, and any further information will be sent post free on application to—

JAMES MUIE, Secretary,  
15 Bedford Square, London, W.C.

Telegrams: "Associa, London."

### SWEDISH GYMNASTICS.

#### MISS HASELDEN-BRETTELL

(Fully certified from Mme Bergman Osterberg) is free to accept Engagements for September in Girls' or Boys' Schools within reasonable distance of London.

Fees:—Forenoon ... 7s. 6d. per hour.  
Afternoon ... 10s. 6d. per hour.

For further particulars apply to  
The Gymnasium,  
34–36 Crawford Street,  
Bryanston Square, W.

**ONE BOY** under 10 years, or **One Girl** between the age of 8 and 18 years, can be received into a good private school in Scotland. Thorough education and home care.—Apply L. R., Townhead School, Paisley.

## THE HAMILTONIAN SYSTEM.

**A Short and Easy Method of Learning a Foreign Language by a Close Interlinear Translation.**

"This System differs from the ordinary literal translations, in giving a truly literal translation placed word for word under the words of the original, which are only so far changed in order as seemed essential to the sense. The aim is to be strictly literal, and the student is at once saved all trouble about the meaning of each word."

—Mr. RICHARD A. PROCTOR, in *Knowledge*.

Limp cloth, price 1s.

**CÆSAR'S GALLIC WAR. Book I.** With Text as well as Interlinear Translation.

**Books I. to VI.** Price 4s. 6d.

**VIRGIL'S ÆNEID. Books I. to IV.** Price 3s. 6d.

**EUTROPIUS.** Limp cloth, price 1s. 6d.

**FLORIAN'S FABLES.** Limp cloth, price 1s.

**PERRIN'S FABLES.** Limp cloth, price 1s. 6d.

Each Book contains the Text as well as the analytical, interlinear, and literal Translation.

Full List of the Series on Application.

**FRANCIS HODGSON, 89 Farringdon St., E.C.**

## EXAMINATION PAPERS.

Set at the Examinations of the College of Preceptors.

**CERTIFICATE EXAMINATION.**—The Papers set at the Midsummer and Christmas Examinations, Sixpence each Set, by post Sevenpence. (Back Sets from Midsummer, 1882, except Midsummer, 1895, Midsummer, 1896, and Christmas, 1900, are still to be had.)

The Freehand Drawing Copies set at the above Examination can also be had, price 2d. each; or 1s. 6d. per dozen.

Also the Outline Maps for the Second and Third Classes, price 1d. each map, by post, 1½d.; or 9d. per dozen, by post, 10d.

The COLLECTED PAPERS in the following subjects for several years back may also be had in separate books, price 6d. each, by post 7d.:—

Arithmetic (3 Parts).	English History (4 Parts).
Algebra (3 Parts).	French (4 Parts).
Scripture (4 Parts).	Latin Unseens (3 Parts).
Geography (3 Parts).	Music.
English Grammar (7 Pts.).	

Answers to the Arithmetic and Algebra, 1s. each.

**PROFESSIONAL PRELIMINARY EXAMINATION.**—The Papers set at the March and September Examinations. Sixpence each Set, by post Sevenpence. (Back Sets from March, 1882, still to be had.)

**LOWER FORMS EXAMINATION.**—The Papers set at the Midsummer and Christmas Examinations, price 3d. each, by post, 4d.; also the Drawing Copies, 2d. each, or 1s. 6d. the dozen.

**DIPLMA EXAMINATION.**—These Papers are published only in the College Calendar. See page 318.

London: FRANCIS HODGSON, 89 Farringdon St., E.C.

**SCHOLASTIC AGENCY.**

(ESTABLISHED OVER 60 YEARS.)

Proprietors:—

Messrs. GRIFFITHS, SMITH, POWELL & SMITH.

Offices:—34 Bedford Street, Strand; and 22 Henrietta Street, Covent Garden, London, W.C.

Telegraphic Address:—"Scholasque, London."  
Telephone:—7021 Gerrard.

**Scholastic.**

Head Masters and Principals of Public and Private Schools desirous of engaging qualified and well recommended English or Foreign Resident, Non-resident, or Visiting Assistant Masters, can have eligible Candidates introduced to them (free of charge) by stating their requirements to Messrs. GRIFFITHS, SMITH, POWELL & SMITH.

A List of September Vacancies will be forwarded on application to Graduates and other well qualified Assistant Masters seeking appointments for next term.

Schools Transferred and Valued. Partnerships arranged. No charge unless sale effected. List of Boys' and of Girls' Schools and School Partnerships for Sale, sent Gratis to intending Purchasers, TO WHOM NO COMMISSION IS CHARGED.

**Assistant Mistresses.**

Head Mistresses and Principals of Public and Private Schools requiring English or Foreign Assistant Mistresses can, on application to Messrs. GRIFFITHS, SMITH, POWELL & SMITH have suitable Candidates placed in immediate communication with them free of charge.

A List of September Vacancies will be forwarded to English and Foreign Assistant Mistresses and other Teachers on application. Liberal Salaries.

**FROEBEL SOCIETY.**

Agency for Kindergarten and Junior Form Teachers.

Lending Library of Froebelian Literature. Books can be sent through the post or be called for.

Classes for the National Froebel Union Exams. Evenings and Saturday Mornings.

"Child Life," a Monthly Magazine of Froebelian Literature and News.

All particulars from the Secretary, Miss TEMPLE ORME, LL.D., Froebel Society, 4 Bloomsbury Square, W.C.

NOW READY.

Sixty-second Edition. Price 2s.

**THE CHILD'S GUIDE TO KNOWLEDGE.**

BY A LADY.

The Original and Authorized Edition brought down to the present time.

London:

SIMPKIN, MARSHALL, HAMILTON, KENT, & Co., Ltd.

**JOINT AGENCY FOR WOMEN TEACHERS.**

(Under the management of a Committee appointed by the Teachers' Guild, College of Preceptors, Head Mistresses' Association, Association of Assistant Mistresses, and Welsh County Schools' Association.)

Address—74 GOWER STREET, LONDON, W.C.

Registrar—Miss ALICE M. FOUNTAIN.

This Agency has been established for the purpose of enabling Teachers to find work without unnecessary cost. All fees have therefore been calculated on the lowest basis to cover the working expenses.

Head Mistresses of Public and Private Schools, and Parents requiring Teachers, or Teachers seeking appointments, are invited to apply to this Agency.

Many Graduates and Trained Teachers for Schools and Private Families; Visiting Teachers for Music, Art, and other special subjects; Foreign Teachers of various nationalities; Kindergarten and other Teachers are on the Register, and every endeavour is made to supply suitable candidates for any vacancy.

School Partnerships and Transfers are arranged.

Hours for interviews (preferably by appointment):—

11 a.m. to 1 p.m., and 3 to 5 p.m.

Saturdays, 11 a.m. to 1 p.m., and 2 to 3 p.m.

**THE JOINT SCHOLASTIC AGENCY.**

23 Southampton Street, Bloomsbury Square, W.C.

Managed by a Committee of Representatives of the following Bodies:—

**HEAD MASTERS' CONFERENCE.**

INCORPORATED ASSOCIATION OF HEAD MASTERS.

COLLEGE OF PRECEPTORS. TEACHERS' GUILD.

INCORPORATED ASSOCIATION OF ASSISTANT MASTERS.

ASSOCIATION OF TECHNICAL INSTITUTIONS.

ASSOCIATION OF PREPARATORY SCHOOLS.

WELSH COUNTY SCHOOLS.

Registrar: Mr. E. A. VIRGO.

The object of this Agency is to render assistance at a minimum cost to Masters seeking appointments. The lowest possible fees are therefore charged.

A PROSPECTUS will be sent ON APPLICATION.

Interviews (preferably by appointment) 12 p.m.—1.30 p.m., and 3 p.m.—5.30 p.m. Saturdays, 12 p.m.—1 p.m.

NOW READY.

Crown 8vo, 5s.

**MODERN EUROPE: A SCHOOL HISTORY.**

By JOHN LORD, LL.D.

New Edition, with Additional Chapters, bringing the Work to the Commencement of the Present Century; also COPIOUS QUESTIONS FOR EXAMINATION. Crown 8vo, 5s.

London:

SIMPKIN, MARSHALL, HAMILTON, KENT, & Co., LTD.

Crown 8vo, 164 pages, price 2s. 6d.

**SCHILLING'S "DON BASILIO."**

A Practical Guide to Spanish Conversation and Correspondence. Translated and edited by FREDERICK ZAGEL.

FRANCIS HODGSON, 89 FARRINGTON STREET, LONDON, E.C.

**ENGINEERING AND CHEMISTRY.**

**CITY AND GUILDS OF LONDON INSTITUTE.**

SESSION 1908-1909.

The COURSES OF INSTRUCTION at the Institute's Central Technical College (Exhibition Road) are for Students not under 16 years of age; those at the Institute's Technical College, Finsbury, for Students not under 14 years of age. The Entrance Examinations to both Colleges are held in September, and the Sessions commence in October. Particulars of the Entrance Examinations, Scholarships, Fees, and Courses of Study may be obtained from the respective Colleges or from the Head Office of the Institute, Gresham College, Basinghall Street, E.C.

**CITY AND GUILDS CENTRAL TECHNICAL COLLEGE.**

(EXHIBITION ROAD, S.W.)

A College for higher Technical Instruction for Day Students, not under 16, preparing to become Civil, Mechanical, or Electrical Engineers, Chemical and other Manufacturers, and Teachers. The College is a "School of the University of London" and also forms the "Engineering Section of the Imperial College of Science and Technology." Fee for a full Associateship Course, £36 per Session. Professors:—  
Civil and Mechanical W. E. DALRY, M.A., B.Sc.,  
Engineering M. INST. C.E.  
Electrical Engineer W. E. AYRTON, F.R.S., Past  
Inst. E.E.  
Chemistry H. E. ARMSTRONG, Ph.D.,  
LL.D., F.R.S.  
Mechanics and Mathematics O. HENRICI, Ph.D., LL.D.,  
F.R.S.

**CITY AND GUILDS TECHNICAL COLLEGE, FINSBURY.**

(LEONARD STREET, CITY ROAD, E.C.)

A College for Intermediate Instruction for Day Students, not under 14, preparing to enter Engineering and Chemical Industries, and for Evening Students. Fees: £20 per Session for Day Students. Professors:—  
Physics and Electrical S. P. THOMPSON, D.Sc., F.R.S.,  
Engineering Principal of the College.  
Mechanical Engineer E. G. COKER, M.A., D.Sc.,  
Engineering & Mathematics F. R. S. E. M. INST. M. E.  
Chemistry R. MELDOLA, F.R.S., F.I.C.

JOHN WATNEY, Hon. Secretary.

City and Guilds of London Institute, Gresham College, Basinghall Street, E.C.

Psychology of Language Teaching: Phonetics.

**HOWARD SWAN,**

Post-Graduate in Psychology, Berkeley University; Harvard; Research Student London University; recently Professor Imperial College of Languages, Peking.

Author of "Facts of Life," "Colloquial French," &c.

Office Address: 1 Albemarle Street, W.

TEACHING AND TRAINING IN METHOD OF LANGUAGE TEACHING, PSYCHOLOGY, AND PHONETICS; ENGLISH, FRENCH, GERMAN (and CHINESE, HINDI if desired).

Pupils can be taken during August and September in beautiful surroundings in Switzerland.

Holiday Address: Hôtel de la Gare, St. Léger sur Vevey, Switzerland.

Crown 8vo, 348 pages, price 3s. 6d.

**SCHILLING'S SPANISH GRAMMAR.**

Translated and edited by FREDERICK ZAGEL. FRANCIS HODGSON, 89 FARRINGTON STREET, LONDON, E.C.

Demy 8vo, cloth, price 2s. 6d., free by post.

To Members of the College the price is 1s., or 1s. 6d. free by post.

**THE CALENDAR OF THE COLLEGE OF PRECEPTORS**

**FOR THE YEAR 1908:**

Containing all information respecting the objects and operations of the College, Lists of Officers, Examiners, and Members, the Regulations of the various Examinations, &c., with an Appendix containing the following Examination Papers:—

- |   |   |
|---|---|
| 1. Papers set at Examination of Teachers for Diplomas, Summer, 1907.      | 5. Papers set at Professional Preliminary Examination, March, 1907. |
| 2. Do. do. do. Christmas, 1907.   | 6. Do. do. do. September, 1907.                                     |
| 3. Papers set at Examination of Pupils for Certificates, Midsummer, 1907. | 7. Papers set at Lower Forms Examination ... Summer, 1907.          |
| 4. Do. do. do. Christmas, 1907.   | 8. Do. do. do. ... Christmas, 1907.                                 |

\*.\* Nos. 3, 4, 5, and 6 may be had separately, price, free by post, 7d. each set. Nos. 7 and 8, price, free by post, 4d. each set.

The Diploma Papers are to be had only in the "Calendar."

FRANCIS HODGSON, 89 FARRINGTON STREET, LONDON, E.C.



Recently Published in Six Parts.

# THE LEADER ARITHMETIC.

By **GEORGE MERCHANT.**

- Part 1.** The Simple Rules to Short Division ... 64 pp. Price 3d.
- Part 2.** Long Division and the Money Rules ... 64 pp. Price 3d.
- Part 3.** Weights and Measures, Practice, Bills of Parcels, Rule of Three by the Unitary Method ... 64 pp. Price 3d.
- Part 4.** Vulgar and Decimal Fractions, Proportion ... 64 pp. Price 3d.
- Part 5.** The Commercial Rules ... 56 pp. Price 3d.
- Part 6.** Higher Rules and 500 Miscellaneous Examples ... 56 pp. Price 3d.

"The explanations are simple and clear, and exemplified in adequate variety by worked examples. The exercises are very numerous and carefully graduated. A laborious and serviceable compilation."—*The Educational Times.*

**SIMPKIN, MARSHALL, HAMILTON, KENT & CO.,** and all Booksellers.

## IDOLA PULPITORUM:

# PITFALLS OF THE PRACTICAL TEACHER.

For this series of Articles, see "THE JOURNAL OF EDUCATION."

**INTRODUCTORY ARTICLE**, by Professor ADAMS [November, 1906]; **CLASSICS**, by H. G. HART [December, 1906]; **ENGLISH**, by ARTHUR BURRELL [January, 1907]; **FRENCH**, by CLOUDESLEY BRERETON [February and March, 1907]; **SCIENCE**, by T. PERCY NUNN [April, 1907]; **NATURE STUDY**, by T. RAYMONT [May, 1907]; **HISTORY**, by S. S. F. FLETCHER [June, 1907]; **PHYSICAL TRAINING**, by Colonel MALCOLM FOX [July, 1907]; **DRAWING**, by W. E. SPARKES [August, 1907]; **DOMESTIC SCIENCE**, by ALICE RAVENHILL [October, 1907]; **GEOMETRY**, by H. WINIFRED STURGE [December, 1907]; **GEOGRAPHY**, by Dr. A. J. HERBERTSON [January, 1908]; **MUSIC TEACHING**, by ARTHUR SOMERVELL [June, 1908]; **ARITHMETIC**, by P. B. BALLARD [July, 1908].

Subscription is 7s. per annum; single numbers, 8d. post free.

Offices: 3 BROADWAY, LUDGATE HILL, E.C.

# THE RUGBY PRESS

undertakes every description of Letterpress

## PRINTING FOR SCHOOLS.

Estimates furnished. Enquiries solicited.

Address— **GEORGE OVER, Printer, Rugby.**

## CAREY'S "GRADUS AD PARNASSUM."

WITH THE ENGLISH MEANINGS.

Revised, Corrected, and Augmented by a Member of the University of Cambridge.

Post 8vo, cloth, price 7s.

THE STATIONERS' COMPANY, STATIONERS' HALL, LONDON.

## EXAMINATION PAPER

AS USED BY THE

## COLLEGE OF PRECEPTORS.

In strict accordance with the College requirements, and each Sheet bears their Watermark.

Packed in Beams of 480 Sheets ... per Beam, 2s.

" " 960 " " " 4s.

Bookkeeping Paper, ruled for Ledger, Cash Book, and Journal, 1s. per 100 Sheets.  
Music Paper, 1s. per 100 Sheets.

Remittance should accompany Order.

**F. W. SHELBOURNE & CO.,** Wholesale and Retail Stationers,  
63 HIGH HOLBORN, LONDON. W.C.

## MODERN SIDE ARITHMETIC: EXAMPLES ONLY. By

Rev. T. MITCHESON, B.A., late Assistant Master in City of London School.

**PART I.**, crown 8vo, cloth, pp. 119, 1s. (Answers, 1s.; Teachers' Copy, with Answers, 1s. 6d.)

**PART II.**, crown 8vo, cloth, pp. 200, 1s. 6d. (Answers, 1s.; Teachers' Copy, with Answers, 2s.)

COMPLETE IN ONE VOLUME, crown 8vo, cloth, 2s. (Answers, 1s. 6d.; Teachers' Copy, with Answers, 3s.)

LONDON: FRANCIS HODGSON, 89 FARRINGDON STREET, E.C.

# GEORGE GILL & SONS, LTD.

The following Works included in

## The Oxford and Cambridge Edition

are required for the

**1909**

# LOCAL AND COLLEGE OF PRECEPTORS EXAMINATIONS.

## Religious Knowledge.

- THE OXFORD AND CAMBRIDGE EDITION ST. MATTHEW.** Edited by Rev. F. MARSHALL, M.A. ... 1 6
- THE OXON. AND CANTAB. EDITION ST. MATTHEW.** Edited by Rev. F. MARSHALL, M.A. (Preliminary) ... net 1 0
- THE OXFORD AND CAMBRIDGE EDITION ACTS I.** Edited by Rev. F. MARSHALL, M.A. ... 1 6
- THE OXON. AND CANTAB. EDITION ACTS I.** Edited by Rev. F. MARSHALL, M.A. (Preliminary) ... net 1 6
- THE OXFORD AND CAMBRIDGE EDITION KINGS I.** Edited by Rev. F. MARSHALL, M.A. ... 1 6
- THE OXFORD AND CAMBRIDGE EDITION EZRA.** Edited by Rev. F. MARSHALL, M.A. ... 1 0
- THE OXFORD AND CAMBRIDGE EDITION NEHEMIAH.** Edited by Rev. F. MARSHALL, M.A. ... 1 0
- THE OXFORD AND CAMBRIDGE EDITION PRAYER BOOK.** Edited by Rev. F. MARSHALL, M.A. ... 1 0
- THE OXFORD AND CAMBRIDGE EDITION CHURCH CATECHISM.** Edited by Rev. F. MARSHALL, M.A. ... 1 6
- THE OXFORD AND CAMBRIDGE CHURCH CATECHISM.** Explained specially for Preliminary Candidates. Edited by Rev. F. MARSHALL, M.A. ... net 0 6

## English.

- THE OXFORD AND CAMBRIDGE EDITION TEMPEST.** Edited by STANLEY WOOD, M.A., and A. SYMS-WOOD, B.A. ... 1 6
- THE OXFORD AND CAMBRIDGE EDITION HENRY V.** Edited by STANLEY WOOD, M.A., and Rev. F. MARSHALL, M.A. ... 1 6
- THE OXFORD AND CAMBRIDGE EDITION MACBETH.** Edited by STANLEY WOOD, M.A. ... 1 6
- THE OXFORD AND CAMBRIDGE EDITION JULIUS CAESAR.** Edited by STANLEY WOOD, M.A., and A. SYMS-WOOD, B.A. ... 1 6
- THE OXFORD AND CAMBRIDGE EDITION RICHARD II.** Edited by STANLEY WOOD, M.A. ... 1 6
- THE OXFORD AND CAMBRIDGE EDITION LAMB'S TALES FROM SHAKESPEARE.** Edited by STANLEY WOOD, M.A. (Selection Set for 1909 Cambridge Local) ... 1 4
- THE OXFORD AND CAMBRIDGE EDITION LAYS OF ANCIENT ROME.** Edited by Rev. G. PRESTON, M.A. ... 1 0
- THE OXFORD AND CAMBRIDGE EDITION LAY OF THE LAST MINSTREL.** Edited by Rev. F. MARSHALL, M.A. ... 2 0

In the above works the necessary "Notes" have been added to enable Candidates to answer questions set by the Examiners.

## GUIDES

to the 1909 Local Examinations, and Complete Lists of the "prescribed" Books contained in the

Oxford and Cambridge Edition,  
Post free.

## JUST PUBLISHED.

# HISTORICAL ATLAS,

With CHRONOLOGICAL NOTES.

By E. A. BENIANS, M.A., and T. H. KNIGHT, M.A. 96 pp. Crown 8vo, 8d.

Intended to provide suitable material for a general knowledge of British History and more especially for use as a supplementary work in Examination Preparation.

Complete Catalogue post free.

LONDON: **GEORGE GILL & SONS, Ltd.,** 13 Warwick Lane, E.C.

# OXFORD UNIVERSITY PRESS.

## BOOKS SET FOR THE COLLEGE OF PRECEPTORS, 1909. ENGLISH.

### **Chaucer.—Prologue.**

R. Morris's Edition, re-edited by W. W. SKEAT. 1s.  
(First Class.)

### **Macaulay.—Lays of Anolent Rome.**

1s. (Third Class.)

### **Scott.—Lay of the Last Minstrel.**

Edited by W. MINTO. Second Edition. 1s. 6d.  
(Second and Third Classes.)

### **Shakespeare.—Julius Caesar.**

Edited by W. ALDIS WRIGHT. 2s. (First and Second Classes.)

### **Shakespeare.—Tempest.**

Edited by W. ALDIS WRIGHT. 1s. 6d.  
(First and Second Classes.)

## LATIN.

### **Caesar.—Gallic War, III.—V.**

Edited by C. E. MOBERLY. With Maps. Second Edition. 2s. 6d. (First, Second, and Third Classes.)

### **Cicero.—Pro Milone.**

Edited by A. B. POYNTON. Second Edition. 2s. 6d.  
(First Class.)

### **Horace.—Odes, Carmen Saeculare, and Epodes.**

Edited by E. C. WICKHAM. Second Edition. 6s.  
(First Class.)

### **Virgil.—Aeneid.**

Edited by T. L. PAPILLON and A. E. HAIGH. III, 2s.  
X—XII, 2s. (First and Second Classes.)

## GREEK.

### **Euripides.—Hecuba.**

Edited by C. B. HEBERDEN. 2s. 6d. (First Class.)

### **Xenophon.—Anabasis, II.**

With Vocabulary. Edited by C. S. JERRAM. 1s. 6d.  
(First and Second Classes.)

### **Xenophon.—Anabasis, III.**

With Vocabulary. Edited by J. MARSHALL. 1s. 6d.  
(First and Second Classes.)

## THE OXFORD GEOGRAPHIES.

By A. J. HERBERTSON, M.A., PH.D.,  
Reader in Geography in the University of Oxford.

### **The Preliminary Geography.**

Second Edition. 160 pages, with 72 Maps and Diagrams.  
1s. 6d.

*Preparatory Schools Review.*—"Where a class-book of geography is first introduced, this should be the book. There is nothing else so good."

### **The Junior Geography.**

Second Edition. 288 pages, with 166 Maps and Diagrams. 2s.

*School World.*—"Is good everywhere. The sketch maps are most interesting and most instructive."

### **The Senior Geography.**

Second Edition. 370 pages, with 117 Maps and Diagrams. 2s. 6d.

*School World.*—"The relation of cause and effect is continually insisted upon, and the lesson driven home by the frequent insertion of educative maps and plans and cross-sections."

Select List of Educational Works, List of Books set for various Examinations, and Complete Catalogue (144 pages) post free.

London: HENRY FROWDE, Oxford University Press, Amen Corner, E.C.

## DURING THE VACATION USE

# "FLORIGENE"

(Regd.)

ODOURLESS or powerful GERMICIDAL Floor Fluid,

On all

## SCHOOL, LABORATORY,

Library, Museum, Studio, Office, and other Floors—either Wood, Linoleum, Stone, Concrete, or Polished, &c.,

For "WEIGHTING" and LAYING the

# DUST,

Purifying the Atmosphere, preserving Floors, aiding the prevention of Throat Irritations and Diseases, saving time, and greatly reducing labour.

(See the Official Memorandum on the Cleansing and Disinfecting of Schools.)

"FLORIGENE" need only be applied three times a year, as each application lasts for two to four months or longer, according to wear.

It is not sticky, and is easily and quickly used by the unskilled.

No Scrubbing (unless preferred) or Sprinkling of Floors necessary.

BOOKS, FURNITURE, APPARATUS, &c., are less likely to soil, and seldom require Dusting or Cleaning.

Send for particulars, *Bacteriological* and other Expert Reports, and Testimonials to

The "DUST-ALLAYER" Co.,

165 QUEEN VICTORIA STREET, E.C.

Contractors to Admiralty, War Office, H.M. Office of Works, &c.

## THE

# School World.

A MONTHLY MAGAZINE OF EDUCATIONAL  
WORK AND PROGRESS.

EACH NUMBER CONTAINS EIGHTY COLUMNS  
OF READING MATTER.

PRICE 6d. VOLUME IX., 1907, 7s. 6d. NET.

The aim of THE SCHOOL WORLD is to provide information of practical and permanent value to Schoolmasters and Schoolmistresses. To this end all important changes and developments affecting any branch of the work of teachers in secondary and other schools are dealt with by leading authorities and experienced teachers.

The Magazine has become indispensable to all who desire to keep in touch with modern and effectual methods of education.

MACMILLAN & CO., Ltd., LONDON.

CONTENTS.

	Page		Page
Leader: Registration—The College Conference and the Board of Education .....	321	Current Events .....	333
Notes .....	322	Fixtures—Honours—Endowments and Benefactions—Appointments and Vacancies—Literary Items—General.	
Education Bill in Committee in Autumn—The Endowed Schools (Masters) Bill—Local Education Authorities assisting Secondary Teachers of Modern Languages to Holiday abroad—Waste of Money at Oxford—Activity of the Chinese Board of Education—A Grumble at the Birthday List of Honours.		The German Continuation School. By Thomas Hannan. (From the <i>Scotsman</i> ) .....	338
Summary of the Month .....	324	Conférences Françaises: La Femme dans L'Histoire. Par M. Graveline .....	339
Universities and Colleges .....	327	The College of Preceptors:	
Oxford and Cambridge—London—Birmingham.		Half-Yearly General Meeting .....	340
The Educational Ladder .....	327	Adjourned Meeting of the Council .....	342
The Cambridge Summer Meeting .....	330	Reviews .....	342
Secondary Schools in England: Returns of Pupils and Staffs ...	331	General Notices .....	344
Correspondence: Modern Languages in Secondary Schools .....	332	First Glances .....	346
		Mathematics .....	348

The Educational Times.

It is now about half a century since the question of the Registration of Teachers was taken up in an active and practical spirit by the College of Preceptors, and it is over a quarter of a century since the first Registration Bill was laid on the table of the House of Commons. The past half-a-dozen years have witnessed the trial and the failure of a system of which it was difficult ever to predict any large measure of success. Last year the whole matter went back to the melting-pot, and the new Act laid down the form and contents of a new Register and the character of the body to be constituted to work it. And now the question is how to construct an organization that shall satisfy adequately the requirements of the Act as "a Registration Council representative of the teaching profession." In our May number (page 220) we printed the scheme adopted by the representatives of the teaching bodies that met at the College of Preceptors to formulate proposals. We cannot find space for the full, but somewhat diffuse, account of the correspondence and consultation between their spokesmen and the Board of Education just published by the Board (Cd. 4,185): one can get a copy from Messrs. Wyman (Fetter Lane, E.C.) for 2½d. It will probably suffice if we bring together the essential points.

As the Minister of Education has been closely pressed in the House of Commons, and some sharp criticism has been passed on the Board of Education for apparent delay, it seems desirable that the position of the Board should be quite clearly understood. A "Prefatory Note by the Board of Education" explains. After stating the objections of secondary-school teachers to the abolition of the old Register, the "Note" proceeds:

The elementary [?] school teachers accordingly undertook to endeavour to come to an agreement with the other branches of the teaching profession as to the lines on which a new Register satisfactory to the profession could be produced; and the latter half of Section 16 (1), providing for the constitution of a new Registration Council, was inserted in the Bill [now the Act of 1907] in the House of Lords at the instance of combined representations from members of some of the different branches of the profession on that understanding. It was undertaken, at that time, by those representatives that they would, on the passing of the Act, call together representative gatherings of teachers with a view to arriving at an agreed basis for the new Registra-

tion Council, which would then be laid by them before the Board of Education with a view to the ultimate establishment of a Council agreed upon by the teaching profession, so that there should be no element of bureaucratic dictation or control, but so that the teaching profession itself should arrange the body which was virtually to control the public registration of all persons desirous of becoming teachers in any public sense. The analogy of the Medical Council was constantly referred to.

Evidently, then, we must keep in view the desire of the Board of Education, based on the Board's reading of the intention of Parliament, that the teaching profession should formulate its own ideas of the new Registration Council and that there should be "no element of bureaucratic dictation or control." So far, so good.

Now it will be remembered that the Conference at the College of Preceptors (February 29) included delegates from a dozen educational associations—namely, the Head Masters' Conference, the Head Masters' Association, the Head Mistresses' Association, the Assistant Masters' Association, the Assistant Mistresses' Association, the Preparatory Schools Association, the College of Preceptors, the Private Schools Association, the National Union of Teachers, the Teachers' Guild, the Association of Technical Institutions, and the Association of Teachers in Technical Institutions—and that these delegates unanimously passed a resolution that the new Registration Council should consist of twenty-five members—that is to say, one representative of each of these twelve bodies, four further representatives of the various classes (heads and assistants, masters and mistresses) of the N.U.T., six members nominated by the Crown (experienced teachers representing the Universities, three to be women), and not more than three co-opted members. "You will see," wrote Dr. Gow (the Chairman) to Sir Robert Morant, "that the meeting was really representative of the teaching profession, and it was unanimous." And all the Associations represented formally assented to the resolution.

A deputation of nine Conference delegates, headed by Dr. Gow, met Sir Robert Morant at Whitehall on May 13. Immediately the question arose whether the suggested Council "could be considered to be, as required by Section 16 of the 1907 Act, 'representative of the teaching profession.'" The Board's Memorandum proceeds:

The Secretary asked whether the Register was to be confined to England and Wales or to include Scotland and Ireland as well. Dr. Gow replied that they had contemplated the former alternative.

The Secretary drew attention to the fact that the composition proposed for the Council (which was to be twenty-five members) would

make it consist of five members representing elementary education, eight representing secondary schools, two representing technical institutions, six representing Universities, one representing the Teachers' Guild, with three co-opted members. Of the five elementary, two were to be men and two women, and one might be either; of the eight secondary, three must be men and two must be women, and three might apparently be either; of the two technical, apparently neither could be a woman; of the six University members, three were to be women.

The discussion that took place on these points made it clear that, while of the twenty-five members as many as eight were to represent secondary schools, no representation at all had been contemplated for such important sections of the teaching profession as teachers in kindergartens (practically all women), none to teachers of art of either sex, for these are by no means represented by the heads of technical institutions—indeed, their interests are often (in their view) adversely affected in the management of technical institutes; none to one of the most important branches of teaching, viz., the teaching staffs of training colleges both for elementary and for secondary-school teachers; and apparently no representation at all to the very large number of women teachers of technical subjects, e.g., the rapidly growing branch of teachers of physical exercises, of teachers of domestic subjects, both in schools and training schools, and so forth. Even the men teachers of technical subjects, a very large body of a very varied character, seemed but meagrely represented in the two members for technical institutions, as compared with the nine members for secondary schools, which, as being so much more homogeneous a branch of the educational profession, could have been effectively represented by a small number far more easily (it would seem) than could the very heterogeneous sections of technical teachers. It appeared also that no provision had been made for the representation of teachers of music. The Secretary remarked on the very great difficulty that would be involved in distributing only six seats on the Council amongst the ten Universities, and in determining which should be the three Universities to be represented only by a woman member.

The discussion did not reach any definite solutions, and the deputation proposed to communicate further with the Board.

Accordingly, a further explanation was addressed to the President of the Board on June 27. In the opinion of the delegates, it is impossible or impracticable to provide satisfactory representation for the many unorganized groups, and that such provision as is possible "is made by giving one place to a representative of the Teachers' Guild, six to Crown nominees, and three to co-opted members." "The main lines are obviously drawn between elementary, secondary, and technical education. In each of these there are head teachers and assistant teachers, and these again are divided into men teachers and women teachers." The allotment of representation is not mathematically accurate, but it is substantially just; and "it is obvious that the great majority of teachers are included in one or other of the twelve divisions above named, and might, if they chose, belong to one of their existing organizations." The delegates have no thought of excluding any group, "if and when satisfactory regulations can be made for the admission of such teachers"; and the Council, they suggest, would consider any scheme for admission submitted by any applicant group, adequate safeguards being inserted in the Order. "Finally, the delegates desire respectfully to point out that the suspension of the Register has already caused grave loss and injury to all training schools for secondary teachers, and that the abolition of it could not fail to be regarded as a breach of faith on the part of the Board of Education."

Sir Robert Morant replied on July 8. The burden of his letter was that the delegates had not touched "the very essence of the problem," and had thus failed to give his Board guidance. As to "the most difficult points in the problem—namely, the suitable and equitable treatment of special and quasi-special groups of teachers"—how are the different "groups" to be treated, or seats allotted them, "whether amongst the three 'co-opted' places or in the 'additional' members, who, you suggest, may be brought in

hereafter by sub-committees"? Again, *how many* of such sub-committees of experts (or containing some experts) are to be established by the Order, and how are they to be constituted, "for this crucially important purpose"? How is it to be secured that the regulations for admission are to be "satisfactory" to the body of teachers in each case affected? What is the nature of the "safeguards" contemplated? As to the final paragraph of the delegates' letter, Sir Robert points out in a separate communication of even date that "the Register, as such, had little effect in increasing the number of intending secondary-school teachers seeking training, and that the only really effective means for encouraging" such training is "an increased demand for trained as against non-trained teachers on the part of Local Education Authorities and governors of such schools."

To further this, this Board have now taken very substantial steps:—(1) They have instituted a system of direct Exchequer grants to aid training colleges for secondary-school teachers. The sum for this purpose has already been shown in the published estimates; the Regulations will be issued in a few days. (2) They have inserted the following article in their Conditions of Grant to the 843 grant-aided secondary schools: "Where the Board think fit, they may, on consideration of the teaching staff as a whole, require that a certain proportion of all new appointments shall consist of persons who have gone through a course of training recognized by the Board for the purpose." It will be seen that by this action the Board of Education have certainly taken the most *thoroughly practical* steps for increasing the recognition of training for secondary-school teaching staffs (which is the point that you urge most strongly; and that it is to the teaching profession, therefore, that the country must mainly look for the *further* stimulus which, in your view, will result from the establishment of a satisfactory Register of Teachers.

Is not the Board demanding rather more than is quite reasonable in the circumstances? The Conference has submitted a working basis on the available materials, providing in outline a means of admitting further groups when they assume the consistency of "groups." The delegates may possibly be able to give more definite guidance on some of the points submitted by Sir Robert Morant, but a quite satisfactory representation for classes that do not organize themselves in their own interests seems impossible. The thing must develop with the spread of organization; and surely the course for the Board is to proceed at once with a scheme as complete as the existing facts warrant. The Board, in fact, is prepared to do so "as soon as they receive adequate assurances from the teaching profession that the composition of the proposed Council is considered to satisfy the condition of Section 16 of the Act, namely, that the Council must be representative of the teaching profession." Such assurances should be forthcoming from all sections of the profession with promptitude and decision.

## NOTES.

It seems now to be tolerably certain that the Education Bill will be pressed forward in autumn, and that the Government, while insisting on its principles, will prove reasonably accommodating on details. Mr. Runciman spoke to his constituents at Dewsbury as follows:—

When the autumn session came round they would proceed with the committee stage of the Education Bill. He did not think they would adhere to every detail of the Bill, and, as he said in the House of Commons, he thought any Government who told the country from the very first that every detail of their measure must go through would be rash and unintelligent. He did not adhere to every detail of that Bill, but he adhered to every principle in the Bill. He was glad to think that there had been a much better feeling about this question of

education. He had continued to do what he could to improve the feeling on the subject. He wanted to wipe out the bitterness if he could, and if he could succeed in making any progress in that direction, he should be well satisfied; but it was difficult to get rid of bitterness so long as people persistently misunderstood each other. The Government bore no enmity to the Established and the Roman Catholic Churches; but, quite emphatically, there could be no settlement of this question so long as they persistently adhered to every artificial privilege which they possessed. There could only be a settlement on one basis, and that was the basis of religious equality.

One must hope that the negotiations of the leaders of different ecclesiastical bodies will clear away the "persistent misunderstandings"—whatever they are—to which Mr. Runciman refers. Meantime it is something to the good that he should be able to report "a much better feeling." The principle of religious equality, we take it, is now beyond profitable controversy.

THE Assistant Masters' Association has briskly followed up the adverse judgment in *Wright v. Zetland*—the Richmond case. The Endowed Schools (Masters) Bill, promoted by the Association, was introduced for the Government by Earl Beauchamp on July 7. Its object is "to put the status of assistant masters in ordinary endowed schools on a definite and satisfactory basis." It provides that "any master in the school, by whomsoever appointed, and whether appointed before or after the passing of this Act, shall be deemed to be in the employment of the governing body for the time being of the school"; that, subject to special provisions in any scheme and to special agreement of parties, the dismissal of a master "shall not take effect except at the end of a school term, and except after at least two months' notice of dismissal has been given to him by or on behalf of the governing body of the school"; but that nothing in the Act or in any scheme "shall prevent the dismissal of a master without notice for misconduct or other good and urgent cause assigned at the time of dismissal." The provisions seem perfectly reasonable, and nobody of sound judgment and good feeling will have the least objection to offer. It is most satisfactory to note that a resolution to be proposed at the Rochester meeting will express the gratitude of the Association to the Head Masters' Association "for their most effective co-operation in endeavouring to obtain greater security of tenure for assistant masters in secondary schools." As the *A.M.A.* says, "if the law had been what this Bill will, as we confidently hope, make it, there could have been no Grantham case and no Richmond case. It removes at once the most harassing and the most general of the grievances against which both head and assistant masters have constantly protested." Our contemporary adds a prudent caution: "It must be understood that attempts to amend the Bill, even with the best intentions, would be as dangerous to our best interests as the most sinister of wrecking projects." The better is sometimes the enemy of the good, and Parliamentary time is too precious to be trifled with.

ELSEWHERE we reproduce the summary results of an inquiry by a Branch secretary of the Assistant Masters' Association as to how far Local Authorities assist their secondary teachers to attend Modern Language Holiday Courses abroad. Of 27 counties investigated, 13 either have given or now offer such grants, ranging in value from

£6 to £14, while London offers as many as 60 exhibitions of £10 each. Of the boroughs, Leeds, Bradford, Huddersfield, and perhaps two or three more, appear to be the only ones that give any such assistance at all. The inquiry, however, unfortunately does not cover the whole country; and evidently it would be unsafe to infer that the same proportion of contribution is made in the counties and boroughs not investigated. The money is certainly well applied. English teachers of modern languages, unless they have lived in the several countries for some considerable period, are at an inevitable disadvantage. They cannot generally have adequate opportunities of hearing the languages spoken and of speaking the languages with people to the manner born. The holiday courses undoubtedly offer excellent occasion for both experiences; but it might be enough to require a certain length of visit to the countries, without insisting specifically on attendance at a course. The bill for salaries is naturally regarded with a critical eye, and very properly so; yet the additional outlay on this laudable object would rarely fail to prove a profitable investment. We hope to see the practice universally followed.

WRITING to the *Times* (July 15), Dr. Rashdall said he believed "a decided majority of college tutors [at Oxford] are in favour of taking steps to prevent the waste of public money upon the sons of well-to-do parents." A laudable conclusion, one would suppose. But next day Dr. J. A. Stewart wrote:

If "well-to-do parents" means "parents who could easily keep their sons at Oxford without scholarship aid," then it must be said that the tutors referred to in Dr. Rashdall's letter have not got hold of what can possibly be the cause of any serious waste of public money; for the sons of such parents holding scholarships are very few indeed. Scholarships are mainly held by the sons of hard-working professional men—a class on which the University has always relied, and must continue to rely, for its best blood; and these men cannot, as a rule, keep their sons at Oxford without scholarship aid.

Dr. Stewart goes on to say that "if there is serious waste of public money on scholarships, it is not because they are held by 'the sons of well-to-do parents,' but because so many of them are held by men who are not good enough: there are too many scholarships." He thinks some £12,000 a year—one-third of the sum now paid yearly by the colleges to scholars—is "public money wasted." "If one-half of this £12,000 were made available for University purposes and the other half for helping the upkeep of exhibition funds to be administered by the colleges for the benefit of their poor men, whether scholars or commoners, a really substantial reform would be effected." There should be little difficulty in ascertaining the facts approximately enough for practical purposes. Dr. Stewart holds that "we want for our scholarships, not poor men, but able men, whether poor or rich." Able men, certainly; and men that do not require pecuniary assistance ought not to get it, and ought to have the spirit to decline it.

THE Chinese Board of Education has been wakened up by the noise of the Japanese guns, and has proceeded to business with a directness and energy that would do credit to the Furthest West. It has issued ten regulations, concise and pointed, sanctioning them by rewards as well as by punishments. Every capital city shall have at least one hundred primary schools and a minimum of five thousand

students; every prefecture and district shall have at least forty schools and a minimum of two thousand students. Prefects and magistrates that fail to obtain the required number of schools and students within their jurisdiction shall be punished; officials that succeed in persuading well-to-do people to found schools shall be rewarded. Every child of seven years of age shall attend school: if any child of school age fail to attend, its parents shall be punished for their neglect of civic duty. It is one thing to issue a ukase and quite another thing to get it executed, especially when the details involve so much complexity—at any rate, as we understand educational administration. Still, with those Japanese guns ringing in the ears of the nation, and with rewards and punishments in official prospect, a new educational era may be dawning in China. We have already noted the recent remarkable influx of Chinamen into Western educational institutions. The immediate object is to prepare for dealing, as occasion may arise, with Japan. One must hope that the results will tend rather to peaceful development.

In this connexion, it is interesting to note that the Peking correspondent of the *Times* reports that China is going to devote some two millions and a half sterling—"the unexpended balance of the Boxer indemnity," restored by the United States Government—on education. The correspondent writes:

China realizes that her pressing need is education. China also appreciates the services rendered to the State during recent years by Chinese educated in America. She therefore intends to apply the main portion of the amount available to the education in American schools and Universities of selected Chinese students. It is estimated that at the beginning of next year the proportion of the general annuity assignable to the bonds restored to China will be £94,000, increasing to £99,500 in 1911, to £122,500 in 1916, and to £176,750 in 1932, at which figure it remains till 1940, when the debt will be extinguished. With the main portion of these sums China proposes to send a hundred students annually to America to receive an education for four to eight years, until the number reaches four hundred, which number at least will be maintained throughout the currency of the indemnity.

As the correspondent adds, "the scheme will be heartily welcomed as one of far-reaching importance."

A CORRESPONDENT of a contemporary, after drawing attention to "the wholesale boycotting of the men of science by those who have the duty of advising the fount of honour" in the Birthday lists, returns to the charge with undiminished vigour.

This time it is the turn of the representatives of the higher education. What course could be more insulting to the University of Leeds, or to University men generally, than the occurrence of Wednesday last? His Majesty goes down to Leeds to open a new wing of the University. That University enjoys a reputation which has been built up during the past quarter of a century by the labours of a most distinguished staff of literary and scientific workers, headed by a Principal and Vice-Chancellor of great distinction, a learned man, of fine presence, an ornament to classical studies and to his own Alma Mater at Oxford. This culmination to his many years of service was signalized by the conferring of knighthood upon the entirely worthy mantle-maker who happened this year to be Lord Mayor of Leeds. Who cares?

Just so: who cares? After all, the worthy mantle-maker is the representative of the local community. And the worthy principal probably has a mind above knighthoods. Still, so long as honours are going, it is only right that they should be distributed with some discretion. The correspondent should agitate for an Advisory Council, "representative of all branches" of national service.

## SUMMARY OF THE MONTH.

In a letter to the President of the Board of Education, on the subject of the Training College Regulations issued last year, the Bishop of St. Albans announces that, as a temporary *modus vivendi*, and for the coming year only and without prejudice on either side, the General Council of the Church of England Training Colleges are prepared to accept the provisional arrangement discussed between Mr. Runciman and the Archbishop of Canterbury, whereby the College Authorities shall not be bound to offer the facility of the Conscience Clause to more than 50 per cent. of the vacant places in any college this year, but that up to that number any one on the list of registered candidates, who qualifies educationally for admission, not being a member of the Church of England, shall have the benefit of the Conscience Clause. Mr. Runciman has drawn up modifications of the regulations accordingly.

THE Board of Education, convinced that a large number of the questions that have to be determined by the principals of women's colleges are such as are best treated by a woman, and believing that experience has clearly shown that there is no lack of capable women who can most effectively undertake the responsibilities of the headship of a residential college, both on its administrative and its instructional sides, have decided that future vacancies shall be filled by the appointment of women, unless the Board approve beforehand a deviation from what must henceforth be regarded as the normal principle.

"In addition to the *modus vivendi* for the admission of students [says the *Guardian*, July 15], the Regulations for the training of teachers issued last week present several features of interest. So far as the Church is concerned, the most important are the requirement that henceforth vacancies in the headships of women's training colleges are to be filled by women, unless the Board previously approve of some deviation from this, and the rules for religious instruction. On many grounds it is desirable that ladies should be the principals of women's colleges, but the extent to which this will affect the trust deeds of the twenty-one women's colleges of the Church of England may be a matter for consideration. In future any student who, on admission to a college, states that he is a member of the denomination with which the college is connected will be considered to have waived his right to claim exemption from religious instruction. If the student fails to make such a declaration, he may retain the right to claim exemption until the opening of the coming term, when he must either formally claim or formally waive it. The colleges are entitled to enforce reasonable regularity of attendance at religious worship and instruction where no exemption is claimed. In the case of students belonging to a different denomination from that of the college, arrangements should be made for their regular attendance at religious observance or instruction in connexion with the denomination of which they are members."

THE *Times* summarizes the course of proceedings, in the Educational Section of the forthcoming meeting of the British Association. The President, Prof. L. C. Miall, will deal in his address with a subject of perpetual controversy, "Useful Knowledge." His treatment of the subject will give prominence to the relation between useful knowledge and discipline. In the general proceedings of the section an opportunity will be afforded to members of expressing their views on the fundamental objects of education in a discussion on forms of education and their relative values, to be introduced by Dr. G. Archdall Reid and Prof. E. P. Culverwell, of Trinity College, Dublin. In accordance with their usual practice, which might usefully be followed in some of the other sections, the educationists will not listen to a number of papers on small points, but will devote themselves almost entirely to the discussion of a few subjects of wide interest and importance. Under the title "Tests of Educational Efficiency" will be discussed the place and method of inspection and examination of school work, with Mr. T. P. Gill, the Secretary of the Department of Agriculture and Technical Instruction for Ireland, as the opener. Miss C. P. Tremain, the head of the Secondary Training Department in the Alexandra College, Dublin, and Mr. C. MacGregor, of the Training Centre, Aberdeen, are expected to take part in another discussion on "Training in Teaching," with particular reference to the actual teaching prac-

tice obtained by students in training colleges. But perhaps the most interesting feature of the proceedings will be a discussion on various aspects of education in relation to rural life. Prof. Miall and Prof. J. A. Thomson will deal with the subject from the point of view of Nature study; Miss Lilian J. Clarke and Prof. Houston will show how school gardens may provide opportunities for direct teaching in Nature knowledge, as well as promote interest in rural occupations; the Bishop of Kildare will indicate the possibilities in Irish primary schools in this connexion; Mr. C. H. Bothamley, Secretary to the Somerset Education Committee, will describe what is being done for rural education in some of the English counties; and Dr. W. J. M. Starkie, Resident Commissioner for National Education in Ireland, and Mr. George Fletcher will state their views on the subject generally. Among the contributors of special papers, Mr. R. Blair, the Executive Officer of the London County Council, will describe the functions and operations of Local Education Authorities, and Mr. Burgwin will deal with schools for defective children. Prof. J. A. Green, of Sheffield, will urge the desirability of what may be termed educational research as distinct from scholastic philosophy, the object being to arrive at definite educational principles as the result of experiment; and contributions bearing on the same subject are expected from Prof. J. J. Findlay and Mr. C. Sandiford. Finally, under the title "The Outlook; a Grand Experiment in Education," Prof. H. E. Armstrong will consider the educational requirements of the present day and of the future, with reference in the latter connexion to present provisions.

THE Association of Technical Institutions held its summer meeting at the Franco-British Exhibition, Sir Horace Plunkett, past president, in the chair. Dr. Friedel, head of the Information Bureau of French Education, gave an interesting address on the French educational system. He said that in France, ever since the Revolution, schools were a State institution, and no power, except that of the public authorities, was allowed to interfere in education. He described the French educational system from its infant school—*l'école maternelle*—to the University. On primary education they had developed in late years a higher primary education, which was very flourishing. Side by side with general instruction they had practical instruction, which was the introduction to industrial or commercial life, while in the *écoles pratiques* education of a practical character came still more to the front. Some years ago the Minister of Commerce was allowed to take over the higher primary schools, in which the professional character was predominant, and this was at present a burning question in France. They had also 3,500 special professional courses, some of which were organized by particular trades. These stood outside the frame of official public instruction. The most interesting development of higher education in France was that at the Universities pupils could get special instruction in their various technical pursuits, including agriculture and watch-making, so that technological education now went from the elementary stage right up to the University. Municipalities did a great deal for their Universities: they gave money, founded chairs, built laboratories, and endowed all kinds of institutions connected with the Universities. Sir Philip Magnus, past president, proposing a vote of thanks to Dr. Friedel, said that nothing impressed one more than the great advantage that had resulted during the last twenty or twenty-five years from the free intercourse which had taken place between Frenchmen and Englishmen on various occasions, and particularly in connexion with such exhibitions as that held there at the present time. Years ago the two countries had systems of education which differed very much the one from the other, but they had gradually been growing together, so that they felt that human nature, after all, was one, whether in France or in England; that the problems they had to solve were very similar, and that they were endeavouring to solve them in much the same way. Both countries were still considering under what circumstances, if any, it was possible to give a boy that instruction in a school which would enable him to enter a wage-earning occupation. The question was a difficult one, and we had not solved it; but we looked to France for aid in an effort to do so.

MR. H. J. TIFFEN, Secretary of the West Lancashire and Cheshire Branch of the I.A.A.M., has been inquiring how far assistance is given by Local Authorities to enable secondary teachers to attend Modern Language Holiday Courses abroad. He has received replies from 23 Branches of his Association

referring to 27 counties and to about 50 borough or district authorities. He thus summarizes the results (in the A.M.A. for July):

Of the 27 counties, 13 either have given or now offer such grants, ranging in value from £6 to £14. These counties include Staffordshire, Derbyshire, Herefordshire, Essex, Surrey, Kent, Yorkshire (W.R.), Berkshire, Devon, Glamorgan, Westmorland, and Cumberland, while London offers as many as 60 exhibitions of £10 each. To these may be added, on information drawn from other sources, Durham, Cambridgeshire, Middlesex, and Sussex, while Nottinghamshire is considering the question of making grants in the coming year. By the boroughs far less has hitherto been done, and only three or four, notably Leeds, Bradford, and Huddersfield, at present give any assistance at all. The courses encouraged are usually those for French and German; but in some cases also for Spanish, and by most counties certain conditions are laid down to ensure that the grants be not misapplied. Smaller grants are also made in some districts to encourage attendance at courses such as those held in August at Oxford for teachers of geography. It is impossible to guarantee the absolute accuracy of these returns, as the information is collected from various sources. They may, however, suffice to show that a good deal is already being done in this way, and perhaps also they may be of use in inducing other Authorities to take the question into consideration.

Mr. Tiffen (8 Verulam Street, Liverpool) will be glad to receive any information in correction or amplification of these returns.

THE July Cambridge Local Examinations were held at 112 centres in the United Kingdom and 7 centres abroad, the total number of candidates being 6,328. The regulations for 1909 may be obtained from Dr. Keynes, Syndicate Buildings, Cambridge. The following are among the more important changes announced: Senior and junior candidates will not be awarded a certificate unless they pass in English or another language, ancient or modern; fresh schedules for Chemistry are issued; senior and junior candidates will be allowed to take unprepared translation in Latin and Greek as an alternative to set books. Spoken French and German will be included in the subjects for the Preliminary examination, as well as for the examination of senior and junior candidates. In response to a request received by the Syndicate from Natal and the Transvaal, Dutch will form a subject for the junior as well as the senior examination.

A COMPANY called the "University and City Association of London, Limited," has been registered (July 6), with a capital of £25,000 in £1 shares. Its objects are: to accept from the London County Council the fabric of Crosby Hall; to provide for the re-erection of the same; to acquire from the Town and Gown Association, Limited, a certain leasehold site held for an unexpired term of about seventy-one years from the London County Council, at an annual ground rent of £140; to erect and maintain certain halls of residence adjoining the said re-erected Crosby Hall as part of a Collegiate Foundation; to acquire from the Town and Gown Association aforesaid the leasehold block of buildings known as More House, Cheyne Walk, Chelsea, held for an unexpired term of seventy-one years at an annual ground rent of £260; to carry on and maintain the same or part thereof as Fellows' residences or otherwise, &c. How the project is to fit in with the other teaching institutions of London does not yet appear.

THE scheme formulated to establish a course of lectures for Midland journalists in connexion with Birmingham University has been formally approved at a meeting of journalists. It provides in the first year for a course of lectures by Prof. Masterman on "Modern History and the Elements of Political Philosophy," a course on "Economics" by Profs. Ashley and Kirkaldy, and a course on "English Literature" by Prof. Churton Collins. Students who take the full course, or such portions of it as are agreed, and satisfy the requirements of the University authorities, will be entitled to a certificate setting forth the fact. A sum of £100 per annum would have to be found before the Senate would be prepared to go on with the project. The Committee thought that it would be beneath the dignity of the profession to appeal to the outside public for the money until an attempt to raise it in the profession had failed.

MR. W. H. MILL, Chairman of the Edinburgh School Board, speaking at a local prize distribution, said that, while they felt that in many respects they were going to be benefited by the Scottish Education Bill, the School Boards had somewhat of a

feeling of soreness over several matters that had been brought before the Government in connexion with it. He wished to protest as strongly as he could, not only on behalf of himself and his own Board, but also on behalf of the other Scottish Boards—and he knew he spoke in their name—against the fact that through the Bill the School Boards were to be put more and more under the powerful influence of the Department in London, with a result, he believed, which would not be beneficial to Scottish education. Those who knew something about the management of education in Scotland knew that for many years the small School Boards in Scotland had had practically to submit to the dictation of the Department in London in regard to almost every item of business that came before them. The larger Boards had been able to do something themselves, but for the future almost everything down to the merest penny that they spent was to be subject to the approval of the Department, with the result, he believed, that initiative would be taken from them. He believed that one of the results would be the causing of men at present on School Boards to retire from them. Referring to the suggestion in Leith School Board that the members should resign as a protest against the Bill, Mr. Mill said that, if such a movement were likely to take place among the larger School Boards, he would be the very first to resign as a protest.

THE Commission of the General Assembly of the Presbyterian Church in Ireland (says the *Times*) has drawn up a statement on the Irish Universities Bill. The Commission, which has Assembly power on this question, states that it has observed with gravest concern that in the progress of the Irish Universities Bill through Committee of the House of Commons the sectarian character and tendencies of the constitution of the proposed new University and college for Roman Catholics, so strongly condemned at the special meeting of the General Assembly in April last, have been seriously increased, all amendments designed to make the new institutions less denominational having been systematically rejected. As a result, if the measure as amended in Committee passes into law, a denominational University, with denominational constituent colleges, will, in contravention of the settled policy of religious equality in Ireland during the past forty years, be irrevocably established in this country. In particular the Commission draws attention to the fact that, notwithstanding all protests in Committee, the provision in the Bill remains unaltered which empowers the governing body of the new University in Dublin, as soon as it is launched upon its career, to affiliate Maynooth; and it further points out that the authorization given in the Bill to grant to professors and lecturers in Theology or Divinity the use of college buildings and classrooms erected at public expense, or to allow denominational chapels to be placed inside the college precincts upon ground provided by public money, is in direct opposition to the undenominational character of the new seats of learning claimed for them when the Bill was first introduced into Parliament. The Commission strongly condemns the arrangement by which the declaration requiring professors in the Queen's Colleges to "carefully abstain from teaching or advancing any doctrine or making any statement derogatory to the truths of revealed religion, or injurious or disrespectful to the religious opinion of any portion of their class" will be reduced to a mere form. In the judgment of the Commission the power, now conferred by the Bill upon County Councils in Ireland of levying a rate for the purpose of paying the fees of selected students at constituent or affiliated colleges, is liable to serious abuse. Protest is raised against the grave injustice done to Magee College, Londonderry, in the proposal to deprive it of the University privileges it has enjoyed for twenty-six years in the Royal University, and the Commission deeply regrets the refusal of the Government to provide adequate financial support for the new Northern University—the only institution dealt with in the Bill in which its professed non-sectarian principle is preserved. The Commission accordingly appeals with all earnestness to the friends in Parliament of undenominational education and of genuine academic efficiency and culture to make a united and strenuous effort when the Bill shall be reported to the House of Commons to have removed from it all denominational provisions.

DR. WALTER HEADLAM, Fellow of King's College, Cambridge, died at the early age of forty-two. He was one of the most distinguished Greek scholars of the age. We noticed recently his remarkable "Book of Greek Verse."

AN attractive Oxford figure is lost by the death of Mr. Louis Dyer, who, although by birth an American (son of the Hon. Dr. Dyer, Chicago), followed up a distinguished career at Harvard by entering Balliol, having as contemporaries Lord Milner and Lord Middleton. After taking his degree he spent some years at his old American University, teaching Greek and Latin, after which he settled in Oxford with his wife, the eldest daughter of the late Mr. A. Macmillan, the publisher. He was a man of fine scholarship and of singular charm of personality, and will be missed by a wide circle of friends.

ARCHDEACON CHEETHAM died at Rochester (July 19) in his eighty-second year. He was educated at Oakham Grammar School and at Christ's College, Cambridge, of which he was an Honorary Fellow. From 1863 to 1882 he was Professor of Pastoral Theology in King's College, London. A keen student of ecclesiastical history, Dr. Cheetham was co-editor with the late Sir William Smith of Smith and Cheetham's "Dictionary of Christian Antiquities," and afterwards himself edited the "Dictionary of Christian Biography." To both of these works he contributed numerous able and scholarly articles. His "History of the Christian Church during the First Six Centuries," which was published in 1894, at once established itself as the text-book of the subject. His next work, "The Mysteries, Pagan and Christian," was published in 1897, and his "Sketch of Mediæval Church History" in 1899. His literary work was brought to a close only last year by the publication of "A History of the Christian Church from the Reformation to the Present Time."

MR. JAMES HARDIE, M.A. Glas., Head Master of Linton House School, Notting Hill Gate, died on June 21 in his sixty-second year. Linton House was established in 1877, and has always maintained a high reputation, many of the boys gaining scholarships at Eton, Charterhouse, Winchester, St. Paul's, and other public schools. On two occasions Old Boys took the first Balliol Scholarship. Mr. Hardie was for many years a manager of a group of schools under the London School Board. He was also greatly interested in the welfare of the Presbyterian Church of England, being an active member of the Instruction of Youth and College Committees. He further found time during fifteen years to superintend a Sunday school carried on by Trinity Presbyterian Church, Notting Hill, of which church he was treasurer. He was fond of outdoor sports, was a good rifle shot, winning a prize at Wimbledon and competing for the Queen's Prize. He was also a keen trout fisher and an ardent golfer. In 1901 he was captain of the West Middlesex Golf Club.

THE death of Dr. Otto Pfeleiderer, Professor of Theology in Berlin University, at the age of sixty-nine, removes one of the leading German theologians. He studied under Baur at Tübingen, and passed some time in theological colleges of England and Scotland. He became Professor at Jena in 1870, and was called to Berlin in 1875. In 1875 he published a couple of volumes on Paulinism; in 1886-88, "A Philosophy of Religion on the Basis of its History," in three volumes; in 1890, "The Development of Theology in Germany since Kant"; in 1894, the Gifford Lectures (delivered at Edinburgh University), on "The Philosophy of Religion"; besides collections of essays on similar subjects. The views he expressed in his Gifford Lectures caused so much alarm in Presbyterian circles in Scotland that Principal Rainy and two other theological professors delivered a series of lectures in reply. Dr. Pfeleiderer was prominent in philosophy as well as in theology.

MR. HOBHOUSE, in a printed reply to a question by Sir William Collins, M.P., states that the amounts paid out of public funds, other than out of rates, to the several Universities, as such, in England and Wales, during the last financial year, were as follows:—Grants in aid: University of London, £8,000; Victoria University of Manchester, £2,000; University of Birmingham, £2,000; University of Wales, £4,000; University of Liverpool, £2,000; Leeds University, £2,000; Sheffield University, £2,000. Shares of the annual grant from the vote of Parliament are given as follows in Scotland:—Glasgow University, £12,180; Aberdeen University, £8,400; Edinburgh University, £15,120; St. Andrews University, £6,300. These sums are exclusive of



any grants received from the grant in aid of University colleges which are paid to certain Universities in respect of their work as colleges, of sums received from the Board of Education in respect of their work as training colleges, evening schools, or technical institutions, and of money received from the Board of Agriculture and Fisheries for instruction in agriculture.

The desire of the Welsh members to secure an increase of the grants made to the Welsh University has very naturally been stimulated by the progress of the Irish Universities Bill. A deputation of Welsh members waited upon the Chancellor of the Exchequer, and Sir Herbert Roberts stated the needs of the University. It was pointed out that, under the Irish University Bill, the city of Belfast would receive a larger grant than was accorded to the whole of Wales. The Chancellor of the Exchequer, in reply, said that in his opinion a case had been made out for an increased grant for Welsh University education. In the interests of the Welsh colleges, however, he thought that a decision with reference to the amount of the grant should be postponed until the close of the financial year, when he would be in a better position to do justice to the demands they had made. He suggested that the Welsh members should appoint a committee of their number who should invite a representative of each of the Welsh colleges to confer with them on the report which had been made by the Departmental Committee. When that had been done, he would be glad to discuss the subject again with them.

#### UNIVERSITIES AND COLLEGES.

Oxford and Cambridge. In the *Oxford and Cambridge Review* Mr Archibald Venn draws a statistical comparison between the two Universities in regard both to Matriculations and to the distinctions won by their *alumni*. Taking the historic period, 1572 to 1875; 94,920 matriculated at Oxford, and 84,682 at Cambridge, and there were 480 Oxford bachelors and 463 Cambridge. At present the teachers of professorial rank in the principal provincial colleges number 165 from Oxford and 170 from Cambridge; in membership of the Royal Society Cambridge predominates with 132 to 56 Oxonians; and Parliament now claims 109 of its members from Oxford and 87 from Cambridge. During the last century the holders of the offices of Prime Minister, Lord Chancellor, and Chancellor of the Exchequer have on 31 occasions been educated at Oxford and on 24 at Cambridge. Summing up, Mr. Venn says that "Cambridge displays, and for centuries has displayed, a marked professional reputation, as evidenced in the legal and medical world, combined with scientific accomplishment, and that Oxford has displayed—latterly especially so—a relative superiority in active social and literary life."

LORD REAY presided over the Assembly of the London. Faculties of University College (July 2), when the results of the University Scholarship and Class Examinations were announced, and scholars and medallists were presented to Sir Edward Fry, an old and distinguished Fellow of the College. Prof. Pollard, Dean of the Faculty of Arts, read a report on the work of the session, in which he pointed out the great improvements made recently. The most important, or the most original, was the creation of a series of Arts Seminar Libraries to provide for the arts student what the laboratory did for the science and engineering student, to provide for him a place wherein those original materials upon which his studies must be based could be tested and used. These training libraries, occupying ten continuous rooms, were unrivalled in any British University, and they were the most important means the University possessed for the development on the arts side of schools of post-graduate research. The efforts of the college departments to realize academic ideals had during the past session been as strenuous and successful as ever. The number of students was 1,302, as against 1,191 at this time last year. Sir Edward Fry said the report of the Dean was remarkable as showing the great extension of the College, and contrasted the times of sixty years ago, when he was a student with J. S. Mill, Browning, and others that had made themselves great names. Lord Reay, in proposing a vote of thanks to Sir Edward Fry, said the College represented a cosmopolitan field of modern research, and was prepared to give attention to any branch of knowledge for which there was a call.

DURING the session about 750 students have been in attendance, including 130 in the preliminary stage. Of the rest, nearly one-third are in the Faculty of Arts, which is a circumstance worth noting by those who speak of the University as a "glorified technical school." The Science students number over four hundred—if we include commerce and all the branches of applied science, such as engineering and medicine. The medicals are a small body—only about three dozen. The decline in the School of Medicine is more than balanced by an increase among the Engineers, who now number over 180.

#### THE EDUCATIONAL LADDER.

BATH COLLEGE.—Scholarships—Boarders: R. S. F. Cooper, Bath College Junior School; L. B. Frere, E. W. Hickie, and C. G. Martin, Bath College; A. L. W. Neave, Bath College Junior School; R. M. West, St. Winifred's, Kenley. House Exhibition—B. E. Morgan, Highfield School. Day Boys: A. S. T. Reilly and W. H. Royal, St. Christopher's; R. G. B. Perkins, Bath College.

BIRMINGHAM UNIVERSITY.—Ascough Scholarship: W. C. Till. Priestley Scholarships: A. E. Everest, H. Hawley, H. N. Lowe. Bowen Scholarships (Metallurgy): A. Hague, M. T. Murray. Wiggin Scholarships: J. Parrington, D. Ewen. Bowen Scholarships (Engineering): E. A. Allcut, F. H. R. Lavender, R. D. Gifford. University Research Scholarships: A. J. Grove, G. W. Todd, R. H. Whitehouse.

BLUNDELL'S (Tiverton).—Foundation Scholarship: G. M. Paddison (Blundell's School). Entrance Scholarships: S. E. Coyte (Plymouth College Preparatory School), W. T. Sergeant (Glen-gorse, Meads, Eastbourne), R. Newport-Tinley (Branksome, Godalming), C. H. Morgan (Penarth County School), E. C. Catterall (Southdown College), G. D. Lane (Elliesslie, Fremington), W. N. Spicer (Oxford Preparatory School), B. E. F. Hall (Yarlet Hall, Staffs), T. F. Stocker (Clarence School, Weston-super-Mare). Exhibitions: D. R. Hardwick (St. Andrew's, Newquay), C. H. Martin (Junior School, Westward Ho!), C. R. Hay-Webb (Old Ride, Bournemouth).

BRADFELD.—Foundation Scholarships (90 guineas a year): F. J. M. Chubb (Mr. T. C. Weatherhead, King's College Choir School, Cambridge); D. W. L. Jones (Mr. R. M. Hugh Jones, Colet House, Rhyll); M. C. Joynt (Mr. A. M. Kilby, Lindisfarne, Blackheath). Warden's Exhibition (50 guineas a year): M. L. Jacks (Mr. C. C. Lynam, Oxford Preparatory School, Oxford). Simonds Exhibition (45 guineas a year): E. Latty (Mr. A. B. Beaven, Greyfriars, Leamington). General Exhibitions (30 guineas a year): H. J. Denham (Rev. C. F. S. Wood, Ovingdean Hall, Brighton); B. T. Coller (Mr. L. C. Vaughan-Wilkes, St. Cyprian's, Eastbourne); F. H. Postlethwaite (Bradfield College); S. G. Anderson (Mr. W. H. P. Hayman, The Abbey School, Beckenham); M. D. Colbourne (Mr. W. H. P. Hayman, The Abbey School, Beckenham); E. Obermer (Mr. J. C. Morgan-Brown, St. Edmund's School, Hindhead, Haslemere).

BRIGHTON COLLEGE.—Scholarships—Long: K. M. Dawson (Mr. Jones, Colet House, Rhyll); Newton: F. W. Pattinson (Mr. King, Hoylake). Exhibitions—J. A. Pugh, G. B. Harrison, and H. M. Lewis (Brighton College), W. H. Royal (Mr. Trask, St. Christopher's, Bath), N. J. R. Wright (Rev. C. W. L. Bode, Bechmont, Sevenoaks), T. E. Bourdillon (Mr. Darling, Castle School, Sevenoaks), G. Y. S. Farrant (Mr. Battle, Sir Roger Manwood's School, Sandwich).

CAMBRIDGE: GIRTON COLLEGE.—Gilchrist Fellowship of £100: Miss D. Tarrant (Classical Tripos, Part I, 1907, Class I., Division I.; Part II., 1908, Class I., Philosophy). Pfeiffer Studentship, about £75: Miss B. E. Smythe (Mediaeval and Modern Languages Tripos, 1905, Class I.). Studentship of £40, tenable at the College: Miss M. D. Brock (Classical Tripos, Part I., 1907, Class I., Division 3; Part II., 1908, Class II.). Fourth Year Scholarships and Exhibitions: Sir Arthur Arnold Scholarship, augmented to £50, Miss M. Long (Mathematical Tripos, Part I., 1908, equal to Fourth Wrangler); £40, to Miss I. M. Massey (Mediaeval and Modern Languages Tripos, 1908, Class I., distinction in French and in German); Exhibitions of £20 each, to Miss K. Field (Mathematical Tripos, Part I., 1908, Senior Optime, equal to 44); Miss D. L. Henry (Mathematical Tripos, Part I., 1908, Senior Optime, between 40 and 41); Miss E. H. Pratt (Mediaeval and Modern Languages Tripos, 1908,

Class II.). Thérèse Montefiore Memorial Prize: Miss D. B. Pearson (Natural Sciences Tripos, Part I., 1907, Class I.; Part II., 1908, Class I., Physics). Agnata Butler Prizes for Classics: Third year student, Miss A. Shillington (Classical Tripos, Part I., 1907, Class I., Division 3; Part II., 1908, Class I., History); second year, Miss H. Barnard (Intercollegiate Examination in Classics, 1908, Class I.). Pioneers' Prize for History: Miss E. E. Power (Intercollegiate Examination in History, 1908, Class I.). Fanny Metcalfe Memorial Prize: Miss M. Seaton (Intercollegiate Examination in Modern Languages, 1908, Class I.).

CAMBRIDGE HIGHER LOCAL EXAMINATIONS.—Lowman Memorial Prize: W. N. Berkeley, St. Anne's, Abbots Bromley. Fletcher Prize: G. K. Hugh Jones, 48 Ingleby Road, Ilford. Prize of £3. 3s. each: C. Stewart, High School, Bedford; D. L. Beck, King Edward's School, Birmingham; B. E. Clayton, Charlcombe Manor, Bath; R. H. King and L. G. Thompson, Dulwich High School; A. Yoxall, St. Paul's Girls' School, Brook Green, W.; F. E. Harmer and E. O'Rourke, City of London School for Girls. Prizes of £2. 2s. each: W. L. Ward, High School, Bedford; P. M. Stopford, St. Paul's Girls' School, Brook Green; W. M. Hanford, Girls' Grammar School, Bradford; C. M. Garlick, Wyggeston High School, Leicester.

CAMBRIDGE UNIVERSITY.—F. M. Balfour Studentship in Biology: C. C. Dobell, B.A., Scholar of Trinity. Frank Smart Studentship (Botany), £100 for 2 years, Sydney Mangham, B.A., Emmanuel. Burnley Studentship, K. J. Saunders, B.A., Emmanuel. Prendergast Greek Studentship, A. W. Gomme, Scholar of Trinity. Charles Oldham Classical Scholarship, D. S. Robert, Scholar of Trinity. Craven Studentship, H. Mattingley, B.A., Craven Scholar, Caius; Grants from the Craven Fund, J. P. Droop, B.A., Trinity, and S. Gaselee, King's. Scholarships in Law, Oswald Hughes Jones, St. John's, and Leonard Danvers Smith, St. John's. Raymond Horton Smith Prize, Thomas Renton Elliott, M.A., Trinity; honourable mention, J. M. Hamill, M.A., Trinity, and H. Beckton, M.A., Clare.

*Corpus Christi*.—Exhibitions, R. C. Lyle, £30; C. Elwell, £20; E. S. P. James, £20.

*Emmanuel*.—Scholarships, £70, G. E. K. Brauholtz; £60, A. B. Adams, B.A., R. H. Moody, B.A.; £40, F. B. Clogg, B.A., W. G. Lely, B.A., A. R. Marshall, B.A., R. H. Snape, B.A., C. F. Taylor, B.A., T. G. Edwards, C. Gimson, B. M. Jones, G. W. W. Milroy, K. M. Ward; Thorpe Scholarship, £30, W. J. Lyon; Sizarships, A. C. Dyer, J. W. Lesley. Exhibitions, £30, A. C. Bescoby, B.A., H. S. Staley, B.A., W. Stiles, B.A., A. Cohen, P. Madge; £20, J. Ramsbottom, B.A., G. W. Bryant, C. M. Drennan, R. P. M. Gower, S. M. Hattersley, G. T. Reeve; Choral Exhibitions, £15, W. J. Lyon, H. G. Hooper; Supplementary Exhibitions, £10, W. G. Lely, C. F. Taylor, A. T. Hill, B. M. Jones, G. W. W. Milroy.

*Gonville and Caius*.—Mr. Zachary Nugent Brooke, B.A., of St. John's College, has been elected to a Drosier Fellowship.

*Jesus*.—Marsden Scholarship, £80, G. B. Redman, B.A.; Lillistone Scholarship, £70, H. V. Edmunds, B.A.; Kay Scholarship, £50, W. Telfer, B.A.; Choral Exhibition, £30, E. B. Grassett.

*King's*.—Eton Foundation Scholarships: G. L. Herman, G. N. M. Bland, and J. H. Mozley (Classics). Open Foundation Scholarships: A. V. Rooth (Classics), H. H. Mathias (Natural Sciences), A. D. Schloss (Honorary Classics), H. E. E. Howson (Classics), G. E. Toulmin (History). Vintner Exhibition (one year): W. B. Alexander (Natural Sciences). Price Exhibition (one year): N. Compton Burnett (History). Honorary Exhibitions (one year): U. R. Evans (Natural Sciences) and C. M. Spielmann (Mechanical Science). Exhibition (one year): G. G. Johnstone (Natural Sciences).

*Magdalene*.—Exhibition of £20 for Modern History, E. R. Hopewell, Lancing; Exhibition of £20 for Classics, W. L. Winterbothan, Malvern.

*Selwyn*.—Scholarships: Mathematics, H. G. V. Civil, £40; W. J. R. Perry, £40; Classics, J. O. Rubie, £40; W. E. Williams, £30.

*St. Catharine's*.—S. G. Hare and G. Ward-Price, of the second year, who passed in Class II. of the Historical Tripos, Part I., have been promoted to scholarships. Special grants have been made to the following:—For Theology, J. G. Lister, B.A., fourth year; for Mathematics, R. Davies, second year (who is also a prizeman); for History, S. Slefrig, first year. Corrie Greek Testament Prizes: J. G. Lister and A. J. Mortimore.

*St. John's*.—Reading Scholarship, W. W. Kilby, Reading

School; Exhibitions in Mathematics, C. J. Seed, Bradford Grammar School, and A. H. G. Kerry, Oxford High School; Exhibition in Natural Science, C. H. Carlton, Doncaster Grammar School; Exhibition in Modern Languages, L. C. Kirk, King Henry VII. School, Sheffield.

*Trinity*.—Sizarships, A. E. Heath, D. Lever, and G. Saunders; Exhibitions, A. S. Hoskin and W. D. C. L. Purves.

*Trinity Hall*.—Foundation Scholarships: Classics, R. Affleck, £50; H. Leakey, £40; V. H. Seymour, £30. Law: V. W. E. Evans, £40; G. M. Loly, £40. History: A. W. M. Bull, £30; R. E. Gomme, £30; H. E. Wynn, £30. Natural Science: G. T. Spinks. Open Scholarships for intending students in Law: R. E. Burrell, £40; G. C. Pratt, £40; A. D. W. Skinner, £40.

CANTERBURY: KING'S SCHOOL.—Junior King's Scholarships: F. L. Sidebotham, D. Hussey, E. F. Housden (for Mathematics), E. J. Hodgson (for Mathematics), C. K. Mowll, J. C. Page—all of King's School. Probationer King's Scholarships: T. E. Bourdillon (Mr. Darling, Clare House, Tonbridge), R. K. Pagett, (Mr. Rudd, Stoneycote, Leicester), P. D. Baker, J. S. Worters, F. C. Gentry, C. H. Gore (Junior King's School). Entrance Scholarships: R. G. Crosse (King's School), R. F. Mason (for Mathematics, Warminster Grammar School), A. Seymour (Mr. Pearce, Merton Court, Sidcup), R. K. Pagett (Mr. Rudd, Leicester), E. F. Smart (King's School), T. E. Bourdillon (Mr. Darling, Tonbridge). House Scholarships: C. E. A. Pullan (Mr. Kilby, Blackheath), E. C. Catterall (Mr. Bewlay, Eastbourne).

DURHAM UNIVERSITY.—Entrance Scholarships—Classics and Mathematics: J. G. Taylor, £70; W. H. E. Moore, £40; G. Brunner, £35; Alice C. Dawson, £35; E. J. W. Nesbit, £35; W. Rigby, £35; A. M. Sharp, £35; T. P. Clarke, £30. Theology: D. W. Bentley, £35; John H. Davies, £30; Lawrence Finch, £30; and Harold K. Page, £35.

ETON.—Foundation Scholarships—P. M. Roberts, R. A. L. Fell, C. E. Harman, P. A. Heseltine, D. F. C. Bacon, H. G. C. Streatfield, P. E. Hobhouse, R. O. Ackerley, D. J. Darley, K. A. S. Chapman, P. Malcolm, A. L. Huxley, W. E. Berridge, M. E. Impey, R. E. F. Courage, G. S. Rawstorne, V. W. G. Ranger, O. R. Ord, E. Hale, C. C. A. Monro.

GIGGLESWICK.—Scholarships: G. W. I. Greenish (Mathematics), Mr. Godby's, Ilkley; N. V. Brasnett (Classics), Dulwich Preparatory School; V. R. Stewart (Science), Haslington Secondary School; L. D. R. Huggard (Latin and French), Mr. Pitkin's, Earlywood School, Ascot; A. Angus (Mathematics), Tynemouth School; E. Atkinson (Classics), Giggleswick School.

LIVERPOOL UNIVERSITY.—Fellowships: University Fellowship in English Literature, James William Holme; Charles Beard Fellowship in History, William Garmon Jones; Oliver Lodge Fellowship, Charles Albert Sadler; Holt Fellowship in Pathology, George Lissant Cox; Holt Fellowship in Physiology, William Gibbs Lloyd; Robert Gee Fellowship in Anatomy, Norman Bradly; John Garrett International Fellowship, Maximilian Nierenstein; Thelwall Thomas Fellowship, John Alexander Murray Bligh. Scholarships: University Scholarships in History, John Edward Gately and Ralph Flenley; in Architecture, Harold Osmond Burroughs; in Mathematics, Arnold William Gunstone; in Chemistry, Albert Buckley Harris; in Law (Honours LL.B. Examination), Thomas Baxter Milne; in Law (second year), James Thorougood Peet; in Law (first year), Hubert Joseph Baynes Martin; in Engineering, Harry Parry; Thomas Hornby Scholarship, Richard Joseph Hogan; Korbach Scholarship, Hilda Mary Helsby; Holt Travelling Scholarship in Architecture, Louis Sydney Henshall; Sydney Jones Travelling Scholarship in Architecture, Cyril Norman Hampshire; Edward Whitley Travelling Scholarship in Architecture, Frederick Ernest Crutchley; Isaac Roberts Scholarships, Frederick William Robinson and Jean Stuart Shaw; Special Scholarships (final B.Sc. examination), Percy Laithwaite; Senior Lyon Jones Scholarship, Wallace Robert Wade; Junior Lyon Jones Scholarship, Robert Gordon Barlow; Bickersteth Scholarship in Surgical Pathology, Frank Alexander Gallon Jeans; David Rew Memorial Scholarships, Peter James Cottle and John Allen Rutherford. Studentships: Gilchrist Studentship in Modern Languages, William Wright Roberts; Studentships in Education, Blanch Brew, Susannah Dean, Elizabeth Rigby Gardner, and David Henry Griffiths; *proxime accessit*, Elsie Ward.

LONDON BRANCH OF THE ALLGEMEINER DEUTSCHER SPRACHVEREIN.—On the results of the First Annual Examination in German (March 26) the following awards have been made:—

Travelling Scholarship (10 guineas): J. W. Roberts, Manchester Grammar School. First Prizes (2 guineas each in books): Miss M. Brandebourg, Portsmouth High School; A. E. C. T. Dooner, Tonbridge School; D. McKillop, Manchester Grammar School; A. Ryder, Victoria College, Jersey; Miss O. J. Flecker, Ladies' College, Cheltenham; Miss M. K nitzer, Wycombe Abbey School. Second Prizes (1 guinea each in books): W. G. Glendinning, Queen's College, Belfast; N. B. Jopson, Merchant Taylors' School, Crosby; A. G. A. Hellmers, Dulwich College; M. C. A. Korten, Dulwich College; W. Schaible, City of London School. Fifty-six other candidates received certificates, eighteen of them with credit.

LONDON: INCORPORATED INSTITUTE OF HYGIENE.—Miss M. J. Cleary (Rawtenstall)—Certificate; Miss C. S. Evans (Dolgelly)—Certificate, with honours, in Food and Cooking, and in Home Nursing and First Aid; Wm. T. Fellows (Portsmouth)—Diploma; Miss E. Grange (March, Camb.)—Certificate, with honours in School Hygiene; Miss L. Hargreaves (Liverpool)—Certificate, with honours, in School Hygiene; Miss B. N. Hedderman (South Island of Aran, Galway)—Certificate; Miss H. Hodkinson (Macclesfield)—Certificate; Miss B. M. Holmes (Andover)—Certificate; Mrs. S. E. Kay (Shipston-on-Stour)—Certificate; Miss Lily M. E. Lemmon (Manchester)—Diploma; George Markham (Steeple Claydon, Bletchley)—Diploma, with honours in School Hygiene; Miss E. Mattinson (Leeds)—Diploma and Certificate, with honours, in Hygiene of Motherhood and in Feeding and Rearing of Children; Mrs. McGregor (Hampstead)—Diploma; Miss D. F. Norris (Darwen)—Certificate; Miss I. L. Owen (Bruton)—Certificate; Miss Alice Rhoden (Lee)—Diploma; Miss E. M. Schwemmer—Certificate, with honours, in Hygiene of the Home and in Feeding and Rearing of Children; Mrs. Drummond Ward (Hastings)—Certificate; Miss C. B. Williams (Coleshill, Birmingham)—Certificate; Miss E. M. F. Youens (High Wycombe)—Diploma.

LONDON: NORTH LONDON COLLEGIATE SCHOOL.—Catharine Muirhead and Kate Jacobs have gained Entrance Scholarships, £60 a year for three years, at the Royal Holloway College; Mary Creadson, the Pfeiffer Scholarship in Science, £48 a year for three years, at Bedford College; Winifred Moll, a St. Dunstan's Exhibition in Science, £60 a year for three years. The highest honour this year falls to Ethel Steuart—the J. A. Chessar Memorial Entrance Scholarship for Classics, of £88 a year for four years. The School Scholarships have been awarded as follows:—Clothworkers' Leaving Scholarship to Margaret Heslop; Platt Endowment Scholarships, each of £20, to Irene Davis for English, to Evelyn Hewer for Mathematics, and also to Gladys Jackson, Bridget Shannon, Lilian Swinburn, Ida Burnett, and Annie Byatt; Clothworkers' Scholarships to Madeline Giles and Dorothy Sabin; and the Mensbier Scholarship for Modern Languages to Cecil Baines.

LONDON UNIVERSITY.—Entrance Exhibitions (on June Examination), £40 a year for 2 years each: Henry Cooper, University College; Cecil W. Gilham, East London College; Norman H. Jones, Woolwich Polytechnic; Alfred C. Mason, University College, Reading; Arthur V. Nicolle, Mercers' School, E.C. A City Parochial Foundation Scholarship of £25 a year for 4 years: Henry G. Richardson, London School of Economics and Birkbeck College. St. Dunstan's Exhibitions for Women (awarded by the St. Dunstan's Educational Foundation on the results of the Exhibitions Examination): Winifred M. Parker, Mary Datchelor Girls' School, for Science subjects; and Gladys M. B. Schlesselman, St. Paul's Girls' School, for Arts subjects.—In the general Matriculation Examination (Pass List) there are 183 names in the First and 1,224 in the Second Division.

University College.—Andrews Scholarships: Entrance scholarships, £30 each: Languages and History, Louise W. Stone, High School, Stroud Green; extra scholarship, J. D. Whyte, Dulwich College; Science, B. A. Keen, Southend Technical School. Campbell Clarke Scholarship, £40 a year for 3 years: Eileen O'Rourke, City of London School for Girls. West Scholarship in English, £30: N. L. Mackie, Bancroft's School, Woodford Green. For students of one year's standing, £30 each: Classics, R. E. M. Wheeler; Modern Languages, Winifred O. Hughes; Mathematics and Science, D. McDonald; Science (additional scholarship, £25), R. L. Horton. For student of 2 years' standing (£25), Irene C. Dukes. Carey Foster Research Prize: E. R. Martin. Chadwick Scholarship and Medal in Municipal Engineering, £100, A. S. Quatermaine; proxime accessit with additional medal (silver), G. E. R. Slade (subject to confirmation by the Chadwick trustees). Ellen Watson Memorial Scholar-

ship, £15: E. N. da C. Andrade, B.Sc. Fielden Research Scholarship in German, £50: W. E. Collinson. Gladstone Memorial Prize (£10), for an Essay on "Titus Oates and the Popish Plot": R. C. F. Dolley. Archibald P. Head Memorial Medal: A. S. Quatermaine. Heimmann Silver Medal: V. von Beck. Hollier Scholarships (£60 each): Greek, T. J. Cash; Hebrew, E. Drukker. (Ethel M. Steuart and T. J. Cash are reported by the examiners to be "so equally matched that we find it impossible to decide between them." As Miss Steuart is proceeding to Cambridge, the benefits of the scholarship fall to Mr. Cash.) Jews' Commemoration Scholarship, £15 a year for 2 years: H. Cooper. John Stuart Mill Scholarship in Philosophy of Mind and Logic, £20: Gladys M. Broughton, for essay on "Kant's Conception of Subject and Object." Malden Medal and Scholarship, £20: Mary E. Norris. Mayer de Rothschild Scholarship in Mathematics, £42: F. Jackson. Physics Research Studentships: £60, J. D. Pack; £40, E. R. Martin. Quain English Essay Prize (£60), for essay on "The History of the Lyric," Gerald Gould, B.A. Quain Law Professor's Prizes: £15, Coleman Phillipson; £5, M. McQuirk, for essays on "The Effect of War on Contracts and on Joint Stock Companies in Territories of Belligerents." Science Scholarship awarded by his Majesty's Commissioners for the Exhibition of 1851: T. P. Hilditch, B.Sc. Slade Scholarships in Fine Art, £35 a year for 2 years: F. C. Britton and A. W. F. Norris. Melville Nettleship Prize for Figure Composition: C. R. Webb. Tufnell Scholarship in Chemistry, £80 a year for 2 years: P. May. Sharpey Research Scholarship in Physiology: G. G. Mathison, M.B., B.S. Joseph Hume Scholarship in Jurisprudence: R. J. Walker.

In connexion with the new courses on School Hygiene, organized to meet the recent requirements of the Board of Education, the following certificates in School Hygiene have been awarded: Victoria E. M. Bennett, Dora E. L. Bunting, Kate G. Cash, G. F. Daniell, Marian Fitzgerald, E. K. Hanson, Annie Ethel Heckford, Dorothy King, C. Lamb, J. Lewis, Mabel Paine, C. J. Ridout, Sophia Seekings, A. Skinner, Florence Wetherell.

King's College.—Special Intermediate Examination of the University of London:—Special Prizes: Barry (Divinity), Martin Collett; Trench (Greek Testament), E. G. G. Edmonds; McCaul (Hebrew and Old Testament), E. G. G. Edmonds and A. M. Wheatley; Leitner, C. F. Tonks; Carter (English Verse), A. T. Coldman; Knowling Prize, C. F. Tonks; Plumtre Prize, S. B. Smith; Professor's Prizes (Philosophy third year), O. B. How; Professor's Prizes (Philosophy second year), J. G. Gilman and C. F. Tonks. Faculty of Arts:—Scholarships and Exhibitions: Inglis Scholarship (English Literature), V. V. Smith; Inglis Scholarship (History), F. Barton; French Professor's Scholarship, W. Walker. Special Prizes: Jelf Medal, J. A. Dodd; Drew Gold Medal, C. N. French; Barry (Divinity), C. H. Firbank; Warr Memorial Prize (Classics), Lilly Victoria Traies; Early English Text Society, Eleanor Plumer; Early English Text Society, William Thomas; Stephen Essay, Eva Daisy Lewthwaite; Gladstone Prize, Frank Barton; Brewer Prize for History, Sidney Childs; Psychology, Douglas Langridge; French (Professor's), William Thomas; English (Professor's), Arthur Lloyd Smith and George Herbert Ward; English, Winifred Elsie Vera Bindley; English, Margarita Eliza Defries and Sybil Rose. Division of Architecture.—Special Prizes: Architectural History, L. Careras, bronze medal; Studio, A. J. Ashdown, bronze medal; Advanced Construction, A. Koerner, silver medal; Work of the Finishing Trades, W. J. Price, bronze medal. Faculty of Science.—Scholarships and Exhibitions: Daniell Scholarships (first Scholarship), H. R. Lyell; Daniell Scholarships (second Scholarship), G. S. W. Marlow; Sambrooke, C. W. Bartram and Vincent Collier. Special Prizes: Jelf Medal, Content Nyrain; Tennant (Geology), J. P. Warren; Barry (Divinity), H. L. Porter; Psychology (General), T. H. Pear; Psychology (Experimental), S. Dawson; Carter Gold Medal, Constance Woodward. Society of Apothecaries.—Scholarships and Exhibitions: Warneford Entrance, A. S. Wakeley; Second Year Scholarships, C. H. Attenborough; Third Year Scholarships, S. Ritson and H. L. Martyn; Rabbeth Scholarship, A. S. Wakeley. Engineering Faculty.—Scholarships and Exhibitions: Clothworkers' Exhibitions, (1) £30 for two years, William Allard; (2) £20 for two years, Leonard Charles Budd; Sambrooke, Will Legg.

Westfield College.—Entrance Scholarships, tenable for 3 years: Amy Sanders Stephens Scholarship, £50 a year, G. Margaret B. Schlesselman (St. Paul's Girls' School); Lucy Fowler Memorial Scholarship, £50 a year, Eileen O'Rourke (City of London School); College Scholarship, £50 a year, Lawrie E.

Wilson (Blackheath High School); College Scholarship, £50 a year, Winifred Mary Fisher (Sydenham High School); Exhibition, £20 a year, Edith R. Jacob (North London Collegiate School); Special Scholarship of £50 a year, Lottie K. Hamilton (Bath High School); Scholarship of £50 a year, for 3 years, offered to a pupil at St. Paul's School and tenable at Westfield College, Kathleen L. Longuet-Higgins.

*Bedford College for Women.*—Reid Entrance Scholarship in Arts: Miss Irene Davis (North London Collegiate School). Supplementary Scholarship in Arts (£30): Miss J. A. Birch (Notting Hill High School). The Pfeiffer Entrance Scholarship in Science: Miss E. E. Hewer (North London Collegiate School). Arnott Entrance Scholarship in Science: Miss E. M. Read (West Ham Municipal School). Scholarships for the Course of Secondary Training beginning in October: Miss M. M. Wells, B.Sc. (University College of Wales, Aberystwyth), and Miss M. E. Charles, B.A. (Royal Holloway College). Early English Text Society's Prize: Miss M. W. Cooke and Miss H. M. Gill, equal. A grant for Research in Chemistry has been made by the Reid Trustees to Miss G. M. Price for Session 1908-9.

**MANCHESTER GRAMMAR SCHOOL.**—Foundation Scholarships: S. Adler, Southall Street Municipal School, Manchester; J. P. Ainscough, North Manchester Preparatory School; F. E. Allen, Gardner Street Council School and Langworthy Road Council School, Salford; W. S. Booth, St. Matthew's School, Stretford; R. Cohen, Manchester Jews' School; J. E. Crawshaw, Mauldeth Road Municipal School, Withington; H. G. Dehn, South Manchester School, West Didsbury; M. Ellison, St. John's School and St. Luke's School, Cheetham; B. Enright, Gardner Street Council School, Salford; B. Hewitt, Collegiate School, Levenshulme; C. Hignett, Russell Scott Memorial School, Denton; H. Kaiserman, St. John's School, Cheetham; A. Macarborski, Southall Street Municipal School, Manchester; H. L. Malan, Bedfield Street Council School, Heywood; W. S. Manwaring, Gardner Street Council School, Salford; W. H. Owen, St. John's School and St. Luke's School, Cheetham; P. Reeve, Rusholme High School for Boys; D. L. Richardson, Alfred Street Council School, Harpurhey; W. Roberts, Gardner Street Council School, Salford; F. O. Sparrow, Grecian Street Council School, Salford; H. N. Stokoe, Model National School, Newry; F. J. Taylor, Crab Lane Elementary School, Blackley; A. N. Turner, Gardner Street Council School and Strawbury Road Council School, Salford; and H. B. Wilson, St. John's School, Cheetham.

**MANCHESTER UNIVERSITY.**—Gartside Travelling Scholarship, R. E. Slade; Karling Fellowship in Physics, Dr. Hans Geiger. Langton Scholarship, A. Jones and D. Knoop, equal. Faulkner Fellowship in Arts, Sarah Elizabeth Jackson (Classics). Beyer Fellowships in Science, (1) D. M. S. Watson (Geology); (2) H. C. Greenwood (Chemistry) and M. R. Turner (Chemistry), equal. Graduate Scholarships: Classics, Effie Watson; Modern Languages, H. G. Wright, Minnie Josephine Bell; Mathematics, G. A. Evans, Eleanor Beatrice Harvey; Physics, W. A. Harwood; Chemistry, G. S. Hibbert, A. G. Lobley, L. H. Harrison; Botany, T. G. B. B. Osborn; Geology, H. L. Hawkins; Law, C. F. Entwistle. Derby Scholarship, S. Chapman; Mercer Scholarship, R. Storey; Victoria Scholarship in Classics, Ethel Bailey; Bradford Scholarship in History, Martha Ashton and Jessie M. Parish, equal.

The Teachers' Diploma has been awarded to Amy C. Harvey, Adelaide Horrocks, C. W. Knott (First Division); Mary Cooper, M. H. Elisher, B. Laycock, Annie Leah, Margaret C. Paull, Grace E. Picton, and Ethel N. Price (Second Division).

**NATIONAL AGRICULTURAL EXAMINATION BOARD.**—At the ninth examination for the National Diploma, held at Leeds, April 27-30, the record number of 102 candidates entered (from 28 educational institutions)—54 for Part I., 48 for Part II. Of the 54 in Part I., 32 passed; and in Part II. 29 diplomas were awarded, 4 with honours.

**OXFORD: ST. HILDA'S HALL.**—Scholarships of £35 each, Miss Noel, R. Dolling (St. Hilda's Hall and St. Stephen's High School, Clewer) and Miss Eileen M. Haslam (The Laurels, Rugby); Scholarship of £30, Miss Henriette C. E. Massé (St. Paul's School); highly commended, Miss A. Mildred Veitch (Exeter High School).

**OXFORD: MANCHESTER COLLEGE.**—Frances Power Cobbe Memorial Prize: Miss Eileen McCutchan, Trinity College, Dublin.

**OXFORD UNIVERSITY.**—Welsh (drawing) prize, for the encouragement of the study of human anatomy: S. B. White, Keble. Fellowship granted by the Gilchrist Trustees to the

Association for the Education of Women in Oxford: E. M. Wakefield, Somerville College (First Class in the Final Honour School of Natural Science). Miss Wakefield will continue her studies at Munich. Aubrey Moore Studentship: Laurence W. Grensted, B.A., Scholar of University College.

*Diplomas in Geography.*—With distinction: Ellen J. Rickard, Somerville College, and Eva G. R. Taylor, B.Sc. Lond. Ordinary: G. E. L. Carter, B.A., non-coll.; Eva Dodge, M.A. Vict., Cherwell Hall; May Hockley, Oxford home student; Alice E. Lee; Lydia M. Livermore, Oxford home student; R. L. Thompson, B.A. Keble College. Certificates in Regional Geography: G. C. Strahan, Keble College, and Edith J. Wilford, St. Hugh's Hall. Certificate in Surveying: J. H. L. Yorke, B.A. Oriol.

The Leathersellers' Company have elected Vyvyan Hope, exhibitor of St. John's College, to Mr. Robert Rogers's exhibition, and Samuel Rupert Sidebottom, demy of Magdalen College, to Mrs. Ann Elliott's Exhibition.

*Balliol.*—Mr. Hugh McKinnon Wood, B.A., Scholar of the College, has been elected a Tutorial Fellow. Mr. R. N. G. Thomas has been appointed to a Lectureship in Physical Chemistry. Brackenbury Scholarship (Natural Science): C. A. Vlieland, Exeter School.

*Brasenose.*—Natural Science: Junior Hulme Scholarship, J. H. Mackie, Ruabon Grammar School; Somerset Scholarship open *pro hac vice*, H. Ball, Rugby.

*Christ Church.*—Scholarship in History: Edward M. Schill, Charterhouse; proxime accessit Eric W. Sheppard, Trent College. History Exhibition: John H. Nicholson, Scarborough School; proxime accessit Julius W. Saunders, Marlborough.

**RADLEY.**—Scholarships: L. A. Westmore, J. N. Hetherington, H. M. S. Cotton, N. Hugh Jones, O. H. C. Shellswell, and R. Lesson. Exhibitions: P. Malcolm, H. G. C. Fenton, G. M. Boumphrey, L. G. R. Bell, and R. Brennan.

**WINCHESTER COLLEGE.**—The following are the first twenty in order of merit of the candidates in the recent examination for scholarships and exhibitions: R. B. Gibson, R. C. Lowe, C. A. Macartney, C. F. A. Warner, T. D. Overton, S. J. Paget, L. A. Pinsent, M. E. Antrobus, T. H. Sheepshanks, B. A. Medley, R. E. E. Chaplin, G. E. A. Grey, A. G. Bewley, C. G. Fowler, J. S. Baines, T. A. Shone, K. G. Campbell, F. P. Crawhall, E. F. Jacob, E. P. Donaldson. They will be admitted in the above order to scholarships, as vacancies occur, between now and next Easter, and there will be fourteen vacancies in September. J. S. Baines and T. A. Shone on the list have been elected to exhibitions. Sheepshanks is a son of the Bishop of Norwich. The Bishop now has four sons who have gained this distinction. This, it is believed, is a "record."

## THE CAMBRIDGE SUMMER MEETING.

[From a Cambridge Correspondent.]

THE University Extension Movement, though it works quietly and is little noticed by the man in the street, must rank as one of the most important of the agencies through which, during the past generation, the two older Universities have striven to meet new needs without lowering old ideals, have increased at once their public helpfulness and their own vitality, and spread, so to speak, both their fruits and their roots.

The Summer Meeting now being held at Cambridge provides a fitting occasion for recalling that the movement has now a history stretching back over thirty-five years, and that it is carrying the leaven of University culture to a host of provincial towns. During the session 1906-7 Cambridge alone furnished 112 courses of lectures to 95 centres. The great majority of these courses consisted of twelve or more lectures. In 1907-8 nearly a fourth of the lectures were subdivisions in a systematic course of study stretching over four years. Generally the lectures are preceded or followed by "classes" in which the lecturer criticizes exercises and essays written by the students, and himself answers questions which are put forward, orally or in writing, by the students themselves. Excellence in these exercises and in the examinations held at the ends of the courses entitles the student, at the end of a session, to a Sessional Certificate and, at the end of a four years' course at certain centres, to an "affiliation" certificate, which excuses the holder from the previous examination and makes it possible for him to take the B.A. in two years instead of three. The average attendance at some courses is little over 30 students, but at not a few it runs into hundreds, and at

one centre (Middlesbrough) it has in two successive sessions been over five hundred. The courses held in the evening are, as a rule, most largely attended; naturally so, for the movement "seeks to provide the means of higher education for persons of all ranks and both sexes engaged in the regular occupations of life."

"Persons of all ranks and both sexes" also attend the summer meeting, but this gathering is planned to meet the wishes of those persons when they are, for a month or a fortnight as the case may be, liberated from their "regular occupations" and free to give the whole day to lectures and educative excursions and sight-seeing. The meeting has hitherto been held in August, but this year, to suit those whose holidays expire in the middle of that month, it is being held a fortnight earlier. It is divided into two parts, and students may take tickets for the whole meeting for the first half, which this year terminates on July 30, or for the second half, which begins on August 1. July 31 is an inter-divisional day, which is given up wholly to excursions, in which students of either part may join, and half-day excursions also take place about the middle of each part. Lectures are further varied by visits to colleges, organ recitals, debates, conferences, and social gatherings—the last-named including this year a reception by the Master of Trinity and Mrs. Montagu Butler at Trinity College Lodge one evening during the first half, and another by the Vice-Chancellor and Mrs. Roberts at the Senate House one afternoon during the second half.

The lectures themselves are planned so that they may, in the main, reflect light on each other and focus the students' attention on some great period of history; but, even in the lectures, variety is provided by sub-courses on theology, education, science, and social questions. This year the central subject is "Ancient Greece: its History, Literature, and Art, and its Influence on the World." After listening in the Senate House to an inaugural address by Dr. Butler, Master of Trinity, who welcomed the students in genial, happy terms and discoursed in pleasant and suggestive fashion on "Universities," the students settled down to a course of six shrewd, erudite, illuminating lectures by Prof. Ridgeway on "The Making of Greece," supplemented by one from Dr. Arthur Evans on the excavations recently conducted by him in the wonderful island of Crete, which for centuries has "kept the keys" of many archaeological problems. And, within the same fortnight, they had short courses on "The University of Cambridge," by Dr. Breul; on "Greek Vase Paintings," by Miss Jane Harrison; on "Homer," by Mr. Langdon-Davies; on "The Greek Old Testament," by Prof. Swete; on "Greek Religion," by Mr. Kaines Smith; on "Greek Historians," by Mr. F. M. Cornford; on "Greek Architecture," by Mr. A. B. Cook; and on "The Oracle of Delphi," by Dr. Verrall. Prof. Churton Collins, Prof. R. C. Bosanquet, Prof. A. J. Grant, and Mr. Yule Oldham gave two lectures each on subjects connected with the main course, and amongst the lecturers on what we may call "side" subjects were Prof. Seward, Mr. D. J. Carnegie, Dr. R. D. Roberts, Mr. Sandbach, and Prof. J. Cox, the last of whom gave three lectures on "Radium."

Amongst "central" subjects to be taken up in the second half are "Greek Art and National Life" (six lectures) and "The Peloponnesian War" (two lectures), by Mr. S. C. Kaines Smith; "Ancient Tragedy for Modern Audiences," by Prof. R. G. Moulton (six lectures and a two-hours' recital from Aeschylus); "Hellenism and Hebraism," by Mr. Laurie Magnus; "The Art of Pheidias," by Prof. Waldstein; "The Influence of Aristotle," by the Rev. P. H. Wicksteed; "The Supremacy of Athens" (two lectures) and "Greek Slavery," by Prof. Grant, and "Some Aspects of Greek Thought," by Prof. Jackson (three lectures); and there will also be lectures by Dr. W. H. D. Rouse and Mr. Ian C. Hannah. Amongst the sub-courses there will be six lectures by Prof. J. H. B. Masterman on "Modern England," six by Prof. S. J. Chapman on "Socialism and Individualism," nine by Mr. E. A. Parkyn on "Hygiene," and three by the Dean of Ely on the First Epistle of Peter. Mr. Albert Mansbridge (Secretary of the Workers' Educational Association, which sends up many working men to the meeting) will lecture on "Problems in Working-Class Education," Mr. J. A. R. Marriott on "The Problem of Capital and Labour," and Mr. G. P. Bailey on "Wireless Telegraphy."

The number of lectures delivered per day varies. There are always three between breakfast and lunch, and, unless when a social gathering or debate at the Union takes its place, there is one after dinner, at 8.30. In the afternoon there may be two, one, or none at all, according to the arrangements made for organ recitals, excursions, and visits to colleges.

## SECONDARY SCHOOLS IN ENGLAND.

### RETURNS OF PUPILS AND STAFFS.

THE Board of Education have just issued the following circular (590):—

The Board of Education have for some time past had under serious consideration the nature and extent of the statistics with regard to secondary schools annually published by them as part of the volume of "Statistics of Public Education in England and Wales." They are of opinion that the collection and arrangement of such information as is contained in this volume is one which a Central Educational Authority is bound to treat as of the first importance in order that the country as a whole may have an opportunity of estimating the growth of its educational system and the need for further growth, so far as these can be brought to the test of numerical expression, and that within the same limitation each Local Education Authority may be enabled to compare its own efforts and their results with the standards reached over a wider field and under similar or different conditions.

Hitherto the facts given in the annual volume with regard to secondary schools have been somewhat meagre, as was inevitable during a period of pioneer work, in which the foundations of an educational organization have had to be laid. It is felt, however, that the time has now come to take a wider survey of what has been done and of what remains to be done, and to analyse in some detail certain important aspects of English secondary education, such as the number of pupils of various ages receiving their education in secondary schools, the occupations of their parents, and the careers to which their education serves as an avenue; the extent to which the length of their school life is sufficient to secure that the cost and pains which that education entails shall not be wasted, and the number and qualifications of the teachers by whom the schools are staffed.

Statistics of this character can of course only be prepared upon the basis of returns obtained on a uniform system from the schools themselves; and the Board are well aware that, while the obligation to render such returns has always been regarded as one of the conditions upon which State aid is afforded to schools, it is none the less often felt as a very sensible addition to the already heavy duties of the head masters and mistresses by whom it is to be fulfilled. The Board are anxious that this burden should, as far as possible, be minimized. It has been represented to them that unnecessary labour has sometimes been caused in the past by concurrent demands from themselves and from Local Education Authorities for returns of similar character but relating to slightly different dates and periods. They have been in communication with representative associations of the Local Education Authorities and of the head masters and mistresses of secondary schools, with a view both to securing uniformity in this respect and to effecting a general improvement of the statistics at the cost of as little labour as possible to those concerned; and as a result they have come to the conclusions—(a) that it will be a generally convenient arrangement for all English educational, as distinct from financial, statistics, to be taken for the normal school year running from August to July; (b) that age limits and classifications by age should ordinarily be established with reference to age on July 31; and (c) that where it is desirable that anything of the nature of a census of pupils upon a single day should be taken, the day chosen should be October 1, which is, in any event, one of the days on which the number of pupils must be calculated for the purposes of grant under the Regulations for Secondary Schools. They would also take this opportunity of suggesting that much of the work of preparing statistical information is of a clerical nature, and does not demand for its detailed performance the highest educational qualifications, and that consequently it may be found by Authorities and governing bodies a real economy to adopt the practice, which already prevails in many schools, of providing head masters and mistresses with reasonable clerical assistance, in order that returns may be prepared and other routine work performed rather under their supervision than with their own hands.

The Board themselves propose—at any rate, as an experiment—to make a substantial contribution to the lightening of the burden by limiting their demand for returns, so far as the statistics of pupils and staffs now immediately under consideration are concerned, to the raw material of facts upon which the

statistics will be based, and by undertaking in their own office the whole of the very heavy labour of abstracting and tabulating these facts in a statistical form. As much of this information has been hitherto supplied by schools in summaries, the compilation of which has entailed considerable labour, the Board confidently hope that the result of the new arrangement will be at once appreciably to diminish the labour at present imposed upon the schools and to furnish more complete and enlightening statistics. They also anticipate that the more complete information now to be obtained from year to year will enable them to dispense with nearly all the heavy returns which now have to be asked for, often at very short notice, upon the occasion of a full inspection. All secondary schools upon the Grant List in England will, therefore, be furnished, in addition to the class registers of attendance now supplied, with two other registers. One of these will be an admission register to be kept as an official record in accordance with Article 21 of the Regulations for Secondary Schools, 1908. . . . The other register will contain particulars with regard to the members of the school staff. . . .

### CORRESPONDENCE.

[We do not hold ourselves responsible for the opinions expressed by our correspondents.—Ed. E.T.]

#### MODERN LANGUAGES IN SECONDARY SCHOOLS.

To the Editor of "The Educational Times."

SIR,—On reading the very interesting article on "Modern Languages in Secondary Schools" which appears in your issue of July 1, I feel impelled, as a secondary-school master and a teacher of modern languages, to send a few lines in emphatic protest against the plaintive and exaggerated statement of the case which characterizes that article. I feel convinced that the majority of assistant masters take a much less pessimistic view of the profession, and I think that a correspondence on the subject, if you could afford space for it, would be interesting and helpful in the highest degree. According to your article, the capable teacher is a kind of martyr, shamefully treated by a society to which he is indispensable, being forced to teach "preposterously large classes" and hampered by "old-fashioned books and apparatus," being under-paid and scandalously over-worked. Surely, Sir, all this is more hysterical than true? The class of twenty-five, for instance, is far from being "preposterously large." Certainly a much smaller class can be much better taught. But most modern language teachers would agree that such a class is quite workable; and the advantages of smaller classes are being more and more recognized. Again, every one admits that assistant teachers are not fairly remunerated for their work and that education suffers most regretfully by losing talent that would be drawn to it and kept if a position of permanent comfort were offered to the assistant. But it is absurd to represent the salary of a teacher receiving £160 for forty weeks of twenty-six hours as "not much more than that of the better paid artisan," who receives, say, £120 for fifty weeks of at least forty hours. What seems to me most regrettable, however, in your article, is the complaint that these twenty-six hours a week constitute "a system of organized overwork," exhausting the teacher and leaving him no time for private reading and recreation. The teacher's work does not occupy him during a longer time than that of the boys or girls does them. Nevertheless, the latter, as yet ignorant of the art of "buying up the moments," do not lack time for ample indulgence in games and hobbies. It is only those who love not their calling who do not find time to pursue it efficiently. Moreover, in all activities of any worth, "il faut payer de sa personne." And how many other professions are there which offer twelve weeks' vacation in the year?

Let us, by all means and incessantly, strive to improve the conditions of English teaching and to raise the status of the profession; for in no other department of our national life is reform so urgently needed. But let us keep ourselves from all kinds of demonstrative complaining. Education was not invented, and schools do not exist, for the sake of the teacher. If any one prefers the life of the artisan, is he not free to live it? Moreover, "Gémir, pleurer, prier est également lâche." I am, Sir, &c.,  
AN ASSISTANT MASTER.

## 1908. COLLEGE OF PRECEPTORS. (Incorporated by Royal Charter.) BLOOMSBURY SQUARE, LONDON, W.C.

### Lectures for Teachers ON THE SCIENCE, ART, AND HISTORY OF EDUCATION.

#### THE PRACTICAL TEACHER'S PROBLEMS.

To be delivered by Professor J. ADAMS, M.A., B.Sc., F.C.P., Professor of Education in the University of London.

The Second Course of Lectures (Thirty-sixth Annual Series) will commence on Thursday, October 1st, at 7 p.m.

The matters to be dealt with are such as interest all classes of teachers, and will be treated with that frankness that is possible in an unreported discourse, but is out of the question in a printed book. While the lecturer will lose no opportunity of indicating how present educational conditions may be improved, he will take the present conditions as the basis and show how to make the best of things as they are. The Lectures will be copiously illustrated by references to actual experience in all kinds of Schools.

#### SYLLABUS.

I. (Oct. 1.) *The Teacher's Library*: three main sections, books needed by teacher as (a) human being, (b) knowledge-monger, (c) educator; (a) and (c) too often neglected; special value of books used by teacher during childhood: the upper and lower limit of professional books under (c); possibility of excess in educational theory: plea for greater recognition of newer class of literary presentations of educational problems: teaching "the inarticulate profession": practical help that may be had from such books: how to use educational periodicals.

II. (Oct. 8.) *How to get some good out of Psychology*: need for a change in the point of view: rational and experimental psychology: need of both by the teacher: danger of pedantry in both: place of the proposed middleman between the psychologist and the practical teacher: the teacher must be allowed to direct the psychologist (not the psychologist the teacher) as to the results to be sought: list of things the teacher wants to know, compared with the list of things the psychologist wants to tell him: teacher must not confine himself to child-psychology, his profession demands the treatment of his fellow adults as well.

III. (Oct. 15.) *How to deal with Officials*: an example of the teacher's need of adult psychology: the difference between the human being and the official: the invariable third: official questions and answers: how to interpret them: the official mind and how to approach it: an instructive bit of law: the official art of compromise: manipulation of conflicting official regulations: the whole question reviewed from the point of view of the teacher as himself an official.

IV. (Oct. 22.) *How to deal with Parents*: generally wrong attitude of teachers towards parents: *in loco parentis* theory: "foster parent": getting at parents through children and *vice versa*: parents' antagonism to school authority has definite relation to their social rank: special difficulties of different classes of teachers: conflicting influences of fathers and mothers: genuine co-operation between school and home: golden mean between parental indifference and interference.

V. (Oct. 29.) *How to Learn*: the other side of teaching: absence of the desire to know: how to rouse it: even when desire is present there is difficulty enough: kinds of learning: reproduction: the dynamic view: constructive learning: rhythm of learning: concentration and diffusion: fallacies about thoroughness: temporary and permanent learning.

VI. (Nov. 5.) *Class Management and Teaching*: ordinary psychology deals with the individual: teacher needs collective psychology as well: relation of class to crowd or mob: minimum number to constitute a class: sympathy of numbers: class leaders: difference between class teaching and private coaching: advantages and difficulties in having to teach several persons at the same time: the average pupil: the type: the composite: the ghostly class.

VII. (Nov. 12.) *How to combine Lecturing and Teaching*: teachers' general disapproval of lecturing: nature of lecturing as opposed to teaching: newer methods of teaching history, geography, and geometry are demanding a certain amount of lecturing: dangers of lecturing in schools as compared with colleges: the pupils' share in the process of lecturing: the art of listening: intermittent hearing: the lecturer's relation to the text-book.

VIII. (Nov. 19.) *Written work in School*: absolute necessity for a good deal of written work in school: note-taking: exercise writing: essays: drudgery of correction: the sword of efficient correction in (a) quantity, (b) quality: co-operative correction: psychological dangers of correction: the norm of correction: spelling and dictation exercises: analysis of most common errors and their causes.

IX. (Nov. 26.) *Verbal Illustration*: nature of illustration in general: distinction from exposition: mental backgrounds: relativity of illustration to the materials at command: exemplification: enumeration: nature of analogy and its place in illustration: the metaphor and other illustrative figures: how to find suitable verbal illustrations: source books of illustration.

X. (Dec. 3.) *Graphic Illustration*: the actual object and the model as means of illustration: the value of the picture as illustration, especially as compared with a verbal description: different illustrative values of a picture according as it is used for intellectual, moral, or aesthetic teaching: the diagram as compared with the picture: dangers that lurk in diagrammatic illustration: certain weaknesses in our space sense: supremacy of the straight line in illustration.

XI. (Dec. 10.) *How to deal with Dullness*: nature of dullness: its relativity to time and subject: the temporary dunce: the permanent dunce: the all-round dunce: the specialized dunce: the scale of dullness: the "defective point": subjective and objective dullness: stage at which objective dullness is welcomed by the pupil: the tyranny of "problems," and the legitimate claims of the relatively dull.

XII. (Dec. 17.) *The Problem of Examinations*: various functions of examinations: teacher as examiner: how to prepare an examination paper: allocation of marks: how to make the best of the external examiner: the personal equation: the use of "old examination papers": preparation of "set books": "the index" in revision of examination work: how to prepare pupils for an external examination with the minimum educational damage.

The Fee for the Course of Twelve Lectures is Half-a-Guinea.

\* \* The Lectures will be delivered on THURSDAY EVENINGS, at 7 o'clock, at the College, Bloomsbury Square, W.C.—Members of the College have free admission to all the Courses of Lectures.

# THE BEST BOOKS

FOR

## LONDON MATRICULATION.

- Algebra, Matriculation.** With a Section on Graphs. By RUPERT DEAKIN, M.A. Lond. and Oxon. *Fourth Edition.* 3s. 6d.
- Arithmetic, The Tutorial.** By W. P. WORKMAN, M.A., B.Sc. *Second Edition.* 4s. 6d.
- Chemistry, Matriculation.** By G. H. BAILEY, D.Sc. Lond. Edited by WILLIAM BRIGGS, LL.D., M.A., B.Sc., F.C.S. *Third Edition.* 5s. 6d.
- English Course, Matriculation.** Containing Grammar, Analysis, Composition, Précis Writing and Paraphrase. By W. H. LOW, M.A. Lond., and JOHN BRIGGS, M.A. Camb., F.Z.S. *Second Edition.* 3s. 6d.
- French Reader, Matriculation.** Containing Prose, Verse, Notes, and Vocabulary. By J. A. PERRER, Examiner in French at the University of London. 2s. 6d.
- French Course, Matriculation.** By Prof. E. WERKLEY, M.A. Lond. and Camb. *Third Edition.* 3s. 6d.
- Geometry, Matriculation.** By W. P. WORKMAN, M.A., B.Sc., and A. G. CRACKNELL, M.A. 3s. 6d.
- Heat, Matriculation. Light, Matriculation. Sound, Matriculation.** By R. W. STEWART, D.Sc. Lond. Three Volumes, each 2s. 6d.
- Latin Authors, Matriculation Selections from.** By A. F. WATT, M.A. Oxon., and B. J. HAYES, M.A. Lond. *Second Edition.* 2s. 6d.
- Mechanics, Matriculation.** By WM. BRIGGS, LL.D., M.A., B.Sc., F.R.A.S., and G. H. BRYAN, Sc.D., F.R.S. *Second Edition.* 3s. 6d.
- Modern History, Matriculation.** Being the History of England, 1485-1901, with some Reference to the Contemporary History of Europe and Colonial Developments. By C. S. FEARENSIDE, M.A. Oxon. 3s. 6d.

Full List of Books for London University, Oxford and Cambridge Locals, College of Preceptors, and other Examinations, post free on application.

University Tutorial Press, Ltd.

W. B. CLIVE, 157 Drury Lane, London, W.C.

## SARLL'S EXAM. BOOK-KEEPING.

SARLL'S Text-book Sales nearly 250,000.

### SARLL'S MODERN BOOK-KEEPING.

Founded on Sarll's DOUBLE ENTRY. Consists of four GRADUATED COURSES—Introductory, Theory, Practice, Trial Balances—followed by forty EXAM. PAPERS with full or outline KEYS. An Elementary and Intermediate Text-Book for ALL EXAMS. The results of a LIFETIME. 410pp., 3s. 6d. [Now ready.]

### SARLL'S BOOK-KEEPING FOR NEW CODE.

Stage I., Introductory; II., Practical; III., Theory or Journalising. Each 48 pages. Price 4d. Outline Keys, MS. Books, 2d. each.

### SARLL'S PRACTICAL BOOK-KEEPING.

Fourteenth (greatly improved) Edition. *Teachers' Aid* says: "There is no cheaper and safer guide." Consists of GRADUATED EXERCISES with full, and Exam. Papers with outline, Keys. 128 pages, 1s. MS. Books, superior, 1s. Cheap, 4d.

### SARLL'S DOUBLE-ENTRY BOOK-KEEPING.

Fifteenth Edition. 256 pages, 2s. Consists of GRADUATED EXERCISES with full, and Exam. Papers with outline, Keys. *Practical Teacher* says: "We heartily recommend it as the best and cheapest manual we have seen." A School Edition, without Keys. 128 pages, 1s. Superior MS. Books, 1s. Cheap, 4d.

### SARLL'S TWENTIETH CENTURY EXAM. BOOK-KEEPING.

Containing Papers by the leading Examining Boards, with outline Keys. In Two Parts, at 6d. each. Part I., Junior Papers, College of Preceptors, University Local, Scotch Leaving Certificates, &c. Part II., Senior Papers, Society of Arts, London Chamber of Commerce, Lancashire and Cheshire Union, West Riding, &c.

*Sarll's Supplementary Keys.*

#### 1. TO SARLL'S PRACTICAL.

Exercises fully worked, 2s.

#### 2. TO SARLL'S DOUBLE-ENTRY.

Exercises fully worked, 3s.

\* \* Specimen Copies at one-third off, or Teachers can have Parcels for inspection, post free, from A. SARLL, A.K.C., 62 Oakley Road, London, N.

Lessons by Correspondence and School Exams. conducted.

LONDON: GEORGE GILL & SONS, 13 WARWICK LANE, E.C.

### ADVERTISEMENT SCALE.

Whole Page—Ordinary	£4 10 0	.....	Position	£5 10 0
Half Page	2 10 0	.....	"	3 0 0
Quarter Page	1 10 0	.....	"	1 15 0
Per inch in broad column (half width of page)	...		...	0 7 0
Narrow Column (one-third page)	.....		.....	2 0 0

General Scholastic Advertisements (Colleges, Schools, Classes, Tuition, &c.), 3s. 6d. for 6 lines, or 4s. 6d. the inch.

Situations Vacant and Wanted—30 words or under, 2s.; each additional 10 words, 6d. (For 1s. extra. Replies may be addressed to the Publishing Office, and will be forwarded post free.)

### CURRENT EVENTS.

**Fixtures.** THE Third International Art Congress for the Development of Drawing and Art Teaching and their Application to Industries will be held in London, August 3-8.

THE World's Drawing Exhibition, which was opened at South Kensington on July 27, will not close before August 15. Delegates are expected from forty-nine countries.

A VACATION Course in Practical Physics is to be held at Cambridge, August 3-22. The organizer of the Course is Mr. F. S. Scruby, Aldenham School, Herts.

COURSES of Lectures on Education, specially designed for teachers (men and women) will be held at the Cambridge Training College for Women Teachers, August 14-21.

THE Edinburgh Vacation Courses (English, French, and German) run, in two divisions, from July 29 to August 13, and from August 14 to 28. Programmes, &c., from the Hon. Secretary, Prof. Kirkpatrick, LL.D., Edinburgh University.

THE International Congress of Historical Science will be held at Berlin, August 6-12. Programmes from Dr. Caspar, Kaiser-Allee 17, Berlin W. 15.

VACATION Courses in German language and literature, the geography of Germany, German history in the nineteenth century, and current problems of economics (with special reference to the social question in Germany), will be held at the Handelshochschule, Leipzig, August 10 to September 12, and September 14 to October 10. Apply to Herr C. F. Strothbaum, Arndtstrasse 68, Leipzig.

AN Exhibition (including international sections for Meteorology and Terrestrial Physics, Ceramics, and Agricultural Machinery) will be held at Faenza, August 15 to October 15, to commemorate the tercentenary of the birth of Torricelli. Apply to Conte Cav. Carlo Cavina, President of the Executive Committee, Faenza.

THE University of Aberdeen has conferred Honours. the honorary degree of LL.D. upon Sir Harvey Adamson, M.A., C.S.I., member of the Council of the Viceroy of India; the Earl of Cromer, G.C.B.; Brigadier-General Sir James Ronald Leslie Macdonald, K.C.I.E., C.B., commanding at Lucknow.

PROF. HENRY JACKSON, Litt.D., LL.D., has been appointed a member of the Order of Merit (O.M.)

THE University of Dublin has conferred the following honorary degrees:—

D.D.—Rev. G. Adam Smith, LL.D., &c., United Free Church College, Glasgow.

LL.D.—Sir James J. Digges-La Touche, K.C.S.I.; Right Hon. Sir Horace Plunkett, K.C.V.O.

M.D.—Sir Thomas R. Fraser.

D.Litt.—Right Rev. Dom Cuthbert Butler, O.S.B.; R. W. Macan, Master of University College, Oxford; Prof. Maurice A. Gerthwohl; Prof. R. A. Williams.

\* \* \*

THE University of Durham has conferred the following honorary degrees (corrected list):—

D.C.L.: Duke of Devonshire (in absence); Most Rev. Henry Lowther Clarke, Archbishop of Melbourne; Earl of Carlisle; Sir Herbert Maxwell, Bart.; Sir Charles Eliot, K.C.M.G., Vice-Chancellor of Sheffield University; Prof. Frederick Page, Newcastle; Prof. George Redmayne Murray, Newcastle; Mr. Alfred Bray Kempe, Chancellor of the Diocese of Newcastle.

D.Sc.: Mr. Clement Stephenson, of the Royal Agricultural Society; Prof. Robert Lunan Weighon, Newcastle; Prof. Henry Louis, Newcastle.

D.Litt.: Prof. William James, Harvard.

M.A.: Mr. K. C. Bayley, Durham; Mr. H. S. Squance, Sunderland.

\* \* \*

THE University of Manchester, on the installation of Viscount Morley as Chancellor, conferred the following honorary degrees:—

LL.D.—Sir Frank Forbes Adam, Chairman of the University Council; the Right Hon. Arthur James Balfour, M.P.; Mr. Edward John Broadfield; Mr. Andrew Carnegie; the Right Hon. Lord Courtney of Penwith; the Right Hon. Lord Curzon of Kedleston; Sir Edward Donner, Bart.; the Right Hon. R. B. Haldane, M.P., Secretary of State for War; Sir Henry Fleming Hibbert; Sir William Henry Houldsworth, Bart.; Sir William Mather.

D.D.—Rev. Dr. Andrew Martin Fairbairn.

D.Litt.—Sir Edward Maunde Thompson; Arthur John Evans; William Farrer; Prof. Henry Jackson.

D.Sc.—Emeritus Prof. Arthur Gamgee; James Cosmo Melvill.

\* \* \*

THE University of Liverpool has conferred the following official degrees:—

M.Sc.—F. J. Lewis, R. Newstead.

M.Ch.—Damar Harrison.

M.Dent.Ch.—J. Ainsworth Woods.

The University of Liverpool, on behalf of the University of Lehigh, U.S.A., has conferred the honorary degree of M.Sc. upon Mr. Horace Field Parshall. The Vice-Chancellor pointed out that there is no precedent for such action on the part of the University of Liverpool.

\* \* \*

The University of Birmingham has conferred the following official degrees:—

D.Litt.—Michael Macmillan.

M.A.—Rose Sidgwick, Prof. K. Wichmann.

D.Sc.—J. D. Coates, C. K. Tinkler, G. S. West.

M.Sc.—O. F. Hudson, E. J. Kippes, Warner Lulofs, T. J. Murray.

B.Sc.—Donald Myer Levy.

M.D.—Robert Arthur Lister.

B.Dent.Ch.—W. T. Madin.

M.Com.—Frank Tillyard, S. S. Dawson.

\* \* \*

THE University of Sheffield has conferred the honorary degree of D.Litt. upon Alderman George Franklin, Prof. C. H. Firth (Oxford), and Prof. Henry Jackson, O.M. (Cambridge); and the honorary degree of D.Met. upon Colonel Vickers, C.B. Also the following official degrees:—

M.A.—W. M. Gibbons, Prof. J. A. Green.

M.Sc.—Prof. Alfred Denny, Prof. L. T. O'Shea.

M.Ch.—Prof. Rutherford, John Pye-Smith, Prof. Richard Favell.

M.Met.—Assistant-Prof. Andrew McWilliam.

B.Eng.—Frederick Boulden, Ellis Herbert Crapper, Joseph Husband, Joseph Wood Kershaw, and William George Hibbins.

B.Met.—Fred Kitson Knowles and John Henry Wreaks.

\* \* \*

MCGILL UNIVERSITY has conferred the honorary degree of LL.D. upon Sir C. P. Clarke, Director of the Metropolitan

Museum of New York, formerly Director of the South Kensington Museum.

\* \* \*

THE University of Bombay has conferred the honorary degree of LL.D. upon Mr. F. G. Selby, M.A. Oxon., C.I.E., the new Director of Public Instruction, Bombay.

\* \* \*

KNIGHTHOODS have been conferred upon Dr. J. A. H. Murray, LL.D., D.C.L., D.Litt., the Lexicographer, and Prof. A. G. Greenhill, M.A., F.R.S., of the Ordnance College, Woolwich.

\* \* \*

THE following gentlemen have been elected Fellows of King's College, London:—Prof. Percy Edward Newberry, Mr. Francis John Waring, Prof. Norman Dalton, Mr. Alfred Boyce Barrow, Prof. John William Adamson, Prof. William Beacroft Bottomley, Prof. Albert Carless, and Mr. Wm. Braginton.

\* \* \*

THE REV. WALTER BOYCE, M.A. Cantab., Head Master of King Edward VII. Grammar School, King's Lynn, has received the honour of M.V.O. (4th class).

\* \* \*

THE REV. CANON FOWLER, Vice-Principal of Hatfield Hall, Durham, has had his portrait in oils (by Mr. Ralph Hadley, of Newcastle) presented to him, in recognition of his connexion with Durham University for over fifty years. He proposes to hand over the portrait to the University for Hatfield Hall.

\* \* \*

THE French Academy of Science has elected Dr. Herbert Hall Turner, F.R.S., Savilian Professor of Astronomy at Oxford, Correspondent in the Astronomy Section.

\* \* \*

ON the occasion of the one hundredth anniversary of the foundation of the Physico-Medical Society of Vienna, the following appointments were made:—Sir Victor Horsley to be Honorary Ph.D. To be Corresponding members of the Society:—Dr. J. Loeb, Professor of Physiology at the University of California; Dr. C. S. Minot, Physician and Educator of Boston, U.S.A.; Dr. E. Rutherford, F.R.S., of Manchester University; and Dr. C. S. Sherrington, of Liverpool University.

—♦♦♦—

CAPTAIN GEORGE GILMOUR, of Birkenhead, has given £10,000 to endow a Chair of Spanish in the University of Liverpool.

\* \* \*

THE Oxford University Endowment Fund having now reached a total of over £100,000, Mr. W. W. Astor has given a second donation of £10,000.

\* \* \*

MR. W. W. ASTOR has given £1,000 in support of the excavations at Sparta conducted by the British School in Athens.

\* \* \*

THE Clothworkers' Company have voted a donation of £1,000 to the University of Cambridge Endowment Fund.

\* \* \*

THE Trustees of the Oxford University Endowment Fund have set apart £250 a year for three years to endow a Lectureship in Political Theory and Institutions; granted £50 a year for three years to the Maitland Seminar Library; announced that they are reserving £12,000 for a storage room for the Bodleian Library; and expressed their ap-



proval of the principle of establishing a Lectureship in Japanese language, history, and institutions.

SIR JAMES WHITEHEAD, Bart., has offered some £5,000 to Appleby Grammar School for scholarships, &c. "Clear, distinct handwriting is to be a *sine qua non*."

At the distribution of prizes at the North London Collegiate School (July 2), Mr. W. Latham, M.A., K.C., Chairman of the Governors, stated that the Clothworkers' Company were prepared to give £10 to each girl that passed the Oxford and Cambridge Local Examinations and desired to graduate B.A. at Trinity College, Dublin, Oxford and Cambridge being unavailable for the purpose. [But is Trinity College, Dublin, still available? If not, however, there are Universities elsewhere.]

THE original manuscripts of the late Prof. Bain's principal psychological works have been deposited in the library of the University of Aberdeen by Mrs. Bain; and his private MS. records of his classes, 1860-80, by his trustees.

At Oxford University scholarships, &c., are offered as follows:—Classics: December 1, at Balliol; Exeter, Oriel, Brasenose, and Christchurch; Queen's, St. John's, Hertford, and Keble. December 8, at University and New; Corpus; Trinity and Wadham. December 14, at Lincoln. Mathematics: December 1, at Balliol, Queen's, and Corpus; Merton, Exeter, New, and Hertford. Natural Science: December 1, at Balliol, Christchurch, and Trinity; December 8, at University. History: December 1, at Balliol and New; Queen's; St. John's, Hertford, and Keble. December 8, at Lincoln; and at Trinity. Hebrew: December 1, at Wadham.

ST. HILDA'S HALL, Oxford, offers two open Scholarships, £40 and £35, in April, 1909. Apply to the Principal.

ST. JOHN'S HALL, Highbury, offers (1) two Peache Entrance Scholarships, £50 a year each, and one Peache Entrance Exhibition, all tenable for two years. Examination September 4. Apply to the Principal by September 1. (2) An Alfred Roberts Entrance Exhibition, £21 a year for three years. No examination. Preference to a son of a clergyman. Apply to the Principal by September 7. (3) An Organist Exhibition, £30 a year for three years. Vacant May, 1909. Apply (with evidence of qualifications) to the Dean of the Hall, the Rev. C. S. Wallis.

DR. HENRY ALEXANDER MIERS, M.A., D.Sc., F.R.S., &c., Fellow of Magdalen College, Oxford, Waynflete Professor of Mineralogy in Oxford University, and Vice-President of the Chemical, Geological, and Mineralogical Societies, has been appointed Principal of the University of London as from October 1, upon the resignation of Sir Arthur W. Rücker.

THE REV. G. A. COOKE, M.A. Oxon., Chaplain to the Duke of Buccleuch at Dalkeith and Canon of St. Mary's Cathedral, Edinburgh, has been elected Oriel Professor of the Interpretation of Holy Scripture in Oxford University, in succession to the Rev. Prof. T. K. Cheyne, resigned.

THE Regius Professorship of Ecclesiastical History at Oxford is vacant through the death of Canon Bigg.

MR. L. R. FARNELL, M.A., D.Litt., Fellow of Exeter College and University Lecturer in Classical Archaeology, Oxford, has been appointed Wilde Lecturer in Natural and Comparative Religion (for three years) at Oxford.

MR. W. JACKSON POPE, F.R.S., Professor of Chemistry and Head of the Chemistry Department, Municipal School of Technology, Manchester, has been appointed Professor of Chemistry in Cambridge University, in succession to Prof. Liveing, resigned.

At the University of London, University College, Mr. Henry M. Hobart, B.Sc., M.I.C.E., has been appointed to the new Lectureship in Electrical Design; Mr. Leslie Wilkinson, A.R.I.B.A., Assistant in the Department of Architecture, in succession to Mr. A. G. James, resigned; Mr. R. E. Middleton, Lecturer in Municipal Engineering for the session 1908-9; Dr. A. W. Stewart, Lecturer in Stereo-Chemistry for the session 1908-9; Mr. W. F. Stanton, Demonstrator in the Department of Applied Mathematics, under Prof. Karl Pearson; and Mr. H. S. Bion, Demonstrator in the Department of Geology, under Prof. Garwood.

PROF. J. M. THOMSON has been elected Vice-Principal of King's College, London.

At King's College, London, Mr. E. J. Urwick has been appointed Tooke Professor of Economic Science and Statistics; and the Rev. W. R. Matthews, Assistant Lecturer in Philosophy.

IN connexion with the Course on Home Science and Economics, which will commence in October at the King's College Women's Department, 13 Kensington Square, the Council have made the following appointments on the staff:—General Biology, Prof. Dendy; Bacteriology and Microscopy, Prof. Hewlett and Dr. Taylor; Applied Chemistry, Mr. H. L. Smith, B.Sc., in consultation with Prof. Jackson; Physics, Dr. W. Wilson; Psychology, Mr. W. Brown, M.A.; Chemistry (first year), Mrs. McKillop, M.A.; Lecturer in Biology (first year), Miss Hill, B.Sc.; Special Lecturer in Economics, Miss Atkinson, M.A.; Lecturer in Sanitary Science and Hygiene, Miss Alice Ravenhill, F.R.San.I.

At Liverpool University, Dr. J. Hill Abram, one of the physicians of the Liverpool Royal Infirmary and a Lecturer in the Clinical School, has been appointed Professor of Therapeutics; Mr. S. W. Perrott, M.A.I. Dubl., M.Inst.C.E., Professor of Civil Engineering in the University of New Brunswick, has been appointed to the new Chair of Civil Engineering; and Mr. B. R. Hawker, M.A. Cantab., has been appointed Tutor in the Department of Education.

Prof. Salvin-Moore has resigned the Directorship of the Liverpool Cancer Research Committee, and accordingly vacates the Professorship of Experimental Cytology (in September).

MR. J. CADMAN, D.Sc., has been appointed Professor of Mining in Birmingham University, in succession to Prof. Redmayne.

MR. W. F. TROTTER, M.A., LL.M., Lecturer, has been promoted Professor, of Law in Sheffield University.

PROF. TAYLOR retires from the Chair of Ecclesiastical History in Edinburgh University on September 1.

DR. JAMES WALKER, D.Sc., Ph.D., F.R.S., Professor of Chemistry in University College, Dundee (since 1894), has been appointed Professor of Chemistry in the University of Edinburgh.

\* \* \*

MR. ALFRED EDWARD TAYLOR, M.A., Frothingham Professor of Philosophy, McGill University, Montreal, has been appointed Professor of Moral Philosophy in the University of St. Andrews, in succession to Prof. Bosanquet.

\* \* \*

MR. GILBERT NORWOOD, M.A., Fellow of St. John's College, Cambridge, Assistant Lecturer in Greek in Manchester University, has been appointed Professor of Greek in Cardiff University College.

\* \* \*

DR. SUTHERLAND SIMPSON, M.D., D.Sc. Edin., Lecturer in Experimental Physiology in the University of Edinburgh (for the past seven years), has been appointed Professor of Physiology, and Dr. Andrew Hunter, M.D. Edin., Professor of Bio-Chemistry, in Cornell University, Ithaca, N.Y.

\* \* \*

DR. FRIDTJOF NANSEN, Sc.D., LL.D., D.C.L., Ph.D., the Arctic explorer, recently Norwegian Minister in London, has been appointed Professor of Oceanography in the University of Christiania.

\* \* \*

MR. F. W. BAIN, M.A. Oxon., has been appointed Principal of the Deccan College, Poona, in room of the Hon. F. G. Selby, C.I.E., M.A. Oxon., who has become Director of Public Instruction, Bombay.

\* \* \*

MR. A. D. C. AMOS has been appointed District Inspector of Schools under the Birmingham Education Committee.

\* \* \*

MR. W. D. SADLER, Assistant-Secretary to the Northamptonshire Education Committee, has been appointed Director of Education and Secretary to the Walsall Education Committee.

\* \* \*

MR. H. TUNALEY, Chief Adviser on Drawing to the Board of Education, has been appointed Inspector of Drawing in Training Colleges.

\* \* \*

THE HON. W. PEMBER REEVES, High Commissioner for New Zealand, has accepted the Directorship of the London School of Economics and Political Science.

\* \* \*

MR. G. PRICE WILLIAMS, M.A., Ph.D., Assistant Lecturer in German, Liverpool University, has been appointed a Junior Inspector under the Board of Education.

\* \* \*

AN Assistant Lecturer in French Language and Literature is required at Cardiff University College. Apply to the Registrar by September 1.

\* \* \*

A LECTURESHIP in Geography is open in Glasgow University (£200 a year).

\* \* \*

MISS K. NOAKES, Somerville College, Oxford (Classical Honours), has been appointed Junior Demonstrator in Education in Manchester University.

\* \* \*

MR. W. E. BECK, M.A. Lond., L.Th. Dunelm., has been appointed Tutor at St. Aidan's College, Birkenhead.

THE REV. H. WALKER, M.A. Cantab., Vice-Principal, has been promoted Principal, of the York Training College.

\* \* \*

MR. J. A. RICHEY, Balliol College, Mr. R. B. Ramsbotham, Magdalen College, and Mr. D. G. Schulze, Merton College, Oxford, have been appointed to the Indian Educational Service, and to be Inspectors of Schools in Eastern Bengal, Assam, and Burma, respectively.

\* \* \*

AT the Aberdeen Training Centre, Miss Margaret M'Gregor, M.A. Edin., Lecturer in Islington Day Training College, has been appointed Mistress of Method; Miss Strachan, Directress of Needlework, to be assisted by Miss Souter (who is also to assist in the Method Department); Miss Ruby Clark, Assistant Instructress in Physical Training; and Mr. David Thomson, B.Sc., Instructor in Woodwork.

\* \* \*

THE Council of the Girls' Public Day School Trust have made the following appointments of head mistresses, to take effect from next term:—Miss Ethel Gavin, M.A. Dublin (Classical Honours, Girton College), Head Mistress of Notting Hill High School, to be Head Mistress of Wimbledon High School; Miss Amy T. Steele, M.A. London, Head Mistress of Portsmouth High School, to be Head Mistress of Notting Hill High School; Miss Ada F. Cossey (Mathematical Honours, Newnham), assistant mistress at Croydon High School, to be Head Mistress of Portsmouth High School; and Miss Mabel Hodge, M.A. Dublin (Mathematical Honours, Girton), second mistress at Notting Hill High School, to be Head Mistress of Bromley High School.

\* \* \*

MISS C. EDITH LEWER, B.A. Lond., chief assistant mistress Francis Holland School (Church of England High School for Girls), Graham Street, S.W., has been appointed Lady Warden of Queen's College, Harley Street, in place of Miss Harper, resigned.

\* \* \*

MISS EVELYN MINOT, Head Domestic Science Mistress, Clapham High School, and Examiner for the Teachers' Diploma in Domestic Subjects, has been appointed Teacher of the Domestic Arts in the Women's Department of King's College, London (Kensington Square).

\* \* \*

FRAULEIN K. REIN, daughter of Prof. Rein, of Jena, has been appointed a tutor at Cherwell Hall Training College, Oxford.

\* \* \*

MISS ELEANOR PHILLIPS has been appointed Head Mistress of the Clifton High School for Girls, in succession to Miss Burns, resigned.

\* \* \*

MISS PURDIE, late Head Mistress, Exeter High School, has been appointed Head Mistress of the L.C.C. Secondary School, Sydenham Hill Road, S.E.

\* \* \*

MISS MAY TWEEDY, Nat. Sci. Trip. (Camb.), has been appointed Demonstrator in Physiology at Bedford College for Women (University of London).

\* \* \*

MR. G. READDIE, M.A., Head of the Department of English and Modern Languages, Technical School, Sunderland, has been appointed Principal of the new Day Training College, Sunderland.

\* \* \*

MR. R. DELANEY, Khedivial Training College, Cairo, has been appointed Principal of the new Cheshire Training College for Teachers.

MR. J. A. HOPE JOHNSTON, M.A. Edin., B.A. Cantab., assistant master, Tonbridge School, has been appointed Head Master of Highgate School.

MR. J. R. BROWN, M.A. Cantab., Science Master, Bury Grammar School, has been appointed Head Master of West Suffolk County School.

MR. W. D. RAYNOR, Head Master of P.-T. Centre, St. Austell, has been appointed Head Master of the Secondary School, St. Austell.

MR. J. H. SHARP, B.A. Lond., assistant master, has been promoted Head Master, of Simon Langton's School, Canterbury.

MR. R. E. YATES, B.A. Oxon., assistant master, High School, Nottingham, has been appointed Head Master of the Grammar School, Amersham.

THE REV. G. C. ALLEN, D.D., is resigning the Head Mastership of Cranleigh School after 16 years' service.

DR. ANDREW WILSON has retired from a Mastership in the Royal High School, Edinburgh, after thirty-two years' service.

MR. JAMES FORSYTH, M.A., Head Master of Goodhope School, Lockerbie, has been appointed Head Master of Aberlemno Public School, in succession to Mr. James Stewart, retired.

MR. ALEXANDER BLACKLAW, B.A. Lond., Head Master of Milton House School, has been appointed Head Master of James Gillespie's School, Edinburgh.

MR. THOMAS N. HEPBURN ("Gabriel Setoun"), first assistant, St. Leonard's School, succeeds Mr. Blacklaw as Head Master of Milton House School.

MR. W. LINDSAY THOMPSON, M.A., B.Sc. Glas., of Allan Glen's School, Glasgow, has been appointed Rector of Hawick Higher Grade School. He is a son of Mr. David Thompson, Inspector of Schools for Dumfries, Wigtown, and Kirkcudbright.

**Literary Items.** MESSRS. METHUEN promise immediately two additions to their series of "Text-books of Science": "Examples in Elementary Mechanics," by W. J. Dobbs, and "First Year Physics," by C. E. Jackson. Also "Junior Latin Prose," by H. N. Asman, in their series of "Junior School Books."

MESSRS. SAMPSON LOW, MARSTON, & Co. are publishing cheap editions of the late R. D. Blackmore's romances in new form and with bindings of recent design.

MESSRS. GEORGE PHILIP & SON have been appointed sole agents in this country for Gannett, Garrison, and Houston's "Commercial Geography" and Johnson's "Mathematical Geography." These able works are published in America by the American Book Company.

MESSRS. DENT are about to add to their "Modern Language Series" three sound charts: "The Sounds of English," "Les Sons du Français," "Deutsche Laute." These

charts (30 inches square) have been drawn up by Prof. Rippmann. Other additions to the same series will be "A Phonetic French Reader," by S. A. Richards, B.A., and "Eisenhans," a second-year German reader, by Prof. Rippmann.

THE Oxford University Press will shortly publish, in Sir C. P. Lucas's "Historical Geography of the British Colonies," a volume on the History of Canada, by Prof. H. E. Egerton. Mr. J. D. Rogers, who wrote "Australasia" for the same series, will deal with the Geography of Canada in another part, also to be issued shortly.

VISCOUNT MORLEY OF BLACKBURN was installed Chancellor of the University of Manchester (July 9).

"My imagination is stirred by the thought that the new type of University represented by the Manchester University was founded by a homely man of business living in Manchester—John Owens—who, with a prescience of the wants of his age which seems truly remarkable, has done for the new age what kings and princes and guardians of the Church did when they established the great and venerable foundations of Oxford and of Cambridge."

THE Administrative Staff of the Technological Branch of the Board of Education has now removed from South Kensington to the new Offices of the Board in Westminster, the entrance to which is in Charles Street out of Parliament Street. All correspondence should henceforth be directed to the Secretary, Board of Education, Whitehall, with the exception of letters for the Victoria and Albert Museum, the Royal College of Art, and the Solar Physics Observatory, which should continue to be addressed to the Offices of the Board of Education, South Kensington.

THE Governors of University College, Bristol, have unanimously approved the draft Charter for establishing a University of Bristol, and it will at once be presented to his Majesty in Council.

THE numerous prizes awarded by the Society of Gallia, at Reading, were distributed (June 27) by the Duchess de Frias, Farnborough.

COPIES of the Book Lists of the National Home-Reading Union for next session (commencing in September) may now be had by teachers desiring to form reading circles in connexion with the Union, on application to the Secretary, Miss A. M. Read, 12 York Buildings, Adelphi, London, W.C.

IN celebration of the tercentenary of Milton, the Master and Fellows of Christ's College, Cambridge (the poet's college), entertained some eighty or ninety guests (July 10), to whom Prof. Mackail discoursed on Milton, and who afterwards witnessed a performance of "Comus" in the New Theatre.

DR. ELIZABETH A. GOTTHEIMER, who has been appointed Lecturer on Social Politics at Mannheim Commercial University, is said to be the first woman that has been elected to a post in a German University.

THE Victorian League (2 Wood Street, Westminster) has prepared a shilling packet of twelve picture cards illustrating the early history of the Dominion of Canada, and arranged for the sending of it at cheap postal rates from children in English schools to children in Canadian schools. The League is also issuing collecting cards to aid the fund for the preservation of the battlefields.

### THE GERMAN CONTINUATION SCHOOL.\*

By THOMAS HANNAN.

[From the *Scotsman*.]

ONE of the most interesting developments of German education is the continuation school. *Fortbildungsschule* is the German term, and the system is, I believe, in advance of anything which prevails elsewhere with the object of improving the education of those who have left the elementary day school for ordinary employment.

#### HISTORY OF THE MOVEMENT.

The history of the movement is a valuable lesson in itself. For its origin we have to go back to the sixteenth century, and the movement was begun as an effort on the part of the Church to dispel the ignorance which then prevailed as to the truths of religion. Classes were formed, to meet in the churches on the Sunday afternoons, and to receive instruction from the pastors. They were exactly what we understand by "Sunday schools," but in the course of time secular subjects were added to the subjects taught; and this was found to be a great advantage. As the elementary system of day schools came into existence and made for itself a thoroughly assured position, these Sunday schools came to be useful adjuncts to the system. Saxony led in the origin and development of these continuation schools.

The next stage in the history of their development is associated with the industrial developments of the closing years of the eighteenth century. Those who were observing the signs of the times in Germany, and who were anxious that the country should advance rather than lag behind, advocated an improvement in the opportunities of obtaining a serviceable education. Bavaria, Prussia, and Saxony found to their hands an organization which seemed capable of becoming the means of doing what they wanted; and those States proceeded to make use of the Sunday schools. Additional instruction was given in reading, writing, and arithmetic; and attendance was made compulsory in some States. When compulsion was introduced, everything was done to make it real and effective. As a rule, young men were compelled to attend until the age of eighteen years; while in the case of Bavaria a curious form of compulsion existed in the fact that a man could not be married until he produced a certificate that he had attended a regular course of instruction at a Sunday school.

These schools continued to flourish during the half-century which followed the initiation of the changes just described, and the schools were well attended, even when the element of compulsion was lacking. But at last a change of feeling arose, and led to a slackening of interest. There were probably several factors in this change of feeling, but a powerful influence was the introduction of compulsory attendance at day schools in the case of children. The double compulsion became irksome to the working classes, who wished to see their children wage-earners as soon as possible, and to employers, who found themselves debarred from employing juvenile labour under a certain limit of age, and limited in the use of that labour between the day school period and manhood. Thus continuation schools fell into great unpopularity, and in one State after another the compulsory laws were abrogated. In 1859 Saxony followed the lead of other States in this direction, and in the course of a few years the system almost ceased to exist.

The resuscitation of the system was one of the results of the great war of 1870. When it was over, the Empire began to apply itself to the arts of peace. In Saxony attendance at continuation schools, evening or Sunday schools, was again made compulsory early in the year 1873; and that compulsion has remained a feature of the system ever since. The organization now exists in most, if not all, of the German States. There is an *Imperial law*, as distinguished from the local laws, on the subject. The Imperial law assumes that the schools will exist and that young workers will attend them. It then provides that all employers of labour shall give their workers who are under the age of eighteen years such opportunities of attendance as the Local School Authorities may consider necessary. But under this law, so far, it is left to the option of the individual whether to attend or not. The law, however, provides, further, that any District Council, or body superior to a District Council, may make it compulsory for the young workers within their

area to attend a continuation school, or a school of equal or higher standing, until the age of eighteen years.

#### "COMPULSION IS THE RULE."

In Saxony the law of compulsion is made absolute over the whole State, but in other parts of the Empire, the District Councils have the option of adopting compulsion or not according to their judgment. Generally speaking, compulsion is the rule; and provision is made for the enforcement of the law, as regards pupil, parent, and employer. Where absence is proved to be the fault of parent, guardian, or employer, a fine of thirty marks—that is, thirty shillings—may be imposed by the proper authority. In this respect the Saxon law is more severe than the Imperial, which fixes a penalty of twenty marks. If the fine be not paid, imprisonment for three days may follow.

#### SUNDAYS—AND OTHER DAYS.

I have already drawn attention to the fact that the continuation classes meet on Sundays in many cases. If Sunday be chosen, then care must be taken that the classes do not interfere with Church attendance. In Saxony two out of about every seven continuation schools meet on Sunday, and of those which meet on Sunday nearly half meet on another day as well. In this school they have classes for iron-workers on Tuesdays from 2.30 till 6.30 in the afternoon. It may easily be understood that this arrangement interferes to some extent with the organization of work and business; but the Germans seem to have overcome any objection on this point, no doubt through being convinced of the preponderating advantages in other directions. But the system is administered with a good deal of tact and skill where the hours of labour are trenched upon. Leipzig, I understand, is an example of this. I did not see any school work in this city, but I was told that the employers are consulted in many ways. At the beginning of each half-year a meeting of teachers and such employers as choose to attend is held. The programme of studies is considered, and representatives of the employers are chosen to act on the School Committee as advisers. Throughout the year the employers are kept informed of the progress of the pupils who are in their employment, and the result is that the antagonism which was felt by many employers has been gradually overcome and often a feeling of sympathy established, which manifests itself in gifts of apparatus and other useful things. So marked is this co-operation in Saxony that in some cases the trades carry on continuation classes themselves. . . .

#### PHYSICAL FATIGUE OF SCHOLARS.

One of the great difficulties which the promoters of these schools had to overcome was the argument of physical fatigue. It was argued that young people, after a full day's work, were not in a condition to endure an evening's study. This difficulty seems to be largely overcome, partly by the holding of classes in the afternoon in certain cases, and partly by the system of associating the individual school with the individual trade, if not with the individual workshop. In the large towns separate classes exist for various trades, and the classes are arranged for the days and hours when the young people can most easily be spared from their employment. All this demands careful arrangement, and the smooth working of the system at present has been evolved from the mistakes and friction and failure of the past. Boys who are in the same workshop, or who are in rival workshops of the same trade, find themselves in the same class; and the principle of emulation comes fully into play, giving an intellectual stimulus to a mechanical art and causing the pupil to forget that he is tired. No boy likes to be called *Schafskopf* ("Sheep's-head," "Fathead"), which is a term liberally applied to a stupid fellow, I understand, by his companions.

But, in addition to these considerations, it has to be remembered that only a certain number of hours per week are compulsory. In Dresden the number is four, but the Local Authority may fix the number of hours as high as six, and the minimum is two hours per week on an average over the year. I understand that only a little over 10 per cent. of the educational districts go above the minimum; but this low proportion is due to the country districts, which, as elsewhere than in Germany, labour under educational disadvantages, and, on account of the pressure of field work in summer, have to do most of the educational work in winter. In the towns a great variety of opportunity is given, and the classes are spread over a longer portion of the year.

#### FINANCES.

It is difficult at present to separate the finances of the continuation schools from those of the general system worked by the district. The teachers of the continuation classes are also, in

\* The third of an instructive series of papers on "Public Schools in Germany."

most cases, teachers in the day schools. They are paid separately for their continuation school work, at rates which vary a great deal, but are never high—sometimes only about 40 or 50 marks per year for one hour per week, and sometimes double that rate.

It will probably be possible to present a complete financial statement of the total cost of the system in Dresden by the year after next. In spite of the success of the system in that city, or perhaps because of it, the authorities are not content to go on as at present. They are working out a scheme by which the continuation schools will have their own buildings and their own teachers; and I was told that the reformed scheme would probably be in working order next year. Such a scheme will entail a great deal of additional expenditure, and doubtless one feature of the scheme will be a still greater distribution of the continuation work over the whole day. Whether that will entail difficulty in the withdrawal of young workers from their occupations during the day remains to be seen; but I think it may be safely anticipated that the arrangements arrived at will have the support and concurrence of employers. . . .

#### EXAMPLE OF COLOGNE.

Cologne has a most carefully organized system of continuation schools, and has about thirteen hundred teachers in its day schools on whom it can draw for the staffing of its continuation work. Dr. Brandenburg, the *Schulrath*, told me that their system of technical schools for trades is not properly introduced yet, but they have at present classes for tailors, shoemakers, and clockmakers. The continuation schools of the city are attended by about six thousand boys and young men. There are no continuation schools for girls. Attendance is compulsory between the ages of fourteen and seventeen years. The classes are held from seven till nine every evening, and each pupil must attend two nights per week. In addition, drawing classes meet every Sunday morning from 9.15 till 11.15, the assumption being that church is attended before 9. Religious instruction at these classes is given once or twice a month, but attendance at this instruction is voluntary. The compulsion exerted here is very stringent. Employers who keep pupils back from their classes may be fined up to 150 marks, or £7. 10s.; while, if the pupil does not attend, he or his parent may be fined up to 20 marks, or £1. I asked Dr. Brandenburg if much difficulty was experienced in enforcing compulsory attendance, and his answer was that attendance was "fairly willing"—which I assumed to be quite satisfactory, considering the high standard of obedience which is expected by the German official mind. He seemed to attach the greatest value to the penalties as a means of persuasion.

#### HIGHER CONTINUATION SCHOOLS.

There are three classes of continuation school above the ordinary or compulsory kind, and the attendance at one of these superior schools exempts from attendance at the ordinary kind. But admission to the higher school depends on attainments, and so another incentive is brought into play for the success of the day school. The highest of these three classes is the "Higher Commercial Continuation School," possessing a lower and a higher division. The lower division has a fixed three years' course, and the higher has a two years' course, which is optional. In each stage there are compulsory subjects and optional subjects. In the lower division the compulsory subjects are:—First year—German, writing, arithmetic, French, and English. Second year—correspondence and business management, arithmetic, single entry book-keeping, shorthand, French, and English. Third year—Correspondence and business management, arithmetic, double-entry book-keeping, geography and knowledge of goods, French, and English. One of these headings is significant—the German always teaches geography with special reference to the goods which are required by the part of the world being studied.

In the higher division, one of the three alternative conditions of admission to which is a certificate of one year's voluntary military service, the subjects are:—First year—correspondence (with instruction in business management and law), single and double-entry book-keeping, commercial arithmetic, French correspondence and conversation, and English for beginners and also with conversation. Second year—science of economy, book-keeping (systems and more difficult cases), commercial arithmetic, French correspondence and conversation, and English correspondence and conversation.

In the other two classes of continuation school above the ordinary grade, foreign languages are omitted, and the other subjects are of the nature of a preparation for the classes which I have just described.

#### THE ORDINARY GRADE.

In the ordinary classes a great deal of attention is given to reading, writing, and arithmetic. In one of the papers in my possession a long list of reading-lesson subjects is given following upon careful directions as to the method to be adopted by the teacher to make the lessons useful and interesting. The following are a few of the subjects culled from a list of fifty:—"Bread," "The Slater's Realm (Work, &c.)," "In a Hat Factory," "A Pair of Factory Shoes," "The Division of Labour," "The Electric Bell," "Phthisis and its Treatment," "The Care of Health in Town and Workshop," "The Constitution of the Empire," "The German Fleet," "The Blessing of Sunday."

The reason for the elaborate directions to teachers lies in what at first threatened to make the system a comparative failure. This was the tendency to make the continuation school too much like the day school from which the boy had just received his release. The idea is to continue the education, but to make it less theoretical and more in relation to the pupil's daily life and work. He is regarded as in some sense a man and a citizen, and his work is now mapped out for him on that principle. A great deal more might be written about the working of the system. But what I have written is probably sufficient to show that the system has proved its usefulness and established a firm hold on the German nation.

### CONFÉRENCES FRANÇAISES.

SOCIÉTÉ NATIONALE DES PROFESSEURS DE FRANÇAIS.

#### LA FEMME DANS L'HISTOIRE.

Par M. GRAVELINE.

Le 27 juin, M. Graveline nous parlait de "La Femme dans l'Histoire." M. le docteur Emil Reich était au fauteuil. Nous ne pouvons malheureusement que résumer en peu de mots cette conférence intéressante et bien documentée, à laquelle M. Graveline a su donner une attrayante toute particulière.

À l'ouverture de la séance, le docteur Reich prononça quelques paroles pleines de bon sens sur les femmes en général, et posa ce problème: "Pourquoi les femmes ont-elles eu une si grande influence dans l'Histoire de France?" C'est ce problème que M. Graveline s'est efforcé de résoudre.

M. Graveline commença par citer un dicton allemand: "Dieu fit d'abord l'homme, puis la femme, puis le tabac... pour le consoler." Galants toujours, ces messieurs! Voltaire l'était plus. Il compare la femme à une rose mousseuse, "une fleur jolie, agréable, mais remplie d'épines." On pourrait encore trouver là quelque chose à redire. Un auteur américain a dit "qu'un Français auprès d'une femme belle, gracieuse ou spirituelle, cesse d'être homme." Serait-ce là la solution du "pourquoi" du président? Le fait est que, dans l'Histoire, on reste étonné de ce fait que les Français semblent toujours s'être laissés mener "par le bout du nez" par les femmes. A toutes les pages on rencontre la femme, toujours la femme. Elle est la cause de tout; elle fait la paix, elle fait la guerre. Cela commence à l'époque gallo-romaine avec Eponine, épouse de Sabinus, un bel exemple d'amour et de dévouement conjugal. Puis c'est Clotilde, femme de Clovis, qu'elle convertit, dit-on, au christianisme. Frédégonde et Brunehilde, ces démons enjuponnées, ne trouvent pas grâce devant M. Graveline, qui les passe rapidement et s'arrête à Mathilde, la femme du Conquérant, à qui l'on doit la fameuse tapisserie de Bayeux. Puis il nomme Blanche de Castille, la vertueuse mère de Louis IX, Marguerite de Provence, et en arrive à Isabeau de Bavière, charmante créature qui fut la cause du malheureux traité de Troyes. Mais voici apparaître Jeanne d'Arc, femme extraordinaire, la plus extraordinaire de l'Histoire. Il la détaille dans tous ses actes jusqu'au sacre de Charles VII à Reims. Sa récompense? Un bûcher à Rouen où elle fut brûlée comme sorcière à l'instigation de l'évêque de Beauvais!

Puis c'est Marguerite d'Angoulême, Diane de Poitiers, Catherine de Médicis, cet autre démon en jupons, dont les jouets favoris étaient les oubliettes, le poison, la torture. Elle fit mourir, au moyen de gants empoisonnés, Jeanne d'Albret, la vertueuse mère d'Henri IV, et fut la cause du massacre de la Saint-Barthélemy.

Puis viennent Marie Stuart, la Duchesse de Longueville, Madame de Motteville, Madame de Sévigné dont les lettres sont si populaires; Madame de Maintenon qui influença tant le règne de Louis XIV; Mesdames de Montespan, de Pompadour, Dubarry; puis la malheureuse Marie-Antoinette, une des plus

tristes figures de l'Histoire de France; les impératrices Joséphine et Marie-Louise, et Madame de Staël qui eut une si grande influence littéraire.

Le XIX<sup>e</sup> siècle nous donne la romantiste George Sand, la reine Marie-Amélie et l'impératrice Eugénie. Et le conférencier se demande quelles seront les femmes d'aujourd'hui qui légueront leur nom à la postérité. Peut-être Mesdames Sarah Bernhard, Curie, Chaminade et Gyp!

M. Graveline conclut par un fragment de poésie de Victor Hugo: "Le Doigt de la Femme," commençant ainsi:

Dieu prit sa plus pure argile,  
Et son plus pur kaolin,  
Et fit un bijou fragile,  
Mystérieux et calin.

Il fit le doigt de la femme.

et se terminant par ces mots:

Le diable alors s'éveilla.  
.....  
Dans l'ombre où Dieu se repose,  
Il vint noir sur l'orient,  
Et tout au bout du doigt rose  
Mit un ongle . . . en souriant.

L' "épine" de Voltaire!

M. le docteur Emil Reich, après avoir complimenté le conférencier, ajouta quelques mots à propos de Jeanne d'Arc et de la place de la jeune femme en France.

## COLLEGE OF PRECEPTORS.

### HALF-YEARLY GENERAL MEETING.

THE ordinary half-yearly General Meeting of the members of the Corporation was held at the College on Saturday, July 18.

The Secretary having read the advertisement convening the meeting, Sir PHILIP MAGNUS was appointed Chairman.

The Report of the Council was laid before the meeting and was taken as read, a copy having previously been sent to every member. It was as follows:—

#### REPORT OF THE COUNCIL.

The Council beg to lay before the members of the College the following Report of their proceedings during the past half-year:—

1. During the past half-year a course of twelve lectures on "The Application of Psychology to the Work of the School" has been delivered by Prof. J. Adams, M.A., B.Sc., F.C.P. A course of twelve lectures on "The Practical Teacher's Problems" will be given by Prof. Adams in the autumn.

2. The Christmas Examination of Teachers for the College Diplomas was held in the first week in January, and was attended by 514 candidates—316 men and 198 women. During the past half-year the Diploma of Fellow has been conferred on one candidate, that of Licentiate on 24, and that of Associate on 155, who had satisfied the prescribed conditions.

3. The number of candidates entered for the Midsummer Certificate and Lower Forms Examinations is 5,520. The Professional Preliminary Examination was held in the first week in March, and was attended by 295 candidates.

4. During the past half-year the Council have conducted the inspection and examination of five schools by visiting examiners.

5. The examination of pupils in schools in Newfoundland, which the Council have undertaken to conduct at the request of the Newfoundland Council of Higher Education, was held at a hundred centres on June 22 to 29. These examinations, which were instituted by the Newfoundland Council fifteen years ago, comprise four grades corresponding approximately to the four grades of the College Certificate and Lower Forms Examinations, and it is now desired to bring them into closer relationship with the scheme of the College.

6. At the members' meetings held during the past half-year the following lectures have been given:—"Suggestions from America to British Educationists," by F. Charles, B.A.; "Science in Correlation with Geography and Mathematics," by T. Percy Nunn, M.A., D.Sc.; "School Life and Healthy Growth," by Hubert E. J. Biss, M.A., M.D. At a meeting held in connexion with the first International Moral Education Congress, an address on "Moral Education" was delivered by Sir Edward Busk. Reports of the lectures have been published in *The Educational Times*.

7. A winter meeting of teachers was held at the College on January 7 to 15. Short courses of lectures were given by Prof. Adams, on "The Psychological Bases of Education"; by Prof. Findlay, on

"Method and School Management"; by Prof. Adamson, on "The Teaching of English"; by Prof. Pollard, on "The Teaching of History"; by Dr. Herbertson, on "The Teaching of Geography"; by Mr. S. Barlet, on "The Teaching of a Modern Foreign Language"; by Dr. R. J. Collie, on "Preventable Physical Defects of School Children" and on "Healthy and Unhealthy Brain Action"; and by Dr. Aikin, on "The Use of the Voice." Single lectures were also given by Mr. P. A. Barnett, Mr. J. Harrison, and Mr. E. D. A. Morshead. The lectures throughout were attended by large audiences. The cost to the College, beyond the amount of the fees received, was about £80, which was supplied from the interest on the money invested on account of the Teachers' Training Fund.

8. During the past half-year fifteen new members have been elected, notice has been received of the withdrawal of seven, and the names of twelve members have been removed from the list. The Council regret to have to report the death of the following members:—Mr. J. B. Dashwood, A.C.P., Mr. C. Filer, A.C.P., Mr. J. E. Greenhill, Rev. H. Lister, F.C.P., and Rev. O. J. Vignoles.

9. The Council have expressed their general approval of proposals for the constitution of the future Registration Council, which were adopted at a Conference convened by Dr. Gow on the 29th of February. It was recommended that the Registration Council should consist of six Crown nominees, five representatives of the National Union of Teachers, three co-opted members, two representatives of Technological Associations, and one representative of each of the following:—Head Masters' Conference, Head Masters' Association, Head Mistresses' Association, Assistant Masters' Association, Assistant Mistresses' Association, Private Schools Association, Preparatory Schools Association, Teachers' Guild, College of Preceptors. The Council regret that the Board of Education have delayed their decision upon these proposals, which have been approved by all the Associations interested.

10. In order to enable members to take a larger share in the conduct of the business of the College, the Council recommend certain alterations in Section V. of the By-Laws, which relates to the proceedings at general meetings, including the election of members of the Council. They also recommend alterations in Section I., clause 3, and in Section VI., clause 7. These alterations are embodied in an amended form of the sections concerned which will be submitted for the consideration of the members at the next half-yearly general meeting.

11. The Federal Council has held one ordinary meeting during the past half-year, and has considered the questions of the incidence of taxation on school boarding-houses, and of salaries and pensions for assistant masters in secondary schools. The Head Masters' Conference has withdrawn from representation on the Council, and a small Committee has been appointed to consider the constitution and functions of the Federal Council.

In reference to paragraph 9, the DEAN said he thought they ought to express their obligation to Sir Philip Magnus for the part he had taken in the discussions on the subject of the Registration of Teachers. In conjunction with two other distinguished University representatives in Parliament, he had persisted in urging on the Government to take in hand the formation of a Registration Council, and it was greatly to be regretted that as yet no such Council had yet been established.

The CHAIRMAN said he was much obliged to the DEAN for referring to the small part he (the chairman) had been able to take in urging upon the Government the importance of re-establishing the Registration Council which came to an end a short time since. A memorandum had recently been issued by the Board of Education containing an account of the circumstances which led up to the abolition of the Registration Council which had been constituted under the Education Act of 1899. The clause of the Education (Administrative Provisions) Act of 1907, which provided for the formation of a new Registration Council, was as follows:—"Any obligation to frame, form, or keep a register of teachers under paragraph (a) of Section 4 of the Board of Education Act, 1899, shall cease: Provided that it shall be lawful for His Majesty by Order in Council to constitute a Registration Council representative of the teaching profession, to whom shall be assigned the duty of forming and keeping a register of such teachers as satisfy the conditions of registration established by the Council for the time being, and who apply to be registered." The Board of Education had received communications from a number of representative educational bodies urging that a new Council should be formed, representative of the teaching profession, to consist of members as agreed upon at a meeting of representatives of associations of teachers which was held on the 29th of February last. The difficulty that the Board of Education appeared to feel in acceding to the wish of the organized bodies of teachers, as expressed at this conference, was that the Board were not satisfied that the proposed constitution of the Council would make it truly representative of the teaching profession. And what the Board had asked the members of a deputation that had been received

by Sir Robert Morant to do was to bring up proposals for the constitution of a Registration Council which should be representative of the teaching profession as a whole—not only of persons representing associations who were technically teachers, but also of representatives of teachers of special subjects. He need hardly say that considerable difficulty would arise if the attempt were made to form a Council which should not only be representative of the teachers in our elementary and secondary schools, but which should also represent teachers engaged in giving instruction in a great number of separate subjects for which special teachers were employed; and unless some way could be found of getting over this difficulty, he feared that it was unlikely that, for some time at least, a Registration Council would be called into existence. He would desire to emphasize the words of the Clause in the Act of Parliament, which, it seemed to him, did not lend much weight to the view put forward by the Board of Education, because it stated that there should be a Registration Council representative of the teaching profession, to whom should be entrusted the duty of forming and keeping a register of such teachers as satisfy the conditions of registration established by the Council for the time being, and who apply to be registered. Therefore it was quite clear that it was not necessary that the Registration Council should itself consist of representatives of every class of teachers, but that the different classes of teachers desiring to be registered should make an application to the Council, and that the Council, when constituted, not before, should then satisfy itself with regard to the conditions under which registration was to be carried out. He did not propose to consider all the difficulties which had been raised by the Board of Education and were set forth in the Board's Memorandum; but they were difficulties which he thought might possibly be overcome. He would like, however, to refer to the concluding words of the Memorandum as indicating that there was room for hope that this Registration Council might yet come into existence: "The Board are prepared to proceed at once to further steps for bringing a new Registration Council into existence, so soon as they receive adequate assurances from the teaching profession that the composition proposed for it by the Conference is considered to satisfy the condition of Section 16 of the Act that the Council must be representative of the teaching profession." He (the chairman) could only urge, therefore, that the bodies of teachers desiring that this Council should come into existence should at public meetings, or by direct communication with the Board of Education, assure the Board that, after having considered all the objections that had been raised, and satisfied themselves as to the means by which those objections might be met, they believed that the proposed Registration Council, with such modifications as might yet be agreed upon, might be regarded as truly representative of the teaching profession.

Mr. SOUTHEE said he had always taken the greatest interest in the question of the registration of teachers, and would be glad to know where he could see the memorandum referred to by the Chairman. He was himself one of the earliest private-school teachers to be registered, and he supposed he might consider himself to be on the Register still; or would it be necessary for him to make a fresh application to the new Registration Council when it was formed? He desired cordially to support the line the Council had taken in the matter.

Mr. RADFORD expressed his doubts as to whether they had anything to hope from the action of the Board of Education with regard to registration.

The Report of the Council was adopted.

The DEAN then presented his report, which had been printed and circulated among the members attending the meeting. It was as follows:—

THE DEAN'S REPORT.

In addition to the general statement of the examination work of the College during the past half-year, which has been embodied in the Report of the Council, I have now to submit to you, in detail, the statistics and results of the various examinations.

The Midsummer Examination of candidates for Certificates took place on the 30th June to the 4th July at 151 Local Centres and Schools. In the United Kingdom the Examination was held at the following places:—Abingdon, Alford, Ashbourne, Athlone, Balham, Bath, Belfast, Benthams, Birmingham, Birr, Blackheath, Blackpool, Boxmoor, Brecon, Brighton, Bristol, Bruff, Bury St. Edmunds, Buttevant, Cardiff, Carlisle, Carmarthen, Carnarvon, Charleville, Cheltenham, Chichester, Clapham, Coleraine, Congleton, Cork, Croydon, Devonport, Dumfries, Durham, Ealing, East Grinstead, Eccles, Edinburgh, Exeter, Eye (Suffolk), Falmouth, Felixstowe, Ferndale, Folkestone, Forest Hill, Goole, Gos-

berton, Goudhurst, Grove Ferry, Guernsey, Hastings, Hatfield, Hawk-hurst, Herne Bay, Highgate, Highworth, Horsmonden, Huddersfield, Inverurie, Ipswich, Kinturk, Kirky Stephen, Knighton, Launceston, Leeds, Leek, Liverpool, London, Lostock Gralam, Maidstone, Malvern Link, Manchester, Mansfield, Margate, Market Bosworth, Melton Mowbray, Merthyr Tydfil, Middlesbrough, Middleton, Mountmellick, Muswell Hill, Newcastle-on-Tyne, Newton Abbot, Nottingham, Penarth, Pentre, Plymouth, Porth, Portsea, Portsmouth, Quorn, Redditch, Richmond (Surrey), Rivington, Rochester, Ruthin, Rye, Scorton, Seaford, Shebbear, Sheffield, Skegness, Southampton, Southend, Southport, Southsea, South-wold, Spalding, Stockton (Warrington), Stonyhurst, Streatham Hill, Stroud, Sunderland, Taplow, Taunton, Thurles, Tonbridge, Totland Bay, Upper Norwood, Wellington (Salop), Welshpool, Westcliff-on-Sea, West Hartlepool, West Norwood, Weston-super-Mare, Weybridge, Wigton, Winslow, Worcester, York. The Examination was also held at Gibraltar, Constantinople, Abonema (S. Nigeria), Krugersdorp (S. Africa), Colombo (Ceylon), Rangoon (Burma), Wei-hai-wei (N. China), Nassau (Bahamas), and British Guiana.

The total number of candidates examined (not including 127 examined at Colonial Centres) was 4091—2693 boys and 1398 girls.

Taking the Christmas and Midsummer Examinations together, the total number of candidates examined during the year ending Midsummer, 1908 (not including those who attended the supplementary examinations in March and September), has been 9642.

The following table shows the proportion of the candidates at the recent Midsummer Examination who passed in the class for which they were entered:—

	Examined.	Passed.	Percentage.
First Class [or Senior] ...	502	224	45
Second Class [or Junior] ...	1842	936	51
Third Class .....	1360	1038	76

The above table does not take account of those candidates who obtained Certificates of a lower class than that for which they were entered, nor of those (387 in number) who entered for certain subjects required for professional preliminary purposes.

The number of candidates entered for the Lower Forms Examination (not including 69 examined at Colonial Centres) was 1128—525 boys and 603 girls. Of these 996 passed, or 88 per cent.

At the Professional Preliminary Examination for First and Second Class Certificates, which was held on the 3rd to 5th of March, in London and at seven Provincial Centres, viz., Birmingham, Bristol, Cardiff, Leeds, Liverpool, Manchester, and Newcastle-on-Tyne, 292 candidates presented themselves.

Practical Examinations to test Ability to Teach were held in February and May. At these Examinations 4 candidates presented themselves, and 4 obtained Certificates.

The report was adopted.

Dr. MAPLES moved, on behalf of the Council, the first of the resolutions standing on the agenda paper:

I. That Section V. of the By-laws be amended so as to read as follows:—

1. The Secretary shall between December 1st and 7th in every year give notice in writing to every Member of the College of the date of the January General Meeting. He shall at the same time forward a form of nomination upon which a Member may nominate twelve Members as Members of Council and three Members as Auditors, and upon this form a copy of the by-law next following shall be printed. Upon the nomination form shall also be printed a list of the names of the twelve Members of the Council and the three Auditors whose period of office will expire at the next January General Meeting, the names of those who have given to the Secretary in writing notice of their unwillingness to be re-elected being indicated.

2. Any Member may nominate not more than twelve Members as Members of the Council and not more than three Members as Auditors, and the name of every candidate so nominated, if received by the Secretary twenty-four days at least before the election, will be included in the list prepared and issued by the Secretary in accordance with the by-law next following.

3. The Secretary shall prepare a list of the persons nominated as above, with the title of any office of emolument held in the College by the Candidate. A printed copy of this list shall be sent to every Member of the College at least fifteen days before the time of election.

4. In the event of a sufficient number of Members not having been nominated for election, as either Members of Council or Auditors in accordance with the provisions of the preceding by-laws, the Secretary shall summon a special meeting of Council to be held immediately before the half-yearly General Meeting, and the Council at that meeting shall nominate so many, and only so many, Members as Members of Council or Auditors as shall, with the numbers nominated in accordance with the preceding by-laws, complete the number required to be elected.

5. The elections shall be made at the January General Meeting, and shall be conducted as follows:—A list of all the Candidates nominated as above, whether under by-law 2 or by-law 4, shall be given to each Member present. The Chairman of the meeting shall appoint two Scrutators. Each Member shall erase from his list the names of those Candidates for whom he does not wish to vote, adding or substituting others at pleasure, but leaving not more than twelve names for Members of Council and three for Auditors. Each Member present shall then give his list assigned to one of the Scrutators, his name being at the same time written down by the Secretary. The Scrutators shall reject all such voting lists as do not fulfil these conditions. Those Candidates for the Council, not being more than twelve in number, and those Candidates for the Auditorship, not being more than three in number, whom the Scrutators report to have the highest number of votes, shall be named by the Chairman of the meeting in the numerical order of the votes obtained by them, and shall be declared by him to be duly elected. In the event of an equality of votes, the Chairman shall give a casting vote or votes so as to provide for the election of the necessary number as Members of Council and

**Auditors.** Provided nevertheless that should the necessary number of Members of Council and Auditors not have been elected as above, the meeting shall forthwith proceed to elect such a number as will with the number previously elected make the numbers elected twelve and three respectively.

6. Every proposition intended for discussion at a Special General Meeting shall be in writing signed by the requisitionists, and shall be printed, and a copy thereof shall be sent by the Secretary to every Member of the Corporation, with the notice convening the Meeting; and the same rules for discussing, and voting on, such propositions, shall be followed as are provided in the case of Ordinary General Meetings.

7. Every proposition, unless made by the Council, for enacting, reversing, annulling, or amending any by-law, whether made by the Council or a General Meeting, shall be in writing, signed by at least six Members of the Corporation of at least twelve calendar months' standing, and sent to the Secretary thirty days before the Ordinary or Special General Meeting at which such proposal is intended to be discussed. Such propositions shall be printed, and a copy thereof sent by the Secretary to every Member of the Corporation at least fifteen days before such meeting.

8. All other propositions intended to be brought before an Ordinary General Meeting shall be in writing, signed by the persons who make them, and shall be sent to the Secretary at least thirty days before such meeting. Such propositions shall be printed and a copy thereof sent by the Secretary to every Member of the Corporation at least fifteen days before such meeting.

9. Amendments on any proposition relating to a by-law of which notice has been given to the Members, as hereinbefore provided, may be brought forward at the meeting before which such proposition is intended to be discussed, provided notice of the amendments be sent to the Secretary not less than seven days before such meeting, and provided such amendments are, in the judgment of the Chairman of the meeting, pertinent to the original proposal. The Chairman shall have absolute authority to decide this question. All such amendments shall be read aloud by the Secretary at the commencement of the meeting.

10. Amendments on any other proposition, of which notice has been given to the Members, as hereinbefore provided, may be brought forward at the meeting before which such proposition is intended to be discussed, provided such amendments are, in the judgment of the Chairman of the meeting, pertinent to the original proposal. The Chairman shall have absolute authority to decide this question.

11. All questions at a General Meeting shall be decided by a show of hands, unless a ballot be demanded by six of the Members present, in which case the voting shall be by ballot.

He stated that the principal object of the proposed alterations was to interest the members of the College in the work of the Council, and to enable the general body of the members to exercise a real influence on the election of members of the Council. Under the present By-laws the "house list" recommended by the Council was almost invariably elected year after year, and the ordinary members had little, if any, opportunity of influencing the elections. It was hoped that under the altered conditions embodied in the amended form of Section V. members would be led to take more interest in the election of members of the governing body of the College. With regard to clause 10, under the existing regulations it had practically been impossible for any amendment to be made in any proposition brought forward for discussion at a General Meeting. This entailed manifest practical inconveniences, which the proposed alteration would remove.

The DEAN stated that the new By-laws had been very carefully considered by the Council, and counsel's opinion had been obtained, through the College solicitor, as to their conformity with the provisions of the Charter.

The CHAIRMAN having replied to inquiries as to the precise effect of the proposed alterations, the first resolution was adopted unanimously.

The following resolutions recommending verbal alterations of the existing By-laws were then adopted:—

II. That Section I., clause 3, of the By-laws be amended so as to read as follows:—

This paper must be delivered to the Secretary, and read at the next meeting of the Council: after which it shall be hung up in the Office of the College, and remain there until the Candidate is voted for. Such voting shall take place at the ordinary meeting of the Council held next after the meeting at which the nomination paper was read. No Candidate shall be declared elected unless he or she receive the votes of at least three-fourths of the members of the Council present.

III. That Section VI., clause 7, of the By-laws be amended so as to read as follows:—

At the first meeting of the Council after the first Ordinary General Meeting of the year of the Members of the Corporation, the Treasurer, Dean, Moderators, Examiners, Inspectors, and Revisers shall be elected, and shall hold office until the first meeting of the Council after the first Ordinary General Meeting of the Members of the Corporation in the ensuing year.

The TREASURER then moved the following resolution:—

IV.—That the General Meeting authorize a contribution of five guineas towards the expenses of the International Congress on Moral Education which is to take place in September, 1908.

The CHAIRMAN informed the meeting that the Council had received an invitation to send representatives to the Congress, and had appointed Profs. Adams and Adamson to act in that capacity. It was now proposed that the general meeting should authorize a contribution towards the expenses of the Congress. The resolution was adopted.

A vote of thanks to the Chairman concluded the proceedings.

## ADJOURNED MEETING OF THE COUNCIL.

AN adjourned meeting of the Council was held on July 18. Present: Sir Philip Magnus (President) in the chair; Prof. Adams, Prof. Adamson, Dr. Armitage-Smith, Rev. Canon Bell, Rev. J. B. Blomfield, Mr. Brown, Mr. E. A. Butler, Mr. Eve, Mr. Kelland, Rev. R. Lee, Dr. Maples, Dr. Marx, Mr. Millar-Inglis, Miss Punnett, and Mr. White.

The Secretary reported that the Midsummer Certificate and Lower Forms Examinations had been held on June 30 to July 4 at 151 centres and schools.

Prof. Adams and Prof. Adamson were appointed to represent the College at the International Congress on Moral Education to take place in September.

The following books had been presented to the Library since the last meeting of the Council:—

- By DR. BELA ERÖDI.—Education in Hungary.  
By the DEPARTMENT OF THE INTERIOR, CANADA.—Atlas of Canada.  
By the GENERAL MEDICAL COUNCIL.—Minutes of the General Medical Council, January 1–June 3, 1908.  
By A. & C. BLACK.—Black's Geographical Pictures (Packet No. 1); Frazer's English History from Original Sources, 1485–1603.  
By BLACKIE & SON.—De Communes' Warwick the King-Maker (Blackie's English Texts); Gregory's Geography: Structural, Physical, and Comparative; Labesse's About's Le Turco; Thouaille's Second Course in Colloquial French.  
By W. B. CLIVE.—Matriculation Directory, June, 1908.  
By GINN & Co.—Ravenhill and Jewett's Good Health.  
By MACMILLAN & Co.—Beak's Indexing and Précis Writing; Buller's Washington Irving's Rip Van Winkle, and other Sketches; Dowse's Book of Poetry Illustrative of English History, Part I.; Fowler's Stories from Hawthorne's Wonder Book; Hall and Stevens's School Arithmetic; Tout's Cavendish's Life of Cardinal Wolsey.  
By METHURN & Co.—Asman's Junior Latin Prose; Draper's Jean Valjean; Ingham's La Bouillie au Miel; Jackson's First-Year Physics; Patterson's L'Histoire de Pierre et Camille.  
By G. PHILIP & SON.—Young's Rational Geography, Part III.  
By RIVINGTONS.—Hartog's De Muistre's Les Prisonniers du Caucase; Sandeau's Chez les Sauvages, Souvestre's Le Mari de Madame de Solange, Le Roi de la Montagne d'Or, and Réciets de Guerre et de Révolution; Robeson's Graduated French Exercises.  
Calendars of Edinburgh University and the Royal University of Ireland.

## REVIEWS.

### "THE GOOD DUKE."

*Humphrey, Duke of Gloucester.* A Biography. By K. H. Vickers, M.A., Exeter College, Oxford, Lecturer in Modern History at University College, Bristol; Organizer and Lecturer in London History for the London County Council. (15s. net. Constable.)

"No man," says Mr. Vickers, "has left a greater mark on the progress of English thought than this Duke Humphrey." It is a strong claim, and it is the Duke's highest title to honourable remembrance, though his life was largely spent in war and politics. Humphrey de Lancaster was born in 1390, the fourth son of Henry of Bolingbroke and Mary Bohun, co-heiress of the princely inheritance of the Earls of Hereford and Essex. His father's accession to the throne made him a prince in the line of succession; but during his father's life he does not appear to have taken any definite part in public affairs. His brother's accession brought him a step nearer to the throne, and, when he was created Earl of Pembroke and Duke of Gloucester in 1414, he attained prominence in the State. He was now twenty-three, and "his entire absence from all political functions, and his inactivity, whilst his brothers, little older than himself, had taken an active part in the management of public affairs, suggest the impression that he was not destined for a political career." His first practical experiences were gained in Henry V.'s French war, in which "Humphrey saw not so much a policy as an idea, an idea which he worshipped to the day of his death." Without following his campaigns in detail, we may quote Mr. Vickers's estimate of his military qualities:

Gloucester was an able man and a brave soldier, but he would never have become even a passable commander. Within circumscribed limits he had no equal: there was no captain in the English army who could have surpassed him before Cherbourg, but under no circumstances could he have taken the position which his great brother holds in military history. The natural bent of his mind was inclined to the interests of the moment, and he could never have planned out a campaign, or nursed his men up to a supreme effort, as did Henry on the march to Agincourt. Courage, military skill, and the power to appreciate any situation which confronted him he had in plenty, but in him determination was swallowed up in rashness, and ability fled before constitutional unsteadiness. As a leader of a forlorn hope, or in the performance of a definite piece of



work, he was pre-eminent, but his natural characteristics removed any chance of his being in any sense a general. In his military life, even as later in his stormy political career, he displayed great ingenuity and cleverness; but here, as ever, he lacked that vivifying touch of determination which alone could have moulded the incidents of his life into one concentrated policy.

The estimate is just: the expression of it is a very fair sample of Mr. Vickers's style—clear and readable, but artless and tending to redundancy.

In the end of 1419 Gloucester exchanged the tented field for the Council Chamber: he was launched for the first time into home politics, as "guardian and lieutenant of England," with emphatic instructions to "carry out all matters of governance with the assent of and after deliberation by the Council, and not otherwise." The power of the middle classes was expanding: there were all the outward signs of a great industrial revolution. "It was to the growing powers in England that Humphrey appealed for sympathy and encouragement, to those who were gradually working out the progress of England towards freedom from aristocratic control, to those who were content to ignore the quarrel of prince with prince and noble with noble, while they quietly based the future strength of the kingdom on a wealth born of trade and private exertions." He became "the good Duke" of the middle classes. His first regency was uneventful. The death of Henry V. ended it, and the minority of Henry VI. started the political rivalry of Gloucester and Beaufort—"the one central theme running through every aspect" of Gloucester's future public life. Mr. Vickers signalizes three great influences that had now come "to mould his character and dictate his line of action":

The crusading zeal of his brother Henry had wedded him to the idea of French conquests, without giving him the intellectual force to organize or help such a project. The flight of Jacqueline [of Brabant] to England had thrown in his way one who, appealing to the desire for foreign dominion and roving knight-errantry he inherited from his ancestors, was to draw him away from his ordered line of policy and show up all the weaknesses of his character. The opposition of Beaufort had compelled him to face a new set of circumstances, and had aroused those factious instincts that had hitherto lain dormant. These three facts dominated all his future life. His policy was formed by them, and henceforth he followed whithersoever they led. Little he cared that they did not agree, that to follow one enterprise he must sacrifice the other two endeavours on which he had set his heart. His ruling passion was ambition, but he did not know how to satisfy it. Thus his future life will be found to be consistent in so far as it is governed by one overwhelming desire, but totally inconsistent in detail.

And so, naturally, "the world of politics was the scene of Gloucester's greatest failure." Mr. Vickers narrates fully and perspicuously the ups and downs of the political game, the strange romance of the two wives of Gloucester, and the conflicting stories of the cause of the Duke's death (1447). He cannot make a hero of Humphrey—a man whose heart always ran away with his head. Humphrey was sadly lacking in judgment, in mental balance and stability, in character. Still, there remains a strong impression of his kindness and generosity and personal charm, and Mr. Vickers admits "that Humphrey had many knightly qualities" and did "many actions which may be regarded as creditable, if not great."

Yet "no man has left a greater mark on the progress of English thought than this Duke Humphrey." He was a true child of the Renaissance, "cast far more in the Italian than in the English mould." "In no other Englishman of the time do we find the same love of the ancient classics which characterized Gloucester": his "originality lay in the fact that he looked to the works of the greater and early Romans for his mental food, and therein showed the distinction which lay between the old and new learning." "There was no teacher to point the way for Humphrey, and we must fall back on his inherent originality to explain the phenomenon" of his ardent patronage of the scholars of the new methods. Mr. Vickers reviews his relations to the Italian humanists of his day—"perhaps the most interesting page in his history"—how he corresponded with them, got them to send over books to him, and brought several of them to England to assist him in his studies. "In England, Gloucester was the acknowledged leader in the world of letters, the centre round which native scholar and poet alike revolved, and his patronage was extended to all who took an interest in intellectual pursuits"; and Mr. Vickers devotes a very instructive chapter to the English scholars and poets of Gloucester's following. He sets forth Gloucester's princely benefaction to the University of Oxford—"quite three hundred

volumes"; and he is no doubt right in concluding that "his patronage of Oxford was only one branch of his scholarly activities," for "a large proportion of the books which once belonged to Humphrey, and are still extant, did not form part of his gift to Oxford." Gloucester's tastes in literature were very catholic; and "he not only understood the meaning of the new doctrines, but he paved the way towards their fuller appreciation by the nation as a whole."

Here, then, is a laborious and able study of a remarkable character, interesting as a soldier, as a politician, and as a devotee of learning. The importance of the military and political aspects of his career is overshadowed by his industry in collecting the records of the new learning and his liberality in disseminating the knowledge they contained. Students of history and of literature will combine to thank Mr. Vickers for this most interesting and valuable monograph on the good Duke Humphrey.

#### DR. HAYWARD'S NEW ESSAY.

*Education and the Heredity Spectre.* By F. H. Hayward, D.Lit., M.A., B.Sc. (2s. net. Watts.)

Dr. Hayward's essays are always welcome: they are always characterized by ability, earnestness, and independence. Whether one agrees or vehemently disagrees, one is prodded mercilessly out of comfortable indifference. "The main contentions of the present essay are: (1) that the normal conscience is not a ready-made and unalterable 'faculty,' born good or born bad, as biometricians and others would almost imply, but that (2) moral instruction is necessary for its development, this instruction, whether 'direct' or 'indirect,' being *genuine and significant*." It is "a protest against an entire series of academic ideas that are distracting and deceiving thousands of teachers and depriving their work of much of its value." Accordingly, there is a double battle, together with the usual championship of Herbart.

We must say at once that we doubt gravely the utility and the wisdom of tilting at the biometricians. Not that we are concerned for Dr. Hayward's fate in case Prof. Karl Pearson were to turn upon him and rend him; for when one goes into a fight one of course expects hard knocks, and Prof. Pearson's hand is known to be tolerably heavy. But what is the good of the controversy, from the point of view of the teacher? Whatever the truth or the falsity of the conclusions of the biometricians, it may be taken for granted that they will not effect in our time any essential alteration in our attempts to educate the young: in any event, the teacher will do his best with his material, whether "born good or born bad." Moreover, as we understand the somewhat obscure matter, the biometricians do not contemplate laying any embargo upon teaching. If they say generally that teachers will be successful only so far, yet they cannot lay down the precise limit in any given case, and the teacher will of course go on as far as he finds he can reach—just as he has always done and is doing. At present biometrical science is necessarily tentative: the basis of facts is inevitably limited by the short period of inquiry, by the small number of competent inquirers, and by the restricted extent of the field of inquiry. But so far as the work has gone, it cannot be questioned by any critic that has not equipped himself for his arduous task. Dr. Hayward's jeers at plants and peas as objects of experiment furnishing lessons for human application do seem ill advised. Is not the secret of the success of Canadian farmers to be largely found in their careful selection of wheat grains? Do we not know that within the last century the proportion of sugar per unit of beetroot has been quintupled by reason of skilful selection of seed? Is not the same principle assiduously applied in the breeding of cattle? Even Dr. Barnardo's successful exports of East End children were (though Dr. Hayward does not say so) very carefully selected. Indeed, the argument appears to be decisively in favour of like results in the case of human beings, if human ignorance and perversity did not militate so overwhelmingly against its application. Certainly, in respect of the physical organism. "But," says Dr. Hayward, "far more important than the supposed heredity of a nation is the circle of thought, the atmosphere of ideas, the culture-inheritance into which the individuals of that nation are born." That may or may not be so—it is a comparative estimate; but, if it is so, it does not upset the doctrine of Prof. Pearson, who asks: "If man's physical characters are inherited even as those of the horse, the greyhound, or the water-flea, what reason is there for demanding a special evolution for man's mental and moral side?" Prof. Pearson admits, of course, that "intelligence can be aided and be trained"—which ought to be

enough for Dr. Hayward as an educationist; and when he says that "no training or education can create it—it must be bred," he seems to recognize that the very influences that Dr. Hayward contrasts with heredity go to the eventual, if slow, betterment of the "stock." Does Dr. Hayward contend, against Prof. Pearson, that training or education can "create" intelligence? If so, it is high time he were Minister of Education with a free hand. However, there seem to be misunderstandings, which we do not essay to locate; and we must leave Dr. Hayward to settle the matter with the professed biometricians, believing in the meantime that the biometricians have not the slightest notion of limiting in any way the circle of thought or the atmosphere of ideas, and, consequently, the scope of the teacher's influence upon the pupil. Indeed, we are much mistaken if Dr. Hayward ought not to have been as prompt to annex the biometricians as he is to annex Mr. Keatinge. There are certainly no inquirers that are more anxious than they to improve the quality of the materials that teachers expend their energies in fashioning, and thus to lighten pedagogic labour and to promote pedagogic efficiency.

Throughout the essay, Dr. Hayward lays heavy stress upon "ideas and ideals." In the third chapter—"The Vindication of Herbart"—he points out that "it was precisely Herbart who emphasized the power of ideas." It was Herbart "who showed that 'apperception' was the essential process of the mental life, and 'apperceptive interest' the central concept of education, linking the instruction of the teacher on the one side with the pupil's will and character on the other." By all means, let us insist upon ideas and ideals; but there is no real antagonism between this position and that of the biometricians, nor need there be any conflict between the advocates of ideas and the practitioners of "drawing out." You can draw out and you can fill in. The human boy's mind is to be recognized as an exceedingly complex machine, capable of being affected in very different ways: and strict adherence to one particular mode of handling it is quite certain to prove lamentably inadequate. We are not operating in a region of exact science. Dr. Hayward's fifth chapter is a charming causerie upon a charming and vital book—Prof. Adams's "Herbartian Psychology." Then comes the controverted question of moral instruction, over which Dr. Hayward again wrestles with Prof. Findlay and Mr. Lewis Paton. One sentence, referring generally to "our educational writers," concentrates matter for serious consideration: "They would hound out of a school a teacher who advised boys to steal whisky and drink it; immoral instruction, immoral ideas, they admit to be dangerous; but deliberately to array the same machinery on the side of virtue they allege to be bad pedagogics." There is a poser, requiring specific answer. Do we not all require a wider outlook, a larger recognition of the complexity of the business, and a trained discretion in the application of principles—diverse principles in different situations?

#### MATHEMATICS FOR SCHOOL.

*A School Course of Mathematics.* By David Mair.  
(3s. 6d. Clarendon Press.)

This is a work constructed on somewhat unusual lines, and as such invites very careful consideration by those engaged in educational work connected with mathematics. The writer, in his preface, states the basis of the claim which any mathematical subject must establish if it is to justify its selection for purposes of study. Mathematical knowledge, in order to be valuable from the educational standpoint, must, we are told, be desirable either for its own sake or because the acquisition of it involves an intellectual training that is valuable. The author maintains that the two qualifications are in general possessed by the same portions of the science, and his estimate is probably to a great extent accurate. With a few exceptions, the subjects from which he has chosen matter for discussion are those included in an ordinary mathematical training, and the selected portions are excellently treated. The scheme of the writer requires them to be taken up not separately, but in close combination, the complete course being supposed to be developed gradually in a natural sequence by a series of discussions between master and class. Further, the method is heuristic, and within reasonable time limits the class is intended to discover for itself as much as possible. There can be no doubt that a pupil who has gone through the course intelligently will be equipped with a general mathematical machinery of the first quality. The text-book is perhaps likely to prove more particularly suitable for a boy who is privileged to pursue an ideal course of study, learning mathe-

matics (as he does all else) for its own sake, and not with a view to passing examinations for which candidates have to satisfy the requirements of a cut-and-dried syllabus. When any principle is being developed by Mr. Mair, problems widely different in detail, but involving the same fundamental ideas, are brought together for discussion. It is not to be supposed that the pages of the volume contain *in extenso* the discussions which are requisite for the complete course. In the earlier chapters the matter is dealt with far more fully than in the later ones, where the text is meant to be essentially suggestive. Some of the chapters treat in a most interesting and profitable manner the following subjects: Position in the plane and in space, the science of measurement in its relation to two and to three dimensional problems, the principles of copying full size and to scale, practical problems of varied type, many bearing on applied mathematics, &c. The treatise certainly deserves, and will probably occupy, a permanent place amongst standard text-books.

## GENERAL NOTICES.

### CLASSICS.

*Homeri Opera.* Recognovit brevique adnotatione critica instruxit Thomas W. Allen, Collegii Reginae apud Oxonienses Socius. Tomus III (Odysseae libros I–XII continens); Tomus IV (Odysseae libros XIII–XXIV continens). (2s. 6d. each, paper; 3s. each, cloth. Oxonii: e typographeo Clarendoniano.)

After prolonged and arduous labours in many Continental libraries, Mr. Allen at length presents in these volumes the ripest fruits of textual study of the "Odyssey." He makes due acknowledgment of the "Academiae Oxoniensis munificentia," which facilitated his investigation of the manuscripts; and all classical scholars will add their gratitude to the University. "Vnde fit ut Odysseae codicum qui plusseptuaginta exstant exceptis tribus omnium varietates si non in unoquoque versu tamen in praecipuis locis lectori praebeamus." Probably no other living scholar could have more fitly undertaken or more successfully carried through the work. This edition must remain unchallenged for an indefinite period. The typography is admirable.

"Gildersleeve-Lodge Latin Series" (edited by Prof. Basil L. Gildersleeve, Johns Hopkins University, and Prof. Gonzalez Lodge, Columbia University). — (1) *Heath's Practical Latin Course for Beginners.* By Frank Prescott Moulton, M.A. With a Selection of Extracts from Ovid by J. T. Phillipson, M.A., Head Master of Christ's College, Finchley. (2s. 6d.) (2) *Writing Latin: Book I.* (Second Year Work). By John Edmund Barsa. (1s. 6d.) (3) *Writing Latin: Book II.* (Third and Fourth Year Work). By John Edmund Barsa. (2s. 6d.) (Heath; G. G. Harrap & Co.)

The names of the general editors furnish a strong guarantee for the series. In (1), exposition of grammar and appropriate exercises (with the necessary vocabulary and explanations) run together, and the arrangement of the materials greatly simplifies and facilitates the progress of the student. Reading lessons—Caesar more or less adapted—are introduced at a reasonably early stage, and useful prose selections, as well as Mr. Phillipson's judicious excerpts from Ovid, are added. An outline of the formal grammar and the rules of syntax are resumed in an appendix. There is also a full vocabulary. (2) provides "a rational and systematic treatment of the difficulties which assail a beginner"; "the development of topics has aimed to bring together things naturally associated in the mind, and therefore often confounded." (3) continues the same plan on subjects of greater difficulty. Both (2) and (3) contain plenty of exercises, and each has an ample vocabulary. The series has been very carefully planned and executed, and it promises excellent results.

We gladly welcome a second edition of *The Republic of Plato*, translated into English by A. D. Lindsay, M.A., Fellow of Balliol College, Oxford (2s. 6d. net, Dent). The text has been revised and the introduction has been enlarged, and the publishers have furnished forth the volume in very agreeable style. This is pre-eminently the student's translation. Moreover, the new form should commend it strongly to the general reader.

### MATHEMATICS.

*New Practical Arithmetic: Years I.–VII.* in separate volumes. By W. J. Stainer, B.A. Loud. (Years I.–VI., 3d. each; Year VII., 4d. Teacher's volumes, 8d. net each. George Bell.) *Meiklejohn's Modern Arithmetic.* Books I.–VI. (2d., 2d., 3d., 3d., 4d., 4d.; Answers to each Book, 3d. Meiklejohn & Holden.) *The "A. L." Methodic Arithmetic,* Parts I.–III. By David Thomas. (3d., 4d., 4d.; Answers, 9d. Complete work, 1s. 6d.; with Answers, 2s. E. J. Arnold.)

Each of the above compilations is useful, and each has, besides the good qualities possessed by all, some individual features worth noting. Mr. Stainer's work closely follows the suggestions of Scheme II. issued by the Board of Education. It covers a seven years' course in the elementary school and has for its main object the training of children "to think clearly and systematically" about number, the author wisely

placing the power to do this before the acquirement of skill in the use of processes but imperfectly grasped by the pupils. The ideas of algebra are introduced, though no hard-and-fast line divides algebra from arithmetic, and the name of the former does not appear. The value of squared paper for purposes of practical illustration is suggested, it being usefully pointed out that the ease and small expense with which this article is obtained renders unnecessary the use by one child of what has been handled by another. The teacher's volumes contain (1) hints for teaching, (2) abundance of exercises, (3) the answers to the same. The pupils' books comprise the exercises only.

Prof. Meiklejohn's "Modern Arithmetic" will, when complete, also furnish a seven years' course. Six out of the seven volumes are before us, and the issue of the seventh, which is in progress, will not (we assume) be long delayed. Some of the points on which the author lays special and salutary stress are the analysis and pictorial representation of numbers during the early stages of study, the employment of the unitary method of reasoning, and the clear distinction between the two-fold use of the single process of division, namely, for measuring and for sharing. Further, in dealing with the metric system, the writer bases instruction and practice on examples given in French primary schools.

"The 'A. L.' Methodic Arithmetic" differs in scope from the treatises above considered. It is designed to meet the requirements of the higher classes of elementary schools and the lower forms of secondary schools; also it should serve the purpose of candidates for county scholarship and Local Examinations. Facility is afforded for the revision of earlier work. Care is taken to show how work may be roughly checked, and we need scarcely dwell on the value of checking, both as an aid to the ensuring of accuracy and as a means of saving time and labour. Importance is attached to the logical treatment of vulgar fractions, and we are glad to find that in the simplification of complicated fractional expressions the author gives the whole expression at each successive step and requires careful attention to be paid to the correct use of the sign of equality.

*A First Year's Course in Geometry and Physics.* By Ernest Young, B.Sc. (Complete, 2s. 6d.; Parts I. and II. in one volume, 1s. 6d.; Part III., 1s. George Bell.)

We have before us the complete work. Parts I. and II. dealing with elementary geometry have already been noticed in these columns. Part III. is a good introduction to the subject of physics. The pupil is made acquainted with a number of useful facts and first principles and taught how to perform a variety of simple experiments. Plenty of problems culled from the question papers set at preliminary and junior public examinations are proposed as exercises for the pupils.

#### SCIENCE.

*The Theory of Light: a Treatise on Physical Optics.* By Richard C. Maclaurin, M.A., LL.D., formerly Fellow of St. John's College, Cambridge, Professor of Mathematics and Mathematical Physics, Wellington, New Zealand. In three Parts. Part I. (9s. net. Cambridge University Press.)

Prof. Maclaurin now presents the first of three volumes of a treatise that is intended to give a systematic and reasonably complete account of the theory of physical optics. The present volume "embodies in a modified form the substance" of a series of papers contributed by him in recent years to the proceedings of the Royal Society. The first chapter is devoted to a systematic and searching examination of the scope and the method of inquiry, which will be specially suggestive to students, for whom, indeed, it is mainly intended: "it is not easy to exaggerate the importance of understanding clearly what we are really aiming at." After a review of preliminary ideas, the work treats systematically of the propagation of light in different media, transparent and absorbing. "A special feature of the work is the careful comparison between theory and experiment at every stage"—and a most valuable feature it is. The exposition is lucid, vigorous, and fresh, and will be extremely useful to students. The foundation for the superstructure of the succeeding volumes is well and truly laid. There are 134 figures.

*Magnetism and Electricity, and the Principles of Electrical Measurement.* By S. S. Richardson, B.Sc., A.R.C.Sc. Lond., Lecturer in Physics, Municipal Technical School, Liverpool. (5s. net. Blackie.)

Mr. Richardson furnishes "a sound and systematic course of study in the main principles of electricity and electrical measurement." A preliminary first year's course is for the most part presumed; and the work aims at meeting the needs of students preparing for the Board of Education Examinations Stage II. (Day and Evening), the University Intermediate (Pass and Honours), or other examinations of a similar standard. The exposition is very carefully progressive and clear; experiments are described in illustration and confirmation of principles; numerous examples are worked out; and numerous exercises are appended to chapters, the numerical answers being given at the end of the book. The work is thoughtful and practical, and will prove a great boon to students. There are 254 figures.

*The Complete School Chemistry.* By F. M. Oldham, B.A., Senior Chemistry Master at Dulwich College. Illustrated by F. C. Boon, B.A., Assistant Master at Dulwich College. (4s. 6d. Methuen.) ("Text Books of Science.")

The book is "complete" in the sense of containing all that is usually taught in schools on its subject. It provides "a general elementary

course suitable for candidates for the London Matriculation and Army Entrance Examinations"; and, if it thus teaches rather more than is absolutely necessary for either, yet a course of sound instruction would include the excess in both cases. The experiments (over 200 in all) are placed in the foreground of each chapter; then follows the theoretical work in continuous and systematic exposition; and there is an abundance of worked-out examples and of practical exercises. Questions and examination papers are appended. There are 126 figures. The work is thorough, judicious, and practical.

#### ENGLISH LITERATURE.

"The Types of English Literature." (Edited by Prof. William Allan Neilson, of Harvard University).—*The Popular Ballad.* By Francis B. Gummere, Professor of English in Haverford College. (6s. net. London: Constable. Boston and New York: Houghton, Mifflin, & Co.)

We are well accustomed to the treatment of English Literature in chronological periods. The idea of Prof. Neilson's new series, of which the present is the first volume, is "to attempt the division of the field along vertical instead of horizontal lines"—"to devote each volume to the consideration of the characteristics of a single formal type, to describe its origins and the foreign influences that have affected it, and to estimate the literary value and historical importance of all the chief specimens that have been produced in England and America." In the list of other volumes "in preparation," we have, for example, "The Pastoral," "The Allegory," "The Essay," "The Masque," "The Novel," "Literary Criticism," and so forth. The principle is excellent, and the names connected with the volumes already announced give hopeful promise of effective treatment. Prof. Gummere, who has long been known as a diligent student of the Ballads and has sat at the feet of F. J. Child, gives his colleagues a vigorous lead. In four chapters, with appropriate subdivisions, he discusses the definition and the origins of the Ballad, classifies and comments on the Ballads, examines their sources, and estimates their worth. We cannot regard his elaborate argument for the "popular" origin as yet convincing, though one must, of course, admit "improvisation under choral conditions," and take account of the practices adduced from Siberia, the Faroe Islands, and elsewhere. At the same time, it is very full and instructive. The treatment throughout is comprehensive and scholarly. But what of Mr. Hardy's "account of the mother *Durbyfield* singing ballads which daughter Tess . . . disdains"?

*The Foreign Debt of English Literature.* By T. G. Tucker, Litt.D., Professor of Classical Philology in the University of Melbourne. (6s. net. George Bell.)

Prof. Tucker makes but modest claims in respect of this work. He calls his chapters "unpretentious," and says they "are intended to offer to the ordinary student, who has not yet given the matter any particular thought, a first assistance in realizing the interdependence of literatures." If they are as clear as the inevitable compression permits, fairly adequate as epitomes, and readable, then "their purpose is served." It does not need much consideration to grant Prof. Tucker's claims in full; and yet, as he has gone so far, one cannot but wish that he had gone further. The best chapters are those on Greek and Latin literature; the chapters on the literary currents of the Dark Ages, and on French and Italian literature, though independent, seem less fresh and suggestive. The final chapter summarizes minor influences—Spanish, German, Celtic, and Hebrew. We should have liked more definite explanations of the mode and degree of the more important influences exerted. However, the summaries of foreign literatures, together with such indications of their impression on English writers as are vouchsafed, will no doubt have the effect of putting readers on inquiry. Nine synoptical tables, referring to the various literatures either generally or in some special aspect, will be very helpful for comparison and reference. The style is fluent and agreeable. The chief limit to the usefulness of the book will be the extent of the reader's inacquaintance with the writers and the writings under discussion; but that is not the author's affair.

#### MODERN FOREIGN LANGUAGES.

*Real Sistema Británico: Novísima Gramática Simplificada de la Lengua Inglesa.* Por C. J. MacConnell, Catedrático Londinense. (5s. net. David Nutt.)

Mr. MacConnell has prepared a "curso completo, gradual, ordenado en lecciones teórico-prácticas" on the English language "para colegios y especialmente para los estudiantes que no puedan contar con el auxilio del maestro." The first section handles at considerable length the troublesome matters of orthography; the second section treats the parts of speech in fullness of detail; the third section deals with commercial correspondence by exemplary documents (in English on one page, in Spanish on the opposite page); and there are useful supplementary points in an appendix. In the strictly grammatical section the exposition is very thorough, and it is illustrated and enforced by an ample series of judicious exercises. Englishmen may learn Spanish from the volume, as well as Spaniards English. It is a very substantial and sound work, and it is excellently printed and got up.

*Per Istrada Aperte: New Practical Method of Learning the Italian Language.* By P. J. van den Berg. Part I. (3s. net. Oxford: Parker.)

Mr. van den Berg takes a passage of a sentence or two, decomposes it.

giving the equivalent of each of the words in it, and then works up this material in a brief conversational repetition. The grammar is thus spontaneously evolved, while the fundamental principle of getting to know more and more words is going forward. The full development of the method will require two more volumes. Although each group, or passage, handled exemplifies some rule of grammar, there is all but inevitably some sacrifice of system; but, on the other hand, the student is at once led to work in the living language with a certain inspiring actuality. There is no English in the volume, except the vocabulary equivalents. The plan is good so far as it goes, and it is carefully and elaborately worked out, but we should think that the collateral use of a formal grammar would be greatly helpful for a scholarly grasp of the language. There are a good few misprints—made in Holland.

#### MISCELLANEOUS.

The Great Eastern Railway Company issues a new handbook, *East Coast Holidays*, by Percy Lindley, furnishing all necessary information, and giving special prominence to some less known districts. There are numerous illustrations. (Published at 30 Fleet Street, E.C.)

The University of London (South Kensington, S.W.) has just published *The Libraries of London: a Guide for Students* (6d. net; post free, 9d.), prepared on the instruction of the Senate by Reginald A. Rye, Goldsmiths' Librarian. It will be extremely useful in "making known to Londoners in general and to students of the University in particular the character of the numerous libraries in London and the facilities which they offer to readers."

B. G. Teubner's *Verlag auf dem Gebiete der Mathematik, Naturwissenschaften und Technik, nebst Grenzwissenschaften* (Leipzig und Berlin: B.G. Teubner) makes a very considerable volume—a detailed catalogue that will interest scientific, and especially mathematical, students. It impresses the immense enterprise of the famous publishing house. There are ten full-page portraits of eminent mathematicians, of whom Cantor and Helbert are perhaps the best known in this country—excepting always Galileo, who has the just honour of the frontispiece.

#### FIRST GLANCES.

##### CLASSICS.

*Compendium Latinum*. By W. F. Witton, M.A., formerly Scholar of Gonville and Caius College, Cambridge, Classical Master at St. Olave's Grammar School. 2s. 6d. Edward Arnold.

[For boys starting about twelve or thirteen and working only some three or four years. Study of syntax the central idea.]

*Erasmus, Altera Colloquia Latina* from. By G. M. Edwards, M.A., Fellow and Lecturer of Sidney Sussex College, Cambridge. 1s. 6d. Cambridge University Press.

[Capital selections; judicious notes; vocabulary.]

*Greek Reader, A*. By W. H. D. Rouse, Litt.D., Head Master of the Perse Grammar School, Cambridge, and Cambridge University Teacher of Sanskrit. 2s. 6d. net. Blackie.

[Pieces of simple verse; simple narratives and dialogues in prose; pieces bearing on the daily life of the Greeks. Very good selection.]

Hall, Joseph: *Mundus Alter et Idem* (An Old World and a New). Edited for School use by H. J. Anderson, M.A., Inspector of Training Colleges in Cape Colony, late Classical Master, Hillhead High School, Glasgow. 2s. George Bell.

[Good collateral reading. Introduction, notes, index of proper names, and full vocabulary. Very carefully and capably edited.]

##### MATHEMATICS.

*Arithmetic, A School*. By H. S. Hall, M.A., and F. H. Stevens, M.A. 4s. 6d. Macmillan.

[“Suited to modern requirements, and in accordance with the recommendations of the Mathematical Association.” Essentials; many special features. Answers.]

*Arithmetic, Practical, The Teaching of, to Junior Classes*. By J. L. Martin, Head Master of the Aderoft School, Trowbridge. 2s. 6d. Harrap.

[“A manual for teachers.” Numerous diagrams.]

*Arithmetics, The Oxford Elementary*. By H. A. Jamieson, M.A., Head Master of the Mathematical Department, Ayr Academy. Books I., II., III., 2d. each; Teachers' Books, I. and II., 6d. net each. Frowde; Hodder & Stoughton.

*Cambridge Tracts in Mathematics and Mathematical Physics*. No. 8, *The Elementary Theory of the Symmetrical Optical Instrument*. By J. G. Leathem, M.A., Fellow and Lecturer of St. John's College and University Lecturer in Mathematics, Cambridge. 2s. 6d. net. Clay (Cambridge University Press Warehouse).

*Groups of Finite Order, An Introduction to the Theory of*. By Harold Hilton, M.A., Lecturer in Mathematics at Bedford College, formerly Fellow of Magdalen College, Oxford, and Assistant Mathematical Lecturer, University College, Bangor. 14s. net. Clarendon Press.

[Numerous exercises; hints for solution appended.]

##### FRENCH.

Blackie's Longer French Texts.—(1) *Le Zouave* and *La Montre de Gertrude* (Deslys); (2) *Contes à Ma Sœur* (Jeanne D'Arc, La Souris Blanche, Les Petits Souliers) (Moreau): both edited by Louis A. Barbé, B.A. (3) *Les Aventures du Dernier Abencerrage* (Chateaubriand), edited by Albert Noblet, B. es A., Assistant Master at Quernmore School. (4) *Le Roi des Montagnes* (About), edited by James P. Park. (5) *Le Bourreau de Charles Premier* (Dumas), adapted from “Vingt Ans Après,” by K. C. Auchmuty, M.A., Bele School, Sunderland. 8d. each.

[A new and excellent series of continuous readings from modern French literature, liberally printed and agreeably and substantially got up. Adequate notes, questionnaire, phrase-lists, vocabulary.]

Dent's Short French Readers (Modern Language Series). Edited by W. Osborne Brigstocke. (1) *Un Episode sous la Terreur* (Balzac). Edited by C. F. Shearson, M.A., The High School, Exeter. (2) *Histoire d'un Merle Blanc* (A. de Musset). Edited by A. P. Guitou, B. es Sc. Paris. (3) *Le Monde où l'on se bat* (4 extracts from Voltaire, De Vigny, Mérimée, Thierry). Edited by B. E. Allpress, B.A., late Scholar of Girton College, Graham Street School, S.W. (4) *Poncinet* (ed. Laboulaye). Edited by F. W. Odgers, M.A., Royal Naval College, Greenwich. 4d. each.

[Each reader is divided into sections (from a dozen to a score), and each section is followed by “exercices” founded upon it. Brief foot-notes. Readings varied and excellent. Type and get-up very agreeable.]

Ginn's International Modern Language Series.—(1) *Les Prisonniers du Caucase* (X. de Maistre), edited by C. Wesley Robson, A.B. 1s. 6d. (2) *Carmen* and other Stories (Mérimée), edited by Edward Munley, Englewood High School, Chicago. 3s. (3) *Polyeucte, Martyr* (P. Corneille), edited by George N. Henning, Professor of Romance Languages, The George Washington University. 2s.

[(1) Short introduction and notes; questions and exercises; vocabulary. (2) Short biographical and literary introduction; sufficient notes; vocabulary. (3) Full introduction; useful notes; sujets de compositions, &c.—Good examples of a very agreeable and useful series.]

Murray's French Texts. Edited by W. G. Hartog, B.A. Lond., Lecturer in French at University College, London. (1) *La Mare au Diable* (G. Sand). (2) *Confessions d'un Ouvrier* (Souvestre). 1s. 6d. each.

[For upper and middle forms. Biography, foot-notes, exercises. Excellent reading, good type, substantial get-up.]

Rivington's Direct Method French Texts. General Editor, W. G. Hartog, B.A.—Beginners' Texts: (1) *Nouvelles et Anecdotes*; (2) *La Belle au Bois Dormant* et *Le Chat Botté*; (3) *Historiettes*; (4) *Huit Contes* (par Mlle. Marie Minssen); (5) *Hansel et Gretel*; (6) *Le Roi de la Montagne d'Or*.—Junior Texts: (1) *Les Prisonniers du Caucase* (X. de Maistre).—Intermediate Texts: (1) *Le Mari de Madame de Solange* (Souvestre). 1s. each volume.

[Good matter; notes, exercises (oral and written, in French), passages for retranslation, questionnaires, illustrations. Agreeable and useful series; good type; strong get-up.]

##### GERMAN.

*Course, A First German*. By J. B. Joerg, B.A. Lond. and Bonn, Head of the Army Classes and Senior Modern Language Master, Dulwich College, and J. A. Joerg, Head of the Modern Side, Dulwich College. Illustrated by K. M. Roberts. 1s. 6d. Cassell.

[Judicious arrangement of grammar, exercises, *Fragen*, &c. Method “a middle course between the old system and the new one.” Materials ample. Vocabulary. Practical and efficient.]

*Dichtung, Kurzer Leitfaden der deutschen*. By A. E. Cop, German Instructor at the Church of England Girls' Grammar School, Melbourne. 2s. 6d. George Bell.

[Concise, but clear and well proportioned. Very serviceable. Map of Germany.]

*Lehr- und Übungsbuch der deutschen Sprache*. Von Dr. E. Bardeys. Vierte, verbesserte Auflage von Prof. Dr. O. Weise. M. 2 Teubner.

[“Vollständige Elementargrammatik.” Specialty “liegt besonders in der grossen Menge und in der Art und Weise der gestellten Ausgaben.” Deservedly successful.]

*Picture Vocabulary, Rippmann's—German: Second Series*. 1s. 4d. Dent. (“Modern Language Series.”)

[“An attempt has been made to classify the common objects of civilized life, so that the words may be learnt in a systematic way.” Interesting experiment, laboriously and ingeniously worked out.]

*Reader, A German, for Middle Forms*. Compiled by W. Scholle, Ph.D., Lecturer in French, Aberdeen University, and George Smith, M.A., LL.D., Principal of Aberdeen U.F.C. Training College and Examiner in Education, Aberdeen University. 2s. 6d. Blackie.

[Progressive and varied (Erzählungen und Sagen; Deutsche Geschichte, Geographie, Literatur, u.s.w.). Vocabulary. Attractive and useful.]

Messrs. SISLEY'S Great New Educational Enterprise.

THE

Read this page and save 2/6 on your Subscription.

# CYCLOPÆDIA MAGAZINE

**IS something new in encyclopædias, and something new in magazines as well.** Nothing at all like it has ever been published before, and it is the outcome of long thought and much labour in developing an original idea. That idea is to produce month by month a work of reference which shall be as informative and as accurate as the best encyclopædia, but as bright and interesting as the best magazines of to-day.

¶ Unlike most encyclopædias, however, it will be **thoroughly abreast of the times**, and this is ensured by the plan of monthly publication, which will enable its editors to include in each issue facts and knowledge that are actually red-hot and absolutely fresh. For instance, the newest discoveries in Science or Nature; the current developments in Art or Literature; the latest ideas of Inventive Genius; the most recent thought of great minds, and biographies of those men and women who are at the moment in the public eye, will have their place in each issue of *The Cyclopædia Magazine*. **Every item of information being revised up to the very moment of going to press, the knowledge imparted to the reader can never be obsolete**, as so much of the contents of most encyclopædias is before the volume or volumes reach the public. *The Cyclopædia Magazine* must always be up-to-date, always correct.

¶ It will form a **complete encyclopædic record of the world's progress in Science, Art, Literature, Invention, Travel, Exploration and Research, Military and Naval Affairs, Politics, Religious and Social Movements, Music, and the Drama.** The arrangement of the information it contains is strictly alphabetical, and identical with that of the best encyclopædias; it is printed in clear, readable type, and of course each monthly part is intended to be carefully preserved for reference and bound in one volume at the end of a year. It will be **fully illustrated by photographs, engravings, portraits, plans, maps, and diagrams.**

¶ There is practically no subject under the sun which will not be dealt with month by month in *The Cyclopædia Magazine*. Its scope is world-wide, and every article in its pages will be authoritative as well as up-to-date and written in attractive style, clearly and brightly. **There will not be a dull page in it, though it will teem with facts and be a storehouse of educational information.** It will be found indispensable to the man or woman who wishes to be well informed and perfectly *au courant* with contemporary knowledge, which can be assimilated easily without loss of time and at a minimum outlay.

## Unique Half-Price Offer to the First 10,000 Subscribers

¶ The regular subscription to *The Cyclopædia Magazine* has been fixed at Five Shillings per annum, payable in advance. This is a most moderate sum for such a wonderful mine of useful, up-to-date knowledge; but, in order to make their new enterprise very widely known and appreciated, the publishers are prepared to make **A SPECIAL REDUCTION OF ONE-HALF THE SUBSCRIPTION** to the first 10,000 sent in on the attached coupon. For this half-price subscription of only Half-a-crown (2/6), *The Cyclopædia Magazine* will be sent to any address in the World, for a whole year, without any charge for carriage. **THIS LIBERAL OFFER** can only remain open **FOR A SHORT TIME and TO THE FIRST 10,000 SUBSCRIBERS** who send direct to us on the coupon below. Afterwards the full subscription of Five Shillings must be charged. It is important, therefore, if you wish to **SAVE HALF-A-CROWN** on your year's subscription to *The Cyclopædia Magazine*, that you should act promptly. If you send **IMMEDIATELY ON THE SPECIAL COUPON** below these lines, you will be certain to secure this unique money-saving privilege. Delays are proverbially dangerous, so you would be wise to subscribe at once, while it is fresh in your memory.

¶ Unlike the too prevalent "instalment" systems of payment, the subscriber under our plan knows exactly what his liability is. You are not asked to pay so much down, with an indefinite number of instalments to come; but once this small yearly subscription is paid, *The Cyclopædia Magazine* will reach you regularly every month for twelve months without any further trouble or expense to you. Think what our offer means—**ONLY AN OUTLAY AT THE RATE OF 2½d. A MONTH**—and make certain of being among the 10,000 fortunate people who will receive *The Cyclopædia Magazine* at this half-price subscription, by filling up the attached coupon and sending it with remittance immediately.

### "EDUCATIONAL TIMES" HALF-PRICE SUBSCRIPTION COUPON

To be cut off and enclosed in an envelope, with remittance, addressed to

MESSRS. SISLEY'S LTD., Publishers of *The Cyclopædia Magazine*,  
9 DUKE STREET, CHARING CROSS, LONDON.

I avail myself of your special offer to send **THE CYCLOPÆDIA MAGAZINE** once a month for twelve months, carriage paid, for half the usual subscription of 5/-, and I enclose postal order, value **TWO SHILLINGS AND SIXPENCE**, for same.

Name .....

Full Address .....

ENGLISH LITERATURE.

“A.L.” Masterpieces of Standard Literature (Edited by Alfonso Gardiner).—No. 1, The Cloister and the Hearth (Charles Reade), prepared by Miss E. M. Boyce, L.L.A. 1s. E. J. Arnold.

[New series of Continuous Readers. Well printed and strongly bound. Introduction; notes (with illustrations); glossary. Frontispiece (Erasmus). Excellent. “All references which might hurt the susceptibilities of Roman Catholics have been excluded.”]

Bell’s English Texts for Secondary Schools (General Editor: A. Guthkelch, M.A.). First Year: The Wonder Book and Tanglewood Tales (Hawthorne): a selection, edited by H. Hampshire, 1s. Second Year: (1) A Legend of Montrose (Scott), abridged and edited by F. C. Luckhurst, Assistant Master, Sir Walter St. John’s School, Battersea, 1s.; (2) The Cloister and the Hearth (Charles Reade), abridged and edited by the Rev. A. E. Hall, B.A., Assistant Master, Bancroft’s School, 1s. Third Year: The Ancient Mariner, and Selected Old English Ballads, edited by A. Guthkelch, M.A., 1s. Fourth Year: English Odes, selected and edited by E. A. J. Marsh, M.A., Assistant Master, Hanley Secondary Schools, 1s.

[Capable edited and nicely got up. Introductions and brief notes. Very agreeable series.]

Longmans’ Class-Books of English Literature.—(1) Robinson Crusoe (Defoe), edited by T. W. Silverdale, Senior Inspector of Schools. 1s. 4d. (2) A Christmas Carol (Dickens), edited by E. Gordon Browne, M.A., Assistant Inspector of Elementary Schools, Liverpool Education Committee. 1s. (3) Tanglewood Tales (Hawthorne), edited by Guy Kendall, M.A. 1s. (4) Gods and Heroes of the North, by Alice Zimmern. 1s. (5) Quentin Durward (Scott), with short biography by Andrew Lang, and introduction and notes by J. Thornton, M.A. 1s. (6) A Wonder Book (Hawthorne), with introduction and notes by Ada Perry. 1s.

[(1) Biographical introduction; brief but useful notes; questions; good illustrations. (2) (3) (5) and (6) Adequate introduction and notes. (4) Brief explanatory notes; illustrations. Liberal type and strong binding. Excellent series.]

Macmillan’s English Literature for Secondary Schools (General Editor, J. H. Fowler, M.A.). First Year: Stories from a Wonder-Book for Girls and Boys (Hawthorne), edited by J. H. Fowler, M.A. Second Year: A Book of Poetry illustrative of English History, Part I. (A.D. 61–1485), edited by G. Dowse, B.A., Assistant Master in Pre-ton Grammar School. Third Year: The Life of Cardinal Wolsey, by George Cavendish, his Gentleman Usher, edited by Mary Tout, sometime Jones Fellow in History in the University of Manchester. Fourth Year: (1) The Age of the Antonines (Gibbon’s History, Chapters I.–III.), edited by J. H. Fowler, M.A. (2) Seventeenth Century Prose, selected and edited by Elizabeth Lee. 1s. each.

[Sufficient introductions; brief notes; glossary (where needed); questions, &c. Excellent series.]

Rulife Brothers.—The Heroes (C. Kingsley). 1s. 6d.

[Notes, brief and pointed, by F. Gorse, M.A. Good illustrations. Substantially and tastefully got up.]

Yonge, Charlotte M. (1) The Prince and the Page, a Story of the Last Crusade. (2) The Little Duke: Richard the Fearless. (3) The Lances of Lynwood. 1s. net each. Macmillan.

EDUCATION.

Board of Education. (1) List of Persons who have passed the Preliminary Examination for the Elementary School Teachers’ Certificate, 1908. 6d. (2) Regulations for the Training of Teachers for Elementary Schools (from August 1, 1908). Cd. 4169. 7d. (3) Code of Regulations for Public Elementary Schools in England (excluding Wales and Monmouthshire), with Schedules. Cd. 4158. (3d.) (4) Scheme for a new Teachers’ Registration Council. Cd. 4185. 2½d. (5) Regulations for the Training of Teachers for Secondary Schools. Cd. 4184. 1d. (6) Regulations for the Training of Teachers of Domestic Subjects (from August 1). Cd. 4173. 1½d. Wyman.

Carnegie Foundation for the Advancement of Teaching. Bulletin 2: The Financial Status of the Professor in America and in Germany. Johns Hopkins University Circular. No. 6 (June); Register of the University, 1907–8. No. 8 (July), Programme of Courses for 1908–9; Conferring of Degrees; Notes in Mathematics.

L.C.C.—(1) Report of the Educational Adviser on the Training of Mentally Defective Children in Germany. No. 1163. 6d. (2) Report of the Educational Adviser on the Instruction of, and the Nature of the Accommodation for, Epileptic Children in Great Britain and Abroad. No. 1165. 6d. (3) Report of the Educational Adviser on the Trade Training of the Blind in Germany. No. 1166. 4d. P. S. King.

National Union of Teachers. Report for 1908. 1s. N.U.T. Offices (67 and 71 Russell Square, W.C.).

Ontario: Report of the Minister of Education for 1907. Toronto: L. K. Cameron.

[Very full and instructive, numerous illustrations.]

Wales (University of) Matriculation Guide. By A. W. Parry, B.A. Wales, B.Sc. Lond. Normal Correspondence College.

MATHEMATICS.

EDITORIAL NOTE.

In reply to a correspondent, we wish to say that we sincerely regret that the varied interests of these columns, and of the contributors considered collectively, render it absolutely impossible to comply with all the wishes of each contributor. These are, however, duly noted.

A Proof of Feuerbach’s Theorem.

By M. T. NARANIENGAR, M.A.

Geometrical Method.

(I.) Lemma.—Let IL be drawn perpendicular to OD and OX perpendicular to AD’. Make DD’’ = DD’. Then D’I<sup>2</sup> = D’O.D’D’’ ..... (1),

$$D’X.D’I = D’O.D’L ..... (2),$$

therefore

$$D’I : D’X = D’D’’ : D’L ... (3).$$

Hence LX is parallel to D’I.

Again, if N be the nine-point centre, and XN meets ID’’ in P, DN = ½R and is parallel to OA, and NX is parallel to OD. Thus

$$NX = DD’ - DN = PX - PN = LD’’ - PN;$$

therefore PN = DN - DL = ½R - r.

(II.) Draw NR parallel to OF to meet IF’’, then, as before,

$$NR = ½R - r.$$

Now, AI touches the circle OID’’;

therefore ∠AID’’ = ∠IOD’’.

Similarly, ∠CIF’’ = ∠IOF’’;

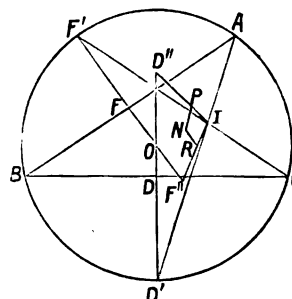
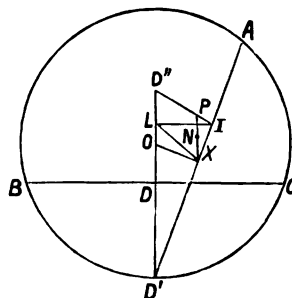
therefore, by addition,

$$\begin{aligned} \angle AID'' + \angle CIF'' &= \angle D''OF'' = \pi - \angle B \\ &= \angle AIF' + \angle CID'. \end{aligned}$$

Hence

$$\angle D'IF'' = \angle D'IF' = \pi - \frac{1}{2} \angle PNR.$$

Thus I is at the circumference of a circle of which N is the centre and radius = NP or NR; that is, NI = ½R - r.



[Rest in Reprint.]

16386. (A. M. NESBITT, M.A.)—If every element in the r-th row of a determinant of order n be 1/r<sup>2</sup>, except that in the principal diagonal which is 1 + 1/r<sup>2</sup>, then, if n be indefinitely increased, the limiting value of the determinant will be 1 + π<sup>2</sup>/6.

Solution by the PROPOSER.

Denote 1/n<sup>2</sup> by φn. Then the determinant

$$\begin{vmatrix} 1 + \phi n & \phi n \\ \phi(n-1) & 1 + \phi(n-1) \end{vmatrix}$$

is

$$1 + \phi(n-1) + \phi n;$$

the determinant

$$\begin{vmatrix} 1 + \phi n & \phi n & \phi n \\ \phi(n-1) & 1 + \phi(n-1) & \phi(n-1) \\ \phi(n-2) & \phi(n-2) & 1 + \phi(n-2) \end{vmatrix}$$

is

$$1 + \phi(n-2) + \phi(n-1) + \phi n, \dots$$

Hence the proposed determinant of order n is

$$1 + \sum_{r=1}^{n-1} (1/r^2).$$

Making n infinite, the required result follows.

16441. (Professor SANJANA, M.A.)—Prove that 3<sup>111</sup> + 1 is the product of the factors

$$4; 7; 223; 2,019,210,335,106,439;$$

and 12<sup>46</sup> + 1 of

$$7; 13; 19; 31; 421; 1,657; 1,801; 19,141; 35,671; 8,554,703,697,721; 9,298,142,299,081.$$

Solution by Lt.-Col. ALLAN CUNNINGHAM, R.E.

These two large numbers may be factorized (to the extent asked for) by the property of the Trin-Aurifeullian

$$T = (y^2 + 1)/(y + 1) = (y - 3\eta + 1)(y + 3\eta + 1),$$

where  $y = 3\eta^2$ .

(i.)  $N = (3^{111} + 1) = (3^3 + 1) A \cdot B = 4 \cdot 7A \cdot B,$   
 where  $B = \frac{(3^{37} + 1)}{3 + 1} = 112,570,976,472,749,341 ;$   
 $A = \frac{3^{111} + 1}{3^{37} + 1} \cdot \frac{3 + 1}{3^3 + 1} = \frac{1}{2} \cdot T.$

Now take  $y = 3^{37} = 3(3^{18})^2$ , so that  $\eta = 3^{18}$ .  
 Then  $T = (3^{37} - 3^{18} + 1)(3^{37} + 3^{18} + 1) = L \cdot M$ , suppose,  
 and  $A = \frac{1}{2}T = L(\frac{1}{2}M).$   
 Reuschle's *Neue Zahlentheoretische Tabellen*, &c. (1856) give 223 as a factor of  $(3^{111} + 1)$ , and it is found (on trial) to divide into L. Hence  
 $A = 223(\frac{1}{2} \cdot \frac{1}{3}L)(\frac{1}{2}M),$   
 whence  $A = 223 \cdot 2,019,210,335,106,439 \cdot 64,926,272,436,179,833,$   
 which completes the factorization asked for. Lastly, the three large factors of A, B shown above have no more factors <10,000; this is known from a Table of Haupt-Exponents of 2, 3, 5, 6, 7, 10, 11, 12 for all primes <10,000, computed by the writer and Mr. H. J. Woodall.

(ii.)  $N = (12^{15} + 1) = (1728^{15} + 1)$   
 $= \left( \frac{1728^{15} + 1}{1728^5 + 1} \cdot \frac{1728^5 + 1}{1728^3 + 1} \right) \frac{1728^3 + 1}{1728 + 1} (12^{15} + 1) = (T_5 \cdot 1/T_1) T_1 (12^{15} + 1),$   
 suppose.

The factorization of  $(12^{15} + 1)$  may be taken from Bickmore's Table in *Messenger of Mathematics*, Vol. xxv. (1895), p. 44, as being  
 $12^{15} + 1 = 13(7 \cdot 19) 19141(31 \cdot 421 \cdot 35671).$

$T_1$  is also given in Bickmore's Tables quoted, but is here required in a special form. Take  $y_1 = 1728 = 12^3 = 3(2 \cdot 12)^2$ , so that  $\eta_1 = 2 \cdot 12$ . Then

$T_1 = \frac{1728^3 + 1}{1728 + 1} = (12^3 - 6 \cdot 12 + 1)(12^3 + 6 \cdot 12 + 1) = L_1 \cdot M_1$ , suppose,  
 $= 1657 \cdot 1801.$

Next take  $y_5 = 1728^5 = 12^{15} = 3(2 \cdot 12^7)^2$ , so that  $\eta_5 = 2 \cdot 12^7$ . Then  
 $T_5 = \frac{1728^{15} + 1}{1728^5 + 1} = (12^{15} - 6 \cdot 12^7 + 1)(12^{15} + 6 \cdot 12^7 + 1) = L_5 \cdot M_5$ , suppose.

Hence  $\frac{T_5}{T_1} = \frac{L_5 \cdot M_5}{M_1 \cdot L_1} = L' \cdot M'$ , suppose.

On actual trial it is found that  $M_1$  divides into  $L_5$ , and  $L_1$  into  $M_5$ ; and, on effecting the divisions algebraically, it is found that  $L', M'$  may be written in forms  $L' = L_5 \div M_1 = (P' - Q')$ ,  $M' = M_5 \div L_1 = (P' + Q')$ , where  $P' = (12^{12} + 2 \cdot 12^9 + 12^6 + 2 \cdot 12^3 + 1)$ ,  $Q' = 6(12^{10} + 12^7 + 12^4)$ .

The author's Haupt-Exponent Table quoted gives the divisor 181, and shows no more divisors <10,000; and, a Table of Solutions of the congruence  $(y^{15} + 1)(y + 1) \div (y^3 + 1)(y^5 + 1) \equiv 0 \pmod{p}$ , compiled by the writer, shows that there are no more divisors <15,000. Effecting the divisions, &c.,

$T_5 + T_1 = L' \cdot M' = (181 \cdot 47,263,556,341)(9,298,142,299,081).$   
 This differs from the Proposer's result only in that the large factor  $L'$  has been here partially factorized.

16336. (M. V. ARUNACHALAN, M.A.)—Solve  
 $\frac{2(1-ab)x}{x+1} = \frac{(1-a^2)(x+y)}{y+1}, \quad \frac{2(1-ab)y}{y+1} = \frac{(1-b^2)(x+y)}{x+1}.$

Note by the Proposer.

Professor M. T. Naraniengar, M.A., seems to have given a solution (May, 1908) to my question No. 16336 as proposed originally. This solution does not hold for the altered question. The following seems to be a nice solution of the equations:—

The given equations are  
 $\frac{2(1-ab)x}{x+1} = \frac{(1-a^2)(x+y)}{y+1} \dots\dots\dots (1),$   
 $\frac{2(1-ab)y}{y+1} = \frac{(1-b^2)(x+y)}{x+1} \dots\dots\dots (2).$

From (1) we get  
 $\frac{4(1-ab)x}{(x+1)^2} = \frac{2(1-a^2)(x+y)}{(x+1)(y+1)}.$   
 $\therefore \frac{(1-ab)[(x+1)^2 - (x-1)^2]}{(x+1)^2} = \frac{(1-a^2)[(x+1)(y+1) - (x-1)(y-1)]}{(x+1)(y+1)}.$   
 $\therefore (1-ab)(1-u^2) = (1-a^2)(1-uv) \dots\dots\dots (3),$

where  $\frac{x-1}{x+1} = u, \quad \frac{y-1}{y+1} = v.$   
 Similarly  $(1-ab)(1-v^2) = (1-b^2)(1-uv) \dots\dots\dots (4).$

From (3) and (4) we have  
 $\frac{1-u^2}{1-a} = \frac{1-v^2}{1-b^2} = \frac{1-uv}{1-ab} \dots\dots\dots (5).$

Hence the values of  $u, v$ , and therefore of  $x$  and  $y$ .  
 N.B.—Professor Naraniengar, in a note recently received, draws attention to the restricted validity of his solution.—(Ed.)

11896. (G. S. CARR, M.A.)—With a ruler and pencil only within a given  $n$ -gon inscribe another  $n$ -gon to circumscribe a given conic.

Solution by HENRY RIDDELL, M.E.

This is a well known problem, which may be solved by drawing a figure inscribed in the given conic, and having its sides passing through the poles of the sides of the given  $n$ -gon, and finally drawing tangents at the vertices of the figure thus formed.

This problem is Example I., on page 267, of Russell's *Pure Geometry* (1905).

Note.—In my brief discussion of this question I have, perhaps too hastily, assumed that the ruler constructions are familiar. I may certainly assume this in finding the pole of a given line with respect to the conic, but I observe that the ruler construction necessary to obtain the double point of a pair of homographic sets of points on a conic is not so well known. If  $(A, B, C, \dots)$  and  $(A_1, B_1, C_1, \dots)$  be two homographic ranges on a conic, the joins of  $AB'$  and  $A'B$ , of  $AC'$  and  $A'C$ , of  $BC'$  and  $B'C$ , &c., all meet in pairs upon a line called the homographic axis, which in turn meets the conic in the double points of the two ranges. The construction for the double point is therefore perfectly obvious. I may assume that the ruler construction of a tangent at any given point in a conic is quite familiar.

16403. (Professor R. W. GENESE, M.A.)—Prove the following deductions from a theorem by Abel, viz.,

(1)  $\phi(x+a) = \phi(x) + a\phi'(x+b) + \dots + \frac{a(a-nb)^{n-1}}{n!} \phi^n(x+nb) + \dots$   
 (2)  $\phi(x) = \phi(x+b) - b\phi'(x+2b) + \dots + \frac{(-nb)^{n-1}}{n!} \phi^{n-1}(x+nb) + \dots$

Solutions (I.) by Hon. G. R. DICK, M.A., and Prof. E. HERNÁNDEZ; (II.) by S. T. SHOVELTON, M.A.

(I.) The theorem referred to was given by Abel in *Crelle's Journal*, Vol. I. See his collected works published by the Norwegian Government, Vol. I., page 102. It is

$(x+a)^n = x^n + \frac{n}{1} a(x+b)^{n-1} + \frac{n(n-1)}{1 \cdot 2} a(a-2b)(x+2b)^{n-2} + \dots$   
 $\dots + \frac{n(n-1)\dots(n-\mu+1)}{1 \cdot 2 \dots \mu} a(a-\mu b)^{n-1}(x+\mu b)^{n-\mu} + \dots a(a-nb)^{n-1}.$

If then  $\phi(x)$  is an analytical function  $= \sum_0^{\infty} c_n x^n$ , we have

$\phi(x+a) = \sum_0^{\infty} c_n \left[ x^n + na(x+b)^{n-1} + \frac{n(n-1)}{1 \cdot 2} a(a-2b)(x+b)^{n-2} + \dots \right]$   
 $= \phi(x) + a\phi'(x+b) + \frac{a(a-2b)}{1 \cdot 2} \phi''(x+2b) + \dots$   
 $+ \frac{a(a-nb)^{n-1}}{1 \cdot 2 \dots n} \phi^{(n)}(x+nb) + \dots$

The first theorem stated. For the second, since

$\frac{\phi(x+a) - \phi(x)}{a} = \phi'(x+b) + \frac{a-2b}{1 \cdot 2} \phi''(x+2b) + \dots,$

we have, proceeding to the limit,

$\phi'(x) = \phi'(x+b) - \phi''(x+2b) + \dots + \frac{(-nb)^{n-1}}{n!} \phi^{(n)}(x+nb) + \dots;$

or, writing  $\phi$  for  $\phi'$ ,

$\phi(x) = \phi(x+b) - \phi'(x+2b) + \dots + \frac{(-nb)^{n-1}}{n!} \phi^{(n-1)}(x+nb) + \dots$

(II.) The expansion of  $e^{az}$  in powers of  $ze^{bz}$  is, by Burmann's Theorem,  
 $e^{az} = 1 + a(ze^{bz}) + a(a-2b) \frac{(ze^{bz})^2}{2!} + \dots + a(a-nb)^{n-1} \frac{(ze^{bz})^{n-1}}{n!} + \dots$

For  $z$  write  $d/dx$ , and let both sides of the equation operate on  $\phi(x)$ : the result is

$\phi(a+x) = \phi(x) + a\phi'(x+b) + \dots + \frac{a(a-nb)^{n-1}}{n!} \phi^n(x+nb) \dots (1).$

From (1) we have

$\frac{\phi(x+a) - \phi(x)}{a} = \phi'(x+b) + \dots + \frac{(a-nb)^{n-1}}{n!} \phi^n(x+nb) \dots$

Let  $a$  approach the limit zero, and the result is

$\phi'(x) = \phi'(x+b) - b\phi''(x+2b) + \dots + (-1)^{n-1} \frac{(nb)^{n-1}}{n!} \phi^n(x+nb) + \dots$

which, on integrating, gives the second result.

16398. (R. J. WHITAKER, B.A.)—ABCD is a quadrilateral. P, Q are points in AB, CD respectively, such that AP : PB = CQ : QD. PR, QS are drawn parallel to CD, AB respectively, meeting BC, AD in R, S. Prove that RS is parallel to BD. Geometrical proof wanted.

Solutions (I.) by V. DANIEL, B.Sc.; (II.) by Hon. G. R. DICK, M.A.; (III.) by W. F. BEARD, M.A.

(I.) Draw CYO parallel to BA, XAO parallel to CD.

Join XY and let it cut CD in Z.

Then  
ZD:AX = DY:YA = DC:OA.

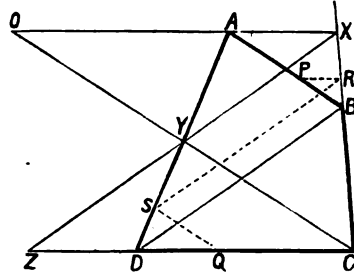
Therefore  
ZD:ZC = XA:XO = XB:XC.

Therefore XYZ is parallel to BD.

Now, if the construction named be made, we have

XR:RB = YS:SD, evidently.

Therefore RS is parallel to BD, since XY is.



[Rest in Reprint.]

11244. (A. J. PRESSLAND, M.A.)—Prove that the median and pedal triangles of any triangle have a common escribed parabola, whose focus is on the minimum ellipse of the median triangle.

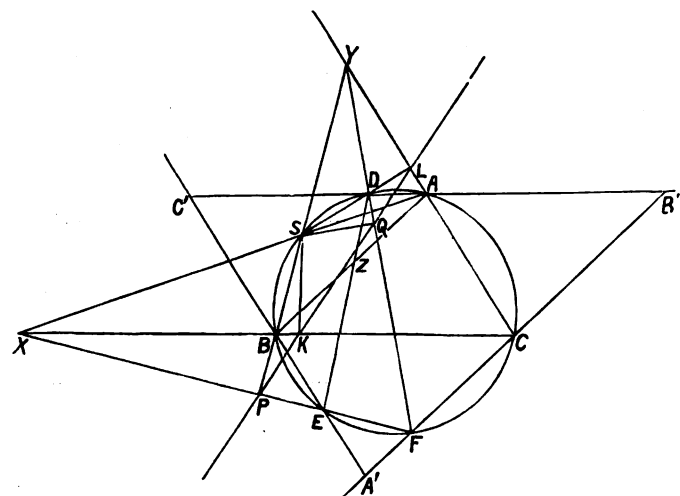
Additional Geometrical Solution by W. F. BEARD, M.A.

Let A'B'C' be the given triangle; ABC, DEF its median and pedal triangles.

Required to prove (i.) that a parabola may be drawn to touch the sides of ABC, DEF, and (ii.) that the focus of this parabola lies on the minimum ellipse through A, B, C.

Let EF, FD, DE meet BC, CA, AB respectively at X, Y, Z.  
Join AX cutting the circle ABC at S.  
Draw SK, SL, SM, SP, SQ, SR perpendicular to BC, CA, AB, EF, FD, DE respectively.  
Join PK, PQ, KL, CD, CS.

(i.)  $\angle BEX = \angle BC$  because B, C, F, E are on a circle;  
=  $\angle ABC$ , ,, CF is parallel to AB;  
and  $\angle CBE = \angle ACB$ , ,, BE ,, AC;  
therefore  $\angle BXE = \angle ACB - \angle ABC = \angle ACB - \angle DCB$  (because AD is parallel to BC),  
=  $\angle DCA$ .  
Also  $\angle SXB = \angle XAD$ , because AD is parallel to BC,  
=  $\angle SCD$ , ,, D, A, C, S are on a circle,  
therefore  $\angle SXP = \angle ACS = \angle LKS$ , because L, C, K, S are on a circle;  
but  $\angle SXP = 180^\circ - \angle SKP$ , ,, S, K, P, S ,, ,,



Therefore PKL is a straight line.

Again,  $\angle SPQ = \angle SFQ$ , because S, P, F, Q are on a circle,  
=  $\angle SCD$ , ,, S, F, C, D ,, ,,  
=  $\angle SPK$ , proved above.

Therefore PKQ is a straight line.

Similarly MR lies on the same line.  
Thus a parabola may be described with S as focus and PKQL as tangent at the vertex to touch the sides of the triangles ABC, DEF.

(ii.) Since AX passes through the focus S, it follows that BY and CZ must also pass through S. In the triangles BXE, ACD,  
 $\angle BXE = \angle ACD$  (proved),  $\angle BEX = \angle B = \angle ADC$ ;

therefore the triangles are similar; therefore  
 $BX/BE = AC/AD$ ; similarly  $AY/AD = BC/BE$ .

Therefore  $BX \cdot AY = AC \cdot BC$ ; therefore  $BX/BC = AC/AY$ ;  
therefore  $(XBC \infty) = (Y \infty CA)$ ;  
therefore  $A(XBC \infty) = B(Y \infty CA)$ ;  
therefore  $A(SBCB') = B(SA'CA)$ .

Therefore if a conic is described through A, B, C to touch B'C', C'A' at A, B, it must pass through S.

Thus S lies on the minimum ellipse through A, B, C.

Investigation of the equation of the envelope which a straight line has when the constants R and S in its equation

$$x/R + y/S = 1$$

are subject to the condition

$$(pR)^m + (qS)^m = c^m,$$

where c is a constant, a line of given length, while p and q are mere numbers.

By GEORGE SCOTT, M.A.

Differentiating, as is usually done in seeking an envelope,  
 $x/R^2 + y/S^2 dS/dR = 0$ ,  $p^m R^{m-1} + q^m S^{m-1} dS/dR = 0$ ;  
therefore  $x/p^m R^{m+1} = y/q^m S^{m+1}$ .

Combining this with the equation of the straight line, we have

$$p^m R^m + q^m S^m = p^m R^{m+1}/x = q^m S^{m+1}/y;$$

or

$$xc^m = p^m R^{m+1}, cy^m = q^m S^{m+1};$$

therefore  $R = (c/p)^{m/(m+1)} x^{1/(m+1)}$ ,  $S = (c/q)^{m/(m+1)} y^{1/(m+1)}$ ,  
 $R^m = (c/p)^{m^2/(m+1)} x^{m/(m+1)}$ ,  $S^m = (c/q)^{m^2/(m+1)} y^{m/(m+1)}$ ,

and

$$p^m R^m = c^{m^2/(m+1)} (px)^{m/(m+1)},$$

also

$$q^m S^m = c^{m^2/(m+1)} (qy)^{m/(m+1)}.$$

Hence  $(pR)^m + (qS)^m = c^{m^2/(m+1)} [(px)^{m/(m+1)} + (qy)^{m/(m+1)}]$

Therefore since  $c^{m^2/(m+1)}/c^m = c^{[m^2/(m+1)]-m} = c^{m/(m+1)}$ ,

$$(px)^{m/(m+1)} + (qy)^{m/(m+1)} = c^{m/(m+1)}.$$

Making  $m = 1$ , we have for the envelope

$$(px/c)^{\frac{1}{2}} + (qy/c)^{\frac{1}{2}} = 1,$$

the equation of a parabola referred to two tangents as axes of co-ordinates, the lengths of which are  $c/p$  and  $c/q$ . Making  $p = q = 1$  and  $m = 2$ , we have the known equation of the hypocycloid  $x^{\frac{2}{3}} + y^{\frac{2}{3}} = c^{\frac{2}{3}}$ .

If  $c/p = (a^2 - b^2)/a$ ,  $c/q = (a^2 - b^2)/b$ , and  $m = 2$ , we have the evolute of the ellipse whose semi-axes are  $a$  and  $b$ , namely,

$$(ax)^{\frac{2}{3}} + (by)^{\frac{2}{3}} = (a^2 - b^2)^{\frac{2}{3}}.$$

Remark.—As an ellipse approaches nearer and nearer to a circle, the normal approximates to the arm of the elliptic compasses that would describe the ellipse; now the envelope of this arm is a hypocycloid, and the ellipse's evolute approaches to this; therefore the late Professor MacCullagh was justified in asking at a Fellowship Examination, then conducted in Latin, "Quale est centrum circuli?" and accepting the answer, "It is the shape of a hypocycloid."

QUESTIONS FOR SOLUTION.

16478. (Rev. F. H. JACKSON, M.A.)—Show that

$$\frac{\mathfrak{J}_n(abc) \mathfrak{J}_n(a/bc) \mathfrak{J}_m(ab/c) \mathfrak{J}_m(ac/b)}{\mathfrak{J}_n(abc) \mathfrak{J}_n(a/bc) \mathfrak{J}_m(ab/c) \mathfrak{J}_m(ac/b)} = \frac{q^n}{\theta^2(0)} \left\{ \left( \frac{\mathfrak{J}_n(ab) \mathfrak{J}_n(a/b) \mathfrak{J}_m(ac) \mathfrak{J}_m(a/c)}{\mathfrak{J}_n(ab) \mathfrak{J}_n(a/b) \mathfrak{J}_m(ac) \mathfrak{J}_m(a/c)} \right)^2 - 16q \sin^2(-i \log b) \sin^2(-i \log c) \right. \\ \left. \times \left( \frac{\mathfrak{J}_n(q^{\frac{1}{2}} ab) \mathfrak{J}_n(q^{\frac{1}{2}} a/b) \mathfrak{J}_m(q^{\frac{1}{2}} ac) \mathfrak{J}_m(q^{\frac{1}{2}} a/c)}{\mathfrak{J}_n(q^{\frac{1}{2}} ab) \mathfrak{J}_n(q^{\frac{1}{2}} a/b) \mathfrak{J}_m(q^{\frac{1}{2}} ac) \mathfrak{J}_m(q^{\frac{1}{2}} a/c)} \right)^2 \right\} \dots (A),$$

where  $J_n(x)$  denotes the  $q$  analogue of Bessel's Function

$$J_n(x) = \frac{x^n}{[2][4] \dots [2n]} \left\{ 1 - \frac{x^2}{[2][2n+2]} + \frac{x^4}{[2][4][2n+2][2n+4]} - \dots \right\}$$

in which

$$[n] = (q^n - 1)/(q - 1),$$

$$\mathfrak{J}_n(x) = \frac{x^n}{[2][4] \dots [2n]}$$

$$\times \left\{ 1 - \frac{x^2}{[2][2n+2]} q^{2n+2} + \frac{x^4}{[2][4][2n+2][2n+4]} q^{4n+8} - \dots \right\}$$

being derived from  $J$  by inversion of  $q$ ; thus

$$J(1/q, x) = q^{n^2} \mathfrak{J}(q, x),$$



$e^2(0)$  denotes the square of Jacobi's  $\theta$  Function, and

$$q_0^2 = \prod_{m=1}^{\infty} (1 - q^{2m})^2, \quad a = \frac{i\sqrt{q}}{(q-1)},$$

while  $b$  and  $c$  are arbitrary, as also are  $m$  and  $n$ .

16474. (Hon. G. R. DICK, M.A.)—Solve the equation

$$(1-x^2) \frac{du}{dx} + n(1-2xu+u^2) = 0,$$

and show that when  $n$  is a positive integer a particular integral is  $u = P_{n-1}(x)/P_n(x)$ , where  $P_n \dots$  are the Legendrian polynomials.

16475. (Professor E. HERNÁNDEZ.)—On a

$$\begin{pmatrix} b & a & 0 & 0 & \dots & 0 & 0 & 0 \\ 2c & b & a & 0 & \dots & 0 & 0 & 0 \\ 0 & c & b & a & \dots & 0 & 0 & 0 \\ \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots \\ 0 & 0 & 0 & 0 & \dots & c & b & a \\ 0 & 0 & 0 & 0 & \dots & 0 & c & b \end{pmatrix}$$

et

$$2 \frac{(-1)^m}{a^m} \begin{pmatrix} 0 & a & 0 & 0 & 0 & 0 & \dots & 0 & 0 & 0 & 0 & 0 \\ b & 0 & a & 0 & 0 & 0 & \dots & 0 & 0 & 0 & 0 & 0 \\ 0 & b & 0 & a & 0 & 0 & \dots & 0 & 0 & 0 & 0 & 0 \\ 2c & 0 & b & 0 & a & 0 & \dots & 0 & 0 & 0 & 0 & 0 \\ 0 & c & 0 & b & 0 & a & \dots & 0 & 0 & 0 & 0 & 0 \\ \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots & \dots \\ 0 & 0 & 0 & 0 & 0 & 0 & \dots & c & 0 & b & 0 & a \\ 0 & 0 & 0 & 0 & 0 & 0 & \dots & 0 & c & 0 & b & 0 \end{pmatrix}$$

pour la somme des puissances  $m^{\text{ièmes}}$  des racines des équations  $ax^2+bx+c=0$  et  $ax^4+bx^2+c=0$  respectivement, les deux déterminants étant du degré  $m$ .

16476. (CONSTANCE I. MARKS, B.A.)—In a game of cribbage arrange the pips for a hand or crib of twenty-three, and find the probability of holding cards with such an arrangement. Is more than one solution of the problem possible?

16477. (The late R. W. D. CHRISTIE.)—Prove that an infinite number of solutions can be obtained from

$$3^2 + a^2 = b^2,$$

e.g. 3, 4, 5; 3,  $\frac{3}{2}$ ,  $\frac{5}{2}$ ; 3,  $\frac{7}{5}$ ,  $\frac{25}{13}$ ; &c., ad inf.

16478. (Professor E. B. ESCOTT.)—Certain numbers have common factors, when their digits are permuted cyclically. Example: 259 = 7 × 37, 592 = 16 × 37, 925 = 25 × 37. Find for what numbers this property is true.

16479. (W. J. GREENSTREET, M.A.)—

(1) Solve:—  $\Sigma (b-c)x = 0$ ;  $\Sigma (b^2-c^2)yz = 0$ ;  
 $\Sigma (b-c)yz + \Sigma a(b^2-c^2) = 0$ .

(2) Find the condition that  $a \cos x + b \sin x = cx$  may have  $2n+1$  real roots at least ( $a, b, c$ , positive).

16480. (M. S. NARAYANA, M.A.)—Sum the series:—

(1)  $1 - 3(1 + \frac{1}{3}) + 5(1 + \frac{1}{3} + \frac{1}{9}) - 7(1 + \frac{1}{3} + \frac{1}{9} + \frac{1}{27}) + \dots$  to infinity.  
(2)  $\log \cosh \theta + \log \cosh \frac{\theta}{2} + \log \cosh \frac{\theta}{4} + \dots$  ad inf.

16481. (Professor SANJANA, M.A.)—Find the sum of the series

$$1 + x \frac{\sin 2\theta}{\sin \theta} + x^2 \frac{\sin 3\theta}{\sin \theta} + \dots + x^{n-2} \frac{\sin (n-1)\theta}{\sin \theta} + x^{n-1} \frac{\sin n\theta}{\sin \theta} + x^n \frac{\sin (n-1)\theta}{\sin \theta} + \dots + x^{2n-3} \frac{\sin 2\theta}{\sin \theta} + x^{2n-2}.$$

16482. (V. RAMASWAMI Aiyar, M.A.)— $P, P'$  are corresponding points of a curve and its  $n$ -th pedal with respect to an origin  $O$ ;  $C, C'$  the centres of curvature at  $P, P'$ ; and  $M, M'$  the projections of  $C, C'$  on  $OP, OP'$ . Show that  $OP'/OM' = n + OP/OM$ .

[NOTE.—If through  $P'$ ,  $P$  parallels be drawn to the join of  $M'$  and  $M$  meeting  $OP, OP'$  respectively in  $Q, Q'$ , then  $PQ = n \cdot OM$  and  $Q'P' = n \cdot OM'$ ; whence a construction for the centre of curvature at any point of the  $n$ -th pedal, or the  $-n$ -th pedal of any curve, knowing, &c.]

16483. (Professor S. SIRCOM.)—Give a general description of the cubic surface:—

$$x^2 + (x-y-1)x^2 - 2(3yz-8)x + (x+y-1)(4x^2-4yz+3y^2-16x+8y+16) = 0$$

and determine its real right lines.

16484. (Professor NEUBERG.)—Une sphère est rapportée à trois rayons rectangulaires  $Ox, Oy, Oz$ . Un plan tangent quelconque rencontre ces rayons en  $A, B, C$ . Trouver l'enveloppe de la sphère passant par les points  $O, A, B, C$ .

16485. (A. W. H. THOMPSON.)—Let two conics  $S, S'$  (plane or spherical) intersect in  $A, B, C, D$ , and let  $P, P'$  be any two points on  $S, S'$  respectively. Then the ratio of the anharmonic ratios of the two pencils  $(P.ABCD), (P'.ABCD)$  we shall call the anharmonic ratio of the conics  $S, S'$ . The anharmonic ratio of two quadric cones, having a

common vertex is the anharmonic ratio of the spherical conics, formed by the intersection of the cones with a sphere whose centre is the common vertex.

$S, S'$  are two conics in different planes but intersecting each other in two points on the common line of intersection of the two planes. Show that the locus of a point  $P$  such that  $(P.S, S')$  (i.e., the anharmonic ratio of the cones standing on  $S, S'$  with common vertex  $P$ ) is constant, is a quadric through  $S, S'$ .

[This appears to be the three-dimensional analogue to Chasles's property of a conic.]

16486. (H. L. TRACHTENBERG, B.A.)—Three conics are described touching the circum-circle of a triangle  $ABC$ : the first touches the sides  $AB, AC$  at  $B, C$ ; the second  $BC, BA$  at  $C, A$ ; the third  $CA, CB$  at  $A, B$ . If  $L_1, L_2, L_3$  are the points of contact with the circum-circle, prove that  $AL_1, BL_2, CL_3$  are concurrent in the symmedian point.

16487. (S. NARAYANAN.)—Find the locus of foci of parabolas which have their vertices at the centre of a given ellipse and which cut off a constant area from that ellipse.

16488. (DEVA RAO M. KELKAR, B.A., L.T.)—The opposite sides  $DA, CB$  of a cyclic quadrilateral meet in  $E$ . If the straight line joining  $E$  with the point of intersection of the diagonals of  $ABCD$  meet  $AB$  in  $G$ , show that  $AD \cdot AE : BC \cdot BE = AG : BG$ .

16489. (C. E. YOUNGMAN, M.A.)—Two circles  $(A), (B)$  touch externally at  $C$ , between  $A$  and the other centre of similitude  $D$ . If  $A$  and  $D$  be fixed points, prove that the common tangent of  $(A)$  and  $(B)$  is longest when  $AB = 2CD$ .

16490. (Professor NANSON.)—Find the condition that the three involutions determined by three pairs of points on the same base may have one focus in common.

OLD QUESTIONS AS YET UNSOLVED (IN OUR COLUMNS).

10828. (Professor SYLVESTER.)—On a clay model of a hyperboloid of one sheet straight lines are to be drawn passing from a given point  $P$  to a given point  $Q$  situated at the other end of the diameter passing through  $P$ . Show that the number of such lines cannot be less than three, and find the length of the shortest course for that number.

10875. (Professor CROFTON, F.R.S.)—If there be any closed convex boundary of length  $L$ , and  $\theta$  be its apparent magnitude at any point  $(x, y)$ , and, if an endless string of length  $\gamma$  be passed round it, and kept stretched by a moving pencil which thus traces out an external boundary; prove that the value of the integral  $\iint \sin \theta dx dy$  extended over the annulus between the two boundaries is  $L(Y-L)$ . [If the given curve be an ellipse, the outer one, as is known, is a confocal ellipse.]

11237. (J. L. MACKENZIE, B.A., B.Sc.)—A small ball is dropped from a point at a level  $h$  inches above the highest point of a sphere of radius  $r$  inches. If the coefficient of restitution is  $e$ , find the chance that the ball will clear the sphere at the first rebound.

11270. (Professor B. O. PIERCE.)—If, in an indefinitely extended plane plate, which has one straight edge, there is a doublet of strength  $\mu$  at a distance  $a$  from this edge, and if the edge be taken as axis of  $y$ , and a line drawn through the doublet perpendicular to the edge as axis of  $x$ , the flow function is

$$\psi_1 = \frac{\pm 4a\mu xy}{[(x-a)^2 + y^2][(x+a)^2 + y^2]} \quad \text{or} \quad \psi_2 = \frac{\mp 2\mu x(x^2 + y^2 - a^2)}{[(x-a)^2 + y^2][(x+a)^2 + y^2][(x+a)^2 + y^2]}$$

according as the axis of the doublet coincides with the axis of  $x$  or is parallel to the axis of  $y$ . In the latter case there is no flow across the circumference which passes through the doublet and has the origin as centre.

11344. (D. BIDDLE.)—A sphere of radius  $r$  has projecting from its centre to a distance  $l$  beyond its surface a light straight pole. Find the locus of the extremity of the pole as the sphere oscillates on a horizontal plane; also the area enclosed.

11614. (H. J. WOODALL.)—Prove that, in any spherical triangle,  $\tan c = (\cot A \cot a + \cot B \cot b) / (\cot a \cot b - \cos A \cos B)$ .

NOTICE TO CORRESPONDENTS.

It is requested that all Mathematical communications should be sent to the Mathematical Editor,

Miss CONSTANCE I. MARKS, B.A., 10 Matheson Road, West Kensington, W.

Vol. XIII. (New Series) of the "Mathematical Reprint" is now ready, and may be had of the Publisher, FRANCIS HODGSON, 89 Farringdon Street, E.C. Price to Subscribers, 5s.; to Non-Subscribers, 6s. 6d.

# CLERGY MUTUAL ASSURANCE SOCIETY,

2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

[FOUNDED 1829.

Patrons—THE ARCHBISHOP OF CANTERBURY; THE ARCHBISHOP OF YORK.  
 President—THE BISHOP OF LONDON. Vice-President—THE LORD HARRIS.  
 Chairman—THE DEAN OF CANTERBURY. Deputy-Chairman—SIR PAGET BOWMAN, BART.  
 Secretary—W. N. NEALE, Esq. Actuary and Manager—FRANK B. WYATT, Esq., F.I.A.

The Society offers the **BENEFITS of MUTUAL LIFE ASSURANCE** without personal liability on highly favourable terms to  
**THE CLERGY AND THEIR RELATIVES.**

**ALL PROFITS BELONG TO THE MEMBERS.**

Accumulated Fund, **£4,242,820.** Annual Income, **£453,897.**

Bonuses Distributed, **£4,256,464.**

**LOW PREMIUMS. LARGE BONUSES.**

Notwithstanding the lowness of the Premiums charged, the **BONUSES** are on an **EXCEPTIONALLY HIGH SCALE.**

**NEW AND SPECIAL POLICIES.**

Application is invited for the **PROSPECTUS**, and Leaflets explaining two new Policies, with valuable Options.

**1. WHOLE-LIFE CONVERTIBLE ASSURANCES.** Very Low Premium—about one half the usual rate—during first ten years.

**2. PENSION POLICIES.** Premiums returnable with compound interest in case of death or surrender before pension age. Option to commute for cash.

Assurances without profits, at low rates of premium, may be effected, and Life Annuities on favourable terms may be purchased, by any person irrespective of any special qualification by relationship to the Clergy.

**SPECIMEN OF RATES FOR £1,000, WITH PROFITS.**

Age next Birthday.	£1,000 Payable at Death.			£1,000 Payable at Age 60 or earlier Death.		
	£.	s.	d.	£.	s.	d.
25	20	1	8	27	3	4
30	23	3	4	32	10	10
35	26	10	0	40	1	8
40	31	1	8	51	5	0

NOTE.—Under the Reduced Premium System (explained in Prospectus) four-fifths only of these Premiums need be paid, the other one-fifth remaining a charge to be repaid out of Bonus.

No Agents employed and no Commission paid for the introduction of business, whereby **£10,000 a year is saved to the Members.**

Assurances can be effected by direct communication with the Office, 2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

## THE LATEST SELF-FILLING PEN, 1908 MODEL.

### SPECIAL OFFER.

One of the leading manufacturers of Gold Fountain Pens challenges to demonstrate that their Pens are the very best and have the largest sale, that no better article can be produced.

They offer to give away 25,000 of the latest Self-Filling and Self-Cleaning Perfection Fountain Pens, worth **15s.**, for **5s. 6d.**, as an Advertisement. Every part guaranteed for 2 years.

The Self-Filling and Self-Cleaning Perfection Fountain Pen is a marvel of Simplicity; it deserves to be popular. It is non-leakable, fills itself in an instant, cleans itself in a moment—a press, a fill. The massive 14-carat Gold Nib is iridium pointed and will last for years, and improves in use. Fine, medium, broad, or J points can be had.

It deserves to be popular, and is certain to be the Pen of the future. Every Pen is guaranteed, and money will be returned if not fully satisfied. Any of our readers desiring a really genuine article cannot do better than write to the Makers,

**RED LION MANUFACTURING CO., LTD.,**  
 71 High Holborn, London, W.C.,

and acquire this bargain.

The Exquisite Gold-Mounted Self-Filling Perfection Pen, in Plush Case, for **8s. 6d.** No other Pen like it for Reliability, Steady Flow, and Smooth Writing.

## EDUCATIONAL WORKS

By **A. K. ISBISTER, M.A., LL.B.**

(Late Dean of the College of Preceptors.)

Sixteenth Edition, with Map. 12mo.

**CESAR'S COMMENTARIES on the GALLIC WAR.**

- BOOKS I.-V. With Notes, Critical and Explanatory, a Vocabulary of all the Words in the Text, and *Easy Reading Lessons for Beginners* ..... price 3s. 6d.
- BOOKS I.-VII. do. do. .... 4s. 6d.
- Do (without the Reading Lessons) ..... 4s. 0d.
- Twenty-fifth Edition.
- BOOK I. (with Vocabulary, Reading Lessons, &c.) ... 1s. 6d.

Fourteenth Edition. 12mo, price 3s. 6d.

**XENOPHON'S ANABASIS, Books I. to III.** With Notes, Vocabulary of all the Words in the Text, and a *Series of Easy Reading Lessons for Beginners*. Designed as a First Greek Reading Book in Schools.

New Edition. 18mo, price 9d.

**THE ELEMENTS OF BOOK-KEEPING**, by SINGLE and DOUBLE ENTRY; with Practical Explanations and Exercises on the most useful Forms for Business.

4to, 1s. each.

**ENGRAVED ACCOUNT BOOKS.** Ruled and Interleaved for copying, adapted to the above.

- No. I. Business Forms. 1. Bills of Parcels and Book Debts. 2. Invoices. 3. Account Sales. 4. Receipts. 5. Promissory Notes and Drafts. 6. Bills of Exchange.
- No. II. Day-Book and Cash-Book.
- No. III. Ledger, Index, and Balance Sheet.

LONDON: LONGMANS & CO., PATERNOSTER ROW, E.C.

# A SCHOOL ARITHMETIC.

By **H. S. HALL, M.A.**,  
and **F. H. STEVENS, M.A.**

Complete, with Answers, 4s. 6d.; without Answers, 3s. 6d.  
Or in two parts—Part I., with Answers, 2s. 6d.; without Answers, 2s. Part II., with Answers, 2s. 6d.; without Answers, 2s. Answers, 1s. Key in preparation.

*This work follows closely the recommendations of the Mathematical Association.*

## COLLEGE OF PRECEPTORS EXAMINATIONS, MIDSUMMER AND DECEMBER, 1909.

**SCRIPTURE HISTORY.**

<b>The Gospel according to St. Matthew. The Greek Text.</b> With Introduction and Notes. By Rev. Canon <b>SILOMAN</b> ... ..	2 6
<b>Acts of the Apostles—Authorised Version.</b> With Notes. By <b>T. E. PAGE</b> and <b>REV. A. S. WALPOLE</b> ... ..	2 6
<b>The Greek Text.</b> With Notes. By <b>T. E. PAGE</b> ... ..	3 6

**ENGLISH LANGUAGE, HISTORY, AND GEOGRAPHY.**

<b>Shakespeare's Tempest.</b> <b>K. DEIGHTON.</b> (First and Second Class) ...	1 9
<b>Tempest.</b> Eversley Edition. With Notes. (First and Second Class) ...	1 0
<b>Tempest</b> (Text only). (First and Second Class) ... ..	0 6
<b>Julius Caesar.</b> <b>K. DEIGHTON.</b> (First and Second Class) ... ..	1 9
<b>Julius Caesar.</b> Eversley Edition. With Notes. (First and Second Class) ... ..	1 0
<b>Julius Caesar</b> (Text only). (First and Second Class) ... ..	0 6
<b>Chaucer's Prologue.</b> <b>A. W. POLLARD.</b> (First Class) ... ..	1 9
<b>Prologue. The Knight's Tale, The Nonnes Preestes Tale.</b> <b>H. M. LIDDELL.</b> (First Class) ... ..	3 6
<b>Prologue. The Knight's Tale, The Nun-Priest's Tale, &amp;c.</b> <b>A. INGRAHAM.</b> (First Class) ... ..	1 0
<b>Scott's Lay of the Last Minstrel.</b> <b>G. H. STUART</b> and <b>E. H. ELLIOT</b> Cantos I.-III., 1s. 3d.; Sewed, 1s. (Second and Third Class.) ...	2 0
<b>Lay of the Last Minstrel.</b> <b>F. T. PALGRAVE.</b> (Second and Third Class) ... ..	1 0
<b>Macaulay's Horatius.</b> <b>W. T. WEBB.</b> (Third Class and Lower Forms) ...	0 6
<b>Lays of Ancient Rome</b> (containing "Horatius" and "The Battle of Lake Regillus"). <b>W. T. WEBB.</b> (Third Class and Lower Forms) ... ..	1 9
<b>Palgrave's Children's Treasury of Lyrical Poetry.</b> (Lower Forms) ... ..	1 0
<b>Gwynn's Masters of English Literature</b> ... ..	3 6
<b>Saintsbury's Short History of English Literature</b> ... ..	8 6
<b>Wesfield's Outline of English Grammar</b> ... ..	1 6
<b>KEY, 2s. 6d. net.</b> (Adapted to the Second and Third Classes.)	
<b>Oral Exercises in English Composition.</b> (Third Class) ...	1 6
<b>Juvior Course of English Composition.</b> (Adapted to the Second and Third Classes) ... ..	1 6
<b>Senior Course of English Composition</b> ... ..	3 6
<b>KEY, 1s. net.</b> (Adapted to the First Class.)	
<b>Manual of English Grammar and Composition</b> ... ..	2 6
<b>KEY, 2s. 6d. net.</b> (Adapted to the First Class.)	
<b>Aids to the Study and Composition of English</b> <b>KEY, 4s. 6d. net.</b> ... ..	4 6
<b>Buckley's History of England for Beginners</b> ... ..	3 0
<b>Green's Short History of the English People</b> ... ..	8 6
<b>Green and Tait's Analysis of English History</b> ... ..	3 6
<b>Thompson's History of England</b> ... ..	2 6
<b>Tout's Short Analysis of English History</b> ... ..	1 0
<b>The International Geography.</b> Edited by <b>H. E. MILL</b> ... ..	12 0
<i>Or, Preliminary Section, Principles of Geography, 1s. 6d.; Section I., British Isles, 1s.; II., Europe, 2s. 6d.; III., Asia, 2s.; IV., Australasia, 1s. 6d.; V., North America, 2s.; VI., South America, 1s. 6d.; VII., Africa, 2s.</i>	
<b>Simmons and Richardson's Practical Exercises in Geography.</b> Sections I.-IV. ... ..	3 6
<b>KEY, 3s. 6d. net.</b>	
<i>Or, Section I., Maps, 1s.; II., The Globe, 1s.; III., Climate, 1s.</i>	
<b>Mill's Class Book of General Geography</b> ... ..	3 6
<b>Geikie's Geography of the British Isles.</b> (Third Class) ... ..	1 0
<b>Sime's Geography of Europe.</b> (Second and Third Class) ... ..	2 0
<b>Bosworth's Short Geography of the World</b> ... ..	1 6
<b>Summaries.</b> In three parts—Part I., British Isles and Europe; Part II., Asia and Africa; Part III., America, Australia, &c. 4d. each.	
<b>Huxley and Gregory's Physiography</b> ... ..	4 6
<b>Simmons's Physiography for Beginners</b> ... ..	2 6
<b>Geikie's Elementary Lessons in Physical Geography</b> ... ..	4 6

**ARITHMETIC AND ALGEBRA.**

<b>Palmer's Arithmetic—chiefly Examples</b> ... ..	3 6
<b>Sidney Jones's Modern Arithmetic, with Graphic and Practical Exercises.</b> Parts I. and II. With or without Answers, 2s. 6d. each. Complete, with or without Answers ... ..	4 6
<b>Loney and Grenville's Shilling Arithmetic.</b> 1s. With Answers ...	1 6
<b>Lock and Turnbull's Arithmetic for Schools</b> ... ..	4 6
<b>Hall and Knight's Elementary Algebra for Schools.</b> Containing a full treatment of GRAPHS. Without Answers, 3s. 6d. With Answers <b>KEY, 8s. 6d.</b> Answers, 1s. ... ..	4 6
<b>Hall's Easy Graphs</b> ... ..	1 0
<b>KEY, 3s. 6d.</b>	
<b>Introduction to Graphical Algebra</b> ... ..	1 0
<b>KEY, 3s. 6d.</b>	
<b>Gibson's Elementary Treatise on Graphs</b> ... ..	3 6

**FRENCH AND GERMAN.**

<b>Siepmann and Feliissier's Public School French Primer</b> ... ..	3 6
<b>Siepmann's Primary French Course.</b> Comprising a First Reader, Grammar, and Exercises, with Questions for Oral Practice and an Alphabetical Vocabulary. Part I., 2s. 6d. <b>KEY, 3s. 6d. net.</b> Part II., 2s. 6d. Word and Phrase Book, 6d. <b>KEY, 3s. 6d. net.</b> [Part III. in the press.]	
<b>Primary French Course.</b> (First Term.) Lessons in Colloquial French based on the Transcript of the Association Phonétique, with a Chapter on French Sounds and their Phonetic Symbols, List of Words for Practice in Pronunciation, and Complete Vocabularies ... ..	1 6

**FRENCH AND GERMAN—Continued.**

<b>Macmillan's Progressive French Course.</b> <b>G. E. FASNACHT.</b> First Year, 1s.; <b>KEY, 4s. 6d. net.</b> Supplementary Exercises, 1s. Second Year, 2s.; <b>KEY, 4s. 6d. net.</b> Third Year, 2s. 6d.; <b>KEY, 4s. 6d. net.</b>	
<b>Poiré's French Course.</b> First Year, 1s. Second Year, 1s. 6d.	
<b>Perry and Reum's New French Course for Schools.</b> Part I., 1s. 6d. Part II., 3s. 6d.	
<b>Kauff's Die Karavane.</b> <b>H. HAGER.</b> (First Class) ... ..	3 0
<b>Siepmann's Public School German Primer</b> ... ..	3 6
<b>KEY, 4s. 6d. net.</b>	
<b>Macmillan's Progressive German Course.</b> <b>G. E. FASNACHT.</b> First Year ... ..	1 6
<b>KEY, 4s. 6d. net.</b>	

**BOOK-KEEPING.**

<b>Thornton's First Lessons in Book-keeping</b> ... ..	2 6
<b>KEY, 10s. 6d.</b>	
<b>Exercise Books to First Lessons in Book-keeping.</b> No. 1, for Lessons I.-IX., 9d. No. 2, for Test Exercises, 9d. No. 3, for Test Exercises, 1s. 6d. No. 4, for Lessons XIII. and XIV., 1s. 6d. Case to contain all the above, 6d. Complete Set with Case, 5s. No. 5, Condensed Edition for Working out a Selection on all the Lessons, 2s. No. 6, Journal, 6d. Examination Papers in Book-keeping, 9d. <b>KEY to Examination Papers, 2s.</b>	
<b>Primer of Book-keeping</b> ... ..	1 0
<b>KEY, 2s. 6d.</b>	
<b>Exercise Books to Primer of Book-keeping.</b> Part I., <b>LEDGER.</b> Part II., <b>JOURNAL</b> ... .. the set	1 0
<b>Easy Exercises in Book-keeping</b> ... ..	1 0
<b>KEY, 5s. net.</b>	
<b>A B C D Series of Book-keeping Exercise Books.</b> In Four Parts, 3d. each, or ... .. the set	1 0
<b>Ireson's Text-Book of Book-keeping</b> ... ..	3 6
<b>Macmillan's Book-keeping Exercise Books.</b> Set A, containing Journal, Ledger. Price 10d. Set B, containing Cash Book, Journal, Ledger. Price 1s.	
<b>Adgie's Modern Book-keeping and Accounts.</b> 5s.; or Part I., 1s. 6d. Part II., 2s. Part III., 2s. 6d.	
<b>KEYS, 2s. 6d. net each.</b>	
<b>Macmillan's Facsimile Worked Exercises from Modern Book-keeping and Accounts.</b> By <b>W. ADGIE</b> ... ..	0 6

**LATIN AND GREEK.**

<b>Welch and Duffield's Exercises in Unseen Translation in Latin</b> ...	1 6
<b>Alford's Latin Passages for Translation</b> ... ..	3 0
<b>Caesar's Gallic War.</b> <b>J. BOND</b> and <b>A. S. WALPOLE.</b> (First, Second, and Third Class) ... ..	4 6
<b>Gallic War.</b> Books II. and III. With Notes and Vocabulary. <b>W. G. RUTHERFORD.</b> (First, Second, and Third Class) ... ..	1 6
<b>Gallic War.</b> Book IV. With Notes and Vocabulary. <b>C. BYRANE.</b> (First and Second Class) ... ..	1 6
<b>Virgil's Aeneid.</b> Book III. With Notes and Vocabulary. <b>T. E. PAGE.</b> (First and Second Class) ... ..	1 6
<b>Aeneid.</b> Book XI. With Notes and Vocabulary. <b>T. E. PAGE.</b> (First and Second Class) ... ..	1 6
<b>Horace's Odes.</b> Book IV. With Notes and Vocabulary. <b>T. E. PAGE.</b> Edited by the same, 2s. (First Class.)	
<b>Cicero's Pro Milone.</b> <b>F. H. COLSON.</b> (First Class) ... ..	2 6
<b>Xenophon's Anabasis.</b> Book II. With Notes and Vocabulary. <b>A. S. WALPOLE.</b> (First and Second Class) ... ..	1 6
<b>Anabasis.</b> Book III. With Notes and Vocabulary. <b>G. H. NALL.</b> (First and Second Class) ... ..	1 6
<b>Huripides's Meucuba.</b> With Notes and Vocabulary. <b>J. BOND</b> and <b>A. S. WALPOLE.</b> (First Class) ... ..	1 6
<b>Eutropius.</b> Books I. and II. With Notes and Vocabulary. <b>W. WELCH</b> and <b>C. G. DUFFIELD.</b> (Third Class) ... ..	1 6
<b>Peacock and Bell's Passages for Greek Translation</b> ... ..	1 6

**SCIENCE.**

<b>Perkin and Lean's Introduction to Chemistry and Physics.</b> New Edition. In Two Vols. ... .. each	2 0
<b>Gregory and Simmons's Experimental Science</b> (Physiography, Section I.) ... ..	2 6
<b>Exercises in Practical Physics.</b> In Two Parts ... .. each	2 0
<b>Simmons and L. M. Jones's Elementary General Science</b> ... ..	3 6
<b>Gregory's Elementary Practical Physics</b> ... ..	2 6
<b>Sinclair's Introduction to Practical Physics</b> ... ..	2 6
<b>D. E. Jones's Heat, Light, and Sound</b> ... ..	2 6
<b>Edser's Heat for Advanced Students</b> ... ..	4 6
<b>Light for Students</b> ... ..	6 0
<b>Hadley's Magnetism and Electricity for Beginners</b> ... ..	2 6
<b>Magnetism and Electricity for Students</b> ... ..	6 0
<b>Thompson's Elementary Lessons in Electricity and Magnetism</b> ...	4 6
<b>L. M. Jones's Introductory Chemistry for Intermediate Schools</b> ...	2 0
<b>Farrish's Chemistry for Schools of Science</b> ... ..	2 6
<b>Roscoe and Lunz's Inorganic Chemistry for Beginners</b> ... ..	2 6
<b>Roscoe and Marden's Inorganic Chemistry for Advanced Students</b> ... ..	4 6
<b>Donington's Practical Exercises in Chemistry</b> ... ..	2 6
<b>Watts's Geology for Beginners</b> ... ..	2 6
<b>Foster and Shore's Physiology for Beginners</b> ... ..	2 6
<b>Evans's Botany for Beginners</b> ... ..	2 6
<b>Stenhouse's Introduction to Nature Study</b> ... ..	3 6
<b>Simmons and Stenhouse's Science of Common Life</b> ... ..	2 6
<b>Reynolds's Hygiene for Beginners</b> ... ..	2 6

# Cambridge University Press

## Elementary Algebra for Secondary Schools

By CHARLES DAVISON, Sc.D., Mathematical Master at King Edward's High School, Birmingham. Crown 8vo. 6s.

The author's aim has been to prepare a text-book that may be of use in all but the highest classes of a secondary school. The subjects included are, for the most part, those which are common to all text-books of elementary algebra; but a few, such as indeterminate equations of the first degree, the remainder theorem and simple partial fractions, are introduced at an earlier stage than usual. The applications of graphs are confined to the illustrations which they afford of the methods of solving simultaneous equations and of the theory of quadratic equations and expressions. In the solution of simultaneous quadratic equations, they are especially useful, as they serve to show the geometrical meaning of every step in the process employed.

## Modern Geometry

By C. GODFREY, M.A., Head Master of the Royal Naval College, Osborne, and A. W. SIDONS, M.A., Assistant Master at Harrow School. Crown 8vo. 4s. 6d.

The present volume is a sequel to the "Elementary Geometry" written by the same authors. It covers the schedule of Plane Geometry required for the Special Examination in Mathematics for the Ordinary B.A. Degree at Cambridge; and represents what the authors take to be a useful course for any student of Mathematics, whether he intends to read for Mathematical Honours or to take up Physics or Engineering. For those who ultimately make a special study of Geometry, this book would serve as an introduction to more advanced treatises.

## BOOKS SUITABLE FOR COLLEGE OF PRECEPTORS EXAMINATIONS Midsummer and Christmas, 1909

### The Pitt Press Shakespeare for Schools

With Introduction, Notes, and Glossary, by A. W. VERITY, M.A.

#### Shakespeare.—The Tempest

Sixth Edition. 1s. 6d.

"Mr. A. W. Verity possesses learning, literary insight, and a facile pen. He has a knowledge of boys and sympathy with their difficulties; moreover, when writing for them he seldom loses himself in his subject to the extent of forgetting his audience. Consequently, as has been shown in these columns on more than one occasion, he is an almost ideal editor of school texts."—*Guardian*.

#### Shakespeare.—Julius Caesar

Tenth Edition. 1s. 6d.

"Another of Mr. Verity's admirable school editions of Shakespeare's plays."—*Guardian*.

### The Pitt Press Series

#### Chaucer.—The Prologue and The Knight's Tale

Edited, with Introduction, Notes, and Vocabulary, by M. BENTINCK SMITH, M.A. Fcap. 8vo, 2s. 6d.

Portions of the Introduction have been written with a view to the teacher rather than the pupil, the editor's aim being to give, in a concise form, the materials which the teacher requires to have at his disposal if the taught are to obtain an adequate conception of Chaucer's importance in the history of English literature and language. A short bibliography containing a list of authorities has been appended.

#### Macaulay.—The Lays of Ancient Rome, and other Poems

Edited by J. H. FLATHER, M.A. 1s. 6d.

"Is in thorough keeping with the other volumes of this series, an evidence of patient labour, and no mean tribute to Macaulay himself. . . . The notes are brief and pointed, and two useful maps are appended. The introduction is brief, but exceedingly well done."—*School World*.

#### Scott.—The Lay of the Last Minstrel

Edited by J. H. FLATHER, M.A. Second Edition. 2s.

"One of the very best edited school-texts ever placed before the public."—*Guardian*.

### The Cambridge School History of England

#### History of England for Use in Schools

By ARTHUR D. INNES, M.A., formerly Scholar of Oriol College, Oxford. Crown 8vo, with 13 Maps and 8 Plans, 4s. 6d. Also in Three separate Parts, 2s. each. (Part I, to 1509 A.D.; Part II, 1509-1714; Part III, 1689-1901.)

A separate Part is also issued covering the period "From the Wars of the Roses to the Death of Elizabeth" (1399-1603). Price 2s.

"Though written primarily as a school history, this volume of some 600 pages may well be recommended to the average reader as a standard book of reference for facts and dates in English history. Proportion, thoroughness, and accuracy of detail are its outstanding features, while for the student the demands of the examiner have been kept steadily in view."—*Glasgow Herald*.

### The Pitt Press Series and the Cambridge Series for Schools and Training Colleges

AUTHOR	WORK	EDITOR	PRICE s. d.
Erokmann-Chatrion	L'Histoire d'un Conscrit de 1813	A. R. ROPES	3 0
Hauff	Die Karavane	A. SCHLOTTMANN	3 0
Caesar	De Bello Gallico, Bks. III., IV. (With complete Vocabularies.)	E. S. SHUCKBURGH	1 6
"	De Bello Gallico, Book III.	A. G. PESKETT	1 6
"	De Bello Gallico, Bks. IV., V.	"	1 6
Cicero	Pro Milone	J. S. REID	2 6
Horace	Odes, Book IV.	J. GOW	1 6
Vergil	Aeneid, Books III., XI. (With complete Vocabularies.)	A. SIDGWICK	1 6
Euripides	Hecuba	W. S. HADLEY	2 6
Xenophon	Anabasis, Book II	A. PRETOR	2 6
"	" Book III	"	2 0
"	" Books II, III (With Complete Vocabularies.)	G. M. EDWARDS	1 6

### The Cambridge Bible for Schools and Colleges

BOOK	EDITOR	PRICE s. d.
First Book of Kings (Authorised Version)	Rev. J. R. LUMBY	net 2 0
" " (Revised " )	Rev. W. E. BARNES	net 2 0
Books of Ezra and Nehemiah	Rt. Rev. H. E. RYLE	net 3 0
Haggai, Zechariah, and Malachi	Ven. T. T. PEROWNE	net 2 0
Gospel according to St. Matthew	Rev. A. CARR	net 2 0
Acts of the Apostles	Rev. J. R. LUMBY	net 3 0

### The Smaller Cambridge Bible for Schools

BOOK	EDITOR	PRICE s. d.
First Book of Kings	Rev. J. R. LUMBY	1 0
Books of Ezra and Nehemiah	Rt. Rev. H. E. RYLE	1 0
Gospel according to St. Matthew	Rev. A. CARR	1 0
Acts of the Apostles	Rev. J. R. LUMBY	1 0

### The Revised Version.—School Edition.

BOOK	EDITOR	PRICE s. d.
Gospel according to St. Matthew	Rev. A. CARR	net 1 6

"The most approved results of recent Biblical criticism are embodied in the splendid notes; but, independent of its intrinsic value, there are three artistic maps incorporated in the text. An edition as remarkable for its elegance as for its high utility."—*School World*.

A Catalogue of New and Standard Books for Schools will be sent on application.

LONDON: CAMBRIDGE UNIVERSITY PRESS WAREHOUSE, FETTER LANE. C. F. CLAY, Manager.

# CLASS LISTS

## OF CANDIDATES WHO HAVE PASSED THE CERTIFICATE EXAMINATION OF THE COLLEGE OF PRECEPTORS.—MIDSUMMER, 1908.

The list of successful candidates at the Colonial Centres will be published in the October number of "The Educational Times."

[Throughout the following Lists, bracketing of names implies equality.]

### PRIZES.

#### General Proficiency.

- FIRST CLASS [or SENIOR].**  
 1. Condrup, C. O. (Isbister Prize.)  
 2. Ellis, H. G. (Pinches Prize.)  
 3. Perkins, L. C.  
 4. James, G. D.
- SECOND CLASS [or JUNIOR].**  
 1. Quinton, C. J.  
 2. Radford, G. D.  
 3. Childs, R. J.  
 4. Steed, H. D.
- THIRD CLASS.**  
 1. Grover, S. A.  
 2. Watts, T.  
 3. Mathews, Miss S. E.  
 4. Holmes, C. W. D.

#### English Subjects.

1. Ellis, H. G.  
 2. (Dixon, Miss R. J. / Hamson, Miss May)

#### Mathematics.

1. Perkins, L. C.  
 2. Gibbs, E. W.

#### Modern Foreign Languages.

1. Ableidinger, Miss M.  
 2. Gorrity, F.

#### \*Classics.

1. (Daphtary, C. K. / Gardiner, J. T.)

#### Natural Sciences.

1. Condrup, C. O.  
 2. Course, P. R.

#### Taylor Jones Prize for Scripture History.

- Dixon, Miss R. J.

#### Pitman Medals for Shorthand.

1. Hynes, J. E. (Silver Medal.)  
 2. Wells, F. G. (Bronze Medal.)

\* H. C. Sheldon was disqualified for the First Prize for Classics, having obtained it at a previous Examination.

The following is a List of the Candidates who obtained the FIRST and SECOND PLACES in each Subject on FIRST CLASS PAPERS. (Only those who obtained Distinction are included.)

<p><b>Scripture History.</b></p> <p>1. Dixon, Miss R. J. Ladies' College, Wellington, Salop.                      2. (Ellis, H. G. / Sheldon, H. C.) Devonport P.-T. Centre. Ruthin Grammar School.</p> <p><b>English Language.</b></p> <p>1. Durante, J. Christian Brothers' College, Gibraltar.                      (Dixon, Miss E. J. / Evans, Miss E. T.) Ladies' College, Wellington, Salop.                      Guise, E. S. Redditch Secondary School.                      2. (Gullick, Miss E. K. / Hamson, Miss May) Private tuition.                      Seddon, F. L. English High School for Girls, Pera, Constantinople.                      Synons, A. Queen Elizabeth's Grammar School, Ashbourne. Private tuition.</p> <p><b>English History.</b></p> <p>1. Ellis, H. G. Devonport P.-T. Centre.                      2. Dixon, Miss R. J. Ladies' College, Wellington, Salop.</p> <p><b>Geography.</b></p> <p>1. Wakeley, H. E. Devonport P.-T. Centre.                      (Burrows, W. A. / Condrup, C. O.) Private tuition. Tollington School, Muswell Hill, N.                      2. Ivens, L. F. St. Aloysius' College, Hornsey Lane, N.                      (Seager, H. L. E.) University School, Rochester.</p> <p><b>Arithmetic.</b></p> <p>1. Hynes, J. E. Xaverian College, Manchester.                      2. Waller, F. W. Tollington Park College, N.</p> <p><b>Algebra.</b></p> <p>1. Geary, A. Market Bosworth Grammar School.                      2. Taylor, F. C. New College, Herne Bay.</p> <p><b>Geometry.</b></p> <p>1. Ellis, H. G. Devonport P.-T. Centre.                      2. Perkins, L. C. Devonport P.-T. Centre.</p>	<p><b>Trigonometry.</b></p> <p>1. James, G. D. Polytechnic Commercial Sch., Regent Street, W.</p> <p><b>Mechanics.</b></p> <p>1. Perkins, L. C.                      2. (Ellis, H. G. / Gibbs, E. W.) Devonport P.-T. Centre.</p> <p><b>Book-keeping.</b></p> <p>1. Harman, A. G. Private tuition.</p> <p><b>Mensuration.</b></p> <p>1. Wakeley, H. E. Devonport P.-T. Centre.                      (James, G. D.) Polytechnic Commercial Sch., Regent Street, W.                      2. (Woodward, A. E.) Devonport P.-T. Centre.</p> <p><b>French.</b></p> <p>1. Bigle, Miss M. M. Convent of the Nativity, Market Harborough.                      2. Dupuis, Miss J. Ancey Convent, Seafood.</p> <p><b>German.</b></p> <p>1. Klupfel, G. R. St. Aloysius' College, Hornsey Lane, N.                      2. Ableidinger, Miss M. Convent of the Nativity, Market Harborough.</p> <p><b>Italian.</b></p> <p>1. Moore, G. F. St. George's College, Weybridge.</p> <p><b>Spanish.</b></p> <p>1. Gorrity, F. St. Joseph's Commercial College, Dumfries.                      2. Oria, T. St. Joseph's Academy, Kennington Road, S.E.</p> <p><b>Welsh.</b></p> <p>1. Roberts, J. Private tuition.                      2. Williams, Miss C. M. Grammar and Collegiate School, Carnarvon.</p> <p><b>Latin.</b></p> <p>1. Sheldon, H. C. Ruthin Grammar School.                      2. Gardiner, J. T. Bethany House, Goudhurst.</p>	<p><b>Greek.</b></p> <p>1. Burgoyne, C. Private tuition.</p> <p><b>Light and Heat.</b></p> <p>1. Tucker, S. Dunheved College, Launceston.                      2. (Collier, F. J. / Morrish, D. B.) Private tuition. Alley's School, Dulwich.</p> <p><b>Magnetism and Electricity.</b></p> <p>1. Course, P. R. Tollington School, Muswell Hill, N.                      2. Collier, F. J. Private tuition.</p> <p><b>Chemistry.</b></p> <p>1. (Ellis, H. G. / Wakeley, H. E.) Devonport P.-T. Centre. Devonport P.-T. Centre.</p> <p><b>Natural History.</b></p> <p>1. (Durante, J. / Norman, J.) Christian Brothers' College, Gibraltar. Grammar School, Devizes.</p> <p><b>Drawing.</b></p> <p>1. (Coupe, A. R. / Lowe, F.) St. Joseph's Commercial College, Dumfries. Private tuition.</p> <p><b>Music.</b></p> <p>1. (Dixon, Miss R. J. / Ferrary, Miss L. / Osborne, Miss E. L.) Ladies' College, Wellington, Salop. Loreto Convent, Europa, Gibraltar. Girls' Collegiate School, Weymouth.</p> <p><b>Political Economy.</b></p> <p>1. Gardiner, J. T. Bethany House, Goudhurst.                      2. Dixon, Miss R. J. Ladies' College, Wellington, Salop.</p> <p><b>Shorthand.</b></p> <p>1. Hynes, J. E. Xaverian College, Manchester.                      2. Wells, F. G. Sir Andrew Judd's Commercial School, Tonbridge.</p>
--	---	--

## CLASS LIST — BOYS.

N.B.—The small italic letters denote that the Candidate to whose name they are attached was distinguished in the following subjects respectively:—

a. = Arithmetic.	e. = English.	h. = History.	ms. = Mensuration.	sc. = Elementary Science
al. = Algebra.	f. = French.	he. = Hebrew.	mu. = Music.	sh. = Shorthand.
b. = Botany.	g. = Geography.	i. = Italian.	na. = Natural History.	sp. = Spanish.
bk. = Bookkeeping.	ge. = German.	l. = Latin.	p. = Political Economy.	tr. = Trigonometry.
ch. = Chemistry.	geo. = Geology.	li. = Light and Heat.	ph. = Physiology.	w. = Welsh.
d. = Drawing.	gm. = Geometry.	m. = Mechanics.	phys. = Elementary Physics.	z. = Zoology.
do. = Domestic Economy.	gr. = Greek.	ma. = Magnetism & Electricity.	s. = Scripture.	

The small figures <sup>1</sup> and <sup>2</sup> prefixed to names in the Second and Third Class Lists denote that the Candidates were entered for the First and Second Classes respectively.

In the addresses, Acad. = Academy, C. or Coll. = College, Coll. S. = Collegiate School, Comm. = Commercial, Conv. = Convent, Elem. = Elementary, End. = Endowed, Found. = Foundation, H. = House, Hr. = Higher, Inst. = Institute, Int. = International, Inter. = Intermediate, Poly = Polytechnic, Prep. = Preparatory, P.T. = Pupil Teachers, S. = School, Sec. = Secondary, Tech. = Technical, Univ. = University.

## FIRST CLASS [or SENIOR].

## Honours Division.

Condrup, C.O. <i>s.g.g.ch.</i> Tollington S., Muswell Hill, N.	Houghton, F. <i>s.l.</i> Grosvenor School, Bath Nolan, J. St. Joseph's Comm. Coll., Dumfries Whip, R.P. Market Bosworth Gram. S.	Harratt, J.H. Market Bosworth Gram. S. O'Brien, J.J. St. George's Coll., Weybridge Jolly, H. d. Secondary S., Ashton-u. Lyne Galbraith, D.H.A. Private tuition	Dow, E.F.P. <i>a.d.</i> Poly. Secondary Comm. S., Regent St., W.
Ellis, H.G. <i>s.h.g.m.ch.d.</i> Devonport P.T. Centre	Coape, A.R. <i>ms.d.</i> St. Joseph's Comm. Coll., Dumfries	Watkinson, H.L. Farnworth Gram. S. Spencer, S. Brunt's Technical S., Mansfield Brammer, J.D.S. Atherstone Gram. S.	Garner, H.F. <i>gm.</i> Market Bosworth Gram. S. Jones, A.F. <i>a.m.bk.</i> Gram. S., Eccles
Perkins, Q.C. <i>s.g.m.</i> Devonport P.T. Centre	St. Aloysius' Coll., Hornsey Lane, N. Seddon, F.L. <i>e.</i> Ashbourne Gram. S. Lee, E.C. The College, Shebbear	Bramitt, J.R. Private tuition Hitchcock, C.H.	Arguile, C.A. <i>a.d.</i> Market Bosworth Gram. S. Jones, E.I.W. <i>s.a.f.</i> Ruthin Gram. S.
James, G.D. <i>tr.ms.f.d.</i> Poly. Secondary Comm. S., Regent St., W.	Shorter, F.S. <i>d.sh.</i> Sir Andrew Judd's Comm. S., Tonbridge	Fillmer, E.S. Tollington Park College, N. Newsome, F.E. The College, Shebbear	Roberts, P.W. <i>a.al.gm.</i> Portsmouth Boys' Secondary S.
Wakeley, H.E. <i>s.g.ms.ch.</i> Devonport P.T. Centre	Ravinet, V.J. <i>f.</i> St. Joseph's Academy, S.E.	Cluer, H.L. Private tuition	Addis, A.E. <i>a.al.gm.phys.ch.</i> Devonport P.T. Centre
Gibbs, E.W. <i>s.al.gm.m.</i> Devonport P.T. Centre	Tulley, W.J. Ashbourne Gram. S. Bowes, A.A. Gram. S., Eccles	Stations' Company's S., Hornsey Inch, R. St. Joseph's Comm. Coll., Dumfries	Bishop, E.G. <i>a.al.f.</i> Rivington Gram. S., Horwich
Yates, A.B. <i>a.</i> Shelton, K.H. <i>ch.</i> Tollington S., Muswell Hill, N.	Friend, R. <i>a.ms.sh.</i> Stafford Coll., Forest Hill	Bryant, F.G. Rye Grammar School Perkins, F.H. Gram. S., Quorn Turner, L.H.	Lee, L.G. <i>al.gm.</i> Tollington S., Muswell Hill, N.
Harvey, L.W. <i>gm.</i> Market Bosworth Gram. S.	Gillett, S.H. <i>f.</i> Private tuition	Kirk, A.W. Dunheved College, Launceston St. John's Coll., Brixton	Brown, E.A.L. <i>a.al.gm.lit.</i> Tollington S., Muswell Hill, N.
Nicholson, W.R.I. Poly. Secondary Comm. S., Regent St., W.	Cowlishaw, G.D. Market Bosworth Gram. S. Harman, A.G. <i>bk.</i> Private tuition	Sills, W.W. <i>ms.</i> Portsmouth Boys' Secondary S.	Gitsham, R.G. <i>al.</i> Devonport P.T. Centre
Durante, J. <i>e.sp.ph.d.</i> Christian Bros.' Coll., Gibraltar	Innes, H.S. Tollington Park College, N. Marchington, E.W. Tollington S., Muswell Hill, N.	Vicker, G.K. Tollington S., Muswell Hill, N. Mill, J.A. University School, Rochester	Northern Poly. S., Holloway Rd., N.
Owens, F.H. <i>d.</i> Tollington S., Muswell Hill, N.	Wilson, J. Bethany House, Goudhurst Symons, A. <i>s.e.h.d.p.</i> Private tuition	Payne, G.H. Rye Grammar School Atherton, H.	Davis, A.H. <i>a.al.lit.</i> Portsmouth Boys' Secondary S.
Geary, A.A. <i>al.gm.</i> Market Bosworth Gram. S.	Byrom, W. Technical School, Stalybridge Williams, W.C. The College, Shebbear	Stations' Company's S., Hornsey Firth, S.H. Tollington Park College, N.	Holden, J.A. <i>al.gm.</i> Market Bosworth Gram. S.
Woodward, A.E. <i>ms.d.</i> Devonport P.T. Centre	Guise, E.S. <i>e.</i> Redditch Secondary S. Holland, H.D.	Garnsey, S.E.	Cull, H.J. <i>al.gm.lit.</i> Portsmouth Boys' Secondary S.
Gardiner, J.T. <i>l.d.p.</i> Bethany House, Goudhurst	St. Joseph's Comm. Coll., Dumfries Johnson, S. University School, Southport	Harte, J. Private tuition Jull, L.H. <i>d.</i>	Marsh, W. <i>s.ad.</i> The College, Shebbear
Meredith, R. <i>f.ms.</i> Poly. Secondary Comm. S., Regent St., W.	Yates, E.C. Gram. S., Eccles Dodd, E.E. Bethany House, Goudhurst	Stations' Company's S., Hornsey Hart, J. Private tuition	Evans, B.S. <i>gm.</i> Pentre Higher Elem. S.
Taylor, F.C. <i>a.al.gm.ms.</i> New College, Herne Bay	Golden, A.D. St. Joseph's Comm. Coll., Dumfries	Stations' Company's S., Hornsey Jull, L.H. <i>d.</i>	Stadeford, R.V. <i>a.al.</i> The College, Shebbear
Course, P.R. <i>ma.ch.</i> Tollington S., Muswell Hill, N.	Leherissier, A.P. <i>f.f.</i> New College, Herne Bay	Stations' Company's S., Hornsey Stears, F.D. Tollington Park College, N.	Tapsell, H.J. <i>a.al.lit.d.</i> Portsmouth Boys' Secondary S.
Bown, S.G. <i>ch.</i> King Edward VI. Modern S., Macclesfield	Corbett, C.S. Eye Grammar School Gorrie, F. <i>sp.</i>	Theobald, R. University School, Rochester Wing, F.T.W. Bethany House, Goudhurst	Pearson, L.H. <i>a.gm.</i> Market Bosworth Gram. S.
Murphy, M. <i>f.</i> St. Joseph's Comm. Coll., Dumfries	Wyatt, F.S. St. John's Coll., Brixton Sheldon, H.C. <i>s.l.</i> Ruthin Gram. S.	Hobson, G. Pupil-Teacher Centre, Bolton Collins, R.H. Atherstone Gram. S.	Hull, H.J.P. <i>a.al.ma.d.</i> Northern Poly. S., Holloway Rd., N.
Armstrong, C. Argyle House, Sunderland	Lawrance, D.M. <i>z.</i> Tollington Park College, N.	Ewen, P. <i>d.</i> St. Joseph's Comm. Coll., Dumfries	Mares, A.R. <i>al.</i> Tollington S., Muswell Hill, N.
Wells, F.G. <i>d.sh.</i> Sir Andrew Judd's Comm. S., Tonbridge	Beer, H. The College, Shebbear	Brown, K.G. Tollington Park College, N.	Hollingworth, L. <i>a.al.ma.</i> Northern Poly. S., Holloway Rd., N.
Tucker, S. <i>lit.</i> Dunheved College, Launceston	Shackell, R.W. Grosvenor School, Bath	Lawler, T. Xaverian College, Manchester	Verano, L. <i>d.sp.d.</i> Christian Bros.' Coll., Gibraltar
Wightwick, O. Bethany House, Goudhurst	Barnes, J. Secondary S., Ashton-u. Lyne	Pawcett, F.H. Private tuition	Dawson, H. <i>g.a.gm.d.</i> Sandyford Road S., Newcastle-on-Tyne
Nustadt, A. <i>ms.d.</i> Poly. Secondary Comm. S., Regent St., W.	Michell, F.C. Devonport P.T. Centre	Toon, H. Brunt's Technical S., Mansfield	Marks, H.P. <i>a.gm.lit.</i> Tollington S., Muswell Hill, N.
Tucker, J.E. Tollington S., Muswell Hill, N.	Morrish, D.B. <i>ll.</i> Alleen's S., Dulwich	Harrison, S.H. d. Market Bosworth Gram. S.	Barne, W.H.L. <i>a.al.gm.ms.</i> Poly. Secondary Comm. S., Regent St., W.
Pomeroy, W. Poly. Secondary Comm. S., Regent St., W.	Bretherton, A.A. <i>d.</i> Christ's Coll., Blackheath	Logie, R. University School, Southport	Evans, J.H. <i>g.al.gm.</i> Advanced Elem. Boys' S., Merthyr Tydfil
Rimmer, L. <i>ms.</i> University S., Southport	Ewen, W.J. St. Joseph's Comm. Coll., Dumfries	Smith, R.B. Clifton College, Blackpool	Melville, S. Tollington S., Muswell Hill, N.
Hynes, J.E. <i>a.d.sh.</i> Xaverian College, Manchester	Seager, H.L. <i>B.g.</i> University School, Rochester	Broderick, P.C. Private tuition	Mills, N.C. <i>al.</i> Portsmouth Boys' Secondary S.
Weston, A.W. St. Joseph's Comm. Coll., Dumfries	Collier, F.J. <i>ll.ma.</i> Private tuition	Harness, C.B. <i>ge.</i> Northern Poly. S., Holloway Rd., N.	Morris, H.E. <i>al.</i> The College, Shebbear
Hamilton, A.S. Stations' Company's S., Hornsey	Barnes, H.C. <i>E.</i> Stations' Company's S., Hornsey	Thornton, R.H. Private tuition	Royle, A.G. <i>a.al.gm.ms.</i> University S., Southport

## FIRST CLASS [or SENIOR].

## Pass Division.

Horton, H.O. St. Philip's Gram. S., Edgbaston	McCormick, A.E. Tollington S., Muswell Hill, N.	Gregson, F.L. <i>d.</i> Scorton Gram. S.	Bishop, W.M.B. <i>al.phys.</i> Rivington Gram. S., Horwich
Guy, E.F. Tutorial S., Penarth	Pitt, V.D. Grammar School, Worthing	Lewis, H.R. <i>f.</i> Sutton Park S., Surrey	Jenkins, W.E. <i>al.d.</i> Pentre Higher Elem. S.
Pocknall, H.G. <i>mu.</i> Private tuition	Karge, F.M. Grammar S., Chorlton-c. Hardy	Hersy, L. <i>a.</i> Advanced Elem. Boys' S., Merthyr Tydfil	Green, N. <i>phys.ch.d.</i> High School, Leek
Waller, F.W. <i>a.</i> Tollington Park College, N.	Huntley, H.E. The College, Weston-s. Mare		Kirkham, J.W. <i>s.d.</i> Ashbourne Grammar School
Bryan, H.V. <i>sh.</i> Xaverian College, Manchester	Rogers, F. <i>d.</i> The College, Shebbear		Southworth, T. <i>f.</i> Rivington Gram. S., Horwich
Ivens, L.F. <i>s.g.sh.</i> St. Aloysius' Coll., Hornsey Lane, N.	Bowden, F. Technical School, Stalybridge		Jones, R. <i>al.phys.d.</i> Ferndale Secondary S., Rhondda
Thompson, A.E. <i>s.gm.</i> Poly. Secondary Comm. S., Regent St., W.	Lowe, F. <i>d.</i> Private tuition		Owen, D.W. Pentre Higher Elem. S.
Walker, A.F. <i>d.</i> Ashbourne Gram. S.	Murphy, L.P. St. George's Coll., Weybridge		Evans, W.J. <i>ma.d.</i> Pentre Higher Elem. S.
Weston, R.H. <i>f.</i> St. Joseph's Comm. Coll., Dumfries	Coates, H.B. St. Joseph's Academy, S.E.		Hesketh, T.F. University S., Southport
Hoenic, F.J. St. Joseph's Academy, S.E.	Chatcher, N.F. Winchester House, Bristol		Holmes, J. <i>al.gm.</i> Tollington S., Muswell Hill, N.
Saunders, R. Grove House, Highgate	Challice, G.W. The College, Shebbear		Wright, J. <i>al.d.</i> University S., Southport
Coucher, A.E. <i>R.</i> Poly. Secondary Comm. S., Regent St., W.	Wilson, H.J. Private tuition		Davis, A.G. <i>al.</i> Poly. Secondary Comm. S., Regent St., W.
Bates, H. Poly. Secondary Comm. S., Regent St., W.	Barnes, A.H. Stations' Company's S., Hornsey		Davis, H.B. <i>a.al.d.</i> Redditch Secondary S.
Catling, T.L. St. Joseph's Academy, S.E.	Huggons, A.F. Tollington S., Muswell Hill, N.		Fuller, W.J. <i>gm.lit.</i> Tollington S., Muswell Hill, N.
	Graves, H. The College, Shebbear		Caldwell, D. <i>al.d.</i> Brunt's Technical S., Mansfield
	Kendon, F.H. <i>d.</i> Bethany House, Goudhurst		Fourt, F. <i>al.</i> Redditch Secondary S.
	Deeson, I.A. Stations' Company's S., Hornsey		

## SECOND CLASS [or JUNIOR].

## Honours Division.

Quinton, C.J. <i>g.al.gm.lit.d.</i> Portsmouth Boys' Secondary S.	Radford, G.D. <i>a.al.gm.lit.d.</i> Portsmouth Boys' Secondary S.	Childs, R.J. <i>a.al.gm.lit.</i> Portsmouth Boys' Secondary S.	Steed, H.D. <i>a.al.f.lit.ch.d.</i> Portsmouth Boys' Secondary S.
Gregory, W.J.S. <i>g.al.phys.ch.d.</i> Devonport P.T. Centre	James, W.D. <i>g.al.lit.d.</i> Portsmouth Boys' Secondary S.	Chisholm, G.B. <i>a.al.gm.d.</i> Portsmouth Boys' Secondary S.	

BOYS, 2ND CLASS, HONS.—Continued.

Johnson, F.E. g.u.d. The High School, Devonport
Phillips, E.C. a.d. High S., Guernsey
Sheridan, T. de La H. al. Xaverian College, Manchester
Tackley, W.A. ch. TOLLINGTON S., Muswell Hill, N.
Walsh, A.E. lt. TOLLINGTON S., Muswell Hill, N.
Whelan, R.P. al.sh. St. Aloysius' Coll., Hornsey Lane, N.
Bell, R. al. University S., Southport
Coates, F.S. al.f. Ashbourne Grammar S.
Vosper, W.R. Devonport P.-T. Centre
Evans, S. ma.ch. Porth Higher Grade S.
Provost, W.A. al. High School, Leek
Richards, D.G. a.d. Porth Higher Grade S.
Alexander, J.F. a.d. Grammar S., Spalding
Clements, N. al. St. Mary's Coll., Middlesbrough
Kent, L. al. Porthmouth Boys' Secondary S.
Stephens, W.H. g.a.d. Stoke Public Higher S., Devonport
Stubbings, L. lt. The College, Shebbear
Gilbert, R.W.A. d. Eastward Ho! Coll., Felixstowe
Green, J.d. Brunt's Technical S., Mansfield
Snelson, F. University School, Southport
Williams, G.O. St. Aloysius' Coll., Hornsey Lane, N.
George, H.H. ch. Porth Higher Grade S.
Humphries, P. a phys.ch. High School, Leek
Bampton, F. al.f.d. Sir Andrew Judd's Comm. S., Tonbridge
Holgate, G. a.d. al. Hindley Gram S., Wigan
Franklin, L. al. al. Sir Andrew Judd's Comm. S., Tonbridge
Gay, H.C. al.ma. Northern Poly. S., Holloway Rd., N.
Graham, H.W.M. na. Northern Poly. S., Holloway Rd., N.
Hanney, A. al. Pentre Higher Elem. S.
Lemoine, M. bk.f. St. Joseph's Coll., Beulah Hill
Ball, A. al. Gram. S., Quorn
Bell, E.H. g.m.lt. TOLLINGTON S., Muswell Hill, N.
Bundy, A. Pentre Higher Elem. S.
Cottingham, G.R. al.d. Poly. Secondary Comm. S., Regent St., W.
Overton, M. gm.d. Porthmouth Boys' Secondary S.
Wood, R.S.R. d. Regent Street Inter. S., Plymouth
Daly, J.D. al. St. Joseph's Academy, S.E.
Humphries, H. d. Redditch Secondary S.
Wallis, A. d. Tynemouth School
Bell, E. al. Xaverian College, Manchester
Hilditch, N.S. a phys. Private tuition
Williams, L. al.g.m. Advanced Elem. Boys' S., Merthyr Tydfil
Wooddise, T. a.f. Ashbourne Grammar S.
Hill, W.J. g.al.gm.d. Stoke Public Higher S., Devonport
Bradley, H.H. al.ma. Northern Poly. S., Holloway Rd., N.
Grohmann, R.F. g.a.gm.lt. TOLLINGTON S., Muswell Hill, N.
Harlow, F.W. al. Modern S., Newcastle-on-T.
Harris, J. a.al.gm. Market Bosworth Gram. S.
Marriott, H. gm. Gram. S., Eccles
Trenise, G.L. d. The College, Shebbear
Turner, W.W. a.al.d. Stoke Public Higher S., Devonport
Nicholson, F. al.gm. St. Mary's Coll., Middlesbrough
Wainwright, W.E. al. Gram. S., Quorn
Mille, G. f. Marist Brothers' Coll., Grove Ferry
Harvey, F.W. al.d. Market Bosworth Gram. S.
Cartwright, J.H. gm. Hindley Gram. S., Wigan
Jones, A. al. Pentre Higher Elem. S.
Richards, W.M. al.d. Advanced Elem. Boys' S., Merthyr Tydfil
Ridout, H.C. al. Buckingham Place Acad., Portsmouth
Evans, D.J. ch. Porth Higher Grade S.
Davey, A.E. al.d. Northern Poly. S., Holloway Rd., N.
Gallen, R.A.L. s. Ruthin Gram. S.
Rees, S. Ferndale Secondary S., Rhondda
Stokes, A.H. d. Porthmouth Boys' Secondary S.
Golden, T.L. f. St. Joseph's Comm. Coll., Dumfries
Morgan, E.J. d. Advanced Elem. Boys' S., Merthyr Tydfil
Smith, C.A. a.al.ms. Stafford Coll., Forest Hill
Knight, S.A. Mercers' S., Holborn, E.C.
Mathews, L. St. Peter's Coll., Brockley
Stockton, H.V. TOLLINGTON PARK COLLEGE, N.
Van Geysel, L.E. f. St. Paul's S., West Kensington
Belcher, T.H. University S., Southport
Bent, F.G. g. TOLLINGTON PARK COLLEGE, N.
Broadly, A. Osborne High S., W. Hartlepool

Harvey, C.H. g.al.d. Stoke Public Higher S., Devonport
Haslam, W.d. Rivington Gram.S., Horwich
Mills, H.J. a.al. TOLLINGTON PARK COLLEGE, N.
Abrahamson, H. TOLLINGTON S., Muswell Hill, N.
Barradell, A.E. al. Eye Gram. S.
Oria, T. f.sp. St. Joseph's Academy, S.E.
Pivert, M. f. Marist Brothers' Coll., Grove Ferry
Symons, W.J. al. Porthmouth Boys' Secondary S.
Thorman, F.E.A. l. Private tuition
Curry, W.H. al. al. Yorkshire Society's S., S.E.
Howells, W.L. Ferndale Secondary S., Rhondda
Roth, D. hz. Northern Poly. S., Holloway Rd., N.
Ryan, T.M.C.A. Xaverian College, Manchester
Slow, E.C. D. St. Peter's Coll., Brockley
Watson, R.N. University S., Southport
Davies, B.H. Porth Higher Grade S.
Nixon, H.L. al. Porthmouth Boys' Secondary S.
Peile, J.A. Friends' S., Wigton
Riddelsdell, A.C. TOLLINGTON PARK COLLEGE, N.
Roberts, B.R. al. Porthmouth Boys' Secondary S.
Thomas, M.L. ch.d. Porth Higher Grade S.
Allin, A. al. Brunt's Technical S., Mansfield
Champanois, J. Marist Brothers' Coll., Grove Ferry
Chell, R.A. a.al.gm.lt. Private tuition
Gibson, S.K. phys.ch.d. High School, Leek
Moore, T. d. Brunt's Technical S., Mansfield
Peirce, E.R. The College, Weston-super-Mare
Tucker, T.C. lt. TOLLINGTON S., Muswell Hill, N.
Wells, F.S. d. Poly. Secondary Comm. S., Regent St., W.
Garriga, P. St. Joseph's Comm. Coll., Dumfries
Hewes, T.L. Market Bosworth Gram. S.
Detouche, M.B. f.d. St. Aloysius' Coll., Hornsey Lane, N.
Thomas, E.W. al. Private tuition
Gate, H.L., gm.d. Tynemouth School
Mellor, G.K. Ashbourne Grammar S.

SECOND CLASS [or JUNIOR], Pass Division.

Newsham, T. Christchurch Hr. Elem. S., Southport
Baton, P. Marist Bros.' Coll., Grove Ferry
Eviden, E.F. Sir Andrew Judd's Comm. S., Tonbridge
Grand, S.W. Gram. S., Welshpool
Munson, T.O. d. Grammar School, Spalding
Tapper, W. a. Pentre Higher Elem. S.
Ware, F. Rivington Gram. S., Horwich
Williams, O.J. Osborne High S., W. Hartlepool
Andersch, G.O. TOLLINGTON S., Muswell Hill, N.
Berard, A. Marist Brothers' Coll., Grove Ferry
Chapman, W.S. Yorkshire Society's S., S.E.
Doyle, P. St. George's Coll., Weybridge
Corbet, W.J. High S., Guernsey
Burrows, W.A. g.sh. Private tuition
Gater, C.R.C. University School, Rochester
Lascelles, H. St. Andrew Judd's Comm. S., Tonbridge
Millard, B.A. al. The College, Littlestone
O'Hara, C. St. Mary's Coll., Middlesbrough
Owen, E.S. Battle Hill S., Hexham
Roberts, R. a. St. Joseph's Comm. Coll., Dumfries
Smith, V.R. al. Montpellier S., Paignton
Unthank, G.D. TOLLINGTON S., Muswell Hill, N.
Bambrough, H. Sandyford Road S., Newcastle-on-Tyne
Bunney, F. Grammar S., Quorn
Drew, A.J. fl. Private tuition
Edwards, H. Ruthin Gram S.
Matson, R.C. f. Cheltenham College
McAllister, J. al. St. Joseph's Comm. Coll., Dumfries
Norfolk, W.O. Northern Poly. S., Holloway Rd., N.
Brown, A.H. Stationers' Company's S., Hornsey
Carrasco, J. sp. Christian Bros.' Coll., Gibraltar
Duffell, H. St. Joseph's Comm. Coll., Dumfries
Piper, S. Argyle House S., Sunderland
Chant, E.V. al. University School, Rochester
Connett, P. D. TOLLINGTON S., Muswell Hill, N.
Hick, R.B. Private tuition
Hove, N.R. TOLLINGTON S., Muswell Hill, N.
Morrison, W.A.R. Modern S., Newcastle-on-Tyne
Pearce, H. d. Brunt's Technical S., Mansfield

Pickford, W.T. al. Northern Poly. S., Holloway Rd., N.
Wootton, H.T. al. Private tuition
Brown, W.H. al. The College, Weston-s-Mare
Craigh, F.W. B. Rye Grammar School
Hewitt, W.A. Reddy Boys' S., Sunderland
Klefsch, P.J. ge. St. Aloysius' Coll., Hornsey Lane, N.
Marshall, H.G. a.d. Wembworthy School, N. Devon
Smith, H.R. Sutton Pk. S., Sutton
Squire, T.R. Modern S., Newcastle-on-T.
Stickland, H.J. al. Private tuition
Ashlin, H. J. St. Aloysius' Coll., Hornsey Lane, N.
Chaboud, L. Marist Brothers' Coll., Grove Ferry
Davies, E.R. St. George's Coll., Weybridge
Fair, W.S. Mercers' S., Holborn, E.C.
Husband, H.B. St. George's Coll., Weybridge
Rowell, W. Gram. S., Newton Abbot
Daverger, R. f. Marist Brothers' Coll., Grove Ferry
Northey, M.E. Allhallows School, Honiton
Attwood, W.W. Market Bosworth Gram. S.
Cox, G.B. al. West Leeds High School
Hammond, R.B. a.d. Aspen Grove S., Liverpool
King, E.R. TOLLINGTON S., Muswell Hill, N.
Ogle, R. d. Private tuition
Swainson, E. s. Ruthin Gram. S.
Green, B. Xaverian College, Manchester
Moore, F.W. TOLLINGTON S., Muswell Hill, N.
Scott, I.J. al.gm. Private tuition
Choyce, A.N. Market Bosworth Gram. S.
Clayton, F. TOLLINGTON S., Muswell Hill, N.
Cunningham, A.W. Grosvenor School, Bath
Skentelbery, B.T. County School, Liskeard
Ceiley, L.R. g. TOLLINGTON S., Muswell Hill, N.
Flood, J.F. St. Joseph's Coll., Beulah Hill
Oyler, J.A. al. Rye Grammar School
Pill, S.V.P. Porthmouth Grammar S.
Taylor, E.H. Osborne High S., W. Hartlepool
Temple, E. Bethany H., Goudhurst
Brookes, A.G.W. Private tuition
Clark, G. Osborne High S., W. Hartlepool
Hanafin, J.G. Archbishop Tenison's Gram. S., W.C.
Jones, F. The Cusack Institute, E.C.
King, V.S. Private tuition
Laurens, E.J. The College, Shebbear
McGuire, J. a.al.gm. Hindley Gram. S.
Ossorio, J. Christian Bros.' Coll., Gibraltar
Quincey, J.S. Market Bosworth Gram. S.
Tolley, A.E.S. Culham College S., Abingdon
Wackett, H. d. Grammar School, Spalding
Balls, F.W. Eastward Ho! Coll., Felixstowe
Drury, A.W. Ruthin Gram. S.
Foote, V.C. St. Joseph's Academy, S.E.
Gosling, L.D. St. George's Coll., Weybridge
Mackay, J. St. George's Coll., Weybridge
Smith, J.M. al. Private tuition
Devenish, R.C. Modern S., E. Grinstead
Graver, G.F. J. Market Bosworth Gram. S.
Holt, G. Newchurch Grammar S.
Kinneil, A. Eastward Ho! Coll., Felixstowe
Trapet, M. bk.d. Marist Brothers' Coll., Grove Ferry
Wilkie, C.A. J. Stafford Coll., Forest Hill
Churchill, J. St. Joseph's Comm. Coll., Dumfries
Clewer, D. Taunton House, Brighton
Coleman, J. St. Mary's Coll., Middlesbrough
Garner, E.V. G. Staffor' Coll., Forest Hill
Gibson, A.J. University School, Rochester
Gulbenkian, K.S. St. Paul's S., W. Kensington
Kornweibel, A.H.O. ge. St. George's Coll., Weybridge
Llamar, A. sp. Christian Bros.' Coll., Gibraltar
Mackay, B.W. St. George's Coll., Weybridge
Prothero, E.S.T. d. Advanced Elem. Boys' S., Merthyr Tydfil
Robinson, T.M.W. Portsmouth Grammar S.
Rowe, A.R. Skerry's College, Southampton
Turner, R.G. Dunheved College, Launceston
Bryant, S.E. Rye Grammar School
Davies, D.L. Peneader Grammar School
Pearce, P.T. North Devon S., Barnstaple
Philp, E.L. Dunheved College, Launceston
Simmons, P.N. Grove House, Highgate
Swinn, J.C.K. Montrose Coll., Streatham Hill
Toone, W.A. Poly. Secondary Comm. S., Regent St., W.
Wilson, T.G. New College, Herne Bay
Billington, W.L. Rivington Gram. S., Horwich
Bunday, R.W. a. Grammar School, Spalding
Butler, A.N. d. Dunheved College, Launceston
Cole, G.A.B. Private tuition

Gregson, J.G. d. Sir Andrew Judd's Comm. S., Tonbridge
Hughes, A.P. al. Advanced Elem. Boys' S., Merthyr Tydfil
Peak, N. Private tuition
Platt, W.J. Rivington Gram S., Horwich
Whitehurst, C.L. g. TOLLINGTON S., Muswell Hill, N.
Benson, B. Redditch Secondary S.
Brookes, N.E. Private tuition
Brown, G. Brunt's Technical S., Mansfield
Delafons, R.A. Bath College, Bath
Farrow, H.T.C.d. Craigie School, Worthing
Fullerton, A.J. St. Joseph's Coll., Beulah Hill
Graham, K.J.M. f. St. Paul's S., West Kensington
Griffith, E.W. Private tuition
Jarman, T.M. Advanced Elem. Boys' S., Merthyr Tydfil
Tovell, H. Poly. Secondary Comm. S., Regent St., W.
Davies, J. Xaverian College, Manchester
Fox, W. Private tuition
Hodson, H.E. University School, Southport
Hornby, W. a. Brunt's Technical S., Mansfield
Kemp, J.W. Private tuition
Phillipson, A.D. High S., Guernsey
Thomas, S.O. al. Advanced Elem. Boys' S., Merthyr Tydfil
Baker, W.V. Bethany H., Goudhurst
Bishop, W.D. TOLLINGTON S., Muswell Hill, N.
Bridges, C. The Cusack Institute, E.C.
Crowling, K.E. St. George's Coll., Weybridge
Evans, D.T. Private tuition
McCombie, S.W. Winchmore Hill Coll. S., N.
Ritchie, J.F. Winchester House, Bristol
Wilkie, P.W.A. Stafford Coll., Forest Hill
Campani, S. Northern Poly. S., Holloway Rd., N.
Clark, H.B. gm. TOLLINGTON S., Muswell Hill, N.
Facer, F. f. St. Joseph's Comm. Coll., Dumfries
Francis, D.S. m. Pentre Higher Elem. S.
Fripp, G.C. University School, Southport
McAdam, J.K. Christ Church S., Bootle
Morgan, W. St. Joseph's Comm. Coll., Dumfries
Sargeant, E.J.G. The Priory, Malvern
Sunley, G. St. Aloysius' Coll., Hornsey Lane, N.
Breze, J.F. St. George's Coll., Weybridge
Currie, P. St. Joseph's Comm. Coll., Dumfries
DuMosch, H.F. Walsall Commercial College
Emmerson, C.L. Private tuition
Fletcher, J.T. Grammar School, Spalding
Jones, J.L. Ruthin Gram. S.
Maddison, G.R. Private tuition
Neal, F.J. al. Private tuition
Nicolson, F.I. TOLLINGTON S., Muswell Hill, N.
Oxy, F.H. bk. TOLLINGTON PARK COLLEGE, N.
Wainwright, A. Gram. S., Eccles
Wise, H.M. d. Grammar School, Spalding
Ibbotson, E. Brunt's Technical S., Mansfield
Parker, C. sh. Private tuition
Redford, S.A. Grove House, Highgate
Sykes, J. Technical S., Stalybridge
Boyle, H.H. Private tuition
Brooks, E.S.C. Private tuition
Chadder, F.A. The College, Shebbear
Charoen, M.L. al. m. Arnold House, Chester
Gales, F.L. Yorkshire Society's S., S.E.
Glew, F. Grammar School, Soale
Malcolm, E.G. Portsmouth Secondary S.
Robson, A. Reddy Boys' S., Sunderland
Wigham, T.W. Friends' S., Wigton
Williams, T.S. Ruthin Gram. S.
Adams, C.D. al. Stoke Public Higher S., Devonport
Crane, W.A. Southport College
Lloyd, W. d. Christchurch Hr. Elem. S., Southport
Manaton, G.A. Chaloner's School, Braunton
Ayres, W. al. Stoke Public Higher S., Devonport
Clements, P.A. Market Bosworth Gram. S.
Cregan, H.Q. Hulme Gram. S.
Harris, T.H. County School, Liskeard
Kelly, F.F. Xaverian College, Manchester
Moody, W. d. Catholic Gram. S., St. Helens
Moss, A. Training College Model S., York
Stuart, C.P. Private tuition
Bellairs, J.B. St. George's Coll., Weybridge
Broxup, F.B. e. Margate Commercial S.
Gick, R.W. Private tuition
Gilliland, S. TOLLINGTON S., Muswell Hill, N.
Lane, H. Bethany H., Goudhurst
Whale, B. Poly. Secondary Comm. S., Regent St., W.
Evans, E.J. al. Porth Higher Grade S.
Foster, L.W. Farnham Gram. S.
Hughes, H.R. Ruthin Gram. S.
Neal, J. Private tuition
Sillely, H.H. Lindisfarne Coll., Westcliff-on-Sea

BOYS, 2ND CLASS, PASS—Continued.

Smart, A.H. *cl.* Buckingham Place Acad., Portsmouth  
 Turner, H. Stafford Coll., Forest Hill  
 Baker, R.J. University School, Southport  
 1Coard, C.A. Stationers' Company's S., Hornsey  
 Cockcroft, E. Penistone Gram. S.  
 Farmer, E. Private tuition  
 Gibbs, V.R. *cl.* London Coll., Holloway Rd., N.  
 1Gray, J.B. Stationers' Company's S., Hornsey  
 1Hurst, S.H. Private tuition  
 Jennings, E.A. Private tuition  
 1Little, P. St. Mary's Hall, Cardiff  
 1McCubbin, J.McC. Catford Coll. S., Lewisham  
 Pringle, J. Higher Standard S., Sutton-in-Ashfield  
 Taylor, J. Newchurch Gram. S.  
 Boyd, J.M. *cl.* King Edward VII. S., Sheffield  
 Dark, N. The College, Shebbear  
 Jolley, R.B. Catholic Gram. S., St. Helens  
 Kemp, T. St. Joseph's Comm. Coll., Dumfries  
 1Leach, S.L. Christ's Coll., Blackheath  
 1Long, F.R. Tollington Park College, N.  
 Snowball, S. Argyle House S., Sunderland  
 1West-Kelsey, F. Private tuition  
 Williams, H.B. Old College S., Carmarthen  
 Alexander, L.C.S. 15 Ellerker Gardens, Richmond  
 Carnell, F.W.T.N. Esplanade House, Southsea  
 Evans, E.D. *cl.* Advanced Elem. Boys' S., Merthy Tydfil  
 Kiddow, D.E. *cl.* Blundell School, Tiverton  
 1Lidiard, A.S. *cl.* Private tuition  
 1Lush, J.K. Grosvenor School, Bath  
 McGregor, D.A.S. Private tuition  
 Russ, S.H. Green Park Coll., Bath  
 Andrew, H.S. Thornleigh, Bideford  
 Burr, R. J. Kemnay Higher Grade S.  
 Campbell, W.S. Private tuition  
 Lawton, N.K. Endcliffe Coll., Shebbear  
 Uglow, J. The College, Shebbear  
 Armstrong, W.H. Scorton Gram. S.  
 Braby, C.P. Private tuition  
 Chalfers, H. Northern Institute, Leeds  
 Dick, A.O. Tollington S., Muswell Hill, N.  
 George, J. St. Joseph's Comm. Coll., Dumfries  
 Hartland, F.G. *cl.* Private tuition  
 1Jones, L.M. Gram. and Coll. S., Carnarvon  
 King, J.H. Private tuition  
 Perham, E. Poly. Secondary Comm. S., Regent St., W.  
 1Root, A.C. Lancaster Coll., W. Norwood  
 Schullert, A.J. Tollington Park College, N.  
 Scullard, G.T.B. Christian Bros.' Coll., Gibraltar  
 Webb, G.T. *cl.* Private tuition  
 Beech, C.N. Ruthin Gram. S.  
 Cole, A.H. Headland Park S., Plymouth  
 Coutts, H.L.B. Yorkshire Society's S., S.E.  
 Heine, J. Norman House, West Didsbury  
 Thomas, J.L. The Cusack Institute, E.C.  
 Berger, A. Poly. Secondary Comm. S., Regent St., W.  
 Fitzpatrick, F.E. Xaverian College, Manchester  
 Hicks, C.L. *cl.* Dunheved Coll., Launceston  
 Johnson, J.E.C. *cl.* West Hill Council S., Hednesford  
 1Roberts, J. *cl.* Private tuition  
 Beaton, P.F. *cl.* Winchmore Hill Coll. S., N.  
 Jaggard, W. J. Northgate S., Bury St. Edmunds  
 Masterson, W. Xaverian College, Manchester  
 Smith, G. *cl.* Redby Boys' S., Sunderland  
 Storey, G. Sandyford Road S., Newcastle-on-T.  
 Batsford, J. F. St. John's Coll., Finsbury Pk.  
 Brand, R.T. *cl.* Private tuition  
 Childs, H. *cl.* Brunt's Technical S., Mansfield  
 Cooke, H.H. Private tuition  
 1di Villa, J.M. St. Joseph's Coll., Beulah Hill  
 1Duffell, G. St. Joseph's Comm. Coll., Dumfries  
 Graham, C. *cl.* Tyneouth School  
 Macmahon, J.R. Stonyhurst Coll., nr. Blackburn  
 Mallet, H. Private tuition  
 Norcott, W.J. *cl.* Philological S., Southsea  
 Roberts, H.O. Hillmartin Coll., Camden Rd., N.W.  
 Walker, A.E. Market Bosworth Gram. S.  
 Wright, O.G. *cl.* Colleshill Grammar School  
 Cope, H. Mansfield Grammar S.  
 1Drysedale, M.W. Stationers' Company's School, Hornsey  
 Thorpe, C.W. Grammar School, Spalding  
 Whitting, E.J. *cl.* The College, Weston-s.-Mare  
 Clews, R.T. Ruthin Gram. S.  
 Dale, W.H. The College, Weston-s.-Mare  
 Dean, F.R. Market Bosworth Gram. S.  
 Lucy, G.W. University School, Rochester  
 Norburn, A.H. *cl.* Mansfield Grammar S.  
 Swain, E. Private tuition

Harrison, H.E. University School, Rochester  
 Leggat, T. Modern S., E. Grinstead  
 1Ryder, C. Private tuition  
 Bailey, W.O. *cl.* Private tuition  
 Bowler, A. Kelvin College, Liverpool  
 Davies, W. Private tuition  
 Kirby, W.H. Tollington S., Muswell Hill, N.  
 Middleton, H.H. Private tuition  
 Millett, F.E. Stoke Public Higher S., Devonport  
 1Norman, J. *ph.* Grammar School, Deverez  
 Palmer, A. Sandyford Road S., Newcastle-on-T.  
 Watts, F.G. *cl.* South-Western Poly. Inst., Chelsea  
 Benjamin, J. *ma.* Porth Higher Grade S.  
 Cox, G.M. St. Peter's Coll., Brockley  
 1Davies, G.F. Private tuition  
 1Emsum, A.G. Winchmore Hill Coll. S., N.  
 Jenkinson, E. Private tuition  
 King, A.G. *cl.* Saltaire Grammar School  
 O'Loughlin, W.S. Private tuition  
 Schenemann, C. Barnstaple Gram. S.  
 Siedle, B.A. Private tuition  
 Ward, E. Private tuition  
 Billings, P.M. Tollington Park College, N.  
 Bustinza, P. St. Joseph's Comm. Coll., Dumfries  
 deVerteuil, L. Stonyhurst Coll., nr. Blackburn  
 George, D.L. Ferndale Secondary S., Rhondda  
 Gilbertson, F.J. Argyle House S., Sunderland  
 Haynes, J.H. St. Aloysius' Coll., Hornsey Lane, N.  
 Crossley-Meates, B. Private tuition  
 Key, A.W. *cl.* Ashbourne Grammar School  
 1Loosey, G. Market Bosworth Gram. S.  
 Mead, A. Private tuition  
 Smith, C. Fartown Gram. S., Huddersfield  
 Stott, S.B. Arnold H., South Shore, Blackpool  
 Tait, T. Sandyford Road S., Newcastle-on-T.  
 1Walker, F. Tollington S., Muswell Hill, N.  
 Wilkinson, W.L. Argyle House, Sunderland  
 Ablett, T. Porth Higher Grade S.  
 Bainbridge, G. High S., Kirby Stephen  
 Brindle, F. *cl.* Private tuition  
 Denny, F.A. *cl.* New College, Worthing  
 Hersey, G.W. Sutton Pk. S., Sutton  
 Pantou, D.F. Dulwich College  
 Pearse, H.E. Kidderminster Gram. S.  
 Pearson, F. Redby Boys' S., Sunderland  
 Scammell, P. Civil Service Inst., Rye Lane, S.E.  
 Stuart, F. Private tuition  
 Thomas, D.M. Porth Higher Grade S.  
 1Tulloch, L.A.W. Private tuition  
 Westlead, E.M. Private tuition  
 Barton, J.F. Gram. S., Eccles  
 Brown, T.A. Private tuition  
 Casey, F.D. *cl.* St. George's Coll., Weybridge  
 1Driver, N.W. Hillmartin Coll., Camden Rd., N.W.  
 Glanville, F.E. Private tuition  
 Horsley, A. Tollington S., Muswell Hill, N.  
 Savage, F.C. Montrose Coll., Streatham Hill  
 Townshend, O.B. Private tuition  
 Westcombe, W.R. University School, Rochester  
 Adams, H.C. St. Boniface's Coll., Plymouth  
 Appleton, G. Catholic Gram. S., St. Helens  
 Binns, H.D. Rivington Gram. S., Horwich  
 Carter, F.N. Hounslow Pupil-Teachers' Centre  
 1Clough, W.O. St. Joseph's Comm. Coll., Dumfries  
 Foggan, D. Private tuition  
 Ford, W. Modern S., Newcastle-on-T.  
 Gardenner, F.C. High School, Camborne  
 Harper, J. Lancaster College, Morecambe  
 1Highton, J.H. University School, Southport  
 Linzee, J.I. Private tuition  
 O'Flanagan, F.G. St. Joseph's Coll., Beulah Hill  
 Oriel, R.J. Porth Higher Grade S.  
 Parrott, C.C. 15 Ellerker Gardens, Richmond  
 Schwabe, S.P. Tudor Hall, Hawkhurst  
 1Simon, W.D. County School, Barnmouth  
 Williams, E.R. Private tuition  
 Bartlett, W.V. Christ's Coll., Blackheath  
 Burke, H.I. St. Joseph's Comm. Coll., Dumfries  
 Cawston, W.B. Northgate S., Bury St. Edmunds  
 Morris, G.O. Grove House S., Highgate  
 O'Brien, J.V. St. George's Coll., Weybridge  
 Ross, J.A. St. George's Coll., Weybridge  
 Wheeler, P. *cl.* Southend Grammar S.  
 Wills, J.L. Gram. S., Newton Abbot  
 Barber, S. *cl.* St. John's Coll., Brixton  
 1Elmitt, G.L. Gram. S., Eccles  
 English, H. Netherthorpe Gram. S., Sheffield  
 Evans, I.T.H. Tutorial S., Penarth  
 Fiske, C.E. Bungay Grammar School  
 Fovarner, R. *cl.* Grammar School, Spalding  
 Johnson, J.D. Argyle House S., Sunderland  
 Lewin, J. *cl.* Private tuition

McKearney, H.G. St. Joseph's Comm. Coll., Dumfries  
 Naisby, J.V. Argyle House S., Sunderland  
 Anderson, H.W. *cl.* Scarborough Municipal School  
 Bain, J.L. *cl.* Beechen Cliff, E. Dulwich  
 Barling, W.B. *cl.* Manor House, Clifton  
 Bell Bonnett, V.W. Tollington S., Muswell Hill, N.  
 Kirby, S.H. Eye Grammar School  
 Phillips, D.C. *cl.* Private tuition  
 1Alexander, A.J. St. George's Coll., Weybridge  
 1Blake, H.H. Tollington Park College, N.  
 Gallop, E.G. Private tuition  
 1Rossiter, O.C. Montpeller S., Paignton  
 Tyleman, B.V. Private tuition  
 Vincent-Brown, C. St. George's Coll., Weybridge  
 1Allday, C.R. Private tuition  
 1Armstrong, P. Brunt's Technical S., Mansfield  
 Clark, A.H. Private tuition  
 1Clark, S. *cl.* Grove House, Highgate  
 1Gleave, P.N. University School, Southport  
 1Horne, S.T.C. *cl.* Margate Commercial S.  
 Mathews, H.O. Private tuition  
 Moorhouse, J.A. *cl.* Private tuition  
 Munn, C.F. Arlington Villa S., Brighton  
 Sharp, W.H. *cl.* Poly. Secondary Comm. S., Regent St., W.  
 Tear, J.G. Private tuition  
 Webb, V.L. St. Joseph's Coll., Beulah Hill  
 Bayley, J.H. *cl.* Private tuition  
 Box, L.S. Grove House, Highgate  
 Cox, H.E. Private tuition  
 Kennedy, F.H. Hillmartin Coll., Camden Rd., N.W.  
 1Law, S.C.Y.P. Silver Academy, Gunnersbury  
 1May, C.J.D. Victoria College, Bath  
 1Stedford, N.C. The College, Shebbear  
 Sutton, F.S. *cl.* Kingsley School, Shifnal  
 1Duncan, A.L. 39 Dee St., Aberdeen  
 1Haskell, P.G. Private tuition  
 1Pokinghorn, C.S. Tollington Park College, N.  
 Renwick, G.F. Royal Gram. S., Newcastle-on-T.  
 Box, R.L. Grosvenor School, Bath  
 Cross, B.R. Private tuition  
 Gray, G.E.V. St. George's Coll., Weybridge  
 Harris, S. Private tuition  
 Husband, D.I. St. George's Coll., Weybridge  
 Price, H.P. Christ Coll., Brecon  
 Sentance, A. Grammar School, Spalding  
 Bishop, L.L. Gram. S., Taplow  
 Champion, E.J. Private tuition  
 Ellis, P.T. Plymouth Boys' S., Plymouth  
 Glover-Clark, A. Bethany H., Goudhurst  
 Lobez-Williams, J. St. Joseph's Comm. Coll., Dumfries  
 Mummery, J. Gram. S., Goole  
 Murphy, M.C. St. Joseph's Comm. Coll., Dumfries  
 Rowbotham, E.S. Private tuition  
 Stapley, C.J. Bethany H., Goudhurst  
 1Batellier, R.A. Tudor Hall, Hawkhurst  
 Bevis, D.A. Philological S., Southsea  
 Butler, G.McA. Tollington Park College, N.  
 Dodd, E.J. Private tuition  
 Griffiths, H.J. Bethany H., Goudhurst  
 Heslop, H. Friend's S., Wigton  
 Lorimer, J.D. Eastward Ho! Coll., Felixstowe  
 Marshall, R.A. Private tuition  
 McLoughlin, G.C. St. Aloysius' Coll., Hornsey Lane, N.  
 Smith, G.A. Private tuition  
 Taylor, R.J. Private tuition  
 1Abery, J.C. Wilson Coll., Stamford Hill  
 Ashworth, F.G. Private tuition  
 1Chippertell, L.J. Northgate S., Bury St. Edmunds  
 Howard, A. Sandyford Road S., Newcastle-on-T.  
 Nunn, H. Northern Institute, Leeds  
 Voe, A.E. Private tuition  
 Williams, G.C. Llantwit Major S., Cardiff  
 Austin, J.H. Grammar S., Chorton-cum-Harby  
 Evans, C.H. Private tuition  
 Fitzpatrick, J. St. Joseph's Comm. Coll., Dumfries  
 Jones, A.E. *cl.* Private tuition  
 Monkhouse, W. Private tuition  
 Toole, F.J. St. Aloysius' Coll., Hornsey Lane, N.  
 Whetton, C. Higher Standard S., Sutton-in-Ashfield  
 1Barraclough, J.A. Beechen Cliff, E. Dulwich  
 1Blake, J. Saleasian School, Battersea  
 Imossi, L. *cl.* Christian Bros.' Coll., Gibraltar  
 1Kendon, D.H. Bethany H., Goudhurst  
 McConnochie, G.R. St. Joseph's Comm. Coll., Dumfries  
 1Smith, G.H. University School, Southport  
 Tope, C.T. Plymouth Boys' S., Plymouth  
 Ashbrook, H.R. Gram. S., Eccles  
 Baynham, A.W. Tyneouth School  
 Goozee, G.R. Bethany H., Goudhurst

Hullah, M.C. Private tuition  
 Lawford, G.L. Kilburn Grammar S.  
 Plant, J.G.B. Private tuition  
 Roberts, R. *cl.* Private tuition  
 Thiemaus, H. Northern Poly. S., Holloway Rd., N.  
 1Walsh, M. Skerry's College, Liverpool  
 Warner, E.B. Gram. S., Eccles  
 1Buer, W.B. Warner's College, Richmond  
 Burnett, G.R. St. Joseph's Comm. Coll., Dumfries  
 Holmes, C.A. Gram. S., Finchley  
 Jakeman, S.P. Abp. Holgate's School, York  
 Mowan, P.J. St. Boniface's Coll., Plymouth  
 Parsonage, F.H. The Academy, Crewe  
 Stevens, S. William Ellis Endowed S., St. Pancras  
 Evans, D.R. Pentre Higher Elem. S.  
 FitzGerald, G. Private tuition  
 Fitzsimons, R.C. Cawley S., Chichester  
 Hensby, S.F. Northgate S., Bury St. Edmunds  
 Massey, C. St. Boniface's Coll., Plymouth  
 Nicholson, J.C. Private tuition  
 1Rush, J. Friends' School, Wigton  
 Simpson, W.A. Yorkshire Society's S., S.E.  
 1Stacy, W.B. St. Paul's S., Kensington  
 Thomas, A.E. Ruthin Gram. S.  
 Faruworth, A. *cl.* Manchester Grammar School  
 Lennox, J. St. Joseph's Comm. Coll., Dumfries  
 MacGillivray, A.B. Private tuition  
 1Rosamond, J. Private tuition  
 Sutcliffe, S.H. Tollington S., Muswell Hill, N.  
 Tillott, H.L. Private tuition  
 Woodcock, G.H. Fartown Gram. S., Huddersfield  
 Badger, A.G. St. Mary's S., Loughborough  
 Davies, W. Porth Higher Grade S.  
 Hampton, T.V. *cl.* Kingsley School, Shifnal  
 Henry, M.G. Private tuition  
 McIntyre, G.McD. Private tuition  
 West, H. Yorkshire Society's S., S.E.  
 Wren, R.W. *cl.* Private tuition  
 Barnes, G.W. *cl.* Endcliffe Coll., Sheffield  
 Barnes, J.McA. Modern S., E. Grinstead  
 Carvalho, R.J. St. Georges' Coll., Weybridge  
 Clarke, H.B. *cl.* Private tuition  
 1Gregory, R. Civil Service Academy, Manchester  
 Howlett, H. Yorkshire Society's S., S.E.  
 Rich, F.H. Tollington S., Muswell Hill, N.  
 Worrall, P.R. The Academy, Crewe  
 Berry, J.W. Tutorial S., Penarth  
 Cook, F. St. Mary's Hall, Cardiff  
 Holt, G. Rivington Gram. S., Horwich  
 Miles, L. St. Joseph's Comm. Coll., Dumfries  
 Barnes, C.L. Grammar School, Chichester  
 Honer, D.J. *cl.* St. Boniface's Coll., Plymouth  
 Koenen, F. Xaverian College, Manchester  
 Lennon-Brown, A.G. Private tuition  
 1Tollemache, D.J. St. Georges' Coll., Weybridge

THIRD CLASS.  
Honours Division.

Guillaume, P. *cl.* St. Joseph's Coll., Beulah Hill  
 De Monescazon, C.J. *cl.* St. Aloysius' Coll., Hornsey Lane, N.  
 De la Cruz, A. *cl.* St. Joseph's Comm. Coll., Dumfries  
 Grover, S.A. *cl.* Montrose Coll., Streatham Hill  
 Volcan, D. *cl.* Marist Bros.' Coll., Grove Ferry  
 Charles, A. *cl.* Mariat Bros.' Coll., Grove Ferry  
 Watts, T. *cl.* St. James's, Devonport  
 Rolfe, H.W. *cl.* Tollington S., Muswell Hill, N.  
 Cessot, P. *cl.* Marist Bros.' Coll., Grove Ferry  
 Berry, G.D. *cl.* Tollington Park College, N.  
 Gallardo, M. St. Joseph's Comm. Coll., Dumfries  
 Holmes, C.W.D. *cl.* Dagmar H., Hatfield  
 Peter, T. *cl.* Marist Bros.' Coll., Grove Ferry  
 Ferris, F.C. *cl.* Wilson Coll., Stamford Hill  
 Hitchcock, E.W. *cl.* St. James's, Devonport  
 Moore, G.F. *cl.* St. George's Coll., Weybridge  
 Pinder, L.S. *cl.* Dagmar H., Hatfield  
 Playte, E.S. *cl.* Dagmar H., Hatfield  
 Blow, A.G. *cl.* Dagmar H., Hatfield  
 Jones, A.D. *cl.* Pentre Higher Elem. S.  
 Caldana, A. *cl.* Marist Bros.' Coll., Grove Ferry  
 Charley, G.W. *cl.* The Douglas S., Cheltenham  
 Lavoye, P. Marist Bros. Coll., Grove Ferry  
 Oyarzabal, J. *cl.* St. Joseph's Comm. Coll., Dumfries  
 Watson, H.J. *cl.* St. James's, Devonport  
 Adcock, L.W. *cl.* Taunton School



BOYS, 3RD CLASS, HONS.—Continued.  
 Loufie, H. P. *e.f.d.*  
 St. Aloysius' Coll., Hornsey Lane, N. Murciano, R. *a.d.*  
 Christian Bros.' Coll., Gibraltar  
 Press, W. *e.a.d.f.* Raleigh Coll., Brixton del Castillo, A. *a.d.*  
 St. George's Coll., Weybridge  
 Kershaw, C. *s.e.a.d.*  
 University School, Southport  
 Gaden, F. J. *a.g.m.* St. James's, Devonport  
 Harland, J. N. *s.e.g.*  
 Osborne High S., W. Hartlepool  
 Pugh, D. H. *e.a.w.d.* Pentre Higher Elem. S.  
 Lewis, E. *a.d.g.m.* Modern S., Newcastle-on-T.  
 Tomé, N. St. Joseph's Comm. Coll., Dumfries  
 Drew, J. P. *a.* St. Joseph's Academy, S. E. Warwick, G. *e.a.f.d.* Modern S., Newcastle-on-T.  
 Berretrot, G. *d.* Marist Bros.' Coll., Grove Ferry  
 Byrne, J. F. *a.d.* Xaverian College, Manchester  
 Norris, E. W. *s.d.* University S., Rochester  
 Reed, D. H. *e.a.* The College, Shebbear  
 Lishman, W. *s.e.a.* Battle Hill S., Hexham  
 Speakman, E. V. *s.a.a.d.* Ruthin Gram. S. Tomé, A. *f.* St. Joseph's Comm. Coll., Dumfries  
 Ward, T. *a.f.* Broadgate S., Nottingham  
 Dockett, C. J. F. *e.h.g.a.s.c.* The College, Shebbear  
 Friend, M. *s.a.a.d.* Stafford Coll., Forest Hill  
 Murch, H. A. *a.d.* Johnston Ter. S., Devonport  
 Owen, T. R. *a.d.* Pentre Higher Elem. S.  
 Petherick, J. S. Middle S., Hulsworthy  
 Roberts, N. G. Grove House, Highgate  
 Ruiz de Gamiz, J. P. St. George's Coll., Weybridge  
 Weeden, A. D. TOLLINGTON S., MUSWELL HILL, N.  
 Lavoye, A. *f.* Marist Bros.' Coll., Grove Ferry  
 Browning, D. G. *a.f.* Modern S., Newcastle-on-Tyne  
 Guieu, J. *d.* Marist Bros.' Coll., Grove Ferry  
 Patron, J. *e.* Christian Bros.' Coll., Gibraltar  
 Pyke, W. *a.* Xaverian College, Manchester  
 Webster, T. *e.d.* Osborne High S., W. Hartlepool  
 Brunt, H. A. *g.m.b.k.* St. Joseph's Academy, S. E. Hewes, A. V. *e.a.* Market Bosworth Gram. S.  
 Blake, G. S. *g.e.* Broadgate S., Nottingham  
 Guillain, P. St. Joseph's Coll., Beulah Hill  
 Packer, E. A. *e.a.d.* Modern S., Newcastle-on-T.  
 Price, F. A. *a.* Stoke Public Higher S., Devonport  
 Reenie, A. A. *a.d.* Modern S., Newcastle-on-T.  
 Swift, S. A. *e.a.d.* TOLLINGTON PARK COLLEGE, N.  
 Gray, S. A. *a.d.* TOLLINGTON S., MUSWELL HILL, N.  
 Vanstone, C. H. *g.a.d.* Stoke Public Higher S., Devonport  
 Woods, C. S. *e.a.d.* TOLLINGTON PARK COLLEGE, N.  
 Bailey, E. T. *s.e.a.* Grammar S., Clapham  
 Black, T. G. St. Joseph's Comm. Coll., Dumfries  
 Bull, S. A. *a.d.* TOLLINGTON S., MUSWELL HILL, N.  
 Carroll, J. A. *a.d.* St. Joseph's Comm. Coll., Dumfries  
 Dawson, G. G. *a.d.g.m.* TOLLINGTON S., MUSWELL HILL, N.  
 Leroy, H. *e.* Marist Bros.' Coll., Grove Ferry  
 Miles, F. W. *a.d.g.m.* TOLLINGTON S., MUSWELL HILL, N.  
 Collinson, F. W. *s.* Argyle House S., Sunderland  
 Kilroe, F. J. *a.* St. Joseph's Comm. Coll., Dumfries  
 Shelton, N. O. *a.d.* TOLLINGTON S., MUSWELL HILL, N.  
 Trivett, W. T. Market Bosworth Gram. S.  
 Hall, J. H. *e.* Osborne High S., W. Hartlepool  
 Hersey, G. B. *e.* Sutton Pk. S., Sutton  
 Hudier, J. Marist Bros.' Coll., Grove Ferry  
 Knowles, R. C. *s.e.a.* Eversley S., Southwold  
 Robb, A. C. *a.d.* TOLLINGTON S., MUSWELL HILL, N.  
 Speakman, J. D. *s.a.* Ruthin Gram. S.  
 Catnach, T. B. *e.d.* Modern S., Newcastle-on-T.  
 Chalk, B. *d.* Wilson Coll., Stamford Hill  
 Daly, J. W. *a.g.m.* St. Joseph's Academy, S. E. Percival, H. S. *e.a.* TOLLINGTON PARK COLLEGE, N.  
 Worrall, L. C. *W.* s. Grove House, Highgate  
 Eccles, E. C. *s.* St. Joseph's Comm. Coll., Dumfries  
 Ellis, N. *a.d.* Southend Gram. S.  
 James, G. L. H. Grove House, Highgate  
 Rocca, J. *a.s.p.* Christian Bros.' Coll., Gibraltar  
 Bedford, A. *a.* Modern S., Newcastle-on-T.

Chardin, R. *d.* Marist Bros.' Coll., Grove Ferry  
 Holden, W. F. *e.a.* Richmond House, Handsworth  
 Lewarne, S. *a.d.* Stoke Public Higher S., Devonport  
 Rylands, F. The College, Shebbear  
 Sussex, E. W. *g.m.d.* The College, Shebbear  
 Benzaquen, J. *s.p.* Townley Castle S., Ramsgate  
 Boulton, R. *a.d.* Orient College, Skegness  
 Gore, C. A. *a.d.* TOLLINGTON S., MUSWELL HILL, N.  
 Kelly, B. J. *a.* University S., Southport  
 Smith, W. C. N. *e.a.a.d.* Stafford Coll., Forest Hill  
 Ward, F. *a.* Taunton School  
 Woodhouse, A. *e.a.d.* Gram. S., Eccles  
 Frampton, P. L. Eversley S., Southwold  
 Joyce, E. *a.* Xaverian College, Manchester  
 McKeever, G. N. St. George's Coll., Weybridge  
 Starkey, E. W. *S.* TOLLINGTON S., MUSWELL HILL, N.  
 Viaplana, C. *s.p.* St. Joseph's Coll., Beulah Hill  
 Wainwright, O. St. Joseph's Comm. Coll., Dumfries  
 Wilcox, H. A. Pentre Higher Elem. S.

**THIRD CLASS.**  
**Pass Division.**

Scane, D. G. *g.m.phys.* Ferndale Secondary S., Rhondda  
 Young, P. C. *a.d.* Modern S., Newcastle-on-T.  
 Knight, S. P. The College, Shebbear  
 Williams, J. *d.* Pentre Higher Elem. S.  
 Digby, T. W. *a.d.* Netherthorpe Gram S., Staveley  
 McConnell, G. Ruthin Gram. S.  
 Berry, P. The Douglas S., Cheltenham  
 Patris de Breuil, M. *f.* Marist Bros.' Coll., Grove Ferry  
 Brighton Gram. S.  
 Bullock, R. *a.* Stoke Public Higher S., Devonport  
 Collins, J. H. *a.d.* Lawrence, K. *d.* Sandford Road S., Newcastle-on-T.  
 Phillips, H. B. The College, Shebbear  
 Eddy, R. P. *d.* The College, Shebbear  
 Clothier, R. H. The College, Shebbear  
 Brown, A. S. Central Foundation S., Cowper St., E. C.  
 Evans, J. D. University School, Southport  
 Archer, H. Brunt's Technical S., Mansfield  
 Morgan, W. D. Pentre Higher Elem. S.  
 Sanford, C. J. St. Joseph's Acad., S. E.  
 Williams, E. G. Ferndale Secondary S., Rhondda  
 Wilkes, M. TOLLINGTON S., MUSWELL HILL, N.  
 Capon, C. J. S. Hillmartin Coll., Camden Road, N. W.  
 Newton, T. A. Osborne High S., W. Hartlepool  
 Diaz, J. *s.p.* Christian Bros.' Coll., Gibraltar  
 Ewen, W. St. Joseph's Comm. Coll., Dumfries  
 Pemberton, G. G. Ruthin Gram. S.  
 Challice, R. J. The College, Shebbear  
 Marquis, E. High S., Guernsey  
 Burton, C. E. B. *d.* West Cliff S., Preston  
 King, G. W. Esplanade House, Southsea  
 Bennett, W. L. 57 Lansdowne Street, Hove  
 Komiath, G. L. St. Joseph's Academy, S. E.  
 Bell, E. S. St. Joseph's Academy, S. E.  
 Coates, F. J. St. Joseph's Academy, S. E.  
 Durrant, C. B. University S., Rochester  
 George, J. W. *d.* Ferndale Secondary S., Rhondda  
 Baulkwill, J. O. The College, Shebbear  
 Allshorn, S. G. Grove House, Highgate  
 Coombs, A. C. Beyerly House, Barnes  
 Walker, A. D. F. Redby Boys' S., Sunderland  
 Pentre Higher Elem. S.  
 Hopkins, R. *a.* Pentre Higher Elem. S.  
 Newbold, P. A. St. George's Coll., Weybridge  
 Tomlinson, A. Ruskin School, Maidenhead  
 Barker, G. T. Scorton Grammar S.  
 Hall, S. Sandford Road S., Newcastle-on-T.  
 Lacey, F. J. H. *d.* Culham College S., Abingdon  
 Mansfield, R. St. Joseph's Comm. Coll., Dumfries  
 New College, Herne Bay  
 Charig, A. *a.* Advanced Elem. Boys' S., Merthyr Tydfil  
 James, G. *a.* Highfield, Wandsworth Common  
 Wood, F. E. The Douglas S., Cheltenham  
 Minton, R. N. St. Paul's House, St. Leonards  
 Dale, A. B. St. Boniface's Coll., Plymouth  
 Brien, R. J. St. George's Coll., Weybridge  
 Baker, H. *d.* Modern S., E. Grinstead  
 Bew, W. H. Scorton Grammar S.  
 Coudrey, A. W. *d.* St. George's Coll., Weybridge  
 Dain, D. St. George's Coll., Weybridge  
 Sandbach School  
 Hudson, F. E. St. Joseph's Comm. Coll., Dumfries  
 Johnson, H. Walsall Comm. Coll.

Warren, W. Redby Boys' S., Sunderland  
 Wedberg, C. V. *phys.* Gram. S., Taplow  
 Bartlett, G. B. Winchmore Hill Coll. S., N.  
 Gleadow, G. H. Grammar School, Goolle  
 Blundell, E. P. *d.* Private tuition  
 Bunard, A. Marist Bros.' Coll., Grove Ferry  
 Dickinson, W. A. *e.d.* Modern S., Newcastle-on-T.  
 Harper, J. W. High S., Kirkby Stephen  
 Jones, I. *d.* Pentre Higher Elem. S.  
 McWilliam, J. J. St. Joseph's Comm. Coll., Dumfries  
 Moore, F. P. Catford Coll. S., Lewisham  
 Parkes, H. P. High School, Sutton, Surrey  
 Bouillot, A. E. *a.f.d.* French Convent, Newhaven  
 Cleare, C. R. *e.a.* Wilson Coll., Stamford Hill  
 Cox, H. G. *e.a.* Gram. S., Highworth  
 Edwards, G. Forth Higher Grade S.  
 Fletcher, R. M. *s.a.l.* Lindisfarne Coll., Westcliff-on-Sea  
 Haselden, W. J. *C.* sp. Hoe Grammar S., Plymouth  
 Hewer, W. H. N. *e.* Orient College, Skegness  
 Lebrecht, M. J. Townley Castle S., Ramsgate  
 Newton, C. Gram. S., Eccles  
 Rose, R. G. Southend Grammar S.  
 Stokes, F. A. University S., Southport  
 Bertin, F. J. Xaverian College, Manchester  
 Butcher, D. J. *s.* Egham High School  
 Campion, F. W. *a.d.* Orient College, Skegness  
 Charles, D. S. *a.* Pentre Higher Elem. S.  
 Coombs, H. R. Beverley School, Barnes  
 Dalby, J. Gram. S., Eccles  
 Damant, C. A. S. *a.d.g.m.* TOLLINGTON S., MUSWELL HILL, N.  
 Jones, A. L. H. Gram. S., Eccles  
 Mabey, C. H. C. The College, Littlestone  
 Mahoney, C. L. *s.a.* St. James's, Devonport  
 Payne, H. A. *a.d.* TOLLINGTON S., MUSWELL HILL, N.  
 Weller, F. *a.f.* 18 Lisle Street, W.  
 Williams, J. *a.* Pentre Higher Elem. S.  
 Brass, D. J. Bethany H., Goudhurst  
 Combridge, E. C. Grove House, Highgate  
 Gubbins, E. J. *e.f.* St. Aloysius' Coll., Hornsey Lane, N.  
 Judge, W. J. *a.d.* University S., Rochester  
 Keeble, F. R. Dunheved College, Launceston  
 Lees, J. H. D. *a.d.* Lindisfarne Coll., Westcliff-on-Sea  
 Levy, R. A. Lindisfarne Coll., Westcliff-on-Sea  
 McConnell, W. P. *a.* St. Joseph's Comm. Coll., Dumfries  
 Saunders, W. A. *e.* Eye Grammar School  
 Savage, H. A. *s.e.* Montrose Coll., Streatham Hill  
 Trickett, G. Gram. School, Goolle  
 Williams, J. E. *s.a.* Ruthin Gram. S.  
 Williams, N. *s.e.* The College, Shebbear  
 Cockerill, C. *a.* University S., Rochester  
 Cooper, W. H. *e.* St. Aloysius' Coll., Hornsey Lane, N.  
 Etringham, R. W. Scorton Grammar S.  
 Gilliland, N. TOLLINGTON S., MUSWELL HILL, N.  
 Gunn, F. H. *W.* *e.* Modern S., Newcastle-on-T.  
 Houghton, A. T. *s.* Grosvenor S., Bath  
 Howell, W. D. *s.* Montrose Coll., Streatham Hill  
 Jacob, D. A. Argyle House, Sunderland  
 Lay, J. E. *a.* Grammar S., Highworth  
 Martin, L. *e.* Xaverian College, Manchester  
 McDougall, A. P. TOLLINGTON S., MUSWELL HILL, N.  
 McNulty, P. J. Catholic Gram. S., St. Helens  
 Parkes, F. W. *s.* Ruthin Gram. S.  
 Rhodes, A. H. Gram. S., Chorlton-c.-Hardy  
 Simpson, S. Scorton Grammar S.  
 Vavasour, J. W. *a.* St. Joseph's Comm. Coll., Dumfries  
 Wilson, A. St. Boniface's Coll., Plymouth  
 Bew, T. Christchurch Hr. Elem. S., Southport  
 Burnham, G. F. Rye Grammar S.  
 Coll, P. *a.s.p.* Christian Bros.' Coll., Gibraltar  
 Comberbatch, E. S. The College, Littlestone  
 Cox, T. H. New College, Herne Bay  
 Dunstall, A. J. Gravesend Modern School  
 Gigli, O. A. *i.* St. Aloysius' Coll., Hornsey Lane, N.  
 Hosking, C. B. *a.d.* St. James's, Devonport  
 Isaac, A. C. T. Grove House, Highgate  
 Ritchie, J. H. Modern S., Newcastle-on-Tyne  
 Scorton Grammar S.  
 Rust, E. Friends' S., Wigton  
 Steward, J. *a.* University S., Southport  
 Eshelby, J. M. *s.p.* Christian Bros.' Coll., Gibraltar  
 Wething Hughes, W. P. *s.* Ruthin Gram. S.  
 Limb, F. Brunt's Technical S., Mansfield  
 Lutiens, L. J. *a.d.* Margate College  
 Phillipson, A. *a.* High S., Guernsey  
 Sanderson, N. N. Fartown Gram. S., Huddersfield  
 Veale, L. A. The College, Shebbear  
 Walker, C. H. *d.* Osborne High S., W. Hartlepool

Wallis, A. B. Tynemouth School  
 Watson, H. D. University S., Southport  
 Caldwell, L. M. Bethany H., Goudhurst  
 Courts, G. St. Joseph's Coll., Beulah Hill  
 Dotto, L. Christian Bros.' Coll., Gibraltar  
 Greville, W. D. Old College S., Carmarthen  
 Leayshon, D. E. S. Commercial S., Axtley Bridge  
 Massam, H. St. Teresa's S., Birkdale  
 Moylan, F. E. St. Aloysius' Coll., Hornsey Lane, N.  
 Nelson, H. C. *a.* St. Joseph's Comm. Coll., Dumfries  
 Spain, P. C. St. George's Coll., Weybridge  
 Watson, J. O. Endcliffe Coll., Sheffield  
 Yare, R. *a.* High S., Kirkby Stephen  
 Bamberger, S. *e.a.d.* Southend Grammar S.  
 Carr, W. J. *a.* St. Joseph's Comm. Coll., Dumfries  
 Collins, R. E. Philological S., Southsea  
 Conner, E. S. Allhallows School, Houniton  
 Dawkins, F. S. *a.* New College, Herne Bay  
 Drake, P. Longwood Gram. S., Huddersfield  
 Gomez, J. *s.p.* Christian Bros.' Coll., Gibraltar  
 Goulson, E. W. *e.* Gram. S., Eccles  
 Hill, A. G. *s.* Lindisfarne Coll., Westcliff-on-Sea  
 Manford, R. V. Gram. S., Welshpool  
 Martyn, H. J. Drayton Green S., Ealing  
 Moffatt, W. D. *a.* Modern S., Newcastle-on-T.  
 Pullen, H. W. TOLLINGTON PARK COLLEGE, N.  
 Reed, J. C. *a.* Stoke Public Higher S., Devonport  
 Shanley, G. H. St. Joseph's Comm. Coll., Dumfries  
 Sheridan, R. Salesian S., Battersea  
 Smith, B. J. *b.k.* Gram. S., Eccles  
 Watson, W. D. *a.d.g.m.* Modern S., Newcastle-on-T.  
 Willmot, G. C. Broadgate S., Nottingham  
 Bell, J. Redby Boys' S., Sunderland  
 Bray, L. Richmond Hill S.  
 Brooks, W. R. B. *s.e.a.* The College, Shebbear  
 Clifford, P. R. Fartown Gram. S., Huddersfield  
 Delbano, J. R. *a.* University S., Southport  
 Francis, F. S. Rye Grammar S.  
 Hall, A. E. The College, Shebbear  
 Heads, A. Tynemouth School  
 Helsby, R. G. *s.* Ruthin Gram. S.  
 Hoare, H. P. B. Eversley S., Southwold  
 Hope, J. Gram. S., Eccles  
 Kelly, F. S. St. Joseph's Comm. Coll., Dumfries  
 Lauderdale, W. Sandford Road S., Newcastle-on-T.  
 Leclere, M. *f.* Marist Bros.' Coll., Grove Ferry  
 McKay, C. S. Cawley S., Chichester  
 Millburn, F. A. *a.* Gram. S., Taplow  
 Parkes, T. L. *e.* Halesowen Gram. S.  
 Rainer, G. F. *a.* Christ's Coll., Blackheath  
 Robinson, H. E. *g.m.* TOLLINGTON S., MUSWELL HILL, N.  
 Shaw, R. *a.* Richmond House, Handsworth  
 Squires, W. A. *a.* Stoke Public Higher S., Devonport  
 Grand, C. A. *s.* Gram. S., Welshpool  
 Hartley, P. E. High S., Kirkby Stephen  
 Lardner, R. S. TOLLINGTON S., MUSWELL HILL, N.  
 McDougall, L. R. New College, Herne Bay  
 Nutt, A. Lord Weymouth's Gram. S., Warminster  
 Olford, S. E. Stoke Public Higher S., Devonport  
 Shaw, W. A. *a.* TOLLINGTON S., MUSWELL HILL, N.  
 Thomas, M. H. *a.* Porth Higher Grade S.  
 Tinewell, S. A. F. *a.d.* Stoke Public Higher S., Devonport  
 Bailey, V. A. Walsall Comm. College  
 Breviss, B. Grammar S., Chorlton-c.-Hardy  
 Catten, H. S. Montrose Coll., Streatham Hill  
 Chaston, P. C. Modern S., Newcastle-on-T.  
 Edwards, H. C. R. S. Eversley S., Southwold  
 Fairhurst, T. B. Catholic Gram. S., St. Helens  
 Hall, H. P. *e.* Osborne High S., W. Hartlepool  
 Jones, J. Private tuition  
 Mead, A. *e.* Taunton School  
 Middlecoat, W. N. Lindisfarne Coll., Westcliff-on-Sea  
 Nunneley, W. B. *e.* Modern S., E. Grinstead  
 Orellana, J. *s.p.* Christian Bros.' Coll., Gibraltar  
 Rugeroni, A. *s.p.* Christian Bros.' Coll., Gibraltar  
 Sugden, E. G. Commercial S., Wood Green  
 Thomas, L. C. *e.* Lindisfarne Coll., Westcliff-on-Sea  
 Thurlow, G. W. *b.k.* Eastward Ho! Coll., Felixstowe  
 Zepero, H. J. *a.f.l.* St. Joseph's Comm. Coll., Dumfries  
 Bell, J. S. Tynemouth School  
 Butter, H. F. Gram. S., Finchley  
 Cadman, W. E. Yorkshire Society's S., S. E.  
 Cope, B. *d.* St. Aloysius' Coll., Hornsey Lane, N.

BOYS, 3RD CLASS, PASS—Continued.

Daw, H.G. Dunheved Coll., Launceston
Dixon, D. e. Tyneworth School
Gaade, J.M. The Douglass, Cheltenham
Gaillard, A.L.
St. Aloysius' Coll., Hornsey Lane, N.
Graver, R.H. Market Bosworth Gram. S.
Matthews, J.H.R.
Stoke Public Higher S., Devonport
Middleton, J.S. Sandbach School
Mulready, C.H. a.
Stoke Public Higher S., Devonport
Oliver, J.G. a. Modern S., Newcastle-on-T.
Perfect, D.S.
Lindisfarne Coll., Westcliff-on-Sea
Roder, C.F. a.d. Scorton Grammar S.
Seddon, G. Private tuition
West, N. a. al. gm. University S., Rochester
Baulkwill, R.P. The College, Shebbear
Bland, W.E. a. al.
Tollington Park College, N.
Bowman, C.S. Modern S., Newcastle-on-T.
Brightman, W.H. a.
Modern S., Newcastle-on-T.
Crisp, F.A. s. e. Laugharne School, Southsea
Croft, W.L.
Mr. Watkins's, Crich Common
Davies, G.S. Pentre Higher Elem. S.
Evans, J.T. s. a. d. Gram. S., Welshpool
Holt, E.
Sandyford Road S., Newcastle-on-T.
Hunt, J. University S., Southport
Jacques, J.L.
Arnold House, South Shore, Blackpool
Johnson, G.H. Modern S., Newcastle-on-T.
Lloyd, E.T. Porth Higher Grade S.
Lloyd, G.G. a.
Northgate S., Bury St. Edmunds
Longinotto, E.V.
St. Joseph's Coll., Beulah Hill
McCluskey, F.G. d.
St. Joseph's Comm. Coll., Dumfries
Nicholson, G. Argyle House, Sunderland
Pescod, G. Gram. S., Friern Barnet
Place, T.B. The Academy, Crewe
Roe, A.C.G. Eversley S., Southwold
Strawson, D.H. s. Gram. S., Welshpool
Walker, P. The High S., Nottingham
Watson, W.S.
Northgate S., Bury St. Edmunds
Anthony, M.S. e.
Modern S., Newcastle-on-T.
Bedford, C.M.
Montrose Coll., Streatham Hill
Cleaver, C.L.
St. Catherine's Coll., Richmond
de Sá Teixeira Peixoto, A.J. sp.
St. George's Coll., Weybridge
Donovan, R.A.
St. Joseph's Comm. Coll., Dumfries
Hughes, B.
Ferdale Secondary S., Rhondda
Parry, C.F. a.
Tollington S., Muswell Hill, N.
Taylor, G. Rivington Gram. S., Horwich
Young, C.N. Bethany H., Goudhurst
Blight, R.J. e. Tutorial S., Penarth
Brook, G.W.
Fartown Gram. S., Huddersfield
Cameron, H.
Arnold House, South Shore, Blackpool
Cole, T.W.
Sir Andrew Judd's Comm. S., Tonbridge
Da Cunha, S. Norman House, W. Didsbury
Davies, D. Gram. S., Welshpool
Edwards, S.E. e. Taunton School
Hall, P.C. a. St. Peter's Coll., Brockley
Harrison, H. d.
Sandyford Road S., Newcastle-on-T.
Hoare, J.M.
Hillmartin Coll., Camden Rd., N.W.
Holton, G.J.P.
Tollington S., Muswell Hill, N.
King, H.M.
Courtenay Lodge, Sutton Courtenay
Lansley, C.H.
Stoke Public Higher S., Devonport
MacCarthy, E.
St. Joseph's Coll., Beulah Hill
Napper, R. Cullham College S., Abingdon
O'Hagan, T. a. al.
Xaverian College, Manchester
Preston, R. Friends' S., Wigton
Schmitt, L.C. s.
Restrevor House, Folkestone
Seagrove, C.A. Bethany H., Goudhurst
Smith, H.W. New College, Herne Bay
Stephenson, H. e.
Osborne High S., W. Hartlepool
Berry, A.J. Gram. S., Eccles
Byrne, N.T. a.
St. Joseph's Comm. Coll., Dumfries
Cottier, H.S. Christ Church S., Bootle
Doyle, H.I.
St. Joseph's Comm. Coll., Dumfries
Embleton, W.
Sandyford Road S., Newcastle-on-T.
Eplett, E.O. Staines Coll. S.
Gantner, L.J.
Tollington S., Muswell Hill, N.
Green, W.P. Private tuition
Hoole, K.H.
Montrose Coll., Streatham Hill

Hughes, E. Porth Higher Grade S.
Hutchins, S.W.
Oxford House, Junction Road, N.
Johnston, J.R. St. John's Coll., Brixton
Jones, G.T. Porth Higher Grade S.
Leclercq, A. a.
Marist Bros.' Coll., Grove Ferry
McLellan, H.N. a. University S., Southport
Toole, R.W.
St. Aloysius' Coll., Hornsey Lane, N.
Twigg, H.G.
Middleton House, Knowle, Bristol
Allen, J.E. High S., Kirkby Stephen
Croft, E.C. a. York Manor S., York
Edwards, N.M. al. Ruthin Gram. S.
Gibb, J. St. Teresa's S., Birkdale
Hamilton, H. Tyneworth School
Heavside, S.C.
Highfield, Wandsworth Comm.
Jauncey, G.H. Private tuition
Kirk, E.G. a.
Lindisfarne Coll., Westcliff-on-Sea
Kitchin, R. e.
St. Joseph's Coll., Beulah Hill
Lack, E.E. Grove House, Highgate
Lee, G.S. Bethany H., Goudhurst
Lewis, L.A.
Buckingham Place Acad., Portsmouth
Meredith, D.W. Arnold House, Chester
Miller, R. d. Tollington S., Muswell Hill, N.
Morris, R.V. al.
The High S. for Boys, Croydon
Senior, C.J. Boys High S., Warcham
Singer, G.K. Tutorial S., Penarth
Wesley, E. Tollington Park College, N.
Bacon, D. Xaverian College, Manchester
Cook, W.J. a. Willow House Coll., Walsall
Croscombe, J.F. Christ's Coll., Blackheath
Evans, H.M.H. Tutorial S., Penarth
Hunter, C.J. Catholic Gram. S., St. Helens
Ireland, D. St. Mary's Hall, Cardiff
Keen, A.O. a.
Lindisfarne Coll., Westcliff-on-Sea
Lowndes, D.B. Gram. S., Eccles
Spillman, A.W.
Stoke Public Higher S., Devonport
Taylor, T.C.
Longwood Gram. S., Huddersfield
Wadsworth, P. Tollington Park College, N.
Walkey, F.J.
Stoke Public Higher S., Devonport
Allchurch, A.J. a. The College, Shebbear
Brown, C.N. St. Helen's Coll., Southsea
Burd, T. s. Ruthin Gram. S.
Chart, H.N.
St. Catherine's Coll., Richmond
Cook, L.F.P. Gram. S., Taplow
Davis, J.L. Aspen Grove S., Liverpool
Dunning, F. a. High S., Kirkby Stephen
Fenn, H.T.
Hillmartin Coll., Camden Rd., N.W.
Gee, C. Longwood Gram. S., Huddersfield
Hooker, H.F. Boys High S., Warcham
Pappin, F.J. Tollington S., Muswell Hill, N.
Potter, C.T.
Stoke Public Higher S., Devonport
Roe, J. St. Mary's High S., Cairo
Whiston, P.J. Ellesmere S., Ellesmere
Whitehead, J.D. al.
University S., Rochester
Willington, W.L.
St. Catherine's Coll., Richmond
Bate, P. bk.
St. Joseph's Comm. Coll., Dumfries
Bernard, A.S. Brondesbury Coll., N.W.
Bowker, J.S. University S., Southport
Butler, E.M. Alton H., Blackheath
Came, F.J.V.
Stoke Public Higher S., Devonport
Clough, A.F.
St. Joseph's Comm. Coll., Dumfries
Hall, W.J. al. Tollington S., Muswell Hill, N.
Johnson, J.S. Stafford Coll., Forest Hill
Joseph, M.J. Vale College, Ramsgate
Maisey, E.H.
Stoke Public Higher S., Devonport
Marshall, W.V. Yorkshire Society's S., S.E.
Orrin, J. St. Joseph's Coll., Beulah Hill
Panton, J.A. a. Private tuition
Peitfel, A.
Sandyford Road S., Newcastle-on-T.
Anderson, R.L. St. John's Coll., Brixton
Baker, E. Gram. S., Newton Abbot
Benjamin, N.H. Wilson Coll., Stamford Hill
Brown, L.R. New College, Herne Bay
Collen, F.D. Christ's Coll., Blackheath
Gilmore, E.R.
Xaverian College, Manchester
Harrison, A. Beverley School, Barnes
Honer, A. St. Boniface's Coll., Plymouth
Howell, R. Wilson Coll., Stamford Hill
Lambert-Combes, J.
Marist Bros.' Coll., Grove Ferry
Lee, J. a. al. Redby Boys' S., Sunderland
Lennox, H.A.
St. Joseph's Comm. Coll., Dumfries
Mawdsley, E. d. University S., Southport
May, C.C. Catford Coll. S., Lewisham
Poynton, C.E. Gram. S., Eccles
Spencer, F. a.
Montgomery College, Sheffield
Summers, S. Market Bosworth Gram. S.
Warren, J.W. E.
Lindisfarne Coll., Westcliff-on-Sea

Barry, C. a. Xaverian College, Manchester
Bishop, V.A. St. George's Coll., Weybridge
Brooke, O.G. St. Joseph's Academy, S.E.
Clifton, R.P. Tudor Hall, Hawkhurst
Dobson, S.A.M. Christ's Coll., Blackheath
George, T.H. Gram. S., Taplow
Henderson, A.
Sandyford Road S., Newcastle-on-T.
Lawlor, D.P.
St. Aloysius' Coll., Hornsey Lane, N.
Levy, H.N.
Hillmartin Coll., Camden Rd., N.W.
Morgan, E.H. a. Taunton School
Richards, K.J.
Tollington S., Muswell Hill, N.
Ross, E. Xaverian College, Manchester
Sinden, C. Richmond Hill S.
Smith, S.T. Market Bosworth Gram. S.
Squire, J. St. Boniface's Coll., Plymouth
Allen, A.L. a. Tutorial S., Penarth
Balfre, A.A.
St. Aloysius' Coll., Hornsey Lane, N.
Brill, H.V. s. Grove House, Highgate
Edwards, T.C. Ruthin Gram. S.
Ellis, E. Bethany H., Goudhurst
Hatten, C.M. The Hermitage S., Preston
Jackman, A.W. Taunton School
Malin, A.G. Tollington Park College, N.
Perez, J.M. St. George's Coll., Weybridge
Phillips, A.G. s. e. Eversley S., Southwold
Plank, L.S. Wilson Coll., Stamford Hill
Scott, T.
Sandyford Road S., Newcastle-on-T.
Webb, P. Private tuition
Braga, E.L. St. George's Coll., Weybridge
Catnach, W.
Sandyford Road S., Newcastle-on-T.
Defer, G.E.
Hillmartin Coll., Camden Rd., N.W.
Dreven, A.D. Argyle House, Sunderland
Figgins, E.E. Gram. S., Clapham
Gilbert, E.C.
Montrose Coll., Streatham Hill
Hill, E.F.F.
Stoke Public Higher S., Devonport
Hulme, H. Gram. S., Eccles
Macdonald, F.
St. Joseph's Comm. Coll., Dumfries
Parry, J.H. Gram. S., Welshpool
Pearson, C.R.
Tollington S., Muswell Hill, N.
Peters, J. Gram. and Coll. S., Carnarvon
Tate, H.S. a. Private tuition
Taylor, W.F. Holloway College, N.
Walters, F. York Manor S., York
Bridge, K.B.C.
Stoke Public Higher S., Devonport
Gordon, G. Tollington S., Muswell Hill, N.
Gush, W.G. Taunton School
Hatherley, R.A. The College, Shebbear
King, G.S.
Lindisfarne Coll., Westcliff-on-Sea
Lambert, R. The College, Shebbear
Midgley, L. Gram. S., Eccles
Miller, N.J.
Higher Standard S., Sutton-in-Ashfield
Pewing, H. St. Boniface's Coll., Plymouth
Roser, E.D.
St. Aloysius' Coll., Hornsey Lane, N.
Woolley, H.G. G. Belle Vue H., Greenwich
Blackwell, S.F.
The High S. for Boys, Croydon
Butler, G.W.
Dunheved College, Launceston
Carr, J.E. e. Royal Coll. S., Sheffield
Davies, G.
St. Joseph's Comm. Coll., Dumfries
Dukes, W. Yorkshire Society's S., S.E.
Ellis, J.B. Grosvenor S., Bath
Jones, J.P. Ellesmere S., Ellesmere
Lifton, R.
Arnold House, South Shore, Blackpool
Malley, R. Aspen Grove S., Liverpool
Messent, L.H.
Montrose Coll., Streatham Hill
Rowe, F. St. Boniface's Coll., Plymouth
Sampson, W.F. d.
Lindisfarne Coll., Westcliff-on-Sea
Taylor, W.J. al. Endcliffe Coll., Sheffield
Wildsmith, L.F.
St. Joseph's Comm. Coll., Dumfries
Young, M.S. a. Modern S., Newcastle-on-T.
Baines, L.A.
St. Joseph's Comm. Coll., Dumfries
Capper, T.J.
St. Aloysius' Coll., Hornsey Lane, N.
Clarke, H.C. Grammar S., Spalding
Cochrane, D.W. St. John's Coll., Brixton
Ebbetts, P.T. Private tuition
Ewen, A.S.
St. Joseph's Comm. Coll., Dumfries
Gelli, A.A. d.
St. Aloysius' Coll., Hornsey Lane, N.
Lamerton, L.H.
Stoke Public Higher S., Devonport
Livingston, J.M.
St. George's Coll., Weybridge
Morgan, J.
St. Joseph's Comm. Coll., Dumfries
Mudge, W. St. Boniface's Coll., Plymouth
Sanders, G.T. e. Modern S., E. Grinstead
Sullivan, J.B.
St. Joseph's Comm. Coll., Dumfries

Thomas, J.J. Tutorial S., Penarth
Vickers, R.M. Taunton School
Baker, G. s. Gram. S., Welshpool
Callow, H.E. Tudor Hall, Hawkhurst
Colbert, J.H. The College, Shebbear
Cudlip, H. Broadgate S., Nottingham
Dallas, C.B. s. Grammar S., Clapham
Evans, F.G. Ruthin Gram. S.
Inwood, C.L. al. Gram. S., Taplow
Jestic, P.W. Gram. S., Welshpool
Noakes, F. a. Friends' S., Wigton
Pritchard, J.G.
Gram. & Coll. S., Carnarvon
Ramsey, D. Bethany H., Goudhurst
Smith, A. Bethany H., Goudhurst
Smith, R.G. Friends' S., Wigton
Watson, G.R. Tyneworth School
Buckner, J. St. Mary's Hall, Cardiff
Cardona, H. sp.
Christian Bros.' Coll., Gibraltar
Chambers, J.G. a. Haughton Gram. S., York
Cook, R.F. Tollington S., Muswell Hill, N.
Furse, R.E. Taunton School
Girling, I.L.M. Eversley S., Southwold
Hodgson, F.W. Ruthin Gram. S.
Huddleston, B. Friends' S., Wigton
Hughes, R.K. Scorton Grammar S.
Needham, J.F. Christ's Coll., Blackheath
Nowell, W.N. Crudington S., Wellington
Parker, L.F. Montrose Coll., Streatham Hill
Reaño, H. Christian Bros. Coll., Gibraltar
Roberts, J.M. a.
St. Joseph's Comm. Coll., Dumfries
Spear, T.H. Tollington S., Muswell Hill, N.
Thornton, W.J.
St. Joseph's Comm. Coll., Dumfries
Tillotson, W.R.
Arnold House, South Shore, Blackpool
Bromley, C.J. H. New College, Herne Bay
Cartwright, J.H. Scorton Grammar S.
Chiappa, J.J.
St. Aloysius' Coll., Hornsey Lane, N.
Elliott, J.G. Gram. S., Welshpool
Gibbons, S.K. Private tuition
Kay, H. Gram. S., Eccles
Maclean, D.F. e.
Lindisfarne Coll., Westcliff-on-Sea
Mathews, E.J. J. bk.
St. Joseph's Comm. Coll., Dumfries
Norman, R.D. St. George's Coll., Weybridge
Skerritt, R.R. Tollington Park College, N.
Bannerman, J. Hoe Grammar S., Plymouth
Clarke, H.H. Stafford Coll., Forest Hill
Dixon, L. Craven Park Coll., Harlesden
Emery, E.G. s. a. Durham House, Hove
Gilbert, C.M. Taunton School
Hill, R. a. The College, Weston-s-Mare
Hardstaff, R. Broadgate S., Nottingham
Harrison, W.H.
Eastward Ho! Coll., Felixstowe
Pinkerton, T.R.
Highfield, Wandsworth Common
Rankin, J. St. Mary's Hall, Cardiff
Rees, L.P. Wilson Coll., Stamford Hill
Roach, R.F.C. Hoe Gram. S., Plymouth
Roser, F.
St. Aloysius' Coll., Hornsey Lane, N.
Sully, D.G. Taunton School
Edwards, W.G. Catford Coll. S., Lewisham
Finch, J.B. Gram. S., Newton Abbot
Holmes, P.S. Grove House, Highgate
Jones, R.G. Gram. S., Taplow
Keay, A.J. Private tuition
Kinahan, D.E. a.
Xaverian College, Manchester
Trower, H.J. a. New College, Herne Bay
Unsworth, V. Bloomfield Coll. S., Belfast
Williams, N.A.
Montrose Coll., Streatham Hill
Beat, F.J. Modern S., E. Grinstead
Bradshaw, S.B. Orient College, Skegness
Courad, G.A.
St. Aloysius' Coll., Hornsey Lane, N.
Cooke, H. Market Bosworth Gram. S.
Docketry, R.
St. Joseph's Comm. Coll., Dumfries
Greville, F.W. New College, Herne Bay
Hesp, B. York Manor S., York
Meadows, A.E.
Arnold House, South Shore, Blackpool
Morley, C.H. a. St. John's Coll., Brixton
Piper, C.H. d. Bethany H., Goudhurst
Quartley, T.W. Eversley S., Southwold
Smith, J.V. Gram. S., Taplow
Temple, A. Bethany H., Goudhurst
Baldwin, S.J.W.
Lindisfarne Coll., Westcliff-on-Sea
Ball, S.F. The College, Weston-s-Mare
Batt, G.S. Gram. S., Eccles
Blythe, P.A. Tollington Park College, N.
Byerley, R.H.
Oxford House, Junction Road, N.
Chenalloy, E. Christ's Coll., Blackheath
Cottle, S.J. Taunton School
Edwards, L. s. Tollington Park College, N.
Evans, A.G. Ruthin Gram. S.
Groszils, A.E.
St. Aloysius' Coll., Hornsey Lane, N.
Hassall, F.S. Cromwell High S., Putney
Jones, C.D.
Lindisfarne Coll., Westcliff-on-Sea
Jones, W. Gram. & Coll. S., Carnarvon
Lund, C.B. a. Restrevor House, Folkestone

**BOYS, 3RD CLASS, PASS—Continued.**  
 \*Munn, C. St. George's Coll., Weybridge  
 Parker, R. F. Margate College  
 Shaw, A. A. The College, Shebbear  
 Stevens, W. H. Tollington Park College, N. Thomas, D. P. a. Ruthin Gram. S.  
 Unsworth, J. F. St. Joseph's Comm. Coll., Dumfries  
 Wood, S. K. d. Tollington S., Muswell Hill, N.  
 Baker, H. Porth Higher Grade S.  
 Butcher, C. E. Gram. S., Finchley  
 Butler, H. St. Joseph's Coll., Beulah Hill  
 Dewis, J. N. Walsall Comm. Coll.  
 Doyle, B. Xaverian College, Manchester  
 Haslegrave, C. F. P. Eversley S., Southwold  
 James, L. d. Stoke Public Higher S., Devonport  
 Lindley-Jones, E. New College, Herne Bay  
 Lister, G. a. Endcliffe Coll., Sheffield  
 \*Walton, O. T. Scorton Grammar S.  
 Warlow, F. R. Taunton School  
 Wells, A. Arnold House, South Shore, Blackpool  
 Wilson-Haffenden, C. L. Taunton School  
 Crook, F. W. Christ's Coll., Blackheath  
 Forder, G. s. Ruthin Gram. S.  
 Hennessy, C. J. f. St. George's Coll., Weybridge  
 \*Hughes, S. African Training Inst., Colwyn Bay  
 Jobling, R. C. s. Tynemouth School  
 Smeal, J. C. Friends' S., Wigton  
 Stanbury, W. J. Stoke Public Higher S., Devonport  
 Strong, C. M. St. Aloysius' Coll., Hornsey Lane, N.  
 Willson, O. A. Montrose Coll., Streatham Hill  
 Docking, F. L. Taunton School  
 Evans, B. L. Porth Higher Grade S.  
 Howard, P. E. N. e. Taunton School  
 \*Murray, W. London Coll. for Choristers, W. Oxen, H. C. d. The Hermitage S., Preston  
 Pryn, N. Mannamed Prep. S., Plymouth  
 Stewart, J. St. Joseph's Comm. Coll., Dumfries

Vick, F. V. Taunton School  
 Webster, R. B. Birkdale Grammar S.  
 Donovan, C. A. St. Aloysius' Coll., Hornsey Lane, N.  
 Heveningham, L. J. St. Joseph's Comm. Coll., Dumfries  
 \*Hope-Rabson, E. Gram. S., Friern Barnet  
 Hughes, W. Gram. & Coll. S., Carnarvon  
 Keenan, H. Xaverian College, Manchester  
 Kelly, W. Bethany House, Goudhurst  
 MacMullen, H. St. Joseph's Coll., Beulah Hill  
 Marsh, C. A. St. Joseph's Comm. Coll., Dumfries  
 McBride, V. Xaverian College, Manchester  
 \*Nolan, W. Private tuition  
 \*Ogden, J. Arnold House, South Shore, Blackpool  
 Parker, H. J. a. Beverley School, Barnes  
 Reed, J. P. a. Margate College  
 Wood, S. C. The Douglas S., Cheltenham  
 Butt, J. G. Taunton School  
 Chiappa, A. L. St. Aloysius' Coll., Hornsey Lane, N.  
 \*Hewson, E. High S., Kirby Stephen  
 Hughes, S. L. Taunton School  
 Jordan, H. R. a. Grammar S., Chorlton-c.-Hardy  
 Roberts, C. R. Hillmartin Coll., Camden Rd., N. W.  
 Turpin, C. Grosvenor S., Bath  
 Wheeler, D. W. Lindsifarne Coll., Westcliff-on-Sea  
 Allen, R. H. F. Tutorial S., Penarth  
 Armstrong, P. R. St. Joseph's Comm. Coll., Dumfries  
 Bailey, W. J. The College, Shebbear  
 Bridges, H. Northgate S., Bury St. Edmunds  
 Colato, E. A. Margate College  
 Herrod, B. J. Market Bosworth Gram. S.  
 Kelly, J. P. St. Joseph's Comm. Coll., Dumfries  
 Kemp, J. F. St. Joseph's Comm. Coll., Dumfries  
 Letheren, R. C. Taunton School  
 Merrifield, J. H. Taunton School  
 Parker, C. Margate College

Peelmann, A. s. Gram. S., Taplow  
 Titcombe, A. The College, Weston-s.-Mare  
 Watson, W. H. Tollington S., Muswell Hill, N.  
 Dash, W. H. Taunton School  
 Huntley, A. C. The College, Weston-s.-Mare  
 \*James, W. R. Tutorial S., Penarth  
 Jones, R. J. Gram. and Coll. S., Carnarvon  
 Key, L. H. Taunton School  
 Martin, L. M. A. Oxford House, Junction Rd., N.  
 Maude, H. Gram. S., Eccles  
 Paterson, T. St. Joseph's Comm. Coll., Dumfries  
 \*Tilley, E. King's College S., Wimbledon  
 Bennett, H. H. Bethany H., Goudhurst  
 Butler, C. E. Rye Grammar S.  
 Dunkley, J. G. Christ's Coll., Blackheath  
 Dyer, W. E. Margate College  
 Holmes, G. B. York Manor S., York  
 King, H. C. Taunton School  
 Logan, C. D. Grammar S., Clapham  
 \*Phillips, H. Tonypany Council S., Pontypridd  
 Wallace, S. Bloomfield Coll. S., Belfast  
 Williams, W. A. New College, Herne Bay  
 Woodward, A. T. Taunton School  
 Yair, G. A. Taunton School  
 Barnes, D. L. N. Stafford Coll., Forest Hill  
 Cazaly, A. H. P. Gram. S., Taplow  
 Coles, L. A. Margate College  
 Coles, R. A. Margate College  
 Davies, D. L. Hollybank S., Frodsham  
 \*Dovehill, T. V. Christ's Coll., Blackheath  
 Kittle, I. R. Tollington Park College, N.  
 Manicom, H. C. B. University S., Rochester  
 Myers, B. Wilson Coll., Stamford Hill  
 Parkes, F. G. Orient College, Skegness  
 Smith, C. T. Montrose Coll., Streatham Hill  
 Wright, G. F. Christ's Coll., Blackheath  
 Edmonds, C. F. Wilson Coll., Stamford Hill  
 Holland, J. Gram. S., Eccles  
 Kirstein, W. B. C. New College, Herne Bay  
 Owen, T. E. W. Gram. S., Taplow  
 \*Benson, C. A. Rivington Gram. S., Horwich  
 Berner, I. A. C. Hoe Grammar S., Plymouth

Bourne, E. Bethany H., Goudhurst  
 Cicognani, H. R. Bethany H., Goudhurst  
 \*Dodd, W. Highfield, Wandsworth Common  
 Gardiner, B. G. Eastward Ho! Coll., Felixstowe  
 Gooch, R. F. New College, Herne Bay  
 Pullen, W. J. Lindsifarne Coll., Westcliff-on-Sea  
 Redwood, C. P. Gram. S., Taplow  
 Saferian, A. N. a. Gram. S., Chorlton-c.-Hardy  
 Tronlan, B. St. Boniface's Coll., Plymouth  
 Turner, F. Montgomery College, Sheffield  
 Brown, T. F. M. Tynemouth School  
 Cox, F. A. H. L. Gram. S., Taplow  
 Davies, W. E. Pentre Higher Elem. S.  
 Evans, F. T. P. Gram. S., Taplow  
 Francis, F. C. F. Gram. S., Taplow  
 Pye, T. H. Taunton School  
 Thunders, G. L. St. George's Coll., Weybridge  
 \*Vizard, F. L. Bethany H., Goudhurst  
 \*Wood, T. W. Catholic Gram. S., St. Helens  
 Guy, D. S. E. The Kingsley S., Shifnal  
 Lamb, W. G. Rye Grammar S.  
 Squire, F. W. The College, Shebbear  
 Symons, A. C. Beverley School, Barnes  
 Bradley, P. B. St. George's Coll., Weybridge  
 Craven, A. Xaverian College, Manchester  
 \*Hudson, C. W. P. Gram. S., Taplow  
 Shute, G. E. F. Tynemouth School  
 \*Conway, W. Grammar School, Goolle  
 Cox, R. J. Market Bosworth Gram. S.  
 Diesch, F. B. St. Aloysius' Coll., Hornsey Lane, N.  
 Doresa, S. Margate College  
 Freeman, C. G. G. Gram. S., Finchley  
 \*Goodwin, D. F. New College, Herne Bay  
 Hardman, R. C. Market Bosworth Gram. S.  
 Hatcher, H. B. Taunton School  
 Lishnan, A. W. Private tuition  
 Peile, H. A. Friends' S., Wigton  
 \*Phillips, L. St. Mary's Hall, Cardiff  
 Reihill, F. A. St. Aloysius' Coll., Hornsey Lane, N.  
 Siblot, H. Margate College  
 Trappes, J. H. St. George's Coll., Weybridge

CLASS LIST—GIRLS.

(For list of abbreviations, see page 356.)

**FIRST CLASS [or SENIOR].**  
**Honours Division.**  
 Dixon, R. J. s. e. h. m. p. Ladies' Coll., Wellington, Salop  
**FIRST CLASS [or SENIOR].**  
**Pass Division.**  
 Hamson, May e. h. f. English High S. for Girls, Pera  
 Osborne, E. L. d. m. n. Girls' Coll. S., Weymouth  
 Williams, C. M. m. s. w. Private tuition  
 Casson, H. N. s. f. Cambridge H., Finchley  
 Ableiding, M. h. f. g. e. Conv. of the Nativity, Market Harborough  
 Evans, E. T. s. e. h. English High S. for Girls, Pera  
 Ladies' Coll., Wellington, Salop  
 Gullick, E. K. e. Private tuition  
 Jones, C. M. s. Ladies' Coll., Wellington, Salop  
 Wright, M. g. e. Tower House, Melton Mowbray  
 Lineham, N. I. f. Edgbaston Acad., Birmingham  
 Freeman, A. s. Friends' School, Mountmellick  
 Law, A. K. Gordonville Ladies' S., Coleraine  
 Dupuis, J. f. Anney Convent, Seaford  
 Bond, D. G. M. English High S. for Girls, Pera  
 Donnegor, O. f. Anney Convent, Seaford  
 Cooper, G. W. Ladies' Coll., Wellington, Salop  
 Bowman, M. Brunt's Technical S., Mansfield  
 Brackett, M. g. e. The College, Goudhurst  
 Hutchinson, A. Brunt's Technical S., Mansfield  
 Grace, E. M. The College, Goudhurst  
 Ferrary, L. s. p. m. Loreto Conv., Europa, Gibraltar  
 Broadhurst, P. s. Ladies' Coll., Wellington, Salop  
 Stevens, M. Brunt's Technical S., Mansfield  
 Burgess, M. C. The College, Goudhurst  
 Morley, G. Private tuition  
 Freer, J. Gram. S., Quorn  
 Bailey, M. M. Gram. S., Quorn  
 Clark, M. G. University S., Rochester

Trantmann, O. F. d. Gram. S., Quorn  
 Brown, E. M. Gordonville Ladies' S., Coleraine  
 French, L. C. Redditch Secondary S.  
 Warburton, L. s. Ladies' Coll., Wellington, Salop  
 Cook, E. Brunt's Technical S., Mansfield  
 Drury, M. D. Heath Leigh, Horsham  
 Dunstan, J. M. Palmer's Green High S.  
 Rattenbury, E. K. Private tuition  
 Grafton, R. d. St. John's House, Felixstowe  
 Jenkins, G. Technical S., Stalybridge  
 Bickle, M. M. f. Conv. of the Nativity, Market Harborough  
 Wood, F. Langley H., Ashbourne  
 Birch, B. A. Langley H., Ashbourne  
 Porter, M. J. Victoria Coll., Liverpool  
 Cobb, E. M. d. Milton H., Atherstone  
 Cosmetto, C. d. English High S. for Girls, Pera  
 Cragh, W. F. A. Private tuition  
 Hunter, A. V. Melbourne College, Thornton Heath  
 LeMay, C. E. St. John's House, Felixstowe  
 Keun, M. English High S. for Girls, Pera  
 Petey, J. f. d. 3 High Road, S. Tottenham  
 Bellamy, E. H. Private tuition  
 Harrison, W. Brunt's Technical S., Mansfield  
 Witt, E. F. Heath Leigh, Horsham  
 Neilson, A. H. Private tuition  
 Springs, O. F. Gavine H., Portsmouth  
 Deignan, L. Convent of Mercy, Birr  
 Jopling, R. B. Friends' S., Wigton  
 Stubbs, E. Brunt's Technical S., Mansfield  
**SECOND CLASS [or JUNIOR].**  
**Honours Division.**  
 Syner, K. g. a. l. f. phys. d. Devonport P.-T. Centre  
 Goode, G. M. g. a. l. phys. d. Devonport P.-T. Centre  
 Hawkins, E. g. a. l. gm. f. d. Northern Poly. S., Holloway Rd., N.  
 Noble, H. g. a. l. m. s. d. Northern Poly. S., Holloway Rd., N.

Breen, F. E. g. a. l. f. phys. ch. Devonport P.-T. Centre  
 Hollingworth, G. E. e. a. l. gm. Northern Poly. S., Holloway Rd., N.  
 Vanning, E. W. a. l. phys. d. Devonport P.-T. Centre  
 Riggall, H. D. s. e. gm. f. High School, Alford  
 Twigg, E. S. a. f. d. High School, Alford  
 Paethorpe, K. H. s. High School, Alford  
 Witty, G. s. c. h. High School, Alford  
 Corder, F. E. s. a. l. Northern Poly. S., Holloway Rd., N.  
 Thomas, E. M. gm. Northern Poly. S., Holloway Rd., N.  
 Theophilus, M. A. a. l. Advanced Elem. Girls' S., Merthyr Tydfil  
 Black, M. f. d. m. u. Loreto Conv., Europa, Gibraltar  
 Christides, P. a. l. English High S. for Girls, Pera  
 Clark, D. A. a. l. Northern Poly. S., Holloway Rd., N.  
 Palmer, A. M. phys. Devonport P.-T. Centre  
 Howarth, F. a. l. Rivington & Blackrod Gram. S., Horwich  
 Beaumont, R. s. Notre Dame Coll. S., Leeds  
 Frosser, B. g. a. Advanced Elem. Girls' S., Merthyr Tydfil  
 Naylor, W. S. a. l. Rivington & Blackrod Gram. S., Horwich  
 Green, R. g. a. l. d. Sandyford Road S., Jesmond  
 Hawke, A. L. phys. Devonport P.-T. Centre  
 Price, A. R. s. Advanced Elem. Girls' S., Merthyr Tydfil  
 Devaux, C. L. s. h. f. d. Private tuition  
 Davey, A. M. d. Girls' Secondary S., Southsea  
 Novella, C. f. s. p. d. Loreto Conv., Europa, Gibraltar  
 Cale, E. a. l. Redditch Secondary S.  
 Reynolds, M. F. Devonport P.-T. Centre  
 Davies, M. A. Pentre Hr. Elementary S.  
 Hinks, L. M. a. l. f. Girls' Secondary S., Southsea  
 Lawrence, R. The Priory Girls' Coll. S., Thaxted  
 Morgan, M. A. Pentre Hr. Elementary S.  
 Ursell, E. Advanced Elem. Girls' S., Merthyr Tydfil  
 Welch, F. M. d. Girls' Secondary S., Southsea  
 Bell, L. I. gm. f. d. Gordonville Ladies' S., Coleraine

Hoskin, H. E. a. l. Devonport P.-T. Centre  
 Thompson, N. M. a. l. Redditch Secondary S.  
 McCann, D. Girls' Secondary S., Southsea  
 Hawkins, E. h. g. a. Ashley High S., Long Sutton  
 George, F. L. a. Devonport P.-T. Centre  
 Ledbury, E. I. s. Redditch Secondary S.  
 Stubbs, H. B. Ladies' Coll., Wellington, Salop  
 Wilson, A. Brunt's Technical S., Mansfield  
 Lloyd, A. M. d. Pentre Hr. Elementary S.  
 Statton, W. M. a. l. Devonport P.-T. Centre  
 Gastall, V. f. Rivington & Blackrod Gram. S., Horwich  
 Trethewey, L. V. d. Devonport P.-T. Centre  
 Joy, G. A. Chichester P.-T. Centre  
 Maine, F. Pentre Hr. Elementary S.  
 Mellicot, E. Pentre Hr. Elementary S.  
 Altbuch, E. g. e. Northern Poly. S., Holloway Rd., N.  
 Evans, A. M. Advanced Elem. Girls' S., Merthyr Tydfil  
 Risdon, R. a. l. Devonport P.-T. Centre  
 Reynolds, M. M. d. Pentre Hr. Elementary S.  
 Collin, R. d. Girtton H., Chislehurst  
 Cross, B. d. Devonport P.-T. Centre  
 Dickinson, F. E. Rivington & Blackrod Gram. S., Horwich  
 Freemantle, J. A. f. Girls' Secondary S., Southsea  
 Robinson, M. a. l. High School, Leek  
 Vartanian, A. g. f. English High S. for Girls, Pera  
 Coffey, M. a. l. St. Mary's High S., Middleton  
 Hardstaff, M. gm. Brunt's Technical S., Mansfield  
 Leahy, W. M. a. l. Devonport P.-T. Centre  
 Payne, G. A. s. Girls' Secondary S., Southsea  
 Dean, E. A. Rye Coll. S.  
 Holland, M. s. h. g. Ashley High S., Long Sutton  
 Moon, B. m. Rye Coll. S.  
 Rowett, L. E. Devonport P.-T. Centre  
 Smith, J. a. l. Rivington & Blackrod Gram. S., Horwich  
 Walker, M. L. Girls' Secondary S., Southsea  
 Hall, M. Higher Grade S., Carlisle  
 Horley, E. W. Girls' Secondary S., Southsea  
 Jones, H. M. Advanced Elem. Girls' S., Merthyr Tydfil

GIRLS, 2ND CLASS, HONS.—Continued.  
**McKay, M.R.** Gordonville Ladies' S., Coleraine  
 Millward, N.B. Redditch Secondary S.,  
 Young, W.F. The College, Goudhurst  
**Jones, C.** Ferndale Secondary S., Rhondda  
 Jones, D.W. s. Ladies' Coll., Wellington, Salop  
**Jones, L. J.** Advanced Elem. Girls' S., Merthyr Tydfil  
 Randle, M. Rivington & Blackrod Gram. S., Horwich  
 Ryan, N. J. Notre Dame Coll. S., Leeds  
**Boon, M. C.** Ashley High S., Long Sutton  
 Coffey, G. Notre Dame Coll. S., Leeds  
 Price, G. M. d. Advanced Elem. Girls' S., Merthyr Tydfil  
 Spain, C. M. J. Benedictine Convent S.,  
 Lewellyn, E. Boughrood House, Struet

**SECOND CLASS [or JUNIOR].**  
*Pass Division.*

**1**Cheate, H.B. Milton House, Atherstone  
 Jones, E. G. Girls' Secondary S., Southsea  
 O'Donoghue, L. St. Mary's High S., Middleton  
 Robinson, L. E. a. d. Rivington & Blackrod Gram. S., Horwich  
 Turner, M. F. The Cusack Institute, E.C.  
**1**Keen, F. H. Private tuition  
 Langlois, M. J. Ancey Convent, Seaford  
 1Mason, E. Ancey Convent, Seaford  
**1**Clark, L. University School, Rochester  
 James, B. Bath City Secondary S.  
 Stonehouse, D. a. d. Northern Poly. S., Holloway Rd., N.  
 Michalino, C. English High S. for Girls, Pera  
 Scamlan, E. St. Mary's Convent, Bruff  
 Carnwell, L. M. High School, Leek  
 Fox, N. Brunt's Technical S., Mansfield  
 Hosmer, A. M. R. The College, Goudhurst  
 Stewart, W. a. Devonport P.-T. Centre  
 Warre, L. M. Buckingham Place Acad., Portsmouth  
 Williams, D. M. s. d. Girls' Secondary S., Southsea  
 French, V. A. Girls' Secondary S., Southsea  
 Wiseman, M. Girls' Secondary S., Southsea  
**Caldwell, M.** Gordonville Ladies' S., Coleraine  
 Morley, E. a. d. Notre Dame Coll. S., Leeds  
 Morton, M. M. f. St. Mary's Convent S., Charleville  
 Orme, E. L. a. Leatholme S., Fishponds, Bristol  
 Riches, B. M. d. High School, Alford  
**Cane, D. a. d.** Northern Poly. S., Holloway Rd., N.  
 Clark, M. G. a. Notre Dame Coll. S., Leeds  
 Foot, O. St. Elnoc's Coll., Totton  
 Wither, M. G. a. Girls' Gram. S., Levenshulme  
**Bellman, M. M.** Devonport P.-T. Centre  
 Matthews, E. E. Devonport P.-T. Centre  
 O'Loughlin, A. St. Mary's High S., Middleton  
 Pim, C. A. Friends' School, Mountmellick  
 Tihl, M. St. Mary's Convent, Newlands, Middlesbro'  
 Tremelling, G. M. Devonport P.-T. Centre  
**1**Bromley, A. Brunt's Technical S., Mansfield  
 Cremin, H. St. Mary's Convent S., Charleville  
 Kitchen, A. Rivington & Blackrod Gram. S., Horwich  
 Lees, M. E. d. Langley H., Ashbourne  
 Neville, S. A. Advanced Elem. Girls' S., Merthyr Tydfil  
 Reading, V. A. s. Girls' Secondary S., Southsea  
 Steven, D. M. Higher Grade S., Carlisle  
 Briggs, N. d. Brunt's Technical S., Mansfield  
 Barstow, A. V. Boughrood House, Struet  
 Browne, N. St. Mary's Convent S., Charleville  
**Owen, W.** Advanced Elem. Girls' S., Merthyr Tydfil  
 1PICKERING, M. Friends' S., Wigton  
 Salisbury, F. A. Hazlecroft, Weston-s.-Mare  
 Scott, G. M. d. Chichester P.-T. Centre  
 Stillwell, T. a. Redditch Secondary S.  
 Winsor, W. Girls' Secondary S., Southsea  
**Barlow, C.** Rivington & Blackrod Gram. S., Horwich  
 Bruce, D. R. The College, Goudhurst  
 Davies, S. Advanced Elem. Girls' S., Merthyr Tydfil  
 Lloyd, H. Raleigh Middle Class S., Stoke Newington  
 1SUGDEN, D. E. Hainault H., Ilford  
**1**Dancey, M. E. Friends' School, Mountmellick  
 Hall, A. L. Girls' Secondary S., Southsea  
 Jones, R. d. Pentre Hr. Elementary S.  
 Pollock, A. High School, Leek  
 Ryan, C. Notre Dame Coll. S., Leeds

**Williams, C.** Ferndale Secondary S., Rhondda  
**Bell, W. E.** Chichester P.-T. Centre  
**Croft, M. E.** Chichester P.-T. Centre  
**Fuller, C. I.** Chichester P.-T. Centre  
**1**Gardiner, P. E. Pengwern Coll., Cheltenham  
 Griffiths, O. Ferndale Secondary S., Rhondda  
 Lobb, E. N. Devonport P.-T. Centre  
 1Stonham, F. M. The College, Goudhurst  
 Williams, E. B. Pentre Hr. Elementary S.  
**Lester, W. M.** Girls' Secondary S., Southsea  
 Macklen, M. A. d. Girls' Secondary S., Southsea  
**Thorn, L.** Lynton H., Portsmouth  
**1**Clifford, J. ms. St. Mary's Convent S., Charleville  
 Leysah, A. G. Porth Higher-Grade S.  
**Bates, M.** Notre Dame Coll. S., Leeds  
 Gornall, G. a. Girls' S., Promenade, S. Shore, Blackpool  
 Weeks, M. Friends' S., Wigton  
**1**Cruikshank, W. G. The College, Goudhurst  
 Forbes, I. E. Northern Poly. S., Holloway Rd., N.  
 1Gamble, M. Gram. S., Quorn  
 Powell, J. Advanced Elem. Girls' S., Merthyr Tydfil  
**1**Box, L. A. Girls' Secondary S., Southsea  
 Hannaford, I. Devonport P.-T. Centre  
 Holiday, E. B. Northern Poly. S., Holloway Rd., N.  
 1MacDowall, C. Private tuition  
 1Parnell, E. C. m. z. Private tuition  
 Shield, E. H. g. Friends' S., Wigton  
 Wheller, F. d. University School, Rochester  
 Francis, M. M. Pentre Hr. Elementary S.  
 1Callaghan, N. Day Technical S., Stalybridge  
 Neal, R. G. Brook Hall, Winslow  
**Bryan, I. M.** Girls' Secondary S., Southsea  
 Mitchell, M. Brunt's Technical S., Mansfield  
 Nugent, E. M. f. Benedictine Convent S., Dumfries  
**1**Thornley, M. Day Technical S., Stalybridge  
 Highway, M. Redditch Secondary S.  
 Morley, A. M. Girls' Secondary S., Southsea  
 Young, L. E. Devonport P.-T. Centre  
 Brockies, W. G. The College, Goudhurst  
 Oaten, W. A. South Western Poly. Secondary S., Chelsea  
 1O'Rourke, A. St. Mary's Convent, Newlands, Middlesbro'  
 Shandley, V. V. Girls' Secondary S., Southsea  
**1**Taylor, D. A. W. Civil Service Coll., Bristol  
 Whitely, E. Rivington & Blackrod Gram. S., Horwich  
**Green, K. E.** Hazelhurst Coll. S., Penarth  
 Marriott, E. Northern Poly. S., Holloway Rd., N.  
 Strehan, K. St. Mary's Convent, Bruff  
 1Wheeler, G. Private tuition  
**1**Bothwell, M. Notre Dame Coll. S., Leeds  
 Challen, A. Chichester P.-T. Centre  
**Moss, H.** Belgrave H., Wandsworth Common  
 Phillips, M. Ferndale Secondary S., Rhondda  
 Shute, K. Summerland Coll., Honiton  
**Coleman, A. L.** Northern Poly. S., Holloway Rd., N.  
 Crowhurst, E. Girton House, Chislehurst  
 McCaw, M. Oriol Coll. S., Larne  
 O'Rourke, C. St. Mary's Convent, Newlands, Middlesbro'  
 Prendergast, M. Con. La Sainte Union  
 des Sacrés Coeurs, Athlone  
**Stott, M. H.** Longwood Grammar S., Huddersfield  
**Blake, A. M.** Northern Poly S., Holloway Rd., N.  
 Chaston, F. L. Northern Poly S., Holloway Rd., N.  
**1**Ferris, C. Private tuition  
 Jones, G. M. Advanced Elem. Girls' S., Merthyr Tydfil  
 Jones, T. Pentre Hr. Elementary S.  
 Lewis, E. M. Ferndale Secondary S., Rhondda  
**MacBride, K.** Conv. La Sainte Union des  
 Sacrés Coeurs, Athlone  
**1**Worthy, R. V. Private tuition  
**1**Brighton, M. Private tuition  
 Kerslake, E. A. Northern Poly S., Holloway Rd., N.  
 McKnight, N. High School, Leek  
 Simpson, R. W. Private tuition  
**Harrison, A.** Notre Dame Coll. S., Leeds  
 Jordan, E. M. a. Chichester P.-T. Centre  
 1Keogh, M. M. Ladies' College, Congleton  
 1Sandell, D. d. Private tuition  
**1**Walker, L. A. The Winchmore Hill Coll. S.  
 Higgins, M. St. Mary's Convent, Newlands, Middlesbro'  
 Large, E. J. d. Prospect House, Stechford  
 Price, M. Ferndale Secondary S., Rhondda

**Reynolds, L. F.** Devonport P.-T. Centre  
 Stacks, A. J. s. Friends' School, Mountmellick  
**Melhuish, A.** Ferndale Secondary S., Rhondda  
 Plewman, E. G. Friends' School, Mountmellick  
**Atkins, M. P.** Rivington & Blackrod Gram. S., Horwich  
 Allwood, A. T. a. County Secondary S., Nottingham  
 Carter, W. M. Carlyle Coll., Brighton  
 Cleary, M. Notre Dame Coll. S., Leeds  
 1Keeton, T. Brunt's Technical S., Mansfield  
 Lloyd, B. A. Ferndale Secondary S., Rhondda  
**Pether, F. M.** Girls' Secondary S., Southsea  
 Whitter, G. Ladies' College, Congleton  
 Williams, S. Sandryford Rd. S., Newcastle-on-Tyne  
**Hughes, L. a. l.** Porth Higher Grade S.  
**Steward, M. A.** Ladies' Coll., Wellington, Salop  
**Woolcock, L. P.** Allyn House, Hove  
 Protheroe, M. a. l. Porth Higher Grade S.  
**Leadley, P. M. f.** St. John's House, Felixstowe  
 Roberts, H. Rivington & Blackrod Gram. S., Horwich  
 Woolcock, R. G. Fartown Gram. S., Huddersfield  
**1**Bliss, A. L. Walthamstow P.-T. Centre  
 Coates, D. E. London Coll., Holloway Rd., N.  
 Missak, A. J. English High S. for Girls, Pera  
 Raymond, F. Advanced Elem. Girls' S., Merthyr Tydfil  
**Evans, S.** Porth Higher Grade S.  
**Tucker, G. A. V.** Girls' Secondary S., Southsea  
 Williams, W. M. Girls' Secondary S., Southsea  
**Barlow, A.** Day Technical S., Stalybridge  
 Holliday, E. Ainstable S., Arncliffe  
 Parkin, C. Sandryford Road S., Newcastle-on-T.  
**1**Richards, C. A. Private tuition  
 Seaford, E. V. Girls' Secondary S., Southsea  
 Wardell, E. M. Girls' Secondary S., Southsea  
**Crease, E. I.** Longmoor Lane Council S., Liverpool  
 Eastland, D. Chichester P.-T. Centre  
 Guinee, N. A. Sacred Heart Convent S., Kanturk  
 Halsall, J. Secondary S., Southport  
 Harris, M. Girls' Secondary S., Southsea  
 Hopkins, A. E. Devonport P.-T. Centre  
**1**Kirk, D. Brunt's Technical S., Mansfield  
 Thatcher, F. Pentre Hr. Elementary S.  
**1**Forbes, H. C. Argyle H., Sunderland  
 Pickering, H. J. d. Friends' S., Wigton  
 Williams, B. Ferndale Secondary S., Rhondda  
**Bell, A. J.** St. Paul's Convent, Birmingham  
 Bett, A. Brunt's Technical S., Mansfield  
 Colville, J. Girls' Secondary S., Southsea  
 Davies, R. O. Porth Higher Grade S.  
 Dadds, E. E. Winchmore Hill Coll. S.  
 1Drayse, F. L. Pengwern Coll., Cheltenham  
 Hart, L. Ferndale Secondary S., Rhondda  
 1MacKinlay, C. F. Private tuition  
 McGuire, N. Notre Dame Coll. S., Leeds  
**Davies, W.** Advanced Elem. Girls' S., Merthyr Tydfil  
 Houghton, A. Rivington & Blackrod Gram. S., Horwich  
 Jones, M. H. Advanced Elem. Girls' S., Merthyr Tydfil  
 Thompson, P. E. J. Higher Grades, Carlisle  
**Green, B. G.** Girls' Secondary S., Southsea  
 Todd, E. M. Argyle H., Sunderland  
**1**Anderson, A. A. Milburn H., Honor Oak Pk.  
 1Hempall, S. Brunt's Technical S., Mansfield  
 Lally, E. d. Loreto Convent, Hulme  
**1**Leahy, J. St. Mary's Convent, Newlands, Middlesbro'  
 1Leather, E. The Avenue S., Leigh  
 Mahon, M. A. Victoria College, Belfast  
**Hall, D. M.** Clark's College Girls' S., Brixton Hill  
 Harding, E. B. Girls' Secondary S., Southsea  
 Jones, E. A. Advanced Elem. Girls' S., Merthyr Tydfil  
**Copman, B. M.** Birklands, Harrogate  
 Cronin, G. St. Mary's School, Buttevant  
 Meredith, B. Advanced Elem. Girls' S., Merthyr Tydfil  
**Brown, A.** Higher Grade S., Carlisle  
 Eastment, F. Porth Higher Grade S.  
**Knight, D. M.** Buckingham Place Acad., Portsmouth  
 Pascoe, J. V. E. Avon House, Southsea  
 Tomlinson, Q. s. Ladies' College, Congleton  
 Whitlock, E. Secondary S., Southport  
**Cooke, N. E. a. d.** Private tuition  
 Gobel, M. C. The College, Goudhurst  
 1Lloyd, A. Presentation Convent, Thurlis  
 Middleton, D. C. Hill Croft, Betham  
 Mulliner, M. L. d. Belgrave H., Wandsworth Common

**Pemberton, A.** Secondary S., Southport  
 Quirke, A. d. St. Paul's Convent, Birmingham  
**Gundry, E. M.** Girls' Secondary S., Southsea  
 1Thompson, E. Brunt's Technical S., Mansfield  
 White, F. Brunt's Technical S., Mansfield  
 Yeates, E. K. Girls' Secondary S., Southsea  
**1**Croghan, B. Tower House, Melton Mowbray  
 Lavery, Y. Penol Girls' S., Hayle  
 Maybury, M. Rivington & Blackrod Gram. S., Horwich  
 Perkins, M. A. Porth Higher Grade S.  
 1Spillane, I. St. Mary's High S., Middleton  
**1**Clark, O. E. F. Private tuition  
 Spence, A. Private tuition  
**1**Taylor, M. A. Highfield, Wallington  
**Bennet, A.** Day Technical S., Stalybridge  
 Cunnit, E. Brunt's Technical S., Mansfield  
 Hayes, E. M. Orient Coll., Skegness  
**1**Riley, Y. St. Mary's Convent, Newlands, Middlesbro'  
 Sarll, F. d. Brunt's Technical S., Mansfield  
 1Williams, C. J. Private tuition  
**Bugs, E. A.** Heathleigh, Horsmonden  
 Crowley, K. St. Mary's High S., Middleton  
 1Neale, H. Private tuition  
 Thomas, Margaret Porth Higher Grade S.  
**Bradshaw, W. A.** Gram. S., Quorn  
 1Lloyd, E. Private tuition  
 1McGrath, S. The Avenue S., Leigh  
 Moigan, G. Ferndale Secondary S., Rhondda  
 Shane, S. E. d. Higher Grade S., Carlisle  
 1Whale, B. M. Eastport House, Chichester  
**Harris, B. I. M.** Chichester P.-T. Centre  
 1Sisson, E. Brunt's Technical S., Mansfield  
 1Stroud, W. N. Girls' Secondary S., Southsea  
**Davies, E.** Pentre Hr. Elementary S.  
 Lewis, A. B. Porth Higher Grade S.  
 1Phillips, B. St. Winifred's S., Southampton  
**Britt, S.** Presentation Convent, Thurlis  
 Byrne, T. Convent of Mercy, Birr  
 1Horne, G. L. E. Chichester P.-T. Centre  
 Jones, E. Ferndale Secondary S., Rhondda  
 Rea, L. A. Gram. S. for Girls, Worcester  
 Sampson, R. M. Porth Higher Grade S.  
 Thomas, E. M. Porth Higher Grade S.  
 1Taylor, R. E. Private tuition  
**Bowes, B.** Convent of Mercy, Birr  
 Convent of Mercy, Birr  
 Coyle, E. Lewis, M. Advanced Elem. Girls' S., Merthyr Tydfil  
 McCulloch, L. M. Private tuition  
 Leaf, L. M. Private tuition  
 1Jerome, H. A. Girls' Secondary S., Southsea  
 Lewis, S. A. County School, Tenby  
 Niemeyer, D. Rivington & Blackrod Gram. S., Horwich  
 1Panes, C. L. Wembley High S.  
**Carpenter, M. E.** Heathleigh, Horsmonden  
 Olorenshaw, D. A. St. Peter's Infants' S., St. Albans  
 Reardon, K. St. Mary's Convent, Bruff  
 Taylor, E. Day Technical S., Stalybridge  
 1Taylor, F. Brunt's Technical S., Mansfield  
 Watkinson, E. Bloomfield Coll., Belfast  
**Bradley, B.** Notre Dame High S., Clapham  
 1Johnston, L. M. Brandon Grammar S.  
 1Oldbury, B. Girls' Secondary S., Southsea  
 1Quinn, M. Private tuition  
 1Vowles, B. Ferndale Secondary S., Rhondda

**THIRD CLASS.**  
*Honours Division.*

**Mathews, S. E.** s. e. g. a. d. Pentre Hr. Elementary S.  
 Williams, B. s. e. h. a. d. d. Advanced Elem. Girls' S., Merthyr Tydfil  
 1Duncan, I. M. C. s. e. h. a. Friends' School, Mountmellick  
 1Friedmann, E. J. g. d. Mansfield H., Margate  
**Lyon, M. I.** e. a. d. d. Gordonville Ladies' S., Coleraine  
 Pinatzl, H. a. English High S. for Girls, Pera  
 Durell, M. H. s. a. d. 54 Hanlet Court Rd., Westcliff-on-Sea  
 Smith, C. J. High School, Alford  
 Evans, E. s. e. a. l. Pentre Hr. Elementary S.  
**1**Bruck, A. J. g. e. d. St. Joseph's Priory, Dorking  
**Peña, M.** e. a. s. p. d. Loreto Convent, Europa, Gibraltar  
**Jones, S.** e. a. d. Pentre Hr. Elementary S.  
 1Novella, C. s. p. Loreto Convent, Europa, Gibraltar  
**1**Baillieu, Y. M. s. f. 3 High Rd., S. Tottenham  
 Redding, A. s. e. g. a. d. d. Advanced Elem. Girls' S., Merthyr Tydfil  
 1Mitchell, K. s. e. g. a. d. d. Holmercroft S., Bromley  
 1Bell, L. e. 55 Grove Hill Rd., Redhill

GIRLS, 3RD CLASS, HONS.—Continued.  
 Morgan, M. e. a. Advanced Elem. Girls' S., Merthyr Tydfil  
 Evans, M. A. e. a. v. Pentre Higher Elementary S.  
 Isovich, M. A. e. a. g. e. Scotch Mission S., Galata  
 Kearney, M. e. a. s. c. St. Mary's Convent S., Charleville  
 (Bristowe, L. M. s. e. Tower House, Melton Mowbray  
 O'Callaghan, M. M. e. a. f. St. Mary's Convent S., Charleville  
 White, K. I. Alwyne Coll., Canonbury  
 Evans, E. V. s. e. f. Tryon S., Steyning  
 Flanagan, M. a. d. Presentation Convent, Thurles  
 Gilmore, F. e. Our Lady's Bower Day S., Athlone  
 Thomas, A. M. s. e. a. Advanced Elem. Girls' S., Merthyr Tydfil  
 Witty, M. e. High School, Alford  
 (Hichens, U. G. B. Alwyne Coll., Canonbury  
 Imossi, A. e. l. Loretto Conv., Europa, Gibraltar  
 (Rimington, D. J. High School, Alford  
 Baxter, S. M. s. e. Gordonville Ladies' S., Coleraine  
 Lane, G. e. Loretto Conv., Europa, Gibraltar  
 Mutiner, K. M. s. e. Stanley H., Eyre  
 (Adams, E. M. e. v. Pentre Hr. Elementary S.  
 Dotto, I. a. d. sp. Loretto Conv., Europa, Gibraltar  
 Fitzgibbon, A. a. d. Presentation Convent, Thurles  
 Bradley, M. J. e. Our Lady's Bower Day S., Athlone  
 Burke, M. e. a. d. Presentation Convent, Thurles  
 Davies, R. A. s. e. a. Pentre Hr. Elementary S.  
 Evans, M. s. e. a. Porth Higher Grade S.  
 Hogan, E. a. Presentation Convent, Thurles  
 Ryan, J. a. Presentation Convent, Thurles  
 Scott, G. M. a. Pentre Hr. Elementary S.  
 Galvez, C. e. f. Loretto Conv., Europa, Gibraltar  
 Judge, L. J. d. University S., Rochester  
 Mellihaton, L. I. e. Gordonville Ladies' S., Coleraine  
 Scholpp, F. E. g. Holmercroft S., Bromley  
 (Neuville, M. sp. Loretto Conv., Europa, Gibraltar  
 Wiseman, E. e. a. Old Manor House, Ipswich  
 Archer, E. M. e. St. John's House, Felixstowe  
 Beall, M. A. B. h. Coll. S. for Girls, Worcester Pk.  
 Davies, C. A. a. Porth Higher Grade S.  
 Holmes, W. a. Redby Girls' S., Sunderland  
 Jones, M. H. Porth Higher Grade S.  
 Penny, A. a. Presentation Convent, Thurles  
 Spence, E. M. s. a. Stretton H., Fleetwood  
 (Gibbon, A. a. Porth Higher Grade S.  
 Jones, R. A. e. Pentre Hr. Elementary S.  
 Puleine, D. H. s. h. f. e. Private tuition

**THIRD CLASS.**  
**Pass Division.**

Baylis, E. A. Redditch Secondary S.  
 Polluck, M. F. s. Ladies' Coll., Wellington, Salop  
 Wright, M. D. d. 18 Stranmillis Rd., Belfast  
 Wilbraham, F. Brunts Technical S., Mansfield  
 Sergeant, W. K. Girls' Secondary S., Southsea  
 Davies, B. M. Advanced Elem. Girls' S., Merthyr Tydfil  
 Watson, J. M. The College, Goudhurst  
 Morris, M. E. The College, Goudhurst  
 Chandler, H. M. s. Ladies' Coll., Wellington, Salop  
 Dutton, D. Ladies' Coll., Wellington, Salop  
 Ellis, D. M. The College, Goudhurst  
 Rodriguez, P. Loretto Conv., Europa, Gibraltar  
 Davies, E. Advanced Elem. Girls' S., Merthyr Tydfil  
 Pours, T. f. English High S. for Girls, Pera  
 Evans, M. Pentre Hr. Elementary S.  
 Ashbee, D. Rye Coll. S.  
 Evans, C. J. Advanced Elem. Girls' S., Merthyr Tydfil  
 Buggs, F. B. Heathleigh, Horsmonden  
 Flook, N. M. Private tuition  
 Skyrnes, B. Ferndale Secondary S., Rhondda  
 Elliott, J. W. Private tuition  
 Harrison, L. M. Stamford H., Edgbaston, Birmingham  
 Simpson, D. N. High School, Leek  
 Stegmann, D. E. A. d. Belgrave H., Wandsworth Common  
 Wright, E. G. Modern S., Melton Mowbray

Ransford, M. H. The Chestnuts, Winscombe  
 Anderson, W. M. Coll. S. for Girls, Worcester Pk.  
 Worrall, A. Adelphi House, Salford  
 Alnsworth, F. M. Ladies' Coll., Wellington, Salop  
 Fleming, N. St. Mary's High S., Middleton  
 Fry, M. Cumberland Coll., Acock's Green  
 Groves, A. M. M. Ladies' Coll., Wellington, Salop  
 Sweetman, S. J. Private tuition  
 Conroy, E. A. Conv. La Ste. Union des  
 Sacres Coeurs, Athlone  
 Lemon, M. Victoria College, Belfast  
 Drinkwater, M. Rivington & Blackrod Gram. S., Horwich  
 White, C. Notre Dame Coll. S., Leeds  
 Arrowsmith, F. St. Mary's Convent, Newlands, Middlesbro'  
 Auckland, L. St. Mary's Convent, Newlands, Middlesbro'  
 Collins, M. St. Mary's Convent, Newlands, Middlesbro'  
 Davies, A. Porth Higher Grade S.  
 Quille, K. St. Mary's Convent, Newlands, Middlesbro'  
 Ryan, K. d. Presentation Convent, Thurles  
 Chery, A. G. Rivington & Blackrod Gram. S., Horwich  
 Abbott, E. High School, Leek  
 Edwards, A. J. Pentre Hr. Elementary S.  
 Galvin, M. Notre Dame Coll. S., Leeds  
 Raphael, M. A. Higher Grade S., Carlisle  
 Moran, C. Notre Dame Coll. S., Leeds  
 Austin, E. Notre Dame Coll. S., Leeds  
 Engvall, E. P. Gordon Sq. S. for Girls, W. C.  
 Finnane, C. Adelphi House, Salford  
 Gadd, P. W. Chichester P. T. Centre  
 Jones, L. M. e. a. Advanced Elem. Girls' S., Merthyr Tydfil  
 Marchant, H. M. Gram. S., Highworth  
 Moorhead, M. Victoria College, Belfast  
 Pookington, F. Brunts Technical S., Mansfield  
 Rutledge, N. K. e. Friends' School, Mountmellick  
 Sandbrook, B. s. e. Advanced Elem. Girls' S., Merthyr Tydfil  
 Smith, K. L. High School, Alford  
 Stack, E. L. e. Friends' School, Mountmellick  
 Banks, L. D. W. Victoria College, Belfast  
 Barrowcliff, D. s. Stratford Abbey Coll., Stroud  
 Bevan, A. H. E. B. Highwood H., Liskeard  
 Bouillot, M. f. d. French Conv., Newhaven  
 Eads, H. W. s. e. a. Ebley H., East Putney  
 Fuse, N. e. Advanced Elem. Girls' S., Merthyr Tydfil  
 Hamsou, Margaret a. d. q. f. English High S. for Girls, Pera  
 Mulholland, J. a. Presentation Convent, Thurles  
 Simpson, M. s. e. f. Doreck Kindergarten & S., Bayswater  
 Bemrose, H. G. a. l. University School, Rochester  
 Croucher, E. F. s. Upper Grove S., S. Norwood  
 Croghan, M. Tower House, Melton Mowbray  
 Davies, E. A. Porth Higher Grade S.  
 Dawe, A. C. Holmercroft S., Bromley  
 Falkner, B. M. s. e. a. Highfield, Wallington  
 Gleeson, M. e. a. Presentation Convent, Thurles  
 Maynard, G. E. S. Buckingham Place Acad., Portsmouth  
 Murphy, J. e. a. St. Mary's Convent S., Charleville  
 Powell, M. G. s. a. Holmercroft S., Bromley  
 Sayer, T. f. d. St. Ursula's S., Conv., Westbury-on-Trym  
 Sikes, D. e. f. Tower House, Melton Mowbray  
 Slater, A. Olive House, Hawes  
 Foley, M. e. a. St. Mary's Convent S., Charleville  
 Green, H. Porth Higher Grade S.  
 Isaacs, D. M. e. a. The College, Goudhurst  
 Love, E. M. 155 Hamlet Court Rd., Westcliff-on-Sea  
 Low, M. M. Rutherford Coll., Newcastle-on-T.  
 Main, A. M. E. Avon House, Southsea  
 Morgan, M. s. c. Porth Higher Grade S.  
 Weller, U. d. Wellington S., Deal  
 Wiberley, A. H. e. Langley H., Ashbourne  
 Benjacer, E. f. Church of Scotland Mission S., Haskeine  
 Fletcher, N. Rye Coll. S.  
 Grainger, M. St. Mary's Convent, Newlands, Middlesbro'  
 Kelly, H. St. Mary's Convent, Newlands, Middlesbro'  
 O'Brien, H. M. Benedictine Convent S., Dumfries  
 Sikes, M. e. Tower House, Melton Mowbray  
 Wilkes, J. C. Girls' Secondary S., Southsea  
 Batty, D. W. s. Woodside, Hastings

Cumiskey, S. St. Paul's Conv., Birmingham  
 Dutton, V. Rivington & Blackrod Gram. S., Horwich  
 Harker, M. a. d. Pengwern Coll., Cheltenham  
 LePla, E. R. e. a. Girls' Grammar S., Levenshulme  
 Llewellyn, A. Ferndale Secondary S., Rhondda  
 Wheway, B. A. s. e. St. Joseph's Coll. S., Totland Bay  
 Delaney, H. a. Presentation Convent, Thurles  
 Eversley, E. H. Private tuition  
 James, E. C. Pentre Hr. Elementary S.  
 Jenkins, A. Brunt's Technical S., Mansfield  
 Jones, C. Advanced Elem. Girls' S., Merthyr Tydfil  
 Leggett, G. Loretto Conv., Europa, Gibraltar  
 Parkes, E. R. Girls' Secondary S., Southsea  
 Ryan, S. d. Presentation Convent, Thurles  
 Booth, E. M. Craglands, Blackpool  
 Bell, G. Notre Dame High S., Clapham  
 Griffiths, R. Porth Higher Grade S.  
 King, D. Conv. of the Faithful Virgin, Upper Norwood  
 Lloyd, J. s. Advanced Elem. Girls' S., Merthyr Tydfil  
 Maloney, B. Notre Dame Coll. S., Leeds  
 Moss, C. E. Colne Valley S., Rickmansworth  
 Peters, K. e. Advanced Elem. Girls' S., Merthyr Tydfil  
 Ryan, A. a. Presentation Convent, Thurles  
 Stubbs, C. Ladies' Coll., Wellington, Salop  
 Tanner, C. A. Brandon Grammar S.  
 Walker, A. W. Notre Dame Coll. S., Leeds  
 Warren, E. M. The Winchmore Hill Coll. S.  
 Williams, L. M. a. Porth Higher Grade S.  
 Archdeacon, M. Sacred Heart Convent S., Kauturk  
 Benson, M. M. B. Hazelhurst Coll. S., Penarth  
 Blake, K. e. a. Presentation Convent, Thurles  
 Canty, M. a. d. St. Mary's Convent S., Charleville  
 Carroll, N. J. Private tuition  
 Dallaway, D. E. Private tuition  
 Evans, M. A. Advanced Elem. Girls' S., Merthyr Tydfil  
 Kendrick, A. L. Private tuition  
 Kinder, A. Adelphi House, Salford  
 Naar, D. f. Church of Scotland Mission S., Haskeine  
 Pickup, D. s. d. Girls' S., Promenade S. Shore, Blackpool  
 Squires, V. Notre Dame Coll. S., Leeds  
 Turner, B. B. Chichester P. T. Centre  
 Witheridge, G. O. e. The College, Goudhurst  
 Burton, D. M. e. a. Wilton H., Acock's Green, Birmingham  
 Evans, M. e. a. Advanced Elem. Girls' S., Merthyr Tydfil  
 Foster, M. L. Ladies' Coll. S., Belfast  
 Hayward, A. Advanced Elem. Girls' S., Merthyr Tydfil  
 McIntyre, K. M. Tintern House, Forest Hill  
 Reed, G. E. Hazelhurst Coll. S., Penarth  
 Sharland, E. E. e. Holmercroft S., Bromley  
 Short, G. Stratford Abbey Coll., Stroud  
 Ward, E. M. e. f. a. Stamford H., Edgbaston, Birmingham  
 Burrow, G. W. Japonica H., Exmouth  
 Chatterton, A. C. Council S., Llantwit Major  
 Devlin, M. s. Conv. La Ste. Union des  
 Sacres Coeurs, Athlone  
 Private tuition  
 Elliott, M. O. Presentation Convent, Thurles  
 Fitzpatrick, B. Higher Grade S., Carlisle  
 Gardner, E. St. Mary's Convent, Bruff  
 MacDonnell, T. Victoria College, Belfast  
 McNally, E. a. Regent St. Inter. Girls' S., Plymouth  
 McNamara, M. Conv. of Notre Dame de Sion, Holloway  
 Mullane, M. Adelphi House, Salford  
 Nicholson, L. M. Chichester P. T. Centre  
 Price, C. M. Ladies' Coll., Nantwich  
 Prince, F. H. Langley H., Ashbourne  
 Rankine, E. H. Old Gram. S., Botesdale  
 Roberts, M. E. e. Pengwern Coll., Cheltenham  
 Williams, A. s. Advanced Elem. Girls' S., Merthyr Tydfil  
 Andrews, K. e. St. Elmo's Coll., Totton  
 Chatt, D. D. s. Stratford Abbey Coll., Stroud  
 Chivers, E. M. Pentre Hr. Elementary S.  
 Clough, A. L. a. Hill Croft, Bentham  
 Dauvillier, M. f. 3 High Rd., S. Tottenham  
 Davies, M. E. s. e. Advanced Elem. Girls' S., Merthyr Tydfil  
 Davis, M. Friends' School, Mountmellick  
 Lewis, A. E. a. Regent St. Inter. Girls' S., Plymouth  
 Lowe, D. Advanced Elem. Girls' S., Merthyr Tydfil  
 Lyons, K. d. St. Mary's Convent, Bruff  
 Mitchell, D. M. Chichester P. T. Centre

Potter, A. H. Northern Poly. S., Holloway Rd., N.  
 Seely, L. A. Private tuition  
 Thorne, M. Advanced Elem. Girls' S., Merthyr Tydfil  
 Trigg, E. V. M. Regent St. Inter. Girls' S., Plymouth  
 Buggs, F. B. a. Heathleigh, Horsmonden  
 Cleaver, M. H. e. h. Durham H., Hove  
 Daniel, F. E. a. Pentre Hr. Elementary S.  
 Haig, M. W. s. f. Private tuition  
 Holms, B. K. Private tuition  
 Hudson, P. Notre Dame High S., Clapham  
 Morris, M. Conv. La Ste. Union des  
 Sacres Coeurs, Athlone  
 O'Meara, N. Conv. La Ste. Union des  
 Sacres Coeurs, Athlone  
 Wedum, H. M. Stretton H., Fleetwood  
 Baker, A. Loretto Conv., Europa, Gibraltar  
 Davies, G. Porth Higher Grade S.  
 Flannery, E. E. St. Mary's Convent, Bruff  
 Garland, I. F. a. Regent St. Inter. Girls' S., Plymouth  
 Hart, H. Brunt's Technical S., Mansfield  
 Hornby, D. M. e. a. Ladies' Coll., Wellington, Salop  
 Mansell, C. A. e. Advanced Elem. Girls' S., Merthyr Tydfil  
 Morgan, R. A. Porth Higher Grade S.  
 Round, M. S. Private tuition  
 Rush, E. E. s. Stanley House, Eye  
 Taylor, D. M. N. Highfield, Wallington  
 Tennant, K. E. Private tuition  
 Twomey, K. Sacred Heart Convent S., Kauturk  
 Westbrook, F. Eldon Coll., Thornton Heath  
 Banks, E. A. C. Ladies' Coll., Wellington, Salop  
 Blackwell, A. V. St. Peter's S., Bucknell  
 Forrington, M. K. h. Stratford Abbey Coll., Stroud  
 Foster, A. A. Chichester P. T. Centre  
 Garner, E. M. K. London Coll., Holloway Rd., N.  
 Hall, F. M. A. Hazelhurst Coll. S., Penarth  
 Johns, H. C. Buckingham Place Acad., Portsmouth  
 Jones, L. Advanced Elem. Girls' S., Merthyr Tydfil  
 Moore, M. L. Rye Coll. S.  
 Postgate, E. Redby Girls' S., Sunderland  
 Slattery, H. St. Mary's Convent, Bruff  
 Smith, A. L. Kingsley Endowed S., Stoke-on-Trent  
 Warren, G. Advanced Elem. Girls' S., Merthyr Tydfil  
 Wymys, E. Notre Dame Coll. S., Leeds  
 Bartle, E. Brunt's Technical S., Mansfield  
 Horry, N. e. St. John's House, Felixstowe  
 Howard, I. Notre Dame High S., Clapham  
 Jackson, A. St. Mary's Convent, Newlands, Middlesbro'  
 McDonnell, M. St. Mary's Convent, Bruff  
 Mitchell, G. S. County Secondary S., Nottingham  
 Sayer, S. G. The Winchmore Hill Coll. S.  
 Spears, H. M. Private tuition  
 Stephens, G. M. s. a. Allwyne Coll., Canonbury  
 Young, M. Girls' Secondary S., Southsea  
 Bowen, F. J. a. Pentre Hr. Elementary S.  
 Bridge, G. M. Heathleigh, Horsmonden  
 Evans, J. Tunbridge Wells High S.  
 Henry, M. E. Gordonville Ladies' S., Coleraine  
 Heyes, G. Highfield Coll., Blackpool  
 Hornbrook, E. E. Private tuition  
 Oliver, M. M. Regent St. Inter. Girls' S., Plymouth  
 Sharp, E. E. a. Kensington H., York  
 Watts, G. Alwyne Coll., Canonbury  
 Wilkinson, M. T. Notre Dame High S., Clapham  
 Williams, R. H. J. Alverton S. for Girls, Penzance  
 Barber, A. G. e. Ladies' Coll., Wellington, Salop  
 Bland, G. E. e. Heathleigh, Horsmonden  
 Burns, M. e. St. Mary's Convent, Bruff  
 Costelloe, M. a. Presentation Convent, Thurles  
 Dowling, M. Our Lady's Bower Day S., Athlone  
 Farr, H. Chorley New Road Council S., Horwich  
 Griffiths, G. M. A. s. Porth Higher Grade S.  
 Heaps, J. Chichester P. T. Centre  
 Lynch, G. a. St. Mary's Convent, Bruff  
 Molloy, A. Convent of Mercy, Birr  
 Morgan, L. E. Porth Higher Grade S.  
 Perkins, D. d. Stamford, H., Edgbaston, Birmingham  
 Sherriff, F. E. Highwood H., Liskeard  
 Strawbridge, M. Private tuition  
 Summerfield, D. M. Tower House, Melton Mowbray  
 Sutherland, K. J. Gellivastad S., Pontypridd

GIRLS, 2<sup>ND</sup> CLASS, PASS—Continued.

Weale, L. English High S. for Girls, Pera

Abbott, W.R. Millburn H., Honor Oak Pk.  
Chant, A.E.

Regent St. Inter. Girls' S., Plymouth

Clarke, D.M. Oakley High S., Southsea

Dolan, J.

Conv. of Notre Dame de Sion, Holloway

Flintam, D.M. s.

Roseworthe, Kingston-on-Thames

Griffiths, E.

Ferndale Secondary S., Rhondda

Haig, H.F. d. Private tuition

Hayes, M. z. St. Paul's Conv., Birmingham

Jackson, I. Sandford Road S., Jesmond

Lavis, R. Ferndale Secondary S., Rhondda

Lion, J.H. The Modern S., Harrow

Martin, M. St. Etheldreda's Conv. High S.,  
Holborn Circus, E.C.

Newlands, B. Highfield, Wallington

Pickthorn, G.M. s. Hill Croft, Bentham

Walkden, E.

Rivington &amp; Blackrod Gram. S., Horwich

Williams, R.H.

Advanced Elem. Girls' S., Merthyr Tydfil

Barder, G.M. d. Mansfield House, Margate

Davies, A. Porth Higher Grade S.

Davies, M.A.

Advanced Elem. Girls' S., Merthyr Tydfil

Ferrario J. Notre Dame High S., Clapham

Fitzpatrick, K. d.

St. Paul's Conv., Birmingham

Gibson, H.E.

Friends' School, Mountmellick

Hill, C. a. Penpol Girls' S., Hayle

Illington, M. Hedingham, Wallington

Michalino, A.

English High S. for Girls, Pera

Monkhouse, M. Friends' S., Wigton

Rees, E.A.

Advanced Elem. Girls' S., Merthyr Tydfil

Weymouth, V.A.

Regent St. Inter. Girls' S., Plymouth

Altounian, M.

English High S. for Girls, Pera

Cunliffe, C.

Girls' S., Promenade, S. Shore, Blackpool

Davenport, B. Private tuition

Fitzgibbon, M. a.

Presentation Convnt, Thurles

Horton, M.E.

Ladies' Coll., Wellington, Salop

Jones, M.M.

Advanced Elem. Girls' S., Merthyr Tydfil

Mawer, E.I. Kensington H., York

Owen, M.J. Porth Higher Grade S.

Perris, W.M. Highfield, Wallington

Shankland, K. s.a.

Advanced Elem. Girls' S., Merthyr Tydfil

Slater, L.

Rivington &amp; Blackrod Gram. S., Horwich

Townley-Friend, A. s. Woodside, Hastings

Tudor, M.E.

Advanced Elem. Girls' S., Merthyr Tydfil

Wadhams, G.M.H.

University School, Rochester

Watts, M.

Advanced Elem. Girls' S., Merthyr Tydfil

Williams, E.

Comm. S., Astley Bridge, Bolton

Wright, F. Private tuition

Attaoullah, H.H.

15 Ellerker Gdns., Richmond

Bourke, B. St. Mary's High S., Middleton

Clarkson, M.G. Private tuition

Davies, M. Porth Higher Grade S.

Hackett, G. Convnt of Mercy, Birr

Hewett, J.E. Ava Girls' Coll. S., Belfast

Murphy, L.

St. Mary's Convent S., Charleville

Pritchard, F.M. s.

Boughrood House, Struett

Stroud, M.

Convnt of the Sacred Heart, Maidstone

Tweedie, M. a. Bloomfield Coll. S., Belfast

Bowman, E. Ainstable S., Armathwaite

Daly, N. St. Mary's Convent, Bruff

Earle, J. Conv. of the Faithful Virgin,  
Upper Norwood

Flanagan, M.

Presentation Convnt, Thurles

Gibson, I.J. a. Victoria College, Belfast

Hammer, A.L. Stratford Abbey Coll., Stroud

Hawkes, A.C. Kensington H., York

Lewis, G. Boughrood House, Struett

Pout, M.C. Private tuition

Ramsbottom, P.H. Hill Croft, Bentham

Reneaudin, M. f.

Convnt of the Sacred Heart, Maidstone

Regan, E.M. Notre Dame Coll. S., Leeds

Stevens, E.M. Holloway College

Vidler, J.E. a. Leslie H., Cheslunt

Williams, D.I.F. s.

Montpellier Coll., Budleigh-Salterton

Allard, D.E. Leinster H., Westcliff-on-Sea

Burns, M. Redby Girls' S., Sunderland

Carson, M.E. Victoria College, Belfast

Connolly, C.H. French Conv., Holyhead

Eggett, J.H. Sandal Dene, New Malden

Evans, E. Porth Higher Grade S.

Griffiths, A.I. Down End, Clifton

Hastie, A.G.

Convnt of the Sacred Heart, Maidstone

Llewellyn, A. Pentre Hr. Elementary S.

McBurney, R.M. Bank House, Comber

Reynolds, M.A.G. Guelph College, Bristol

Robson, C.

Benedictine Convent S., Dumfries

Salisbury, F.E. The Chestnuts, Wincoscombe

Scott, M.K. Victoria College, Belfast

Straton, D.M.

Gosberton Hall Coll., nr. Spalding

Tennant, E.J. Private tuition

André, G.P. s. Cambourne S., Richmond

Cass, N. Presentation Convnt, Thurles

Culla, M. Presentation Convnt, Thurles

Humphreys, H.M. s. Brook Hall, Winslow

Rue, J. J. T. Private tuition

Ruc, J. f.

Convnt of the Sacred Heart, Maidstone

Tetlow, D. Private tuition

Askew, F.E. Oxford H., Junction Rd., N.

Brown, D.M. 29 South Terrace, Cork

Edwards, M.M. Petre Hr. Elementary S.

Field, D.M. Bow Modern S.

Lewis, B.C. Senghennydd H., Caerphilly

O'Donohoe, A.

Notre Dame High S., Clapham

Watson, E. Sandford Road S., Jesmond

Britton, H.R.L. Kensington H., York

Edwards, M. a. u. Pentre Hr. Elementary S.

Fowler, A. Brook Hall, Winslow

Jones, A. Day Technical S., Stalybridge

Jones, B. s.

Advanced Elem. Girls' S., Merthyr Tydfil

McElhone, R.

St. Mary's Conv., Newlands, Middlesbro'

Murphy, L. St. Mary's High S., Middleton

Noonan, M. a. St. Mary's Convent, Bruff

Peers, J. Private tuition

Stockley, D.

Lithend Girls' S., Bishop's Waltham

Williams, M.A.

Advanced Elem. Girls' S., Merthyr Tydfil

Daniels, D. Stratford Abbey Coll., Stroud

Daughtery, A. F. a. d.

Pengewern Coll., Cheltenham

Davy, M.E. Stanley House, Eye

Gardner, N.H. Knock Inter S., Belfast

Graham, W.M.

Cornwallis High S., Hastings

Herbert, C.M. Porth Higher Grade S.

Larsen, K.S. e. Richmond High S., Liscard

McGann, M. Presentation Convnt, Thurles

McNair, C. St. Paul's Conv., Birmingham

Palmer, G.I. Southold H., Richmond

Porter, K. Bloomfield Coll. S., Belfast

Simmons, P.H. Grove H., Highgate

Thompson, E.B.

Wincham Hall Coll., Lostock Gramam

Vening, B. Private tuition

Wilmot, K.W.

St. Kilda's Coll., Clifton, Bristol

Chambers, A.M. a. The Crook, Croydon

Charlesson, C.A. Victoria College, Belfast

Craddock, G. Kempstow, Malvern Link

Cromin, J. a. St. Mary's School, Buttevant

Davies, C. Porth Higher Grade S.

Gribble, E.M. a. The College, Goudhurst

Highwood, F.C. The College, Goudhurst

Jones, A.G. Tutorial S., Penarth

Palmer, M.H. Convent High S., Ashford

Randell, H. Ashley High S., Long Sutton

Sarll, M. Tower House, Melton Mowbray

Sibley, M.

Convnt of the Sacred Heart, Maidstone

Barker, I. Church Inst., Ilkeston

Bowler, M.

Sacred Heart Convent S., Kanturk

Garlick, N.E. Hill Croft, Bentham

Hernon, M. Convnt of Mercy, Birr

Macdonald, A.M. Hounslow P.-T. Centre

Mockler, D. Presentation Convnt, Thurles

Moxley, V.M. Willesden Coll., Harlesden

Norton, G. St. Helen's Coll., Seven Kings

Perrott, C.A. The College, Goudhurst

Storey, E.M. Kensington H., York

Tattan, I. e. St. Mary's High S., Middleton

Tildesley, E. Private tuition

Weaver, G.M.

Tufnell Pk. Terrace S., Holloway Rd., N.

Batho, A.E. Ladies' Coll., Wellington, Salop

Bennett, M. Oxford H., Junction Rd., N.

Davies, S.A. a. Porth Higher Grade S.

Dear, W. The College, Goudhurst

Easton, W.M.

Melbourne Coll., Thornton Heath

Goodland, K.R.

Girl' Coll. S., Lower Penrhos, Knighton

Gough, L. Marist Conv. S., Tottenham

Hunter, F.L. Princess Gardens S., Belfast

Jones, F.M. South Bristol Girls' High S.

LeMay, G.B. St. John's House, Felixstowe

Lyddy, K. St. Mary's Convent, Bruff

McCormick, M. 39 Lisburn Rd., Belfast

Phillips, S.A. Pentre Hr. Elementary S.

Scott, E.M. Porth Higher Grade S.

Sherrard, M.A. Ava Girls' Coll. S., Belfast

Thompson, A. Adelphi House, Salford

Wilson, B.W.

Gordonville Ladies' S., Coleraine

Coates, M. The College, Goudhurst

Hancock, I.B. Tintern House, Forest Hill

Haselden, H.R. The Coll., Nightingale

Laue, Clapham Comm.

Hemphill, E.H. f.

St. John's House, Felixstowe

Hutchinson, R.

Ashley High S., Long Sutton

Jarvis, M.E.

Advanced Elem. Girls' S., Merthyr Tydfil

Lewis, M.A. a. Pentre Hr. Elementary S.

Madge, I.L.

Regent St. Inter. Girls' S., Plymouth

McDonnell, Lena

St. Mary's Convent, Bruff

O'Neill, K. St. Mary's Convent, Bruff

Baines, L. Adelphi House, Salford

Bradshaw, M.

Presentation Convnt, Thurles

Brown, M.H.V.

Wincham Hall Coll., Lostock Gramam

Burton, D.M. Gordon Sq. S. for Girls, W.C.

Chesters, K. a. Ladies' Coll., Nantwich

Holtum, D.

Stamford H., Edgbaston, Birmingham

Ling, D.M. Private tuition

McNie, M. 29 South Terrace, Cork

Mullan, C. z. Ursuline Conv., Kingsland

Nagle, W. R. Bandon Grammar S.

Williams, V.C. Wembley High S.

Blewett, G.E. s.

S. Kilda's Coll., Clifton, Bristol

Broderick, C.M. St. Etheldreda's Conv.

High S., Holborn Circus, E.C.

Bullock, E. Ladies' Coll., Congleton

Davies, B. Tower House, Melton Mowbray

Evans, E.L. Victoria College, Belfast

Hartigan, M. St. Mary's Convent, Bruff

Higham, B.R. s.

Girls' S., Promenade, S. Shore, Blackpool

Irwin, E.M. Alwyne Coll., Canonbury

Kendon, E.M. The College, Goudhurst

Paynter, W.A.

Regent St. Inter. Girls' S., Plymouth

Pike, P. St. Peter's Infants' S., St. Albans

Whittaker, A.E.

St. John's Church of England S., Worksop

Dickinson, K.P. Grove H., Highgate

Dunham, M.

Benedictine Convent S., Dumfries

Gatley, A.M. The College, Goudhurst

Guinan, M.J.

Our Lady's Bower Day S., Athlone

Hilder, M.E. Southold H., Richmond

Hough, P.W. Kempstow, Malvern Link

Jones, G.M. Bandon Grammar S.

Morrow, M.R. Knock Inter S., Belfast

Norris, V.

St. Mary's Conv., Newlands, Middlesbro'

Parker, E.H. Private tuition

Stephens, N.G.

Regent St. Inter. Girls' S., Plymouth

Vidal, M.L. f. The College, Goudhurst

Walker, I. Friends' S., Wigton

Watts, G.L. a. Tutorial S., Penarth

Wilcock, A. Hill Croft, Bentham

Davis, M.M. Tower House, Melton Mowbray

Delaney, M. Conv. La Ste. Union des

Sacres Coeurs, Athlone

Hoskin, G.M. Notre Dame High S., Clapham

Jones, A.S.

Advanced Elem. Girls' S., Merthyr Tydfil

Kennedy, M.L. Victoria College, Belfast

Leyshon, M.M. Porth Higher Grade S.

Long, M.

Convnt of the Sacred Heart, Maidstone

O'Brien, J. Oriel Coll. S., Larne

Parsons, M.M.W. Gram. S., Highworth

Pieddie, I.A. Knock Inter S., Belfast

Rowland, R.E. a. Porth Higher Grade S.

Swan, A.E. Princess Gardens S., Belfast

Williams, E. Private tuition

Blake, M. The Crook, Croydon

Caldwell, L.

Wincham Hall Coll., Lostock Gramam

Clarke, A. Convnt of Mercy, Birr

LOWER FORMS EXAMINATION. — PASS LIST, MIDSUMMER, 1908.

BOYS.

Alaux, G. Marist Brothers' Coll., Grove Ferry	Collar, F. F. Johnston Terrace Boys' S., Devonport	Gimblett, E. N. Pemberton Coll., Upper Holloway	Johnson, J. St. Aloysius' Coll., Hornsey Lane, N.
Allanson, W. Notre Dame High S., Clapham	Cooke, V. J. W. S. Scorton Gram. S.	Girling, F. V. Eastward Ho! Coll., Felixstowe	Jones, H. D. Oxford H., Junction Rd., N.
Andrews, A. W. Stoke Public Higher S., Devonport	Coombs, H. Gram. S., Taplow	Glanville, A. P. Stoke Public Higher S., Devonport	Jones, H. R. University S., Rochester
Andrews, S. A. Margate College	Cooper, C. H. University S., Rochester	Glasscock, S. F. Stafford Coll., Forest Hill	Jones, R. L. Gram. S., Taplow
Angle, F. W. Stoke Public Higher S., Devonport	Cooper, W. Orient Coll., Skegness	Gleeson, D. Conv. LaSanteUnion des Sac. Coeurs, Athlone	Joseph, A. D. Abbotshill, Kilburn
Arbeb, R. Townley Castle S., Ramsgate	Cory, P. A. F. Margate College	Glover, J. S. Argyle House, Sunderland	Joseph, D. C. Gram. S., Taplow
Armer, T. The College, Weston-super-Mare	Cossham, W. L. Private tuition	Gomez, A. Christian Bros.' Coll., Gibraltar	Joseph, L. A. E. Grove H., Highgate
Arridge, H. St. Aloysius' Coll., Hornsey Lane, N.	Cowland, F. J. Gram. S., Taplow	Gomez, E. Christian Bros.' Coll., Gibraltar	Judd, H. F. Tudor Hall, Hawkhurst
Ashton, M. E. Northgate S., Bury St. Edmunds	Cox, E. T. Stoke Public Higher S., Devonport	Gompertz, M. C. T. St. Mary's Lodge, St. Leonards-on-Sea	Kane, M. F. Salesian S., Battersea
Austin, G. Private tuition	Cox, W. L. The College, Weston-super-Mare	Gordon, E. Lindisfarne Coll., Westcliff-on-Sea	Keble, C. H. Wintersloe, Moseley
Bacon, G. D. Tudor Hall, Hawkhurst	Cristol, H. Margate Jewish Coll.	Grayson, C. K. Montgomery Coll., Sharrow, Sheffield	Keller, I. Margate Jewish Coll.
Bailey, W. G. Montgomery Coll., Sharrow, Sheffield	Crocker, L. G. Mannamead Prep. S., Plymouth	Green, E. C. Stoke Public Higher S., Devonport	Kennaway, O. W. Stafford Coll., Forest Hill
Baines, C. St. George's Coll., Weybridge	Crundall, E. D. Tudor Hall, Hawkhurst	Green, G. G. Abbot's Hill, Kilburn	Kennedy, B. G. St. George's Coll., Weybridge
Baker, W. S. Dagmar H., Hatfield	Cunningham, T. B. Grosvenor S., Bath	Griffin, E. Christian Bros.' Coll., Gibraltar	Kennedy, C. J. The Convent, Pulteney Road, Bath
Ball, H. E. Linton House, Portsmouth	Curtiss, J. H. Gram. S., Taplow	Griffiths, H. J. St. George's Coll., Weybridge	Kerckhove, A. R. V. Anerley College
Banks, P. K. Bethany H., Goudhurst	Dancey, M. Beverley S., Barnes	Guird, E. B. Stoke Public Higher S., Devonport	Kilkenny, E. A. St. Aloysius' Coll., Hornsey Lane, N.
Banton, F. Durham H., Hove	Darfield, A. P. Scorton Gram. S.	Gwyn, P. The Convent, Pulteney Rd., Bath	Kingston, A. T. Gram. S., Taplow
Barbier, M. J. St. Aloysius' Coll., Hornsey Lane, N.	Davey, A. G. Durham H., Hove	Hall, A. Salesian S., Battersea	Klupfel, P. A. St. Aloysius' Coll., Hornsey Lane, N.
Barrett, S. Salesian S., Battersea	Davies, E. H. Balham School, S. W.	Hall, B. A. E. Belgrave Villa, Lee	Knox-Jones, T. T. Grosvenor S., Bath
Bartholomew, C. H. F. Private tuition	Day, H. F. Hillmartin Coll., Camden Rd., N.	Hall, L. W. Endcliffe Coll., Sheffield	Lainé, R. St. Aloysius' Coll., Hornsey Lane, N.
Barton, G. H. Claremont House, Sunderland	Dean, N. E. Modern S., E. Grinstead	Hammett, J. McD. Endcliffe Coll., Sheffield	Lakey, E. H. Stoke Public Higher S., Devonport
Bartram, L. Broadgate S., Nottingham	Denison, F. Stoke Public Higher S., Devonport	Hammond, W. E. University S., Rochester	Lamb, P. J. Lindisfarne Coll., Westcliff-on-Sea
Bateman, W. Gram. S., Streatham	Dickenson, A. Endcliffe Coll., Sheffield	Hancock, R. Stafford Coll., Forest Hill	Lambert, S. W. Tutorial S., Penarth
Beaven, J. M. Stoke Public Higher S., Devonport	Diener, E. A. St. Mary's Lodge, St. Leonards-on-Sea	Hards, H. J. Oxford H., Junction Rd., N.	Lawrence, C. A. University S., Rochester
Beirne, F. J. Salesian S., Farnborough	Diesch, H. F. St. Aloysius' Coll., Hornsey Lane	Harrison, H. B. Hoylake College	Legrand, R. Marist Brothers' Coll., Grove Ferry
Bell, G. B. Gresham Coll., Southsea	Dines, L. T. Paddington High S., W.	Harrison, H. C. Beverley S., Barnes	Lidington, N. H. O. Milton Coll., Bexley Heath
Belshan, S. A. Bethany H., Goudhurst	Dixon, C. Margate College	Harrison, R. St. Mary's Hall S., Cardiff	Lippmann, J. Marist Brothers' Coll., Grove Ferry
Bentall, W. D. Lindisfarne Coll., Westcliff-on-Sea	Doherty, T. O' C. Eversley S., Southwold	Hart, L. R. Malvern House, Folkestone	Littlejohn, A. H. St. John's Coll., Brixton
Betts, C. R. A. Gram. S., Taplow	Donoghue, J. E. Salesian S., Farnborough	Hartidge, W. H. Lindisfarne Coll., Westcliff-on-Sea	Llewellyn, A. J. Tutorial S., Penarth
Betts, S. The College, Weston-super-Mare	Donovan, P. D. Tankerton Coll., Tankerton-on-Sea	Harwood, H. E. Stoke Public Higher S., Devonport	Loneuhaye, S. Beverley S., Barnes
Bishop, D. Richmond Hill S.	Dorney, W. Market Bosworth Gram. S.	Haste, G. F. Margate College	Lorraine, L. G. New College, Herne Bay
Bishop, G. F. Lindisfarne Coll., Westcliff-on-Sea	Dotto, Alfred Christian Bros.' Coll., Gibraltar	Hayes, E. Tutorial S., Penarth	Lumley, D. C. Balham School, S. W.
Black, W. L. E. New College, Herne Bay	Dotto, Augustine Christian Bros.' Coll., Gibraltar	Haynes, T. Xaverian Coll., Manchester	Lydan, W. Xaverian Coll., Manchester
Blackmore, J. Stafford Coll., Forest Hill	Doubleday, H. Salesian S., Battersea	Hearn, S. G. Stoke Public Higher S., Devonport	Lytton, P. A. B. Gram. S., Taplow
Bloomfield, R. S. Northgate S., Bury St. Edmunds	Dowding, H. N. The College, Weston-super-Mare	Heneguy, J. C. St. Aloysius' Coll., Hornsey Lane, N.	MacDermott, E. Conv. LaSanteUnion des Sac. Coeurs, Athlone
Bodenham, N. H. The College, Weston-super-Mare	Drucker, M. St. Aloysius' Coll., Hornsey Lane, N.	Herivel, H. L. Lindisfarne Coll., Westcliff-on-Sea	Mace, C. A. University S., Rochester
Bolltho, S. G. Stoke Public Higher S., Devonport	Dunning, J. C. High S., Kirkby Stephen	Hernandez, J. Christian Bros.' Coll., Gibraltar	MacMahon, G. St. Aloysius' Coll., Hornsey Lane, N.
Boon, N. A. University S., Rochester	Dupont, E. C. Northgate S., Bury St. Edmunds	Herniman, G. The College, Weston-super-Mare	MacMahon, T. A. St. Aloysius' Coll., Hornsey Lane, N.
Booth, A. Notre Dame High S., Clapham	Dupont, R. H. Marist Brothers' Coll., Grove Ferry	Hichens, E. B. Northgate S., Bury St. Edmunds	MacMahon, W. G. St. Aloysius' Coll., Hornsey Lane, N.
Boucher, A. A. St. Aloysius' Coll., Hornsey Lane, N.	Durrant, R. A. Lindisfarne Coll., Westcliff-on-Sea	Hill, A. Hill Croft S., Amlurst Pk., N.	Malcolm, K. J. Bethany H., Goudhurst
Boursot, C. H. Richmond Hill S.	Dwyer, H. F. St. Aloysius' Coll., Hornsey Lane, N.	Hirst, C. C. Stafford Coll., Forest Hill	Mannings, W. Modern S., E. Grinstead
Bradley, D. J. University S., Rochester	Easter, C. E. Northgate S., Bury St. Edmunds	Hirst, S. Wintersloe, Moseley	Mansford, L. W. St. Aloysius' Coll., Hornsey Lane, N.
Bradley, F. G. St. Mary's Lodge, St. Leonards-on-Sea	Edwards, E. G. Orient Coll., Skegness	Hoare, G. J. Balham School, S. W.	Marks, S. Margate Jewish Coll.
Braun, J. Friedenfels, St. Leonards-on-Sea	Edwards, M. E. New College, Herne Bay	Hoffman, J. M. Broadgate S., Nottingham	Marriott, N. F. Broadgate S., Nottingham
Brian, F. J. Stoke Public Higher S., Devonport	Edwards, W. A. Stoke Public Higher S., Devonport	Holmes, S. H. Stoke Public Higher S., Devonport	Marsh, B. C. Richmond H., Handsworth
Bridges, J. T. Northgate S., Bury St. Edmunds	Elliott, J. Lindisfarne Coll., Westcliff-on-Sea	Horner, W. E. S. Green Park Coll., Bath	Martin, L. Xaverian Coll., Manchester
Brown, C. E. R. B. Lindisfarne Coll., Westcliff-on-Sea	Evans, C. N. W. Gram. S., Taplow	Hooper, F. Stoke Public Higher S., Devonport	Martin, R. A. L. Stoke Public Higher S., Devonport
Bruce, J. Q. New College, Herne Bay	Facio, A. Christian Bros. Coll., Gibraltar	Hooper, J. Stoke Public Higher S., Devonport	Mason, E. S. Lindisfarne Coll., Westcliff-on-Sea
Bryant, C. Froebel House, Devonport	Fairclough, J. Xaverian Coll., Manchester	Hope, J. A. Margate College	Mason, R. Grammar S., Southend-on-Sea
Bryant, R. L. A. Eastward Ho! Coll., Felixstowe	Farrance, D. A. Modern S., E. Grinstead	Houslen, H. S. Anerley College	Mathews, C. W. Salesian S., Farnborough
Buckeridge, W. H. St. George's Coll., Weybridge	Fear, J. C. The College, Weston-super-Mare	Hudson, E. A. Stoke Public Higher S., Devonport	Matthews, F. M. L. Northgate S., Bury St. Edmunds
Burnside, E. E. Princess Gardens S., Belfast	Feeney, F. Xaverian Coll., Manchester	Hunt, J. W. University S., Rochester	May, F. C. Bethany H., Goudhurst
Burr, F. H. Lindisfarne Coll., Westcliff-on-Sea	Fells, J. H. New College, Herne Bay	Hunt, R. F. St. John's Coll., Brixton	McCorry, A. C. St. George's Coll., Weybridge
Bywaters, R. H. Dagmar H., Hatfield	Fiddes, H. Xaverian Coll., Manchester	Hynde, L. F. Private tuition	McCurtin, J. Conv. LaSanteUnion des Sac. Coeurs, Athlone
Callaghan, T. Xaverian Coll., Manchester	Forrest, R. Xaverian Coll., Manchester	Iron, S. L. Tudor Hall, Hawkhurst	McIntyre, S. C. Stafford Coll., Forest Hill
Cardona, E. Christian Bros.' Coll., Gibraltar	Foster, T. Hoylake College	Isaacs, F. L. St. Aloysius' Coll., Hornsey Lane, N.	McNeil, G. W. Salesian S., Farnborough
Carew, A. St. Aloysius' Coll., Hornsey Lane, N.	Franchy, J. U. St. George's Coll., Weybridge	Isaacs, J. A. Margate College	Misud, F. Christian Bros.' Coll., Gibraltar
Carless, T. F. G. St. Catherine's Coll., Richmond	Freeman, H. Gram. S., Streatham	Jacker, A. H. Richmond Hill S.	Miller, C. Salesian S., Battersea
Carleton, K. O' N. Bethany H., Goudhurst	Friend, C. J. Orient Coll., Skegness	Jacobs, M. Lindisfarne Coll., Westcliff-on-Sea	Miller, C. G. University S., Rochester
Carney, H. A. Argyle House, Sunderland	Frost, L. The Convent, Pulteney Rd., Bath	Jay, A. Abbotshill, Kilburn	Miller, E. S. C. Margate College
Carpenter, L. R. Gram. S., Taplow	Fullick, C. A. Margate College	Jeandel, P. H. St. Aloysius' Coll., Hornsey Lane, N.	Mills, C. V. Cambridge Coll., Twickenham
Carpmael, R. Xaverian Coll., Manchester	Furness, G. G. Orient Coll., Skegness	Johnson, A. A. Modern S., E. Grinstead	Milnes, A. J. New College, Herne Bay
Carroll, R. S. Stafford Coll., Forest Hill	Garthwaite, J. Osborne High S., W. Hartlepool	Johnson, A. W. Durham H., Hove	Moore, A. J. Balham School, S. W.
Casciaro, A. Christian Bros.' Coll., Gibraltar	Gandarf, P. T. St. John's Coll., Brixton	Johnson, F. C. Durham H., Hove	Moore, A. R. University S., Rochester
Cash, J. N. Market Bosworth Gram. S.	Gavin, L. St. Aloysius' Coll., Hornsey Lane, N.	Johnson, F. C. Durham H., Hove	Moore, F. B. Wintersloe, Moseley
Castle, C. G. Margate College	Geffen, D. H. Paddington High S., W.	Johnson, F. C. Durham H., Hove	Moore, L. University S., Rochester
Chalker, T. W. Beverley S., Barnes	George, S. R. Stoke Public Higher S., Devonport	Johnson, F. C. Durham H., Hove	Morales, H. Christian Bros.' Coll., Gibraltar
Chambers, H. T. Balham School, S. W.	Gibbins, R. Hoylake College	Johnson, F. C. Durham H., Hove	Morgan, H. H. The College, Weston-super-Mare
Chase, C. K. Cambridge House, Margate	Gibbs, G. H. Margate College	Johnson, F. C. Durham H., Hove	Morrish, L. G. Tutorial S., Penarth
Chiapponecchi, D. Salesian S., Battersea	Gibson, J. University S., Rochester	Johnson, F. C. Durham H., Hove	Mortimer, W. C. New College, Herne Bay
Chipulina, J. Christian Bros. Coll., Gibraltar	Gigli, A. A. St. Aloysius' Coll., Hornsey Lane, N.	Johnson, F. C. Durham H., Hove	Mortimer, W. C. St. Aloysius' Coll., Hornsey Lane, N.
Clark, F. Osborne High S., W. Hartlepool	Gilbert, C. E. J. Stoke Public Higher S., Devonport	Johnson, F. C. Durham H., Hove	Mortlock, H. S. Northgate S., Bury St. Edmunds
Clarke, W. T. S. Eversley S., Southwold	Gilbert, G. Orient Coll., Skegness	Johnson, F. C. Durham H., Hove	
Colby, R. W. H. F. New College, Herne Bay	Gillet, F. E. St. John's Coll., Brixton	Johnson, F. C. Durham H., Hove	
Coleman, H. W. Stoke Public Higher S., Devonport	Gilmour, J. Intermediate S., Ballyclare	Johnson, F. C. Durham H., Hove	
Coley, M. W. Durham H., Hove			

**BOYS, LOWER FORMS—Continued.**  
 Murphy, C.  
 Conv. La Sainte Union des Sac. Coeurs, Athlone  
 Muschamp, J. D.  
 Osborne High S., W. Hartlepole  
 Mutton, D. H. Gram. S., Taplow  
 Mutton, H. J. Gram. S., Taplow  
 Myles, J. G. H. Tudor Hall, Hawkhurst  
 Nanscawen, W. L.  
 Stoke Public Higher S., Devonport  
 Nevard, C. R. St. John's Coll., Brixton  
 Newman, F. R.  
 The College, Weston-super-Mare  
 Newman, T.  
 Salesian S., Wandsworth Common  
 Newson, F. N.  
 Eastward Ho! Coll., Felixstowe  
 Nicholas, D. Oxford H., Junction Rd., N.  
 Nicholas, J. A. Hasland House, Penarth  
 Nixon, W. Margate College  
 Nixon, W. H. Gram. S., Taplow  
 Oates, R. N.  
 Stoke Public Higher S., Devonport  
 O'Neil, A.  
 St. Aloysius' Coll., Hornsey Lane, N.  
 O'Neill, J. Xaverian Coll., Manchester  
 Ormiston, G. Cambridge Coll., Twickenham  
 O'Shea, D. T.  
 St. Aloysius' Coll., Hornsey Lane, N.  
 Ostler, F. V. E. University S., Rochester  
 Owen, L. C.  
 Stoke Public Higher S., Devonport  
 Owton, J. St. George's, Southampton  
 Paine, R. E.  
 Stoke Public Higher S., Devonport  
 Paine, T. St. John's Coll., Brixton  
 Palmer, C. J.  
 Stoke Public Higher S., Devonport  
 Parnell, H. H. Northgate S., Bury St. Edmunds  
 Partington, F. E. H. Stafford Coll., Forest Hill  
 Pascall, T. F. Eastward Ho! Coll., Felixstowe  
 Patterson, J. F. Richmond Hill S.  
 Payne, E. M. Balham School, S. W.  
 Payne, G. W. J.  
 St. Aloysius' Coll., Hornsey Lane, N.  
 Payne, W. L. Princess Gardens S., Belfast  
 Pearce, P. V. Margate College  
 Pearne, H. R.  
 Stoke Public Higher S., Devonport  
 Pears, R. E. Gram. S., Streatham  
 Peck, R. E. Stoke Public Higher S., Devonport  
 Pegge, H. Xaverian Coll., Manchester  
 Peirce, C. H. The College, Weston-super-Mare  
 Pellé, A. E. Gram. S., Taplow  
 Penketh, L. Xaverian Coll., Manchester

Perkins, R. N. Wintersloe, Moseley  
 Perry, R. Salesian S., Wandsworth Common  
 Phillips, J. Stoke Public Higher S., Devonport  
 Phillips, L. B. St. Mary's Hall S., Cardiff  
 Pink, A. L. Eversley S., Southwold  
 Pinot de Moira, M. G. Eversley S., Southwold  
 Plunkett, H. J. St. Aloysius' Coll., Hornsey Lane, N.  
 Plunkett, H. J. St. Aloysius' Coll., Hornsey Lane, N.  
 Poole, H. C. The College, Weston-super-Mare  
 Price, A. Wintersloe, Moseley  
 Raiston, A. McD. Scotton Gram. S.  
 Randall, A. J. Milton Coll., Bexley Heath  
 Ranken, J. S. Claremont House, Sunderland  
 Rayment, C. L. Dagnar H., Hatfield  
 Read, R. D. Lindisfarne Coll., Westcliff-on-Sea  
 Reay, B. S. Grosvenor S., Bath  
 Reilly, T. Xaverian Coll., Manchester  
 Reynolds, J. M. Orient Coll., Skegness  
 Richardson, W. M. M. V. C. Margate College  
 Rickard, W. E. Stoke Public Higher S., Devonport  
 Ricketts, K. H. Grosvenor S., Bath  
 Rigden, H. W. Tankerton Coll., Tankerton-on-Sea  
 Roberts, H. J. St. George's Coll., Weybridge  
 Roberts, T. A. Endcliffe Coll., Sheffield  
 Robins, A. E. H. Stoke Public Higher S., Devonport  
 Robinson, H. S. Montgomery Coll., Sharrow, Sheffield  
 Rundle, H. L. Stoke Public Higher S., Devonport  
 Rusby, R. H. Wintersloe, Moseley  
 Sackven, H. M. St. George's Coll., Weybridge  
 Sackven, J. A. St. George's Coll., Weybridge  
 Salridge, A. Hoyalake College  
 Salter, W. A. J. St. John's Coll., Brixton  
 Sanders, G. St. George's, Southampton  
 Sara, H. P. Johnston Terrace Boys' S., Devonport  
 Scanlan, W. J. Hillmartin Coll., Camden Rd., N. W.  
 Scantlebury, T. F. Stoke Public Higher S., Devonport  
 Schuler, F. J. St. Aloysius' Coll., Hornsey Lane, N.  
 Schumann, C. Oxford H., Junction Rd., N.  
 Schwabe, C. Tudor Hall, Hawkhurst  
 Scotti, C. N. Salesian S., Battersea  
 Scotti, J. J. Salesian S., Battersea  
 Seagrave, M. W. Bethany H., Goudhurst  
 Seccombe, A. A. Johnston Terrace Boys' S., Devonport

Seller, R. Marist Brothers' Coll., Grove Ferry  
 Semmens, J. J. Johnston Terrace Boys' S., Devonport  
 Shanley, L. D. St. Aloysius' Coll., Hornsey Lane, N.  
 Sharpe, D. S. Eversley S., Southwold  
 Sheldon, G. A. Milton Coll., Bexley Heath  
 Shepherd, E. T. B. The College, Weston-super-Mare  
 Shephard, J. W. Market Bosworth Gram. S.  
 Simmons, F. L. Grove H., Highgate  
 Smith, A. F. Broadgate S., Nottingham  
 Smith, B. F. Orient Coll., Skegness  
 Smith, G. H. Argyle House, Sunderland  
 Smith, H. F. Margate College  
 Smith, H. W. Bethany H., Goudhurst  
 Smith, L. H. Tutorial S., Penarth  
 Smith, P. J. W. Tankerton Coll., Tankerton-on-Sea  
 Smith, R. H. Orient Coll., Skegness  
 Smith, R. H. Mannamead Prep. S., Plymouth  
 Smith, V. H. St. John's Coll., Brixton  
 Sqaunce, F. H. Stoke Public Higher S., Devonport  
 Steed, R. H. New College, Herne Bay  
 Stern, H. G. Townley Castle S., Ramsgate  
 Stewart, K. A. Bethany H., Goudhurst  
 Story, G. B. T. Princess Gardens S., Belfast  
 Stronge, R. H. J. Lindisfarne Coll., Westcliff-on-Sea  
 Sunnucks, H. B. Eastward Ho! Coll., Felixstowe  
 Sunnucks, S. R. Eastward Ho! Coll., Felixstowe  
 Tait, W. E. Bedford House, Folkestone  
 Tanner, F. R. St. Aloysius' Coll., Hornsey Lane, N.  
 Taylor, F. Margate College  
 Tebbet, T. L. Wintersloe, Moseley  
 Theobald, F. St. Aloysius' Coll., Hornsey Lane, N.  
 Thomas, D. E. Tutorial S., Penarth  
 Thornton, E. Gresham Coll., Southsea  
 Tierney, W. J. St. Joseph's Conv., Chapelizod, Dublin  
 Tiltman, H. H. Durham H., Hove  
 Todd, L. N. Argyle House, Sunderland  
 Torkington, A. Xaverian Coll., Manchester  
 Tourneur, E. G. Lindisfarne Coll., Westcliff-on-Sea  
 Tresidder, W. D. Orient Coll., Skegness  
 Trewfoot, A. Argyle House, Sunderland  
 Troughton, P. Gram. S., Streatham  
 Truscott, W. W. H. Stoke Public Higher S., Devonport

Turner, E. E. Stafford Coll., Forest Hill  
 Turner, E. T. Stafford Coll., Forest Hill  
 Turner, M. W. Eversley S., Southwold  
 Turner, S. L. Lindisfarne Coll., Westcliff-on-Sea  
 Upton, A. S. Stoke Public Higher S., Devonport  
 Uzzell, F. C. The Douglas S., Victoria Walk, Cheltenham  
 Vincent, C. The Convent, Pultney Rd., Bath  
 Vincent, G. The Convent, Pultney Rd., Bath  
 Volcan, P. Marist Brothers' Coll., Grove Ferry  
 Wakefield, W. G. Lancaster Coll., W. Norwood  
 Walker, W. St. Mary's Hall S., Cardiff  
 Wampach, C. J. C. Malvern House, Folkestone  
 Want, G. F. St. George's Coll., Weybridge  
 Waters, H. The Convent, Pultney Rd., Bath  
 Watkins, W. Hoyalake College  
 Watson, D. L. Bethany H., Goudhurst  
 Watson, L. G. Cambridge Coll., Twickenham  
 Watts, A. E. Stoke Public Higher S., Devonport  
 Webb, J. N. Stoke Public Higher S., Devonport  
 Weeks, P. J. Carden S., Peckham Rye, S. E.  
 Welton, C. W. Lindisfarne Coll., Westcliff-on-Sea  
 West, G. Xaverian Coll., Manchester  
 Westlake, H. J. W. J. Stoke Public Higher S., Devonport  
 Wheeler, L. C. Gram. S., Taplow  
 Whittingham, F. Hoyalake College  
 Wickham, E. Tudor Hall, Hawkhurst  
 Wiedmann, F. Durham H., Hove  
 Wildish, J. N. University S., Rochester  
 Williams, E. Kensey, Launceston  
 Williams, E. F. Johnston Terrace Boys' S., Devonport  
 Willmott, H. Lancaster Coll., W. Norwood  
 Willmot, B. St. John's Coll., Brixton  
 Wilson, H. Salesian S., Farnborough  
 Wilson, J. S. Tutorial S., Penarth  
 Wilson, K. A. Lancaster Coll., W. Norwood  
 Wilson, L. M. Stafford Coll., Forest Hill  
 Windebank, J. F. The College, Weston-super-Mare  
 Wing, C. T. Bethany H., Goudhurst  
 Wood, E. Hoyalake College  
 Woodington, R. Gram. S., Streatham  
 Wright, J. H. Hillmartin Coll., Camden Rd., N. W.  
 Young, E. H. Bethany H., Goudhurst  
 Youngman, J. M. Cambridge H., Margate  
 Yunge-Bateman, J. E. J. St. Mary's Lodge, St. Leonards-on-Sea  
 Yvert, H. Marist Brothers' Coll., Grove Ferry

GIRLS.

Abrahamson, D. K. Cranley House, Muswell Hill  
 Adams, A. Tutorial S., Penarth  
 Ahearne, K. St. Mary's High S., Midleton  
 Airey, G. H. Woodhouse Hall S., Leeds  
 Aivassides, I. English High S. for Girls, Pera  
 Aldred, G. H. Oriel Bank High S., Davenport  
 Anderson, E. Notre Dame High S., Clapham  
 Andrin, L. Conv. of the Sacred Heart, Maidstone  
 Ansell, K. M. Private tuition  
 Arin-ro, P. Loreto Conv., Europa, Gibraltar  
 Arnitage, M. Belgrave Terrace S., Huddersfield  
 Armit, Rees, G. M. Conv. of F. C. J., Fallowfield  
 Armstrong, G. M. Kempstow, Malvern Link  
 Ashcroft, J. Ballure House, Gt. Crosby  
 Atkin, B. B. Walford Coll., Tipton  
 Austin, C. S. Highfield, Wallington  
 Baird, E. C. Norfolk House, Muswell Hill  
 Bald, W. C. Norfolk House, Muswell Hill  
 Balcombe, F. A. The College, Goudhurst  
 Ball, L. M. Tutorial S., Penarth  
 Bamber, H. Lark Hill House, Preston  
 Barlow, O. M. Northfield, Stamford Hill  
 Barnes, W. Lark Hill House, Preston  
 Barns, C. A. Highams S., Hale End  
 Barry, L. St. Mary's High S., Midleton  
 Batchelor, M. Anurey Convent, Seaford  
 Bates, V. D. Ladies' Coll., Congleton  
 Baylis, N. E. M. P. High S., Walton-on-Thames  
 Beale, D. J. The Bonhams, St. Leonards-on-Sea  
 Beard, L. A. E. Melbourne Coll., Thornton Heath  
 Beckett, M. E. Cranley House, Muswell Hill  
 Bell, M. Stretton House, Fleetwood  
 Bellamy, W. Loreto Conv., Europa, Gibraltar  
 Benary, V. Church of Scotland Mission S., Hasskein  
 Bentley, C. Notre Dame High S., Clapham

Bentley, P. H. St. Mary's Conv. S., Chelsea  
 Benton, M. Chatwin House, Hurworth-on-Tees  
 Berrill, M. Private tuition  
 Beyer, E. Notre Dame High S., Clapham  
 Bibby, E. J. Norfolk House, Muswell Hill  
 Billington, G. G. The College, Ipswich  
 Bishop, G. I. M. 54 Hamlet Court Rd., Westcliff-on-Sea  
 Blades, W. Beechfield, Wilmslow  
 Blatchford, M. Stoke Public Higher S., Devonport  
 Blundstone, D. Beechfield, Wilmslow  
 Bond, M. English High S. for Girls, Pera  
 Bond, P. English High S. for Girls, Pera  
 Booth, N. Notre Dame High S., Clapham  
 Bourne, M. Private tuition  
 Brassill, M. St. Mary's Convent S., Charleville  
 Brennan, K. Notre Dame High S., Clapham  
 Brentnall, B. M. Beechfield, Wilmslow  
 Brett, E. Notre Dame High S., Clapham  
 Bridgman, M. St. Mary's Convent, Bruff  
 Brierley, C. Tower H., Melton Mowbray  
 Brierley, E. Tower H., Melton Mowbray  
 Brookes, A. Rosella S., South Milford  
 Brown, V. E. Redcliffe House, Southsea  
 Browne, A. Sacred Heart Conv., Buxton  
 Browne, D. St. Mary's Convent S., Charleville  
 Browne, M. Our Lady's Lower Day S., Athlone  
 Bryan, G. Oriel Bank High S., Davenport  
 Bryden, F. G. University S., Rochester  
 Buckley, J. Sacred Heart Conv. S., Kanturk  
 Buckley, L. St. Mary's High S., Midleton  
 Buggy, F. Sacred Heart Conv. S., Kanturk  
 Bulbeck, I. Notre Dame High S., Clapham  
 Bunting, K. 70 Avenue Rd., W. Hartlepole  
 Bush, M. J. The College, Goudhurst  
 Butt, C. M. East Sheen College  
 Byrne, W. Convent of Mercy, Birr  
 Caldwell, K. Notre Dame High S., Clapham  
 Callaghan, M. St. Mary's S., Buttevant

Calvert, M. E. Belgrave Terrace S., Huddersfield  
 Cantwell, K. Convent of Mercy, Birr  
 Capper, A. G. Princess Gardens S., Belfast  
 Carnegie, E. Buda Coll., Hove  
 Carpenter, D. G. The College, Goudhurst  
 Carroll, G. St. Mary's Convent School, Charleville  
 Carson, M. Intermediate S., Ballyclare  
 Charlesworth, C. Notre Dame High S., Clapham  
 Chattey, M. H. Cranley House, Muswell Hill  
 Clarke, E. H. Walford Coll., Tipton  
 Choctham, S. D. Private tuition  
 Clarke, G. Gosberton Hall Coll., nr. Spalding  
 Clarke, D. Conv. of the Sacred Heart, Maidstone  
 Clarke, K. F. Wraybury S., Hale  
 Clarke, W. K. Beechfield, Wilmslow  
 Clarkson, R. Hill Croft S., Stamford Hill  
 Clayton, E. E. Private tuition  
 Clegg, M. Fairhaven High S., nr. Lytham  
 Cliffo-d, D. Friedenfels, St. Leonards-on-Sea  
 Coates, M. Wellesley Terrace S., Liverpool  
 Cobb, F. L. North Kensington Coll. S.  
 Cocking, E. Belgrave Terraces, Huddersfield  
 Cohen, M. Church of Scotland Mission S., Hasskein  
 Cohen, P. Church of Scotland Mission S., Hasskein  
 Collins, M. Convent S., Kears  
 Collins, M. Lark Hill House, Preston  
 Gollomb, J. Conv. of the Sacred Heart, Maidstone  
 Gollyer, M. Oriel Bank High S., Davenport  
 Combe, M. Private tuition  
 Condon, E. St. Mary's S., Buttevant  
 Conolly, K. Oriel Bank High S., Davenport  
 Cook, K. V. St. Mary's Conv. S., Chelsea  
 Cooke, W. B. Hill Croft S., Stamford Hill  
 Coolican, E. M. Conv. La Sainte Union des Sac. Coeurs, Athlone

Cooper, D. Loreto Conv., Europa, Gibraltar  
 Cowen, C. L. Wraybury S., Hale  
 Crabtree, H. C. Stand Lodge S., Radcliffe  
 Cressingham, L. Loreto Conv., Europa, Gibraltar  
 Cribbin, C. St. Mary's Convent, Bruff  
 Crilly, G. Notre Dame High S., Clapham  
 Crilly, P. Notre Dame High S., Clapham  
 Croker, P. Notre Dame High S., Clapham  
 Crone, E. F. Princess Gardens S., Belfast  
 Cronin, J. St. Mary's Conv. S., Charleville  
 Cronin, M. St. Mary's S., Buttevant  
 Crowe, K. Stratford Abbey Coll., Stroud  
 Crowther, M. Newlands High S., Heaton Moor, Stockport  
 Cruise, H. R. Bestreben High S., Brondesbury  
 Cuddy, M. Convent of Mercy, Birr  
 Culhane, M. St. Mary's Convent, Bruff  
 Cumming, M. English High S. for Girls, Pera  
 Cure, C. Stoke Public Higher S., Devonport  
 Davies, M. Highfield S., Bramhall  
 Davis, I. M. Kempstow, Malvern Link  
 Dean, A. D. Private tuition  
 de Escotet, C. Notre Dame High S., Clapham  
 Delaney, M. E. Convent of Mercy, Birr  
 de Moraes, P. Convent High S., Southampton  
 Denton, E. M. Belgrave Terrace S., Huddersfield  
 Dods, M. G. Private tuition  
 Dolby, O. F. M. Redcliffe House, Southsea  
 Donoghue, M. Sacred Heart Conv. S., Kanturk  
 Dooley, E. Convent of Mercy, Birr  
 Douglas, I. P. Friends' S., Mountmellick  
 Dowling, M. Loreto Conv., Europa, Gibraltar  
 Downie, L. M. Bestreben High S., Brondesbury  
 Duggan, D. St. Mary's Conv. S., Charleville  
 du Mosch, E. F. E. Friedenfels, St. Leonards-on-Sea  
 Dunnett, D. Convent High S., Southampton  
 Dunnet, M. Convent High S., Southampton  
 Dunster, K. Stoke Public High S., Devonport



GIRLS, LOWER FORMS—Continued. Dunworth, D. St. Mary's Convent, Bruff Dwyer, D. St. Mary's Convent, Bruff Eckley, V.E. Gram. S. for Girls, Worcester Elcott, V.K. Highfield S., Bramhall Scott, G. Anney Convent, Seaford Evans, G.J. Newlands High S., Heaton Moor Farrah, M. Holmwood S., Sidcup Farrow, O. Anney Convent, Seaford Faulkner, G. Girls' Gram. S., Levenshulme Fayle, M.E. Friends' S., Mountmellick Felissar, C.H. St. Mary's Convent S., Chelsea Fevre, M. St. Mary's Convent S., Charleville Fitzpatrick, A. St. Mary's Convent, Bruff Flintan, R.G. Rosewarne, Kingston-on-Thames Forde, L.G. Knock Inter. S., Belfast Foran, E.M. High S., Alford Foster, M. The College, Goudhurst Fowler, J. Brook Hall, Winslow Franklin, D.K. Gram. S. for Girls, Worcester Frayley, N. St. Mary's S., Buttevant Frewen, I. English High S. for Girls, Pera Freeman, N.A. St. Mary's Convent S., Chelsea Freeman, N.F. Coll. S. for Girls, Worcester Pk. Freeman, V. St. Joseph's Acad., Clifton Bristol Freer, D.H. Willesden High S. for Girls Freer, N.C. Willesden High S. for Girls Freudenhal, A.C. Private tuition Frith, N.C. Stretton House, Fleetwood Galley, A.M. High S., Walton-on-Thames Gavin, C. St. Mary's Convent, Bruff Gegg, M.J. St. Anne's Convent, Birmingham Gibbon, R. Gelliwastad S., Pontypridd Gilbert, D. Conv. of the Sacred Heart, Maidstone Giles, W. University S., Rochester Gill, B.M. Clare, Worthing Gilliland, A.M. Glenolla, Bangor, Co. Down Gillman, D. Stoke Public Higher S., Devonport Gilmore, M.A. Gordonville Ladies' S., Coleraine Gleave, E. Highfield S., Bramhall Gledhill, A.D. Rose Lea S., South Milford Goadby, G. University S., Rochester Godbold, D.G. Woodgrange Coll., Forest Gate Godsell, F.M. Kempston, Malvern Link Gorman, M.L. Princess Gardens S., Belfast Gowen, W.F.L. Highams S., Hale End Grant, G.G. Houndiscombe Coll., Plymouth Greene, E.B. 54 Hamlet Court Rd., Westcliff-on-Sea Greenish, M. Bestreben High S., Brondesbury Griffiths, A. Marist Conv. S., Tottenham Griffiths, A.D. Girls' Coll., Manchester Rd., Southport Griffiths, I.P. Woodstock, Enfield Griffiths, J. Marist Conv. S., Tottenham Gullick, M.D. Private tuition Gutteridge, M. Convent High S., Southampton Haig, K. Kempston, Malvern Link Hagg, M.Q. Felix House, Chelmsford Haines, M.E. The Southend S., Winchester Hale, D.F. Cloughton Coll., Romford Halsall, G.E. Girls' Coll., Manchester Rd., Southport Hamilton, K. Houndiscombe Coll., Plymouth Hamman, D. Stockton Lodge S., nr. Warrington Hammond, E. Anney Convent, Seaford Harman, D.M. St. Winifred's High S., Southampton Harris, P.W. Private tuition Harris, V. Notre Dame High S., Clapham Harrison, D. Friends' S., Mountmellick Harrison, D. Gosberton Hall Coll., nr. Spalding Harrison, M. Stratford Abbey Coll., Stroud Hartle, C.M. Princess Gardens S., Belfast Hartley, L. Rose Lea S., South Milford Harton, M. St. Mary's High S., Middleton Harvey, L. Houndiscombe Coll., Plymouth Hayes, H.E. The College, Goudhurst Hemby, M.G. Girls' High S., Eglantine Avenue, Belfast Hendy, E. Convent High S., Southampton Henwood, D.E. Clare, Worthing Hepburn, J. Ballure House, Great Crosby Hewlett, H. Stoke Public Higher S., Devonport Hickman, I.T. Woodhouse Hall S., Leeds Higgins, A. Convent of Mercy, Birr Hill, G. Stoke Public Higher S., Devonport Holdridge, A.M. Rose Lea S., South Milford Holmes, L.K. 54 Hamlet Court Rd., Westcliff-on-Sea Holmes, V.H. 54 Hamlet Court Rd., Westcliff-on-Sea Holt, E. Tower H., Melton Mowbray Hopkinson, G.B. Ladies' Coll. S., Belfast Houffe, M.E. Fairhaven High S., nr. Lytham Howard, E. Mc K. Girls' Gram. S., Levenshulme Howard, G.M. Wincham Hall Coll., Lostock Grahm Huddleston, M.F. Gram. S. for Girls, Worcester Huggins, G. The Bryants S. for Girls, Wainfleet Hughes, G. Stockton Lodge S., nr. Warrington Humphreys, A. Highfield S., Bramhall Humphreys, D.F. Brook Hall, Winslow Humphreys, M. Highfield S., Bramhall

Hunter, M.W. Intermediate S., Ballyclare Hutchinson, A. Ballure House, Gt. Crosby Inoss, J. Loreto Conv., Europa, Gibraltar Ivanoff, M. Church of Scotland Mission S., Haasekn Ivens, K. Conv. of the Sacred Heart, Maidstone Jackson, M. Belgrave Terrace S., Huddersfield Jackson, M.A. St. Mary's Convent Days, York Jarvis, H.M. Bow Modern S. Jenkins, D.E. Boughrood H., Struet Jenner, E.D. The College, Goudhurst Joel, N.F. Southoe House, Richmond Jones, A.L. Gosberton Hall Coll., nr. Spalding Jones, D.T. Stand Lodge, Radcliffe Jones, M.I. Northfield, Stamford Hill Jones, S. Boughrood H., Struet Keeping, K. Convent of the Sacred Heart, Maidstone Kempson, R.M. Hamford House, Edgbaston, Birmingham Kendon, G.E.M. The College, Goudhurst Kennedy, G. Sacred Heart Conv. S., Kanturk Kennedy, M.B. Convent of Mercy, Birr Kennet, M.E. Kempston, Malvern Link Kenworthy, D. Wraynsbury S., Hale Kidd, K.M. High S., Sidney Place, Cork Kilkelly, E. Our Lady's Bower Day S., Athlone Kilourly, D. St. Mary's Convent, Bruff Kuhn, C. Marist Conv. S., Tottenham Lamb, M.H. Clare, Worthing Lamb, P.G. St. Mary's Convent Day S., York Lang, D. Stoke Public Higher S., Devonport Larke, D. The College, Goudhurst Larratt, S. Notre Dame High S., Clapham La Trope, G.M. Alwyne Coll., Canonbury Law, V. Stretton House, Fleetwood Lenahan, E. St. Mary's, Buttevant Lenahan, J. St. Mary's, Buttevant Leith, B.E. Kelsey House, Crouch Hill Lever, J.M. Claremont House, Catford Lever, K. Conv. of Mary Immaculate, Liscard Lewis, G.A. V.C. Gelliwastad S., Pontypridd Lewis, M. English High S. for Girls, Pera Lewis, M.E. Intermediate S., Ballyclare Liddy, S. St. Mary's Convent, Bruff Lindesay, E.K. The Bonhams, St. Leonards-on-Sea Linehan, N. St. Mary's, Buttevant Little, J.N. College for Girls, The Newlands, Bootle Lloyd, G. St. Joseph's Acad., Clifton, Bristol Lloyd Livesey, E. Convent F.C.J., Fallowfield Lomas, G.V. Southoe House, Richmond Lucas, N. Conv. of the Faithful Virgin, Upper Norwood Lucas, W. Hill Croft S., Stamford Hill Lunn, M.E. Gosberton Hall Coll., nr. Spalding Macallister, I. Conv. of the Faithful Virgin, Upper Norwood Macnicol, D. Notre Dame High S., Clapham Macpherson, D. Notre Dame High S., Clapham Madge, D.M. Alwyne Coll., Canonbury Madigan, J. St. Mary's Convent, Bruff Maguire, M.M. St. Mary's Convent School, Charleville Maguire, N. St. Mary's Convent S., Charleville Manley, H.E. High S., Sidney Place, Cork Mann, E.M. Glenolla, Bangor, Co. Down Manners, V.A. Claremont House, Catford Marshall, E.B. Girls' High S., Eglantine Avenue, Belfast Martin, C. Our Lady's Bower Day S., Athlone Martin, J. Stoke Public Higher S., Devonport Martin, L. Marist Conv. S., Tottenham Mason, G.H. Hedingham, Wallington Mason, M.M. Conv. LaSainteUnion des Sac. Coeurs, Athlone McDowell, E. Knock Inter. S., Belfast McGregor, M.L. Marist Conv. S., Tottenham McIl Dowie, C.L. Killowen School, Belfast McKenzie, E. Notre Dame High S., Clapham Metzger, M.H. Castelnau Coll., Barnes Middleton, C.J. Claremont House, Catford Milburn, H.M. St. Mary's Convent Day S., York Millman, V. Stoke Public Higher S., Devonport Milner, E. Newlands High S., Heaton Moor Mitchell, D. Girls' S., Promenade, South Shore, Blackpool Mogridge, D. Teddesley House, Walsall Monk, S.R. Brook Hall, Winslow Moore, E.O. Gram. S. for Girls, Worcester Morgan, N.G. Gelliwastad S., Pontypridd Moroney, B. St. Mary's Convent, Bruff Morrell, G. Stoke Public Higher S., Devonport Morrison, E. Clifton House, Aintree, Liverpool Morrison, E.P. Handfield, Coll., Waterloo, L'pool Mosey, M.H. Stratford Abbey Coll., Stroud Mosley, C. Loreto Conv., Europa, Gibraltar Moss, M. Anney Convent, Seaford Mountstephen, W. Stoke Public Higher S., Devonport

Mowl, D.O. The College, Goudhurst Moyle, K. Notre Dame High S., Clapham Mullare, M. Convent of Mercy, Birr Muller, M.H. Cranley House, Muswell Hill Mullins, J. St. Mary's Convent, Bruff Mullins, L. St. Mary's Convent, Bruff Mullins, M. St. Mary's Convent, Bruff Mullins, N. St. Mary's Convent, Bruff Murdoch, K.J. Killowen S., Belfast Murphy, K.M.A. Friends' S., Mountmellick Myles, M.M. The Southend S., Winchester Naoum, A. English High S. for Girls, Pera Neale, M. High S., Alford Newell, E.C. Oriel Bank High S., Davenport Newman, W.E. Alwyne Coll., Canonbury Newton, D.G. Elm House, Ealing Niblett, B.E.D. Anby House, Hackney Niblett, E.M.D. Anby House, Hackney Nichol, M.M. St. Winifred's High S., Southampton Noble, E. Knock Inter. S., Belfast Nolan, A. Convent of Mercy, Birr Nolan, M. Convent of Mercy, Birr Noonan, M. St. Mary's Convent, Bruff Norgate, J.D. Lealholme S., Fishponds, Bristol Nowell, M.M.D. Coryton House, Plymouth Oakes, F.H. Kempston, Malvern Link O'Brien, E. St. Mary's Convent, Bruff O'Brien, E. St. Mary's Convent S., Charleville O'Brien, U. St. Mary's High S., Middleton O'Byrne, M. St. Mary's Convent S., Charleville O'Connell, A.M. St. Mary's High S., Middleton O'Connell, D. S. Mary's High S., Middleton O'Connell, L. St. Mary's, Buttevant O'Connor, M.B. St. Mary's Convent S., Charleville O'Connor, N. St. Mary's Convent S., Charleville O'Donoghue, M. St. Mary's Convent S., Charleville O'Leary, M. Con. LaSainteUnion des Sac. Coeurs, Athlone O'Donohoe, E. Notre Dame High S., Clapham O'Flaherty, E. Whysall House, Heanor Oglesby, J.H. Alwyne Coll., Canonbury O'Gorman, C. St. Mary's Convent S., Charleville O'Gorman, E. St. Mary's Convent, Bruff O'Keefe, A. St. Mary's Convent, Bruff O'Neill, M. St. Mary's High S., Middleton O'Neill, N. St. Mary's Convent S., Charleville O'Regan, V. Private tuition O'Sullivan, M. St. Mary's Convent S., Charleville Palmer, E. Stoke Public Higher S., Devonport Papazian, A. English High S. for Girls, Pera Pearce, S. Langley House, Ashbourne Pearce, H. Langley House, Ashbourne Pearson, A. Grosveur Coll., Liverpool Peirson, M. Chatwin House, Hurworth-on-Tees Peña, I. Loreto Conv., Europa, Gibraltar Perichon, H. St. Mary's Convent S., Chelsea Pericleous, S. Church of Scotland Mission S., Haasekn Perryman, E.S. Alwyne Coll., Canonbury Phelut, J. The Downs S., Brighton Phythian, M. Beechfield, Wilmslow Picknold, M.E.M. Ladies' S., Newtownards Pike, M.G. Cranley House, Muswell Hill Pinnington, D. Tower H., Melton Mowbray Plant, S.M. Stockton Lodge S., nr. Warrington Pollexfen, H.E. Friends' S., Mountmellick Pope, W.E. Castelnau Coll., Barnes Portch, P.M.G. Bestreben High S., Brondesbury Powell, I. Boughrood H., Struet Pradolgon, A. English High S. for Girls, Pera Preston, L. Tower H., Melton Mowbray Purcell, K. St. Mary's Convent S., Charleville Radcliffe, J. Belgrave Terrace S., Huddersfield Radcliff, D.H. Bestreben High S., Brondesbury Rayman, N. North Kensington Coll. S. Raynham, H.B. Norfolk House, Muswell Hill Regnier, N.L. Lynton House, Portsmouth Reid, D.F. Carden S., Feckham Rye Reid, M.C. Ladies' Coll. S., Belfast Reidy, M. St. Mary's Convent S., Charleville Reif, G.H.F. Leinster H., Westcliff-on-Sea Rendell, D.N. Rose Lea S., South Milford Reynolds, O. Stoke Public Higher S., Devonport Ridings, H. Comm. S., Astley Bridge Robbins, M.E. Highams S., Hale End Roberts, D.K. The College, Nightingale Lane, Clapham Roberts, G. Castelnau Coll., Barnes Roberts, G. Girls' Gram. S., Levenshulme Robinson, H.J. High S., Alford Rogers, M.F. 54 Hamlet Court Rd., Westcliff-on-Sea Rollinson, D. Hamford House, Edgbaston, Birmingham Rothis, L. Conv. of the Sacred Heart, Maidstone Roulstone, M.C. Princess Gardens S., Belfast Rowland, N. St. Winifred's High S., Southampton Rudolph, H. Beechfield, Wilmslow Runsey, O. Notre Dame High S., Clapham Russell, E. Redcliffe House, Southsea Russell, E.A. Kempston, Malvern Link Ryan, K. St. Mary's, Buttevant Ryan, L. St. Mary's Convent, Bruff

Ryley, L. Private tuition Savory, K.V.M. Private tuition Scowcroft, M.H. Girls' S., Promenade, South Shore, Blackpool Shackleton, M.F. Friends' S., Mountmellick Sheed, H.G.K. Melbourne Coll., Thornton Heath Sheaves, O.C. Woodside, Hastings Sheldon, R. Teddesley House, Walsall Sheldon, M.M. St. Anne's Convent, Birmingham Shepherd, D. Anney Convent, Seaford Shipton, H.M.R. Leinster H., Westcliff-on-Sea Short, K.M. Norfolk House, Muswell Hill Siddons, V.H. High S., Alford Singleton, M. Sacred Heart Conv. S., Kanturk Skelton, D. Leinster H., Westcliff-on-Sea Skinner, G. St. Mary's Convent, Bruff Skinner, M. St. Mary's Convent, Bruff Smith, D.A. Whysall House, Heanor Smith, E. Carisburgh Coll., Walthamstow Smith, E.M.M. Private tuition Smith, I.M. Southoe House, Richmond Smith, M.A. Eldon College, Thornton Heath Smith, N.L. Cambridge Coll., E. Twickenham Smith, P. Loreto Conv., Europa, Gibraltar Smith, R. St. Mary's, Buttevant Smith, W.M. St. Mary's Convent Day S., York Smyth, V.V. Northfield, Stamford Hill Snapper, R.L. Mansfield House, Margate Snook, C.A. Bognor Roman Catholic S. Sofe, W.S. St. Winifred's High S., Southampton Squires, E. Stoke Public Higher S., Devonport Stains, M. Conv. of the Sacred Heart, Maidstone Start, D.E.E. High S., Alford Stread, K. Belgrave Terrace S., Huddersfield Stokes, I.A. Japonica House, Exmouth Street, L.I. Tutorial S., Penarth Stubbings, K.M. Claremont House, Catford Sumner, M.A.G. Colne Valley S., Rickmansworth Sutton, H.M. Coll. S. for Girls, Worcester Pk. Sutton, W.B. East Sheen College Symons, V.M. Houndiscombe Coll., Plymouth Tassell, I.E. The College, Goudhurst Tattan, H. St. Mary's High S., Middleton Tattersall, M. Newlands High S., Heaton Moor Taylor, E.M. Newlands High S., Heaton Moor Theobald, I. Notre Dame High S., Clapham Thomas, B.E. The College, Nightingale Lane, Clapham Thomas, G. Stockton Lodge S., nr. Warrington Thomas, N.W. Norfolk House, Muswell Hill Thompson, A.A.C. Private tuition Thompson, N.K. University S., Rochester Townshend, I. Notre Dame High S., Clapham Turner, M. Knock Inter. S., Belfast Twelves, D.E.E. High S., Alford Tyler, A.E.M. Boughrood H., Struet Uff, M.C. Langley House, Ashbourne Valmignigli, A.P.C. Convent F.C.J., Fallowfield Varley, M.E. Belgrave Terrace S., Huddersfield Vegnon, M. English High S. for Girls, Pera Venables, M. Notre Dame High S., Clapham Ventura, S. English High S. for Girls, Pera Vernon, D.M. Elm House, Ealing Viol, N. English High S. for Girls, Pera Vogelstein, E. English High S. for Girls, Pera Wolfard, G.C. Bestreben High S., Brondesbury Walter, M.M. High S., Walton-on-Thames Walters, A. College for Girls, The Newlands, Bootle Walton, E.M. Gosberton Hall Coll., nr. Spalding Ward, G.F. The Bonhams, St. Leonards-on-Sea Waterson, E. Our Lady's Bower Day S., Athlone Watkinson, M.G. Ladies' Coll., Congleton Watling, E.A. Highams S., Hale End Watson, V.E. Teddesley House, Walsall Webb, M.V. Lime Tree House, York Welborn, E.A. Tower H., Melton Mowbray Wellish, M. English High S. for Girls, Pera West, D.E. Clare, Worthing Weston, E.M. Japonica House, Exmouth Wheeler, L. Conv. of the Faithful Virgin, Upper Norwood White, D.E. North Kensington Coll. S. White, E.F.E. Coll. S. for Girls, Worcester Pk. Whybro, M.E. The College, Goudhurst Wicks, G.M. Dudley House, Stoke Newington Willard, N.I. The College, Goudhurst Williams, D.A. Gelliwastad S., Pontypridd Williams, E.M. Comm. S., Astley Bridge Williams, G. Boughrood H., Struet Williams, P.H. Newlands High S., Heaton Moor Wilson, M. Wellesley Terrace S., Liverpool Wolf, L. Mansfield House, Margate Woodall, H.M. Oriel Bank High S., Davenport Woolley, A.S. Whysall House, Heanor Worcesterham, M. Chatwin House, Hurworth-on-Tees Yeates, M.K. Langley House, Ashbourne Young, A.M.M. High S., Alford Young, D.M. High S., Alford

# PROFESSOR MEIKLEJOHN'S SERIES.

## BOOKS SUITABLE FOR COLLEGE OF PRECEPTORS (1909) AND OTHER EXAMINATIONS.

### ENGLISH.

- THE ENGLISH LANGUAGE: Its Grammar, History, and Literature.** By J. M. D. MEIKLEJOHN, M.A. **Twenty-eighth Edition.** Revised and Enlarged, with Exercises and Additional Analysis. Crown 8vo, 486 pp. ... .. **4s. 6d.**
- A NEW GRAMMAR OF THE ENGLISH TONGUE.** With Chapters on Composition, Versification, Paraphrasing, and Punctuation. With Exercises and Examination Questions. **Twenty-second Edition.** (120th Thousand.) Crown 8vo, 294 pp. ... .. **2s. 6d.**
- A SHORT HISTORY OF THE ENGLISH LANGUAGE.** By Professor MEIKLEJOHN. **Eleventh Edition.** Crown 8vo, 76 pp. ... .. **1s.**
- THE ART OF WRITING ENGLISH.** A Manual for Students. With Chapters on Paraphrasing, Essay Writing, Précis Writing, Punctuation, and other matters. By J. M. D. MEIKLEJOHN, M.A. **Sixth Edition.** Crown 8vo, 340 pp. ... .. **2s. 6d.**
- A NEW SPELLING BOOK ON THE COMPARATIVE METHOD.** With Side Lights from History. **Fifteenth Edition.** Crown 8vo, 152 pp. ... .. **1s.**
- THE SPELLING LIST (10,000 Difficult Words).** For Civil Service and other Examinations. With a Key to Correct Spelling. By Professor MEIKLEJOHN. **Seventh Edition.** Crown 8vo, 104 pp. ... .. **1s.**
- SHAKESPEARE'S JULIUS CÆSAR.** Edited by M. J. C. MEIKLEJOHN, B.A. (Oxon.). Crown 8vo, 136 + xx pp. ... .. **1s.**
- COMPOSITION FOR SCHOOLS AND COLLEGES.** Based on Outline Essays, with Exercises in Style. By C. H. MAXWELL, B.A. **Third Edition.** Crown 8vo, 138 pp. ... .. **1s.**
- GENERAL INFORMATION QUESTIONS (with Answers and Index).** By A. B. COWAN. Crown 8vo, 200 pp. **1s. 6d.**
- "This seems a useful idea—it would certainly be a godsend to an examiner setting a 'general paper' for boys."—*The Times.*

### GEOGRAPHY.

- A NEW GEOGRAPHY ON THE COMPARATIVE METHOD.** With Maps and Diagrams, and an Outline of Commercial Geography. By J. M. D. MEIKLEJOHN, M.A. **Thirty-seventh Edition (Revised).** (180th Thousand.) Crown 8vo, 630 pp. ... .. **4s. 6d.**
- Also in Two Parts. 2s. 6d. each.**
- Part I.—Containing Europe (including the British Isles), with Introduction to Geography, and Index, Maps, and Diagrams.**
- Part II.—Containing Asia, Africa, the Americas, and Australasia, with Index, Vocabulary, Maps, and Diagrams.**
- THE COMPARATIVE ATLAS.** By J. G. BARTHOLOMEW, F.R.G.S., and edited by Professor MEIKLEJOHN. Containing 64 Plates, a General Index, and a Chapter on Map Drawing. **New Edition (Revised)** ... .. **2s. 6d.**
- A SCHOOL GEOGRAPHY.** With special reference to Commerce and History. With Maps and Diagrams. By J. M. D. MEIKLEJOHN, M.A., and M. J. C. MEIKLEJOHN, B.A. **Sixth Edition (Revised).** Crown 8vo, 410 pp. ... .. **2s. 6d.**
- EUROPE: Its Physical and Political Geography.** With Chapters on Latitude and Longitude, Day and Night, and the Seasons. With a double-page Map in Colour. By M. J. C. MEIKLEJOHN, B.A., F.R.G.S. **Third Edition (Revised).** 96 pp. ... .. **6d.**
- AFRICA: Its Geography, Resources, and Chronicle of Discovery up to 1898.** For the Upper Standards. By M. J. C. MEIKLEJOHN, B.A., F.R.G.S. **Fifth Edition (Revised).** Crown 8vo, 75 pp. ... .. **4d.**
- TEST QUESTIONS IN GEOGRAPHY.** Selected from Public Examination Papers. By A. T. FLUX. Crown 8vo, 82 pp. **1s.**

### HISTORY.

- A NEW HISTORY OF ENGLAND AND GREAT BRITAIN.** With Maps and Tables. By J. M. D. MEIKLEJOHN, M.A. **Twenty-third Edition.** (105th Thousand.) Crown 8vo, 704 pp. 55 B.C. to the Death of Queen Victoria ... .. **4s. 6d.**
- In Two Parts. 2s. 6d. each.**
- Part I.—From B.C. 55 to A.D. 1509. Tenth Edition. Part II.—From 1509 to 1901. Twelfth Edition.**
- Also in Three Periods. 2s. each.**
- First Period—From B.C. 55 to A.D. 1485. Second Period—From 1485 to 1688. Third Period—From 1688 to 1902.**
- A SCHOOL HISTORY OF ENGLAND.** With Maps and Vocabulary of Historical Terms. By J. M. D. MEIKLEJOHN, M.A., and M. J. C. MEIKLEJOHN, B.A. **Fifth Edition.** Crown 8vo, 470 pp. ... .. **2s. 6d.**
- This book is intended to stand midway between Professor Meiklejohn's New History and his Short History.
- OUTLINES OF THE HISTORY OF ENGLAND AND GREAT BRITAIN TO A.D. 1902.** **Seventh Edition.** Crown 8vo, 84 pp. ... .. **6d.**
- TEST QUESTIONS IN HISTORY.** Selected from Public Examination Papers. Arranged by A. T. FLUX. Crown 8vo, 80 pp. **1s.**

### MATHEMATICS.

- A NEW ALGEBRA.** As far as the Binomial Theorem. Including Chapters on Graphs. By G. COLLAR, B.A., B.Sc. (Joint-Author of "A NEW ARITHMETIC"). Crown 8vo, 438 pp. ... .. **4s. 6d.**
- "Special attention is called to the early chapters, which give improved methods of working—for example, complementary addition, contracted multiplication and division: also to the chapters on Factors and Graphs, and to the special care with which the theory has been treated throughout the book."
- A NEW ARITHMETIC (Theoretical and Practical).** By G. A. CHRISTIAN, B.A. (Lond.), and G. COLLAR, B.A. (Lond.). **Thirteenth Edition (Revised).** Crown 8vo, 552 pp. ... .. **4s. 6d.**
- KEY TO NEW ARITHMETIC. 6s. net.**
- A SHORT ARITHMETIC.** By G. A. CHRISTIAN, B.A., and A. H. BAKER, B.A. **Third Edition.** Crown 8vo, 196 pp. (With Answers, **1s. 6d.**) ... .. **1s.**

*A Complete Catalogue will be sent post free to any address.*

**MEIKLEJOHN & HOLDEN, 11 Paternoster Square, E.C.**



# EDUCATIONAL TIMES,

AND  
Journal of the College of Preceptors.

Vol. LXI.] New Series, No. 569.

SEPTEMBER 1, 1908.

Published Monthly, price, to Non-Members, 6d.; by Post, 7d. Annual Subscription, 7s.

## COLLEGE OF PRECEPTORS. (INCORPORATED BY ROYAL CHARTER.)

### LECTURES FOR TEACHERS.

On Thursday, 1st of October, JOHN ADAMS, M.A., B.Sc., F.C.P., Professor of Education in the University of London, will commence a Course of Twelve Lectures on

#### "THE PRACTICAL TEACHER'S PROBLEMS."

The matters to be dealt with are such as interest all classes of teachers, and will be treated with that frankness that is possible in an unreported discourse, but is out of the question in a printed book. While the Lecturer will lose no opportunity of indicating how present educational conditions may be improved, he will take the present conditions as the basis and show how to make the best of things as they are. The Lectures will be copiously illustrated by references to actual experience in all kinds of Schools. The Lectures will be given on Thursday Evenings at 7, beginning on October 1st.

For Syllabus, see page 378.

The Fee for the Course is Half-a-Guinea.

Members of the College have free admission to this Course.

### EXAMINATIONS.

**Diplomas.**—The next Examination of Teachers for the Diplomas of the College will commence on the 28th of December, 1908.

**Practical Examination for Certificates of Ability to Teach.**—The next Practical Examination will be held in October.

**Certificate Examinations.**—The Christmas Examination for Certificates will commence on the 8th of December, 1908.

**Lower Forms Examinations.**—The Christmas Examination will commence on the 8th of December, 1908.

**Professional Preliminary Examinations.**—These Examinations are held in March and September. The Spring Examination in 1909 will commence on the 2nd of March.

**Inspection and Examination of Schools.**—Inspectors and Examiners are appointed by the College for the Inspection and Examination of Public and Private Schools.

The Regulations for the above Examinations can be obtained on application to the Secretary.

C. E. HODGSON, B.A., Secretary.

Bloomsbury Square, W.C.

## UNIVERSITY OF ST. ANDREWS.

### L.L.A. DIPLOMA FOR WOMEN.

The attention of Candidates is drawn to the Ordinary and Honours Diplomas for Teachers, which are strongly recommended as suitable for those who are or intend to be teachers.

Examinations are held at Aberdeen, Birmingham, Blackburn, Brighton, Bristol, Cardiff, Croydon, Devonport, Edinburgh, Glasgow, Hull, Inverness, Leeds, Liverpool, London, Manchester, Newcastle-on-Tyne, Norwich, Nottingham, Oxford, St. Andrews, Sheffield, Swansea, and several other towns.

Information regarding the Examinations may be obtained from the SECRETARY, L.L.A. Scheme, The University, St. Andrews.

## LONDON COLLEGE OF MUSIC. (Incorporated.)

GREAT MARLBOROUGH STREET, LONDON, W.

Patron: HIS GRACE THE DUKE OF LEEDS.

Dr. F. J. KERN, Mus. Bac. Cantab., Principal.

G. AUGUSTUS HOLMES, Esq., Director of Examinations  
EXAMINATIONS, 1908.

The NEXT EXAMINATION in PIANOFORTE PLAYING, SINGING, THEORY, and all branches of Music will be held in London and 400 Provincial Centres in DECEMBER, when Certificates will be granted to all successful candidates.

The Higher Examinations for the Diplomas of Associate (A.L.C.M.), Licentiate (L.L.C.M.), the Teachers' Diploma, L.C.M., and Fellowship (F.L.C.M.) also take place in DECEMBER.

Gold and Silver Medals and Book Prizes are offered for competition according to the Regulations.

LOCAL SCHOOL CENTRES.—Full particulars with reference to the formation of these Centres will be forwarded to Principals of Schools upon application.

SYLLABUS for 1908, together with Annual Report, may be had of the SECRETARY.

In the Educational Department students are received and thoroughly trained under the best Professors at moderate fees. The College is open 10 a.m. to 9.30 p.m.

A COURSE of TRAINING in Pianoforte and Singing for Teachers is held at the College.

VACATION LESSONS for Teachers and others are given at Easter, August, and Christmas.

T. WEEKES HOLMES, Secretary.

## Diploma Correspondence College, Ltd.

Principal—J. W. KNIFE, L.C.P., F.R.S.L.

Vice-Principal—S. H. HOOKE, B.A., Hons. Lond.

Specially arranged Courses for

LONDON MATRICULATION,

**B.A., B.D., B.Sc.,  
A.C.P., L.C.P., &c.**

**FREE GUIDES**

on application to the SECRETARY.

**WOLSEY HALL, OXFORD.**

**UNIVERSITÉ DE RENNES (France).  
FRENCH COURSE for FOREIGNERS  
OF BOTH SEXES.**

WINTER TERM: From 15 Nov. 1908 to 15 Feb. 1909.  
SUMMER TERM: From 1 March to 8 June, 1909.

DIPLOMAS.

Diplômes de Langue et Littérature Françaises; Doctorat.  
Reduction of 50% on railway fares from Dieppe or Calais to Rennes. Apply for Prospectus to  
Prof. FEULLERAT, Faculté des Lettres, Rennes.

## ROYAL SANITARY INSTITUTE.

LECTURES ON HYGIENE IN ITS BEARING  
ON SCHOOL LIFE.

Commencing on Monday, October 5th, at 7 p.m.

The Course is arranged to assist Teachers and others interested in the Training of Children and the Structural Conditions of the School, its surroundings and furnishing, as well as the personal health of the scholars. Full particulars can be obtained at the Offices of the Institute, 72 Margaret Street, London, W.



## THE ASSOCIATED BOARD OF THE R.A.M. AND R.C.M. FOR LOCAL EXAMINATIONS IN MUSIC.

PATRON: HIS MAJESTY THE KING.

PRESIDENT: H.R.H. THE PRINCE OF WALES, K.G.

**LOCAL CENTRE EXAMINATIONS (Syllabus A).** Examinations in Theory at all Centres in March and November; in Practical Subjects at all Centres in March-April, and in the London District and certain Provincial Centres in November-December also. Entries for the November-December Examinations close Wednesday, October 7th, 1908.

**SCHOOL EXAMINATIONS (Syllabus B).** Held three times a year, viz., October-November, March-April, and June-July. Entries for the October-November Examinations close Wednesday, October 7th, 1908.

Specimen Theory Papers set in past years (Local Centre or School) can be obtained on application. Price 3d. per set, per year, post free.

Syllabuses A and B, for 1908 or 1909, entry forms, and any further information will be sent post free on application to—

JAMES MUIE, Secretary.

15 Bedford Square, London, W.C.

Telegrams: "Associa, London."

**WANTED,** little Girl or two Sisters aged about 7-9 years, to educate with own girls of same age. Healthy country Rectory. Games. Terms moderate.—RECTOR, Brent Eleigh, Lavenham, Suffolk.

## LONDON MATRICULATION.

AT THE JUNE EXAMINATION,  
1908,

**186**

University Correspondence  
College

STUDENTS PASSED

MAKING A TOTAL OF **2610** U.C.C. SUCCESSES AT  
MATRICULATION DURING THE LAST SIX YEARS.

**FREE GUIDES**

To Matriculation and the Higher Examinations of London University post free from THE SECRETARY, Burlington House, Cambridge; or from the London Office of University Correspondence College, 32 Red Lion Square, Holborn, W.C.

## UNIVERSITY COLLEGE OF NORTH WALES, BANGOR.

(A Constituent College of the University of Wales.)

Principal—Sir H. R. BICHSEL, M.A., LL.D.

Next Session begins September 29th, 1908. The College Courses are arranged with reference to the Degrees of the University of Wales; they include most of the subjects for the B.Sc. Degree of the London University. Students may pursue their first year of Medical study at the College. There are special Departments for Agriculture (including Forestry) and Electrical Engineering, a Day Training Department for Men and Women, and a Department for the Training of Secondary and Kindergarten Teachers.

Sessional fee for ordinary Arts Course, £11. 1s.; for Intermediate Science or Medical Course, £15. 15s. The cost of living in lodgings in Bangor averages from £20 to £30 for the Session. There is a Hall of Residence for Women Students; fee, from Thirty Guineas for the Session.

At the Entrance Scholarship Examination (held in September) more than 20 Scholarships and Exhibitions, ranging in value from £40 to £10, will be open for competition.

For further information and copies of the various Prospectuses apply to

JOHN EDWARD LLOYD, M.A.,

Secretary and Registrar.

### THE INCORPORATED

### FROEBEL EDUCATIONAL INSTITUTE,

TALGARTH ROAD, WEST KENSINGTON, LONDON, W.

Recognised by the Board of Education as a Training College for Secondary Teachers.

Chairman of the Committee—Sir W. MATHER.

Treasurer—Mr. C. G. MONTFIORE, M.A.

Secretary—Mr. ARTHUR G. SYMONDS, M.A.

### TRAINING COLLEGE FOR TEACHERS.

Principal—Miss B. LAWRENCE.

### KINDERGARTEN AND SCHOOL.

Head Mistress—Miss A. YELLAND.

Students are trained for the Examinations of the National Froebel Union and other Examinations.

TWO SCHOLARSHIPS of £20 each, and two of £15 each, tenable for two years at the Institute, are offered annually to Women Students who have passed certain recognized Examinations.

Prospectuses can be obtained from the PRINCIPAL.

### ABERDARE HALL, CARDIFF.— RESIDENCE FOR WOMEN STUDENTS OF THE UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.

Principal—Miss KATE HURLBATT.

Fees £42. 10s., £36, and £32 per annum. College tuition fees £10 per annum. Scholarships of £40, £25, and £15, and Exhibitions of £10, awarded on the result of Scholarship Examination of University College, Cardiff, to be held in September. Students prepare for the B.A. and B.Sc. Degrees of the University of Wales, and a Medical School and Department for Secondary, Elementary, and Kindergarten Training are attached to the College. Students with recognized academic qualifications can enter in October or January, for one year's Secondary Training Course. Apply to the PRINCIPAL.

### DENMARK HILL PHYSICAL TRAINING COLLEGE FOR LADY TEACHERS, LONDON, S.E.

Full preparation for Public Examinations. British College of Physical Education: English and Swedish systems. Massage and Remedial Work. Board of Education: Science. Swimming and Sports. Schools supplied with fully qualified Sports Mistresses. For particulars apply—Miss E. SPELMAN STANGER, Trevena, Sunray Avenue, Denmark Hill, London, S.E.

### COLLEGE OF PRECEPTORS EXAMINATIONS.

Mr. H. J. SMITH'S Classes have been the most successful at these Examinations.

At A.C.P., September, 1907, A.V.S. passed in all subjects at first attempt, with Honours in English. (Only 9 out of 336 candidates passed in all subjects and only 2 obtained Honours in English.)

At A.C.P., January, 1908, J.E. passed in all subjects at first attempt, with Honours in English and History. (Only 13 out of 513 candidates passed in all subjects and only one other candidate obtained Honours in two subjects.)

At A.C.P., January, 1908, 87 candidates passed in English, of whom only 3 obtained Honours. (Of these, 6 were in Mr. SMITH'S Classes and 2 of them obtained Honours.)

Classes for A.C.P., L.C.P., Certificate & Professional Prelims.

Please write for particulars to—MR. H. J. SMITH, B.Sc.Lond., ROSEBURY HOUSE, BREAMS BUILDINGS, CHANCERY LANE, LONDON, E.C.

## BEDFORD COLLEGE FOR WOMEN

(UNIVERSITY OF LONDON),

YORK PLACE, BAKER STREET, LONDON, W.

Principal—Miss M. J. TUKE, M.A.

The Session 1908-9 will open on Thursday, October 8. Students enter their names on Wednesday, October 7.

Lectures are given in preparation for all examinations of the University of London in Arts and Science, for the Teacher's Diploma (London), for the Teacher's Certificate (Cambridge), and for the Cambridge Higher Local Examination.

A single Course in any subject may be attended.

There is a Special Course of Scientific Instruction in Hygiene.

Six Laboratories are open to students for Practical work.

Regular Physical Instruction is given, free of cost, to students who desire it by a fully qualified woman teacher.

THREE ENTRANCE SCHOLARSHIPS (two in Arts and one in Science) will be offered for competition in June, 1909.

Students can reside in the College.

Full particulars on application to the PRINCIPAL.

### TRAINING DEPARTMENT FOR SECONDARY TEACHERS.

Head of the Department—Miss MARY MORTON, M.A.

Two Scholarships (one of the value of £20, one of the value of £15, for one year) are offered for the Course of Secondary Training beginning in January, 1909. The Scholarships will be awarded to the best Candidate holding a Degree or equivalent in Arts or Science.

Applications should reach the HEAD OF THE TRAINING DEPARTMENT not later than December 12.

### THE CAMBRIDGE TRAINING COLLEGE FOR WOMEN TEACHERS.

Principal—Miss M. H. WOOD.

Girton College, Cambridge; Classical Tripos, M.A. (London), Lit.D. (Dublin), late Vice-Principal of St. Mary's College, Paddington.

A residential College providing a year's professional training for Secondary Teachers.

The course includes preparation for the Cambridge Teacher's Certificate (Theory and Practice), and for the Teachers' Diploma of the London University. Ample opportunity is given for practice in teaching science, languages, mathematics, and other subjects in various schools in Cambridge.

Students are admitted in January and in September. Full particulars as to qualifications for admission, scholarships, and bursaries may be obtained on application to the PRINCIPAL, Cambridge Training College, Wollaston Road, Cambridge.

### THE MARIA GREY TRAINING COLLEGE FOR WOMEN TEACHERS

offers a full Course of Professional Training to Ladies who desire to become Teachers in Secondary Schools or in Kindergartens. Students are admitted in September and January.

TEN SCHOLARSHIPS, covering tuition fees, are offered to candidates residing in the Administrative County of Middlesex who wish to prepare for teaching in Secondary Schools, besides various Scholarships open to Graduates and others. For further particulars as to qualifications for entrance, terms, Scholarships, Hall of Residence, &c., apply to the Principal, Miss ALICE WOODS, at the College, Salusbury Road, Brondesbury, London, N.W.

### ST. GEORGE'S TRAINING COLLEGE FOR WOMEN TEACHERS IN INTERMEDIATE AND SECONDARY SCHOOLS, EDINBURGH.

This College provides a year's Professional Training for well educated women who intend to become Teachers. The Course of Training is supervised by the Edinburgh Provincial Committee for the Training of Teachers and is recognized by the Scotch Education Department and by the Teachers' Training Syndicate of the University of Cambridge.

A Bursary of £30 is offered to Students entering in October, 1908.

Prospectuses and further particulars from the Principal, Miss M. B. WALKER, 5 Melville Street, Edinburgh.

### CHURCH EDUCATION CORPORATION.

CHERWELL HALL, OXFORD.

Training College for Women Secondary Teachers.

Principal—Miss CATHERINE I. DODD, M.A. (late Lecturer in Education in the Manchester University).

Students are prepared for the Oxford, the Cambridge, and the London Teacher's Diploma. Special arrangements made for Students to attend the School of Geography.

Scholarships of £20 or £25 will be awarded to all students with a degree entering Cherwell Hall next October.

Exhibitions and Scholarships awarded in December and July.—Apply to the PRINCIPAL.

## The Tutorial Institute,

39 BLOOMSBURY SQUARE, LONDON.

Principal:

J. F. EWEN, M.A.,

Honours in Mathematics and Physics.

(Founder and late Principal of The London and Northern Tutorial College.)

The Principal has had over 12 years' successful experience in preparing by Correspondence and Orally for the Higher Examinations qualifying Secondary Teachers. Over 2,000 successes have been officially credited to his students, who have completed over 300 Diplomas and Degrees. Strong Staff of Tutors, all University Graduates, mostly in Honours.

### CORRESPONDENCE INSTRUCTION.

All Fees payable by Instalments.

A.C.P.—New Classes now forming for August. All subjects, £4. 4s. Education, £1. 11s. 6d.

L.C.P.—Graduates exempt from all subjects except Education. Full Course, £2. 12s. 6d. A.C.P.'s can complete extra work for L.C.P. for Composition Fee, £4. 4s. Education alone, £1. 11s. 6d.

Diploma Guide Free.

Inter. Arts.—Full Courses for July. 20 lessons each subject, £1. 11s. 6d.

B.A.—Thorough Tuition by Honours Graduates.

Inter. Science.—Special Attention to Mathematics and Physics. Full Course, £2. 2s. each subject.

B.Sc.—Expert help by eminent specialists.

Matriculation.—Full Preparation in usual subjects, 10s. 6d. monthly.

Higher Locals.—Fullest and most successful help.

Usual Subjects, £1. 11s. 6d. each.

FROEBEL CERTIFICATES.—Thoroughly practical instruction by highly qualified Teachers.

Froebel Guide Free.

### L.L.A. SPECIAL ORAL CLASSES.

Evenings and Saturdays. More Successes and Diplomas than all other classes combined.

New Practical Guide to L.L.A. Free.

## UNIVERSITY EXAMINATION POSTAL INSTITUTION.

Manager: Mr. E. S. WYMOUTH, M.A.

Assistant Manager: Miss J. WATSON, M. A.

17 RED LION SQUARE, HOLBORN, LONDON, W.C.

(formerly 27 Southampton Street, Strand.)

### POSTAL PREPARATION

FOR

### UNIVERSITY EXAMINATIONS.

# 118

U.E.P.I. Candidates have passed the M.D. (London) during the last eight years; seven of these obtained the gold medal.

# 1290

U.E.P.I. Candidates have, during the last thirteen years, passed various groups in the Cambridge Higher Local (134 in the First Class), gaining 261 marks of Distinction.

# 124

U.E.P.I. Candidates have passed the Oxford Higher Local during 1903-8.

GUIDE TO THE CAMBRIDGE HIGHER LOCAL EXAMINATION (42 pages) sent Gratis to Candidates: 1s. to Non-candidates.

PRACTICAL SUGGESTIONS FOR WOMEN STUDENTS, especially intending Teachers (26 pages), 1d. post free.

**CARLYON COLLEGE.**  
55 AND 56 CHANCERY LANE.

**LONDON UNIVERSITY EXAMINATIONS.**  
LONDON MATRICULATION, INTER. ARTS and SCIENCE, B.A., and B.Sc. Classes (small) Day and Evening. M.A. Classes. B.A. Honours Classes. Elementary Greek Class.

Classes and Tuition for Legal and Medical Preliminaries, Accountants', Scholarship Examinations, Previous, Responses, and General.

Papers Corrected for Schools. Vacation Tuition. Private tuition for all Examinations. Prospectus and full details on application to R. C. B. KERRIN, B.A. Lond., First of First Class Classical Honours, Editor of "Phaedo," "Pro Plancio," &c.

**SUCCESSSES.**

1892-1907.—London Matric. 149; Inter. Arts, Sc., and Prel. Sci., 140, 6 in Hons.; B.Sc., 1896-1906, 25; B.A., 1891-1906, 95, 14 in Hons.; Medical Prelim., 249; Responses and Previous, 60; Law Prelim., 62; other Successes, 400.

**B.A. (LOND.), 1906 and 1907, 15, 3 in Classical Honours. M.A., 8.**  
**INTER. ARTS, 1907, 6 out of 8.**

**FREE.**

The Principals of the Normal Correspondence College have, through the courtesy of the College of Preceptors, issued the following

**FREE GUIDES.**

- |   |            |
|---|------------|
| 1. A.C.P.                                     | 100 pages. |
| 2. L.C.P.                                     | 84 "       |
| 3. F.C.P.                                     | 75 "       |
| And have also published the following Guides. |            |
| 4. PREL. CERT.                                | 120 pages. |
| 5. CERTIFICATE.                               | 92 "       |
| 6. MATRICULATION.                             | 84 "       |
| 7. IRISH UNIVERSITY.                          | 60 "       |
| 8. OXFORD & CAMBRIDGE LOCALS                  | 100 "      |

These Guides are supplied gratis to all who mention this paper and state they intend sitting for examination.

"They are written by experts whose advice is the best procurable."—*Educational News.*

"Will undoubtedly help greatly towards success."—*Schoolmistress.*

**NORMAL CORR. COLLEGE,**

47 MELFORD ROAD, EAST DULWICH, S.E., and  
110 AVONDALE SQUARE, LONDON, S.E.

**CORRESPONDENCE TUITION.**

Classes or Private Lessons in all Subjects for all Examinations, &c., at moderate fees. Special tuition for MEDICAL Prelims. and DIPLOMA Exams. Many recent successes.—F. J. BORLAND, B.A., L.C.P. (Science and Math. Prizeman), Victoria Tutorial College, 87 Buckingham Palace Road, S.W.; and Stalheim, Brunswick Road, Sutton, Surrey.

Schools visited and Examinations conducted.

**WALTER J. DICKES, B.A. (Lond.)**

PRIVATE TUITION FOR EXAMINATIONS, &c.

BEECHEN CLIFF, THE GARDENS,  
E. DULWICH, LONDON, S.E.

**ST. GEORGE'S CORRESPONDENCE CLASSES.**

5 MELVILLE STREET, EDINBURGH.  
(Established in 1876.)

Preparation for the Preliminary Examination of the Scottish Universities, all of which grant Degrees to Women. Fees from 12s. per term.

Postal preparation for the L.L.A. Title and Diploma of St. Andrews University. Pass Courses (20 lessons), £2. 2s.; Honours (30 lessons), £3. 3s.

Help given in home study to non-candidates in Literature, History, Languages, &c. Special Art Classes: Schools of Painting as represented in the National Gallery; Studies in Heraldry.

Numerous Oral Classes also conducted. Large staff of efficient and experienced Tutors. Prospectus, post free, from the Secretary, Miss S. E. MURRAY, 5 Melville Street, Edinburgh.

**LONDON MATRICULATION**



**MORNING, AFTERNOON AND EVENING CLASSES**

**FOR London Matriculation**

COMMENCE

MONDAY, SEPTEMBER 14th,

at UNIVERSITY TUTORIAL COLLEGE,  
Red Lion Square, Holborn, W.C.

At each of the last three Examinations the official Pass List of the University credits

**University Tutorial College**

with many more successes than any other Institution.

**LONDON PRELIM. SCI. (M.B.).**—Day Classes commence Monday, September 21st, for the January Examination; and Day and Evening Classes for the July Examination commence Thursday, October 1st.

**LONDON B.A. and B.Sc. (Inter. and Final).**—Day and Evening Classes commence Thursday, October 1st.

Annually for the last eight years about 300 Students of University Tutorial College have passed London University Examinations.

Prospectus and Guide may be had post free from

THE PRINCIPAL,  
University Tutorial College,  
Red Lion Square, Holborn, W.C.

**BURLINGTON CORRESPONDENCE COLLEGE.**

Principal—Mr. J. CHARLESTON, B.A.  
(Honours Oxon. and Lond.)

**TUTORS.**—The Staff includes Graduates of London, Oxford, Cambridge, and Royal Universities.

**METHOD.**—Thoroughly individual system, which ensures the closest attention to the needs of each student.

**Rapid Preparation for:—**

- Matriculation,
- Intermediate Arts and B.A.,
- Intermediate Science and B.Sc.,
- L.L.A. (St. Andrews),
- COLLEGE OF PRECEPTORS' DIPLOMAS.

Address—THE PRINCIPAL,  
Burlington Correspondence College,  
CLAPHAM COMMON, LONDON, S.W.

Messrs. **TRUMAN & KNIGHTLEY, LTD.**

Educational Agents,

158 to 162 OXFORD STREET,  
LONDON, W.

Telegrams—"TUTORESS, LONDON."  
Telephone—No. 1136 City.

This Agency is under distinguished patronage, including that of the Principals of many of our leading Schools.

**A.—EMPLOYMENT DEPARTMENT.**

(i.) ASSISTANT MASTERS & TUTORS.

MESSRS. TRUMAN & KNIGHTLEY introduce University and other qualified ENGLISH and FOREIGN MASTERS and TUTORS to Schools and Private Families.

(ii.) ASSISTANT MISTRESSES.

MESSRS. TRUMAN & KNIGHTLEY introduce University, Trained, and other qualified ENGLISH and FOREIGN LADY TEACHERS to Girls' and Boys' Schools.

(iii.) LADY MATRONS AND HOUSE-KEEPERS.

MESSRS. TRUMAN & KNIGHTLEY introduce well qualified and experienced LADY MATRONS, HOUSEKEEPERS, and HOUSE MISTRESSES to Boys' and Girls' Schools.

No charge is made to Principals, and no charge of any kind is made to candidates unless an engagement be secured through this Agency, when the terms are most reasonable.

**B.—SCHOOL TRANSFER DEPARTMENT.**

A separate Department, under the direct management of one of the Principals, is devoted entirely to the negotiations connected with the Transfer of Schools and Introduction of Partners.

MESSRS. TRUMAN & KNIGHTLEY, being in close and constant communication with the Principals of nearly all the chief Girls' and Boys' Schools in the United Kingdom, to many of whom they have had the privilege of acting as Agents, and having on their books always a large number of thoroughly genuine Schools for Sale and Partnerships to negotiate, as well as the names and requirements of numerous would-be purchasers, can offer unusual facilities for satisfactorily negotiating the TRANSFER of SCHOOLS, and arranging PARTNERSHIPS.

No charge is made to Purchasers, and there is no charge to Vendors unless a Sale or Partnership be effected through this Agency.

All communications and enquiries are treated in the strictest confidence.

**C.—PUPILS' DEPARTMENT.**

MESSRS. TRUMAN & KNIGHTLEY have a carefully organized Department for the introduction of Pupils to Schools and other Educational Establishments. No charge is made for registration.

Any negotiations entrusted to MESSRS. TRUMAN & KNIGHTLEY receive prompt and careful attention, every effort being made to save clients as much time and trouble as possible.

Full particulars will be forwarded on application.

**ENGINEERING AND TECHNICAL OPTICS.****NORTHAMPTON POLYTECHNIC INSTITUTE,**  
CLERKENWELL, LONDON, E.C.**ENGINEERING DAY COURSES IN MECHANICAL, ELECTRICAL, and HOROLOGICAL ENGINEERING.**

Full Day Courses in the Theory and Practice of the above will commence on Monday, 5th October, 1908. ENTRANCE EXAMINATIONS on Wednesday and Thursday, 30th September and 1st October, at which FOUR ENTRANCE SCHOLARSHIPS will be offered. The Courses for Mechanical and Electrical Engineering include periods spent in commercial workshops and extend over four years, and they also prepare for the Degree of B.Sc. in Engineering at the University of London. Fees for either of these Courses, £15 and £11 per annum.

**DAY COURSES IN TECHNICAL OPTICS.**

Full and Partial Day Courses, Practical and Theoretical, in Technical Optics will also commence on the date given above. These Courses deal with all branches of Optical Science and Practice, and are well adapted for those seeking a career in this department of Applied Science.

The Laboratories, Workshops, and Lecture Rooms of the Institute are fully equipped for the most advanced teaching in the subjects dealt with.

Full particulars can be obtained on application at the Office of the Institute, or to

B. MULLINEUX WALMSLEY, D.Sc., Principal.

**ENGINEERING AND CHEMISTRY.****CITY AND GUILDS OF LONDON INSTITUTE.**

SESSION 1908-1909.

The COURSES OF INSTRUCTION at the Institute's Central Technical College (Exhibition Road) are for Students not under 16 years of age; those at the Institute's Technical College, Finsbury, for Students not under 14 years of age. The Entrance Examinations to both Colleges are held in September, and the Sessions commence in October. Particulars of the Entrance Examinations, Scholarships, Fees, and Courses of Study may be obtained from the respective Colleges or from the Head Office of the Institute, Gresham College, Basinghall Street, E.C.

**CITY AND GUILDS CENTRAL TECHNICAL COLLEGE.**  
(EXHIBITION ROAD, S.W.)

A College for higher Technical Instruction for Day Students, not under 16, preparing to become Civil, Mechanical, or Electrical Engineers, Chemical and other Manufacturers, and Teachers. The College is a "School of the University of London" and also forms the "Engineering Section of the Imperial College of Science and Technology." Fee for a full Associateship Course, £36 per Session. Professors:—

Civil and Mechanical Engineering .....	W. E. DALBY, M.A., B.Sc., M. Inst. C.E.
Electrical Engineering .....	W. E. AYRTON, F.R.S., Past Pres. Inst. E.E.
Chemistry .....	H. E. ARMSTRONG, Ph.D., LL.D., F.R.S.
Mechanics and Mathematics .....	O. HENRICI, Ph.D., LL.D., F.R.S.

**CITY AND GUILDS TECHNICAL COLLEGE, FINSBURY.**  
(LEONARD STREET, CITY ROAD, E.C.)

A College for Intermediate Instruction for Day Students, not under 14, preparing to enter Engineering and Chemical Industries, and for Evening Students. Fees: £20 per Session for Day Students. Professors:—  
Physics and Electrical Engineering .....

Physics and Electrical Engineering .....	S. P. THOMPSON, D.Sc., F.R.S., Principal of the College.
Mechanical Engineering .....	E. G. COKER, M.A., D.Sc., F.R.S.E., M. Inst. M.E.
Chemistry .....	R. MELDOLA, F.R.S., F.I.C.

JOHN WATNEY, Hon. Secretary.

City and Guilds of London Institute, Gresham College, Basinghall Street, E.C.

**THE METRIC AND ENGLISH WEIGHTS & MEASURES**

Is the ONLY Table Book published giving all the Metric Weights and Measures in full, with their English Equivalents, as AUTHORIZED BY THE BOARD OF TRADE, as well as the Metric Equivalents of ALL the English Weights and Measures.

The Metric System is now being taught in all Schools, and is being largely used by Manufacturers throughout the British Empire.

Retail, Price 1d., Post Free 1½d.

Published by

PERCY E. RADLEY, 30 Theobald's Road, London, W.C.

**EAST LONDON COLLEGE**

(UNIVERSITY OF LONDON),

MILE END ROAD, E.

The College is situated close to Stations on the G. E. R., District Railway, and L. T. & Southend Railway, and is approached from the Royal Exchange in 15 minutes by motor omnibus.

**PASS AND HONOURS COURSES**

IN THE

**FACULTIES OF ARTS, SCIENCE, AND ENGINEERING.****LATIN, GREEK, ENGLISH, FRENCH, GERMAN, ENGLISH HISTORY, LOGIC, MATHEMATICS, PHYSICS, CHEMISTRY, BOTANY, GEOLOGY.****CIVIL AND MECHANICAL ENGINEERING.****ELECTRICAL ENGINEERING.**

Courses in the above subjects are likewise arranged for Evening Students.

**PREPARATORY and MATRICULATION CLASSES.**

MODERATE FEES.

Valuable Scholarships are offered annually by the Worshipful Company of Drapers.

Calendar post free on application to the REGISTRAR, or J. L. S. HATTON, M.A., Principal.

**BIRKBECK COLLEGE.**

BREEMS BUILDINGS, CHANCERY LANE, E.C.

DAY AND EVENING CLASSES.

Principal—G. ARMITAGE-SMITH, D.Lit., M.A.

The College provides approved courses of Instruction for the Degrees of the University of London in the Faculties of Arts, Science, Economics, Laws, under Recognized Teachers of the University.

Well appointed Laboratories. Facilities for research. Twenty studentships are open for competition by examination, commencing on 14th September, 1908.

New Session commences on Monday, 28th September. Full particulars on application to

H. WELLS BAXES, Secretary.

**UNIVERSITY OF LONDON.****UNIVERSITY COLLEGE.**

Provost—T. GREGORY FOSTER, Ph.D.

The Session 1908-09 in the Faculties of Arts, Laws, Medical Sciences, Science, and Engineering will begin on Monday, October 5th.

The Provost and Deans will attend on Monday, October 5th, and on Tuesday, October 6th, from 10 a.m. to 1 p.m., for the admission of students. Intending students are invited to communicate with the Provost as soon as possible.

The Slade School of Fine Art will open on Monday, October 5th, and students may be admitted on or before that date.

**FACULTY OF MEDICAL SCIENCES.**

Examination for Entrance Scholarships on the 22nd and 23rd of September, 1908.

The following Prospectuses are now ready, and may be had on application to the Secretary:—

Faculty of Arts (including Economics).

Faculty of Laws.

Faculty of Medical Sciences.

Faculty of Science.

Faculty of Engineering.

Indian School.

Slade School of Fine Art.

School of Architecture.

Department of Public Health.

Scholarships, Prizes, &c.

Post Graduate Courses and Arrangements for Research.

Special provision is made for Post-Graduate and Research work in the various subjects taught at the College.

WALTER W. SETON, M.A., Secretary.

University College, London (Gower Street).

**UNIVERSITY OF ABERDEEN.**

FACULTY OF MEDICINE.

WINTER SESSION, 1908-1909.

The WINTER SESSION commences on Tuesday, 13th October, 1908. The PRELIMINARY EXAMINATION will commence on September 11th.

The Degrees in Medicine granted by the University are:—Bachelor of Medicine (M.B.), Bachelor of Surgery (Ch.B.), Doctor of Medicine (M.D.), Master of Surgery (Ch.M.). They are conferred only after Examination, and only on Students of the University. A Diploma in Public Health is conferred after Examination on Graduates in Medicine of any University in the United Kingdom. The total cost for the whole curriculum, including Hospital Fees and Fees for the Degrees of M.B. and Ch.B., is usually about £150. Bursaries, Scholarships, Fellowships, and Prizes, to the number of fifty, and of the aggregate annual value of £1,180, are open to competition in this Faculty.

A Prospectus of the Classes, Fees, &c., may be had on application to the SECRETARY OF THE MEDICAL FACULTY.

The University also grants the following Degrees:—In Arts: Doctor of Letters, Doctor of Philosophy, and Master of Arts. In Science: Doctor of Science, Bachelor of Science (in Pure Science and in Agriculture). In Divinity: Doctor of Divinity (Honorary) and Bachelor of Divinity. In Law: Doctor of Laws (Honorary) Bachelor of Laws (LL.B.), and Bachelor of Law (B.L.).

Particulars may be had on application to the SECRETARY of the University.

**UNIVERSITY COLLEGE, BRISTOL.****ENGINEERING EDUCATION.**

Courses for CIVIL, MECHANICAL, MINING, and ELECTRICAL ENGINEERS and SURVEYORS.

Professor—R. M. FERRIER, M.Sc., M.Inst.C.E.

Special facilities are offered in the way of College Scholarships and Engineering Works Scholarships; favourable arrangements being made with firms in or near Bristol for practical training to be obtained in works concurrently with the College Course.

A Diploma is awarded to Students who pass the qualifying Examinations. The Associateship of the College is conferred on those Students who obtain a First Class Senior Diploma.

The Institution of Civil Engineers accepts the Preliminary Certificate of the College in lieu of its Entrance Examination.

Applications for vacancies in October to be made as early as possible to the undersigned, from whom Prospectus and particulars of residence in Clifton may be obtained.

JAMES RAFTER, Registrar and Secretary.

Psychology of Language Teaching: Phonetics.

**HOWARD SWAN,**

Post-Graduate in Psychology, Berkeley University; Harvard; Research Student London University; recently Professor Imperial College of Languages, Pekin;

Author of "Facts of Life," "Colloquial French," &c.

Office Address: 1 Albemarle Street, W.

TEACHING AND TRAINING IN METHOD OF LANGUAGE TEACHING, PSYCHOLOGY, AND PHONETICS; ENGLISH, FRENCH, GERMAN (and CHINESE, HINDI if desired).

Pupils can be taken during August and September in beautiful surroundings in Switzerland.

Holiday Address: Hôtel de la Gare, St. Léger sur Vevey, Switzerland.

**SECONDHAND BOOKS AT HALF PRICES!  
NEW BOOKS AT 25% DISCOUNT!**

BOOKS for A.C.P., L.C.P., F.C.P., Matric., University, Certificate, Scholarship, L.L.A., B.A., and ALL other Examinations supplied. State wants: send for List. Books sent on approval. BOOKS BOUGHT, best prices given.—W. & G. FOYLE, 135 Charing Cross Road, W.C.

**BADGES,  
HAT BANDS, CAPS**

AT WHOLESALE PRICES.

Write—SCHOOLS AGENT, 1 Arundel Villas, Chelmsford Road, South Woodford, N.E.

## THE MIDDLESEX HOSPITAL MEDICAL SCHOOL.

A SCHOOL OF THE UNIVERSITY OF LONDON.

The Medical School of the Middlesex Hospital has been largely rebuilt and equipped to meet the most recent educational requirements.

### HOSPITAL APPOINTMENTS.

In addition to Clerkships and Dresserships, Sixteen Resident Appointments are annually open to all General Students. Also Medical, Surgical, and Obstetric Registrars are appointed annually.

### SCHOLARSHIPS AND PRIZES.

Scholarships and Prizes to the value of £860 are awarded annually.

Full particulars may be obtained on application to

H. CAMPBELL THOMSON, M.D., F.R.C.P.,  
Dean of the Medical School,  
Middlesex Hospital, London, W.

## ST. THOMAS'S HOSPITAL, ALBERT EMBANKMENT, S.E. (UNIVERSITY OF LONDON.)

The WINTER SESSION will commence on OCTOBER 1.

The PRIMARY F.R.C.S. CLASSES begin on TUESDAY, September 1.

The Hospital occupies one of the finest sites in London and contains 603 beds.

Entrance and other Scholarships and Prizes (26 in number), of the value of more than £500, are offered for competition each year.

Upwards of 60 resident and other appointments are open to Students after qualification.

A Students' Club forms part of the Medical School buildings, and the Athletic Ground, nine acres in extent, situated at Chiswick, can be reached in 40 minutes from the Hospital.

A Prospectus, containing full particulars, may be obtained from the Medical Secretary, Mr. G. Q. ROBERTS.

C. S. WALLACE, B.S. Lond., Dean.

## ST. MARY'S HOSPITAL MEDICAL SCHOOL, PADDINGTON, W. (UNIVERSITY OF LONDON.)

The WINTER SESSION will begin on October 1st. The Medical School occupies an exceptional position in the West End of London.

Courses of Instruction are provided for the ENTIRE MEDICAL CURRICULUM for the Degrees of the Universities, for the Diplomas of M.B.C.S., I.R.C.P., and for the Government Medical Services.

A PRELIMINARY SCIENTIFIC COURSE will commence on October 2nd.

SIX ENTRANCE SCHOLARSHIPS in Natural Science, £145 to £52. 10s., competed for in September. Complete Handbook on application to the DEAN.

## KING'S COLLEGE, LONDON. (UNIVERSITY OF LONDON.)

### EVENING CLASS DEPARTMENT.

Courses are arranged for the Intermediate and Final Examinations for the B.A. and B.Sc. Degrees of the University of London. Students taking the full Course pay Composition Fees and rank as Internal Students of the University.

EVENING CLASSES are also held for Mechanical and Electrical Engineering, Architecture and Building Construction, Drawing, Mathematics, Physics, and all Science Subjects.

For full information and Prospectus apply to the Dean (Mr. R. W. K. EDWARDS) or to the SECRETARY, King's College, Strand, London, W.C.

## KING'S COLLEGE, LONDON. (UNIVERSITY OF LONDON.)

The General Education at King's College, London, is conducted in several distinct but connected Faculties and Departments, viz.:-

1. THE FACULTY OF THEOLOGY.—(1) Morning Course; (2) Evening Course.
2. THE FACULTY OF ARTS, including (1) General Literature, Secondary Teachers' Training Course, Day Training College, and Oriental Studies; (2) The Department of Architecture; (3) Division of Laws, Day and Evening Classes.
3. THE FACULTY OF SCIENCE.—(1) Natural Science Division (Day and Evening Classes); (2) Medical Division (Preliminary and Intermediate Studies); (3) Department of Bacteriology; (4) Department of Public Health.
4. THE FACULTY OF ENGINEERING (including Mechanical, Electrical, and Civil Engineering). Day and Evening Classes.
5. THE FACULTY OF MEDICINE (Advanced Medical Studies at King's College Hospital).
6. THE WOMEN'S DEPARTMENT (at 13 Kensington Square).
7. KING'S COLLEGE SCHOOL (Wimbledon Common).
8. THE CIVIL SERVICE DEPARTMENT.—(1) Evening Classes for the Civil Service; (2) Day Classes for Female Appointments in G.P.O.
9. STRAND SCHOOL, suitable for Commerce, the Professions, and the Civil Service.

A separate Prospectus is prepared for each of these Faculties and Departments, and will be forwarded on application to the SECRETARY, King's College, Strand, W.C.

## KING'S COLLEGE, LONDON. (UNIVERSITY OF LONDON.)

### FACULTY OF ENGINEERING AND APPLIED SCIENCE AND DIVISION OF ARCHITECTURE.

SESSION 1908-9 COMMENCES WEDNESDAY, SEPTEMBER 30TH.

#### Professors:—

Engineering ... ..	David S. Capper, M.A., M.Inst.O.E., M.I.M.E. H. M. Waynforth, A.M.Inst.C.E., A.M.I.M.E. M. Curry, M.Inst.C.E.
Electrical Engineering	E. Wilson, M.I.E.E.
Natural Philosophy ...	H. Wilson, D.Sc.
Architecture ... ..	E. Elsey Smith, A.R.I.B.A.
Chemistry ... ..	J. M. Thomson, F.R.S., F.I.C. H. Jackson, F.I.C.
Mathematics ... ..	S. A. F. White, M.A. J. B. Dale, M.A.
Metallurgy ... ..	A. K. Huntington, A.R.S.M., M.I.M.E.
Geology & Mineralogy	H. G. Seeley, F.R.S.

Large Staff of Lecturers and Demonstrators.

#### EVENING CLASSES

are held for Mechanical and Electrical Engineering, Architecture and Building Construction, Drawing, Mathematics, Physics, and other Science Subjects.

For Prospectuses and all information apply to the SECRETARY, King's College, Strand, W.C.

## KING'S COLLEGE, LONDON. (UNIVERSITY OF LONDON.)

### DEPARTMENT FOR TRAINING TEACHERS FOR SECONDARY SCHOOLS.

Theory, Practice, and History of Education:  
J. W. ADAMSON, B.A., Professor of Education (Head of the Department).

#### Ethics:

Rev. A. CALDECOTT, D.Lit., D.D., Professor of Mental and Moral Philosophy.

#### Psychology:

C. S. MYERS, M.A., M.D., Professor of Psychology.

The Department is recognized by the Board of Education as a Training College for Secondary Teachers. The Course, which includes practical work in Secondary Schools, extends over one academic year, beginning in October or January. It is suitable for those who are preparing to take the Teacher's Diploma, University of London, or the Certificate of the Teachers' Training Syndicate, University of Cambridge.

The fee is £20 for the year, if paid in advance, or 8 guineas per term (three terms in the year).

Two Scholarships of £20 each for one year, tenable from October 1, 1908, are offered to suitable Candidates (men) who are Graduates of a British University.

Application should be made to Prof. ADAMSON, King's College, Strand, W.C.

## KING'S COLLEGE, LONDON.

### CLASSES FOR THE LONDON UNIVERSITY MATRICULATION AND PROFESSIONAL PRELIMINARY EXAMINATIONS.

Individual Tuition in all subjects required for the Examinations. Fee for Half-yearly Course £3. 3s. Students may join at any time at proportional fees.

Apply to the SECRETARY, King's College, Strand, W.C.

## JOINT AGENCY FOR WOMEN TEACHERS.

(Under the management of a Committee appointed by the Teachers' Guild, College of Preceptors, Head Mistresses' Association, Association of Assistant Mistresses, and Welsh County Schools' Association.)

Address—74 GOWER STREET, LONDON, W.C.

Registrar—Miss ALICE M. FOUNTAIN.

This Agency has been established for the purpose of enabling Teachers to find work without unnecessary cost. All fees have therefore been calculated on the lowest basis to cover the working expenses.

Head Mistresses of Public and Private Schools, and Parents requiring Teachers, or Teachers seeking appointments, are invited to apply to this Agency.

Many Graduates and Trained Teachers for Schools and Private Families; Visiting Teachers for Music, Art, and other special subjects; Foreign Teachers of various nationalities; Kindergarten and other Teachers are on the Register, and every endeavour is made to supply suitable candidates for any vacancy.

School Partnerships and Transfers are arranged.

Hours for interviews (preferably by appointment):—

11 a.m. to 1 p.m., and 3 to 5 p.m.

Saturdays, 11 a.m. to 1 p.m., and 2 to 3 p.m.

## THE JOINT SCHOLASTIC AGENCY.

23 Southampton Street, Bloomsbury Square, W.C.

Managed by a Committee of Representatives of the following Bodies:—

#### HEAD MASTERS' CONFERENCE.

- INCORPORATED ASSOCIATION OF HEAD MASTERS.
- COLLEGE OF PRECEPTORS. TEACHERS' GUILD.
- INCORPORATED ASSOCIATION OF ASSISTANT MASTERS.
- ASSOCIATION OF TECHNICAL INSTITUTIONS.
- ASSOCIATION OF PREPARATORY SCHOOLS.
- WELSH COUNTY SCHOOLS.

Registrar: Mr. E. A. VIRGO.

The object of this Agency is to render assistance at a minimum cost to Masters seeking appointments.

The lowest possible fees are therefore charged.

A PROSPECTUS will be sent ON APPLICATION. Interviews (preferably by appointment) 12 p.m.—1.30 p.m., and 3 p.m.—5.30 p.m. Saturdays, 12 p.m.—1 p.m.

#### JUST PUBLISHED.

### Clearance List of Educational Books, Classics, Mathematics, Science, &c.,

offered in numbers at very Low Prices; with an Addendum consisting of Recently Purchased Classical Books, Lexicons, &c.

Gratis and post free from H. G. GADNEY, Second-hand Bookseller, 2 and 3 Turl Street, Oxford.

## THE HAMILTONIAN SYSTEM.

A Short and Easy Method of Learning a Foreign Language by a Close Interlinear Translation.

"This System differs from the ordinary literal translations, in giving a truly literal translation placed word for word under the words of the original, which are only so far changed in order as seemed essential to the sense. The aim is to be strictly literal, and the student is at once saved all trouble about the meaning of each word."  
—Mr. RICHARD A. PROCTOR, in *Knowledge*.

Limp cloth, price 1s.

CAESAR'S GALLIC WAR. Book I. With Text as well as Interlinear Translation.

Books I. to VI. Price 4s. 6d.

VIRGIL'S AENEID. Books I. to IV. Price 3s. 6d.

EUROPIUS. Limp cloth, price 1s. 6d.

FLORIAN'S FABLES. Limp cloth, price 1s.

FERRIN'S FABLES. Limp cloth, price 1s. 6d.

Each Book contains the Text as well as the analytical, interlinear, and literal Translation.

Full List of the Series on Application.

FRANCIS HODGSON, 89 Farringdon St., E.C.

Recently Published in Six Parts.

## THE LEADER ARITHMETIC.

By **GEORGE MERCHANT.**

<b>Part 1.</b> The Simple Rules to Short Division ... ..	64 pp.	Price 3d.
<b>Part 2.</b> Long Division and the Money Rules ... ..	64 pp.	Price 3d.
<b>Part 3.</b> Weights and Measures, Practice, Bills of Parcels, Rule of Three by the Unitary Method ... ..	64 pp.	Price 3d.
<b>Part 4.</b> Vulgar and Decimal Fractions, Proportion ... ..	64 pp.	Price 3d.
<b>Part 5.</b> The Commercial Rules ... ..	56 pp.	Price 3d.
<b>Part 6.</b> Higher Rules and 500 Miscellaneous Examples ... ..	56 pp.	Price 3d.

"The explanations are simple and clear, and exemplified in adequate variety by worked examples. The exercises are very numerous and carefully graduated. A laborious and serviceable compilation."—*The Educational Times.*

**SIMPKIN, MARSHALL, HAMILTON, KENT & CO.,** and all Booksellers.

## IDOLA PULPITORUM: PITFALLS OF THE PRACTICAL TEACHER.

For this series of Articles, see "THE JOURNAL OF EDUCATION."

**INTRODUCTORY ARTICLE**, by Professor ADAMS [November, 1906]; **CLASSICS**, by H. G. HART [December, 1906]; **ENGLISH**, by ARTHUR BURRELL [January, 1907]; **FRENCH**, by CLOUDESLEY BRERETON [February and March, 1907]; **SCIENCE**, by T. PERCY NUNN [April, 1907]; **NATURE STUDY**, by T. RAYMONT [May, 1907]; **HISTORY**, by S. S. FLETCHER [June, 1907]; **PHYSICAL TRAINING**, by Colonel MALCOLM FOX [July, 1907]; **DRAWING**, by W. E. SPARKES [August, 1907]; **DOMESTIC SCIENCE**, by ALICE RAVENHILL [October, 1907]; **GEOMETRY**, by H. WINIFRED STURGE [December, 1907]; **GEOGRAPHY**, by Dr. A. J. HEBBERTSON [January, 1908]; **MUSIC TEACHING**, by ARTHUR SOMERVELL [June, 1908]; **ARITHMETIC**, by P. B. BALLARD [July, 1908].

Subscription is 7s. per annum; single numbers, 8d. post free.

Offices: 3 BROADWAY, LUDGATE HILL, E.C.

## THE RUGBY PRESS

undertakes every description of Letterpress

### PRINTING FOR SCHOOLS.

Estimates furnished. Enquiries solicited.

Address— **GEORGE OVER, Printer, Rugby.**

## CAREY'S "GRADUS AD PARNASSUM."

WITH THE ENGLISH MEANINGS.

Revised, Corrected, and Augmented by a Member of the University of Cambridge.

Post 8vo, cloth, price 7s.

THE STATIONERS' COMPANY, STATIONERS' HALL, LONDON.

## EXAMINATION PAPER

AS USED BY THE

### COLLEGE OF PRECEPTORS.

In strict accordance with the College requirements, and each Sheet bears their Watermark.

Packed in Reams of 480 Sheets ... .. per Ream, 2s.  
" " 240 " " " " 4s.

Bookkeeping Paper, ruled for Ledger, Cash Book, and Journal, 1s. per 100 Sheets.  
Music Paper, 1s. per 100 Sheets.

Remittance should accompany Order.

**F. W. SHELDBURNE & CO.,** Wholesale and Retail Stationers,  
63 HIGH HOLBORN, LONDON, W.C.

## MODERN SIDE ARITHMETIC: EXAMPLES ONLY. By

Rev. T. MITCHESON, B.A., late Assistant Master in City of London School.

**PART I.**, crown 8vo, cloth, pp. 119, 1s. (Answers, 1s.; Teachers' Copy, with Answers, 1s. 6d.)

**PART II.**, crown 8vo, cloth, pp. 200, 1s. 6d. (Answers, 1s.; Teachers' Copy, with Answers, 2s.)

**COMPLETE IN ONE VOLUME**, crown 8vo, cloth, 2s. (Answers, 1s. 6d.; Teachers' Copy, with Answers, 3s.)

LONDON: FRANCIS HODGSON, 89 FARRINGTON STREET, E.C.

# THE School World.

A MONTHLY MAGAZINE OF EDUCATIONAL  
WORK AND PROGRESS.

EACH NUMBER CONTAINS EIGHTY COLUMNS  
OF READING MATTER.

PRICE 6D. VOLUME IX., 1907, 7s. 6d. NET.

The aim of THE SCHOOL WORLD is to provide information of practical and permanent value to Schoolmasters and Schoolmistresses. To this end all important changes and developments affecting any branch of the work of teachers in secondary and other schools are dealt with by leading authorities and experienced teachers.

The Magazine has become indispensable to all who desire to keep in touch with modern and effectual methods of education.

MACMILLAN & CO., Ltd., LONDON.

NOW READY.

Demy 8vo, cloth, price 2s. 6d., free by post.

To Members of the College the price is 1s., or 1s. 6d. free by post.

## THE CALENDAR

OF

## THE COLLEGE OF PRECEPTORS

FOR THE YEAR 1908:

CONTAINING

All information respecting the objects and operations of the College, Lists of Officers, Examiners, and Members, the Regulations of the various Examinations, &c., with an Appendix containing the following Examination Papers:—

1. Papers set at Examination of Teachers for Diplomas, Summer, 1907.
2. Do. do. do. Christmas, 1907.
3. Papers set at Examination of Pupils for Certificates, Midsummer, 1907.
4. Do. do. do. Christmas, 1907.
5. Papers set at Professional Preliminary Examination, March, 1907.
6. Do. do. do. September, 1907.
7. Papers set at Lower Forms Examination ... .. Summer, 1907.
8. Do. do. ... .. Christmas, 1907.

\* \* Nos. 3, 4, 5, and 6 may be had separately, price, free by post, 7d. each set. Nos. 7 and 8, price, free by post, 4d. each set.

The Diploma Papers are to be had only in the  
"Calendar."

FRANCIS HODGSON, 89 FARRINGTON STREET, LONDON, E.C.



# MR. EDWARD ARNOLD'S NEW SCHOOL BOOKS.

## ENGLISH.

**Grammatical English.** By F. W. G. FOAT, D.Lit., M.A.,  
Lecturer in English at the City of London College and Assistant  
Master in the City of London School. Crown 8vo, cloth, 3s. 6d.

The aim of the book is to supply a general introduction to the subject of English, in the form of practical assistance towards the formation of those habits of mind and the attainment of that permanent attitude of thought which are indispensable alike to the student of grammar and to those who must write and speak correctly in the ordinary business of life.

**Chips from a Bookshelf.** A Reading Book for Junior Forms.  
Uniform with "In Golden Realms." Edited by H. B. BROWNE.  
Illustrated with Reproductions of well known Pictures. 1s. 3d.

**Practical Spelling.** Book I., price 2d.; Book II., price 3d.

The aim of these little books is to give a graded course of lessons which will enable the young pupil to reproduce correctly the words used by himself when speaking and writing.

**Dramatic Scenes from History.** By FANNY JOHNSON, formerly  
Head Mistress of the Bolton Girls' High School. Illustrated.  
Crown 8vo, cloth, 1s. 6d.

The author has endeavoured to cover, as far as space allowed, all the principal epochs in their order, from the Conversion of England (in the dialogue of "Edwin" and "Paulinus") to the England of George III. (in the dialogue from "Boswell").

## MODERN LANGUAGES.

**Petite Grammaire Française.** Par E. RENAULT, Officier  
d'Académie; Assistant Lecturer at the University of Liverpool.  
Crown 8vo, cloth, 1s. 6d.

This book is specially written for Junior Classes, easy French words being used whenever possible. Accidence and syntax are treated together, and those parts of grammar are dealt with which a beginner needs.

**The Alphonse Daudet Reading Book.** Récit biographique  
et Extraits de ses Œuvres. Edited by JETTA S. WOLFF, Author of  
"Les Français en Ménage," &c. 1s. 6d.

**Les Deux Prisonniers.** By RODOLPHE TÖPFFER. Edited by  
W. H. HODGES, M.A., St. Lawrence College, Ramsgate.  
Crown 8vo, cloth, 1s.

**Scènes Infantines.** By KÄTE WEBER, Author of "Vier Kleine  
Lustspiele für die Jugend." With Vocabulary. Crown 8vo, cloth,  
1s. 3d.

Eight short plays, for reading or acting. They are all written in very simple language, suitable for quite young children.

**Herr Peter Squenz.** By ANDREAS GRYPHIUS. Edited, with  
Introduction, Notes, and Exercises for Retranslation, by SYDNEY  
H. MOORE. Crown 8vo, cloth, 2s.

This text, which is full of interest from beginning to end, has also been chosen for its great literary value in the hope that it may help the tendency to make Modern Languages as great a factor in the promotion of "humanistic" education as the study of the classics.

**A First Spanish Book.** By H. J. CHAYTOR, M.A., Head  
Master of Plymouth College. With Exercises and Full Vocabulary.  
224 pages. Crown 8vo, cloth, 2s. 6d.

## LATIN.

The two following books, together with Mr. Witton's "Dies Romani," contain all that a boy needs for three or four years' work at Latin, beyond a dictionary and a master.

**Compendium Latinum.** By W. F. WITTON, Classical Master at  
St. Olave's Grammar School. 2s. 6d.

**Simplified Caesar.** A First Latin Reader and Exercise Book.  
By W. F. WITTON. 1s. 6d.

## SCIENCE.

**General Elementary Botany.** By E. DRABBLE, D.Sc.,  
Lecturer in Botany at the University of Liverpool. Crown 8vo,  
cloth, 2s. 6d.

**Workshop Science.** By R. J. BROWN, M.Sc., Principal of Stock-  
port Municipal Technical School. Crown 8vo, cloth, 1s. 6d.

## CATALOGUES ON APPLICATION.

London: EDWARD ARNOLD, 41 & 43 Maddox St., W.

# GEORGE GILL & SONS, LTD.

The following Works included in

"The Oxford and Cambridge Edition"

are required for the

## 1909

# LOCAL AND COLLEGE OF PRECEPTORS EXAMINATIONS.

## Religious Knowledge.

<b>THE OXFORD AND CAMBRIDGE EDITION ST. MATTHEW.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXON. AND CANTAB. EDITION ST. MATTHEW.</b> Edited by Rev. F. MARSHALL, M.A. ( <i>Preliminary</i> ) ... ..	net 1 6
<b>THE OXFORD AND CAMBRIDGE EDITION ACTS I.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXON. AND CANTAB. EDITION ACTS I.</b> Edited by Rev. F. MARSHALL, M.A. ( <i>Preliminary</i> ) ... ..	net 1 0
<b>THE OXFORD AND CAMBRIDGE EDITION KINGS I.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION EZRA.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION NEHEMIAH.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION PRAYER BOOK.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION CHURCH CATECHISM.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE CHURCH CATECHISM.</b> Explained specially for Preliminary Candidates. Edited by Rev. F. MARSHALL, M.A. ... ..	0 6

## English.

<b>THE OXFORD AND CAMBRIDGE EDITION TEMPEST.</b> Edited by STANLEY WOOD, M.A., and A. SYMS-WOOD, B.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION HENRY V.</b> Edited by STANLEY WOOD, M.A., and Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION MACBETH.</b> Edited by STANLEY WOOD, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION JULIUS CAESAR.</b> Edited by STANLEY WOOD, M.A., and A. SYMS-WOOD, B.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION RICHARD II.</b> Edited by STANLEY WOOD, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION LAMB'S TALES FROM SHAKESPEARE.</b> Edited by STANLEY WOOD, M.A. (Selection Set for 1909 <i>Cambridge Local</i> ) ... ..	1 4
<b>THE OXFORD AND CAMBRIDGE EDITION LAYS OF ANCIENT ROME.</b> Edited by Rev. G. PRESTON, M.A. ... ..	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION LAY OF THE LAST MINSTREL.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	2 0

In the above works the necessary "Notes" have been added to enable Candidates to answer questions set by the Examiners.

## GUIDES

to the 1909 Local Examinations, Specimen Pages, and Complete Lists of the "prescribed" Books contained in the

Oxford and Cambridge Edition,

Post free.

## JUST PUBLISHED.

# HISTORICAL ATLAS,

With CHRONOLOGICAL NOTES.

By E. A. BENIANS, M.A., and T. H. KNIGHT, M.A. 96 pp. Crown 8vo, net, 8d.  
Intended to provide suitable material for a general knowledge of British History and more especially for use as a supplementary work in Examination Preparation.

Complete Catalogue post free.

London: GEORGE GILL & SONS, Ltd., 13 Warwick Lane, E.C.

# Messrs. BELL'S NEW BOOKS

MESSRS. BAKER AND BOURNE'S NEW WORK.

JUST PUBLISHED. Crown 8vo, 1s. 6d.

## ELEMENTARY MENSURATION.

By **W. M. BAKER, M.A.**, and **A. A. BOURNE, M.A.**

The intention of the authors has been to make the subject of Mensuration accessible to those who know no mathematics except elementary Arithmetic, though the book will doubtless prove useful also to the more advanced.

The object might have been partially attained by the plan, usual in beginners' books on Mensuration, of giving formulæ without proofs. In the present book this "rule of thumb" method has been avoided as far as practicable. With very few exceptions the formulæ are accompanied by easy proofs. It is hoped that through such treatment formulæ will be more intelligently grasped and more easily retained. Although the character of the book is elementary, its range is fairly complete, and it will be found useful for all examinations where elementary Mensuration is required.

## MASON'S NEW ENGLISH GRAMMARS.

Revised, in accordance with modern requirements, by

**A. J. ASHTON, M.A.**,

Senior English Master, Kelvinside Academy, Glasgow; and Examiner in English to the College of Preceptors.

TO BE COMPLETED IN THREE COURSES. JUST PUBLISHED, 218 PAGES, 2s.

## MASON'S INTERMEDIATE ENGLISH GRAMMAR

PREVIOUSLY ISSUED. 125 PAGES. 1s.

IN ACTIVE PREPARATION.

## A JUNIOR ENGLISH GRAMMAR. | A SENIOR ENGLISH GRAMMAR.

This new edition of MASON'S ENGLISH GRAMMARS has been augmented and revised so as to embody the results of the advances that have been made in the teaching of English Grammar since these grammars were last revised by Mr. MASON. The new edition will consist of three Courses—Junior, Intermediate, and Senior—and will be printed in good bold type and strongly bound in cloth. The Senior Volume, completing the work, is in active preparation and will be issued without delay.

Just Published. Crown 8vo. 2s.

## A LATIN READER

(Verse and Prose).

By **W. KING GILLIES, M.A. (Glas.)**, **E.A. (Oxon.)**, Snell Exhibitioner, Balliol College, Senior Classical Master in the High School of Glasgow; and **HECTOR J. ANDERSON, M.A. (Edin.)**, **E.A. (Oxon.)**, Exhibitioner of Oriol College, Inspector of Training Colleges, Cape Colony.

## BELL'S ILLUSTRATED CLASSICS.

Pott 8vo. With many Illustrations. With or without Vocabulary. Price 1s. 6d. each.

NEW VOLUMES.

**VERGIL.—ÆNEID. Book IX.** Edited, with Introduction and Notes, by **L. D. WAINWRIGHT, M.A.**

**VERGIL.—ÆNEID. Book X.** Edited, with Introduction and Notes, by **L. D. WAINWRIGHT, M.A.**, Assistant Master at St. Paul's School.

Crown 8vo. With the Original Map. 2s.

## JOSEPH HALL.—MUNDUS ALTER ET IDEM

(An Old World and a New).

Edited for School Use, with Introduction, Notes, and Vocabulary, by **HECTOR J. ANDERSON, M.A. (Edin.)**, **E.A. (Oxon.)**. "We are delighted to make the acquaintance of this witty fiction, and we agree with the editor that it is well fitted for a Latin reader for boys who have passed the first stage. The Bishop writes excellent Latin, and his few aberrations from Classical Latinity are not likely to hurt the schoolboy."—*Journal of Education*.

Crown 8vo. 1s.

## COTHURNULUS.

THREE SHORT HISTORICAL LATIN PLAYS FOR BEGINNERS.

WITH VOCABULARIES.

By **EDWARD VERNON ARNOLD, Litt.D.**, Professor of Latin at the University College of North Wales, formerly Fellow of Trinity College, Cambridge.

Crown 8vo. With 20 Illustrations. Ready shortly.

## A GERMAN HISTORICAL READER.

By **J. E. MALLIN, E.A.**, Strand School, King's College.

Uniform with Mr. H. N. Adair's "French Historical Reader."

Pott 8vo. Illustrated. 1s.

## THREE TALES BY ERCKMANN-CHATRIAN.

Edited for use as an elementary French Reader, with Brief Notes and Vocabulary, by **O. H. PRIOR, M.A.**, Assistant Master at Rugby.

This volume contains "Le vieux Tailleur," "Le Combat de Coqs," and "Pourquoi Hunebourg ne fut pas rendu."

Nos. I. and II. Now Ready. 5s. net each.

## BELL'S CONTOUR CHARTS IN COLOUR.

An Aid to the Reading of Ordnance Survey Maps.

Full Prospectus on application.

8vo. 6s. 6d. net.

## GENERAL CHEMISTRY FOR SCHOOLS AND COLLEGES.

By **ALEXANDER SMITH, B.Sc., Ph.D.**, Author of "An Introduction to General Inorganic Chemistry," &c.

Third Edition, Revised and much Enlarged. Reset throughout. Crown 8vo, 656 pages, 5s.

## AN INTRODUCTION TO ENGLISH LITERATURE.

By **HENRY S. PANCOAST.**

For this edition the first half of the book has been practically rewritten, and the chapters on the Early and Middle English periods have been much enlarged. Greater space has also been given to the Queen Anne and Victorian periods.

London: GEORGE BELL & SONS, York House, Portugal Street, W.C.

# Mr. Pendlebury's New Arithmetics.

FIFTH EDITION NOW READY.

## PENDLEBURY'S NEW SCHOOL ARITHMETIC

By CHARLES PENDLEBURY, M.A.; Assisted by F. S. ROBINSON, M.A., Assistant Master at St. Paul's School.

*This book is published in the following forms:—*

Complete, with or without Answers, 4s. 6d.	Part II., with or without Answers, 2s. 6d.
Part I., with or without Answers, 2s. 6d.	The Answers may be had separately, 6d. net.
KEY to Part II., 8s. 6d. net.	

In this book the Metric System of Weights and Measures is given a prominent position; Graphical Illustrations are used freely, and the general use of Graphs is treated in a separate section. Approximations and Decimalisation of Money are also treated fully. Algebraical Symbols are used where convenient, and stress is laid on the practical side of the subject. There are sections on Mensuration and on Logarithms.

*Athenæum.*—"The new sections on graphs, mensuration, and logarithms add considerably to the value of the book, which in this form is unrivalled."

SECOND EDITION.

## PENDLEBURY'S NEW SCHOOL EXAMPLES IN ARITHMETIC.

EXTRACTED FROM THE ABOVE ARITHMETIC.

With or without Answers, 3s.; or, in Two Parts without Answers, Part I., 1s. 6d.; Part II., 2s.

SECOND EDITION.

### PENDLEBURY'S JUNIOR ARITHMETIC.

Price 1s. 6d.; or, with Answers, 2s.

This book carries out the recommendations of the Mathematical Association. Graphical Illustrations have been employed wherever suitable, and the Metric System has been introduced at an early stage, and the new order of multiplication has been adopted throughout. It will be found specially suitable for the middle and lower forms of Secondary Schools, and is adapted especially for the use of candidates for the Oxford and Cambridge Local Examinations, Scotch Leaving Certificate Examinations, County Council Scholarships, College of Preceptors' Examinations, &c.

SECOND EDITION.

### PENDLEBURY'S NEW SHILLING ARITHMETIC.

Price 1s.; or, with Answers, 1s. 4d.

This book is identical with the "Junior Arithmetic," save that all treatment of the first four rules, except for a range of revision exercises, has been omitted.

### PENDLEBURY'S EXAMPLES FROM A JUNIOR ARITHMETIC.

Price 1s.; or, with Answers, 1s. 6d.

## BAKER AND BOURNE'S ALGEBRA AND GEOMETRY.

"Messrs. Baker and Bourne's excellent 'Algebra' must give satisfaction wherever used."—*Nature*.

### ELEMENTARY ALGEBRA.

By W. M. BAKER, M.A., and A. A. BOURNE, M.A.

*This book is published in the following forms:—*

Complete, with or without Answers. Fifth Edition. 4s. 6d.  
 Part I. To Quadratic Equations. Ninth Edition. 2s. 6d. Or, with Answers, 3s.  
 Part II. With or without Answers. Second Edition. 2s. 6d.  
 Answers to the Examples. 1s. net.

### EXAMPLES IN ALGEBRA.

Extracted from the "Elementary Algebra." Complete, with or without Answers. Second Edition, Revised. 3s.

Part I. With Answers. Second Edition. 2s.  
 Without Answers. Third Edition. 1s. 6d.  
 Part II. With or without Answers. 2s.  
 Complete Key, 10s. net; or, in Two Parts, 5s. net each.

### A FIRST ALGEBRA.

By W. M. BAKER, M.A., and A. A. BOURNE, M.A. 1s. 6d. Or, with Answers, 2s.

### ELEMENTARY GEOMETRY.

A MODERN TEXT-BOOK OF PRACTICAL AND THEORETICAL GEOMETRY.

By W. M. BAKER, M.A., and A. A. BOURNE, M.A.

Complete Fifth Edition, Revised. With or without Answers, 4s. 6d.

*Also in Parts:—*

Book I. Fifth Edition. 1s.  
 Books I. and II. Fourth Edition. 1s. 6d.  
 Books I.-III. Seventh Edition. Revised and Enlarged. 2s. 6d.  
 Books I.-IV. Fourth Edition. 3s.  
 Books IV.-VII. Third Edition. 3s.  
 Books V.-VII. Third Edition. 2s. 6d.

*The following parts may also be had:—*

Books II. and III. 1s. 6d. | Books III. and IV. 1s. 6d.  
 Books II.-IV. 2s. 6d. | Books IV. and V. 2s.  
 Book IV. 1s. | Book V. 1s. 6d.

Books VI. and VII. Solid Geometry. 1s. 6d.

Answers to the Numerical and Mensuration Examples. New Edition. 6d. net.  
 Complete Key. Second Edition. 6s. net.

### A FIRST GEOMETRY.

By W. M. BAKER, M.A., and A. A. BOURNE, M.A. With or without Answers. 1s. 6d.

London: GEORGE BELL & SONS, York House, Portugal Street, W.C.

# PEACE & NORQUOY,

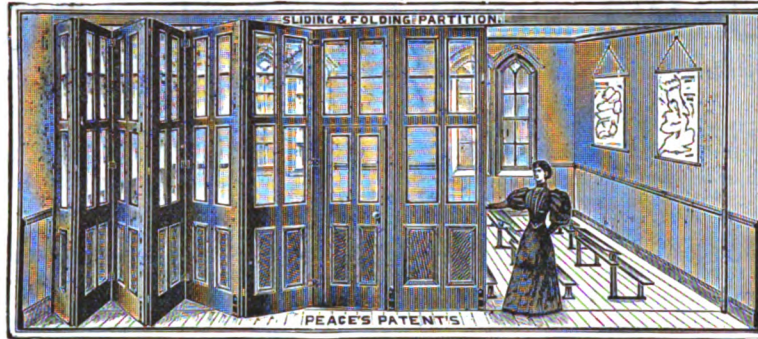
New Islington, Ancoats,  
**MANCHESTER.**

SOLE MANUFACTURERS OF THE PATENT

## SLIDING AND FOLDING PARTITIONS.

Established 1870.

By His  
Majesty's Royal  
Letters Patent.



Telephone 3085.

Telegraphic Address:  
"Partitions,"  
Manchester.

Our Patent Sliding and Folding Partitions have been frequently imitated but never equalled, and are now considered the most reliable system of dividing and sub-dividing rooms. They have been adopted by more than

**650** School Boards, Education Committees, and County Councils.

**700** Leading Architects have used and recommended them.

Fixed in **3,000** Schools, Colleges, Lecture Halls, Hotels, &c.

**OVER 4,600 AT PRESENT IN USE. DEMAND INCREASING.**

HIGHLY APPROVED BY THE BOARD OF EDUCATION AND RECOMMENDED BY H.M. INSPECTORS OF SCHOOLS.

Illustrated Circular and Estimates Free on receipt of Particulars.

1908.

### COLLEGE OF PRECEPTORS.

(Incorporated by Royal Charter.)

BLOOMSBURY SQUARE, LONDON, W.C.

### Lectures for Teachers

ON THE

### SCIENCE, ART, AND HISTORY OF EDUCATION.

#### THE PRACTICAL TEACHER'S PROBLEMS.

To be delivered by Professor J. ADAMS, M.A., B.Sc., F.C.P., Professor of Education in the University of London.

The Second Course of Lectures (Thirty-sixth Annual Series) will commence on Thursday, October 1st, at 7 p.m.

The matters to be dealt with are such as interest all classes of teachers, and will be treated with that frankness that is possible in an unreported discourse, but is out of the question in a printed book. While the lecturer will lose no opportunity of indicating how present educational conditions may be improved, he will take the present conditions as the basis and show how to make the best of things as they are. The Lectures will be copiously illustrated by references to actual experience in all kinds of Schools.

#### SYLLABUS.

I. (Oct. 1.) *The Teacher's Library*: three main sections, books needed by teacher as (a) human being, (b) knowledge-monger, (c) educator: (a) and (c) too often neglected: special value of books used by teacher during childhood: the upper and lower limit of professional books under (c): possibility of excess in educational theory: plea for greater recognition of newer class of literary presentations of educational problems: teaching "the inarticulate profession": practical help that may be had from such books: how to use educational periodicals.

II. (Oct. 8.) *How to get some good out of Psychology*: need for a change in the point of view: rational and experimental psychology: need of both by the teacher: danger of pedantry in both: place of the proposed middleman between the psychologist and the practical teacher: the teacher must be allowed to direct the psychologist (not the psychologist the teacher) as to the results to be sought: list of things the teacher wants to know, compared with the list of things the psychologist wants to tell him: teacher must not confine himself to child-psychology, his profession demands the treatment of his fellow adults as well.

III. (Oct. 15.) *How to deal with Officials*: an example of the teacher's need of adult psychology: the difference between the human being and the official: the invariable third: official questions and answers: how to interpret them: the official mind and how to approach it: an instructive bit of law: the official art of compromise: manipulation of conflicting official regulations: the whole question reviewed from the point of view of the teacher as himself an official.

IV. (Oct. 22.) *How to deal with Parents*: generally wrong attitude of teachers towards parents: *in loco parentis* theory: "foster parent": getting at parents through children and *vice versa*: parents' antagonism to school authority has

definite relation to their social rank: special difficulties of different classes of teachers: conflicting influences of fathers and mothers: genuine co-operation between school and home: golden mean between parental indifference and interference.

V. (Oct. 29.) *How to Learn*: the other side of teaching: absence of the desire to know: how to rouse it: even when desire is present there is difficulty enough: kinds of learning: reproduction: the dynamic view: constructive learning: rhythm of learning: concentration and diffusion: fallacies about thoroughness: temporary and permanent learning.

VI. (Nov. 5.) *Class Management and Teaching*: ordinary psychology deals with the individual: teacher needs collective psychology as well: relation of class to crowd or mob: minimum number to constitute a class: sympathy of numbers: class leaders: difference between class teaching and private coaching: advantages and difficulties in having to teach several persons at the same time: the average pupil: the type: the composite: the ghostly class.

VII. (Nov. 12.) *How to combine Lecturing and Teaching*: teachers' general disapproval of lecturing: nature of lecturing as opposed to teaching: newer methods of teaching history, geography, and geometry are demanding a certain amount of lecturing: dangers of lecturing in schools as compared with colleges: the pupils' share in the process of lecturing: the art of listening: intermittent hearing: the lecturer's relation to the text-book.

VIII. (Nov. 19.) *Written work in School*: absolute necessity for a good deal of written work in school: note-taking, exercise writing, essays: drudgery of correction: the surd of efficient correction in (a) quantity, (b) quality: co-operative correction: psychological dangers of correction: the norm of correction: spelling and dictation exercises: analysis of most common errors and their causes.

IX. (Nov. 26.) *Verbal Illustration*: nature of illustration in general: distinction from exposition: mental backgrounds: relativity of illustration to the materials at command: exemplification: enumeration: nature of analogy and its place in illustration: the metaphor and other illustrative figures: how to find suitable verbal illustrations: source books of illustration.

X. (Dec. 3.) *Graphic Illustration*: the actual object and the model as means of illustration: the value of the picture as illustration, especially as compared with a verbal description: different illustrative values of a picture according as it is used for intellectual, moral, or aesthetic teaching: the diagram as compared with the picture: dangers that lurk in diagrammatic illustration: certain weaknesses in our space sense: supremacy of the straight line in illustration.

XI. (Dec. 10.) *How to deal with Dullness*: nature of dullness: its relativity to time and subject: the temporary dunce: the permanent dunce: the all-round dunce: the specialized dunce: the scale of dullness: the "defective point": subjective and objective dullness: stage at which objective dullness is welcomed by the pupil: the tyranny of "problems," and the legitimate claims of the relatively dull.

XII. (Dec. 17.) *The Problem of Examinations*: various functions of examinations: teacher as examiner: how to prepare an examination paper: allocation of marks: how to make the best of the external examiner: the personal equation: the use of "old examination papers": preparation of "set books": "the index" in revision of examination work: how to prepare pupils for an external examination with the minimum educational damage.

**The Fee for the Course of Twelve Lectures is Half-a-Guinea.**

\*.\* The Lectures will be delivered on THURSDAY EVENINGS, at 7 o'clock, at the College, Bloomsbury Square, W.C.—Members of the College have free admission to all the Courses of Lectures.

# From Messrs. METHUEN'S NEW LIST

## A HISTORY OF GREAT BRITAIN: From the Coming of the Angles to the Year 1870.

By E. M. WILMOT-BUXTON, Author of "Makers of Europe." With 20 Maps. Crown 8vo, 3s. 6d.

This book attempts to break through the conventional lines on which History class-books are laid down. With very few exceptions these books make the reign the chapter-limit, and take each event in chronological order. In this book each chapter will be found to deal with one great movement, which is traced in cause, events, and result. Another feature is the close connexion which has been maintained throughout with European History.

## A SHORT HISTORY OF GREECE, to the Death of Alexander the Great. By WALTER S. HETT, B.A., Assistant Master at Brighton College. With Maps. Crown 8vo, 3s. 6d.

This book is intended primarily for the use of students reading for the Oxford and Cambridge Higher Certificate, and secondarily as an introduction to a wider study of the subject.

## A SCHOOL LATIN GRAMMAR. By H. G. FORD, M.A., of Bristol Grammar School. Crown 8vo, 2s. 6d.

The author has endeavoured to simplify both accidence and syntax. Both in the accidence and syntax what is essential for beginners is carefully separated, by a system of typing or paging, from what they may neglect. The book may thus be used by boys of all forms.

## A JUNIOR LATIN PROSE. By H. N. ASMAN, M.A., B.D., of Owen's School, Islington. Crown 8vo, 2s. 6d.

The "Junior Latin Prose" is written primarily, though not exclusively, with a view to the Junior Locals. It contains explanation of, and exercises on, the chief rules of Syntax, with special attention to points which cause difficulty to boys, and concludes with exercises in Continuous Prose.

## EXAMPLES IN ELEMENTARY MECHANICS, Practical, Graphical, and Theoretical.

By W. J. DOBBS, M.A., Author of "Elementary Statics." With 51 Diagrams. Crown 8vo, 5s.

[Text-books of Science.]

This book is intended for use at Schools and Technical Institutes, for Army and Navy Candidates, and Students of Engineering. It consists of some 1400 examples in Elementary Statics and Kinetics, and is designed for use without an accompanying text-book.

## AN ORGANIC CHEMISTRY for Schools and Technical Institutes. By A. E. DUNSTAN, B.Sc. (Lond.), F.C.S., Head of the Chemical Department, East Ham Technical College. With many Illustrations. Crown 8vo, 2s. 6d. [Text-books of Science.]

This new book, which has not been prepared to meet the requirements of any particular examining body, is intended for the use of the higher forms of schools taking the Special Science Course, and as a first year text-book in Technical Institutes.

## FIRST YEAR PHYSICS. By C. E. JACKSON, M.A., Senior Physics Master, Bradford Grammar School. With 51 Illustrations and numerous Examples. Crown 8vo, 1s. 6d. [Text-books of Science.]

This book deals with such subjects as may reasonably be included in a first year course of Physics for Secondary Schools—the processes of measurement and the elementary principles of Hydrostatics and Mechanics. It is an attempt on the part of the author to provide a text-book which shall be a useful supplement to the lessons of the classroom and at the same time direct the experimental work of the laboratory.

## JUNIOR ENGLISH. By F. J. RAHTZ, M.A., B.Sc., Lecturer in English at the Merchant Venturers' Technical College, Bristol. Author of "Higher English." 1s. 6d.

This book is intended for the Lower Forms (First and Second Years) of Secondary Schools. It deals with grammar, the construction of phrase and sentence, analysis, parsing, expansion, condensation, composition, paraphrasing, and many other exercises in the use of English.

## ENGLISH LIFE 300 YEARS AGO: Being the first two chapters of Mr. G. M. Trevelyan's "England under the Stuarts." Edited by J. TURRAL, B.A., Head Master of the Blackpool Secondary School. Crown 8vo, 1s.

This little book will be a welcome and useful addition to the prose books for the year in the English Literature of Middle and Upper Forms of Secondary Schools.

## A PRELIMINARY GEOMETRY. By NOEL S. LYDON, of Owen's School, Islington, Author of "A Junior Geometry." With 159 Diagrams. Crown 8vo, 1s.

This book is intended for the use of beginners. The treatment of the subject is mainly experimental and practical, and the ground covered is sufficient to enable the pupil to pass to the study of a formal course of theorems.

## METHUEN'S SIMPLIFIED FRENCH TEXTS

Edited by T. R. N. CROFTS, M.A. 1s. each.

Simple translation books which provide complete stories instead of a succession of little anecdotes. Vocabularies have been added, in which the chief idioms are explained.

**L'Histoire d'une Tulipe.** Adapted by T. R. N. CROFTS, M.A.

**Abdallah.** By E. LABOULAYE. Adapted by Mrs. J. A. WILSON.

**La Chanson de Roland.** Adapted by H. RIEU, M.A.

**Mémoires de Cadichon.** Adapted by J. F. RHOADES.

**Le Docteur Matheus.** Adapted by W. P. FULLER, M.A.

**L'Equipage de la Belle Nivernaise.** Founded on Daudet's "La Belle Nivernaise." Adapted by T. R. N. CROFTS, M.A.

**La Bouillie au Miel.** Adapted by P. B. INGHAM, B.A.

**Jean Valjean.** Adapted by F. W. M. DRAPER, B.A.

**L'Histoire de Pierre et Camille.** Adapted by J. B. PATTERSON, M.A.

**La Bataille de Waterloo.** Adapted by G. H. EVANS, M.A.

**Remy, Le Chevrier.** Adapted by E. C. CHOTTIN, B. ès L.

## METHUEN'S SIMPLIFIED GERMAN TEXTS

Edited by T. R. N. CROFTS, M.A. 1s. each.

A series of German texts, uniform with the French texts above.

**Der Müller am Rhein.** Founded on Brentano's Märchen "Von dem Rhein und dem Müller Radlauf." Adapted by Miss A. F. RYAN.

**Undine und Huldbrand.** Founded on Fouqué's "Undine." Adapted by T. R. N. CROFTS, M.A.

**Die Geschichte von Peter Schlemihl.** Founded on Chamisso's "Peter Schlemihl's wundersame Geschichte." Adapted by R. C. PERRY, M.A.

**Die Nothelfer.** Founded on "Die Vierzehn Nothelfer," by W. H. Eiehl. Adapted by P. B. INGHAM, B.A.

## BOOKS FOR THE LOCAL EXAMINATIONS

### SET BOOKS

**A Historical Geography of the British Empire.** By H. B. GEORGE, M.A. Second Edition. 3s. 6d. [Oxford Local.]

**The Student's Modern and Historical Atlas of the British Empire.** Demy 8vo, 4s. 6d.

It is the Historical Atlas best adapted to use with Mr. George's "Historical Geography of the British Empire." Prospectus free.

**The Gospel according to St. Matthew.** Edited by E. WILTON SOUTH, M.A. With Three Maps. Crown 8vo, 1s. 6d.

**The Acts of the Apostles.** Edited by A. E. RUBIE, D.D. 2s.

**The First Book of Kings.** Edited by A. E. RUBIE, D.D. 2s.

### GENERAL BOOKS

**A Junior English Grammar.** By W. WILLIAMSON, B.A. With numerous Passages for Parsing and Analysis, and a Chapter on Essay Writing. Fourth Edition. 2s. [Junior.]

**A Junior French Grammar.** By L. A. SORNET and M. J. ACATOS. Second Edition. 2s. [Junior.]

**A Junior French Prose.** By R. R. N. BARON, M.A. Third Edition. 2s. [Junior.]

**A Junior Geometry.** By NOEL S. LYDON, of Owen's School, Islington. With 276 Diagrams. Sixth Edition. 2s. [Junior.]

**Elementary Experimental Science.—PHYSICS,** by W. T. CLOUGH, A.R.C.S.; **CHEMISTRY,** by A. E. DUNSTAN, B.Sc. Sixth Edition. 2s. 6d. [Junior.]

**Elementary Experimental Chemistry.** By A. E. DUNSTAN, B.Sc. Second Edition. 2s. [Junior.]

**Largest Stock of Second-hand  
School, Classical, Mathematical,  
& Scientific Books in London.**

Established

1854.

**KEYS and TRANSLATIONS.**

**BOOKS BOUGHT.**

New and Second-hand.

*All Enquiries  
answered.*

**J. POOLE & CO.,**

104 Charing Cross Road,

and 2 Manette Street, Soho, LONDON, W.C.

**EDUCATIONAL BOOKSELLERS**

**THE EDUCATIONAL SUPPLY ASSOCIATION, LTD.,**

42 HOLBORN VIADUCT,  
LONDON,

**SUPPLY EVERY SCHOOL REQUISITE,**

**PUBLISH AND SEND GRATIS AND POST FREE THE FOLLOWING CATALOGUES:—**

CATALOGUE OF SCHOOL STATIONERY AND REQUISITES;  
CATALOGUE OF SCHOOL TEXT-BOOKS;

CATALOGUE OF SCHOOL FURNITURE;  
CATALOGUE OF REWARD BOOKS AND PRIZES;  
CATALOGUE OF CHEMICAL APPARATUS, CHEMICALS, AND REAGENTS.

**SCHOOL FURNITURE.**



**THE STANTON DESK.**

Many thousands of these desks have been sold.

The School Furniture supplied by the Association is manufactured on **HYGIENIC PRINCIPLES.** The proportions of the different parts of the STANTON DESKS are carefully arranged in relation to each other: the desk portion slides backwards and forwards, allowing the edge of the desk to be vertically over the edge of the seat when used for writing, and also providing ample room for standing or sitting comfortably at other times.

The EDUCATIONAL SUPPLY ASSOCIATION also supply a **PATENT ADJUSTABLE DESK,**

in which the height of the desk and seat can be adjusted independently, the back and footrail also being adjustable. This desk has been supplied throughout the University College School at Hampstead recently opened by the King.

**PUBLICATIONS, &C., FOR SECONDARY SCHOOLS**

<p><b>REGISTERS.</b> Admission Registers. Attendance Registers. Pupil-Teachers' Registers.</p>	<p><b>TEXT-BOOKS.</b> <b>HIGHER SCHOOL SERIES.</b> Arithmetic. Geography. Grammar. History.</p>
<p><b>MATHEMATICAL INSTRUMENTS, &amp;C.</b> Simple Boxes of Reliable Instruments. Safety Pencil Compass for Pocket or Satchel. Special Boxwood Rules and other accessories.</p>	<p><b>STATIONERY.</b> Nature Note Books. Science Note Books. Graphical Note Books. Graphical Paper.</p>
<p><b>MARK BOOKS.</b> Owen's School Journal. Simplex Journal. Rose Scholars' Mark Book.</p>	<p><b>COPY BOOKS.</b> Four Series with four different styles of Writing. Upright. Semi-Upright. Civil Service. Sloping Hand.</p>
<p><b>SCHOOL HYMN BOOK.</b> <b>ANALYSIS BOOKS.</b></p>	

**MACMILLAN & CO.'S NEW BOOKS.**

**A SCHOOL ARITHMETIC.** BY **H. S. Hall, M.A.,**  
AND **F. H. Stevens, M.A.**

Complete, with Answers, 4s. 6d.; without Answers, 3s. 6d. Or, in Two Parts—Part I., with Answers, 2s. 6d.; without Answers, 2s. Part II., with Answers, 2s. 6d.; without Answers, 2s. Answers, 1s. KEY in Preparation.

This work follows closely the recommendations of the Mathematical Association.

*THE ATHENÆUM*.—"We consider that the book, which covers thoroughly the whole of Arithmetic and a good deal of what is usually called Algebra, marks a distinct advance in mathematical teaching, and is worthy of the high reputation of the authors."

PART II. AND COMPLETE BOOK JUST PUBLISHED.

**A Modern Arithmetic with Graphic and Practical Exercises.**

By **H. SYDNEY JONES, M.A.** Parts I. and II., with or without Answers, 2s. 6d. each. Complete, with or without Answers, 4s. 6d.

**Practical Arithmetic and Mensuration.** By **F. CASTLE, M.I.M.E.** 2s.

**A New Algebra.** By **S. BARNARD, M.A.,** and **J. M. CHILD, B.A., B.Sc.** Volume I., containing Parts I., II., and III. 2s. 6d. [Shortly.]

Part I.—A generalized Arithmetic in which letters are employed to represent Natural Numbers and the idea of Algebraic Form is introduced.

Parts II. and III.—Zero and Negative Numbers and Fractions are considered. These two new classes of numbers are defined so that the expressions  $a-b$  and  $a/b$  may always have a meaning.

**The International Geography.** By SEVENTY AUTHORS. Edited by **H. R. MILL, D.Sc.** With 489 Illustrations. New Edition. Complete, 12s. net.

The following Sections are issued separately, with Exercises and Examination Papers in the Text:—Preliminary Section: PRINCIPLES OF GEOGRAPHY, 1s. 6d.; I. BRITISH ISLES, 1s.; II. EUROPE, 2s. 6d.; III. ASIA, 2s.; IV. AUSTRALIA, 1s. 6d.; V. NORTH AMERICA, CENTRAL AMERICA, AND THE WEST INDIES, 2s.; VI. SOUTH AMERICA, 1s. 6d.; VII. AFRICA, 2s.

\* \* Detailed Prospectus on application.

**Macmillan's Orographical Map of Europe.** Designed by **B. B. DICKINSON, M.A.,** and **A. W. ANDREWS, M.A.** Cloth, mounted on Rollers, 15s. Also Notes to same, limp cloth, 1s.

**English Literature for Secondary Schools.**

NEW VOLS. Edited by **J. H. FOWLER, M.A.**

FIRST YEAR.

**Stories from the Arabian Nights.** Edited by A. T. MARTIN, M.A. 1s.

**Grimm's Fairy Tales.** A Selection from the "Household Stories." Edited by A. T. MARTIN, M.A. 1s.

**Stories from a Wonder-Book for Girls and Boys.** By NATHANIEL HAWTHORNE. 1s.

SECOND YEAR.

**A Book of Poetry illustrative of English History.** Edited by G. Dowse, B.A. Part I.: A.D. 61-1485. 9d.

Part II.—The Tudors and Stuarts. 9d.

Part III.—The Hanoverian Dynasty. 9d.

**Irving's Rip Van Winkle, The Legend of Sleepy Hollow,** and other Sketches. Edited by H. M. BULLER, M.A. 1s. [In the press.]

**Scott's Tales of a Grandfather.** First Series. Edited by Miss J. HUTCHISON. 1s.

THIRD YEAR.

**Cavendish's Life of Wolsey.** Edited by MARY TOUT, M.A. 1s.

**Indexing and Précis Writing.** By **G. B. BEAK, M.A., F.R.G.S.** Limp cloth, 2s. 6d. KEY to same, 1s. 6d. net.

CHEAPER IMPRESSION.

**Old-English History.** By **EDWARD A. FREEMAN, D.C.L.** With Maps. 3s. 6d.

**Dictionary of the English and German Languages.**

By **WILLIAM JAMES.** Forty-first Edition, entirely rewritten and greatly enlarged. German-English and English-German in one volume. 4s. 6d.

*SCHOOL GUARDIAN*.—"If this were not a thoroughly useful and good dictionary, it could not have reached forty-one editions. It is well arranged and clearly printed. Students on the look-out for a German dictionary should buy this one."

**A French Grammar.** With Exercises and Supplementary Reading for Schools and Colleges. By **HUGO P. THIESE** and **JOHN E. EFFINGER.** 6s. 6d.

**The Wonderful House that Jack has.** A Reader in Practical Physiology and Hygiene for use in School and Home. By **COLUMBUS N. MILLARD.** Illustrated. Crown 8vo. 3s.

**Lesson Stories for the Kindergarten Grades of the Bible School.** General Subject: "God the Workman. The Creator and His Works." By **LOIS SEDGWICK PALMER.** Kindergarten Outline by Prof. G. W. PEASE. Globe 8vo. 3s. net.

MACMILLAN & CO., LTD., ST. MARTIN'S STREET, LONDON, W.C.

# BLACKIE & SON'S LIST

## Magnetism and Electricity and The Principles of Electrical Measurement.

By S. S. RICHARDSON, B.Sc., Associate of the Royal College of Science, London; Lecturer in Physics, Municipal Technical School, Liverpool. Crown 8vo, cloth boards, 5s. net.

The object of this book is to provide a sound and systematic course of study in the main principles of Electricity and Electrical Measurement. It is written to meet the requirements of students who have already, in a first year's course, made some acquaintance with the elementary descriptive parts of the subject, and are commencing the study of Electricity in its more quantitative aspects—either as a branch of pure Physics or as a preparation for a course of Applied Electricity.

## Elementary Electrical Engineering.

By JOHN M. SHARBY, B.Sc., Assistant Lecturer, University College of South Wales, Cardiff. Copiously Illustrated. 3s. net.

Written to meet the needs of practical students, as an aid to class work, and for private reading.

## Trigonometry: Theoretical and Practical.

Embodying Graphic and other Solutions by R. C. BRIDGETT, M.A., B.Sc., F.C.S., and WILLIAM HYSLOP, M.A., B.Sc. A practical Trigonometry on experimental lines, covering the whole ground of a school or ordinary college course. Based throughout on the new and more scientific methods, with logarithm table and answers. 4s. 6d.

## Experimental Trigonometry.

By E. C. BRIDGETT, M.A., B.Sc., F.C.S. An Introductory course in Trigonometry on experimental lines. Containing many exercises and examination papers. 1s.

## Elementary Geometry of the Straight Line, Circle, and Plain Rectilineal Figures.

By CECIL HAWKINS, M.A., Senior Mathematical Master at Haileybury College. Crown 8vo, cloth, with or without Answers, 3s. 6d.

## A Text-book of Organic Chemistry.

English Translation from the German of A. BERNTHSEN, Ph.D. Edited by J. J. SCDBOROUGH, Ph.D., D.Sc., F.I.C. New Edition. Revised to date. 674 pp., crown 8vo, cloth, 7s. 6d. net.

## Systematic Inorganic Chemistry from the Standpoint of the Periodic Law.

A Text-Book for Advanced Students. By R. M. CAVEN, D.Sc., and G. D. LANDER, D.Sc. Crown 8vo, cloth, 6s. net.

## A Brief Survey of British History.

By G. TOWNSEND WARNER, M.A. With Tables, Summaries, Maps, Notes, &c. 1s. 6d.  
"The best English History for younger pupils. Used in all leading Preparatory Schools, and the Royal Naval College, Osborne."

## A Brief Survey of European History.

By ARTHUR HASSALL, M.A. An excellent general sketch of European History from Charlemagne to the present time. Crown 8vo, cloth, 4s. 6d.

## Landmarks of European History.

By F. H. M'DOUGALL, M.A. Oxon., late Assistant in the Tewfikieh School and Training College, Cairo. With many Coloured and Sketch Maps, Index, &c. 3s. 6d.

## Heroes of the European Nations.

From Early Greece to Waterloo. By A. R. HOPE MONCRIEFF. 1s. 6d.

## Readings in English History.

From Original Sources. Edited by R. B. MORGAN, B.Litt., and E. J. BARRY, B.A. Illustrated. Vol. I., B.C. 54 to A.D. 1154, 2s. Vol. II., 1154 to 1485, 2s. 6d. Vol. III., 1485 to 1688, 2s. 6d. (just ready).

## Combined Course of Literary Reading and Composition.

Illustrated from Famous Pictures. Edited by LEWIS MARSH, M.A. 2s.

## English Poetry for the Young.

Selected by S. E. WINHOLT, M.A. A chronological selection of English poetry, clearly printed and well bound in cloth. 1s.

## The Plain Text Shakespeare.

The greater Plays. Text only. No Notes. In limp cloth cover. Price 4d. each.

## The Teaching of English.

By A. E. ROBERTS, M.A., Principal Lecturer in English at the Islington Day Training College, and A. BARTER, L.L.B., late Head Mistress of the Baintree Pupil-Teacher School. Price 2s. net. [Just Published.]

Much pioneer work lies before the English teacher, and the present book is an attempt to suggest some of the lines along which he may proceed. No space has been devoted to the teaching of reading and writing as mechanical processes, since these subjects have been frequently treated of in books in school method. The emphasis has been laid on the teaching of literature and of composition.

*The most recent Observations and Conclusions of Scientific Geographers.*

# GEOGRAPHY STRUCTURAL; PHYSICAL; COMPARATIVE.

A TEXT-BOOK FOR SENIOR STUDENTS.

By J. W. GREGORY, D.Sc., F.R.S., Professor of Geology in Glasgow University.

With an Entirely new series of COLOURED MAPS. Large 8vo. Price 6s. net.

THE main purpose of this book is, as Professor Gregory states in his preface, to put before the student "the most important facts concerning the Structural Geography of the Earth, and the evolution of our present continents from older lands."

## A First Geography.

With Coloured Pictures and Diagrams on every page. By C. A. E. RODGERS, M.A., F.R.G.S., Assistant Master, Bradford Grammar School, and an Examiner in Geography to the College of Preceptors. Small 4to, cloth, 1s. [Just Published.]

## Advanced Book-keeping.

For Commercial and Accountancy Classes. By WALTER GRIERSON, Author of "Practical Book-keeping for Commercial Classes." Crown 8vo, cloth, 2s. 6d. net. [Just Published.]

## The Longer French Texts.

Printed in large type. Cloth limp, 8d. each. Brief Notes, Questionnaire, Memory List of Useful Phrases and Vocabulary.

## The Little French Classics.

Price 4d. each book. All French authors in prose and verse, from the *Chansons de Geste* to *Daudet* and *Paul Bourget*.

## Récits tirés des Classiques français.

6d. each. Edited by Mme. C. BAGNALL, of Clapham High School, and Mlle. VIVIER.

The Stories of the great Dramatists told in simple French, suitable for Lower and Middle Forms.

## A Latin Course.

By E. H. SCOTT, B.A., and FRANK JONES, B.A. First Course, cloth, 1s. 6d. Second Course, cloth, illustrated, 2s. 6d.

## A First Latin Grammar.

By E. H. SCOTT, B.A., late Head Master of Boys' Secondary School, Bamberton, Transvaal; and FRANK JONES, B.A., Assistant Master, King Edward's School, Aston, Birmingham. Crown 8vo, cloth, 2s.

## BLACKIE'S ENGLISH TEXTS.

6d. each. Blue limp cloth covers. 72 volumes. To be used in correlation with the study of English Literature and History.

Among the leading Authors are:—

Malory.	Gibbon.	Drake.	Thucydides.	Dickens.
Froissart.	Macaulay.	Raleigh.	Plutarch.	Charles Lamb.
Bacon.	Carlyle.	Anson.	Livy.	Kingsley.
Burke.	Prescott.	Hawkins.	Marcellinus.	Swift.
Ruskin.	Josephus.	Cook.	Lucretius.	Borrow.

Messrs. BLACKIE & SON will be pleased to send full lists of Books suitable for Oxford and Cambridge Local Examinations, 1909, post free on application.

**BLACKIE & SON, Ltd., 50 Old Bailey, E.C.**



CONTENTS.

	Page		Page
Leader: Examination and Inspection .....	383	Correspondence: International Moral Education Congress .....	396
Notes .....	384	The International Art Congress.....	396
Passing of the Irish Universities Bill—The International Art Congress—Scottish Universities and the Treasury—English and Scottish Educational Interest—The Neglect of German—Hats and no Hats.		London Scholarships (L.C.C.): A Criticism.....	400
Summary of the Month.....	386	College of Preceptors: Certificate Examination—Errata .....	401
The Educational Ladder .....	389	Reviews .....	402
Current Events .....	393	The Riddle of the "Bacchae" (Norwood); Factors in Modern History (Pollard).	
Fixtures—Honours—Endowments and Benefactions—Scholarships and Prizes—Appointments and Vacancies.		General Notices .....	404
		First Glances .....	408
		Mathematics .....	410

The Educational Times.

Examination and Inspection.

PERSONS not yet beyond middle age can remember the Revised Code and payment by results. That system, associated with the first enthusiasm for competitive examinations, never gained the approval of elementary teachers, and gave way to arrangements leaving more to the individual discretion of inspectors. In higher schools the belief in examinations as a test of efficiency has been more persistent, but now that Matthew Arnold's famous dictum, "Organize your secondary education," is being put into practice, a different set of criteria are in the ascendant, and the reign of the inspector has begun in connexion with another group of schools. The true test of the efficiency of a school is, no doubt, to be found in its success in preparing its pupils for life. If we could express with mathematical accuracy the character of the material on which a school begins its work, and formulate in the same way the qualifications of its pupils when they leave school and a few years later, the problem would be solved. But here we are faced by the infinite complications involved in all questions dealing with human nature. Neither the data nor the results admit of being precisely recorded, even in a limited field. At best we can get inductions, based on the incidental experience of more or less competent observers. The present writer remembers a conversation in the hunting field with a distinguished General, in which the merits of the young officers trained in a particular school were the subject of considerable eulogy; and in a few years similar *obiter dicta* may be expressed by naval officers on the value of the new system of training for the navy. Such opinions are necessarily vague and are not altogether free from the "personal equation" of which even astronomical observers are bound to take account. Failing a complete solution, it will be well to examine the relative values of inspection and examination tests.

To begin with inspection. It does not, or should not, claim to deal with much more than the machinery employed to produce results. An Inspector can judge of the school buildings and furniture; he can criticize the qualifications, and to a certain extent the methods, of the teachers

and the apparent receptivity of their classes; he can form an opinion on the time-table, the system of promotion, and the books in use—in a word, he can pass a *prima facie* judgment on the action of the school authorities, including the governing body, and the *Zweckmässigkeit* (to use a German word) of the general arrangements. The obvious objection to be raised against inspection as a test is that it stakes too much on the judgment of a single person and that his fancies in favour of particular methods may seriously interfere with the value of his report. Another point is that there are but few of the best type of inspectors available. No doubt the best would be successful schoolmasters still in the prime of life; but it would be impossible to offer to such men—even if they were willing, on other grounds, to give up teaching—inducements to place their services at the disposal of the authorities. The policy of the Board of Education has been to create an inspectorate by taking young men of fair attainments and moderate experience and employing them at first under supervision. The Universities have no organized inspectorate, but employ the best available talent among dons and retired schoolmasters. No doubt such a system lacks permanence and method; but it is, on the whole, acceptable to the profession, and it is quite free from the taint of officialism. To sum up, the chief use of inspection is, on the one hand, to put governing bodies through their paces and to keep isolated schools in touch with the best traditions of the profession, and, on the other hand, to let the public know how far each school fulfils the most obvious conditions of efficiency.

Examination has a different function. It deals with results at different stages of the school career. Such results are, no doubt, a function of two independent variables—the skill of the teachers and the ability and receptivity of the pupils. The silk purse may be knitted with consummate skill, but the result can hardly be satisfactory if the material is largely intermixed with hog's bristles. A common objection is that examinations, especially public examinations on a large scale, tend to encourage "cram"—a much abused word. "Cram" may include everything from careful revision of subjects judiciously studied to the attempt to induce a pupil to retain by force of memory collocations of words the drift of which has never been thoroughly understood.

Many teachers will remember as their most profitable lessons those of the few days a month before the end of term when they were directing the preparation of their classes for examination, answering questions, and filling up gaps in their knowledge—in fact, the very opposite of “the dull drilled lesson learned and conned by note.” There is an amusing story of the great Prof. de Morgan, showing how the function of revision may be misunderstood. His practice was, after every lecture, to give mathematical problems to his students to be solved before the next lecture. One day, just before the end of term, no solutions were forthcoming. “I see what you have been doing,” said the Professor, indignantly, “you have been cramming for my examination; but I will set you an examination in which all your cram shall avail you nothing.”

Of course, some subjects lend themselves more readily than others to examination. Mathematics and all forms of translation can be examined in such a way as to bring out trained aptitude rather than mere memory and drill. In other subjects, such as history and geography, which are being more and more taught in a way to cultivate the reasoning powers, there are obvious difficulties. Reasoning is impossible without data; you cannot discuss the climate of Chili and the persistence of the nitrate beds without knowing where Chili is. A certain amount of topographical drill is therefore essential, just as grammatical accuracy is necessary for doing Latin prose or for translating an unseen passage of Latin. The examiner must then try and test not only the reasoning power of the examinees, but also their knowledge of facts, especially if he has to deal with comparatively early stages of education. Lastly, the public generally believe in examinations as an impartial and carefully graduated test, and the public are not far wrong.

The conclusion, then, is that both inspection and examination have their proper functions. Each can discover merits and defects which the other is liable to overlook. Possibly a single expert from without, acting partly as inspector and partly as examiner in close co-operation with the teachers, might be the most competent person to pronounce judgment on a school; but the ordinary principle of the division of labour makes this extremely difficult, and it is better to be content with a combination of examination, which is already, in a sense, a fine art, and of inspection, which it is hoped will soon come to be equally perfected.

### NOTES.

MR. BIRRELL deserves the highest personal congratulation on carrying his thorny Irish Universities Bill. It is not too much to say, with a Dublin contemporary, that, “in conducting it through the House of Commons and Committee, he showed not only courage but the most admirable temper, patience, courtesy, and firmness.” Now we can only hope that the institutions will be conducted and taken advantage of in the way that Mr. Birrell intended. Let the new institution in Dublin be truly a University and truly national; let it be, in the fervent words of a distinguished Irishman, “a University racy of the soil, instinct with the genius and in sympathy with the highest aspirations of the Irish race.” President Hamilton is exultant at Belfast:

his heart is filled “with joyful anticipations of the dawning of a new era not only for Queen’s, but for Belfast, for Ulster, for education, for the advancement of knowledge over the world.” He is certainly to be permitted a high note on the crowning of his long and laborious efforts for Queen’s. No doubt these new Universities, like older places of higher education, will soon learn to clamour for more money. If they touch the heart and the imagination of the Irish people, they will find little difficulty in strengthening their funds from local generosity; and if they prove their educational worth, they will meet with ready recognition along with other educational suppliants at Westminster. Meantime, the important thing is to justify to the world the confidence of Parliament.

THE International Art Congress has steadily gathered momentum, and its third meeting, at the University of London, has far outstripped previous records. The papers and discussions treated important questions, theoretical and practical, all over the range of the subject. They ought to leave a strong impression both on professional and on public opinion. Though admitting eventually that art education in this country had made immense progress within his life-time, the Earl of Carlisle, the President, did not exactly flatter us upon our achievements. Nor did he mince his words in characterizing the Government’s neglect of the Congress. “The indifference of the Government to Art teaching,” he said, “is illustrated by their very marked neglect of this Congress: I attribute it, and I hope members of the Congress will attribute it, rather to extreme stupidity than to any intentional rudeness.” Sir Swire Smith, too, chastised the Government in the columns of the *Times*. The Exhibition in connexion with the Congress, showing the methods of instruction adopted in applying art to industry by the manufacturing nations of the world, is (he said) “by far the most important of the kind that has ever been held in any country, and lessons may be learned from it of far-reaching effect, not only upon the education of our people, but upon the development of our industries in their competition with the world”; and “yet, in spite of the international character and importance of the Congress—especially to this country—the British Government has appointed no official representative to it, although thirty-seven foreign Governments have done so.” Probably enough, the reason lies in some official tangle of red-tape; it cannot be that the Government is insensible to the importance of the occasion or careless of the questions under discussion. But the result is unfortunately open to an adverse construction.

WHEN the Principals of the four Universities of Scotland interviewed Mr. Asquith last winter with a request for a substantial increase of State endowment, Mr. Asquith properly intimated to them that there must first be an investigation of the facts. Mr. Lloyd-George has now announced the appointment of a Treasury Committee to make the investigation. There can be very little doubt that the results will satisfy the Treasury that the expansion of academic work and the dawn of improved methods justify a liberal response, however the actual response may be limited by the other multifarious claims on the public purse. The

Scottish Universities are also looking to the Scottish Education Bill. Clause 14 of that Bill provides for payment to the Universities "of such sums in respect of yearly maintenance expenditure as the Secretary for Scotland may determine after consideration of the results of such investigations as he may from time to time direct to be made." It is very probable that the Secretary for Scotland, once he gets his Bill through, will be content to make the initial payment from the Scottish Education Fund upon the conclusions of the Treasury Committee, without setting up a special investigation by the Scottish Office. But the Clause places the Universities under inquiry "from time to time," just as the University Colleges have to submit to inquiry as a condition of their receipt of the Treasury grants. There is not the least likelihood that such visitations will unduly control or hamper the action of the Universities of Scotland any more than they gratuitously vex the University Colleges of England; and even Universities are none the worse for knowing that the eye of the external critic is upon their operations.

PRINCIPAL MACALISTER, of Glasgow University, speaking recently at Edinburgh, remarked that "what struck one who had spent the best part of his life in England was to find that in Scotland education was regarded as one of the primary national interests. It was one of the interests that for three or four hundred years had been realized to be at the root of civic and national prosperity." Naturally, he went on to consider the origin of the difference he had observed between England and Scotland on the point:

The parent and the pupil in Scotland were sources of the impulse towards educational improvement in a manner which was absolutely unknown in England. His observation was that the English parent was perfectly content if left alone. In fact, he rather resented the fuss that was made about him. The ambition in Scotland was the ambition to be better educated. If they had only that motive power in England he was perfectly sure that the war between sects and denominations which so greatly troubled legislators in the South would very soon come to an end. The spirit which moved the parent and the pupil towards the improvement of primary education in Scotland had extended also to the Universities. One of the great refreshments to his spirit in coming to Glasgow was to find that there was so strong a movement there which only required to be led and guided to become effective towards the democratization, in the truest sense of the word, of University education. By democratization he meant not only that every citizen of the kingdom should have the opportunity of a University education, but that every citizen, regardless of his incapacity in mathematics or in Latin and Greek, should, within the limits of his power, have the opportunity of excelling in University education.

That Principal MacAlister's observation is accurate will scarcely be disputed. It might be well, then, to probe the matter still further, and to find out why it is that English and Scottish parents should regard education in such surprisingly different ways. If one could only put one's finger on the taproot of the difference, some practical results of a very remarkable character might be confidently expected to develop.

PROF. KIRKPATRICK, speaking on "Our Edinburgh Vacation Courses," referred to the teaching of German, and declared that it was lamentable that the subject was "so miserably neglected in this country."

In Russia and France, and in many other countries, German was one of the principal staples of education, and they all knew that German was absolutely indispensable to the classical scholar, the man of science, the man of literature, the man of business. None of these people could

possibly get on without a knowledge of both French and German. They often heard it said that these "horrid Germans" were cutting them out in science and in business. The reason was simply this, that Germans were more industrious, more persevering; and, instead of setting up hostile tariffs in this country to block out the "horrid Germans," it would be infinitely better if the British youth would learn the German tongue. He could not understand why the educational authorities of their schools did not insist upon the teaching of French and German. It seemed to him that their schools and their educational authorities had killed German, which was one of the things they were most in need of.

Wherever the blame may lie, there can be no doubt of the propriety of Prof. Kirkpatrick's insistence on the need of German.

THE following incredible statement, being in all the newspapers, must be true:—

The twin sons and two daughters of a gardener at Dartmouth have been refused admission to a local school because they were hatless. The father declines to allow his children to wear hats or caps, and while the dispute between him and the head master remains unsettled the children are being kept at home.

Hitherto we had imagined that it was the head, and not the hat, that was the object of a teacher's concern; but there may be greater thoroughness in looking after both than in limiting attention to one. On the other hand, a citizen that supplies four children at once to a school might appear to deserve some little consideration on matters of principle and conviction. Can it be that the Blue Coat boys have persistently shown a bad example as a hatless brigade? When Miss Beale was a schoolgirl and fainted in church, and found as she revived that some kindly hand was removing her bonnet, she "clung to it desperately, because she would not have her head uncovered in church." But Miss Beale was an exceptional personage, and school—*ad hoc*—is scarcely on a par with church. The Dartmouth head master seems, however, to be fortified by classical authority—not Greek or Roman, perhaps, but still in a sense classical. Do we not remember that, when M. Jourdain was precipitately starting to dance a minuet—not quite bareheaded even, but in his nightcap—his Maitre à danser decorously interposed: "Un chapeau, monsieur, s'il vous plaît"? It is not easy to imagine what would have eventuated if M. Jourdain had been as intractable as this recalcitrant paterfamilias. We remember a servant girl telling how a former mistress used to beat her vigorously and sometimes to "knock her 'sensible." The natural man does feel that there ought to be some swift summary provision for knocking a perverse head sensible—at all risks to the hat.

THE first contingent of the thousand school teachers from the United States and Canada who are to visit this country during the autumn and winter months to study English educational methods, will arrive on September 15. The Education Committee of the London County Council are preparing a special handbook for their use, which will also serve as a guide to the educational institutions of London. The Committee have also arranged that the visitors shall be allowed to attend all classes, lectures, &c., and a similar privilege has been conceded by the University of London. The London Teachers' Association and the National Union of Teachers will officially welcome the visitors, and many members have already arranged to act as guides. As meeting places and bureaux of information, the London Teachers' Association have assigned rooms in their offices in Fleet Street, and the National Union in their offices in Russell Square. Provincial centres are making similar arrangements, and the desire of all is to return the hospitality which the English teachers received on their visit to America.

## SUMMARY OF THE MONTH.

THE following resolutions on the religious education of the young were passed at the Lambeth Conference, and were afterwards recommended to the Church in an encyclical letter :

In the judgment of the Conference it is our duty as Christians to make it clear to the world that purely secular systems of education are educationally as well as morally unsound, since they fail to co-ordinate the training of the whole nature of the child, and necessarily leave many children deficient in a most important factor for that formation of character which is the principal aim of education.

It is our duty as Christians to maintain that the true end of Bible-teaching is a sound and definite Christian faith, realizing itself in a holy life of obedience and love, and of fellowship in the Church of Christ through the sanctifying grace of the Holy Ghost, and no teaching can be regarded as adequate religious teaching which limits itself to historical information and moral culture.

It is our duty as Christians to be alert to use in all schools every opportunity which the State affords us for training our children in the faith of their parents, and to obtain adequate opportunities for such teaching in countries where they do not already exist.

There is urgent need to strengthen our Sunday-school system, and the Archbishop of Canterbury is respectfully requested to appoint a Committee to report to him on the best methods of improving Sunday-school instruction, and on the right relations between Sunday-schools and the various systems of catechizing in church.

It is of vital importance that the Church should establish and maintain secondary schools, wherever they are needed, for children of the English-speaking race in all parts of the Anglican Communion; and the Conference earnestly supports the plea which reaches it for the establishment of such schools.

The Conference draws attention to the pressing need of the service of men and women who will consecrate their lives to teaching as a call from the Great Head of the Church.

The religious training of teachers should be regarded as a primary duty of the Church, especially in view of the right use to be made of the light thrown on the Bible by modern research; and teachers should be encouraged in all their efforts to associate themselves for the promotion of their spiritual life.

The Church should endeavour to promote and cultivate the spiritual life of the students in secondary schools and Universities, and should show active sympathy with all wisely directed efforts which have this end in view.

The Conference desires to lay special stress on the duty of parents in all conditions of social life to take personal part in the religious instruction of their own children, and to show active interest in the religious instruction which the children receive at school.

PREBENDARY REYNOLDS, Inspector of Church Training Colleges, states in his recent report that there are two objects in view at the present moment: (1) to maintain in all its fullness the opportunity for Church teachers to be trained as Church teachers and so to maintain the atmosphere of the colleges, and (2) to remove every obstacle hindering Nonconformists from obtaining all the advantages the Church can possibly give them. These objects, he says, are in no way incompatible. There are, however, three points to which attention should be directed on the general question:—

(1) The multiplication of colleges, day and other, is becoming so extravagant that soon the various colleges will have difficulty in filling up their numbers; they will be touting for students, which will degrade the whole subject of training. This is a matter into which competition should not enter; we do not want the cheapest article. There are various reasons which have produced this emulation, but the result will be damaging to all and will threaten a lowering of the standard that all will regret. In the present year, however, there are many who cannot get into college.

(2) The supply is already greater than the demand; never before have there been so many excellent teachers who have not been placed. This seriously affects teachers themselves, and all colleges will suffer alike, especially as certain educational authorities advertise the fact that they save from £1,000 to £2,000 a year from the rates by not employing trained teachers.

(3) A conscience clause by all means; but the Church ought not to be asked to train atheistical teachers—those who are enemies not only to us, but to all the sects. Certain applicants have stated that they have "no views," others avow themselves unbelievers. We must draw the line here. No teacher ought to be allowed to teach if he is an unbeliever; he may ruin a child's faith in a lesson on botany or history; and none of our opponents want that. Religion is an inseparable part of education; and, whatever the subject may be, an atheistical teacher is *hostis humani generis*, and our Nonconformist friends are quite as interested as we are in keeping him from contact with our children.

It has been resolved by the Board of Education to encourage the education of workpeople under the scheme promoted at the Universities of Oxford and Cambridge by increasing the grant from 5s. to 8s. 6d. per student attending the University classes. Liberal education is in this way recognized, as well as commercial and technical. The particular organization which will in this way benefit is the Workers' Educational Association, and thus the principle is fast being officially observed by the Government of encouraging the education of labour by means of the Universities. It is understood that this result has been brought about largely by the activity of some of the prominent Labour members, though many of them are, in the view of the supporters of the scheme, singularly lukewarm in helping it. Further developments in the connexion between the Universities and the Association are proceeding. A representative Labour Committee have met the Vice-Chancellor of Cambridge University and the heads of various colleges, and it is likely that at Cambridge will be found the same educational opportunities for the workmen as at Oxford. The movement is also extending to Scotland, where a conference will be held, probably next year, to establish a separate association.

THE Board of Education has issued (Cd. 4184) Regulations for the Training of Teachers for Secondary Schools. Funds have long been available for the purpose of assisting the training of elementary-school teachers, but there has hitherto been little official recognition of the necessity of making some systematic provision for the professional training of men and women intending to teach in secondary schools. Now, however, a Parliamentary grant of £5,000 has been made available from the Exchequer for this purpose, and the regulations under which the fund will be dispensed are of great interest. The Board has decided that the course of training must be taken after graduation or its equivalent and be confined to purely professional work. It is to be an indispensable condition for recognition as an efficient training college that there shall be access for the students, under proper conditions, to secondary schools which are thoroughly suitable for demonstration and practice, and not less than one-half of the staff must have been successful teachers for a reasonable time in secondary schools. Grants will be paid to colleges, in which the number of recognized students is not less than ten, at the rate of £100 in respect of every complete group of five recognized students, subject to the condition that the grant does not exceed one-half of the total sum paid for salaries on account of services in training the students. It is satisfactory to find so complete an appreciation of the imperative need that the staff responsible for the training of secondary school teachers must possess high academic qualifications and be, in addition, experienced and successful teachers. There has been in the past an uneasy feeling that much of the training available for secondary-school teachers was divorced too completely from schoolroom practice and over much concerned with theoretical and historical matters, and these regulations of the Board of Education will serve to inspire greater confidence in the value of the training provided in assisted colleges.

THE Regulations (Cd. 4187) for Technical Schools, Schools of Art, and other Forms of Provision of Education other than Elementary in England and Wales for the year 1908-9 do not show many changes, and those introduced are in the direction of greater efficiency and more elasticity. The limit imposed in previous years to the number of hours of instruction which may be counted for the purposes of grant has been relaxed—a fact that will encourage local education authorities to plan prolonged and well organized courses of evening instruction and help to remove a reproach that much of the work in evening classes has been scrappy, unrelated to local industries, and not part of a co-ordinated scheme. Greater encouragement is being given to vacation courses for teachers, and the sensible advice contained in the prefatory memorandum as to the necessity of securing due recreation for teachers during the progress of the holiday work deserves the careful study of the organizers of such courses. It is now laid down by the Board that there shall in future be a principal or head teacher in those institutions where, in the past, unrelated classes in charge of separate teachers responsible only to the managers have been held. The new regulation will, if the right type of head teacher is appointed, lead to a greatly improved state of things. Students will be able to receive much needed advice in planning suitable courses of study to assist them in their industrial pursuits, and the work of succeeding sessions will form part of a complete scheme. The

changes as a whole are conceived in a broad spirit and should assist to develop still further the excellent work that is being done in technical and other schools.

A NOTE to the Code of Regulations for Public Elementary Schools in Wales (including Monmouthshire) [Cd. 4170] states: "In last year's Code, a definite place in the curriculum of the school was provided for the Welsh language. Welsh was consequently introduced into many schools in which it had not been taught before. It is already possible to trace a twofold effect on the children—an increased interest in their work generally and a greater appreciation of good English. Careful attention is now paid in the training colleges to the teaching of Welsh, and it should not be difficult in the future, as it has been in the past, to secure bilingual teachers. It was not thought necessary, in last year's Code, to state that Welsh-speaking infants should be taught through the medium of their mother tongue. But the inspectors of the Board report that, in several schools, the infants are taught through the medium of a language they do not understand, or that they are taught to read and write two languages at the same time. The result is unintelligent reading; the children get into the habit of repeating words without attaching any meaning to them. The Board have therefore introduced a provision that infants should be taught through the medium of Welsh where Welsh is their mother tongue. It might be advisable, however, that they should receive two or three lessons a week in conversational English by the direct method: but the writing and the reading of a second language should come gradually, after the infant stage. Very general experience shows that the result will be a more speedy and a more perfect acquisition of English."

THE Report of the Departmental Committee appointed by the Board of Agriculture and Fisheries to inquire into and report upon the subject of agricultural education in England and Wales states:

During the past twenty years—the period covered by the Report—the foundations of a national system of agricultural education have been laid in England and Wales. In view of the strong support now given to agricultural education by the University of Oxford, it is in the national interest that the State should make an annual grant to the University similar to that made to other Universities with fully equipped agricultural departments. Future expenditure on higher education should provide for the better equipment of existing institutions rather than for an increase in their number. In developing the existing facilities, attention should be first given to securing a highly qualified staff. Many institutions employ too few teachers or relegate the teaching of important subjects to junior members of the staff. It is of special importance that high qualifications should be secured in the teachers of such subjects as agriculture, agricultural chemistry, and agricultural botany. The staff of the higher institutions should include men who are not only capable teachers of, but recognized authorities on, these subjects. Further developments in agricultural education will be difficult until a greater supply of well qualified teachers is available. This is a subject which demands the serious consideration of the Board of Agriculture. The facilities for agricultural instruction of a lower grade are unorganized, unsystematic, and wholly inadequate. The type of institution which appears to be exceptionally adapted to the needs of this country is the Winter Agricultural School. This school should aim at providing courses of study during the winter months for lads of from seventeen to twenty who have already gained some practical acquaintance with agriculture or horticulture. In the course of the next ten years from fifty to sixty of these schools should be provided in England and Wales. As a means of reaching and influencing those engaged in farming or gardening, the itinerant instructor is of great importance.

The Report deals with the work of the County Councils, agricultural education in other countries, existing facilities, practical results, Universities and University colleges, short winter courses at University and agricultural colleges, special courses for rural teachers, special agricultural schools, winter agricultural schools, local winter classes, dairying, poultry-keeping, bee-keeping, horticulture, cider-making, farriery, veterinary education, forestry, farm institutes, scholarships, finance, and national organization.

AN influential deputation, representing various branches of science, waited upon the Prime Minister to ask for an inquiry into the administration of the Natural History Museum at South Kensington. The deputation, which was introduced by three members of Parliament sitting for University constituencies—Sir William Anson, Sir Henry Craik, and Mr. Rawlinson—included Prof. Sedgwick (Cambridge), Prof. Bourne (Oxford), Prof. Cossar Ewart (Edinburgh), Prof. Wilkinson (Manchester),

Prof. Graham Kerr (Glasgow), Mr. Francis Darwin (Cambridge), and Dr. Marr (Cambridge). Prof. Bourne said the Natural History Museum would not be upon a satisfactory footing until it was placed under the control of a body of trustees separate from that which was responsible for the control of the British Museum at Bloomsbury. The duties, financial and general, of the trustees should be analogous to those of the governing body of an endowed school, and their relations to the management of the museum should be analogous to the relations of governors to the head management of a public school.

THE results of the intermediate examinations conducted by the Royal Society of Arts in the present year show that a total of 10,038 candidates sat in the "Intermediate" stage—an increase upon last year's figures, which were 9,752. More than one-third were tested in shorthand, which heads the list, and nearly as many in book-keeping. In French there were 1,144 papers worked. It is specially noticeable at these and similar examinations that during the last three years the growth in the number of candidates in French has shown a remarkable increase. Typewriting attracted 683. Other subjects in which the examinations were conducted are arithmetic, English, commercial history and geography, economics, précis-writing, German, Italian, Spanish, Portuguese, Russian, Danish and Norwegian, Swedish, Hindustani, Japanese, harmony, and the rudiments of music. The London Education Committee submitted 2,414 candidates, and of these six are awarded medals and six receive money prizes. Five women and four men receive medals in shorthand, and two women and one man take medals for typewriting. Candidates range from eleven years of age to sixty-seven—the elderly candidates being nearly all students of languages. Mr. J. H. Duffy, a Portsmouth candidate, thirty-three years of age, achieves the distinction of receiving two medals, two money prizes, and two first-class certificates, his subjects being arithmetic and précis-writing.

IN the summer course for teachers held at Scarborough during the last week in July and the first fortnight in August, the theory of education, handwork, and art needlework formed the chief items in the programme. Prof. Adamson, of King's College, London, and Miss Catherine I. Dodd, M.A., Principal of Cherwell Hall, Oxford, undertook the lectures on education. Miss Dodd worked out the ideal curriculum for children up to the age of ten, in which romantic literature and out-of-doors observational work figured largely.

THE increasing readiness of young Ireland to respond to the stimulus created by a generous system of education is illustrated by the facts set forth in the last published report of the Intermediate Education Board. Last year 11,821 students presented themselves for examination, 8,165 boys and 3,656 girls, these figures showing an increase of 375, or 4.8 per cent. under the first head, and of 479, or 15.1 per cent. under the second, being a total increase of 854 or 7.8 on the corresponding numbers in 1906. A glance at the figures for the past ten years shows not only that this growth has been steady upon the whole, but that the number of those who passed the examinations has been similarly increasing. Furthermore, the percentages of students examined in the different grades are indicative of the same progress. The readiness of students to come forward for examination in all grades and the steadiness of the percentage returns prove that the educational influences at work continue to operate strongly, and that no declension has occurred in a general anxiety to make full use of the advantages rendered available. Nor is this all. The number of students competing for prizes affords evidence of no small degree of application and industry on their part, while the variety of subjects taken up by the candidates and the degrees of proficiency exhibited must strike all who inspect the figures in detail as being particularly remarkable and significant. Such are optional subjects, and their selection by so considerable a number of students of both sexes throughout the country demonstrates the existence of widely diffused and expanding intellectual powers and of the determination to exercise them in the acquisition of cultured as well as general education.

THE new Regulations promulgated by the Prussian Ministry of Education place the higher girls' schools in Prussia upon an equal footing with the corresponding class of boys' schools under the direct control of the Government provincial School Boards

or Supervising Committees. The teachers at girls' schools will in future be required to possess qualifications similar and equal to those demanded of the teaching staff at boys' schools. The course is to last ten years instead of nine, and education will begin at the age of six. The scope of the curriculum will develop upon existing lines, but nine and twelve years respectively have been fixed as the minimum ages at which instruction in French and English is to begin. Up to and including twelve years of age all pupils will go through the same general course, but upon reaching the third form from the top at the age of thirteen, those girls who may desire to qualify for a University career will begin to be taught Latin, and, after passing through two special forms, these pupils will be divided according to their own tastes into a modern or professional side and a classical side. Each year the pupils will be removed into a higher division until, at the minimum age of nineteen years, they will be admitted to the matriculation examination at a University. Women students will be allowed to matriculate at Prussian Universities at the beginning of the coming winter term. Those pupils, on the other hand, who do not aspire to qualify for a University career will continue the ordinary school routine until they reach the tenth or highest form at the minimum age of fifteen. Upon passing their leaving examination, the girls, if they desire to complete their education, will then once more be divided according to their tastes or future vocations in life. Those who wish to become school teachers and governesses will be specially trained for another four years, the last of which will be devoted to practical instruction until the minimum age of twenty for the final certificate examination is reached. For those girls, on the other hand, who have no special career in view a special two-years' "finishing" course will be instituted, during which the pupils will not only receive advanced tuition in music, languages, and similar subjects, but will also be trained in the practical duties of the household and of everyday life. The pupils of the higher girls' schools, therefore, will, as they progress, be drafted into girls' finishing schools, school-teachers' seminaries, or University seminaries. These courses are to be optional, and each school will, as far as possible, provide its own finishing and training classes.

ON its educational side (says the *Times*), the Hungarian Exhibition at Earl's Court may easily justify its existence, if it arouses in British minds—or, perhaps, reawakens—the desire for some intimate knowledge of one of the most interesting of European nationalities. If an English schoolmaster really desired his boys to retain in after life some definite impressions of the romantic State which has maintained its national Constitution for more than a thousand years, he might do worse than turn them loose for an afternoon's ramble at the Earl's Court exhibition. In the Prince's Hall the State Department of Public Education has organized a very complete and most interesting display representing all grades of scholastic work. A student of education may trace, by means of these exhibits, the progress of the Hungarian child from the kindergarten and the elementary school to the University. Apart from the actual handiwork of the scholars and the educational appliances and apparatus, there is an imposing series of photographs showing the young people at work or at play, at various stages of their scholastic career. It is obvious that in effectiveness and method, and in completeness of organization, educationists in this country may well learn something from the example of Hungary. Scientific and artistic instruction appears to have been carried to a high pitch of perfection; and there is a particularly attractive group of drawings, paintings, statues, and art objects from the Royal Hungarian College of Art. A considerable array of the works of English authors which have been translated into the Hungarian language shows that the Magyars are students not only of Shakespeare, but of many of the modern masters of English poetry and prose.

WE regret to announce the death of Mr. J. C. Buckmaster, formerly Organizing Master of the Science and Art Department, South Kensington, in his ninetieth year. In his earlier years he taught in Battersea Training College and in the newly established Trade Schools at Wandsworth and Poplar. Later, he accepted an appointment as one of the officials of the South Kensington Museum, under the late Lord Playfair, and when the Science and Art Department began its propaganda he was selected to explain its objects throughout the country and to promote the formation of science and art classes. On his visit to Scotland he had conferred upon him the Honorary Fellowship of the Educational

Institute (1893). On his retirement, in 1893, Mr. Buckmaster devoted himself in the most strenuous way to the public life of his locality. A magistrate, a district councillor, chairman of the Local Education Authority, a manager of several schools, he threw himself into all his voluntary work with a zeal and vigour which were the envy of younger men.

WE have also to regret the death of the distinguished Professor of Moral Philosophy at Berlin, Dr. Friedrich Paulsen. He was born in 1846 at Langenhorn, in Schleswig, and studied philosophy at Bonn and Berlin after he had decided to give up theology. He belonged to the school of Fechner, and his own views are thoroughly expounded in his "Einleitung in die Philosophie." Other works from his pen are "Ethik," "Immanuel Kant," "Parteilpolitik und Moral," and "Das deutsche Bildungswesen in seiner geschichtlichen Entwicklung," an English translation of which we notice in another column.

## UNIVERSITIES AND COLLEGES.

PROF. KUNO MEYER, of the University of Liverpool, has accepted an invitation to give a course of lectures next session at University College on Celtic languages and their literatures. The course has been arranged by the generosity of a private benefactor, and is intended to prepare the way for the institution of a permanent lectureship or professorship in Celtic.

The King's College, London (Transfer), Bill received the Royal Assent on August 1. The Imperial College of Science and Technology has been admitted as a school of the University of London in the Faculties of Science and Engineering. The Royal Army Medical College has been admitted as a school of the University of London in the Faculty of Medicine for officers of the Royal Army Medical Corps. A Conjoint Committee of fifteen members—representatives of the University, the London County Council, and the London Chamber of Commerce—has been appointed to consider a scheme for the promotion of commercial education, chiefly in relation to schools. An examination for a certificate in Religious Knowledge has been instituted, and will be held once in each year, commencing on the second Monday in January.

THE general balance sheet of the University of Manchester up to July 31 last shows total assets of £1,157,093 against £1,112,415 for 1907, and £1,075,684 for 1906—a steady if not very great increase. In this amount the fixed capital—College site, buildings, equipment, &c.—is put at £429,714, as against £416,677 for the previous year. The increase in the valuation is due to the items of £4,749 for the new Engineering Laboratory buildings, and £8,241 for the New Union and Refectory buildings. The actual expenditure for the year was £67,400, and the income £67,462 as against an income the previous year of £68,358, and £67,425 the year before that. The grants from Local Government bodies are the same as before, save that no Oldham grant of £150 appears, but Bury figures with £200. The other grants are: Manchester £4,000, Lancashire £1,000, Bolton £100, Cheshire £300, Salford £300, and Stockport £100. Some of these are not heroic, but they "show willing." The John Owens Trust Fund capital account stands at £39,879. The Government Grant is entered as £13,500, with £1,200 for special purposes, as against £14,000 and £1,200 for the year ended July 31, 1907. Reading the names of those who have made bequests and gifts, one is struck by the immense amount that individuals have contributed for the benefit of the public. The fees of the students are about a third of the income on general fund account, and amounted during the year to over £21,000.

THE Cape, it seems (says *South Africa*), is to be entitled to have its existing five colleges recognized as affiliated to the University, subject to the Council's approval. A point worth noting is the decision of the Conference that the examinations of the University shall be conducted in English, "with the exception of the examinations in Dutch language and literature, in which the questions will be set in English and in Dutch, and the answers may be written in either language." . . . Special arrangements are suggested in examinations for such scholarships, exhibitions, and prizes as the University may have at its disposal, the examiners in these

cases to be "as far as possible" such as have not had any of the candidates under their recent tuition. It is proposed that the various Governments contribute to the funds of the University in the proportion of the representation of the several Colonies already mentioned—a proportion, it may be observed, which is curiously like that agreed upon by the Pretoria Conference for the representation of the various States at the forthcoming National Convention. It was agreed that Cape Town and the present Cape University buildings should be the administrative centre of the new "University of South Africa." It is added, by the report which we have considered, that the number of independent institutions in South Africa preparing students for University degrees is greater than need requires, and the suggestion is made that the co-operation or union of the present University colleges should be promoted, and the future multiplication of such colleges discouraged. This is undoubtedly a correct view, and economy and efficiency in University work will doubtless be best secured by a policy of judicious centralization.

### THE EDUCATIONAL LADDER.

**ABERDEEN UNIVERSITY.**—John Murray Medal and Scholarship (to most distinguished medical graduate of the year): J. Watt, M.A.

#### CAMBRIDGE UNIVERSITY.—

*Gonville and Caius.*—Entrance Scholarships, 1908: J. M. Creed (Wyggeston School, Leicester), £80 for Classics; H. M. Fuchs (Brighton College), £80 for Natural Science; I. D. Ross (Kingswood School, Bath), £60 for Mathematics; W. S. Roberts (Eton College), £60 for Classics; E. H. Wood (Hartley College, Southampton), £60 for Modern Languages; G. H. Stevens (Hartley College, Southampton), £40 for Mathematics; P. S. Williams (Harrow School), £40 for Classics; N. Maxwell (Eastbourne College), £40 for Classics; F. M. Davis (Harrow School), £40 for Natural Science; O. M. Tweedy (Clifton College), £40 for Modern Languages; K. M. Robathan (Merchant Taylors' School, London), £40 for Hebrew. Entrance Exhibitions, 1908: A. J. Turner (Camberwell Grammar School), £30 for Natural Science; F. W. W. Baynes, £30 for Classics. Choral Entrance Exhibition: A. R. O. Swaffield, Radley College. Musical Scholar: H. D. Statham, Gresham's School, Holt.

*Sidney Sussex.*—Blundell Exhibition: L. L. Rees-Mogg, Blundell's School.

**CIRENCESTER: ROYAL AGRICULTURAL COLLEGE.**—Honour Diploma of Membership: G. N. Sowerby. Certificate of Associateship: Mom Chow Bhunsri. First Scholarship: R. W. Carr. Second Scholarship: W. G. Wright. Third Scholarship: Hari Krishna Lal.

**DENSTONE COLLEGE.**—Leaving Exhibitions: £30 per annum, G. E. Jackson; £20 per annum, H. M. Butler. The Provost's Modern Languages Exhibition of £5: F. C. Stocks and M. J. W. Hick.

**EDINBURGH UNIVERSITY.**—Falconer Fellowship in Palaeontology and Geology: William Thomas Gordon, M.A., B.Sc. Baxter Scholarship in Physical Science: William Watson, M.A., B.Sc. Baxter Scholarship in Natural Science: James Couper Brash, B.Sc. Mackay Smith Scholarship in Chemistry: Adam Wilson Moodie. Science Research Scholarship: Robert Charles Wallace, M.A., B.Sc.

**FRAMLINGHAM COLLEGE.**—Ransome Exhibition: G. H. Truscott. Goldsmith Scholarship: S. R. Richardson. Lucas Prize: H. E. Roe. Goldsmith Prizes: A. W. Rash, A. R. C. Buchanan, and J. G. Drew. Elocution Medal: S. W. Griffin.

**HEATH GRAMMAR SCHOOL.**—Rawson Exhibition (£30), A. H. Stocks. County Borough Scholarships: H. Murray and J. H. Midgley, both of Trinity School. £12 Waterhouse Scholarship: A. Orcheton, Parkinson Lane School. £6 Waterhouse Scholarship: C. Peckett, Trinity School. £12 Foundation Scholarship: D. C. Riley, Parkinson Lane School. £6 Foundation Scholarship: J. E. Ashworth, Trinity School.

**LONDON: CITY OF LONDON SCHOOL.**—Classical Senior Open Scholarships: H. C. Oakley, E. A. P. Day, F. N. Reed, C. M. Dodwell, H. Quinney. Classical Junior Open Scholarships: L. H. Spero, G. Robbins, V. R. Slater, M. Posener. Science

Senior Open Scholarships: D. Lewis, R. F. Clark, A. E. Thomas. Modern Senior Open Scholarships: W. H. Bennett, M. G. Whitten, H. V. Berry, D. Houseman. Modern Junior Open Scholarships: J. R. Avery, P. Krolik, L. G. Clowes, W. H. Easty. Cuthbertson Memorial Scholarship: W. M. Hastwell. John Carpenter Scholarship: A. G. Gauld. Sir David Salomon's Scholarship: W. L. Williams. Beaufoy Scholarship: P. M. W. Williams. Thomas Symonds Exhibition: T. Fry. Grocers' Exhibition: H. W. Todd. Warren Stormes Hale Scholarship: J. L. Battery. Goldsmiths' Scholarship: C. G. Carpenter. Times Scholarship and Tegg Scholarship: W. B. Pickard. Salters' Scholarship: R. I. Schwarzman. Jews' Commemoration Scholarship: C. N. Spero. Mortimer Exhibition: R. W. James. Fishmongers' Scholarship: S. Smith. Lionel Van Oven Scholarships: A. Willett, E. Caws, B. M. Schonberg, and F. A. D. Stahlschmidt. Price Prize: S. I. Levy. Travelling Scholarships: E. C. C. Hamblin and W. E. Swale. Dr. Conquest's Gold Medal: H. W. Todd. Sir James Shaw's Classical Prize (Medal and Books): H. W. Todd. Beaufoy Mathematical Prize (Medal and Books): P. M. W. Williams.

**LONDON: MERCHANT TAYLORS' SCHOOL.**—Entrance Scholarships: E. V. Poore, V. A. B. Wright, E. A. Roe, B. Hill, and M. B. S. Spencer.

**LONDON: ROYAL COLLEGE OF MUSIC.**—Council Exhibitions: Pianoforte, Joseph A. Taffs, £10; Singing, Joseph K. Ireland, £10, Tydfil Brown, £10; Violin, Nora Ford, £10, Evelyn M. Pickup, £10. London Musical Society's Prize for Singing, Jane F. Fyans; Messrs. Hill and Sons' Violin Prize, Thomas Peatfield (scholar); Messrs. Brinsmead and Sons' Prize of a Pianoforte, William D. Murdoch (scholar); specially commended, Ellen C. Edwards (scholar).

**LONDON: ST. PAUL'S SCHOOL.**—Exhibitions—Classical: £70 per annum for 4 years, G. D. Cole and E. G. Mächtig; £40 per annum for 4 years, L. Hodgson; and £30 per annum for 4 years, A. L. Johnston and W. H. Morant. Mathematical: £70 per annum for 4 years, with the Keen Scholarship of £26 for 1 year, A. Bate. Science: For 4 years, £50 per annum, C. G. Hutchison; and £40, A. E. Bullock. The Winterbotham Scholarship (to the highest classical scholar in his last school year), H. F. Jolowicz.

**LONDON UNIVERSITY.**—Scholarships have been awarded on the results of the Scholarships Examination, held at the University in July, to students who have passed an Intermediate Examination, or the Preliminary Scientific Examination, Part I., as follows:—University Scholarships of £50 a year, tenable for one year: Thomas J. Cash, University College (Granville Scholarship), for Classics; Catherine Andersson, private study, and Hubert B. Kemmis, University College, for French; Margaret F. Richey, private study, for German; Irene C. Dukes, University College, Ella M. Marchant, Royal Holloway College, and Edna Smallwood, Birkbeck College, for English; Kate G. Cash, University College (Derby Scholarship), and Dorothy A. Bigby, University College, for History; Natalie A. Ertel, University College, and Douglas W. Langridge, King's College, for Elementary Psychology and Logic; Cecil N. French, King's College (Sherbrooke Scholarship), and George J. Lamb, East London College, for Mathematics; James C. Chapman, King's College, and Stanley G. Nottage, University College, the Neil Arnott Scholarship (Physics) and a University Scholarship for Physics divided; George F. Morrell, Pharmaceutical Society's School (Neil Arnott Scholarship), and Ferdinand B. T. Thole, East London College, for Chemistry; Josephine E. Carter, University College, for Zoology. Gilchrist Scholarships for Women of £40 a year, tenable for two years: Louisa Soldan, Bedford College for Women, for German (qualified also for a University Scholarship); Sarah M. Baker, University College, for Chemistry (qualified also for a University Scholarship).

**MAN, ISLE OF: KING WILLIAM'S COLLEGE.**—Henry Bloom Noble Scholarship, £50 a year: J. B. Gell. Rebecca Noble Scholarship, £15 a year: C. Sansbury. Special Caine Scholarship, £15 a year: A. M'Gain. Free Board and Education Scholarship: J. H. Caine.

**MANCHESTER HIGH SCHOOL FOR GIRLS.**—Entrance and Junior Scholarships, some being on the Hulme Foundation: L. Beard, Miss Knight's School, Longsight; H. H. Bertwell, Seymour Park Council; M. M. Bradock, St. Margaret's, Whalley Range; I. M. Challoner, Manchester High; E. A. Garnett, Miss Petschler's,

Withington; D. Hancock, Plymouth Grove Municipal; D. M. Horne, Miss Knight's, Longsight; K. A. Jacques, St. Mark's, Cheetham Hill; G. Milne, Culcheth Municipal, Newton Heath; J. de Picciotto, Cheetham Collegiate; V. Richman, National, Didsbury; R. Rosenthal, St. John's, Cheetham; C. E. Sedgeley, Ducie Avenue Municipal; R. Shaer, St. John's, Cheetham; R. Thomas, Birley Street Municipal; L. Tunnicliffe, Derby Street Council, Rochdale; H. Whittenbury, Manchester High; N. M. Whittle, St. John's, Cheetham. C. Linz is recommended to the authorities of the Jews' School, Cheetham, for the Abigail Behrens Memorial Scholarship.

MANCHESTER UNIVERSITY.—Platt Biological Scholarship: Joseph Mangan. Dauntsey Entrance Medical Scholarships: T. P. Kilner and A. G. Bryce. John Henry Agnew Scholarship: W. P. Marshall, B.A. Platt Biological Exhibition: Ellen Bevan. Early English Text Society's Prize: A. F. Lund. Dalton Natural History Prize: T. G. B. Osborn and H. L. Hawkins, equal. Certificate in Electrical Engineering: F. M. Jones. Higher Commercial Certificate: R. C. K. O'Connor.

NEWNHAM COLLEGE.—Classical Scholarship: Miss D. F. Tait, Aberdeen University. The following scholarships of £50 a year for three years have been awarded on the results of the Cambridge Higher Local Examination: Clothworkers' Scholarship, Miss E. Ferguson (Croydon High School), for Mathematics; Goldsmiths' Scholarship, Miss M. D. Ball (King Edward's High School, Birmingham), for Natural Science; Cobden Scholarship, Miss C. Stewart (Bedford High School), for History; Winkworth Scholarship, Miss B. E. Clayton (Bath High School), for Mathematics and Natural Science. Mary Stevenson Scholarship (£35 a year): Miss L. D. Kendall (King Edward's School, Birmingham), for Modern Languages. A College Scholarship (£35 a year): Miss C. K. Hugh-Jones (Blackheath High School), for Classics. Gilchrist Scholarship (£50 a year for three years, tenable at either Girton or Newnham): Miss G. H. Nicolle (St. Paul's Girls' School, London), for Mathematics. Miss Nicolle has elected to hold it at Newnham College. Mathilde Blind Scholarship: Miss J. M. G. Alexander (Royal Academy, Irvine), for Modern Languages.

OXFORD UNIVERSITY.—Liddon Studentship: John Leslie Johnston, Magdalen; grant awarded to K. E. Kirk, Caspard Scholar of St. John's.

*Ereter.*—Exhibition (Theology): J. Keown Boyd, Merchant Taylors.

*Kelle.*—Mr. John R. H. Weaver, Commoner, has been elected Honorary Scholar. He has published in the "Anecdota Oxoniensia" an edition of John of Worcester's Chronicle.

RAMSGATE: ST. LAWRENCE COLLEGE.—Entrance Scholarships: £50, R. C. S. Browne, C.M.S. Home, Limsfield; £40, F. G. Breed, C.M.S. Home, Limsfield; £25, K. S. Mackenzie, Southborough; £25, R. D. Shaw, C.M.S. Home, Limsfield; £25, C. S. King, Catherington House School; £25, E. F. Carter, Castle Park School, Dalkey. Scholarship Nominations: £15, R. T. Venn, Burgh Heath Preparatory School, Epsom; £15, W. C. Cassels, C.M.S. Home, Limsfield; £15, G. Tilley, St. Lawrence College; £15, W. O. Littlewood, St. Lawrence College Junior School; £15, G. Manwaring, C.M.S. Home, Limsfield; £15, D. M. Matheson, St. Lawrence College Junior School.

SHERBORNE.—Akroyd Science Scholarship, £75 a year for 3 years, tenable at any University: C. T. Sanctuary. Entrance Scholarships: R. E. Hodgson, B. Scott, and C. F. H. Puckridge. Exhibitions: C. L. Gray Edwards, W. M. C. Currie, E. B. Gordon, J. C. Lott, and G. S. King. The scholarship open to members of the school has not yet been awarded.

STRATFORD-UPON-AVON: KING EDWARD VI. SCHOOL.—Leaving Scholarships of £50 a year for three years: Shakespeare Scholarship, J. S. Culverwell; Charles Flower Scholarship, F. E. Dickinson.

WIMBLEDON: KING'S COLLEGE (LONDON) SCHOOL.—Salter Exhibition (£80 for four years): L. C. Reid. Forest Scholarship (£30 for three years): R. O. Hobhouse. Sambrooke Scholarship (£25 for two years): D. H. Beattie. Mathematical Scholarship (£30 for three years): L. C. Reid. Leopold de Rothschild Scholarship: E. F. Sayers. Jelf Medal: L. C. Reid.

YORK: ELMFIELD COLLEGE.—Hugh Bourne Scholarship, £25: F. W. Atkin. Adams Scholarship, £10: J. C. Spence. Stewart Scholarship, £10: C. D. Holroyd.

## FROM GINN & COMPANY'S LIST.

### GOOD HEALTH.

By F. G. JEWETT.

Revised for use in English Schools by ALICE RAVENHILL, F.R.San.I., Lecturer London University Extension Board. Designed for pupils from ten to twelve years of age; treating of hygiene rather than anatomy or physiology, special emphasis being laid upon personal hygiene. Fully Illustrated. 171 pages. Price 1s. 6d.

### THE MOTHER TONGUE.

By G. L. KITTREDGE and S. L. ARNOLD.

BOOK I.—Specially Revised for use in English Schools by JOHN W. ADAMSON, B.A., Professor of Education, King's College, London. **LESSONS IN SPEAKING, READING AND WRITING ENGLISH.** xiv+294 pages. Illustrated. Price 1s. 6d.

*Opinions of His Majesty's Inspectors:—*

"I should be very glad to see it in use in all our schools."  
"I do not know of any better method of teaching English than that so carefully developed in 'The Mother Tongue.'"

"The most practical text-book I know for teaching the Mother Tongue."

BOOK II.—**ELEMENTARY ENGLISH GRAMMAR, WITH LESSONS IN COMPOSITION.** xxii+417 pages. Price 3s.

BOOK III.—**ELEMENTS OF ENGLISH COMPOSITION.** xx+431 pages. Price 4s. 6d.

### THE DEVELOPMENT OF MODERN EUROPE DURING THE LAST TWO HUNDRED YEARS.

An Introduction to Current History. By JAMES HARVEY ROBINSON and CHARLES A. BEARD. These Volumes will meet the demand for a history of recent times which shall explain the social and economic as well as the political development of our own age, and shall also prepare the student to understand the great problems of the world in which he finds himself.

Vol. I.—**The Eighteenth Century, The French Revolution, and the Napoleonic Period.** 374 pages. 6s. 6d.

Vol. II.—**Europe since the Congress of Vienna.** 433 pages. 6s. 6d.

### AN INTRODUCTION TO THE HISTORY OF WESTERN EUROPE.

By J. H. ROBINSON. Gives a clear and interesting account of the all-important movements, customs, institutions, and achievements of Western Europe since the German barbarians conquered the Roman Empire. 714 pages, with Maps and Illustrations. Price 7s. 6d. Also in Two Volumes, dividing at the Sixteenth century. Price 4s. 6d. each.

### GENERAL HISTORY.

By P. V. N. MYERS. A Complete Outline in One Volume of the World's History from that of the Eastern Nations to the present time. Accepted and recommended as the best brief course in General History. Half-morocco. 30 Maps. Over 160 Illustrations. 794 pages. Price 7s. 6d.

Part I.—**A Short History of Ancient Times.** 388 pages. Price 4s. 6d.

Part II.—**A Short History of Mediaeval and Modern Times.** 438 pages. Price 4s. 6d.

### PRINCIPLES OF PHYSICS.

By A. P. GAGE. Revised by A. W. GOODSPEED. A thorough Revision of GAGE'S "Principles of Physics," made in accordance with the latest developments in Physical Science. 547 pages. Illustrated. Cloth. Price 6s. 6d.

### THE BLAISDELL PHYSIOLOGIES.

**THE CHILD'S BOOK OF HEALTH.** A First Book of Hygiene, presenting easy lessons for Junior Classes. 1s.

A SUPERVISOR OF SCHOOLS says:—"A book to be read by every boy and girl of ten years and upwards."

**HOW TO KEEP WELL.** Simple, teachable, and replete with Suggestions for Teachers. Price 2s.

**OUR BODIES, AND HOW WE LIVE.** Simple in style, with no attempt at scientific discussion. Adapted for the Higher Standards. Price 3s.

**HOW TO TEACH PHYSIOLOGY.** Handbook for Teachers. Price 6d.

BOOKS SENT ON APPROVAL TO TEACHERS.

Complete Catalogue post free on application.

GINN & COMPANY, St. Martin's Street, London, W.C.



# MESSRS. RIVINGTONS LIST

## ELEMENTARY ALGEBRA.

By W. G. BORCHARDT, M.A., B.Sc., Assistant Master at Cheltenham College. Complete, 3s. 6d.; with Answers, 4s. 6d. Or in Two Parts:—  
Part I., 2s. 6d.; with Answers, 3s.  
Part II., 2s.; with Answers, 2s. 6d.

In use at Harrow School, Marlborough College, Shrewsbury School, Goldsmiths' College (New Cross), Edinburgh, Glasgow, Aberdeen, St. Andrews, Manchester, Rochdale, Birmingham, Liverpool, Birkenhead, Wigan, Blackburn, Lancaster, Newcastle, Sunderland, York, Leeds, Hull, Huddersfield, Sheffield, Derby, Nottingham, Bradford, Halifax, Wakefield, Leicester, Newcastle (Staffs.), Chester, Coventry, Leamington, Wolverhampton, Cheltenham (Dean Close School), Bath College, Bristol, Cornwall, Bromsgrove, Bedford, Oxford, Cambridge, Canterbury (The King's, S. Edmund's, and Simon Langton Schools), Cardiff, Mountain Ash, Brighton, Hastings, Felsted, Epsom, Madras, Melbourne, Sydney, New Zealand, Natal, &c.

## ALGEBRAICAL EXAMPLES.

Taken from the Algebra. With or without Answers, 3s. Or in Two Parts:—  
Part I., 1s. 6d.; with Answers, 2s.  
Part II., 2s., with or without Answers.

## ARITHMETICAL TYPES AND EXAMPLES.

With Oral Examples. By W. G. BORCHARDT, M.A., B.Sc. This book is issued in four ways—  
Types and Examples in One Volume, with Answers, 3s. 6d.  
Types and Examples in One Volume, without Answers, 3s. 6d.  
The Examples separately, with Answers, 3s.  
" " " without Answers, 3s.

In use at Harrow School, Marlborough College, Rugby School, Bilton Grange (Rugby), Edinburgh, Glasgow, Aberdeen, St. Andrews, Manchester, Rochdale, Birmingham, Liverpool, Birkenhead, Wigan, Durham, Lancaster, Newcastle, Sunderland, Darlington, York, Scarborough, Leeds, Sheffield, Nottingham, Bradford, Halifax, Wakefield, Leicester, Coventry, Shrewsbury, Cheltenham (Dean Close School), Cheltenham Ladies' College, Cheltenham College, Bath College, Bristol, Oxford, Uppingham, Repton, Malvern, Sedburgh, Giggleswick, Southport, Preston, Bury, Bolton, Newark, Clifton, Berkhamsted, Bournemouth, Eastbourne, Canterbury (The King's, S. Edmund's, and Simon Langton Schools), Dover, Portsmouth, Exeter, Cornwall, Tavistock, Epsom, Dublin, Melbourne, Sydney, N.S.W., New Zealand, South Africa, &c.

## JUNIOR ARITHMETIC.

By W. G. BORCHARDT, M.A., B.Sc. Complete, 1s. 6d.; with Answers, 2s. The Examples separately, with or without Answers, 1s. 6d.

In use at Harrow School, Marlborough College, Shrewsbury School, Dulwich College, Goldsmiths' College (New Cross), Edinburgh, Glasgow, Aberdeen, St. Andrews, Manchester, Rochdale, Birmingham, Liverpool, Birkenhead, Wigan, Blackburn, Lancaster, Newcastle, Sunderland, North Shields, York, Leeds, Hull, Sheffield, Derby, Nottingham, Bradford, Oakham, Halifax, Wakefield, Leicester, Crewe, Newcastle (Staffs.), Chester, Coventry, Leamington, Wolverhampton, Cheltenham (Dean Close School), Bath College, Bristol, Bromsgrove, Bedford, Oxford, Cambridge, Cardiff, Brighton, Hastings, Felsted, Epsom, Melbourne, Sydney, Natal, &c.

## ELEMENTARY STATICS.

By W. G. BORCHARDT, M.A., B.Sc. Crown 8vo, with or without Answers, 4s. 6d. "A book which every teacher should possess; it contains all the book-work he is likely to want and more, while it is a most useful mine of excellent examples."—*Nature*. "The experiments described and the numerical and graphical examples worked out in the text should be amply sufficient to give sound ideas of the fundamental principles."—*School World*.

## RIVINGTONS' DIRECT METHOD FRENCH SERIES

Edited by W. G. HARTOG, B.A., Lecturer in French at University College, London, and at the East London College; Occasional Inspector and Assistant Examiner to the University of London.

This Series is based on the generally accepted rules for the teaching of modern languages; provides continuity of teaching, and consists of:—

### A FIRST BOOK OF FRENCH ORAL TEACHING.

By C. V. CALVERT, B.A. Edited by W. G. HARTOG, B.A. Crown 8vo, 2s. There are 24 Illustrations of the Stories, of which 14 are full-page. These Illustrations depict French people and French life, and were drawn by a well known exhibitor in the Paris Salon.

**WALL PICTURES.** Four of the Illustrations reproduced separately in black and white. They can be had in two styles—1. Mounted on linen, 3s. 6d. net each. 2. Mounted on linen, varnished, taped, and with moulding at top and roller at foot, 6s. net each.

**THE FIRST SIXTY LESSONS PHONETICALLY TRANSCRIBED.** By D. L. SAVORY, M.A., Lecturer at the University of London. Crown 8vo, 1s.

### FABLES EN PROSE ET EN VERS.

With Oral and Written Exercises, Questionnaire and Grammar, and suggestions for Free Composition and Poetry for Repetition. By W. G. HARTOG, B.A. Crown 8vo, with Illustrations, 2s. 6d. This book is suitable for pupils after their first year of French, learned on the Oral Method.

### MELANGES FRANCAIS.

An Elementary Reader for the Second and Third Years of French Instruction. With Oral Exercises in French, containing Questionnaires, Grammar, Exercises écrits, and a complete French-English Vocabulary. By W. G. HARTOG, B.A. Crown 8vo. With 11 full-page Illustrations. 2s. 6d.

### ANECDOTES ET RECITS.

A Reader for Elementary and Middle Forms. With Oral Exercises in French, Questionnaires, Grammar, Exercises écrits, Passages for Retranslation based on the Text, and a French-English Vocabulary. By W. G. HARTOG, B.A. Crown 8vo, with 8 full-page Illustrations, 2s. 6d.

### LECTURES ET CONVERSATIONS FRANCAISES.

With Oral and Written Exercises in French. By W. G. HARTOG, B.A. Crown 8vo. With Map of France and Plan of Paris. 2s. 6d.

### PAGES CHOISIES DES GRANDS ECRIVAINS.

A more advanced book for French Reading and Conversation, on the same plan as "Lectures et Conversations." With French Notes and Oral Exercises. By W. G. HARTOG, B.A. Crown 8vo, 1s. 6d.

### POETICAL FRENCH READER.

Selections from the Poems of LA FONTAINE, RACINE, CORNEILLE, MOLIÈRE, CHÉNIER, HUGO, and DE VIGNY. With Biographical Sketches, Notes, and Exercises. By W. G. HARTOG, B.A. Crown 8vo, 2s. 6d.

### GRAMMAIRE FRANCAISE PRACTIQUE, BASÉE SUR LA METHODE INDUCTIVE.

Par W. G. HARTOG, B.A. Crown 8vo, 3s. 6d. Part I., forming a complete Elementary Grammar, may be had separately, 2s. 6d.

### A FIRST BOOK OF ORAL (or Written) FRENCH PROSE COMPOSITION.

With Notes. Designed to follow Part I. of "Grammaire Française." By W. G. HARTOG, B.A. Crown 8vo, 1s.

### LECTURES SCIENTIFIQUES.

A French Reader for Science Students. Containing Extracts from Modern French Scientific Works in Chemistry, Physics, Mathematics, Physiology, and Botany. With a Glossary of Technical Terms. By W. G. HARTOG, B.A. Crown 8vo, 5s.

## RIVINGTONS' DIRECT METHOD FRENCH SERIES (continued)

**BEGINNERS' TEXTS.** With Notes, Exercises in French, Passages for Retranslation, Questionnaires, and Vocabulary. Edited by W. G. HARTOG, B.A. Small fcap. 8vo, with Illustrations. Each Volume, 1s.

**Nouvelles et Anecdotes.**  
**La Belle au Bois dormant** and **Le Chat botté.**  
**Historiettes.**  
**Huit Contes** (Mlle MINNSEN).  
**Hansel et Gretel, et Les Trois Corbeaux.**  
**Le Roi de la Montagne d'Or, et autres Contes.**

**JUNIOR TEXTS.** With Notes and Oral Exercises, both in French, Passages for Retranslation, Questionnaires, and Vocabulary. Edited by W. G. HARTOG, B.A. Small fcap. 8vo, with Illustrations. Each Volume, 1s.

**Histoire de la Princesse Rosette** (La Comtesse DE SÉGUR).  
**Mateo Falcone and L'Enlèvement de la Redoute** (MÉRIMÉE).  
**Contes de Fées choisis** (Mme LEPRINCE DE BEAUMONT).

**A Selection from La Fontaine's Fables.**  
**Histoire d'Ali Baba** (GALLAND).  
**Histoire d'un Chien** (Mme DE WITT).  
**and Le Vilain petit Canard** (ANDERSEN).  
**Seulette** (DE PRESSENSÉ).

**Treasure of Fables and Fleur des Poésies** (NODIER).  
**Récits de Guerre et de Révolution.**  
**Les Prisonniers du Caucase** (DE MAÏSTRE).

**INTERMEDIATE TEXTS.** Edited, with Notes and Oral Exercises, both in French, Passages for Retranslation, and Questionnaires, by W. G. HARTOG, B.A. Small fcap. 8vo, with Illustrations. Each Volume, 1s.

**Croisilles et Poèmes choisis** (DE MUSSET).  
**Sinbad le Marin** (GALLAND).  
**Les Jumeaux de l'Hôtel Cornelle** (ABOUT).  
**Tamango and Le Coup de Pistolet** (MÉRIMÉE).  
**Les Quatre Talismans** (NODIER).  
**Waterloo** (BEYLE-STENDHAL).

**L'Évasion de Duc de Beaufort** (DUMAS).  
**Le Mari de Madame de Solange** (SOUVÈSTRE).  
**Chez les Sauvages**  
Episode tiré de la Roche aux Mouettes (SANDEAU).

**COMEDIES.** Edited, with Notes and Oral Exercises, both in French, Passages for Retranslation, and Questionnaires. By W. G. HARTOG, B.A. Small fcap. 8vo, with Illustrations, each Volume, 1s.

**Le Voyage de Monsieur Ferrichon** (LABICHE and MARTIN).  
**Le Baron de Fourchevif** (LABICHE and JOLLY).  
**La Joie fait Peur** (Mme DE GIRARDIN).  
**Valérie** (SCRIBE).  
**Le Major Cravachon** (LABICHE, LEFRANC, and JESSÉ).  
**Le Diplomate** (SCRIBE).

## RIVINGTONS' DIRECT METHOD ELEMENTARY GERMAN TEXTS

Edited by D. L. SAVORY, M.A., Lecturer in the University of London, Goldsmiths' College; Author of "A First German Reader," &c. Small crown 8vo, with Illustrations, each Volume 1s. 6d.

This new Series of Elementary German Texts consists of stories complete in themselves, selected from the best modern Authors. They are easy in style, but not childish in matter, and are intended for students who have already acquired a simple vocabulary and the elements of grammar.

**Das Gespensterschiff** (WILHELM HAUF).  
**Die Geschichte des jungen Herrn Anton** (HEINRICH SEIDEL).  
**Krambambuli** (MARIE VON ERNER-ESCHENBACH).  
*Other Volumes in preparation.*

**READY IMMEDIATELY. The Cheapest, Most Attractive, and Most Readable**  
**History Text-Book for Secondary Schools now before**  
**the Educational Public.**

# Nelson's School History Of Great Britain and Ireland.

By G. W. PROTHERO, M.A., Litt.D.,  
Formerly Professor of History in the University of Edinburgh.

480 pages. Cloth. Price Two Shillings and Sixpence.

**Illustrated with Forty-eight excellent Coloured Reproductions from  
paintings by Great Historical Artists.**

Furnished with Summary of Dates and Facts, Genealogical Tables, and other convenient aids to memory.

The most complete history text-book yet published for schools, suitable either for general middle-form work or for examinations up to matriculation standard.

Not merely a history of England, but a history of the British Isles and the British Empire.

Written in lucid, straightforward language, and excellently adapted for school pupils who cannot comprehend the intricacies of national policy and the exact significance of constitutional changes.

A New Series of carefully graduated Reading Books designed  
to form a Ladder to Literature.

## The Royal Treasury of Story and Song.

The First Series of Literary School Books, in which each reading is complete in itself, and of sufficient length to arouse and sustain juvenile interest. Each volume beautifully illustrated with numerous full-page Pictures in colour and black and white, as well as marginal Drawings of an interesting and charming character.

The Royal Treasury will be published in Seven Parts, of which the following are now ready:—

- Part I. **DOORS OF GOLD.** 128 pages. 10d.  
Select fairy tales, simply written, with familiar rhymes and verses.
- Part II. **FAIRY FAVOURS.** 160 pages. 1/-  
Imaginative tales from good literary sources, select folk-tales of a romantic and humorous character, with a selection of some of the best fairy poetry in the language.
- Part III. **THE HALL OF HEROES.** 208 pages. 1/3  
Tales of early heroes of the chief European nations, with narrative poetry, mostly of a simple ballad character.
- Part IV. **GOLDEN GIFTS.** 272 pages. 1/6  
Romantic tales and narrative poetry.
- Part V. **THE ENCHANTED GARDEN.** 272 pages. 1/6

An Entirely New and Unique Series of  
Historical Readers.

## Highroads of History.

Prepared in accordance with the latest and most approved methods of History Teaching, and superbly illustrated with reproductions in Full Colour and in Black and White of

Great Historical Paintings by Great Artists.

Large Size, 9 in. × 7 in.

### LIST OF THE SERIES.

- Book I. TALES OF THE HOMELAND. Price 10d.  
Book II. STORIES FROM BRITISH HISTORY. 1s.  
Book III. BRITONS OF RENOWN. Price 1s. 3d.  
Book IV. OTHER DAYS AND OTHER WAYS. 1s. 6d.  
Book V. TUDOR AND STUART. Price 1s. 8d.  
Book VI. MODERN BRITAIN. Price 2s.

**THOMAS NELSON & SONS,**

35 & 36 Paternoster Row, London, E.C.; Edinburgh, Dublin, & New York.

# THE BEST BOOKS

FOR

## LONDON MATRICULATION.

- Algebra, Matriculation.** With a Section on Graphs. By RUPERT DEAKIN, M.A. Lond. and Oxon. *Fourth Edition.* 3s. 6d.
- Arithmetic, The Tutorial.** By W. P. WORKMAN, M.A., B.Sc. *Third Edition.* 4s. 6d.
- Chemistry, Matriculation.** By G. H. BAILEY, D.Sc. Lond. Edited by WILLIAM BRIGGS, LL.D., M.A., B.Sc., F.C.S. *Third Edition.* 5s. 6d.
- English Course, Matriculation.** Containing Grammar, Analysis, Composition, Précis Writing and Paraphrase. By W. H. Low, M.A. Lond., and JOHN BRIGGS, M.A. Camb., F.Z.S. *Second Edition.* 3s. 6d.
- French Reader, Matriculation.** Containing Prose, Verse, Notes, and Vocabulary. By J. A. PERRÉ, Examiner in French at the University of London. 2s. 6d.
- French Course, Matriculation.** By Prof. E. WEEKLEY, M.A. Lond. and Camb. *Third Edition.* 3s. 6d.
- Geography, Text-Book of.** By G. C. FRY, M.Sc., F.I.C. 4s. 6d.
- Geometry, Matriculation.** By W. P. WORKMAN, M.A., B.Sc., and A. G. CRACKNELL, M.A. 3s. 6d.
- Heat, Matriculation. Light, Matriculation. Sound, Matriculation.** By R. W. STEWART, D.Sc. Lond. Three Volumes, each 2s. 6d.
- Latin Authors, Matriculation Selections from.** By A. F. WATT, M.A. Oxon., and B. J. HAYES, M.A. Lond. *Second Edition.* 2s. 6d.
- Mechanics, Matriculation.** By WM. BRIGGS, LL.D., M.A., B.Sc., F.R.A.S., and G. H. BRYAN, Sc.D., F.R.S. *Second Edition.* 3s. 6d.
- Modern History, Matriculation.** Being the History of England, 1485-1901, with some Reference to the Contemporary History of Europe and Colonial Developments. By C. S. FEARENSIDE, M.A. Oxon. 3s. 6d.

## COLLEGE OF PRECEPTORS EXAMINATIONS, 1909.

*Editions of the Text, in the University Tutorial Series, include Introduction and Notes. Vocabulary (interleaved) includes Test Papers. The edition "In One Volume" includes Text (with Introduction and Notes), Vocabulary (interleaved and with Test Papers), and Translation.*

- Caesar.—Gallic War, Books III., IV.** By A. H. ALLCROFT, M.A., and F. G. PLAISTOWE, M.A., and others. 1s. 6d. each. Vocabulary. 1s. each. Translation. 1s. each. In One Volume. 3s. each. [*Juniors and Seniors.*]
- Chaucer.—Prologue to the Canterbury Tales.** By A. J. WYATT, M.A. 1s. [*Seniors.*]
- Cicero.—Pro Milone.** By F. G. PLAISTOWE, M.A., and W. F. MASOM, M.A. 3s. 6d. Vocabulary. 1s. Translation. 2s. In One Volume. 5s. 6d. [*Seniors.*]
- Euripides.—Hecuba.** By T. T. JEFFERY, M.A. 3s. 6d. Translation. 1s. 6d. In One Volume. 4s. 6d. [*Seniors.*]
- Horace.—Odes, Book IV.** By A. H. ALLCROFT, M.A., and B. J. HAYES, M.A. 1s. 6d. Vocabulary. 1s. Translation. 1s. In One Volume. 3s. [*Seniors.*]
- Shakespeare.—Julius Caesar.** By Prof. W. J. ROLFE, D.Litt. 2s. 6d. [*Juniors and Seniors.*]
- Shakespeare.—The Tempest.** By A. R. WEEKES, B.A. 2s. [*Juniors and Seniors.*]
- Vergil.—Aeneid, Book III.** By A. H. ALLCROFT, and W. F. MASOM, M.A. 1s. 6d.\* Vocabulary. 1s. Translation. 1s. In One Volume. 3s. [*Juniors and Seniors.*]
- Vergil.—Aeneid, Book XI.** By A. H. ALLCROFT, M.A., and W. F. MASOM, M.A. 1s. 6d.\* Translation. 1s. [*Juniors and Seniors.*]
- \* This Volume contains a complete Alphabetical Lexicon.

*Full List of Books for London University, Oxford and Cambridge Locals, College of Preceptors, and other Examinations, post free on application.*

University Tutorial Press, Ltd.  
W. B. CLIVE, 157 Drury Lane, London, W.C.

### ADVERTISEMENT SCALE.

Whole Page—Ordinary	£4 10 0	.....	Position	£5 10 0
Half Page	" 2 10 0	.....	"	3 0 0
Quarter Page	" 1 10 0	.....	"	1 15 0
Per inch in broad column (half width of page)	...			0 7 0
Narrow Column (one-third page)	.....			2 0 0

General Scholastic Advertisements (Colleges, Schools, Classes, Tuition, &c.), 3s. 6d. for 6 lines, or 4s. 6d. the inch.

Situations Vacant and Wanted—30 words or under, 2s.; each additional 10 words, 6d. (For 1s. extra, Replies may be addressed to the Publishing Office, and will be forwarded post free.)

### CURRENT EVENTS.

M. LE PROFESSEUR A. P. HUGUENET will address the Société Nationale des Professeurs de Français en Angleterre on the "Expédition du Mexique" at the College of Preceptors on September 26 at 4 p.m.

THE Autumn Meetings of the Incorporated Association of Assistant Masters in Secondary Schools will be held on September 9 and 10 at the Mathematical School, Rochester.

THE First International Moral Educational Congress will be held at the University of London, September 25-29, under the presidency of Prof. Michael E. Sadler, M.A., LL.D.

THE following courses, of ten lectures each, at the University of London, are open free to all teachers in London secondary and elementary schools and to teachers in training: (1) "Outlines of French Literature," by Miss F. C. Johnson, M.A., October 14 and following Wednesdays, at 6 p.m.; (2) "Some Aspects of John Ruskin," by Miss C. F. E. Spurgeon (Final English Honours, Oxon.), October 10 and following Saturdays, at 10.30 a.m. Apply for admission, before September 26, to the London Education Offices, Victoria Embankment, W.C.

Two Courses in School Hygiene will be held next Session at University College, London, under the direction of Prof. Kenwood, assisted by Dr. H. Meredith Richards and other specialists: (1) October to March (Fridays, 7.15) for school teachers; (2) will begin early in 1909, and treat of School Hygiene and Medical Inspection of Scholars, for medical men.

A CONFERENCE on Democratic Education will be held at Birmingham University on October 17, under the auspices of the Workers' Educational Association. On the preceding day (October 16) a "demonstration" in the Town Hall will be presided over by Bishop Gore.

THE Second International Congress on Popular Education will be held at Paris, October 1-4.

THE University of Oxford has conferred the honorary degree of M.A. upon Mr. Albert J. Mockridge, B.A. Lond., the new Head Master of the Municipal Secondary School, Poole, in recognition of his services to education during his long connexion with Culham College as one of the staff, and latterly as Principal of the P.-T. Centre, Oxford.

IN recognition of his occupancy of the Professorship of Chemistry at Cambridge for nearly half a century, Prof. G. D. Liveing, F.R.S., has been presented with an illuminated address by Sir James Dewar, Jacksonian Professor,

and the lecturers and the staff of the University Chemical Laboratory.

\* \* \*

THE University of Sheffield, on occasion of the visit of the British Medical Association, conferred the honorary degree of D.Sc. upon Prof. Simeon Snell, President of the Association; Dr. Henry Davy, last year's President; Prof. Charles Joseph Bouchard, Paris; Prof. John Chiene, Edinburgh; Prof. Antoine Depage, Brussels; Dr. James Kingston Fowler, London; Prof. Ernst Fuchs, Vienna; Prof. Just Marie Marcellin Lucas-Championniere, Paris; Dr. Charles James Martin; Prof. John Benjamin Murphy, Chicago; Dr. Thomas Oliver, Newcastle; Mr. Edmund Owen, Chairman of Council; Sir Henry Rosborough Swanzy, Dublin; Prof. Hermann Tillmanns, Leipzig; and Dr. Dawson Williams (Editor of the *British Medical Journal*).

—♦♦—

**Endowments and Benefactions.**

AN anonymous donation of half a million kronen (about £20,833) has been presented to the Vienna Academy of Sciences for the establishment of a "Radium Institute" in connexion with the new physics laboratories of the University of Vienna.

\* \* \*

THE University of Glasgow wants some £5,000 a year to meet general charges (£3,000 for apparatus and £2,000 for material); £10,000 a year for lectureships and assistants; and considerable sums for the Faculty of Law, the Library, the Hunterian Museum, and the Observatory.

\* \* \*

ABERDEEN University wants upwards of £14,000 for similar purposes.

\* \* \*

MR. G. H. SHEPHERD has presented to King Edward VI. Grammar School, Louth, a bust in white marble of Tennyson, who was at the school in 1820, with his father, William Shepherd. The bust is the work of Mr. H. Garland.

—♦♦—

THE Committee of Lloyd's Register of British and Foreign Shipping have decided to found Scholarships in Marine Engineering, with a view to enabling young engineers to pursue a course of study in engineering at a University or approved college. The scholarships, £50 a year for two years, will be established in connexion with the Institute of Marine Engineers. One scholarship will be open for competition each year by examination to British subjects of between eighteen and twenty-four years of age. There are already six "Lloyd's Register" Scholarships in Naval Architecture in existence: three at Glasgow University and three at Armstrong College, Newcastle-on-Tyne.

\* \* \*

THE University of London offers two Martin White Scholarships in Sociology, each £35 a year for two years, to students that have either (1) passed the Intermediate Examination in Arts in 1908 and undertake to study for the B.A. Honours Degree in Philosophy, with Sociology as an alternative subject, or (2) passed the Intermediate Examination in Economics in 1908 and undertake to study for the B.Sc. (Economics) Honours Degree, with Sociology as a selected subject. Apply, with three testimonials and three references, to the Academic Registrar by September 28.

\* \* \*

CAPTAIN GEORGE CROSFIELD, Secretary of the Lancashire Committee of the National Service League (72 Victoria Street, Westminster, S.W.), offers prizes—£15, £10, £5—to Masters of Secondary Schools in Lancashire for the three best essays on the thesis, "That Compulsory Military Train-

ing is necessary for the safety of the country and advantageous from the civic point of view." "Essays must be legibly written [!] and not exceed 1,500 words."

—♦♦—

**Appointments and Vacancies.** In Cambridge University, Mr. A. E. Shipley, F.R.S., Fellow and Tutor of Christ's, has been appointed Reader in Zoology; Mr. C. T. Heycock, F.R.S.,

Fellow of King's, Goldsmiths' Reader in Metallurgy; Mr. H. O. Meredith, Fellow of King's (Lecturer in Economic History and Commerce at Victoria University, Manchester), Girdlers' University Lecturer in Economics; Mr. H. Yule Oldham, King's, University Lecturer in Political and Economic Geography; and Mr. P. Lake, St. John's, Royal Geographical Society's University Lecturer in Physical and Regional Geography. The Professor of Mechanism has appointed Messrs. A. H. Peake (St. John's), J. W. Landon (Sidney), and T. Peel (Magdalene) to be Demonstrators in Engineering for five years, Mr. Peake to be Senior Demonstrator.

\* \* \*

THE Mastership of St. John's College, Cambridge, is vacant through the death of the Rev. Charles Taylor, D.D., Hon. LL.D. Harv., who had been Master since 1881.

\* \* \*

MR. L. OPPENHEIM, LL.D. Gött., Lecturer in International Law, London School of Economics and Political Science, formerly Professor of Law in the University of Basle, has been appointed Whewell Professor of International Law in the University of Cambridge, in succession to Prof. Westlake.

\* \* \*

MR. ERICH H. BUDDE, Ph.D. Jena, has been appointed to the new additional Lectureship in German at Oxford University.

\* \* \*

MR. DAVID NICHOL SMITH, M.A. Edin., Professor of English Language and Literature, Armstrong College, Newcastle-on-Tyne, has been appointed to the new Goldsmiths' Readership in English in Oxford University.

\* \* \*

MR. LAMBERT F. WINTLE, LL.B., has been appointed a Secretary to the External Registrar of London University.

\* \* \*

MR. JOHN MARSHALL MACGREGOR, M.A., Assistant Lecturer in Greek and in Latin in Liverpool University, has been appointed University Reader in Greek in London University, to teach at Bedford College.

\* \* \*

IN the Imperial College of Science and Technology, the Hon. R. J. Strutt, F.R.S., has been appointed additional Professor of Physics, and Mr. S. Herbert Cox full-time Professor of Mining.

An additional Professor of Zoology, a Professor of Metallurgy, and an Assistant Professor of Botany are to be appointed in the near future.

\* \* \*

IN Manchester University, Mr. J. E. Petavel, D.Sc., F.R.S., Lecturer in Mechanics and in Meteorology and Demonstrator in Physics, has been appointed Professor of Engineering; Mr. C. H. Lander, M.Sc. Man., Lecturer in Engineering; Mr. T. G. B. Osborn, B.Sc. Man., Lecturer in Economic Botany; Mr. F. H. J. A. Lamb, M.D. (Demonstrator in Physiology, Cardiff University College), Senior Demonstrator in Physiology; Mr. A. E. Woodall, M.B., Ch.B. Man., Junior Demonstrator in Physiology; Mr. T. W. Todd, M.B., Ch.B., Senior Demonstrator, and Mr. E. E. Hughes, M.B., Ch.B. Vict., and Mr. S. H. J. Kilroe, M.B. Lond., Junior Demonstrators, in Anatomy; Mr. John

MacInnes, M.A., Senior Assistant Lecturer in Classics; Mr. N. L. Ingle, B.A. Cantab., Assistant Lecturer in Classics; Mr. F. Smith, B.A., B.Sc. Man., and Miss W. G. Maitland, Demonstrators in Education; and Mr. Robert Dunlop, M.A., Honorary Special Lecturer in Irish History.

IN Sheffield University, Dr. Ralph P. Williams, M.D., B.S. Lond., D.P.H. Oxon., Medical Inspector under the Sheffield Education Committee, has been appointed Professor of Public Health, in room of Dr. Scursfield, resigned; and Miss K. L. Johnston, B.A., Lecturer in Education and Mistress of Method in the University Training College.

THE REV. T. J. LAWRENCE, LL.D. Cantab., has been appointed Honorary Reader in International Law at University College, Bristol.

SIR ALFRED WILLS has resigned the Presidentship of Hartley University College, Southampton, on account of some difference of opinion with the College Council.

MR. T. S. STERLING, B.A. Cantab., has been appointed Lecturer in English in the Hartley University College, Southampton.

THE REV. DR. MARCUS DODS has resigned, through illness, the Principalship of New College, Edinburgh.

THE REV. W. W. LONGFORD, M.A. Oxon., has been appointed Lecturer in History at St. David's College, Lampeter.

THE REV. ARTHUR COLLINGWOOD, S.J., Professor of Mathematics, Wimbledon College, has been appointed Rector of the Jesuit College, Leeds.

OUT of ten Medical Inspectors of Schools appointed by the County Council of the West Riding of Yorkshire, four are ladies—Miss K. J. S. Clark (Edinburgh), Miss J. Coupland (Nottingham), Miss E. McCall (Stoke-on-Trent), and Miss Elizabeth M. McVail (Glasgow).

MISS AGNES A. PARSONS, M.D., B.S., has been appointed a Medical Inspector of Schools under the Birmingham Education Committee.

MISS H. L. POWELL, Principal of the Cambridge Training College for Women Teachers, has been appointed Principal of St. Mary's College, Paddington.

MISS M. H. WOOD, M.A., Litt.D., late Scholar of Girton, Vice-Principal and Lecturer in Pedagogy, St. Mary's College, Paddington, has been appointed Principal of the Training College for Women, Cambridge.

MR. J. STANSFIELD, B.A. Cantab., has been appointed Vice-Principal of St. Peter's College, Peterborough.

MISS H. A. CARSON has been appointed Vice-Principal of the Cheshire Training College, Crewe.

THE REV. F. S. DENNETT, M.A., Chaplain, Worksop College, has been appointed Head Master of the Choir School, Upper St. Leonards.

MR. A. M. WILLIAMS, M.A., joint Rector and Head of the English Department, has been appointed sole Rector and Lecturer in Education, in the Training College, Glasgow.

MR. CLEMENT G. BONE, Assistant Secretary to the Warwickshire Education Committee, has been appointed Secretary to the Dorset Education Committee.

MISS BEATRICE FULLFORD, B.Sc., Science Mistress, Milham Ford School, Oxford, has been appointed Organizing Secretary for the Young Men's Christian Association in Japan.

MISS M. BURTON, B.A., Milham Ford School, Oxford, has been appointed Head Mistress of the Waterford High School.

MISS A. K. EDWARDS, of Newnham College, has been appointed Classical Mistress at Milham Ford School, Oxford; Miss Muriel Thompson, M.Sc., Science Mistress; and Miss Jessie Lowson, M.A., Mathematical Mistress in the Kindergarten.

MR. JOHN ROBERT BROWN, M.A. Cantab., of Bury, Lancashire, has been appointed Head Master of the County School and P.-T. Centre, West Suffolk.

MR. K. LONSDALE, B.A., has been appointed French Master at Maidenhead Modern School.

MR. W. J. D. BRYANT has resigned the Head Mastership of Sir Andrew Judd's Commercial School, Tonbridge, after twenty years' service.

MESSRS. JACK announce the issue (commencing in September) of a fresh popular work on natural history, "The Wild Beasts of the World," in seventeen shilling (net) parts, edited by Frank Finn, and illustrated with 100 reproductions in full colours from drawings by Louis Sargent, Charles E. Swan, and Winifred Austen.

IN connexion with the Tercentenary of Milton, the Elizabethan Stage Society, under the direction of Mr. William Poel, will revive the "Samson Agonistes" next December in London, and will afterwards give representations in Oxford, Cambridge, Liverpool, and Manchester.

THE Joint Agency for Women Teachers (74 Gower Street, W.C.) states: "For engagements for 1909 and afterwards members of the associations represented on the Committee will no longer be charged any registry fees, and commissions for them will be as follows:—Resident posts, 1½ per cent., non-resident posts, 1 per cent. on the first year's salary."

SIR HUBERT VON HERKOMER, who was for some years Slade Professor of Fine Art at Oxford, has offered to paint a full-length portrait of the Chancellor, Lord Curzon of Kedleston, as a gift to the University.

ACCORDING to the *Kölnische Zeitung*, the question of the admission of women to University study in Germany has been settled. Women subjects of the Empire will be admitted on the same footing as men; but women of other countries will require the permission of the Minister of Public Instruction for matriculation.

HARVARD UNIVERSITY has decided to open a special two-years' course in banking and finance, accounting and auditing, insurance, industrial organization, transportation, commercial law, economic resources, and civil service; and on examination will award the degree of "Master in Business Administration."

## CORRESPONDENCE.

## THE MORAL EDUCATION CONGRESS.

To the Editor of "The Educational Times."

SIR.—We beg leave to draw the attention of your readers to the First International Moral Education Congress, to be held at the University of London, Imperial Institute Road, South Kensington, on September 25 to 29.

The Congress is honoured by the good wishes of His Majesty the King. It meets under the patronage of twelve Ministers of Education, including England, the United States, France, Italy, Russia, Belgium, Spain, and Japan. It has also for its patrons fifteen heads of Colonial Education Departments: delegates are being sent by many Universities, by all the leading educational associations, and by a number of Education Authorities; and, finally, the list of Vice-Presidents and of the General Committee includes very many of the leading educationists of Europe.

Of those who are contributing papers, we may mention: England—Profs. Adams, Lloyd Morgan, Mackenzie, and Muirhead; America—Profs. Adler and Peabody; Italy—Cesare Lombroso; France—Profs. Buisson, Boutroux, and Seailles; Germany—Profs. Munch, Foerster, and Tonnies; Russia—M. and Mme. Kovalevsky; Hungary—Profs. Kármán and Schneller. The whole field of moral education in schools will be covered. The following is the general programme:—

I. The Principles of Moral Education (Chairman, the President). II. Aims, Means, and Limitations of the Varying Types of Schools (Chairman, Lord Avebury). III. Character-building by Discipline, Influence, and Opportunity (Chairman, M. le Baron d'Estournelles de Constant, Senator). IV. The Problems of Moral Instruction (Chairman, Prof. Dr. Friedrich Jodl, University of Vienna). V. (a) Relation of Religious Education to Moral Education (Chairman, Rev. Dr. Gow, Westminster School); (b) Special Problems (Chairman, Regierungsrat Dr. Gobat, Berne). VI. Systematic Moral Instruction (Chairman, Geheimrat Prof. Dr. Wilhelm Foerster, University of Berlin). (c) The Teaching of Special Moral Subjects (Chairman, Cyril van Oberbergh, Director-General of Higher Education for Belgium). VII. The Relation of Moral Education to Education under other aspects (Chairman, Prof. Ferdinand Buisson, University of Paris). VIII. The Problem of Moral Education under Varying Conditions of Age and Opportunity (Chairman, Sir William Anson, University of Oxford). (d) Biology and Moral Education (Chairman, Prince Jean de Tarchanoff, St. Petersburg Academy of Medicine). Special Moral Instruction Lessons will be given in English by Mr. F. J. Gould; in French by Pastor Charles Wagner, the author of "The Simple Life"; and in German by Frl. Jannasch. There will also be an exhibition of books and pictures.

The fee (including Report of some four hundred pages) is 10s. 6d. for the general public and 7s. 6d. for teachers. Single day tickets can be had for 2s. 6d. Return fares on all lines at single fare and a quarter. It is hoped that there may be a large attendance of the general public and of the teaching profession.

Full details may be obtained on writing to the office of the Congress, 13 Buckingham Street, Strand, London, England.—We remain, on behalf of the Executive Committee,

MICHAEL E. SADLER, President.  
 AVEBURY, Hon. Treasurer.  
 SOPHIE BRYANT, Chairman.  
 J. W. ADAMSON, Vice-Chairman.  
 GUSTAV SPILLER, General Secretary.

THE Society of Merchant Venturers has decided to petition His Majesty in Council in favour of the grant of a charter for the establishment of a University of Bristol on the lines of the draft charter prepared by the local University college, but suggesting certain modifications which will define more precisely the position in the University to be occupied by the University classes of the Merchant Venturers' Technical College. Among the most important are those which provide that Bristol students whose means are small shall still be able to obtain a University education at fees as low as those charged by the Merchant Venturers' Technical College, and that the degrees of the University shall be open to evening students.

## THE INTERNATIONAL ART CONGRESS.

THE Third International Art Congress "for the Development of Drawing and Art Teaching and their Application to Industries" was held in the Great Hall of the University of London, South Kensington, August 3-8. There was a very large assembly of delegates from some forty countries. The Earl of Carlisle was elected President of the Congress, and the following were chosen as Vice-Presidents:—Sir John Gorst (Great Britain), Prof. Woodward (United States), M. Paul Colin (France), Herr Boos-Jegher (Switzerland), Dr. Pallat (Germany), Prof. Ferrari (Italy), Prof. Nadler (Hungary), Mme. Eliesco (Rumania), Herr Palascheff (Bulgaria), Herr Segerborg (Sweden), and Fräulein Sahlsten (Finland).

## THE PRESIDENT'S ADDRESS.

The Earl of CARLISLE, in his presidential address, said this was the third Congress of its kind. The first was held in Paris in 1900, on the occasion of the International Exhibition, and the second at Berne in 1904. The Paris Congress was attended by 30 official delegates, 15 countries were represented, and the Congress had 516 members. At Berne 61 official delegates represented 25 countries, and the number of members was 648. The present Congress was attended by 51 official delegates from 37 countries, and more than 1,800 members. The originators of the Association Amicale des Professeurs du Dessin, which held these congresses, were a handful of French teachers who, as early as 1894, met to discuss the project of such a federation. Those teachers had remained members and were present to take part in this Congress. He wished that he could believe that the significance of this new international movement had at last been fully realized in this country. It was certainly not understood at either the first or the second Congress. Of 516 members enrolled in Paris, only 12 were British teachers. The presence of the Congress in London was due to the fact that those teachers were vividly impressed by the standing and encouragement given to their *cofrères* at the Conference in Paris, and subsequently at Berne, alike by public opinion and by the Governments concerned. Great thanks were due to those English teachers who had brought about this result. It was impossible to exaggerate the educational value of the exhibition connected with the Congress, and the more they looked at the well chosen exhibits the more important appeared the international movement which had brought them together. It was a movement which we in this country ought particularly to welcome, since it showed an extraordinary variety of ideas and teaching methods, and illustrated more vividly than any report could do the organization and equipment of nations which had far longer experience than we had of æsthetic and technical education. Of the subjects to be discussed the most important for this country were those which bore upon the value of co-ordination between various kinds of schools and the application of art to industry, and, for us, he thought, that was also the main feature to be observed in the exhibition. In this matter many foreign countries were our masters, and we should do well to learn what we could from them. . . . The indifference of the Government to art teaching was illustrated by their very marked neglect of this Congress. He attributed this marked neglect, and he hoped members of the Congress would attribute it, rather to extreme stupidity than to any intentional rudeness. . . . He dwelt upon that matter because it illustrated in some degree the defects of our system to which he wished to draw attention. How were we to educate our masters? Perhaps some foreign visitors might be able to say how it was that their Ministers and members of municipalities were as well educated as their pupils. The fact that our art education did not extend to our public schools—using that term in the British and not the American sense—or to our Universities might have a great deal to do with the matter. The same fact might be the cause also of one of the great difficulties with which they had to deal—the divergence between the art training of the workman in the art school and the work which he was called upon to do for the silver-smith and jeweller when he went out into the world. Another great drawback resulting from this want of cultivation in our governing classes was that every Minister or educational body was the easy prey of the eloquence of literary gentlemen with theories. Unfortunately, they had no criterion by which they could judge the practical results of the systems they had set up and knocked down. . . . Still, within his time, the movement had made immense progress.

The papers covered a very wide variety of subjects, and were followed by animated discussions in English, French, and German. We can only select a few brief summaries.

#### ART IN THE SCHOOL AND IN THE HOME.

Prof. M. A. KELLER, of the Ecole Normale Supérieure de Saint-Cloud, said there existed to-day a movement in the direction of popular art which was not yet understood by the general public, and in which the professor of drawing had accepted the double mission of inculcating the principles of drawing and of creating among his pupils the taste for art. In the school it was his part to suppress his own personality and teach his pupil by the observation of Nature to develop in himself some feeling for art. The growth of taste and the sense of beauty would then follow of themselves. Among the means which he suggested for cultivating in the young mind the proper sense of art were a well chosen scheme of mural decoration in the school itself, with reproductions of frieze borders and famous works of art, and visits to museums and monuments organized by the paid teachers of the State. Art in the home was a matter of greater delicacy, for in France the family circle was jealous of its liberty, and thus here it was the influence of the child alone that could operate, and he would gradually become the educator of his parents and of the other members of his family. The delicate taste of the girls and the manual skill of boys might thus contribute to render the home beautiful and more agreeable to the family. M. Keller also suggested that the scholars' book prizes should be superseded by really good framed engravings, that the planting of trees and flowers should be encouraged, and that children should be introduced to the beauties of Nature by excursions into the country and to museums and studios.

#### THE TRAINING OF INFANTS.

Miss KATHARINE PHILLIPS, Superintendent of Method to the London County Council, in discussing "Drawing in Infants' Schools," said that formerly children from three to seven years of age were trained according to traditional senior-school methods rather than by those arising out of their physical, mental, and social conditions and needs. Far other ideas, however, were now beginning to prevail, it being recognized by intelligent teachers that, to save time and obtain effective results, it was wiser to select from natural instincts and impulses those for cultivation which seemed to have been determining influences in man's upward course towards a finer organization of mind and body. The drawing of little children was recognized by teachers to be a language; another means of expression for the developing, struggling child intelligence. In our good modern infants' schools the little children were now not only allowed, but required, to see for themselves. They were required to record their own impressions and observations, or ideas of their impressions and observations, not what an outside adult authority insisted to them was there to be seen. Thus by practice and re-observation the infants approached slowly to "truth in seeing." As there was joyous freedom of self-expression proper to the age of children, every mark made had its meaning, purpose, and strength, however rudimentary, instead of being, as formerly, mechanical, meaningless imitation.

#### GERMAN AND AMERICAN EXPERIENCE.

Dr. GEORGE KERSCHENSTEINER, of Munich, in a paper on "The Development of the Power of Graphic Expression," reported the result of many years' experiments in connexion with 58,000 school children between the ages of six and fourteen. The conclusions at which he arrived, and which were accurate enough to warrant their use as a foundation on which to base the drawing syllabus, included the following: Boys and girls required a different syllabus, at least in the elementary school; decorative teaching should only be eliminated from the syllabus when the teaching staff showed lack of artistic feeling. As a rule, drawing from Nature could not be successfully taught in classes before the age of ten, and where systematic class teaching of drawing was begun at an earlier age it was desirable to organize drawing from memory exclusively.

Mr. HENRY TURNER BAILEY (United States) directed attention to certain experiments in the schools of the United States, which seemed to tend towards establishing methods of teaching young children through drawing live plants. The power to draw directly from the object was of such great importance that any course of instruction which failed to develop it could hardly be called successful. This power developed through constant

practice under guidance. The objects best adapted apparently to the needs of beginners in the art of delineation were the common plants, because they were everywhere available, because they presented all the problems of graphic representation in their simplest form, and because children liked flowers, and therefore drew from them with enthusiasm.

A long resolution was adopted on the motion of Mlle. TEUFFOT (Paris), declaring that the kindergarten teacher should, above all things, safeguard the child's sensibility and try to make drawing an aid to the development of all its faculties; that the exercises should be progressive, chosen from familiar objects in Nature, and quite short; and that, as drawing was so important in education, the theory and practice of this art should be specially studied by teachers.

#### APPRENTICESHIP AND EDUCATION.

Mr. W. R. LETHABY, Professor of Design at the Royal College of Art, read a paper upon "Apprenticeship and Education," in which he advanced the view that all education should be apprenticeship, and all apprenticeship education. Education had become, in the thoughts of many, far too much a mere abstract grammar and far too bookish. This bookish method had invaded even art education. Instead of learning directly how to draw in the simplest and yet surest way, one was supposed to learn first all about drawing in various subdivisions and artificial compartments, as freehand drawing, model drawing, perspective drawing, life drawing, and the like. These elaborate approaches to a practical subject, a form of gymnastic-like drawing, were very wasteful of time and very destructive of confidence. The great end was production, the great thing was the trade, the craft, and sufficient culture could be hung up to any sufficient trade. Drawing was best taught along with apprenticeship to a craft, otherwise it became so generalized that it was difficult for the ordinary student to see its application, and it became only a "subject." In thus generalizing it into a grammar apart from its application, the most valuable parts of the teaching of drawing had often been forgotten. These most valuable parts were, he considered, (1) the bringing before the student fine material on which he formed his taste; (2) the unconscious absorption of facts not only as to the shape of man, but fine ornamental forms, letters, heraldry, symbols, &c.; (3) the collection of examples for use, so that if one wanted a vine, a rose, a ship, or a stag, there was a study of it already laid up for reference. The old masters drew with this object, and that was why their drawings were treasured and handed on. Modern masters, like Alfred Stevens or Burne-Jones, drew in this way to store up observations, but how late in the day the idea came to most students that their studies were not (for example) mere "life drawings," but observations of attitude and action forming so much valuable stock in trade! These supplementary purposes of learning drawing had been, he thought, so much forgotten because drawing had been so divided off from the crafts, even from the craft of painting, and he, for his part, thought that all advanced drawing should be carried on in association with the learning of a craft, were it carpentry or sculpture; nothing else made it sufficiently real and vital.

#### CRAFTSMEN AND SCHOOLS OF ART.

Mr. W. H. BERRY, speaking of the position of schools of art in relation to the training of the present and future generations of craftsmen and designers, referred particularly to the work of the smaller schools, although, he said, many of the larger institutions failed to accomplish the object for which they were instituted. The whole tendency of many schools seemed to be to give pupils a sound grounding in the principles of drawing without any correlative idea as to what the science which they were learning might lead to. Draughtsmanship appeared to be the end of their teaching, and therein lay a grave danger, for draughtsmanship could never be of much service in itself, and must rely upon its use as a decorative factor or fail in a large measure to justify the expenditure of time upon teaching it. There seemed to be no reason why the teaching of sound draughtsmanship should not be compatible with that of fine craftsmanship; indeed, it had been proved that the latter improved the former by teaching the student the art of selection. It was lamentable that many art schools had no appreciable effect upon the manufactures of the districts in which they were situated. In such cases there must be something wrong, either in the organization of the schools or the curriculum to which they adhered. This could be remedied only by the decentralization of the schools and by making their teaching practical. By

a process of decentralization, districts or counties might be given a central institution in which their own teachers and students might be initiated into the practical as well as the æsthetic side of their education, and a system of co-operation might be devised by which the student could learn something of practice and theory simultaneously. In a large number of schools not in industrial centres dilettantism of the worst order was to be found. It was equally important that these should be decentralized. In a wealthy district which was not industrial there would be a demand for quite a different type of work from that called for in manufacturing centres. In a school so situated it would be reasonable to teach such crafts as jewellery, illumination, embroidery, bookbinding, wood-carving, and all those crafts which could be carried out in their entirety by the student. Where that had been done, it had been proved that there was scope for the students' output and a livelihood to be gained after leaving the school. That fact must be acknowledged and advantage taken of it by educating the public to understand what was in good taste and to appreciate work produced under the best possible conditions. The subdivision of labour in artistic production could not be condemned too much; it was the root of all evil in decadent art.

#### ART IN THE UNIVERSITY.

Mr. W. EGERTON HINE, Art Master at Harrow, discussed the question of the teaching of drawing in relation to the University curriculum, and said its present exclusion therefrom constituted an indictment against the illiberal and narrow scheme of education which the Universities adopted. In nearly all professions some knowledge of drawing was necessary, notably for the soldier to make topographical notes, for the sailor to illustrate his log, for the medical man to facilitate diagrammatic expression, and for the scientist and naturalist to afford them a direct and universal language for recording results of research and setting down facts. At the Universities very definite courses of art study should be open to all, practical lectures and good demonstrations should be given, and honours as well as degrees should be possible of attainment. Architecture, painting, and handicrafts should be included in the curriculum, and one or more of these subjects made compulsory in the examinations.

Mr. W. W. RAWSON, Inspector of Drawing for Cape Colony, said a special training in drawing was admittedly necessary for architects, engineers, decorators, and those in other professions dealing chiefly with the graphic representation of ideas and objects, and a similar power of representation was needed by all who had to impart knowledge. The needs of these professions would be met were a uniform and right system established in primary and secondary schools. The inclusion of art training in a University curriculum was justified—(1) as drawing, because of the necessity to make statement at will by graphic means; (2) as handicraft, in order that the uses and beauties of forms might be appreciated and a sound influence upon current workmanship exercised; (3) as fine art, because of the refining influence and the sense of delight afforded by its study, its influence upon a nation and effect upon industries, and its universal and perennial interest.

Prof. WOODWARD, of the Tulane University of Louisiana, in the course of the ensuing discussion, said the tendency in the United States was towards the amalgamation of the art schools with the Universities. Architecture had been developed under the Universities; ten or twelve Universities had departments of architecture which were the best schools in that subject in the country, with the exception of the Massachusetts Institute of Technology. The extent of instruction in art generally, however, varied greatly; in the University of Maine, 51 per cent. of the students enrolled took art or drawing in some form, while at Amherst, an older University on the English model, the proportion was as low as 5 per cent.

#### TRAINING OF ART TEACHERS IN ENGLAND AND WALES.

A report, compiled by a British Sub-Committee giving information concerning the provision made by certain Education Authorities and training colleges in England and Wales for the training of teachers in drawing and other art subjects, was read by Miss GILES. Of the 131 Education Authorities (county and county boroughs) to whom application was made, 128 sent replies. Of these, 41 made no special provision for art instruction; 17 gave instruction to uncertificated and supplementary teachers only, 15 gave free instruction to teachers, 29 had no examination, 48 had Board of Education examinations, and 6 had examinations

other than that of the Board of Education. Communications were received from 56 of the 72 training colleges applied to. The replies showed that 45 had a two-years' course and 4 a three-years' course of art instruction. The average number of students per class was 34.5. A certain number of secondary training colleges sent in answers to the questions, which showed that only one provided for the full professional training of the art teacher. Entrance to the Royal College of Art was still mainly by way of Royal Exhibitions and National Scholarships awarded on the results of the Board of Education examinations. The old "free year," on obtaining a full certificate, had been abolished, in spite of the much greater stringency of the test. The practical result had been to separate the Royal College much more from the rest of the art schools and to set the provincial cities on their mettle to provide as good, or better, training nearer home. The Sub-Committee recommended:—(1) That provision for instruction be on the basis of the recognition of drawing as a part of general education; (2) that drawing be brought into closer relation with other subjects, as its chief use in early years was as a mode of expression; (3) that teachers of all subjects practise drawing as a part of their professional equipment; (4) that prospective teachers of drawing have the professional part of the general training course, having access to this through a certificate of general fitness; that special emphasis be given to the study of child nature; that instruction be given in the special methods of teaching drawing, with practical lessons and criticism; and that examinations cover professional fitness. The Sub-Committee pointed out the necessity of provision for the training of art teachers in pedagogical principles and practice, and remarked that instruction in the special methods of teaching drawing was of little value without being taken in connexion with regular practice work. The training colleges seemed peculiarly deficient in this respect. Again, if efficient teachers of drawing were to be secured, one of the necessary conditions was that examinations should cover professional fitness. The tests so far applied dealt only with technical ability, and certificates might be held without any assurance of ability to teach.

#### ART TRAINING ABROAD.

A paper upon "The State of Training for Art Teachers in France" was submitted jointly by M. FRÉCHET, Professor at the Ecole régionale des Beaux-Arts de Nantes, and M. CATHOIRE, Professor at the Lycée Charlemagne. The paper pointed out that the teaching staff for drawing was at present recruited in a haphazard manner, and for many years those responsible for that instruction had insisted on the necessity of a more logical preparation, corresponding with modern wants. They therefore suggested the establishment of a special training college, or a training section in one of the schools of art in Paris; or, if this should prove too costly a solution to the State, candidates should be required to take a course of professional training, in which they would get practice in their profession and instruction in their duties at the same time.

M. LÉON MONTFORT, Inspector of Drawing and Manual Instruction to the Belgian Government, emphasized the claim of art to be considered as a branch of general education. Two systems of education were possible, first by means of training colleges for teachers of drawing only, with a two or three years' course in (1) the theory of art, æsthetics, archaeology, history, and the like; (2) the practice of art, painting, and design; and (3) pedagogy. The second possible course was the selection of drawing teachers from teachers of other subjects who had a special leaning to this branch of teaching, who should have taken courses at a school of art and a University.

Prof. ROBERT NADLER, of the Royal Hungarian College of Art, Budapest, described the methods adopted in his college. The double aim was to train drawing masters and professors, whose duty was to develop appreciation, artistic taste, and a conception of fine art in the pupils in public schools, and to train art students generally. The condition of admission for candidates for drawing masterships was the matriculation or teacher's certificate; for women, the passing of the sixth class of a secondary school; and for art students, a certificate of the sixth class of any kind of secondary school. All candidates had to pass an examination in drawing—head, freehand, perspective, and design. A four years' course must be taken before a student could graduate as professor or drawing-teacher. The course for women teachers also lasted four years, except in the case of students who had passed only six classes of a secondary school. Such students entered a preparatory school and then took a



five years' course. They could not graduate as teachers for training colleges. The course for fine art students was not restricted to any particular number of years, but a four years' course was usually taken. Diplomas for professors and masters of drawing were awarded to those who passed a special examination for which the subjects required were figure drawing, head and whole figure, modelling, freehand, perspective, anatomy, architectural drawing, decorative design, applied art design, still-life drawing and painting, history of art, psychology, pedagogy, and Hungarian literature. Special institutions for the training of drawing teachers should be founded ranking with the Universities. Where this was not possible, special courses should be organized in connexion with schools of art, in which the artistic and the pedagogical capacities should be equally developed.

Mr. A. W. Dow, Professor of Fine Arts in Teachers' College, New York (Columbia University), urged that art teachers had before them the task of convincing the public that art education furnished the finest kind of training for children. Inadequate teaching was responsible for the misconceptions existing in the public mind as to the significance of art. Most art courses were built upon the time-honoured academic theory which substituted imitation—whether of Nature or of a style—for appreciation of harmony, and made "learning to draw" the fundamental process of art study. To meet the diverse needs of public life an entirely new basis must be found. The public would not accept art education at its full value until there was a radical change in ideals of teaching, and consequently in methods. The purpose of art teaching in the schools was the education of the whole people for appreciation, and its results would be efficiency—the trained judgment enabling its possessor to do all things in a finer way—and the enrichment of home and civic life. He outlined a structural method of teaching art, which he had found serviceable, based upon spacing for a general effect of good arrangement, and distinct ways of creating harmony of line by the principles of subordination and rhythmic repetition. In all the years of school it was possible to relate the art work to history, geography, language, and other studies; but such relation should be very obvious and simple. It was important to keep the art course a unit.

### THE TEACHERS' REGISTER.

THE negotiations that lately took place between the Board of Education and representatives of certain educational associations with regard to the establishment of a Registration Council under the Education (Administrative Provisions) Act of 1907 (says the *Morning Post*) have been fruitless owing to the Board's insistence that the composition of the Registration Council must provide indirectly, if not directly, for the representation of every class of teacher, from the University professor to teachers of dancing or millinery. The Board of Education further make it clear that, until the teaching profession can put forward a detailed scheme in which this stipulation is satisfied, registration will continue in abeyance.

#### ADMINISTRATIVE CONSIDERATIONS.

The associations responsible for the scheme which the Board have pronounced inadequate will no doubt resent this scrupulousness, and it will be said that the Board are seizing on an excuse for delay. To any one who has closely followed the administration of the defunct Register, a far more ominous inference must suggest itself; and it is difficult to see how the correspondence which has passed between the Board and certain of the representatives in question can have left the latter ignorant of a danger which threatens the future work of registration, even if a Registration Council should be formed under conditions that satisfy the Board of Education. It seems not unlikely that the Board of Education may be content to discharge their legal obligations by establishing a Registration Council whose claim to be "representative of the teaching profession" is irrefutable, and may subsequently acquit themselves of any further responsibility. They could easily defend themselves by pointing out that under other clauses of the 1907 Act the entire conduct of the Register is relegated to the new Council, and that the conditions under which teachers are to be admitted have not now to receive the approval of the Board. The Order in Council which governed the old Register had so irritated the teaching profession that in 1907 there was a vigorous demand for a Register free from bureaucratic control, and, technically, that demand has been met. But the teachers' associations in 1907 lost sight of

the administrative considerations, which make it certain that any attempt to maintain a Teachers' Register apart from the active co-operation of the Board of Education is foredoomed to failure. The argument that the Medical Register is successfully conducted by the medical profession is irrelevant. Medical men are compelled to Register because unregistered practitioners cannot claim fees, but no one seriously believes that this condition will ever be imposed upon teachers. For them the main inducement to register must be supplied by the attitude of Education Committees and governing bodies, who, in turn, will take their cue from the Board of Education. Among points which have been overlooked is the fact that no one has ever been able to show how the considerable expense necessary for keeping up a Register can be met without help from the State. This was clearly pointed out by the late Registration Council, and any one who considers in detail the administrative work involved in registration must agree with them.

#### THE STANDARD OF EFFICIENCY.

Money, however, is not the only form of help which the Board of Education must give, if any scheme of registration is to become successful. Take the simplest of the many problems which would come before a new Registration Council—the registration of elementary and secondary-school teachers. The Registration Council would probably desire to lay down three requirements: academic attainment, professional training, and satisfactory teaching experience. How each of these requirements will work will depend on the Board. The question whether a satisfactory standard of academic attainment can be insisted upon cannot be considered apart from the fact that the Board of Education now discourage elementary teachers from taking University degrees. Yet a register of graduates from which all but a few of these teachers would be excluded seems an impossibility. If, on the other hand, as is probable, the elementary teachers' certificate is considered insufficient as a basis for registration, the whole status of the Register would depend on the chance that the Board might consent to institute an Honours Examination open to teachers in possession of the Government certificate, and specially adapted to follow on the course of study pursued in elementary training colleges. Again, with regard to training, it would be futile for the incoming Council to lay down requirements unless the Board of Education are prepared to give effect to that article of the Regulations for Grant-aided Secondary Schools which states that: "Where the Board think fit, they may, on consideration of the teaching staff as a whole, require that a certain proportion of all new appointments shall consist of persons who have gone through a course of training recognized by the Board for the purpose."

By no other means will Local Authorities be brought to realize that the presence of trained teachers on the staff of a secondary school must be looked upon as essential. The fact that the Board have not enforced this point in the past, and that the number of trained secondary teachers in the Kingdom is consequently practically negligible, makes it, indeed, a question whether the attempt to revive registration should not be deferred till this administrative stimulus to train has made itself felt. Finally, what course is open to the new Council respecting the requirement of teaching experience? To the late Council the way in this respect was made plain, for under the old Order in Council the Board of Education undertook the duty of inspecting and recognizing schools for registration purposes. What is the position now that the 1907 Act has wiped out this obligation? It is obvious that the new Registration Council cannot establish an inspectorate of their own; it is equally clear that the Board of Education will not voluntarily resume the burden. Hence it would seem that the alternative to dropping "satisfactory teaching experience" from the list of requirements would be to define it as service in schools aided by the Board of Education or otherwise recognized by them as efficient. That in such case the policy of the Council must remain closely associated with that of the Board is a foregone conclusion.

#### THE DUTY OF THE BOARD.

To sum up. A professional Register of teachers may be called into existence, but it will stand or fall as the Board of Education decree. This being so, the present deadlock in the formation of the new Council seems of little moment. It is infinitely more important that the Board of Education should recognize that in creating a Registration Council they will incur moral responsibilities which cannot be shaken off. Each day they tighten their control over the schools of this country, and, as paramount

authority, it is no longer possible for them to stand aside from the administration of a scheme which affects education, and which is, moreover, founded on their own Act. It is to be hoped that the Board of Education will now use the period of delay which will follow the publication of this correspondence for a serious consideration of their position, will draw up their own proposals for providing the necessary administrative basis for effective registration, and will themselves lay those proposals before the teaching profession.

At the twentieth annual meeting of the Society of Art Masters, held at the Victoria and Albert Museum, South Kensington (August 1), Miss Giles (Clapton) introduced the subject of the Teachers' Registration Council, and pointed out that, in the White Paper [Cd. 4185] issued by the Board of Education, Sir Robert Morant gave what was practically an invitation to all members of the profession to formulate their views and forward them without delay to the Board. To strengthen the hands of the Board of Education she proposed a resolution that that Society, which was composed entirely of holders of the Government Diploma of Art Master and A.R.C.A., most earnestly protested against the action of associations of teachers in proposing a partial and non-representative scheme for a new Teachers' Registration Council for the following reasons:—

(1) That the Education Act (Administrative Provisions), 1907, allowed the constitution of a "Registration Council representative of the teaching profession," presumably as a whole; but, at the Conference held at the College of Preceptors on February 29, the sponsors for secondary education were as two to one, and, by the confession of the Chairman, an entire and most important body of educationists was not even present to the minds of the delegates. To that Conference no such representatives were invited, nor, in spite of remonstrances from that and other kindred bodies, had any attempt since been made to call further conferences to ascertain their views. (2) That, as the ultimate end of his Majesty's Order in Council was the formation of a homogeneous and self-governing teaching profession, any attempt to cut off or sectionalize any portion or body of teachers, whether their teaching be of University rank or of the most elementary character, was a retrograde step impossible for the true educationist and calculated, if successful, to bring grievous harm to the national educational system.

The resolution was carried unanimously. Unfortunately, the attitude of the Conference at the College of Preceptors is not accurately represented. The delegates clearly and emphatically repudiated any desire for the exclusion of any class of teachers from representation. Their difficulty was to find a means of getting everybody represented. More unfortunately still, the resolution is purely negative.

The Council of the Froebel Society have addressed a letter to the Board of Education, in answer to the recent appeal of the Board for expressions "of the views of the teaching profession," again urging the direct representation of the Froebel Society upon the new Registration Council, on the ground that the Society represents the interests of a very large number of women teachers who are not "represented" by other bodies, and who are not "special" teachers for special subjects, but are trained general teachers of young children. The status, influence, and education of these teachers will, it is believed, be raised and improved by their representation upon the Council and their admission, on suitable terms, to the Register.

THE result lists of the recent Oxford Local Examinations show that the total number of candidates examined was 21,185 (3,526 preliminary, 8,302 junior, and 9,357 senior). Of these 2,831 preliminary, 6,007 junior, and 6,331 senior passed, making a total of 15,169. The senior candidates show an increase over last year of nearly 50 per cent. This large growth appears to be due to various independent causes. The practice of sending in picked boys or girls from a given school is giving place to that of entering whole classes or forms, and many candidates announced their desire to qualify for admission to a training college for elementary teachers or for exemption from a University or professional examination. There is also a considerable increase in the percentage of successful senior boy candidates. There is a tie for the first place in the first class of the seniors, in which there were 179 candidates, against 95 last year, A. A. C. Burton, Hitchin Grammar School (Mr. J. King), and E. A. Helsham, Mount St. Mary's College, Chesterfield (Rev. L. P. Wolfe), being bracketed equal. The third place is taken by S. E. Hancox, Loughborough Grammar School (Mr. B. D. Turner).

## LONDON SCHOLARSHIPS: A CRITICISM.

### THE L.C.C. SCHOLARSHIP SCHEME.

IN London (says the *Morning Post*) there is a very elaborate scholarship scheme. All children in the elementary schools between eleven and twelve years of age on July 31 are eligible for the Junior County Scholarship, and, provided they reach a certain standard of proficiency, are awarded free education at approved secondary schools for a period of from three to five years. Where the parents' income does not exceed £160 a year a maintenance allowance is added of £6 for the first three years, and if the scholarship is extended for two years more the maintenance allowance is increased to £15.

Last year nineteen hundred Junior Scholarships were allotted. For children between fifteen and seventeen Intermediate Scholarships are annually awarded by competitive examination, seventy being allotted to boys and thirty to girls. These are tenable till the age of eighteen and may be renewed for another year. Maintenance grants of £25 and £30 are added to free education. Senior County Scholarships up to 50 in number are then awarded without competitive examination to those proceeding to the Universities. These are tenable for three or four years, and are so arranged that they are held with other scholarships won by the students. A maintenance grant not exceeding £60, with fees of not more than £30 in addition to the parents' contributions and any scholarship won at the University, brings the total up to the amount required to enable the students to reside at the University selected.

Alongside of this general scheme are certain Probationer Scholarships for intending teachers, obtainable by children between thirteen and sixteen. These are estimated to be not more than eight hundred this year. There are further a number of technical, industrial, and other scholarships—e.g., four hundred Junior Domestic Economy Scholarships and some hundred and twenty Trade Scholarships for girls and a hundred and forty Trade Scholarships for boys, besides some hundreds of evening exhibitions.

### THE RESULTS.

The scheme has now been in operation some three years or more, and it is time to take stock of the results. Some facts must be noted; of the Junior Scholarships about two-thirds are awarded to girls and the bulk of the Probationer Scholarships fall to them also. This is due to the greater demand for women teachers and to the association of the scholarship scheme with the training of this class for the Council's service.

Now there is at present a larger supply of teachers available than can be absorbed, and it is desirable to consider whether the Council should not begin to revise the proportions allotted to the two sexes. It is significant that this division of the scholarships has led to girls of much lower attainments being accepted before boys of superior ability. The County Council is now considering whether the boys should not have their rightful share, and the special teachers' bias given to the scheme withdrawn. Next it will be noted how much smaller is the proportion of scholarships held in technical schools than in the secondary schools of the general literary or commercial type. Does London require so much larger a number of clerks than of skilled artisans? In this connexion it must be remembered that it is notorious that London does not train its skilled workmen. Apprenticeship has decayed and in many trades is almost defunct in London, with the result that the skilled workmen are drawn from the provinces. It would seem desirable that the proportion of scholarships assigned to the technical and literary schools should be revised. It is also asserted that many of the junior scholars are not found to reach the standard necessary to derive the fullest benefit from the education given in the best secondary schools. This leads to the consideration of the way in which the scholars are assigned to the several schools. Schools are of very varying types, and it was pointed out by the Board of Education at the inception of the scheme that they must be suited to the different aims and requirements of the scholars. At present there seems to be a distinct weakness in the method of assignment. The scholars

are allowed to select their schools, and, though the schools may refuse to admit those obviously below their standard, there may be cases where the best scholars apply for the lower grade secondary schools near their homes and the weakest may be sent to the highest class of secondary school. A better grading of schools at which scholarships may be held is desirable, and some method of guiding the scholars to the right choice must be devised. There are other considerations besides the mere relative ability shown by the children at eleven or twelve years of age. It is no use sending boys to Dulwich, the City of London School, and University College School, or girls to the best high schools, if they are entirely out of touch with the environment of the other pupils. There is no snobbishness in saying that children from the very poor homes of the labouring classes cannot hope to keep pace with their more fortunate fellows who have home surroundings which include cultivated parents, quiet rooms for study, and plenty of books for general reading. Only exceptional children can surmount these disadvantages. It is not surprising that many of the schoolmasters find that many scholars fall behind the required standard.

#### BURSARIES AT ELEMENTARY SCHOOLS.

A new element in the situation has now been introduced by the inclusion in last year's Act of powers to give scholarships in elementary schools. Many of the superior elementary schools in London are capable of giving excellent education up to fifteen. This education may be literary or commercial, or may be given a more technical bias. There are great advantages in retaining children who are to go out to work at fifteen in the elementary schools to that age, for they do not suffer the great break in their education which is so hard on those transplanted to the different atmosphere of the secondary school. There is no reason why the superior elementary school should not give as good an education up to fifteen as the present secondary schools. The time seems to have arrived when the authorities must consider the provision of bursaries in elementary schools either in lieu of some or in addition to the scholarships in secondary schools. In fine, the County Council should now endeavour to overhaul its scheme so as to ensure a greater opportunity for practical training for the actual life and work to which its scholars will

be going when their scholarships expire. It is time that we began to free our minds of cant. The Board of Education has made much of the social atmosphere of secondary schools. This may merely mean that a number of elementary-school children are placed in a position where they are looked down upon by their fellows and gain little, if any, real educational advantage. The Board has been insisting on free places in secondary schools up to 25 per cent. This may well be a serious handicap to the school, with no compensation to the free scholars. Surely education should be considered as important for its own sake and not as dependent on social atmosphere, and a good school should be able to teach a superior curriculum without any of the snobbishness implied in a supposed elevation of class. We have not yet arrived at a system by which the children of the rich sit on the same benches as their poorer fellows in the elementary schools. To try to force this idea in the secondary schools will not bring us nearer to any true education. Educated men and women can be independent of class distinctions, and the true line of progress would seem to be a system of scholarships which will enable the children of the working classes to obtain in higher elementary, or in municipal, secondary or technical, schools, the educational facilities which will enable them to develop the best in themselves and fit themselves for the highest places in the community for which they may prove themselves capable.

#### COLLEGE OF PRECEPTORS.

#### CERTIFICATE EXAMINATION.

ERRATA IN CLASS LISTS.—MIDSUMMER, 1908.

In the Second Class (or Junior) Pass List (Boys),

	<i>for</i>	
Hampton, T. V. <i>d.</i>		Kingsley School, Shifnal
Sutton, F. S. <i>al.</i>		Kingsley School, Shifnal
	<i>read</i>	
Hampton, T. V. <i>d.</i>		Willow House College, Walsall
Sutton, F. S. <i>al.</i>		Willow House College, Walsall

#### OPPOSITE THE BRITISH MUSEUM.

# THACKERAY HOTEL

GREAT RUSSELL STREET, LONDON.

#### NEAR THE BRITISH MUSEUM.

# KINGSLEY HOTEL

HART STREET, BLOOMSBURY SQUARE, LONDON.

These well-appointed and commodious **TEMPERANCE HOTELS** will, it is believed, meet the requirements, at moderate charges, of those who desire all the conveniences and advantages of the larger modern Licensed Hotels. These Hotels have

**PASSENGER LIFTS, ELECTRIC LIGHT THROUGHOUT, BATHROOMS ON EVERY FLOOR, SPACIOUS DINING, DRAWING, WRITING, READING, BILLIARD, AND SMOKING ROOMS, LOUNGE. HEATED THROUGHOUT.**

**Fireproof Floors.**

**Perfect Sanitation.**

**Telephones.**

**Night Porters.**

Bedrooms, including attendance, from 8s. 6d. to 6s. *Full Tariff and Testimonials on application.*

**Inclusive Charge for Bedroom, Attendance, Table d'Hôte Breakfast and Dinner, from 8s. 6d. to 10s. 6d. per day.**

ALSO UNDER THE SAME MANAGEMENT.

# ESMOND HOTEL

1 MONTAGUE STREET, RUSSELL SQUARE, LONDON.

This **Temperance Hotel** adjoins the British Museum, and is exceptionally quiet and economical.

Bedrooms, including attendance, from 8s. to 4s. 6d. per night. *Full Tariff and Testimonials on application.* **Night Porter.**

**Telegraphic Addresses:**

THACKERAY HOTEL,  
"THACKERAY, LONDON."

KINGSLEY HOTEL,  
"BOOKCRAFT, LONDON."

ESMOND HOTEL,  
"AGROUP, LONDON."

## REVIEWS.

## THE PALACE MIRACLE.

*The Riddle of the "Bacchæ": the Last Stage of Euripides' Religious Views.* By Gilbert Norwood, M.A., Fellow of St. John's College, Cambridge; Professor of Greek in University College, Cardiff; formerly Assistant Lecturer in Classics in the University of Manchester. (5s. net. Manchester University Press.)

"We do not always remember, when reading Greek tragedies, that they are interpreted to us either by Greek scholiasts, the most hopelessly undramatic of men, or by modern professors, who are hardly better judges of the stage. Thus, there is not a really subtle point in the Greek play which these people can appreciate." So wrote Dr. Mahaffy nearly thirty years ago, and there is still much truth in the remark: we still desiderate as interpreter "a great actor who is also a thorough Greek scholar." Meantime, Prof. Norwood thinks "it can be shown that features in the 'Bacchæ' of far-reaching importance have been almost completely overlooked and utterly misunderstood," and in particular one feature, which is "the key to the 'Bacchæ' and to the nature of the poet's matured opinion about the popular gods"—namely, "what seems the most triumphant vindication of the godhead of the 'Lydian,' the overthrow of the palace of Pentheus." "It is true, indeed," says Prof. Norwood, "that many have suspected that all is not well—how could they fail to do so?—but the importance of the point has never, to the best of my knowledge, been pointed out at all." Dr. Mahaffy's reminder tends to moderate one's surprise. It is scarcely less remarkable, if Prof. Norwood's solution be the true one, that it should have first occurred to an undergraduate on the threshold of his twenties (1901). In any case, it is well to have the question definitely raised on a new theory presented in full argument.

Euripides was required by the expectations of his audience to deal somehow with the traditional demolition of the palace of Pentheus. Pentheus, who has been absent from his capital, finds on his return that a young stranger, described to him as "a wizard skilled in spells" and said to have come from the land of Lydia, has been teaching the Dionysiac rites, and that in consequence the princesses and other women of the palace, as well as of the city, have gone off to roam on Mt. Kithairon in Bacchanalian fashion. He conceives it his duty as ruler, in the interests of morality, to stop such proceedings. He orders his officers to arrest the stranger, who is in fact (according to his own account at least) Dionysus himself in mortal form, and to imprison him in [? near, *πῆλας*] the royal stables. The Chorus, consisting of Lydian women-followers of the god, are greatly excited about the loss of their leader, whom they did not know to be Dionysus himself. Presently Dionysus raises his shout, *qua* Dionysus; the Chorus, still further agitated, anticipate (according to the popular belief, on the presence of a god) that "quickly will the palace of Pentheus be shaken in ruin," and immediately, of course, they exclaim: "Do ye see these stone impostos on the pillars tossed to and fro?" So far, all is perfectly natural and intelligible. But now Dionysus (as mortal) joins the Chorus and explains what happened to him in his captivity, telling, among the rest, how Dionysus (as god) "threw down the house to the ground, and it fell in complete ruin." And yet "the whole subsequent action of the play most peremptorily forbids us to imagine, by any sort of obedience to convention or by any other kind of self-deception whatsoever, that the palace has really fallen down." "If this is a fact, it is," as Prof. Norwood says, "infinitely the most important fact in the play."

Various explanations have been suggested: (1) the downfall of the house is not represented on the stage, but the audience believe what the Chorus (and Dionysus) say about it; (2) the palace is shaken, but does not fall; (3) only a part of the palace falls; (4) it is not the palace, but merely the stable-dungeon, that collapses. But "the expressions used make it certain that the royal dwelling itself is meant," and "all other mention points in the same direction." Besides, these explanations fail either to realize the importance of the event or else to take account of all the facts. Now Prof. Norwood shall speak for himself:

This marvel of the sudden might of the god manifesting itself against the palace of his enemy, a story with which every one in the audience is familiar and for which they are looking, does not happen and cannot happen. It is an appalling practical joke, a colossal *παρὰ προσδοκίαν*.

But it is also far more. It is an object lesson in the history of religion, a searchlight directed full upon the mists of error. . . . The spectacle presented to us is that of the Maenads writhing in an ecstasy of fantastic terror before the palace, which stands all unaffected by their ravings, and inside we hear the impostor shrieking his commands, apparently to the deaf stone and the unresponsive fires beneath the earth, in reality to the Asiatic maidens and to the deluded monarch in the house. Euripides has wished to show us unmistakably that the legend is false. But to ignore the alleged miracle, simply to omit it from his play, would have been to leave his audience in doubt as to his opinions on the matter. Instead of doing so, by a master-stroke of his art he has shown us the thing *not happening*.

Prof. Norwood will not take the stranger's word for it that he is Dionysus: the claim "is contradicted over and over again by the facts of the play." This is, he thinks, "the key to the whole mystery." If, then, the "Lydian" is not Dionysus, who is he? "This self-styled god, according to the view of Euripides, is simply a human being with an abnormally complex character, amazing abilities, and a colossal ambition"—"in spirit a Hindoo"—expert in all the religious learning of the East. How, then, did he operate on the Chorus? What kind of persuasion is it that convinces one in spite of the evidence of one's eyes?

Only one—*hypnotism*, or what less scientific ages would call magic. Dionysus is a magician—"a foreign wizard skilled in spells," as Pentheus quite accurately calls him—and he works his "miracles" by hypnotizing his victims or companions into thinking that they see them. This hypothesis, and this alone, will solve the riddle of the sham miracle which is the leading proof of the divine power which he claims to possess.

Now, one can understand why Dionysus "hypnotizes" the Theban women and Pentheus himself; but why should he hypnotize the Chorus, who are already devoted to him, and whose pre-suppositions and excitement work together naturally to assure them of the fall of the palace? To assure them temporarily at least, and hypnotism could not do more unless it were permanent. But Prof. Norwood supposes that the hypnotic trance of the Chorus ceased on the reappearance of Dionysus, and that his explicit reference to the collapse of the building and to the appearance of the god brought back the delusion to their minds; and that "in this way it will become a permanent memory and form one more weapon against unbelievers." Possibly against unbelievers elsewhere, but not against unbelieving Thebans on the spot, who were now specially to be converted, but who yet saw the palace standing as of yore, and, according to the theory, must not be hypnotized, because their evidence is necessary to show that the palace did not fall. Moreover, the hypnotism must be maintained so long as the Chorus remain within sight of the palace, or, at any rate, so long as their attention is not diverted—powerfully diverted—from the palace. Anyhow, "this is an excellent example of the poet's method of dealing with the religious legends. He takes care," says Prof. Norwood, "to make the supposed marvel as probable as is consistent with an irresistibly cogent demonstration that it never happened."

Prof. Norwood sets out with a sketch of Euripides' religious beliefs (as seen in his plays) and of his peculiar method of expressing them, in order to show in what frame of mind he was likely to handle the religion of Dionysus—an extremely delicate and difficult task, seeing that the poet is always speaking not in person, but only in character. He next reviews the difficulties that have already been found in the "Bacchæ." Then he deals with the palace miracle, examines the characters of Dionysus and of Pentheus, starts fresh difficulties in the play, propounds his own theory, and meets special difficulties that his own theory involves. It is impossible to deal adequately even with the new reading of the palace miracle in a brief notice. Scholars will, of course, study Prof. Norwood's ingenious volume. On a first reading, we should have to object on numerous points of detail, and we confess we cannot accept the new theory as at all convincing. At the same time, the essay is very able and enterprising, and we hope it will stir up fruitful discussion.

## THE MEANING OF HISTORY.

*Factors in Modern History.* By A. F. Pollard, M.A., Professor of Constitutional History in University College, London. (7s. 6d. net. Constable.)

Prof. Pollard has issued a series of ten lectures, delivered when and to whom he does not inform us; and to these he has appended an eleventh on "The Study of History in its relation to the University of London," originally delivered at University College some four years ago. The subject has, indeed, made

(Continued on page 404.)

# OXFORD UNIVERSITY PRESS.

## BOOKS SET FOR THE COLLEGE OF PRECEPTORS, 1909.

### ENGLISH.

#### CHAUCER.—PROLOGUE.

R. Morris's Edition, re-edited by W. W. SKEAT. 1s. (First Class.)

#### MACAULAY.—LAYS OF ANCIENT ROME.

1s. (Third Class.)

#### SCOTT.—LAY OF THE LAST MINSTREL.

Edited by W. MINTO. Second Edition. 1s. 6d. (Second and Third Classes.)

#### SHAKESPEARE.—JULIUS CAESAR.

Edited by W. ALDIS WRIGHT. 2s. (First and Second Classes.)

#### SHAKESPEARE.—TEMPEST.

Edited by W. ALDIS WRIGHT. 1s. 6d. (First and Second Classes.)

### LATIN.

#### CAESAR.—GALLIC WAR, III.—V.

Edited by C. E. MOBERLY. With Maps. Second Edition. 2s. 6d. (First, Second, and Third Classes.)

#### CICERO.—PRO MILONE.

Edited by A. B. POYNTON. Second Edition. 2s. 6d. (First Class.)

#### HORACE.—ODES, CARMEN SAECULARE, AND EPODES.

Edited by E. C. WICKHAM. Second Edition. 6s. (First Class.)

#### VERGIL.—AENEID.

Edited by T. L. PAPILLON and A. E. HAIGH. III, 2s. X—XII, 2s. (First and Second Classes.)

### GREEK.

#### EURIPIDES.—HECUBA.

Edited by C. B. HEBERDEN. 2s. 6d. (First Class.)

#### XENOPHON.—ANABASIS, II.

With Vocabulary. Edited by C. S. JERRAM. 1s. 6d. (First and Second Classes.)

#### XENOPHON.—ANABASIS, III.

With Vocabulary. Edited by J. MARSHALL. 1s. 6d. (First and Second Classes.)

## THE OXFORD GEOGRAPHIES.

By A. J. HERBERTSON, M.A., Ph.D.,  
Reader in Geography in the University of Oxford.

### The Preliminary Geography.

Second Edition. 160 pages, with 72 Maps and Diagrams. 1s. 6d.

*Preparatory Schools Review.*—"Where a class-book of geography is first introduced, this should be the book. There is nothing else so good."

### The Junior Geography.

Second Edition. 288 pages, with 166 Maps and Diagrams. 2s.

*School World.*—"Is good everywhere. The sketch maps are most interesting and most instructive."

### The Senior Geography.

Second Edition. 370 pages, with 117 Maps and Diagrams. 2s. 6d.

*School World.*—"The relation of cause and effect is continually insisted upon, and the lesson driven home by the frequent insertion of educative maps and plans and cross-sections."

## A HISTORICAL GEOGRAPHY OF THE BRITISH COLONIES.

Edited by Sir C. P. LUCAS, K.C.M.G. Vol. V. CANADA.

Part II. By HUGH E. EGERTON, M.A., Fellow of All Souls College, Beit Professor of Colonial History in the University of Oxford. With 10 Maps. Crown 8vo, 4s. 6d.

Already published: Part I. New France. By Sir C. P. LUCAS. 6s.

Select List of Educational Works, List of Books set for various Examinations, and Complete Catalogue (144 pages) post free.

London: HENRY FROWDE, Oxford University Press, Amen Corner, E.C.

# GEORGE G. HARRAP & CO.'S NEWEST BOOKS.

### LATIN.

**HEATH'S PRACTICAL LATIN COURSE.** For Beginners. By F. P. MOULTON, M.A. With a Selection of Extracts from Ovid by J. T. PHILLIPSON, M.A. 300 pp., crown 8vo, illustrated, 2s. 6d. *Specimen pages on application.*

### GERMAN.

#### JUST READY.

**HEATH'S PRACTICAL GERMAN GRAMMAR.** By Prof. E. S. JOYNES and Prof. E. S. WESSELHOEFT. 406 pp., crown 8vo, 3s. 6d.

**A GERMAN GRAMMAR.** For Schools and Colleges. By FRANCIS KINGSLEY BALL, Ph.D. Crown 8vo, 256 pp., 2s. 6d.

**EASY GERMAN STORIES.** By HEDWIG LEVI. Edited, with Notes and Vocabulary, by Mrs. LUISE DELP, Senior German Mistress at the Sydenham and East Putney High School for Girls. Crown 8vo, 1s. 3d.

**SHORTER GERMAN READER FOR BEGINNERS.** With Notes, Vocabulary, and Paraphrases for Translation into German, by Prof. EDWARD S. JOYNES, M.A. Crown 8vo, 174 pp., 2s.

**WILLKOMMEN IN DEUTSCHLAND.** By W. E. MOSHER, Ph.D. Crown 8vo, 2s. 6d.

*List of New German Texts just ready.*

### FRENCH.

**HEATH'S PRACTICAL FRENCH GRAMMAR.** Edited by Professors FRASER and SQUAIR. 3s. 6d. Or, in Two Parts, 2s. and 2s. 6d.

**GRAMMAIRE FRANCAISE.** MARY STONE BRUCE. 2s. 6d.

**EXERCISES IN FRENCH CONVERSATION.** HEIN. 1s. 6d.

**FIRST YEAR OF FRENCH.** MANSION. New Edition, Illustrated. 1s.

**EXTRACTS FOR COMPOSITION IN FRENCH.** MANSION. With Vocabulary. 1s. 6d.

*List of New French Texts just ready.*

### ENGLISH.

**BACON'S ESSAYS.** Edited by Dr. HOWE. 1s. 6d.

**LAYS OF ANCIENT ROME.** MACAULAY. 1s.

**SONG OF HIAWATHA.** LONGFELLOW. Authorized Edition, Illustrated. With a Chapter on a Visit to Hiawatha's People, by ALICE LONGFELLOW. 1s. 6d.

**CHAUCER'S PROLOGUE, KNIGHT'S TALE, &c.** 1s. 6d.

### A Treasury of Verse.

For School and Home in Four Parts. Selected and arranged by M. G. EDGAR, M.A.

Part I., 128 pages, sewed, 6d.; or cloth limp, 8d.  
Part II., 160 pages, sewed, 6d.; or cloth limp, 8d.  
Part III., 160 pages, cloth boards, 10d.  
Part IV., 192 pages, cloth boards, 1s.  
Part V. (Ballads), 192 pages, cloth boards, 1s.

*The features of this series are:*

- (1) Careful grading.
- (2) As many "Stories in Song" as possible have been included.
- (3) Tried favourites and copyright poems which deserve place in a standard collection are generously represented.
- (4) A number of attractive poems which will be new to many English readers have been included.
- (5) Nature Verse is well represented.

### Supplementary Readers.

Each with 16 Full-page Illustrations. Large crown 8vo, price 1s. 6d. each, strongly bound in cloth.

"The price is ridiculously low. . . . Any one of the books might be a gift-book, so attractively is it presented. They make one eager to stand before a class of boys or girls of twelve or thirteen years of age."—*School World*, Special Article, August, 1907.

13. **THE BOOK OF RUSTEM.** Retold from the "Shah Nameh" by E. M. WILMOT-BUXTON.

14. **STORIES FROM CHAUCER.** Retold by J. W. M'SPADDEN.

15. **STORIES FROM THE OLD TESTAMENT.** Retold by S. PLATT.

16. **STORIES FROM THE ODYSSEY.** By H. L. HAVELL, B.A.

17. **STORIES FROM THE ILIAD.** By H. L. HAVELL, B.A.

18. **TOLD BY THE NORTHMEN.** Retold by the Sagas and Eddas by E. M. WILMOT-BUXTON.

19. **STORIES FROM DON QUIXOTE.** By H. L. HAVELL, B.A.

**DAYS BEFORE HISTORY.** By H. R. HALL. 1s.

**THE CAVE BOY.** By MARGARET MACINTYRE. 1s.

*Prospectuses of any of the above will be sent post free.*

GEORGE G. HARRAP & CO., 15 York Street, Covent Garden, London, W.C.

some progress in the favour of students during those four years; but, as it brings no income, not even bread and cheese, one can hardly expect it to be popular. "London, it is said, engages about fifteen hundred new teachers for its schools in every year. Surely," says Prof. Pollard, "some of these should have undergone a course of University instruction in modern history—a course which, for the vast majority of them, is only possible within the London radius." But, then, even supposing all the fifteen hundred have to teach modern history, consider the limited results required of them, or even possible for them. If Prof. Pollard asks matriculants at London University about the origin and growth of the idea of Imperial federation, and finds that "about half the candidates who attempted that question had not the ghost of a notion what Imperial federation meant," we confess we do not share much in his surprise. What real knowledge could the average matriculant be expected to possess? The facts, and especially the experiences, that give meaning to history are very different in the different planes of examiner and elementary candidate. However, we are glad that Prof. Pollard considers post-graduate research as "a vastly more promising topic" than an undergraduate school. The materials in London are vast beyond reckoning, and, besides students holding scholarships, there are many young people of sufficiently independent means and of sufficiently literary tastes to furnish a brigade of researchers, who may at least dig out and marshal a vast quantity of hitherto unused facts. "Of the extant materials for English history," says Prof. Pollard, "not one-tenth has yet been calendared or printed, and the whole of English history, as it is written and read or known, is like an edifice built on foundations which do not occupy one-tenth of the possible area." There is thus the most ample scope as well as urgency. How far such researchers are willing to submit to expert direction and co-ordination is another matter.

When we come to Prof. Pollard's own work as represented by these lectures, we are impressed with a very different aspect of the question. In his first paragraph he expressly declares that, whatever he may say or do in his course, he is not going to narrate a history of England during the sixteenth and seventeenth centuries. "An effort of that kind would simply result in the perpetration of yet another of those miserable text-books of English history which may be necessary, but are certainly evil, which prefer knowledge to understanding and seem expressly designed to nip the bud of historical interest and to clip the wings of historical imagination." We have already had our say on this subject, and would willingly see the tide of history books for schools at an ebb for some time to come—till fresh researches have thrown fresh light upon really important occurrences. If the energies dissipated upon such compilations could only be concentrated upon research they would result in useful additions to our knowledge instead of futile additions to the "re-hashes of old facts flavoured only with an original spice of error." Prof. Pollard's object is "primarily to stimulate imagination"; that is to say, "the power of realizing things unseen and of realizing the meaning of things seen." The archivist, the burrower after facts, has his value in his place; but "no accumulation of materials, no ransacking of archives will make a man a historian without the capacity to interpret and construct." The school history writer, so far as he keeps pace with the researchers, can do useful work in presenting the facts they have discovered in proper connexion and balance; and, when Prof. Pollard avows that "facts are only a secondary consideration" from his point of view, he must not be misunderstood. "Indeed," he adds, "one's facts should be correct; but their meaning is greater than the facts themselves"—or, rather, we should say, the facts are not the facts unless and until they are presented in their true meaning. By taking vertical sections of his centuries Prof. Pollard is able to exhibit fresh aspects of facts made familiar by the ordinary histories and to give his selected subjects a more spacious canvas. Thus, he treats of nationality, the advent of the middle class, the new monarchy, the English Reformation, Parliament, political ideas of the period, Church and State, Cromwellian institutions, and colonial expansion. One notable and important characteristic is the lecturer's steady insistence on looking in the past for the roots of the present. "Nothing can be explained in human affairs without reference to the past." The principle may be very obvious; but it is astonishingly ignored and needs reassertion. The style is untrained and the manner is flavoured with *ὄψαρις*; but the sustained grip and verve make ample amends, and, in a word, no teacher of history—certainly no teacher of the history of England in the sixteenth

and seventeenth centuries—should fail to ponder these vigorous and luminous lectures.

We never care to note shortcomings of works of marked general excellence like these lectures, except with a view to further editions. But is it the case that "there is no really national war before the Hundred Years' War between England and France"? Surely the War of Scottish Independence was such a war; but perhaps Prof. Pollard, with the Continent in his eye, had his back turned on Scotland for the moment—important as were the effects of that war. We meet the expressions "English nationality" and "British nationality." They are not to be used indifferently, and, while Prof. Pollard, perhaps, does not confuse them (there is a doubtful case on page 14), yet the hearer (and the reader) should have been incidentally warned. We do not remember the principle "that *salus populi was suprema lex*," as laid down "in the language of the Twelve Tables" (page 158) under any reconstruction of them. "It was at Byzantium that the absolutist maxims of the Roman civil law were elaborated in theory and put into practice" (page 161). Was there really any such elaboration in theory? Of course, Ulpian wrote "Quod principi placuit legis habet vigorem" long before, and the principle held good at Byzantium; but wherein consisted the elaboration? We, too, have our "Le Roy le veult"; but there is nothing absolutist about it, though, as Maitland says, "to this day the form makes the statute the act of the King." In the one case, as in the other, the concomitant circumstances should have their weight, and then the absolutist reputation of the Roman legislation would be very considerably modified. Is the Code of Justinian any more essentially "absolutist" than the English Statute Book?

"It is the strangest educational phenomenon of the time," says Prof. Pollard, "that Educational Authorities, Governments, Universities, some County Councils, and most head masters should be under the delusion that they can turn out efficient citizens without the glimmering of an idea as to the causes which have made them what they are. The Duke of Newcastle, who did not know that Cape Breton was an island, has his counterpart in the Government Departments of to-day, and it is neglect of historical studies which often makes the brilliant man of science as inefficient in the sphere of politics as is the politician in the world of science." To such deluded personages we commend this volume, with the hope that a perusal of it will relax the purse-strings and enable some of the scholars that are capable of writing history to devote themselves to the task without frittering away their time and strength on elementary classes and without side glances at the coming of the landlord for his rent or the demand of the authorities for their taxes. But it is not historians alone that are in such evil case in this triumphant time of an Empire on which the sun never sets.

## GENERAL NOTICES.

### CLASSICS.

*The Seven against Thebes of Aeschylus.* By T. G. Tucker, Litt. D. Cantab., D. Litt. Dubl., Professor of Classical Philology in the University of Melbourne. (9s. net. Cambridge University Press.)

Prof. Tucker has followed the principles that he adopted in his edition of the "Choephoroi," his main object being "the conscientious interpretation of the 'Septem' as a work of dramatic art and a monument of Greek literature." The "conscientiousness" might have been taken for granted, and so might Prof. Tucker's enumeration of the accomplishments indispensable to an editor. A very full and learned introduction deals with the locality—primitive Thebes, Cadmus and the Cadmeans, and the topography as conceived by Aeschylus—and with the play. The text is thoroughly examined in a wisely conservative temper (we remember to have read in the preface to Prof. Tucker's "Supplices": "In the case of Aeschylus, I am fain to confess that my distrust of the MS. deepens rather than diminishes"; but that was twenty years ago), and treated with remarkable acuteness and ingenuity sharpened by scholarship; a translation is furnished in excellent prose, idiomatic, yet adhering faithfully to the essential meaning; and ample notes provide a most instructive and stimulating commentary, with frequent and singularly apt illustration from Latin and English literature. A very able recension of the Medicean scholia is appended, and there are Greek and English indexes. The work is fresh and vigorous, and establishes itself in the very front rank of scholarly editions. In noticing the "Choephoroi" we said: "It is greatly to be hoped that Prof. Tucker will ultimately complete an edition of the whole trilogy." We would now extend the hope to the whole of the plays, and with increased emphasis. The accuracy and the beauty of the typography extort admiration.

*The Trachiniae of Sophocles.* With a Commentary abridged from the larger edition of Sir Richard C. Jebb, Litt.D. By Gilbert A. Davies, M.A. (4s. Cambridge University Press.)

Prof. Davies has followed the lines adopted in the previous volumes of the series, and he has had the advantage of consultation of Sir Richard Jebb's unpublished corrections. The volume will be extremely useful in schools, and probably it will be welcome to many that have passed beyond the schools, but still make efforts to keep up their Greek. If Prof. Davies has erred at all, it is perhaps on the safe side of inclusion: we rather doubt whether all the references he leaves will be sedulously looked up.

**MATHEMATICS.**

*Trigonometry for Beginners.* By J. W. Mercer, M.A. (4s. Cambridge University Press.)

The subject is well and carefully handled, although there is still unfortunately too much evidence of the old method of treating the trigonometrical ratios of acute angles as if the lines involved were absolute magnitudes instead of lengths to which later on the character of all positive and negative lines must of necessity be attached. The author writes primarily for students to whom practical problems are likely to present themselves rather than the intricacies of theory. The course, therefore, affords much valuable scope for acquiring familiarity with various useful four-figure mathematical tables. Perhaps a more than usually large number of worked examples is given, many of these being highly instructive owing to the suggestive nature of the discussion. The exercises for solution by the students themselves are very numerous and also varied in character. They include many problems on forces, for the writer seeks to impress the beginner with a sense of the wide application and great utility of this special branch of mathematical science.

*Elementary Geometry.* By Cecil Hawkins, M.A. (3s. 6d. Blackie.)

A new edition, and for the most part merely a reprint, of the earlier issue. A few articles have, however, been revised with a view to simplifying the demonstrations they contain by giving them in a less condensed form. The chapter on parallels is also new, and the theory is now based by the writer on the consideration of parallel straight lines as those which are perpendicular to the same straight line. To quote the author's own words from the preface to the new edition: "All the changes have been thoroughly tested in the classroom."

*The Elements of Plane Geometry.* By Edward J. Edwardes, M.D. Lond., M.R.C.P. Lond. (3s. 6d. Edward Arnold.)

An interesting text-book, which treats the subject of elementary geometry in a manner that, although it is not widely different from the

methods to be found in most treatises of similar standard, is nevertheless characterized by an indefinable freshness and originality. The work seems to have gained rather than lost by owing its existence to a writer in no way connected with the world of school. It is thoroughly modern in conception and entirely disregards Euclid's order of treatment. It makes no attempt to supply references, the author reckoning (it would appear) on lovers of geometry like himself, on the ideal teacher and the ideal pupil who will invariably be strict, the one in requiring, the other in supplying or looking up, the necessary references. The discussion of ratio and proportion is excellent in many respects, but it is not satisfactory to regard ratios so often as single quantities and to oblige the reader to make an effort to keep before him the fact that he is considering not single quantities, but relations between pairs of quantities. Moreover, is there any real gain in departing from Euclid's definition of proportion and adopting its converse? The least attractive feature of the volume is contributed by the diagrams, the character of which is very poor, whether we regard the roughness of execution or the insignificance of the size.

*Elementary Mathematics.* By Alex. Leighton, M.A., B.Sc., F.E.I.S. (Blackie.)

A useful volume for beginners in mathematics. The subjects treated are algebra, as far as and including quadratic equations, and the elements of geometry, both plane and solid. The text-book is suitable for use in higher elementary schools and by all pupils who require a course similar to that necessary for those intending to take lower grade mathematics at the Scotch Leaving Certificate Examination. An excellent and important feature of the section on geometry is the method which the author adopts of dealing with individual propositions in three stages. First, there is an experimental investigation leading up to the enunciation; next we have the formal demonstration; and, last, the truth, when established, is applied to the solution of problems depending on it.

**FRENCH AND GERMAN.**

*Graduated French Exercises and Questionnaires on Accidence and Syntax* from the earliest stages up to the Subjunctive Mood. By F. E. Robeson, M.A., Assistant Master at Eton College, formerly Scholar of Merton College, Oxford. (3s. 6d. Rivingtons.)

"What is noteworthy about Mr. Robeson's volume," says Mr. Robeson's head master in a short preface, "is the thoroughness with which the work has been tested by practical experts"—that is to say, by colleagues who have used and frankly criticized the exercises for four years. That should count for much in favour of the book: at all  
(Continued on page 406.)

# CLERGY MUTUAL ASSURANCE SOCIETY,

2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

[FOUNDED 1829.]

Patrons—THE ARCHBISHOP OF CANTERBURY; THE ARCHBISHOP OF YORK.  
 President—THE BISHOP OF LONDON. Vice-President—THE LORD HARRIS.  
 Chairman—THE DEAN OF CANTERBURY. Deputy-Chairman—SIR PAGET BOWMAN, BART.  
 Secretary—W. N. NEALE, Esq. Actuary and Manager—FRANK B. WYATT, Esq., F.I.A.

The Society offers the **BENEFITS** of **MUTUAL LIFE ASSURANCE** without personal liability on highly favourable terms to

## THE CLERGY AND THEIR RELATIVES.

**ALL PROFITS BELONG TO THE MEMBERS.**

Accumulated Fund, **£4,242,820.**

Annual Income, **£453,897.**

Bonuses Distributed, **£4,256,464.**

**LOW PREMIUMS. LARGE BONUSES.**

Notwithstanding the lowness of the Premiums charged, the **BONUSES** are on an **EXCEPTIONALLY HIGH SCALE.**

**NEW AND SPECIAL POLICIES.**

Application is invited for the **PROSPECTUS**, and Leaflets explaining two new Policies, with valuable Options.

**1. WHOLE-LIFE CONVERTIBLE ASSURANCES.** Very Low Premium—about one half the usual rate—during first ten years.

**2. PENSION POLICIES.** Premiums returnable with compound interest in case of death or surrender before pension age. Option to commute for cash.

Assurances without profits, at low rates of premium, may be effected, and Life Annuities on favourable terms may be purchased, by any person irrespective of any special qualification by relationship to the Clergy.

**SPECIMEN OF RATES FOR £1,000, WITH PROFITS.**

Age next Birthday.	£1,000 Payable at Death.			£1,000 Payable at Age 60 or earlier Death.		
	£.	s.	d.	£.	s.	d.
25	20	1	8	27	3	4
30	23	3	4	32	10	10
35	26	10	0	40	1	8
40	31	1	8	51	5	0

NOTE.—Under the Reduced Premium System (explained in Prospectus) four-fifths only of these Premiums need be paid, the other one-fifth remaining a charge to be repaid out of Bonus.

No Agents employed and no Commission paid for the introduction of business, whereby £10,000 a year is saved to the Members.

Assurances can be effected by direct communication with the Office, 2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

events, it indicates a serious effort to attain serviceable results. A brief outline of the grammar, stripped to the essentials and judiciously emphasized at important points, precedes the exercises. The exercises (164) very soon take the form of continuous narratives for translation into French, and, while following the order of the grammar, they are very carefully graduated in difficulty, with occasional helps or suggestions in the text or at the foot of the page. "Questionnaires français," exemplary rather than exhaustive, and yet tolerably extensive, though placed after the exercises, will no doubt be used concurrently. Then follow special vocabularies (to the several exercises), and a full general vocabulary. The successful working of the exercises will ensure a comprehensive and thorough grip of the language, and, at the same time, a real intellectual training.

*France et Allemagne.* By Edgar Quinet. Edited by C. Cestre, Maître de Conférences à l'Université de Lyon. (3s. 6d. Clarendon Press. Oxford Higher French Series.)

M. Cestre brings together about a score of separate articles written by Quinet at various times and published as pamphlets or as contributions to the *Revue des Deux Mondes* from 1830 to 1867. They are mostly discussions of political affairs bearing on the relations of France and Germany, not in any spirit of party, but from the point of view of the philosophical historian; and they also deal incidentally with literature, philosophy, and religion. "Quinet, en effet, expose dans ces pages l'état moral et politique de la France et de l'Allemagne, de 1830 à 1867, avec le dessein nettement marqué d'éveiller la France à la conscience de son propre génie et à la défense de sa nationalité, pour elle-même et pour la force civilisatrice qu'elle représente en Europe." The introduction consists of a long and able monograph (in French) upon Quinet's life and work. The notes, which are chiefly of an historical character, are very useful; and so is the chronological table appended. A very careful and capable edition.

*Goethe's Torquato Tasso.* Edited by John Firman Coar, Ph.D., Professor of Germanic Languages and Literatures in Adelphi College, Brooklyn, N.Y. (4s. Ginn.)

Prof. Coar intends this edition "for college students who have an easy reading knowledge of the German language and who are interested in German literature as literature." The play is full of difficulties, and the introduction and the ample notes are directed mainly to the solution of them. At the same time the editor aims at stimulating independent thought, and not at providing cut-and-dried opinions; and he hopes that the materials he furnishes will prompt students "to read the drama in the spirit of intelligent and sympathetic criticism." Some "repetitional exercises" are given, and there is a very full vocabulary. The edition is laborious and valuable, and it will be very serviceable to private readers as well as to students in colleges and higher schools. The form is handy and the get-up is very agreeable.

Messrs. Macmillan publish the forty-first edition of the well known *Dictionary of the English and German Languages*, by William James—the German-English and English-German in one volume (4s. 6d.). The work has been "entirely rewritten and greatly enlarged," by George Payn, with the assistance of German collaborators of repute. The preface, English and German, is over the signature of Bernhard Tauchnitz, and the volume has been excellently printed by him; whence it may be inferred that the great Leipzig house has done its best for the new edition. We have used one or other of the earlier editions for many years, and always found the book very satisfactory. We therefore give it warm welcome in its improved form. Though both parts are in one volume, it is still quite convenient to handle, and it is strongly and flexibly bound.

#### ENGLISH LITERATURE.

"The Belles-Lettres Series."—(1) *Exodus and Daniel.* Two Old English Poems. Edited by Francis A. Blackburn, Ph.D., Associate Professor of the English Language in the University of Chicago. (2s. 6d. net.) (2) *Liber Psalmorum: The West Saxon Psalms.* Edited by James Wilson Bright, Ph.D., D.Litt., Caroline Donovan Professor of English Literature in the Johns Hopkins University, and Robert Lee Ramsay, Ph.D., Instructor in English in the University of Missouri. (2s. 6d. net.) (3) *The London Merchant, and Fatal Curiosity.* By George Lillo. Edited by A. W. Ward, Litt.D., F.B.A., Master of Peterhouse. (Heath.)

(1) Dr. Blackburn gives the text from the single manuscript in the Bodleian Library, with critical notes upon it at the foot of the page; an introduction treating generally of the form and contents of the two poems; explanatory notes on different passages; a bibliography; and a complete glossary. He thus makes full provision for the needs of the student. The edition is marked by minute care, sound scholarship, and good judgment. (2) Contains "the prose portion, or the 'First Fifty,' of the so-called Paris Psalter," with the rubrics and *avouments* of the rest. The text follows the manuscript in the Bibliothèque Nationale, and is conservatively edited, with brief textual notes at the foot of the page, and a bibliography of the entire Psalter is appended. The introduction is delayed for a time owing to difficulties in tracing records. It will review all preceding study of these Psalms, and attempt to carry nearer to solution some problems relating to the character and to the sources of the version. Meantime, students will be glad to have the text and the bibliography, which are treated very carefully, and they will look forward with interest to the appearance of the introduction. (3) Dr.

Ward's edition of two of Lillo's plays is characterized by his well known erudition and literary conscientiousness.—The series is ably edited, beautifully printed, and convenient in form—a great boon to students of English.

"The Elizabethan Shakespeare."—(1) *The Merchant of Venice.* (2) *Love's Labour's Lost.* (3) *The Tragedy of Julius Caesar.* Edited by William Henry Hudson, Lecturer to the University Extension Board of the University of London. (2s. 6d. net each. Harrap.)

In this important series of Shakespeare's plays, Mr. Hudson goes back to the First Folio—"the only text that can lay any claim to be the author's," as well as (in the words of Halliwell-Phillips) "the most interesting and valuable book in the whole range of English literature." "It is the aim of the present edition," writes Mr. Hudson, "to place this unrivalled text before the public faithfully, but in easily readable form, together with such a systematized apparatus of brief textual footnotes, and fuller, but not too copious, literary notes, glossaries, lists of Variorum readings, and introductions for each play, as may combine with the Elizabethan texts the advantages of a thoroughly modern editorial equipment, embracing the fullest results of Shakespearean scholarship." There needs no apology for going back to the First Folio: on the contrary, it is the only rational and scientific course. Mr. Hudson's departures from it on certain points of spelling—dropping the long *s*, *y* for *th*, and some such orthographical peculiarities—do not practically affect the Elizabethan atmosphere of the First Folio, or even fidelity to the text, while they will undoubtedly help to overcome modern distaste for archaic forms. The whole of the apparatus of criticism, explanation, and illustration is competent, and valuable to the student and to the general reader; each volume has a photogravure frontispiece; and the type and get-up are excellent. We give the series a very warm welcome.

#### EDUCATION.

*German Education Past and Present.* By Friedrich Paulsen, Ph.D., Professor of Philosophy in the University of Berlin. Translated by T. Lorenz, Ph.D. (5s. net. Fisher Unwin.)

It is with extreme regret that we have just heard of the death of the accomplished and broad-minded author of this exemplary work. In the preface to the English edition of Paulsen's great book on "The German Universities and University Study" (which we noticed in our February issue last year), Prof. Sadler justly spoke of him as "the greatest living authority upon the history of higher education in German-speaking lands." The present work, which originally appeared a couple of years ago in Teubner's popular series "Aus Natur und Geisteswelt," is a masterly survey of German education generally in its historical development, under "the conviction that the development of education is not an isolated movement, beginning and ending in itself, but is dependent on the general progress of the inner life of mankind." Accordingly, Paulsen has "endeavoured everywhere to make the dominant tendencies of this larger movement and their influence on educational organization stand out as clearly and distinctly as possible." The last chapter, "Retrospect and Outlook," is extremely suggestive, especially where the future trend of educational opinion is anticipated on the basis of the past and the present. Paulsen's breadth of view and balance of judgment may be illustrated by a single point:

"The powerful Labour movement, which dominates our times, is open to many reproaches. . . . But, for all that, it is a great upward movement. The masses have roused themselves. . . . An idea of the future has come to life in them and is enlisting all their energies, and an abundance of active interests has thus been set free. Nature and history hold converse with men who have a question to ask—the question of the future. A vast literature of books and periodicals has come into being, turning the searchlight of this new idea on all departments of social life. However far this literature may leave scientific exactness and critical caution, however far it may leave truth behind, one thing is to be said in its favour: it is read, studied, and assimilated with passionate enthusiasm. Indeed, it is only for the sake of this literature that the masses have become readers at all. Nor do I doubt that, amongst the energies set free by the modern Labour movement, moral forces are to be found, such as self-command and self-discipline, self-devotion and self-sacrifice for a great cause. And, be the cause itself good and possible or not, the value of these moral forces remains the same, and they will not be lost. Perhaps the old experience will repeat itself here of the man who went out to search for a dreamland and found a real world. The Social Democratic Utopia may not be destined to be realized anywhere in the world, but, if it succeeds in awakening new ideas and forces in our modern society, reposing in indolent ease on power and tradition, it has fulfilled its purpose."

"Upon the whole," Paulsen concludes that "there is no department of historical life which could give our souls greater encouragement to take a hopeful view of the future than the history of education." The translation is capably done and the terminological notes prefixed by the translator will be very useful.

Messrs. J. & J. Paton issue the eleventh annual edition of their well known *List of Schools and Tutors* (1s. 6d.). It covers, as usual, the whole range of educational institutions, ranging them in groups, setting forth all necessary information about them, and furnishing a vast number of illustrations. It does not profess to be exhaustive; it is, indeed, expressly selective, but it gives a very sufficient number of the best English schools.

(Continued on page 408.)



# DENT'S MODERN LANGUAGE SERIES.

EDITED BY  
Professor WALTER RIPPMMANN, M.A.

IMPORTANT WORKS RECENTLY ISSUED.

**THE SOUNDS OF ENGLISH.**

**LES SONS DU FRANÇAIS.**

**DEUTSCHE LAUTE.**

Three Charts. Size, 30 × 30 inches.

These Charts, drawn up by Professor WALTER RIPPMMANN, are particularly suitable for class use, the symbols being very distinct. The arrangement will commend itself to Teachers. Unmounted, 1s. net each; mounted on linen, 2s. 6d. net; mounted on linen, with rollers, 3s. 6d. net.

Small reproductions of each Chart, with examples of the sounds, which Pupils can paste in their books, have also been prepared; these are sold in packets of 30, price 1s.

**NOTE.**—A special Prospectus of the above Charts can be had upon application to the Publishers.

**A FRENCH PHONETIC READER.** By S. A. RICHARDS, B.A.

A careful and well-graded selection of passages in prose and verse. In accordance with the views of experienced teachers, the phonetic transcription is given first, and the text in the ordinary spelling occupies the second half of the book. Reference is made easy by identical numbering of the lines.

**FABLES EN ACTION.** By VIOLET PARTINGTON. Extra fcap. 8vo, 1s.

Miss Partington's little French plays are well known. In this new volume she has had the happy thought of dramatizing some of the famous fables of La Fontaine.

**FRENCH SPEECH AND SPELLING.** By S. A. RICHARDS, B.A. A First Guide to French Pronunciation. Extra fcap. 8vo, 8d.

**EASY FREE COMPOSITION IN FRENCH.** By Miss L. M. BULL. Extra fcap. 8vo, 1s. 4d.

**FREE COMPOSITION AND ESSAY WRITING IN FRENCH.** By A. PRATT and ANTOINE PHILIBERT. Extra fcap. 8vo, 1s. 4d.

**DER GOLDENE VOGEL AND OTHER TALES.**

A Second Year German Reader. With Exercises. Edited by WALTER RIPPMMANN, M.A. Extra fcap. 8vo, 1s. 4d.

**EISENHANS AND OTHER TALES.** A Second Year German Reader, with Exercises. By WALTER RIPPMMANN. Extra fcap. 8vo, 1s. 4d.

The exercises in *Der Goldene Vogel* and *Eisenhans* are typical of the latest advance in reform teaching. They consist of questions based on the text, and exercises in word-formation and applied grammar.

**DENT'S ANDERSEN IN GERMAN.** Edited, with Exercises, by WALTER RIPPMMANN. With many beautiful Pictures by THOMAS, CHARLES, and WILLIAM ROBINSON. Crown 8vo, 1s. 4d.

*An Edition is issued with a Glossary at 2s. 6d. net.*

"A pleasing volume. . . . Eminently suitable to be placed in the hands of pupils who have had a year's tuition in German along reform lines."—*School World*.

**SPECIMENS OF ENGLISH, READ, SPOKEN, AND RECITED.** By WALTER RIPPMMANN. Extra fcap. 8vo, 1s. net.

## DENT'S CLASSICAL SERIES.

ON THE LINES OF DENT'S MODERN LANGUAGE SERIES.

General Editor: Professor WALTER RIPPMMANN, M.A.

Fourth Edition.

**DENT'S FIRST LATIN BOOK.** By HAROLD W.

ATKINSON, M.A., sometime Head Master of the Boys' High School, Pretoria, and J. W. E. PEARCE, M.A., Head Master, Merton Court School, Sidcup. With 12 illustrations by M. E. DURHAM. Small crown 8vo, cloth, 5s.

Effects for Latin a compromise between the usual "classical method," and the "reform method" now frequently used in the teaching of modern languages.

*The Schoolmaster* says:—"A unique book. . . . It represents a wonderful stride made in teaching Latin."

*The Phonetic Part of the First Latin Book is issued separately at 6d.*

**DENT'S LATIN PRIMER.** By E. S. FORSTER, M.A. 1s.

This *Primer* is intended for pupils who begin Latin early. The *Primer* is fully illustrated, and the elements of the grammar and vocabulary are presented in a very attractive manner. Special attention has been given to connecting Latin words with the English derivatives.

"The graduation of the matter is very carefully worked out . . . the little book is excellently done."—*Educational Times*.

**NOTE.**—Each of the above books contains a Phonetic Transcript of the Roman Pronunciation of passages in the Reader.

**DENT'S WALL PICTURES.** For Teaching Latin.

Four Coloured Pictures enlarged from the First Latin Book. Size, 30 × 22 inches. Unmounted, 2s. net each; mounted on linen and eyeleted, 3s. net; mounted on linen, with rollers, 5s. net.

**ROMAE, SEXTI DOMUS.**

**ROMAE, TRIUMPHUS.**

**POMPEIIS, OSTIUM TABERNAE ET VIA STRATA.**

**IN GALLIA, PROELIUM EQUESTRE ET PEDESTRE.**

**FORUM LATINUM.** A First Latin Book. By Dr. E.

VERNON ARNOLD, Professor of Latin at the University College of North Wales. Small crown 8vo, 3s. 6d.

**AENEAE FACTA ET FATA.** A Stepping-stone to

VIRGIL. With Notes and Exercises on the text by Dr. E. VERNON ARNOLD. With numerous Illustrations. Small crown 8vo, cloth, 2s.

A complete List of Books contained in the above Series can be obtained from the Publishers, who also cordially invite applications for Specimen Copies from Principals of Schools and Colleges.

London: J. M. DENT & CO., ALDINE HOUSE, BEDFORD STREET, STRAND, W.C.

for boys and girls, from which the paterfamilias or guardian can make his own selection, guided by the information supplied. This year it is bigger than ever: it runs well over 1,100 pages. It is handsomely got up, and must be extremely serviceable to parents that wish to select a school for their children.

The Hungarian Exhibition furnishes a broad and attractive glimpse of Hungarian scenes, and especially of the activities of the Hungarian people. In connexion with it we have some brochures of an educational character: (1) *Education in Hungary*, a very comprehensive and interesting exposition, issued under official authority and worthy of preservation for study and reference; (2) *Hungary*—a short outline of its history—by Louis Felberman; (3) *Alexander Petöfi*, by Ilona Ginever (*née de Györy*)—a brief sketch of the young and ill-fated poet; (4) *Shakespeare in Hungary*, by Prof. Augustus Gyulai—also a brief sketch; and (5) a *Bibliography of English authors' works translated into the Hungarian language (1620-1908)*, collected by Dr. Augustus Gyulai. These brochures increase an intelligent interest in the Exhibition and in Hungary and its people.

The *Illustrated Handbook* to the Exhibition in connexion with the International Drawing Congress, edited by Keighley Snowden and illustrated liberally with photographs by Reginald Haines, is a very interesting record of certain features of the Exhibition that are of high educational value. The articles upon various art colleges and schools give excellent summaries of their work and methods, and the illustrations are numerous, varied, and instructive. The Retrospective Exhibition of the Board of Education, though not properly a feature of the Congress, has also been included on account of its interest and significance.

## FIRST GLANCES.

### CLASSICS.

Erasmus, Selections from. By P. S. Allen, Fellow of Merton College, Oxford. 3s. 6d. Clarendon Press.

[Principally from the Letters of Erasmus. Intention "to illustrate through them English life at a period of exceptional interest in our history." Good selection; judicious notes; vocabulary; life of Erasmus. Excellent portraits of Erasmus, Archbishop Warham, Dean Colet, and Sir Thomas More; specimen of Erasmus's handwriting (two pages). Capital collateral reading.]

M. Antoninus Imperator ad se ipsum. *Recognovit brevisque adnotatione critica instruit I. H. Leopold.* 2s. 6d. Oxonii: e typographeo Clarendoniano.

[Prefatory account of MSS., editions, and commentaries. Thorough critical revision of the text.]

Plato's Apology of Socrates. Edited by Harold Williamson, M.A., Assistant Master, Manchester Grammar School, late Tutor and Lecturer at Balliol College, Oxford. 2s. 6d. Macmillan (School Class-Books).

[Very useful introduction and ample notes. Contents headings to the paragraphs of the text. Handy and helpful school edition.]

Plautus. Acting edition of the Mostellaria. With a translation into English verse. Edited by G. Norwood, M.A. 1s. net. Manchester University Press (Sherratt & Hughes).

[“Arranged, translated, and enacted by the Classical Society of the Victoria University of Manchester.” Spirited translation, opposite text.]

Vergil: *Aeneid*, Book X. Edited by L. D. Wainwright, M.A., Assistant Master, St. Paul's School. George Bell (Bell's Illustrated Classics).

[Introduction, biographical and literary; notes liberal and useful; vocabulary; 25 illustrations. Text in sections, with introductory summaries.]

Welsh, The Latin Element in. By Samuel J. Evans, M.A. Lond., Head Master of the County School, Llangefni. 6d. net. Newport, Mon.: Southall.

[Brief, but very interesting, comparative outline.]

### MATHEMATICS.

Algebra, Modern, Elementary, Blackie's. In three Parts. By R. C. Bridgett, M.A., B.Sc., F.C.S. 1s. 6d.

[“Embodying the graphic and other methods recommended by the Mathematical Association and the Board of Education.” Up to and including quadratic equations. Examples abundant and carefully graduated; examination papers; answers. Very useful.]

Arithmetic, Pitman's Correlated. By T. W. Troughton, B.A., Head Master, Camden Street Council School, Birmingham, formerly Lecturer in Mathematics, &c., at Chester Training College. Book II. (answers, notes, oral work, &c.), 1s. net. Book III., 3d.

Arithmetic, Revision, The Normal. By W. G. Akam, A.C.P., Principal of Faversham Certificate Classes for Teachers. 1s. net. Normal Press (Normal Tutorial Series).

[Comprehensive, varied, and practical.]

Cambridge Tracts in Mathematics and Mathematical Physics. No. 9. Invariants of Quadratic Differential Forms, by J. Edmund Wright, M.A., Fellow of Trinity, Associate Professor of Mathematics, Bryn Mawr College, U.S.A. 2s. 6d. net. Clay (Cambridge University Press Warehouse, Fetter Lane, E.C.).

Geometry, Solid, through the Stereoscope. Demonstration of some of the more important Propositions, prepared by Edward M. Langley, M.A., Bedford Modern School. Underwood & Underwood.

[“There is nothing in the school curriculum to which the stereoscope is better suited to give valuable aid to both teacher and student than that of Solid Geometry. The most serious difficulty in the effective teaching of this branch is entirely overcome by the use of the stereoscope.” Worked with a set of 25 slides.]

Ratio Co-ordinates and Carnot's Theorem. 1s. net. Whittaker.

[Attempt “to explain the use of a certain kind of ratio co-ordinates, which seem to present some advantages in dealing with the projective properties of conic sections.” 24 figures.]

Trigonometry, Experimental. By R. C. Bridgett, M.A., B.Sc., F.C.S. 1s. Blackie.

[Introductory. Exercises; examination papers. Answers.]

### SUPPLEMENTARY ENGLISH READERS.

Charles & Dible's "Grosvenor" Series of Supplementary Readers.—No. 1, Three Famous Voyages (Columbus—Vasco da Gama—Magellan). No. 2, Three Founders of our Empire (Raleigh—Wolfe—Clive). No. 3, Three Famous Women (Elizabeth Fry—Florence Nightingale—Mary Somerville). 3d. net each.

[Freshly and simply narrated. Illustrated. Nicely got up.]

McDougall's Supplementary Series.—Junior: No. 5, The Wishing Well. 2d. Intermediate: No. 7, Pandora's Box; No. 8, Prince Geraint and Fair Enid. 2d. each. Advanced: No. 11, Scenes from Quentin Durward; No. 12, The Merchant of Venice; No. 13, As You Like It; No. 14, The Tempest. 2d. each.

[Good matter, type, and get-up.]

Macmillan's Supplementary Readers.—Junior: (1) Fairy Tales, I.; (2) Fairy Tales, II.; (3) Tales from Andersen (Ugly Duckling—Fire-tree—Nightingale). 4d. each. Intermediate: (1) Fables from Aesop, and others; (2) Sindbad the Sailor; (3) Ali Baba. 4d. each. Senior: (1) Adventures of Robinson Crusoe; (2) Tanglewood Tales (Circe's Palace, and The Golden Fleece). 4d. each. Shakespeare (text only): (1) The Merchant of Venice; (2) The Tempest; (3) A Midsummer Night's Dream; (4) Macbeth; (5) King Lear; (6) Julius Caesar. 6d. each.

[Good matter; superior get-up.]

Nelson's Supplementary Readers.—No. 18, Three Lays of Ancient Rome (Prophecy of Capys—Horatius—Battle of Lake Regillus). 4d.

[Introductions; notes; 2 maps. Strong get-up.]

Pitman's Supplementary Readers.—(1) Stories from the Classics (Jason and The Golden Fleece, by Emily Isabel Slater). (2) The Merchant of Venice, and (3) King Lear—“carefully adapted for school use.” 4d. each. (4) Stories from the Classics (The Heroes of Troy, by Emily Isabel Slater). 3d.

[(1) and (4) simply and clearly told; illustrations. (2) and (3) have short introductions, and the story of the plays adapted from Lamb, and glossarial notes; illustrations; well got up.]

### EDUCATION.

Board of Agriculture and Fisheries. Various Leaflets. [No. 66, Fowl Cholera. No. 203, Utilization of Peat Lands. No. 209, Gooseberry “Cluster-Cup” Disease. No. 211, Cider Orchards. Practical. Gratis and post free from the Secretary; letters of application need not be stamped.]

Board of Education. (1) National Competition, 1908: List of Awards and Report of Examiners. Illustrated. 3s. (2) National Competitions: Retrospective Exhibition, 1908. Unillustrated List. (3) Regulations for Technical Schools, &c., 1908-9. Cd. 4,187. 2d. Wyman.

Cambridge University. Higher Local Examinations. Examination Papers (June), with Regulations for Examinations in December, 1908, and June, 1909. 2s.; by post, 2s. 2d. Clay (Cambridge University Press Warehouse, Fetter Lane, E.C.).

Cape of Good Hope. Education Report for 1906-7.

Child Study (July). 6d. net. Edward Arnold.

[Four excellent articles.]

English Association Leaflets. No. 6, The Teaching of English in Girls' Secondary Schools, by Miss G. Clement, B.A. No. 7, The Teaching of Shakespeare in Schools (expanded, but still, in a sense, provisional). 6d. each. Copies from Miss Elizabeth Lee (Secretary), 8 Mornington Avenue Mansions, West Kensington.

Great Britain and Ireland, National Education in, A Short History of. By T. Lloyd Humberstone, B.Sc. Lond., A.R.C.S. Lond., of the University of London Administrative Staff. Published by the Committee of the British Education Section of the Franco-British Exhibition by P. S. King & Son. 3d.

[Rapid, but pointed, summary. Illustrations.]

Preparatory Schools Review (July). 1s. Simpkin, Marshall, & Co.

[Comprehensive and varied. Excellent.]

Universities. Inaugural Address (University Extension), July 18, 1908. By H. Montagu Butler, D.D., &c., Master of Trinity. 6d. net. Bowes & Bowes (Cambridge).

Victoria. Education Report for 1906-7.

# DENT'S

## Books for Oxford and Cambridge Locals and College of Preceptors Examinations, 1909.

### OXFORD.

#### ENGLISH.

- MACAULAY'S LAYS OF ANCIENT ROME.** With Introduction and Notes by OLIPHANT SMEATON, M.A. 1s.
- THE TALISMAN.** By Sir WALTER SCOTT. With Introduction and Notes by HENRY WILLIAMS, M.A. 1s. (*Temple English Literature Series.*)
- THE TALISMAN.** By Sir WALTER SCOTT. Edited with Notes, &c., by G. L. TURNBULL, M.A. Illustrations from old prints in the Notes. 1s. 6d.
- THE TEMPEST.** Edited by OLIPHANT SMEATON, M.A. With Eight Illustrations by WALTER CRANE. 1s. 4d.
- MACBETH.** Edited by GEORGE SMITH, M.A., LL.D. With Five Illustrations by T. H. ROBINSON. 1s. 4d.
- KING HENRY V.** Edited by W. H. HUDSON, M.A. With Eight Illustrations by DORA CURTIS. 1s. 4d.
- THE LAY OF THE LAST MINSTREL.** By Sir WALTER SCOTT. Edited, with Notes, Glossary, and Illustrations, by J. W. YOUNG, M.A., Head Master Pupil-Teachers' School, Bradford. Crown 8vo, cloth, 1s. 4d.
- QUENTIN DURWARD.** By Sir WALTER SCOTT. Edited, with Notes, Introduction, Glossary, and Examination Questions, by J. WILSON, M.A. 1s. 4d.
- UTOPIA.** By Sir THOMAS MORE. Edited, with Introduction, Notes, and Glossary, by A. J. GRIEVE, M.A. 1s. 4d.

#### LATIN.

- CAESAR'S GALLIC WAR. Books II. and III.,** in one volume. Edited by A. CROOM PATERSON, M.A. (Edin. and Oxon.), Classical Master in the Royal High School, Edinburgh. 1s. 4d.
- CAESAR'S GALLIC WAR. Books IV. and V.,** in one volume. Edited by Dr. JOHN MARSHALL, Rector of High School, Edinburgh. 1s. 4d.
- "Admirably produced. Light to handle, well printed. The introductions are full and adequate, and the notes are brief."—*The Outlook.*

### COLLEGE OF PRECEPTORS.

#### ENGLISH.

- THE TEMPEST.** Edited by OLIPHANT SMEATON, M.A. With Eight Illustrations by WALTER CRANE. 1s. 4d.
- "It can be affirmed with every confidence that this issue of Shakespeare's 'Tempest' has no superior as a school edition of this well known play."—*Educational News.*
- JULIUS CAESAR.** Edited by F. ARMYTAGE MORLEY, M.A., D.C.L. With Illustrations by T. H. ROBINSON. 1s. 4d.

### CAMBRIDGE.

#### ENGLISH.

- JULIUS CAESAR.** Edited by F. ARMYTAGE MORLEY, M.A., D.C.L. With Illustrations by T. H. ROBINSON. 1s. 4d.
- "If the growing generation does not acquire a love for Shakespeare, it will not be the fault of editors of school books. Mr. F. Armytage Morley has furnished the play with an admirable introduction . . . comments in a style easy to be comprehended of the pupil . . . Mr. T. H. Robinson, the artist, deserves a special word of praise."—*Scotsman.*
- RICHARD II.** Edited by W. KEATH LEASK, M.A. With Illustrations by DORA CURTIS. 1s. 4d.
- "This edition has much to commend it. The type is excellent, the notes concise and to the point, and the general remarks on the play are not too elaborate."—*Saturday Review.*
- THE FAERY QUEENE. Book I.** By EDMUND SPENSER. Edited by Prof. W. H. HUDSON, M.A. With Introduction and Notes. 2s.
- A LEGEND OF MONTROSE.** By Sir WALTER SCOTT, Edited, with Introduction, Notes, Glossary, and Examination Questions, by E. PROUDE, B.A. 1s. 4d.

#### LATIN.

- CAESAR'S GALLIC WAR. Books IV. and V.,** in one volume. Edited by Dr. JOHN MARSHALL, Rector of High School, Edinburgh. 1s. 4d.
- "Admirably produced. Light to handle, well printed. The introductions are full and adequate, and the notes are brief."—*The Outlook.*

#### FRENCH.

- LE BOURGEOIS GENTILHOMME. (School Edition.)** Edited, with Introduction and Notes, by Prof. FREDERICK SPENCER, M.A. 1s. 6d.

# DENT'S

## NEW MATHEMATICAL AND SCIENTIFIC SERIES FOR SCHOOLS.

SOME RECENT ADDITIONS.

### HISTORICAL GEOGRAPHY ON A REGIONAL BASIS.

By ERNEST W. DANN, B.A., THE GRAMMAR SCHOOL, REIGATE.

Vol. I.—THE BRITISH ISLES. Vol. II.—EUROPE. Price 2s. 6d. each.

*Extract from Preface.*—These little volumes have been written to give students a more definite idea of the interrelation of Geography and History than they can possibly gain from the passing allusions in books entirely devoted to the one or the other subject. Of the importance of Historical Geography there can be no doubt; but there is a great deal of confusion of terms. It is often forgotten that Geography is the substantive and Historical the adjective, and it is most important to give the science its proper physical basis. Moreover, the study of it should be based upon reason and not upon memory. Kaleidoscopic political changes at rapid intervals do not require a high order of intelligence to acquire, and are merely interesting; the study of man on the earth is a far deeper matter.

- ELEMENTARY TRIGONOMETRY.** By CECIL HAWKINS, M.A., Senior Mathematical Master at Haileybury College, Hertford. Small crown 8vo, without Answers, 3s. 6d.; with Answers, 4s.
- GEOMETRICAL CONICS.** By Professor G. H. BRYAN, F.R.S., and Prof. R. H. PINKERTON, M.A. 3s. 6d.
- ANALYTICAL CONICS.** By Prof. CHARLOTTE ANGUS SCOTT, D.Sc., Bryn Mawr College, U.S.A. 3s. 6d.

**AN INTRODUCTION TO PRACTICAL BOTANY.** By E. H. DAVIES, B.Sc. (Lond.), F.G.S., County School, Barry, Glam. Small crown 8vo, 2s.

**SCHOOL HYGIENE.** By HERBERT JONES, D.P.H. (Camb.), Fellow and Hon. Secretary to the Incorporated Society of Medical Officers of Health; Fellow of the Royal Sanitary Institute, &c. Small crown 8vo, 2s.

**SPECIAL NOTE.**—Attention is directed to the fact that all the above books are subject to discount. The Publishers cordially invite application for specimen copies from Principals of Schools and Colleges.

London: J. M. DENT & CO., Aldine House, Bedford St., Strand, W.C.

**MATHEMATICS.**

16418. (W. F. BEARD, M.A.)—ABC is a triangle;  $I, I_1, I_2, I_3$  are the in- and ex-centres and O is the circum-centre; the internal and external bisectors of the angles meet the opposite sides at D,  $D_1$ , E,  $E_1$ , F,  $F_1$ . Prove that  $OI, OI_1, OI_2, OI_3$  are respectively perpendicular to  $D_1E_1F_1, D_1EF, DE_1F, DEF_1$ .

Solutions (I.) by R. F. DAVIS, M.A.; (II.) by LOUIS A. FENN; (III.) by A. M. NESBITT, M.A., and others.

(I.) Let the external bisectors of the angles of the triangle ABC meet the respectively opposite sides in L, M, N.

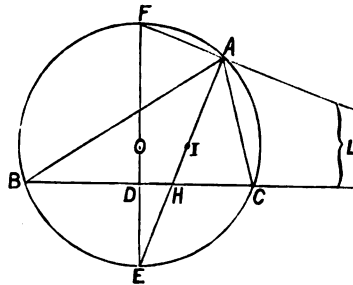
Then  
 $AE^2 = AI^2 + IE^2 + 2AI \cdot IE$   
 or  
 $AI^2 + 2AI \cdot IE = AE^2 - IE^2$   
 $= AE^2 - AE \cdot HE$   
 $= AE \cdot AH$   
 $= AB \cdot AC$

Thus  
 $AB \cdot AC - AI^2 = 2AI \cdot IE = 4Rr$   
 $= BC \cdot BA - BI^2$   
 $= CA \cdot CB - CI^2$

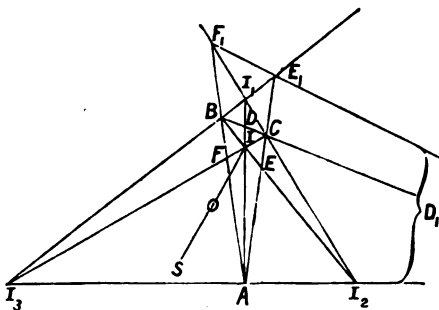
by symmetry.

Then  
 $LB \cdot LC = LA^2 + AB \cdot AC = LA^2 + AI^2 + AB \cdot AC - AI^2 = LI^2 + 4Rr$ ,  
 or the square of the tangent from L to the circum-circle exceeds the square of the tangent from L to a point circle at I by  $4Rr$ .

Similar results hold for M, N.  
 Hence L, M, N are collinear; and LMN is a line parallel to the radical axes of these two circles, or perpendicular to their line of centres OI.



(II.) (1) To show that OI is perpendicular to  $D_1E_1F_1$ .



Square on tangent to circle  $I_1I_2I_3$  (centre S) from  $D_1$  = rectangle  $D_1I_2 \cdot D_1I_3$  = rectangle  $D_1C \cdot D_1B$  (because  $I_2BCI_3$  cyclic) = square on tangent to circle ABC (centre O).

Therefore  $D_1$  is a point on radical axis of circles  $I_1I_2I_3$ , and ABC.  
 Again, square on tangent to circle  $I_1I_2I_3$  from  $E_1$  = rectangle  $E_1I_1 \cdot E_1I_3$  = rectangle  $E_1C \cdot E_1A$  (because  $I_1CAI_3$  cyclic) = square on tangent to circle ABC from  $E_1$ .

Therefore  $E_1$  is a point on radical axis of circles  $I_1I_2I_3$ , and ABC, i.e.  $D_1E_1F_1$  is the radical axis of these circles.

Therefore line of centres (i.e. SO) is perpendicular to  $D_1E_1F_1$ .  
 But S, O, I are in directum (because S is circum-centre, I is ortho-centre, and O is N.P. centre of  $\Delta I_1I_2I_3$ ).

Therefore OI is perpendicular to  $D_1E_1F_1$ .

(2) To show that  $OI_1$  is perpendicular to  $D_1EF$ .  
 It may be shown, as above, that  $D_1$  lies on radical axis of circles  $I_2I_3$  and ABC.

Now, because  $IAI_2C$  cyclic, rectangle  $EC \cdot EA = EI \cdot EI_2$ .  
 But  $II_2$  is a chord of the circle  $I_2I_3$ .  
 Therefore E lies on the common chord of the circles ABC,  $II_2I_3$ .  
 Therefore E lies on the radical axis of these intersecting circles.  
 Similarly, F lies on the same radical axis.  
 Therefore  $D_1EF$  is radical axis of these two circles.  
 But centre of  $II_2I_3$  is image of S in  $I_2I_3$ , and it may be easily shown that  $I_1OS'$  (where S' is the centre of  $II_2I_3$ ) lie in directum.  
 But S'O is perpendicular to  $D_1EF$ .  
 Therefore  $OI_1$  is perpendicular to  $D_1EF$ .

The other lines mentioned may be similarly shown to be perpendicular.

*A Note on the Nine-Point Circle.*

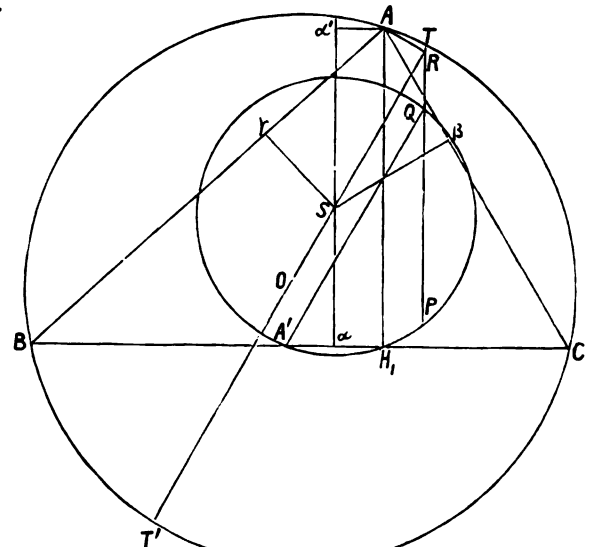
(Continued. See Reprint, N.S., Vol. xv, p. 25, and Educational Times, July, 1908.)

By W. GALLATLY, M.A.

A'B'C' being the mid-point triangle of ABC, take any point P on the nine-point circle; draw the chord PQ perpendicular to BC, and the diameter TOT' of the circle ABC parallel to A'Q. Let  $\alpha\beta\gamma$  be the pedal triangle of S, any point on TOT'.

It has been shown (references above, q.v.) that the circle  $\alpha\beta\gamma$  passes through P. It is now required to prove that  $\beta\gamma, \alpha P$  meet on B'C'.

Draw AR perpendicular to TOT'. It is easily proved that AR and PH<sub>1</sub> (AH<sub>1</sub> perpendicular to BC) are equal and equally inclined to AH<sub>1</sub>. Draw Aa' parallel to BC, meeting aS in a'.



The trapezium  $\alpha PRa'$  is obviously symmetrical, so that  $\alpha'RP\alpha$  is cyclic, and  $\alpha P, \alpha'R$  meet on B'C'.

The figure  $S\beta RAa'\gamma$  is also cyclic. Hence  $\alpha'R, \beta\gamma, \alpha P$  are the three common chords of three circles  $\alpha PRa', S\beta RAa'\gamma, \alpha P\beta\gamma$ .

Therefore they meet at a point; and this point lies on B'C'. This theorem is due to M. G. Fontené, who published it in N. A. M., 1906. His proof is analytical.

A particular case is given by Sir W. Rowan Hamilton: Let XYZ be the points of contact of the in-circle, and let YZ cut B'C' in Q. Then XQ cuts the nine-point circle at its point of contact with the in-circle.

It is worth notice that, if we draw a parabola having P as focus and touching A'B'C', then TOT', parallel to A'Q, is also parallel to the Simson-line of P, or vertex-tangent. It also passes through O, the orthocentre of A'B'C'. Therefore TOT' is the directrix.

16024. (V. RAMASWAMI AIYAR, M.A.)—Let the n-th differential coefficient of  $f(x)$  be positive as  $x$  increases from  $b$  to  $a$ . If  $n = 1$ , we know result (1) below. If  $n = 2$ , we have result (2). If  $n = 3$ , prove result (3). The law of formation is apparent, and an endless succession of results (4), (5), (6), ... could be formed. Demonstrate that these hold for  $n = 4, 5, 6, \dots$  respectively.

$$f(a) > f(b) \dots\dots\dots(1).$$

$$f'(a)(a-b) > f(a) - f(b) > f'(b)(a-b) \dots\dots\dots(2).$$

$$\frac{f''(a)}{1.2}(a-b)^2 > f'(a)(a-b) - [f(a) - f(b)]$$

$$> [f(a) - f(b)] - f'(b)(a-b) > \frac{f''(b)}{1.2}(a-b)^2 \dots\dots\dots(3).$$

Solution by Professor NANSON.

The results stated all follow from the theorem that, if  $\phi(a)$  is positive, when  $a > b$ , so is  $\int_b^a \phi(a) da$ . Thus, if  $f'(a)$  is positive, so is  $f(a) - f(b)$ . Hence, if  $f''(a)$  is positive, so are  $(a-b)f'(a), f'(a) - f'(b)$ , and therefore also

$$(a-b)f'(a) - [f(a) - f(b)], [f(a) - f(b)] - (a-b)f'(b).$$

Hence, if  $f'''(a)$  is positive, so are  $\frac{1}{2}(a-b)^2 f''(a), (a-b)f'(a) - [f'(a) - f'(b)], [f'(a) - f'(b)] - (a-b)f''(b)$ ; and therefore also

$$\frac{1}{2}(a-b)^2 f''(a) - (a-b)f'(a) + [f(a) - f(b)],$$

$$(a-b)f'(a) - 2[f(a) - f(b)] + (a-b)f'(b),$$

$$[f(a) - f(b)] - (a-b)f'(b) - \frac{1}{2}(a-b)^2 f''(b)$$

are positive, and so on, indefinitely.

16376. (L. ISSERLIS, B.A.)—Prove that the equations

$$x = a + b \sec^2(\theta) \cos(\theta - k), \quad y = c + b \sec^2(2\theta) \cos(\theta + k),$$

in which  $a, b, c, k$  are constants, represent a point on a conic, and that by varying  $k$  a set of confocal conics is obtained.

Solutions (I.) by A. M. NESBITT, M.A., and others;  
(II.) by M. I. TRACHTENBERG, B.A.

(I.) Changing origin to  $(a, c)$ , we get

$$\tan \theta = (x - y) \cot k / (x + y), \quad x^2 - y^2 = b^2 \sin 2k \tan 2\theta,$$

$$\text{or} \quad (x^2 + y^2) \cos 2k - 2xy = -b^2 \sin 2k,$$

which reduces to  $y^2/\cos^2 k - x^2/\sin^2 k = 2b^2$ , when referred to principal axes; and this represents a system of confocal hyperbolæ.

(II.) Transferring the origin to  $(a, c)$ , we have

$$x = b \sec^2(2\theta) \cos(\theta - k), \quad y = b \sec^2(2\theta) \cos(\theta + k);$$

therefore

$$x + y = 2b \sec^2(2\theta) \cos \theta \cos k, \quad x - y = 2b \sec^2(2\theta) \sin \theta \sin k;$$

therefore, eliminating  $\theta$ , we have

$$(x + y)^2/(4b^2 \cos^2 k) - (x - y)^2/(4b^2 \sin^2 k) = 1,$$

which is a conic whose axes bisect the angles between the axes of coordinates (assumed to be rectangular). The difference between the squares of the axes is a multiple of  $(\cos^2 k + \sin^2 k)$ —i.e., is constant. Thus by varying  $k$  a set of confocal conics is obtained.

16389. (M. T. NARANIENGAR, M.A.)—In the cardioid  $r = a(1 - \cos \theta)$ , show that the locus of the intersection of normals at the points  $a, 2a$  is a circle. Interpret the result geometrically.

Solution by JAGAT CHANDRA PAL.

Since the tangent at the point  $a$  makes with the radius vector an angle  $= \frac{1}{2}a$ , the perpendicular from the origin on the normal at the point

$$\begin{aligned} &= r \cos \frac{1}{2}a \\ &= a(1 - \cos a) \cos \frac{1}{2}a, \end{aligned}$$

and it makes with the initial line an angle  $= \frac{3}{2}a$ ;

therefore the Cartesian equation of the normal at the point  $a$  is

$$x \cos \frac{3}{2}a + y \sin \frac{3}{2}a = a(1 - \cos a) \cos \frac{1}{2}a \dots \dots \dots (1).$$

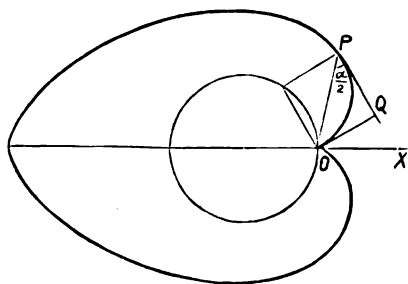
Similarly the Cartesian equation of the normal at the point  $2a$  is

$$x \cos 3a + y \sin 3a = a(1 - \cos 2a) \cos a \dots \dots \dots (2).$$

Multiply (1) by  $2 \cos \frac{3}{2}a$ , and from this subtract (2), then

$$\begin{aligned} x &= a [(1 - \cos a)(\cos a + \cos 2a) - (1 - \cos 2a) \cos a] \\ &= a [\cos 2a - \cos^2 a] = -a \sin^2 a. \end{aligned}$$

Substituting this value of  $x$  in (2), we easily get  $y = a \sin a \cos a$ ; therefore  $x^2 + y^2 = a^2 \sin^2 a (\sin^2 a + \cos^2 a) = a^2 \sin^2 a = -ax$ ; therefore  $x^2 + y^2 + ax = 0$ , which is evidently a circle on the line joining the cusp and the mid-point of the axis as diameter.



16422. (Lt.-Col. ALLAN CUNNINGHAM, R.E.)—Give the general solution of, and also the lowest solution in integers of,

$$(x^4 + y^4 + z^4) = 2(x^3 + y^3 + z^3).$$

Solutions (I.) by Prof. E. B. ESCOTT; (II.) by the PROPOSER.

(I.) If  $z^2 = x^2 + y^2$ , the equation becomes

$$4(x^4 + x^2y^2 + y^4) = 4(x^3 + x^2y^2 + y^3),$$

an identity. Smallest solution (not zero),  $x = 3, y = 4, z = 5$ .

(II.) From the present writer's solution of Question 16368 (p. 188 of April issue), it may be inferred that

$$U^4 + V^4 + W^4 = 2C^2, \quad \text{where } W = U + V,$$

and that, by taking  $U = x^2, V = y^2, W = z^2 = x^2 + y^2$ , which can be satisfied by taking  $x = \xi^2 - \eta^2, y = 2\xi\eta, z = \xi^2 + \eta^2$ , the above becomes  $x^4 + y^4 + z^4 = 2C^2$ , where  $C = x^4 + y^4 + z^4$ .

This solves the Question.

The lowest solution is given by  $(x, y, z) = (3, 4, 5)$ , viz.,  $2(3^4 + 4^4 + 5^4) = 2(2 \cdot 481^2) = (3^4 + 4^4 + 5^4)^2$ .

16382. (M. T. NARANIENGAR, M.A.)—If forces proportional to the sides of a triangle act at any point of the nine-point circle towards the feet of the perpendiculars of the triangle, their resultant passes through the point of contact of the inscribed or escribed circle with the nine-point circle.

Solution by the PROPOSER.

This Question was suggested by a problem communicated to me by my friend Prof. V. Ramaswami Aiyar, which has since appeared in the *Mathematical Gazette* (Vol. iv., p. 166), with solutions published on pp. 235, 236.

It may be solved in the following manner:—

(1) If two circles touch at X, and D is a point on one, then DX varies as the tangent from D to the other circle.

For, if DL be the tangent,

$$DL^2 = DX \cdot DD',$$

and

$$DX \propto DD',$$

since the circles touch at X; therefore DX varies as DL.

(2) Now, let D be the foot of the perpendicular from A on BC, and D' the mid-point of BC. Also, let the in-circle touch BC at L, and the nine-point circle at X. Then DX varies as DL, since D is a point on the nine-point circle; therefore

$$\begin{aligned} DX &= \lambda \cdot DL = \lambda(DD' - D'L) \\ &= \lambda [R \sin(C - B) - \frac{1}{2}(c - b)], \end{aligned}$$

since  $D'L = \frac{1}{2}(BL - CL) = \frac{1}{2}[(s - b) - (s - c)] = \frac{1}{2}(c - b)$ .

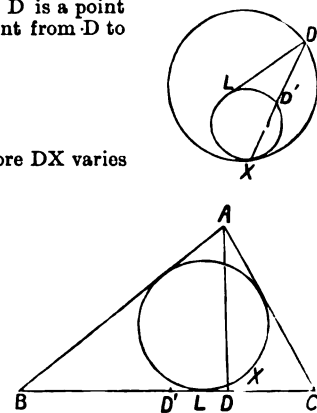
Hence, if forces act through the feet of perpendiculars at any point P of the nine-point circle, and are proportional to the sides, the sum of their moments round X varies as

$$\Sigma \{ \lambda a [R \sin(C - B) - \frac{1}{2}(c - b)] \} = \lambda R \Sigma [a \sin(C - B)] - \frac{1}{2} \lambda \Sigma [a(c - b)] = 0.$$

Thus, the resultant passes through X.

By varying the position of P on the nine-point circle and drawing separate figures, the several cases of the Question may be examined.

The Question proposed by Prof. V. R. Aiyar may be proved in a similar manner.



16313. (SARADAKANTA GANGULI, M.A.)—Sum the following series

- (1)  $\frac{1}{1^2} + \frac{2}{2^2 + 3^2} + \frac{3}{4^2 + 5^2 + 6^2} + \frac{4}{7^2 + 8^2 + 9^2 + 10^2} + \dots$
- (2)  $\frac{1^3}{1^2} + \frac{2^3}{2^2 + 3^2} + \frac{3^3}{4^2 + 5^2 + 6^2} + \frac{4^3}{7^2 + 8^2 + 9^2 + 10^2} + \dots$
- (3)  $\frac{1^2}{1^3} + \frac{2^2}{2^3 + 3^3} + \frac{3^2}{4^3 + 5^3 + 6^3} + \frac{4^2}{7^3 + 8^3 + 9^3 + 10^3} + \dots$

Solution by MAHENDRA NATH, D.E., M.A., B.Sc., and others.

Lemma.—  $\frac{\pi x}{2} \coth \pi x = \frac{1}{2} + \sum_{n=1}^{\infty} \frac{x^2}{x^2 + n^2}$  (see Ex. 118, p. 55, Edwards's *Diff. Calc.*).

The denominator of the  $n$ th term in (1) and (2) is  $(a + 1)^2 + (a + 2)^2 + \dots + (a + n)^2$ ,

$$\begin{aligned} \text{where } a &= \frac{n(n-1)}{2} = na^2 + 2a \frac{n(n-1)}{2} + \frac{n(n+1)(2n+1)}{6} \\ &= n \left[ \frac{n^2(n-1)^2}{4} + \frac{n(n^2-1)}{2} + \frac{(n+1)(2n+1)}{6} \right] \\ &= \frac{n(3n^4 - 6n^3 + 3n^2 + 6n^3 - 6n + 4n^2 + 6n + 2)}{12} \\ &= \frac{n(3n^4 + 7n^2 + 2)}{12} = \frac{n(3n^2 + 1)(n^2 + 2)}{12}. \end{aligned}$$

Therefore, in (1),  $t_n$  (the  $n$ th term)

$$= \frac{12}{(3n^2 + 1)(n^2 + 2)} = \frac{4}{(n^2 + \frac{1}{3})(n^2 + 2)} = \frac{1}{3} \left[ \frac{1}{n^2 + \frac{1}{3}} - \frac{1}{n^2 + 2} \right].$$

Therefore, from the Lemma, the sum

$$= \frac{1}{3} \left[ 3 \left( \frac{\pi}{2\sqrt{3}} \coth \frac{\pi}{\sqrt{3}} - \frac{1}{2} \right) - \frac{1}{2} \left( \frac{\pi}{\sqrt{2}} \coth \frac{\pi}{\sqrt{2}} - \frac{1}{2} \right) \right].$$

In (2), 
$$t_n = \frac{12n^2}{(3n^2 + 1)(n^2 + 2)} = \frac{4n^2}{(n^2 + \frac{1}{3})(n^2 + 2)}$$

$$= \frac{2^2}{3} \frac{1}{n^2 + 2} - \frac{1}{3} \frac{1}{n^2 + \frac{1}{3}}$$

Therefore the sum

$$= 2^{\frac{2}{3}} \cdot \frac{1}{2} \left( \frac{\pi}{\sqrt{2}} \coth \pi \sqrt{2} - \frac{1}{2} \right) - \frac{1}{3} \cdot 3 \left( \frac{\pi}{2\sqrt{3}} \coth \frac{\pi}{\sqrt{3}} - \frac{1}{2} \right)$$

$$= \frac{12\pi}{5} \left( \frac{1}{\sqrt{2}} \coth \pi \sqrt{2} - \frac{1}{2\sqrt{3}} \coth \frac{\pi}{\sqrt{3}} \right).$$

The denominator of  $t_n$  in (3)

$$= (a+1)^3 + (a+2)^3 + \dots + (a+n)^3 \left[ \text{where } a = \frac{n(n-1)}{2} \right]$$

$$= \frac{n^3(n^2+4n^2+3)}{8},$$

on slight simplifications. Therefore

$$t_n = \frac{8}{n^3+4n^2+3} = \frac{8}{(n^2+1)(n^2+3)} = 4 \left[ \frac{1}{n^2+1} - \frac{1}{n^2+3} \right].$$

Therefore the sum

$$= 4 \left[ \left( \frac{\pi}{2} \coth \pi - \frac{1}{2} \right) - \frac{1}{3} \left( \frac{\pi\sqrt{3}}{2} \coth \pi \sqrt{3} - \frac{1}{2} \right) \right]$$

$$= 2 \left[ (\pi \coth \pi - 1) - \frac{1}{3} (\pi \sqrt{3} \coth \pi \sqrt{3} - 1) \right].$$

16242. (Lt.-Col. ALLAN CUNNINGHAM, R.E.)—Factorize completely (into prime factors)  $N = (3^{34} + 2^{34})$ .

Solution by Professor SANJANA, M.A.

$$3^{34} + 2^{34} = 27^{17} + 8^{17} = 8^{17} \left[ \left( \frac{27}{8} \right)^{17} + 1 \right].$$

It can be shown that  $x^{18} + 1$  is the product of the following factors:—

$$x^2 + 1, \quad x^2 + 3x + 1 \pm \sqrt{(6x)(x+1)}, \quad x^6 + 3x^3 + 1 \pm \sqrt{(6x^3)(x^3+1)}.$$

When  $x = \frac{3^2}{8}$ ,  $\sqrt{(6x)}$  and  $\sqrt{(6x^3)}$  are both rational; make the substitution and multiply out by  $8^{18}$ , and we get the following values:—

$$793; \quad 1441 \pm 1260; \quad 417,915,721 \pm 157,036,320.$$

Now  $793 = 13 \cdot 61$ ;  $2701 = 37 \cdot 73$ ;  $260,879,401 = 109 \cdot 2,393,389$ ; and  $574,952,041 = 13,177 \cdot 43,633$ ,

as shown by the Proposer (*Reprint*, Vol. XIII., New Series, pp. 106, 107). Thus, finally,

$$N = 13 \cdot 61 \cdot 37 \cdot 73 \cdot 181 \cdot 109 \cdot 2,393,389 \cdot 13,177 \cdot 43,633.$$

16007. (Professor NANSON.)—Eliminate  $x, y$  from

$$x^2 = ax + by + c, \quad xy = a'x + b'y + c', \quad y^2 = a''x + b''y + c''.$$

Note by the PROPOSER.

The result (3), *Reprint*, Vol. XIII., New Series, p. 48, cannot possibly be the eliminant of the given equations, for when  $a, b, a', b', a'', b''$  are all zero this equation is satisfied identically, and yet in this case the given equations cannot have a common solution unless  $cc'' = c'^2$ . But independently of this difficulty, which may readily be met, the result stated, after correction of obvious slips, has a factor of the fourth order which is wholly irrelevant to the problem. A somewhat similar remark applies to the solution by cubics indicated on the same page. The process there described leads to an eliminant of order 15, whereas it is well known that the true eliminant is of order 12 when all the coefficients are literal.

The correct eliminant is readily found by Sylvester's rule given in Salmon's *Higher Algebra*, Art. 91, and apparently in part rediscovered by Dr. Muir, see *Trans. Roy. Soc. of Edin.*, Vol. XXXIX., p. 675.

Throwing each equation into the three forms

$$\lambda x^2 + \mu y + \nu = 0, \quad \lambda x + \mu y^2 + \nu = 0, \quad \lambda x + \mu y + \nu = 0,$$

and then eliminating dialytically first  $x^2, y, 1$ ; then  $x, y^2, 1$ ; and, finally  $x, y, 1$ , it follows that for all values of  $x, y$  which satisfy the given equations  $Cx - A - a''x^2 + a'xy - c''x + c'y = 0$ ,

$$Cy - B'' - by^2 + b'xy - cy + c'x = 0,$$

$$\Delta - \frac{1}{2}c''x^2 - \frac{1}{2}cy^2 + c'xy - Ax - B'y - \frac{1}{2}B'x - \frac{1}{2}A'y = 0,$$

where  $A, B, \dots$  are the co-factors of  $a, b, \dots$  in the determinant  $\Delta = (ab'c'')$ . The dialytic eliminant of these three equations and the three given equations can now be written down as a six-line determinant. By obvious combinations of either rows or columns, this may be reduced to the following symmetrical three-line determinant, which is of order 7 in the given coefficients, viz.,

$$\begin{vmatrix} C - c'' - aa'' + a^2, & c - a''b + a'b', & A + ca'' - c'a' \\ c - a''b + a'b', & C' - c - bb'' + b^2, & B' + bc'' - b'c' \\ A + ca'' - c'a', & B' + bc'' - b'c', & \Delta - cc'' + c \end{vmatrix}.$$

When  $a, b, a', b', a'', b''$  are all zero, this reduces to  $-(cc'' - c')^2$ , which is correct. Also for the three equations

$$x^2 = by, \quad y^2 = a''x, \quad xy = c',$$

it reduces to  $-c'(a''b - c')^2$ , which is correct. Finally, the terms of highest order have  $\Delta$  for a factor, which is correct, because when the first members of the given equations are replaced by zeros, the condition for a common solution is  $\Delta = 0$ .

QUESTIONS FOR SOLUTION.

16491. (H. STANLEY REDGROVE, B.Sc.)—It is required to determine the values of  $a$  and  $b$ . Experiments are carried out with the following results:—

- Experiment 1:  $a = -94 \cdot 3$ . Experiment 3:  $b = -86 \cdot 8$ .
- Experiment 2:  $a = -31 \cdot 9$ . Experiment 4:  $b = -85 \cdot 1$ .
- Experiment 5:  $a - 2b = 135 \cdot 8$ .

Calculate from these data the most probable values of  $a$  and  $b$ .

16492. (S. NARAYANA AIYAR.)— $a, b, c, d, \dots, l$  are  $l$  quantities;  $\rho_{ab}$  denotes  $(a^2 - 2ab \cos \theta + b^2)^{\frac{1}{2}}$ , and  $\phi_{ab} = \tan^{-1} a \sin \theta / (a \cos \theta - b)$ .

$$A_x = \int \frac{\rho_{ab} \rho_{bc} \rho_{cd} \dots \rho_{nl}}{(a-b)(a-c)(a-d) \dots (a-l)} \cos(\phi_{ab} + \phi_{bc} + \phi_{cd} + \dots + \phi_{nl}) d\theta,$$

$$B_x = \int \frac{\rho_{ba} \rho_{bc} \rho_{cd} \dots \rho_{bl}}{(b-a)(b-c)(b-d) \dots (b-l)} \cos(\phi_{ba} + \phi_{bc} + \phi_{cd} + \dots + \phi_{bl}) d\theta,$$

$$L_x = \int \frac{\rho_{la} \rho_{lb} \rho_{lc} \dots \rho_{lk}}{(l-a)(l-b)(l-c) \dots (l-k)} \cos(\phi_{la} + \phi_{lb} + \phi_{lc} + \dots + \phi_{lk}) d\theta,$$

$$A_x = \int \frac{\rho_{ab} \rho_{bc} \rho_{cd} \dots \rho_{nl}}{(a-b)(a-c)(a-d) \dots (a-l)} \sin(\phi_{ab} + \phi_{bc} + \phi_{cd} + \dots + \phi_{nl}) d\theta,$$

$$B_x = \int \frac{\rho_{ba} \rho_{bc} \rho_{cd} \dots \rho_{bl}}{(b-a)(b-c)(b-d) \dots (b-l)} \sin(\phi_{ba} + \phi_{bc} + \phi_{cd} + \dots + \phi_{bl}) d\theta,$$

$$L_x = \int \frac{\rho_{la} \rho_{lb} \rho_{lc} \dots \rho_{lk}}{(l-a)(l-b)(l-c) \dots (l-k)} \sin(\phi_{la} + \phi_{lb} + \phi_{lc} + \dots + \phi_{lk}) d\theta.$$

Show that (1)  $A_x + B_x + \dots + L_x = C + \theta + \sum_{r=1}^{r=l-1} \frac{\sin r\theta}{r}$ ,

$$(2) A_x + B_x + \dots + L_x = C' - \sum_{r=1}^{r=l-1} \frac{\cos r\theta}{r},$$

where  $C$  and  $C'$  are constants.

16493. (D. EDWARDES, B.A.)—If  $a_0, a_1, a_2, \dots, f, \theta$  are functions of  $x$ , and if  $a_0 = f/\theta, a_1\theta + a_0 d\theta/dx = df/dx$ , and generally

$$a_n\theta + a_{n-1}d\theta/dx + \dots + a_0 d^n\theta/dx^n = d^n f/dx^n,$$

then  $a_2 = 1/\theta d/dx (\theta da_0/dx)$ .

Is there any compact form for  $a_n$ ?

16494. (T. MUIR, LL.D.)—If

$$c_{rs} = a_{rs} + b_{rs}\sqrt{-1}, \quad c_{sr} = a_{sr} - b_{sr}\sqrt{-1}, \quad \text{and } c_{rr} = 0;$$

show that  $|c_{11} c_{22} c_{33} c_{44}|$  is equal to the sum of two expressions of the form

$$\begin{vmatrix} l & p & 1 \\ m & -q & 1 \\ n & r & 1 \end{vmatrix}.$$

16495. (Professor SANJANA, M.A.)—Resolve into factors

$$(a) 28^{21} + 1, \quad (b) 44^{11} + 1, \quad (c) 6^{30} + 1.$$

16496. (Professor E. B. ESCOTT.)—The numbers 259, 592, 925 are all divisible by 37. Show that there is a number of 5 digits possessing the same property, i.e., of having a common factor when the digits are permuted cyclically.

16497. (Major C. H. CHEPMELL, (late) R.A.)—The special roots of the cyclotomic equation  $x^{21} - 1 = 0$  are given by the sextic

$$y^6 - y^5 - 6y^4 + 6y^3 + 8y^2 - 8y + 1 = 0 \quad (y = x + 1/x),$$

and this can be resolved into two cubics

$$2y^3 - y^2 - y - 5 \pm \sqrt{(21)(y^2 - y - 1)} = 0.$$

Resolve the sextic into three quadratics, the coefficients of which depend on  $\omega, 1/(1-\omega), (\omega-1)/\omega$ , the three roots of  $\omega^3 + \omega^2 - 2\omega - 1 = 0$  the 7-cyclotomic equation.

16498. ("SOLIDUS." Suggested by Question 16350.)—What is the number of coefficients in the general symmetrical homogeneous rational integral function of four letters? And what is the number for such a function of three letters, if we drop the restriction that it be homogeneous?

16499. (A. M. NESBITT, M.A.)—Eliminate  $a, b, c, d$  from  $p = bc^2, q = ad^2, r = (ac + 2bd)c, s = (bd + 2ac)d$ .

16500. (M. T. NARANIENGAR, M.A.)—In a four-cusped hypocycloid, as  $P$  describes the curve, show that the foot of the tangent moves with simple harmonic motion.

16501. (H. L. TRACHTENBERG, B.A.)—A rectangular hyperbola has its asymptotes parallel to the axes of a conic, passes through its centre, and touches it at  $P$ . Prove that it passes through the centre of curvature at  $P$ .

# PROFESSOR MEIKLEJOHN'S SERIES.

## BOOKS SUITABLE FOR COLLEGE OF PRECEPTORS (1909) AND OTHER EXAMINATIONS.

### ENGLISH.

- THE ENGLISH LANGUAGE: Its Grammar, History, and Literature.** By J. M. D. MEIKLEJOHN, M.A. **Twenty-eighth Edition.** Revised and Enlarged, with Exercises and Additional Analysis. Crown 8vo, 486 pp. ... .. **4s. 6d.**
- A NEW GRAMMAR OF THE ENGLISH TONGUE.** With Chapters on Composition, Versification, Paraphrasing, and Punctuation. With Exercises and Examination Questions. **Twenty-third Edition.** (120th Thousand.) Crown 8vo, 284 pp. ... .. **2s. 6d.**
- A SHORT HISTORY OF THE ENGLISH LANGUAGE.** By Professor MEIKLEJOHN. **Twelfth Edition.** Crown 8vo, 76 pp. ... .. **1s.**
- THE ART OF WRITING ENGLISH.** A Manual for Students. With Chapters on Paraphrasing, Essay Writing, Précis Writing, Punctuation, and other matters. By J. M. D. MEIKLEJOHN, M.A. **Sixth Edition.** Crown 8vo, 340 pp. ... .. **2s. 6d.**
- A NEW SPELLING BOOK ON THE COMPARATIVE METHOD.** With Side Lights from History. **Fifteenth Edition.** Crown 8vo, 152 pp. ... .. **1s.**
- THE SPELLING LIST (10,000 Difficult Words).** For Civil Service and other Examinations. With a Key to Correct Spelling. By Professor MEIKLEJOHN. **Eighth Edition.** Crown 8vo, 104 pp. ... .. **1s.**
- SHAKESPEARE'S JULIUS CÆSAR.** Edited by M. J. C. MEIKLEJOHN, B.A. (Oxon.). Crown 8vo, 136 + xx pp. ... .. **1s.**
- COMPOSITION FOR SCHOOLS AND COLLEGES.** Based on Outline Essays, with Exercises in Style. By C. H. MAXWELL, B.A. **Third Edition.** Crown 8vo, 138 pp. ... .. **1s.**
- GENERAL INFORMATION QUESTIONS (with Answers and Index).** By A. B. COWAN. Crown 8vo, 200 pp. **1s. 6d.**
- "This seems a useful idea—it would certainly be a godsend to an examiner setting a 'general paper' for boys."—*The Times*.

### GEOGRAPHY.

- A NEW GEOGRAPHY ON THE COMPARATIVE METHOD.** With Maps and Diagrams, and an Outline of Commercial Geography. By J. M. D. MEIKLEJOHN, M.A. **Thirty-seventh Edition (Revised).** (180th Thousand.) Crown 8vo, 630 pp. ... .. **4s. 6d.**  
Also in **Two Parts. 2s. 6d. each.**
- Part I.—Containing Europe (including the British Isles), with Introduction to Geography, and Index, Maps, and Diagrams.**  
**Part II.—Containing Asia, Africa, the Americas, and Australasia, with Index, Vocabulary, Maps, and Diagrams.**
- THE COMPARATIVE ATLAS.** By J. G. BARTHOLOMEW, F.R.G.S., and edited by Professor MEIKLEJOHN. Containing 64 Plates, a General Index, and a Chapter on Map Drawing. **New Edition (Revised)** ... .. **2s. 6d.**
- A SCHOOL GEOGRAPHY.** With special reference to Commerce and History. With Maps and Diagrams. By J. M. D. MEIKLEJOHN, M.A., and M. J. C. MEIKLEJOHN, B.A. **Sixth Edition (Revised).** Crown 8vo, 410 pp. ... .. **2s. 6d.**
- EUROPE: Its Physical and Political Geography.** With Chapters on Latitude and Longitude, Day and Night, and the Seasons. With a double-page Map in Colour. By M. J. C. MEIKLEJOHN, B.A., F.R.G.S. **Third Edition (Revised).** 96 pp. ... .. **6d.**
- AFRICA: Its Geography, Resources, and Chronicle of Discovery up to 1898.** For the Upper Standards. By M. J. C. MEIKLEJOHN, B.A., F.R.G.S. **Fifth Edition (Revised).** Crown 8vo, 75 pp. ... .. **4d.**
- TEST QUESTIONS IN GEOGRAPHY.** Selected from Public Examination Papers. By A. T. FLUX. Crown 8vo, 82 pp. **1s.**

### HISTORY.

- A NEW HISTORY OF ENGLAND AND GREAT BRITAIN.** With Maps and Tables. By J. M. D. MEIKLEJOHN, M.A. **Twenty-third Edition.** (105th Thousand.) Crown 8vo, 704 pp. 55 B.C. to the Death of Queen Victoria ... .. **4s. 6d.**  
In **Two Parts. 2s. 6d. each.**
- Part I.—From B.C. 55 to A.D. 1509. Tenth Edition.** **Part II.—From 1509 to 1901. Twelfth Edition.**  
Also in **Three Periods. 2s. each.**
- First Period—From B.C. 55 to A.D. 1485. Second Period—From 1485 to 1688. Third Period—From 1688 to 1902.**
- A SCHOOL HISTORY OF ENGLAND.** With Maps and Vocabulary of Historical Terms. By J. M. D. MEIKLEJOHN, M.A., and M. J. C. MEIKLEJOHN, B.A. **Fifth Edition.** Crown 8vo, 470 pp. ... .. **2s. 6d.**  
This book is intended to stand midway between Professor Meiklejohn's New History and his Short History.
- OUTLINES OF THE HISTORY OF ENGLAND AND GREAT BRITAIN TO A.D. 1902.** **Seventh Edition.** Crown 8vo, 84 pp. ... .. **6d.**
- TEST QUESTIONS IN HISTORY.** Selected from Public Examination Papers. Arranged by A. T. FLUX. Crown 8vo, 80 pp. **1s.**

### MATHEMATICS.

- A NEW ALGEBRA.** As far as the Binomial Theorem. Including Chapters on Graphs. By G. COLLAR, B.A., B.Sc. (Joint-Author of "A NEW ARITHMETIC"). Crown 8vo, 438 pp. ... .. **4s. 6d.**  
"Special attention is called to the early chapters, which give improved methods of working—for example, complementary addition, contracted multiplication and division: also to the chapters on Factors and Graphs, and to the special care with which the theory has been treated throughout the book."
- A NEW ARITHMETIC (Theoretical and Practical).** By G. A. CHRISTIAN, B.A. (Lond.), and G. COLLAR, B.A. (Lond.). **Thirteenth Edition (Revised).** Crown 8vo, 552 pp. ... .. **4s. 6d.**  
**KEY TO NEW ARITHMETIC. 6s. net.**
- A SHORT ARITHMETIC.** By G. A. CHRISTIAN, B.A., and A. H. BAKER, B.A. **Third Edition.** Crown 8vo, 196 pp. (With Answers, **1s. 6d.**) ... .. **1s.**

A Complete Catalogue will be sent post free to any address.

MEIKLEJOHN & HOLDEN, 11 Paternoster Square, E.C.

**16502.** (M. V. ARUNACHALAN, M.A.)—TA, TB are tangents to a parabola of which S is the focus. TS is produced to meet the circum-circle of the triangle TAB in the point C. Prove that S is the middle point of TC.

**16503.** (W. F. BEARD, M.A.)— $A_1A_2A_3 \dots A_n, B_1B_2B_3 \dots B_n$  are two similar and similarly situated figures, with O as centre of similitude;  $B_1B_2 \dots B_n$  is turned through any angle about O;  $A_1B_1, A_2B_2, \dots, A_nB_n$  meet  $A_2B_2, A_3B_3, \dots, A_1B_1$  at  $C_1, C_2, C_3, \dots, C_n$ . Show that, if  $C_1C_2 \dots C_n$  is equiangular to the other figures, then all three figures are regular polygons.

**16504.** (S. G. SOAL.)—Given the ratio ( $k$ ) of the two interior diagonals AC, BD of a cyclic quadrilateral (ABCD), and the distance ( $d$ ) between their middle points, express in terms of ( $k$ ) and ( $d$ ) the length of the exterior diagonal (FG).

**16505.** (JAMES BLAIKIE, M.A.)—Show how to cut (1) a regular hexagon, (2) a regular octagon, into the smallest number of parts which can be placed together to form a square.

**16506.** (Professor NANSON.)—Four points in a plane are joined in all possible ways. Given all the angles at two of the points, find those at the other two points.

**16507.** (R. F. DAVIS, M.A.)—A is a given point on a given circle; PQ a variable chord passing through a given point O. Find the envelope of the nine-point circle of the triangle APQ.

**16508.** (Professor NEUBERG.)—Soit OABC un tétraèdre qui a un trièdre trirectangle en O. La perpendiculaire élevée au centre de gravité G du triangle ABC sur le plan ABC rencontre les plans OAB, OBC, OCA aux points  $C', A', B'$ . Démontrer que

$$GA' : GB' : GC' = (OA)^2 : (OB)^2 : (OC)^2.$$

**16509.** (Professor R. W. GENESE, M.A.)—From a point P perpendiculars are drawn to the faces of a given tetrahedron. The feet of the perpendiculars lie in one plane. Prove that the locus of P is a cubic surface containing the edges of the tetrahedron.

#### OLD QUESTIONS AS YET UNSOLVED (IN OUR COLUMNS).

**11262.** (Professor MUKHOPADHYAY.)—A conic is drawn osculating two given conics  $S = 0, S' = 0$  at the points P, P'; prove that the locus of the point of intersection of the tangents at P, P' is  $\Delta'S^2 - \Delta S'^2 = 0$ , where  $\Delta, \Delta'$  are the discriminants of S, S' respectively.

**11303.** (Professor RIBOUD.)—Déterminer une progression géométrique composée de  $n$  termes entiers dont la somme est  $s$ , sachant que ces termes et leurs sommes, 2 à 2, 3 à 3, ...,  $n$  à  $n$ , reproduisent la série des premiers nombres entiers.

**11619.** (Professor MORLEY.)—Let  $a_r, b_r$  ( $r = 1$  to 4) be tetrads having a common Jacobian. Prove that  $\sum 1/(a_r - b_r) = 0$ .

**11646.** (J. H. GRACE.)—If  $p_n/q_n$  be the  $n$ th convergent to a recurring continued fraction which has  $r$  quotients in its recurring period, and  $s$  quotients before the recurring period commences, prove that

$$(1) p_{n+r} = A.p_n - (-1)^r p_{n-r},$$

provided  $n > r + s$ , (2)  $p_{n+r} = B.p_n + C.q_n$ ,

where A, B, C are the same for all values of  $n$ . [The denominators of the partial quotients are here supposed to be all unity; if they are not, (1) will be slightly altered.]

**11696.** (Professor LUCAS.)—Dans un jeu de dominos jusqu'au double  $n$ , on remplace le domino  $(a, b)$  par  $(a^p, b^q)$ . Quelle est la somme de tous les points ainsi obtenus?

**11744.** (R. W. D. CHRISTIE.)—No part being greater than 3, numbers of form  $6N + M$  have  $(3N + M)(N + 1)$  partitions, if  $M < 1 \rightarrow 5$ ; but, if  $M = 0$ , unity must be added to the result. *E.g.*, the partitions of 17, no part being greater than 3. Here  $N = 2, M = 5$ ; therefore there are 33 partitions.

#### NOTICE TO CORRESPONDENTS.

It is requested that all Mathematical communications should be sent to the Mathematical Editor,

Miss CONSTANCE I. MARKS, B.A., 10 Matheson Road, West Kensington, W.

*Vol. XIII. (New Series) of the "Mathematical Reprint" is now ready, and may be had of the Publisher, FRANCIS HODGSON, 89 Farringdon Street, E.C. Price to Subscribers, 5s.; to Non-Subscribers, 6s. 6d.*

## DURING THE VACATION

USE

# "FLORIGENE"

(Awarded Bronze Medal of Royal Sanitary Institute) (Regd.)

**ODOURLESS** or powerful **CERMICIDAL** Floor Fluid,

FOR THE HYGIENIC AND ECONOMIC DRESSING OF ALL  
**SCHOOL, LABORATORY,**

Library, Museum, Studio, Office, and other Floors—either  
Wood, Linoleum, Stone, Concrete, or Polished, &c.,

"FLORIGENE" "WEIGHTS" and LAYS the

## DUST

(See the Official Memorandum on the Cleansing and Disinfecting of Schools),

Purifies the Atmosphere, aids the Prevention of Throat Irritations and Diseases, saves Time, and greatly reduces the Labour of the Cleaners.

"FLORIGENE" need only be applied three times a year, as each application lasts for two to four months, according to wear.

No Scrubbing, unless preferred, and the troublesome and injurious Sprinkling of Floors with water or wet sawdust is entirely dispensed with.

BOOKS, FURNITURE, APPARATUS, &c., are less likely to soil and seldom require Dusting or Cleaning.

"FLORIGENE" is extensively used in numerous Government, Municipal, College, Laboratory, School, Library, Museum, and other important Buildings, with highly satisfactory results.

Send for particulars, Bacteriological, Medical, and other Reports, and Testimonials to

The "DUST-ALLAYER" Co.,

185 QUEEN VICTORIA STREET, LONDON, E.C.

Contractors to Admiralty, War Office, H.M. Office of Works, &c.

## SPECIAL OFFER.

AS AN ADVERTISEMENT.

One of the leading manufacturers of Gold Fountain Pens challenges to demonstrate that their Pens are the very best, and have the largest Sale; that no better article can be produced.

**They offer to give away the Half-Guinea Diamond Star Gold Fountain Pens, 1908 Model, for 2/6 each.**

This Pen is fitted with 14-carat Solid Gold Nib, iridium pointed, making it practically everlasting, smooth, soft, and easy writing, and a pleasure to use. Twin Feed and Spiral, to regulate the flow of ink, and all the latest improvements.

**The Self-Filling and Self-Cleaning Perfection Fountain Pen is a marvel of Simplicity; it deserves to be popular.**

It is non-leakable, fills itself in an instant, cleans itself in a moment—a press, a fill—and every part is guaranteed for two years.

**The Massive 14-carat Gold Nib** is iridium pointed and will last for years, and improves in use. Fine, medium, broad, or J points can be had.

**This Marvellous Self-Filling Pen, worth 15/-, is offered to Teachers for 5/6.**

Every Pen is guaranteed, and money will be returned if not fully satisfied. Any of our readers desiring a really genuine article cannot do better than write to the Makers,

**THE RED LION MANUFACTURING CO., Ltd.,**

71 High Holborn, London, W.C.,

and acquire this Bargain. (Agents wanted.)





# CONSTABLE'S BOOKS

## TWO GREAT SCHOOLMISTRESSES

**THE LIFE OF DOROTHEA BEALE, OF CHELTENHAM.**

By ELIZABETH RAIKES. Demy 8vo. Illustrated. 10s. 6d. net.

**THE LIFE OF ALICE FREEMAN PALMER, PRESIDENT OF WELLESLEY COLLEGE.**

By GEORGE HERBERT PALMER. Crown 8vo. Illustrated. 6s. net.

## SCIENCE TEXT-BOOKS

### COAL.

By JAMES TONGE, M.I.M.E., F.G.S., Lecturer on Mining, Victoria University, Manchester ... .. 6s. net.

### IRON AND STEEL.

By J. H. STANSBIE, B.Sc., F.I.C.... .. 6s. net.

### INDUSTRIAL ELECTRICAL MEASURING INSTRUMENTS

By KENELM EDGUMBE, A.M.Inst.C.E., M.I.E.E. ... 8s. net.

### LABORATORY AND FACTORY TESTS IN ELECTRICAL ENGINEERING.

By GEORGE F. SEVER and FITZHUGH TOWNSEND 12s. 6d. net.

### AN INTRODUCTORY COURSE OF CONTINUOUS CURRENT ENGINEERING.

By ALFRED HAY, D.Sc., M.I.E.E.

### EXPERIMENTAL ELECTRO-CHEMISTRY.

By N. MONROE HOPKINS, Ph.D.... .. 12s. net.

### PRACTICAL ELECTRO-CHEMISTRY.

Second Edition, Revised. By BERTRAM BLOUNT, F.S.C., F.C.S. &c. ... .. 15s. net.

### THE MODERN STEAM ENGINE.

By JOHN RICHARDSON, M.Inst.C.E., M.Inst.M.E. 7s. 6d. net.

### HYDRAULICS AND ITS APPLICATIONS.

By A. H. GIBSON, M.Sc., A.M.Inst.C.E. ... .. 18s. net.

### PRACTICAL METHODS OF INORGANIC CHEMISTRY.

By F. MOLLWO PERKIN, Ph.D. ... .. 2s. 6d. net

A detailed list of above Books may be had on application, also Messrs. Constable's Complete Technical List.

ARCHIBALD CONSTABLE & CO. Ltd. 10 Orange Street Leicester Square W.C.

## IF YOU WISH TO GET THE BEST

from CONTINUOUS and SILENT READING, the Books used must be suited to the Pupils.

## The 'A.L.' Masterpieces

OF

## Standard Literature

have been specially prepared for use in Secondary Schools, in the Upper Classes of Elementary Schools, and in Continuation Schools.

Each book contains a Short Life of the Author, with Portrait, an Introduction, a few brief Notes at the end (mainly for the Teacher), and a Glossary of such words as a pupil will require a little help upon.

Size Crown 8vo, bound in cloth, published 1s.

The first books in this series are:—

### No. 1. The Cloister and the Hearth.

In this book all references which might hurt the susceptibilities of Roman Catholics have been excluded, but the story, as a story, is complete.

### No. 2. Livingstone's Travels in South Africa.

This book covers Livingstone's great journey to the west, and back again to the east, in which he discovered the Victoria Falls.

### No. 3. Westward Ho! (Ready very shortly.)

E. J. ARNOLD & SON, LTD., LEEDS & GLASGOW.

Now Ready.

A NEW AND THOROUGHLY REVISED EDITION (containing nearly 80 additional pages) of

## DE FIVAS' NEW GRAMMAR OF FRENCH GRAMMARS.

ENLARGED BY THE ADDITION OF CAREFULLY CHOSEN

GRADUATED FRENCH TEXTS FOR PREPARATORY READING AND TRANSLATION.

Foolscap 8vo, 474 pages, price 2s. 6d., cloth. (KEY, 3s. 6d.)

"The Fifty-seventh Edition of the 'New Grammar of French Grammars' shows a most thorough revision, with considerable enlargement. . . . Its new lease of life will be a very long one."—*Educational Times.*

### BOOKS FOR TECHNICAL STUDENTS.

**FIELD TELEPHONES FOR ARMY USE; including an Elementary Course in Electricity and Magnetism.** By Lieut. E. J. STEVENS, D.O., R.A., A.M.I.E.E., Instructor in Electricity, Ordnance College, Woolwich. With Illustrations. Crown 8vo. [Just published. Net 2/-]

**PRACTICAL CHEMISTRY FOR ARMY AND MATRICULATION CANDIDATES, AND FOR USE IN SCHOOLS.** By GEOFFREY MARTIN, B.Sc., Ph.D. With 74 Illustrations. Crown 8vo, cloth . . . . . [Just published. Net 2/-]

**GEOMETRY FOR TECHNICAL STUDENTS.** An Introduction to Pure and Applied Geometry and the Mensuration of Surfaces and Solids, including Problems in Plane Geometry useful in Drawing. By E. H. SPRAGUE, A.M.Inst.C.E. Crown 8vo, cloth . . . . . Net 1/-

**ELEMENTARY ELECTRICAL ENGINEERING.** In Theory and Practice. A Class-book for Junior and Senior Students and Working Electricians. By J. H. ALEXANDER, M.B., A.I.E.E. With 181 Illustrations. Crown 8vo, cloth . . . . . Net 3/6

**PRACTICAL COAL-MINING.** An Elementary Class-Book. By T. H. COCKIN, M.Inst.M.E., Lecturer on Coal-Mining at Sheffield University College. 440 pp., crown 8vo, cloth . . . . . Net 4/6

London: CROSBY LOCKWOOD & SON, 7 Stationers' Hall Court, E.C., and 121a Victoria Street, S.W.

# Cambridge University Press

**Modern Geometry.** By C. GODFREY, M.A.,  
Head Master of the Royal Naval College, Osborne, and A. W. SIDDONS, M.A., Assistant Master at Harrow School.

Crown 8vo.  
4s. 6d.

The present volume is a sequel to the "Elementary Geometry" written by the same authors. It covers the schedule of Plane Geometry required for the Special Examination in Mathematics for the Ordinary B.A. Degree at Cambridge; and represents what the authors take to be a useful course for any student of Mathematics, whether he intends to read for Mathematical Honours or to take up Physics or Engineering. For those who ultimately make a special study of Geometry, this book would serve as an introduction to more advanced treatises.

**Elementary Geometry (Practical and Theoretical).** By C. GODFREY, M.A., and A. W. SIDDONS, M.A.

Crown 8vo.  
3s. 6d.  
Or in  
Two Volumes,  
2s. each.  
Or in  
Five Parts,  
1s. each.

"After a careful examination of the various books on the new geometry that have recently been published, we have no hesitation in commending this book as the best for preparatory schools."—*Preparatory Schools Review*.

"This book deserves to be placed on the list of text-books to be used in all secondary schools."—*Local Government Chronicle*.

**Plane Geometry for Secondary Schools.**

By CHARLES DAVISON, Sc.D., and C. H. RICHARDS, M.A., Mathematical Masters at King Edward's High School, Birmingham.

This book may now be obtained in four separate parts, corresponding to the four main divisions of the work:

Book I.—Triangles and Parallelograms.  
Book II.—Areas.  
Book III.—The Circle.  
Book IV.—Proportion applied to Geometrical Magnitudes.

Crown 8vo.  
4s.  
Or, in  
Four Parts,  
1s. each.

"The plan of the present volume is good. Whilst the leading propositions appear in the form of bookwork, others scarcely less important are discussed as worked riders. A full complement of exercises for individual practice in original solution is, moreover, included, the questions being sometimes set as exercises on special propositions, and sometimes classed together as miscellaneous problems and theorems."—*Educational Times*.

**Elementary Algebra for Secondary Schools.**

By CHARLES DAVISON, Sc.D., Mathematical Master at King Edward's High School, Birmingham.

The author's aim has been to prepare a text-book that may be of use in all but the highest classes of a secondary school. The subjects included are, for the most part, those which are common to all text-books of elementary algebra; but a few, such as indeterminate equations of the first degree, the remainder theorem and simple partial fractions, are introduced at an earlier stage than usual. The applications of graphs are confined to the illustrations which they afford of the methods of solving simultaneous equations and of the theory of quadratic equations and expressions. In the solution of simultaneous quadratic equations, they are especially useful, as they serve to show the geometrical meaning of every step in the process employed.

Crown 8vo.  
6s.

**A School Algebra Course.** By F. GORSE, M.A., Head Master of the Intermediate School, Bootle. With or without Answers. Complete in One Volume or in Three Parts (without Answers).

Crown 8vo.  
Complete, 3s.  
Parts,  
1s. each.

The three parts are divided as follows:—  
Part I. To Simple Simultaneous Equations (including Factors), with Appendix.  
Part II. Factors to Quadratic Equations, with Appendix.  
Part III. Surds to the Binomial Theorem, with Appendix.

"Altogether the Algebra is one which we have no hesitation in commending to teachers of mathematics on the outlook for a course of exercises on modern lines."—*Educational News*.

**Inorganic Chemistry.** By E. I. LEWIS, B.A., B.Sc., Assistant Master at Oundle School.

Demy 8vo.  
5s.

"Ought to be extremely useful to science masters. It is clear, concise, and sensibly arranged, and the boy who conscientiously works through it should really understand Chemistry."—*Speciator*.

"A more philosophical aspect of chemistry is put before the student than is usual in elementary text-books, and on the whole fuller and more detailed information is given, which marks the book out as likely to be very useful for revision, and also to help the teacher to prepare his lessons."—*Chemical News*.

**Studies in French Education from Rabelais to Rousseau.** By GERALDINE HODGSON, B.A., sometime Cobden Scholar of Newnham College, Cambridge; Lecturer on the History and Theory of Education at University College, Bristol.

Crown 8vo.  
3s. 6d. net.

This book was written in response to a suggestion from Dr. S. S. F. Fletcher, of Cambridge. No book dealing exclusively with French Education seemed to exist in English; yet the History of Education is singularly incomplete if the contributions of the great French Educators be omitted.

**Principles and Method in the Study of English Literature.** By WILLIAM MACPHERSON, M.A., English Master in the County Secondary School, Beckenham.

Crown 8vo.  
2s. net.

These chapters are written primarily from a teacher's point of view. The author has attempted to state the logical and psychological principles that underlie the study of English Literature, and to illustrate methods of teaching that follow naturally from them, with special reference to the mental growth and requirements of pupils in secondary schools. The book may, it is hoped, prove helpful not only to teachers, but to readers generally who seek guidance in the study of English Literature.

**The Modern Language Review.** A Quarterly Journal devoted to the Study of Mediæval and Modern Literature and Philology. Edited by Prof. JOHN G. ROBERTSON, with the assistance of an Advisory Board.

Contents of Vol. III., No. 4, July, 1908.

#### ARTICLES.

Dante's Lyrical Metres: his Theory and Practice. By C. B. Heberden.

The Connection between Words and Music in the Songs of the Trobadors. By Barbara Smythe.

Shakspeare's Plays: An Examination. I. By E. H. C. Oliphant.

The Satire in Heinrich Wittenweiler's "Ring." By Jessie Crosland.

Bibliographical Notes on Charles Sealsfield. By Otto Heller.

MISCELLANEOUS NOTES, REVIEWS, MINOR NOTICES.

Subscription  
Price.

"The Modern Language Review" appears four times a year—in October, January, April, and July. The annual subscription is 12s. 6d. net, payable in advance.

Vol. I. (1905-6), Vol. II. (1906-7), and Vol. III. (1907-8) may be had, bound in buckram, at 10s. net each. Single numbers from these volumes, 2s. 6d. net each.

**The Elementary Theory of the Symmetrical Optical Instrument.** By J. G. LEATHEM, M.A. (No. 8 of "Cambridge Tracts in Mathematics and Mathematical Physics.")

Demy 8vo.  
2s. 6d. net.

In Gauss's "Dioptrische Untersuchungen" there is little trouble with sign conventions, and continued fractions are not employed. These are, however, prominent features in more recent presentations of the first-order theory of the optical instrument, and render the subject somewhat difficult to the beginner. It is the aim of the present Tract to eliminate all unnecessary difficulties and to give a quite elementary account of the theory; and to this end it has seemed desirable to follow (in Sections I.-IV.) the general lines of Gauss's memoir.

**Invariants of Quadratic Differential Forms.**

By J. EDMUND WRIGHT, M.A. (No. 9 of "Cambridge Tracts in Mathematics and Mathematical Physics.")

Demy 8vo.  
2s. 6d. net.

The aim of this tract is to give, as far as is possible in so short a book, an account of the invariant theory connected with a single quadratic differential form. It is intended to give a bird's-eye view of the subject to those as yet unacquainted with the subject, and consequently the author has endeavoured to keep it free from all analysis not absolutely necessary.

A Catalogue of New and Standard Books for Schools will be sent on application.

LONDON: CAMBRIDGE UNIVERSITY PRESS WAREHOUSE, FETTER LANE. C. F. CLAY, Manager.



# THE EDUCATIONAL TIMES,

AND  
Journal of the College of Preceptors.

Vol. LXI.] New Series, No. 570.

OCTOBER 1, 1908.

{Published Monthly, price, to Non-Members, 6d.; by Post, 7d. Annual Subscription, 7s.

## COLLEGE OF PRECEPTORS. (INCORPORATED BY ROYAL CHARTER.)

### MEMBER'S MEETING.

The next Monthly Meeting of the Members will take place on Friday, the 23rd of October, at 7.30 p.m., when Professor J. ADAMS will read a Paper on "The Teacher's Imperfections: How to deal with them."

A discussion will follow the reading of the Paper. Members have the privilege of introducing their members.

### LECTURES FOR TEACHERS.

On Thursday, 1st of October, JOHN ADAMS, M.A., B.Sc., F.C.P., Professor of Education in the University of London, will commence a Course of Twelve Lectures on

### "THE PRACTICAL TEACHER'S PROBLEMS."

The matters to be dealt with are such as interest all classes of teachers, and will be treated with that frankness that is possible in an unreported discourse, but is out of the question in a printed book. While the Lecturer will lose no opportunity of indicating how present educational conditions may be improved, he will take the present conditions as the basis and show how to make the best of things as they are. The Lectures will be copiously illustrated by references to actual experience in all kinds of Schools. The Lectures will be given on Thursday Evenings at 7, beginning on October 1st.

For Syllabus, see page 450.  
The Fee for the Course is Half-a-Guinea.  
Members of the College have free admission to this Course.

### EXAMINATIONS.

**Diplomas.**—The next Examination of Teachers for the Diplomas of the College will commence on the 28th of December, 1908.

**Practical Examination for Certificates of Ability to Teach.**—The next Practical Examination will be held in October.

**Certificate Examinations.**—The Christmas Examination for Certificates will commence on the 8th of December, 1908.

**Lower Forms Examinations.**—The Christmas Examination will commence on the 8th of December, 1908.

**Professional Preliminary Examinations.**—These Examinations are held in March and September. The Spring Examination in 1909 will commence on the 2nd of March.

**Inspection and Examination of Schools.**—Inspectors and Examiners are appointed by the College for the Inspection and Examination of Public and Private Schools.

The Regulations for the above Examinations can be obtained on application to the Secretary.

C. R. HODGSON, B.A., *Secretary.*  
Bloomsbury Square, W.C.

## UNIVERSITY OF ST. ANDREWS.

### L.L.A. DIPLOMA FOR WOMEN.

The attention of Candidates is drawn to the Ordinary and Honours Diplomas for Teachers, which are strongly recommended as suitable for those who are or intend to be teachers.

Examinations are held at Aberdeen, Birmingham, Blackburn, Brighton, Bristol, Cardiff, Croydon, Devonport, Edinburgh, Glasgow, Hull, Inverness, Leeds, Liverpool, London, Manchester, Newcastle-on-Tyne, Norwich, Nottingham, Oxford, St. Andrews, Sheffield, Swansea, and several other towns.

Information regarding the Examinations may be obtained from the SECRETARY, L.L.A. Scheme, The University, St. Andrews.

## LONDON COLLEGE OF MUSIC. (Incorporated.)

GREAT MARLBOROUGH STREET, LONDON, W.

Patron: HIS GRACE THE DUKE OF LEEDS.  
Dr. F. J. KARN, Mus. Bsc. Cantab., Principal.  
G. AUGUSTUS HOLMES, Esq., Director of Examinations  
EXAMINATIONS, 1908.

The NEXT EXAMINATION in PIANOFORTE PLAYING, SINGING, THEORY, and all branches of Music will be held in London and 400 Provincial Centres in DECEMBER, when Certificates will be granted to all successful candidates.

The Higher Examinations for the Diplomas of Associate (A.L.C.M.), Licentiate (L.L.C.M.), the Teachers' Diploma, L.C.M., and Fellowship (F.L.C.M.) also take place in DECEMBER.

Gold and Silver Medals and Book Prizes are offered for competition according to the Regulations.

LOCAL SCHOOL CENTRES.—Full particulars with reference to the formation of these Centres will be forwarded to Principals of Schools upon application.

SYLLABUS for 1908, together with Annual Report, may be had of the SECRETARY.

In the Educational Department students are received and thoroughly trained under the best Professors at moderate fees. The College is open 10 a.m. to 9.30 p.m.

A COURSE of TRAINING in Pianoforte and Singing for Teachers is held at the College.

VACATION LESSONS for Teachers and others are given at Easter, August, and Christmas.

T. WEBBES HOLMES, *Secretary.*

## Diploma Correspondence College, Ltd.

Principal—J. W. KNIPE, L.C.P., F.R.S.L.  
Vice-Principal—S. H. HOOKE, B.A., Hons. Lond.

Specialty arranged Courses for

LONDON MATRICULATION,  
B.A., B.D., B.Sc.,  
A.C.P., L.C.P., &c.

### FREE GUIDES

on application to the SECRETARY.

WOLSEY HALL, OXFORD.

## UNIVERSITÉ DE RENNES (France). FRENCH COURSE for FOREIGNERS OF BOTH SEXES.

WINTER TERM: From 15 Nov. 1908 to 15 Feb. 1909.  
SUMMER TERM: From 1 March to 8 June, 1909.

DIPLOMAS.

Diplôme de Langue et Littérature Françaises; Doctorat.  
Reduction of 50% on railway fares from Dieppe or Calais to Rennes. Apply for Prospectus to  
Prof. FRUILLERAT, Faculté des Lettres, Rennes.

## ROYAL SANITARY INSTITUTE.

LECTURES ON HYGIENE IN ITS BEARING  
ON SCHOOL LIFE.

Commencing on Monday, October 5th, at 7 p.m.

The Course is arranged to assist Teachers and others interested in the Training of Children and the Structural Conditions of the School, its surroundings and furnishing, as well as the personal health of the scholars. Full particulars can be obtained at the Offices of the Institute, 72 Margaret Street, London, W.



## THE ASSOCIATED BOARD OF THE R.A.M. AND R.C.M.

FOR LOCAL EXAMINATIONS IN MUSIC.

PATRON: HIS MAJESTY THE KING.

PRESIDENT: H.R.H. THE PRINCE OF WALES, K.G.

LOCAL CENTRE EXAMINATIONS (Syllabus A).  
Examinations in Theory at all Centres in March and November; in Practical Subjects at all Centres in March-April, and in the London District and certain Provincial Centres in November-December also. Entries for the November-December Examinations close Wednesday, October 7th, 1908 (or, with extra fee, October 15th).

SCHOOL EXAMINATIONS (Syllabus B).  
Held three times a year, viz., October-November, March-April, and June-July. Entries for the October-November Examinations close Wednesday, October 7th, 1908 (or, with extra fee, October 15th).

Specimen Theory Papers set in past years (Local Centre or School) can be obtained on application. Price 3d. per set, per year, post free.

Syllabuses A and B, for 1908 or 1909, entry forms, and any further information will be sent post free on application to—

JAMES MUIR, *Secretary.*

15 Bedford Square, London, W.C.

Telegrams: "Associa, London."

LADY, now within reach, wanted as  
Governess to Girl of 13, resident or non-resident. Send photograph, state age, salary, at what school educated, if Church can speak good French and play hockey.—Miss HOYSTED, Elvington Court, Nr. Dover.

## LONDON MATRICULATION.

DURING THE LAST SIX YEARS

**2610**

University Correspondence  
College

STUDENTS HAVE PASSED

LONDON MATRICULATION.

## FREE GUIDE

To Matriculation, and Guides to the  
Higher Examinations of London Uni-  
versity, post free from THE SECRETARY,  
Burlington House, Cambridge, or the London Office  
of University Correspondence College, 32 Red Lion  
Square, Holborn, W.C.

## UNIVERSITY COLLEGE OF NORTH WALES, BANGOR.

(A Constituent College of the University of Wales.)

Principal—Sir H. R. REICHEL, M.A., LL.D.

New Session began September 29th, 1908. The College Courses are arranged with reference to the Degrees of the University of Wales; they include most of the subjects for the B.Sc. Degree of the London University. Students may pursue their first year of Medical study at the College. There are special Departments for Agriculture (including Forestry) and Electrical Engineering, a Day Training Department for Men and Women, and a Department for the Training of Secondary and Kindergarten Teachers.

Sessional fee for ordinary Arts Course, £11. 1s.; for Intermediate Science or Medical Course, £15. 15s. The cost of living in lodgings in Bangor averages from £20 to £30 for the Session. There is a Hall of Residence for Women Students: fee, from Thirty Guineas for the Session.

At the Entrance Scholarship Examination (held in September) more than 20 Scholarships and Exhibitions, ranging in value from £40 to £10, will be open for competition.

For further information and copies of the various Prospectuses apply to

JOHN EDWARD LLOYD, M.A.,  
*Secretary and Registrar.*

### THE INCORPORATED

## FROEBEL EDUCATIONAL INSTITUTE,

TALGARH ROAD, WEST KENSINGTON, LONDON, W.  
Recognized by the Board of Education as a Training College for Secondary Teachers.

Chairman of the Committee—Sir W. MATHER.

Treasurer—Mr. C. G. MONTEFIORE, M.A.

Secretary—Mr. ARTHUR G. SYMONDS, M.A.

## TRAINING COLLEGE FOR TEACHERS.

Principal—Miss E. LAWRENCE.

## KINDERGARTEN AND SCHOOL.

Head Mistress—Miss A. YELLAND.

Students are trained for the Examinations of the National Froebel Union and other Examinations.

TWO SCHOLARSHIPS of £20 each, and two of £15 each, tenable for two years at the Institute, are offered annually to Women Students who have passed certain recognized Examinations.

Prospectuses can be obtained from the PRINCIPAL.

## DENMARK HILL PHYSICAL TRAINING COLLEGE FOR LADY TEACHERS, LONDON, S.E.

Full preparation for Public Examinations. British College of Physical Education: English and Swedish systems. Massage and Remedial Work. Board of Education: Science.

Swimming and Sports. Schools supplied with fully qualified Sports Mistresses. For particulars apply—Miss K. SELMAN STANGER, Trpvena, Sunray Avenue, Denmark Hill, London, S.E.

## UNIVERSITY OF LONDON.—UNIVERSITY COLLEGE.

Session 1908-09.

A Training Course in School Hygiene will be given by Prof. HENRY KENWOOD, M.B., D.P.H., Medical Officer of Health for the County Council of Bedfordshire, &c., and H. MEREDITH RICHARDS, M.D., D.P.H., Medical Officer of Health for the Borough of Croydon and Medical Officer to the Croydon Education Committee, assisted by other Specialists.

The Course designed to meet the requirements of School Teachers, School Lecturers, and of those qualifying to become School Inspectors, will begin on Friday, October 9th, at 7.15, and will be continued on subsequent Fridays until the end of March, 1909.

Facilities for practical work will be given to those joining this Course; Certificates of proficiency will be granted to those who qualify themselves.

Fee for the Course, two and a half guineas. Those desirous of attending this Course, to which not more than forty will be admitted, should apply to—

WALTER W. SETON, M.A.,  
*Secretary.*

University College,  
London (Gower Street).

## BADGES, HAT BANDS, CAPS

AT WHOLESALE PRICES.

Write—SCHOOLS AGENT, 1 Arundel Villas, Chelmsford Road, South Woodford, N.E.

## BEDFORD COLLEGE FOR WOMEN

(UNIVERSITY OF LONDON),

YORK PLACE, BAKER STREET, LONDON, W.

Principal—Miss M. J. TUKE, M.A.

The Session 1908-9 will open on Thursday, October 8. Students enter their names on Wednesday, October 7.

Lectures are given in preparation for all examinations of the University of London in Arts and Science, for the Teacher's Diploma (London), for the Teacher's Certificate (Cambridge), and for the Cambridge Higher Local Examination.

A single Course in any subject may be attended. There is a Special Course of Scientific Instruction in Hygiene.

Six Laboratories are open to students for Practical work.

Regular Physical Instruction is given, free of cost, to students who desire it by a fully qualified woman teacher.

THREE ENTRANCE SCHOLARSHIPS (two in Arts and one in Science) will be offered for competition in June, 1909.

Students can reside in the College. Full particulars on application to the PRINCIPAL.

### TRAINING DEPARTMENT FOR SECONDARY TEACHERS.

Head of the Department—Miss MARY MORTON, M.A.

Two Scholarships (one of the value of £20, one of the value of £15, for one year) are offered for the Course of Secondary Training beginning in January, 1909. The Scholarships will be awarded to the best Candidate holding a Degree or equivalent in Arts or Science.

Applications should reach the HEAD OF THE TRAINING DEPARTMENT not later than December 12.

## THE CAMBRIDGE TRAINING COLLEGE FOR WOMEN TEACHERS.

Principal—Miss M. H. WOOD.

Girton College, Cambridge; Classical Tripos, M.A. (London), Lit.D. (Dublin), late Vice-Principal of St. Mary's College, Paddington.

A residential College providing a year's professional training for Secondary Teachers.

The course includes preparation for the Cambridge Teacher's Certificate (Theory and Practice), and for the Teachers' Diploma of the London University. Ample opportunity is given for practice in teaching science, languages, mathematics, and other subjects in various schools in Cambridge.

Students are admitted in January and in September. Full particulars as to qualifications for admission, scholarships, and bursaries may be obtained on application to the PRINCIPAL, Cambridge Training College, Wollaston Road, Cambridge.

## ST. GEORGE'S TRAINING COLLEGE FOR WOMEN TEACHERS IN INTERMEDIATE AND SECONDARY SCHOOLS, EDINBURGH.

This College provides a year's Professional Training for well educated women who intend to become Teachers.

The Course is supervised by the Edinburgh Provincial Committee for the Training of Teachers and recognized by the Scotch Education Department and by the Teachers' Training Syndicate of the University of Cambridge.

Prospectuses and further particulars from the Principal, Miss M. R. WALKER, 5 Melville Street, Edinburgh.

## CHURCH EDUCATION CORPORATION.

### CHERWELL HALL, OXFORD.

Training College for Women Secondary Teachers.

Principal—Miss CATHERINE I. DODD, M.A. (late Lecturer in Education in the Manchester University).

Students are prepared for the Oxford, the Cambridge, and the London Teacher's Diploma. Special arrangements made for Students to attend the School of Geography.

Two Scholarships of £40 each are offered to students with a degree entering Cherwell Hall in October.

Exhibitions and Scholarships awarded in December and July.—Apply to the PRINCIPAL.

## BIRKBECK COLLEGE.

BREAMS BUILDINGS, CHANCERY LANE, E.C.

### DAY AND EVENING CLASSES.

Principal—G. ARMITAGE-SMITH, D.Lit., M.A.

The College provides approved courses of Instruction for the Degree of the University of London in the Faculties of Arts, Science, Economics, Laws, under Recognized Teachers of the University.

Well appointed Laboratories. Facilities for research. New Session commenced on Monday, 28th September.

Full particulars on application to H. WELLS EAMES, Secretary.

## The Tutorial Institute, 39 BLOOMSBURY SQUARE, LONDON.

Principal:

J. F. EWEN, M.A.,

Honours in Mathematics and Physics.

Founder and late Principal of  
The London and Northern Tutorial College.

The Principal has had over 12 years' successful experience in preparing by Correspondence and Orally for the Higher Examinations qualifying Secondary Teachers. Over 2,000 successes have been officially credited to his students, who have completed over 300 Diplomas and Degrees. Strong Staff of Tutors, all University Graduates, mostly in Honours.

### CORRESPONDENCE INSTRUCTION.

All Fees payable by Instalments.

A.C.P.—New Classes now forming. All subjects, £4. 4s. Education, £1. 11s. 6d. from all subjects except Education. Full Course, £2. 12s. 6d. A.C.P.'s can complete extra work for I.C.P. for Composition Fee, £4. 4s. Education alone, £1. 11s. 6d.

Diploma Guide Free.

Inter. Arts.—Full Courses. 20 lessons each subject, £1. 11s. 6d.

B.A.—Thorough Tuition by Honours Graduates.

Inter. Science.—Special Attention to Mathematics and Physics. Full Course, £2. 2s. each subject.

B.Sc.—Expert help by eminent specialists.

Matriculation.—Full Preparation in usual subjects, 10s. 6d. monthly.

Higher Locals.—Fullest and most successful help. Usual Subjects, £1. 11s. 6d. each.

FROEBEL CERTIFICATES.—Thoroughly practical instruction by highly qualified Teachers.

Froebel Guide Free.

LL.A. SPECIAL ORAL CLASSES.

Evenings and Saturdays. More Successes and Diplomas than all other classes combined.

New Practical Guide to L.L.A. Free.

## KING'S COLLEGE, LONDON. (UNIVERSITY OF LONDON.)

DEPARTMENT FOR TRAINING TEACHERS FOR SECONDARY SCHOOLS.

Theory, Practice, and History of Education: J. W. ADAMSON, B.A., Professor of Education (Head of the Department).

Ethics: Rev. A. CALDECOTT, D.Lit., D.D., Professor of Mental and Moral Philosophy.

Psychology: C. S. MYERS, M.A., M.D., Professor of Psychology.

The Department is recognized by the Board of Education as a Training College for Secondary Teachers. The Course, which includes practical work in Secondary Schools, extends over one academic year, beginning in October or January. It is suitable for those who are preparing to take the Teacher's Diploma, University of London, or the Certificate of the Teachers' Training Syndicate, University of Cambridge.

The fee is £20 for the year, if paid in advance, or 8 guineas per term (three terms in the year).

Two Scholarships, of £20 each for one year, tenable from October 1, 1908, are offered to suitable Candidates (men) who are Graduates of a British University.

Application should be made to Prof. ADAMSON, King's College, Strand, W.C.

## S.T. THOMAS'S HOSPITAL, ALBERT EMBANKMENT, S.E. (UNIVERSITY OF LONDON.)

The WINTER SESSION will commence on OCTOBER 1.

The PRIMARY F.R.C.S. CLASSES began on TUESDAY, September 1.

The Hospital occupies one of the finest sites in London and contains 603 beds.

Entrance and other Scholarships and Prizes (26 in number) of the value of more than £500, are offered for competition each year.

Upwards of 60 resident and other appointments are open to Students after qualification.

A Students' Club forms part of the Medical School buildings, and the Athletic Ground, nine acres in extent, situated at Chiswick, can be reached in 40 minutes from the Hospital.

A Prospectus, containing full particulars, may be obtained from the Medical Secretary, Mr. G. Q. ROBERTS.

C. S. WALLACE, B.S. Lond., Dean.

**CARLYON COLLEGE.**  
55 AND 56 CHANCERY LANE.

**LONDON UNIVERSITY EXAMINATIONS**  
LONDON MATRICULATION, INTER. ARTS and SCIENCE, B.A., and B.Sc. Classes (small) Day and Evening. M.A. Classes. B.A. Honours Classes. Elementary Greek Class.  
Classes and Tuition for Legal and Medical Preliminaries, Accountants', Scholarship Examinations, Previous, Responses, and General.  
Papers Corrected for Schools. Vacation Tuition. Private tuition for all Examinations.  
Prospectus and full details on application to E. C. B. KERIN, B.A. Lond., First of First Class Classical Honours, Editor of "Phaedo," "Pro Plancio," &c.

**SUCCESSES.**

1892-1907.—London Matric., 149; Inter. Arts, Sc., and Prel. Sci., 140, 6 in Hons.; B.Sc., 1896-1906, 26; B.A., 1891-1906, 95, 14 in Hons.; Medical Prelim., 249; Responses and Previous, 60; Law Prelim., 62; other Successes, 400.

**B.A. (LOND.), 1906 and 1907, 15, 3 in Classical Honours. M.A., 8.**  
**INTER. ARTS, 1907, 6 out of 8.**

**FREE.**

The Principals of the Normal Correspondence College have, through the courtesy of the College of Preceptors, issued the following

**FREE GUIDES.**

- |   |            |
|---|------------|
| 1. A.C.P.                                     | 100 pages. |
| 2. L.C.P.                                     | 84 "       |
| 3. F.C.P.                                     | 75 "       |
| And have also published the following Guides. |            |
| 4. PREL. CERT.                                | 120 pages. |
| 5. CERTIFICATE.                               | 92 "       |
| 6. MATRICULATION.                             | 84 "       |
| 7. IRISH UNIVERSITY.                          | 60 "       |
| 8. OXFORD & CAMBRIDGE LOCALS                  | 100 "      |

These Guides are supplied gratis to all who mention this paper and state they intend sitting for examination.

"They are written by experts whose advice is the best procurable."—*Educational News.*  
"Will undoubtedly help greatly towards success."—*Schoolmistress.*

**NORMAL CORR. COLLEGE,**

47 MELFORD ROAD, EAST DULWICH, S.E., and  
110 AVONDALE SQUARE, LONDON, S.E.

**CORRESPONDENCE TUITION.**  
Classes or Private Lessons in all Subjects for all Examinations, &c., at moderate fees. Special tuition for MEDICAL Prelims. and DIPLOMA Exams. Many recent successes.—F. J. BORLAND, B.A., L.C.P. (Science and Math. Prizeman), Victoria Tutorial College, 87 Buckingham Palace Road, S.W.; and Stalheim, Brunswick Road, Sutton, Surrey.  
Schools visited and Examinations conducted.

**WALTER J. DICKES, B.A. (Lond.)**

**PRIVATE TUITION FOR EXAMINATIONS, &c.**

BEECHEN CLIFF, THE GARDENS,  
E. DULWICH, LONDON, S.E.

**ST. ANDREWS L.L.A. EXAMINATION.**

**CORRESPONDENCE PREPARATION IN ST. GEORGE'S CLASSES, EDINBURGH.**  
(Established 1876.)

Large staff of Tutors who hold high University distinctions. Full Notes, Model Answers, and Question Papers are supplied, forming carefully graded Courses of Study. Each student receives individual attention and help.

Inclusive Fees (moderate).  
During last thirty years 84 per cent. of students successful.  
Fees payable by instalments. Full particulars from the SECRETARY, 5 Melville Street, Edinburgh.

**DAY AND EVENING CLASSES**

FOR  
**LONDON UNIVERSITY EXAMINATIONS**  
AT  
**University Tutorial College.**  
(Affiliated to University Correspondence College).



**London Matriculation.**

Morning, Afternoon, and Evening Classes are just commencing at University Tutorial College, Red Lion Square, Holborn, W.C.  
In each subject the Classes are conducted by Specialists who are high honourmen with wide teaching experience.

Annually for the last eight years about 100 Students of University Tutorial College have passed London University Matriculation, and at three recent Matriculation Examinations the official Pass List of the University credits University Tutorial College with many more successes than any other institution.

**London B.A. & B.Sc. (Inter. & Final.)**

Day and Evening Classes commence Thursday, October 1st.

During the last three years 102 U.T.C. Students have passed the B.Sc. Examination with 9 places in Honours.

**Private Tuition.**

Private Tuition may be taken up for all Examinations either during Term or the ordinary School Vacations.

Prospectus may be had, post free, from

**THE PRINCIPAL,**  
University Tutorial College,  
32 Red Lion Square, Holborn, W.C.

**BURLINGTON  
CORRESPONDENCE  
COLLEGE.**

Principal—Mr. J. CHARLESTON, B.A.  
(Honours Oxon. and Lond.)

**TUTORS.**—The Staff includes Graduates of London, Oxford, Cambridge, and Royal Universities.

**METHOD.**—Thoroughly individual system, which ensure the closest attention to the needs of each student.

**Rapid Preparation for:—**

- Matriculation,
- Intermediate Arts and B.A.,
- Intermediate Science and B.Sc.,
- L.L.A. (St. Andrews),
- COLLEGE OF PRECEPTORS' DIPLOMAS.

Address—**THE PRINCIPAL,**  
Burlington Correspondence College,  
OLAPHAM COMMON, LONDON, S.W.

**Messrs.**

**TRUMAN & KNIGHTLEY, LTD.,**  
Educational Agents,

158 to 162 OXFORD STREET,  
LONDON, W.

Telegrams—"TUTORESS, LONDON."  
Telephone—No. 1136 City.

*This Agency is under distinguished patronage, including that of the Principals of many of our leading Schools.*

**A.—EMPLOYMENT DEPARTMENT.**

(i.) **ASSISTANT MASTERS & TUTORS.**

MESSRS. TRUMAN & KNIGHTLEY introduce University, Trained, and other qualified ENGLISH and FOREIGN MASTERS and TUTORS to Schools and Private Families.

(ii.) **ASSISTANT MISTRESSES.**

MESSRS. TRUMAN & KNIGHTLEY introduce University, Trained, and other qualified ENGLISH and FOREIGN LADY TEACHERS to Girls' and Boys' Schools.

(iii.) **LADY MATRONS AND HOUSE-KEEPERS.**

MESSRS. TRUMAN & KNIGHTLEY introduce well qualified and experienced LADY MATRONS, HOUSEKEEPERS, and HOUSE MISTRESSES to Boys' and Girls' Schools.

No charge is made to Principals, and no charge of any kind is made to candidates unless an engagement be secured through this Agency, when the terms are most reasonable.

**B.—SCHOOL TRANSFER DEPARTMENT.**

A separate Department, under the direct management of one of the Principals, is devoted entirely to the negotiations connected with the Transfer of Schools and Introduction of Partners.

MESSRS. TRUMAN & KNIGHTLEY, being in close and constant communication with the Principals of nearly all the chief Girls' and Boys' Schools in the United Kingdom, to many of whom they have had the privilege of acting as Agents, and having on their books always a large number of thoroughly genuine Schools for Sale and Partnerships to negotiate, as well as the names and requirements of numerous would-be purchasers, can offer unusual facilities for satisfactorily negotiating the TRANSFER of SCHOOLS, and arranging PARTNERSHIPS.

No charge is made to Purchasers, and there is no charge to Vendors unless a Sale or Partnership be effected through this Agency.

All communications and enquiries are treated in the strictest confidence.

**C.—PUPILS' DEPARTMENT.**

MESSRS. TRUMAN & KNIGHTLEY have a carefully organized Department for the introduction of Pupils to Schools and other Educational Establishments. No charge is made for registration.

Any negotiations entrusted to MESSRS. TRUMAN & KNIGHTLEY receive prompt and careful attention, every effort being made to save clients as much time and trouble as possible.

Full particulars will be forwarded on application.

## University Correspondence College.

### ANNUAL DINNER AND REUNION

AT THE  
**HOLBORN RESTAURANT,**

Friday, November 27, 1908. at 7 p.m.

Tickets may be had of the SECRETARY, 32 Red Lion Square, W.C.

### SECONDHAND BOOKS AT HALF PRICES! NEW BOOKS AT 25% DISCOUNT!

**BOOKS** for A.C.P., L.C.P., F.C.P.,  
Matric., University, Certificate, Scholarship, L.L.A., B.A., and ALL other Examinations supplied. State wants: send for List. Books sent on approval. **BOOKS BOUGHT**, best prices given.—W. & G. FOYLE, 136 Charink Cross Road, W.C.

### THE METRIC AND ENGLISH WEIGHTS & MEASURES

Is the ONLY Table Book published giving all the Metric Weights and Measures in full, with their English Equivalents, as AUTHORIZED BY THE BOARD OF TRADE, as well as the Metric Equivalents of ALL the English Weights and Measures.

The Metric System is now being taught in all Schools, and is being largely used by Manufacturers throughout the British Empire.

Retail, Price 1d., Post Free 1½d.

Published by

PERCY E. RADLEY, 30 Theobald's Road, London, W.C.

New Edition. 18mo. price 9d.

**THE ELEMENTS OF BOOK-KEEPING**, by SINGLE and DOUBLE ENTRY, with Practical Explanations and Exercises on the most useful Forms for Business. By A. K. ISBISTER, M.A. LL.B., late Dean of the College of Preceptors. LONDON: LONGMANS & CO., PATERNOSTER ROW, E.C.

## EAST LONDON COLLEGE

(UNIVERSITY OF LONDON).  
MILE END ROAD, E.

The College is situated close to Stations on the G. E. R., District Railway, and L. T. & Southend Railway, and is approached from the Royal Exchange in 15 minutes by motor omnibus.

**PASS AND HONOURS COURSES**  
IN THE  
**FACULTIES OF ARTS, SCIENCE, AND  
ENGINEERING.**

**LATIN, GREEK, ENGLISH, FRENCH,  
GERMAN, ENGLISH HISTORY, LOGIC,  
MATHEMATICS, PHYSICS,  
CHEMISTRY, BOTANY, GEOLOGY.**

**CIVIL AND MECHANICAL  
ENGINEERING.**

**ELECTRICAL ENGINEERING.**

*Courses in the above subjects are likewise  
arranged for Evening Students.*

**PREPARATORY and MATRICULATION  
CLASSES.**

**MODERATE FEES.**

Valuable Scholarships are offered annually by the  
Worshipful Company of Drapers.

Calendar post free on application to the REGISTRAR, or  
J. L. S. HATTON, M.A., Principal.

**HYGIENE, SCHOOL HYGIENE, SCHOOL  
NURSES' CERTIFICATE, &c.**

**SPECIAL** Postal Tuition for Examinations of the Board of Education and Royal Sanitary Institute. Particulars post free.—Mr. L. C. HAIN, A.R.San.I., 20 Richmond Gardens, Southampton.

## JOINT AGENCY FOR WOMEN TEACHERS.

(Under the management of a Committee appointed by the Teachers' Guild, College of Preceptors, Head Mistresses' Association, Association of Assistant Mistresses, and Welsh County Schools' Association.)

Address—74 GOWER STREET, LONDON, W.C.

Registrar—Miss ALICE M. FOUNTAIN.

This Agency has been established for the purpose of enabling Teachers to find work without unnecessary cost. All fees have therefore been calculated on the lowest basis to cover the working expenses.

Head Mistresses of Public and Private Schools, and Parents requiring Teachers, or Teachers seeking appointments, are invited to apply to this Agency.

Many Graduates and Trained Teachers for Schools and Private Families; Visiting Teachers for Music, Art, and other special subjects; Foreign Teachers of various nationalities; Kindergarten and other Teachers are on the Register, and every endeavour is made to supply suitable candidates for any vacancy.

School Partnerships and Transfers are arranged.

Hours for interviews (preferably by appointment):—

11 a.m. to 1 p.m., and 3 to 5 p.m.

Saturdays, 11 a.m. to 1 p.m., and 2 to 3 p.m.

## THE JOINT SCHOLASTIC AGENCY.

23 Southampton Street, Bloomsbury Square, W.C.

Managed by a Committee of Representatives of the following Bodies:—

**HEAD MASTERS' CONFERENCE.**

**INCORPORATED ASSOCIATION OF HEAD MASTERS.**

**COLLEGE OF PRECEPTORS. TEACHERS' GUILD.**

**INCORPORATED ASSOCIATION OF ASSISTANT MASTERS.**

**ASSOCIATION OF TECHNICAL INSTITUTIONS.**

**ASSOCIATION OF PREPARATORY SCHOOLS.**

**WELSH COUNTY SCHOOLS.**

Registrar: Mr. E. A. VIRGO.

The object of this Agency is to render assistance at a minimum cost to Masters seeking appointments.

The lowest possible fees are therefore charged.

A PROSPECTUS will be sent ON APPLICATION.

Interviews (preferably by appointment) 12 p.m.—1.30 p.m., and 3 p.m.—5.30 p.m. Saturdays, 12 p.m.—1 p.m.

## The Practice of Instruction

A MANUAL OF METHOD GENERAL AND SPECIAL

Edited by JOHN WILLIAM ADAMSON, B.A.,

Professor of Education in King's College, London;  
Examiner in Education to the Universities of London, Durham, and Liverpool,  
and to the College of Preceptors.

Cloth, pp. 536. Price 4s. 6d. net. Post free, 4s. 10d. net.

NOTE.—A prospectus, showing the scope and structure of this important new work on Method, and giving specimen pages from its various sections, will be sent on application.

School (December, 1907) says:—"It is probably the best manual of method that has yet appeared in English."

LONDON: NATIONAL SOCIETY'S DEPOSITORY,  
19 GREAT PETER STREET, WESTMINSTER, S.W.

## ANIMAL LIFE.

By F. W. GAMBLE, D.Sc., F.R.S.,

Lecturer in Zoology, Victoria University, Manchester.

With numerous Line and Half-Tone Illustrations. 6s. net.

Manchester Guardian:—"The style is very attractive, and the book is based on a very intimate knowledge of the details of the subject matter and on much experience in original investigation."

London: SMITH, ELDER, & CO.

## THE RUGBY PRESS

undertakes every description of Letterpress

**PRINTING FOR SCHOOLS.**

Estimates furnished. Enquiries solicited.

Address—**GEORGE OVER, Printer, Rugby.**

## IDOLA PULPITORUM: PITFALLS OF THE PRACTICAL TEACHER.

For this series of Articles, see "THE JOURNAL OF EDUCATION."

**INTRODUCTORY ARTICLE**, by Professor ADAMS [November, 1906]; **CLASSICS**, by H. G. HART [December, 1906]; **ENGLISH**, by ARTHUR BURRELL [January, 1907]; **FRENCH**, by CLOUDSLEY BRERETON [February and March, 1907]; **SCIENCE**, by T. PERCY NUNN [April, 1907]; **NATURE STUDY**, by T. RAYMONT [May, 1907]; **HISTORY**, by S. S. F. FLETCHER [June, 1907]; **PHYSICAL TRAINING**, by Colonel MALCOLM FOX [July, 1907]; **DRAWING**, by W. E. SPARKS [August, 1907]; **DOMESTIC SCIENCE**, by ALICE RAVENHILL [October, 1907]; **GEOMETRY**, by H. WINIFRED STURGE [December, 1907]; **GEOGRAPHY**, by Dr. A. J. HERBERTSON [January, 1908]; **MUSIC TEACHING**, by ARTHUR SOMERVELL [June, 1908]; **ARITHMETIC**, by P. B. BALLARD [July, 1908].

Subscription is 7s. per annum; single numbers, 8d. post free.

Offices: 3 BROADWAY, LUDGATE HILL, E.C.

## EXAMINATION PAPER AS USED BY THE COLLEGE OF PRECEPTORS.

In strict accordance with the College requirements, and each Sheet bears their Watermark.

Packed in Reams of 480 Sheets... per Ream, 2s.

" " " 240 " " " " 4s.

Bookkeeping Paper, ruled for Ledger, Cash Book, and Journal, 1s. per 100 Sheets

Music Paper, 1s. per 100 Sheets.

Remittance should accompany Order.

F. W. SHELBOURNE & CO., Wholesale and Retail Stationers,  
63 HIGH HOLBORN, LONDON, W.C.

EDUCATIONAL BOOKSELLERS

LARGEST STOCK  
of SECOND-HAND  
School, Classical,  
Mathematical, and  
Scientific Books  
in London.  
Keys and Translations.  
BOOKS BOUGHT.

ESTABLISHED 1854.

**J. POOLE & CO.,**  
104 Charing Cross Rd.,  
AND  
2 Manette Street, Soho,  
LONDON, W.C.

NEW AND SECOND HAND. ALL ENQUIRIES ANSWERED.

THE  
**School World.**  
A MONTHLY MAGAZINE OF EDUCATIONAL  
WORK AND PROGRESS.  
EACH NUMBER CONTAINS EIGHTY COLUMNS  
OF READING MATTER.  
PRICE 6D. VOLUME IX., 1907, 7s. 6D. NET.

The aim of THE SCHOOL WORLD is to provide information of practical and permanent value to Schoolmasters and Schoolmistresses. To this end all important changes and developments affecting any branch of the work of teachers in secondary and other schools are dealt with by leading authorities and experienced teachers.

The Magazine has become indispensable to all who desire to keep in touch with modern and effectual methods of education.

MACMILLAN & CO., Ltd., LONDON.

**GEORGE GILL & SONS, LTD.**

The following Works included in  
"The Oxford and Cambridge Edition"  
are required for the  
**1909**  
**LOCAL AND COLLEGE OF PRECEPTORS**  
**EXAMINATIONS.**

**Religious Knowledge.**

<b>THE OXFORD AND CAMBRIDGE EDITION ST. MATTHEW.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXON. AND CANTAB. EDITION ST. MATTHEW.</b> Edited by Rev. F. MARSHALL, M.A. ( <i>Preliminary</i> ) ... ..	net 1 0
<b>THE OXFORD AND CAMBRIDGE EDITION ACTS I.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXON. AND CANTAB. EDITION ACTS I.</b> Edited by Rev. F. MARSHALL, M.A. ( <i>Preliminary</i> ) ... ..	net 1 0
<b>THE OXFORD AND CAMBRIDGE EDITION KINGS I.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION EZRA.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION NEHEMIAH.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION PRAYER BOOK.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION CHURCH CATECHISM.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE CHURCH CATECHISM.</b> Explained specially for Preliminary Candidates. Edited by Rev. F. MARSHALL, M.A. ... ..	0 6

**English.**

<b>THE OXFORD AND CAMBRIDGE EDITION TEMPEST.</b> Edited by STANLEY WOOD, M.A., and A. SYMS-WOOD, B.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION HENRY V.</b> Edited by STANLEY WOOD, M.A., and Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION MACBETH.</b> Edited by STANLEY WOOD, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION JULIUS CAESAR.</b> Edited by STANLEY WOOD, M.A., and A. SYMS-WOOD, B.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION RICHARD II.</b> Edited by STANLEY WOOD, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION LAMB'S TALES FROM SHAKESPEARE.</b> Edited by STANLEY WOOD, M.A. (Selection Set for 1909 <i>Cambridge Local</i> ) ... ..	1 4
<b>THE OXFORD AND CAMBRIDGE EDITION LAYS OF ANCIENT ROME.</b> Edited by Rev. G. PRESTON, M.A. ... ..	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION LAY OF THE LAST MINSTREL.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	2 0

In the above works the necessary "Notes" have been added to enable Candidates to answer questions set by the Examiners.

**GUIDES**  
to the 1909 Local Examinations, Specimen Pages, and Complete Lists of the "prescribed" Books contained in the  
**Oxford and Cambridge Edition,**  
Post free.

**JUST PUBLISHED.**

**HISTORICAL ATLAS,**  
With CHRONOLOGICAL NOTES.  
By E. A. BENIANS, M.A., and T. H. KNIGHT, M.A. 96 pp. Crown 8vo, net, 8d.  
Intended to provide suitable material for a general knowledge of British History and more especially for use as a supplementary work in Examination Preparation.

Complete Catalogue post free.  
London: GEORGE GILL & SONS, Ltd., 13 Warwick Lane, E.C.

# BLACKIE & SON'S LIST

A NEW ANTHOLOGY FOR SCHOOLS. (Just Ready.)

## THE CALL OF THE HOMELAND.

SELECTED AND ARRANGED BY

R. P. SCOTT, LL.D., and K. T. WALLAS.

In Two Books. Each 1s. 6d. net. Crown 8vo, cloth boards.

A collection of English Verse, much of it contemporary, designed to illustrate the extended conception of patriotism that is developing in the national literature, both in the mother-country and in her scattered family of young nations.

The poems have been grouped according to their subject:—

**Book I.—Echoes from History—Britain Overseas—The Sea—The Changing Year.**

**Book II.—The English Countryside—Home—Exile—Compatriots—The Call to Serve—The Call to Happiness.**

### The Teaching of English.

By A. E. ROBERTS, M.A., Principal Lecturer in English at the Islington Day Training College, and A. BARTER, L.L.A., late Head Mistress of the Braintree Pupil-Teacher School. 2s. net. [Just Published.]

### BLACKIE'S ENGLISH TEXTS.

6d. each. Blue limp cloth covers. Nearly 80 volumes. To be used in correlation with the study of English Literature and History.

Among the leading Authors are:—

Malory.	Gibbon.	Drake.	Thucydides.	Dickens.
Froissart.	Macauley.	Raleigh.	Plutarch.	Charles Lamb.
Bacon.	Carlyle.	Anson.	Livy.	Kingsley.
Burke.	Prescott.	Hawkins.	Marcellinus.	Swift.
Ruskin.	Josephus.	Cook.	Lucian.	Borrow.

### NEW GEOGRAPHIES.

## GEOGRAPHY

STRUCTURAL — PHYSICAL — COMPARATIVE.

**A TEXT-BOOK FOR SENIOR STUDENTS.**

By J. W. GREGORY, D.Sc., F.R.S.,  
Professor of Geology in Glasgow University.

With an entirely new series of 22 Coloured Maps.

The main purpose of this book is to put before the student "the most important facts concerning the Structural Geography of the Earth, and the evolution of our present continents from older lands."

Large crown 8vo, cloth boards. Price 6s. net.

## A FIRST GEOGRAPHY

With Coloured Pictures and Diagrams on every page.

By C. A. E. RODGERS, M.A., F.R.G.S.  
Assistant Master, Bradford Grammar School Examiner in Geography to the College of Preceptors.

An attempt to bring the actual teaching of geography into harmony with the improved theory of how it should be taught.

Fcap. 4to, cloth boards, 1s.

### The Longer French Texts.

Printed in large type. Cloth limp, 8d. each. Brief Notes, Questionnaire, Memory List of Useful Phrases and a Vocabulary.

### The Little French Classics.

Price 4d. each book. All French authors in prose and verse, from the *Chansons de Geste de Daudet* and *Paul Bourget*.

### Récits tirés des Classiques français.

6d. each. Edited by Mme. C. BAGNALL, of Clapham High School, and Mlle. VIVIER.

The Stories of the great Dramatists told in simple French, suitable for Lower and Middle Forms.

### Combined Course of Literary Reading and Composition.

Illustrated from Famous Pictures. Edited by LEWIS MARSH, M.A. 2s.

### English Poetry for the Young.

Selected by S. E. WINBOLT, M.A. A chronological selection of English poetry, clearly printed and well bound in cloth. 1s.

### Magnetism and Electricity and The Principles of Electrical Measurement.

By S. S. RICHARDSON, B.Sc., Associate of the Royal College of Science, London; Lecturer in Physics, Municipal Technical School, Liverpool. Crown 8vo, cloth boards, 5s. net.

### Intermediate Geometry.

Experimental, Theoretical, Practical. By A. LEIGHTON, M.A., B.Sc., F.E.I.S. Crown 8vo, cloth boards. 1s. 6d. [Just published.]

### Trigonometry.

By R. C. BRIDGETT, M.A., B.Sc., and W. HYSLOP, M.A., B.Sc., Assistant Masters, Rothesay Academy. Cloth, 4s. 6d.

A practical Trigonometry on experimental lines, covering the ground of a school or ordinary college course.

### Experimental Trigonometry.

By R. C. BRIDGETT. Crown 8vo, cloth, 1s. Containing Sections on Latitude and Longitude and exercises involving the determination of heights and distances. The number of Exercises and Theoretical examples is very large. A set of Examination papers is included.

### Elementary Geometry of the Straight Line, Circle, and Plain Rectilineal Figures.

By CECIL HAWKINS, M.A., Senior Mathematical Master at Haileybury College. Crown 8vo, cloth, with or without Answers, 3s. 6d.

### Systematic Inorganic Chemistry from the Standpoint of the Periodic Law.

A Text-Book for Advanced Students. By R. M. CAVEN, D.Sc., and G. D. LANDEW, D.Sc. Crown 8vo, cloth, 6s. net.

### A Text-book of Organic Chemistry.

English Translation from the German of A. BERNTHSEN, Ph.D. Edited by J. J. SUDBOROUGH, Ph.D., D.Sc., F.I.C. New Edition. Revised to date. 674 pp., crown 8vo, cloth, 7s. 6d. net.

Messrs. BLACKIE & SON will be pleased to send full lists of Books suitable for Oxford and Cambridge Local Examinations, 1909, post free on application.

**BLACKIE & SON, Ltd., 50 Old Bailey, E.C.**



CONTENTS.

Leader: Moral Education .....	Page 423
Notes: Association (Education Section) and the First Inter- national Moral Education Congress—Starvation of the Universities— Regrettable Consequences—Bevan's Proposal—The Lord Advocate on Schools—The Rev. J. G. ... Influence of Private Schools.	424
Scottish Education—The ...	426
Summary of the Month .....	428
Universities and Colleges. ... Field—New Irish Uni- versities. London—Manchester—Birmingham—Sheff- field .....	429
The British Association: Educational Science Section ...	429
Useful Knowledge: Presidential Address, by Prof. ...	432
Science in Secondary Schools: Sub-Committee's Report ...	433
Training for Teaching, by Charles MacGregor .....	433
Salaries at Bâle ( <i>Neue Züricher Zeitung</i> ) .....	434
Current Events .....	437
Fixtures—Honours—Endowments and Benefactions—Appoint- ments and Vacancies—Literary—General.	437

College of Preceptors:	Page
Class Lists: Certificate Examination, July, 1908 .....	439
Professional Preliminary Examination, September, 1908— Pass List .....	440
Meeting of the Council .....	440
International Moral Education Congress:	
Presidential Address, by Prof. M. E. Sadler .....	440
The Scope and Aim of Ethical Education, by Prof. Adler ...	442
Ideas as Moral Forces, by Prof. John Adams .....	443
London Secondary Education: L.C.C. Report .....	443
Reviews .....	444
Dorothea Beale of Cheltenham (Raikes)—The Theory of Optical Instruments (Whittaker).	
General Notices .....	445
At Glances .....	447
Financial Notices .....	451
Mathematics .....	

The Educational Times.

Moral Education.

THOUGH the International Moral Education Congress had but opened its doors when we went to press, the nature of the proceedings had been anticipated in our preliminary notices, and finds effective expression in the Presidential Address of Prof. Sadler, which we reproduce in full text in another column. Seeing that almost all the leading educationists of Europe, and notable representatives of the United States and Japan, without distinction of religion or party, responded to the appeal of the organizers for support, the success of the gathering could not remain in doubt. The "severely practical object" of the Congress—"that of improving the moral education offered in schools"—has appeared to persons of the most diverse speculative outlooks a matter of serious importance; and the discussions of the Congress cannot but evolve valuable suggestions, expanding or contracting individual opinions hitherto independently entertained. The limitation of range is to be noted: "the Congress restricts itself to a general survey of school problems from a moral point of view"—matters of school organization, of methods of training and teaching, of discipline, of direct and indirect moral instruction, of the relation of moral education to religious, intellectual, æsthetic, and physical education—"leaving untouched the questions of home education, of self-education, and of religious and philosophical education," which there will be opportunities for treating in subsequent Congresses. The report of an international inquiry on the subject, edited by Prof. Sadler, was published by Messrs. Longmans in two compact volumes at the psychological moment of the eve of the meeting of the Congress. This report and the forthcoming volume of Congress papers and discussions will form a very adequate basis for practical conclusions.

The report discusses "the influence of education upon conduct and character." The first volume deals with the United Kingdom; the second is devoted to inquiries in foreign countries and in British colonies. The first section of the first volume exposes "the roots of the problem" from

points of view, concluding with a symposium on the question how the ethical efficiency of education could be increased. Generally, efficiently conducted, on different countries have been very ... Executive Committee lines laid down for the reporters by the ... its vary con- of the Advisory Council. Naturally, the results of the siderably in importance. At the same time, the scope of investigation is wide; the information records the judgments of experienced teachers and of other persons in a position to furnish trustworthy evidence, such as parents, administrators, &c.; and, what is of the first importance, the most divergent views are frankly presented. "On some of the questions which have been investigated there is everywhere sharp division of opinion and much conflict of judgment. The essays now published reflect this variety of view. They do not attempt to disguise the depth of the differences in religious conviction which divide those who are engaged in different parts of the field of education." This was essential; a one-sided report would have been a fiasco, promptly and properly extinguishing the whole project. "But the inquiry has disclosed a large measure of agreement upon many matters of school organization, a wide range of valuable and encouraging experiment, and a growing desire on the part of each nation (and of the different groups in each nation) to study and to learn from educational experience divergent from their own." The hope, then, is that the evidence will be studied fully and fairly, with a view to the largest possible agreement in practical applications—a hope chastened not by ecclesiastical wranglings alone. The section on Ireland is bitter, but instructive, reading—to minds not closed to instruction.

It would be hopeless to go into details, and it is unnecessary, for everybody interested in the movement will peruse these volumes; but the more outstanding of the results may be at least particularized. First, it is to be noted that the school has the control of the child only for about one quarter of his waking hours. There is little difficulty about the subject-matter of a moral course: it is already substantially set forth in the English Code for public elementary day schools, and approved by the evidence of these volumes as well as by public opinion. There is great divergence, of course, as to the sanctions to which, in

imparting moral instruction, the teacher should appeal; but, while "our evidence shows that in every country there is an ideal of personal and civic obligation which may be taken as a basis for school teaching by adherents of almost every school of thought," there is a widespread feeling of the necessity of appeal to religion. There must, therefore, be freedom for the effective expression of differences of religious conviction. A moderate view, based on long and thoughtful experience, is given by Dr. Otto Anderssen, of Christiania: "On the whole, I believe that the more the centre of gravity of the instruction is transferred from the dogmatic to the historic and ethical, and the denominational gives place to what is central and common in Christianity, to its doctrines of love and duty and its great civilizing mission, the greater will be the importance of religion to the inner life of children." The growth of a good character is to be recognized as a prolonged and complex process. By what methods, then, can schools most effectively help? The evidence emphatically shows "the conviction that the most potent factor in moral education—more potent even than the corporate influence of an honourable community—is the personality of the teacher, whether he who teaches be parent or teacher in the narrower sense of the word or employer or elder comrade in home, school, or place of business." "The most essential things of all lie in the personality of the teacher—in sympathy, in moral insight, in an almost pastoral care, in a sense of justice, in candour of heart, in self-discipline, in consistency of conduct, in a reverent attitude of mind, and in a faith in things unseen." Therefore the right kind of teacher is to be carefully sought out and prepared for his duties and sustained in his work.

Then there is the corporate life of the school and the influence of the curriculum; and, in connexion with the curriculum, we would direct attention to the paper by Mr. Hogben, Inspector-General of Schools for New Zealand, who tells us that "the greatest obstacle of all to moral education in the schools is the unreality of much of the school teaching." "If the schools do not fit their pupils for the needs of their future lives," he writes, "theorists may talk about the culture of this study or that as much as they like, but the schools will have failed, because to the vast majority of their pupils the lessons of the classrooms have had no relation to the facts of the universe, moral or otherwise." The paper by the Principal of the Hyannis Normal School (Massachusetts) indicates the same view, which is steadily maintained by Dr. John Dewey, and emerges in the advocacy of manual training by Sir Philip Magnus. The question between direct and indirect moral instruction is sharply conflicting; but "there is a general agreement among experienced teachers that direct moral instruction, when given at the right time, and in the right way, is a valuable element in moral education." After all, we come back to the importance of the well instructed teacher with a competent maintenance and a reasonably free hand. "Possible failure to secure and to retain the services of a sufficient number of the best type of men and women as teachers is perhaps the gravest danger which threatens the future of our elaborately organized systems of modern education."

## NOTES.

At the two ends of the month there have been the meetings of the Educational Section of the British Association at Dublin and of the First International Moral Education Congress in London. We give the Presidential Addresses of Profs. Miall and Sadler, and summaries of a few of the many able and interesting papers submitted for discussion. We hope to be able to find space in our next issue for the substance at least of some important addresses, which, to our regret, we must hold over at present.

SIR OLIVER LODGE, in the August number of the *National Review*, pleads for financial assistance to Birmingham University, and the *Morning Post* vigorously enforces his plea in an article that we regret to be unable to reproduce in full. The most striking thing about Sir Oliver's article, says our contemporary with painful justice, is "that it is true not only of Birmingham, but of every University and University College in Great Britain."

There is something tragic about the utter indifference displayed in this country, not only by ordinary middle-class opinion, but by successive Cabinets and Ministers of Education, to everything that concerns University education. There is no sign that those who govern the nation, and particularly those who govern its education, realize that the character of every grade of school must ultimately be determined by the character of the Universities which train the leaders of educational thought. There is no sign that they appreciate the fact that the prosperity of a nation to-day depends on its ability to organize the means of acquiring scientific knowledge. There is no sign that they realize that the different parts of a national system should be an interconnected whole, in which the schools supply the Universities with talent, and the Universities give light and leading to the schools. There is no sign that they are even aware that University education in this country is being strangled for want of money. . . . In short, the English attitude to University education at the present day is what the English attitude to secondary education was in the day of Matthew Arnold. It is ill informed, sceptical of its value, resolutely Philistine, and it is confirmed in its ignorance and scepticism by the refusal of successive Education Ministers to so much as touch upon the subject. Yet clearly, to put the matter on the lowest grounds, if foreign armaments require that England should be armed to meet them, foreign improvements in University education require that England should place her University equipment on a level with theirs.

"A nation which neglects the highest kind of education as it is neglected in England cannot, in the long run, hold its own in competition with one which gives serious thought to its improvement, and backs its thought with ample financial support. The total sum spent by the English Government on University education is so small as to constitute a grave national danger."

Of course, all this has been said over and over again, but it needs to be insistently repeated till the significance of it be officially recognized. It is not only that a comparatively small proportion of the population receive a University education, or that the Universities fail to exert their proper influence upon the educational planes from which they are reinforced, but "more important is the fact that teaching is hampered and research is starved"; indeed, "in some Universities the state of things is so bad as to be almost incredible." "The understaffing deplored in our elementary schools is nothing to the understaffing in our Universities"; and, as Sir Oliver Lodge points out, "there is literally no end for the discoveries lying in wait for us in the biological and pathological regions—nothing but money is needed." And the money invested would make a most ample return.

We must note, however, that, while the argument is here, as usual, conducted on the basis of "science," it is applicable just as fully in other departments, where scientific method is equally pursued. Our contemporary would find in London University a whole faculty practical destitute of endowment, with immense fields of study calling hopelessly for research. "The idea that private benefactions would be checked is a pure assumption based merely on a *priori* theorizing. Between 1870 and 1900 private benefactions in America, where large public assistance is given, amounted to £23,000,000; in Great Britain, where public assistance is negligible, they amounted to £3,000,000." We confess we have but little expectation that the Minister of Education will "earn his title by making the improvement of English University education the chief business of his official career": there are no votes in it, and learning (excepting "science") is not clamorous.

THE REV. J. O. BEVAN, in recent letters to the *Guardian* and the *Church Times*, laments the condition of religious teaching not only in public and in private schools, but also in Sunday schools. He writes:

In our national elementary-school system, definite religious instruction is imperfect, even under favourable circumstances of entry; Church of England, and denominational schools generally, are menaced; clerical teachers are discouraged in their visits, even to their non-provided schools; teachers are led by their Union to agitate for the abolition of so-called tests; a purely secular system is favoured by many members of both Houses of the Legislature; denominational colleges are penalized; colleges founded and maintained by Local Education Authorities provide no distinctly moral or religious teaching; and, lastly, our Sunday schools are imperfectly organized, and staffed by men and women who are possessed of good intentions, but who, in the majority of cases, have never been taught to teach. In this case, the deficiencies are the more marked, inasmuch as the system compares more and more unfavourably with the secular instruction imparted in the day school, and with the buildings, appliances, teachers, and methods thereto attaching.

"It is amazing," says Mr. Bevan, "to reflect that this state of things has been so long acquiesced in by the authorities of the Church"; and he thinks the explanation is that attention has been distracted from Sunday-school and secondary education by "the noise and dust of the fray carried on in respect of the day schools."

HOWEVER, "we must adapt ourselves to the new conditions" in the new era that is undoubtedly opening out "full of unrest, of danger, and of trial"; and, with his usual courage, Mr. Bevan proposes a remedy:

That we may be helped to return to our duty, I venture to suggest the establishment of a Teaching Order or Fraternity, the members of which should be banded together to undertake the task of imparting definite religious Church teaching to the children of the Church, in schools of all grades, in both day and Sunday schools; for my special point is that the problem is one, and that the work should be carried on consecutively. The Order would be called the "Guild of the Holy Child"; and be as wide as the Church in inception, being organized on diocesan and parochial lines, and federated into one great Anglican Union.

The organization is outlined in the *Guardian* of August 19. At last, however, we come upon a rock that has wrecked so many excellent schemes that we cannot but fear for the fate of Mr. Bevan's project: "A considerable sum of money would be required to inaugurate and carry on such a scheme as this." In view of the pecuniary difficulties of the voluntary schools, is this considerable sum of money likely to be found? If all Churchmen were as hopeful and indomitable

as Mr. Bevan, it would promptly be found; but are they? Mr. Bevan at any rate submits "that the subject of definite Church teaching in our schools is so vast, so comprehensive, so momentous in regard to the welfare both of the Church and realm, that it should be anxiously and instantly considered at our ruridecanal meetings, Diocesan Conferences, and in Convocation itself." That, at least—if there be any real vitality in the question.

ON the occasion of the opening of a new school at Hawick, the Lord Advocate had his foot on his parliamentary heath, and he put it down with a proud satisfaction. Before coming to the ceremony, he had looked over the Scottish Education Bill again, "and he wished to say quite emphatically to them [*urbi et orbi*] that if it were passed into law in the shape it had now assumed, after having emerged with the substantial consent of all parties in Grand Committee, he should reckon that the state of education in Scotland could thus be marked as thirty years in advance of that of England and sixty years in advance of that of Ireland. He said so after having made a considerable study of the comparative educational systems, and having, to his cost, and to his great labour, had to assist in piloting the measure through the House. Thirty years ago it would have been considered almost a dream to have such an educational measure, even in Scotland." There is indeed much to be said for the Bill—"the vast merits of this Bill"—and Mr. Shaw, it will be seen, did not fritter away his opportunity. Referring to the new school, "I know," he said, "that under this roof the infant can enter and be taught free and accomplish rung after rung of the educational ladder until he is brought to the very portals of the University itself." There is a proud example. And it is but a single realization of the national ideal. "I have realized," said Mr. Shaw, "that Knox's was the true sentiment—that it is not for individual advancement alone, not for individual ambition alone, that it is a good thing, but that it is for the comfort of the State at large, for the comfort of the commonwealth of Scotland, as Knox put it, that this education should, from the humblest to the highest in the land, be made available." If England and Ireland feel uncomfortable under the comparison, no doubt Mr. Shaw will tell them they "have the haft and the blade in their own hands."

A CORRESPONDENT writes:—"In the 'Short History of National Education in Great Britain and Ireland,' which Mr. T. Ll. Humberstone has written at Sir W. Mather's request for the British Education Section of the Franco-British Exhibition, due attention is drawn to the private efforts of such men as Lawrence Sheriff, Robert Raikes, and Joseph Lancaster, which have done so much to pave the way for the national education of to-day. But Mr. Humberstone's pamphlet is marred by one serious omission. The success both of the London University Matriculation Examination and of the various local examinations has been largely due to the steady support of the better private schools. Public schools for girls would not be what they are were it not for the efforts, a generation and a half ago, of Miss

Buss, in her private school in Camden Street, and of many others like her. The so-called "public schools" are dependent for most of their best pupils on the preparatory schools, all private, to which Dr. Sadler devoted the forty chapters of Vol. VI. of "Special Reports." It is nothing less than a national disaster when it becomes the fashion to ignore, depreciate, and (sometimes) hurray out of existence work of this nature. For it is only when freer work of this kind flourishes that the rigidity which characterizes so much of the public management of education can be kept in check. From more than one quarter are we beginning to hear the cry, *Timeo Morantem et dona ferentem.*"

### SUMMARY OF THE MONTH.

THE annual autumn conference of the Incorporated Association of Assistant Masters in Secondary Schools was held at Rochester (September 9, 10). Mr. R. F. Cholmeley (St. Paul's School), who presided, said the question of tenure continued to be of vital importance. Through the action of the association in connexion with the Richmond case, it had been proved that the legal position of assistant masters needed reforming, and the result was that the Board of Education had seen the necessity for an alteration in the law. They had a legislative enactment in the Endowed Schools (Masters) Act of 1908, which was not a great and comprehensive measure of reform; but it was something that an association of professional men should be able to induce a powerful and much preoccupied Government to redress a single crying grievance at the end of a busy session. Nobody could pretend that the situation was yet wholly satisfactory, or that the need of work and vigilance was past. The Act contained just one extremely unpleasant surprise (Lord Robert Cecil's amendment). The Endowed Schools were but a fraction of the secondary schools of England, and the assistant masters were not the whole of the assistant teachers in secondary schools. They ought not to rest content until they had seen a proper regulation for the interest of the teachers in every kind of school that came within their sphere of action; and it was one of the greatest disappointments that in the Act nothing was done for assistant mistresses. Closely connected with the question of tenure was that of the financial position of teachers, and here, again, much remained to be done. It was still a matter of chance whether a schoolmaster, however high his qualifications, obtained a salary sufficient to enable him to live in anything better than a kind of genteel poverty. Yet there were signs of progress. Salary scales were becoming more general, and pension schemes were to be discovered by searching. After discussion, the following resolution, moved from the chair, was carried:—

That this Association thanks His Majesty's Government for the greater security of tenure provided for assistant masters by the Endowed Schools (Masters) Act passed at the end of the last Session of Parliament; and notes with extreme regret the acceptance in the House of Commons of an amendment depriving masters, summarily dismissed, of a right to be immediately informed of the reasons of such dismissal.

A resolution thanking the Incorporated Association of Head Masters for "their effective co-operation in endeavouring to obtain greater security of tenure for assistant masters in secondary schools" was carried unanimously. The report of the executive committee showed that the membership of the association now stood at about 2,300, and, so far, 290 new members had been elected.

THE Conference also passed the following resolutions on the Regulations for Secondary Schools, 1908:—

*Staff.*—That this Association warmly welcomes the statement of the Board of Education that the increased grants now offered to secondary schools are intended not to give relief to local rates, but to increase the efficiency of the schools by providing the means whereby better qualified and better paid teachers may be secured.

*Curriculum.*—That this Association views with satisfaction the continuation of the Board's policy of giving increased freedom to schools in the arrangement of their own curricula.

*Functions of Governing Bodies.*—That, in the opinion of this Association, the requirement of the Board of Education that the functions of the

Governing Bodies of schools shall be adequately defined in a written document will be to the advantage of every one concerned in the work of secondary education.

*Training of Secondary Teachers.*—That this Association welcomes the encouragement given to the professional training of secondary teachers by the system of grants in aid of courses of training lately initiated by the Board of Education; but hopes that the Board will grant similar aid for the training of secondary teachers in such secondary schools as may be specially recognized for the purpose.

At the same Conference Mr. Charles Bird (Head Master of the Mathematical School, Rochester) read a paper on the "Financial Position of Assistant Masters." In the great public schools, in the wealthier of our endowed schools, and in schools where fees were high there was not so much to complain of, and the same could be said of the county and municipal schools established by Local Education Authorities, where scales of salaries had been inaugurated and where the funds required could be obtained from the rates. But in the less wealthy of the endowed schools salaries were in a very unsatisfactory state. He thought that many difficulties were likely to arise and much injustice done to schools and masters by allowing all the different Secondary Education Authorities to settle their own scales. Obviously there should be a uniform system throughout the country. The scale, perhaps, should be elastic to suit different local conditions, but the same general principle should run through it. But, if there were to be a uniform scale, it was pretty obvious that the money must come from the Central Authority and not from the local one. The ideal arrangement would, of course, be for the Board of Education to give an annual grant equal to the total salary of the assistant masters, leaving the fees and endowments (if any) to pay the head master and the working expenses and to provide scholarships and exhibitions. Some such arrangement would still leave the wealthier schools better off than others and would not obliterate the services rendered to a town or neighbourhood by the founder. Another method would be for the Board of Education to make up the annual deficit on the estimate every year on condition that the masters were paid according to scale. The objection to such a scheme was that a school with a large endowment would be no better off than a poor one. Another plan might be for the Board of Education to make a certain fixed grant per head to the school, smaller than at present, and pay annually in addition the total amount by which the salaries exceeded the minimum. The revision of the salary question surely should be the work of the Central Authority. If the Central Authority were to provide the funds for the payment of masters, it might be argued that it should also appoint, promote, and remove them. He did not know whether that would be acceptable to assistant masters as a body, but he was sure it would be inconvenient and objectionable in many ways. There would be no objection, however, if, as in most county schools, the head master or the local governors selected and nominated, while the Board of Education formally appointed or confirmed. Similarly with regard to dismissals.

THE third International Congress of the History of Religions was held at Oxford under the Presidency of the Right Hon. Sir Alfred Lyall. The work was distributed in nine sections: 1. Religions of the Lower Culture (including Mexico and Peru): President, Mr. E. S. Hartland. 2. Religions of the Chinese and Japanese: President, Prof. Herbert A. Giles (Cambridge). 3. Religion of the Egyptians: President, Prof. Flinders Petrie. 4. Religions of the Semites: President, Prof. Morris M. Jastrow (Philadelphia). 5. Religions of India and Iran: President, Prof. T. W. Rhys Davids (Manchester). 6. Religions of the Greeks and Romans: President, M. Salomon Reinach (Paris). 7. Religions of the Germans, Celts, and Slavs: President, Prof. Sir John Rhys (Oxford). 8. The Christian Religion: President, Rev. Prof. Sanday (Oxford). 9. The Method and Scope of the History of Religions: President, Count Goblet d'Alviella.

THE General Meeting of the Classical Association is to be held in Birmingham on October 8 to 10. Mr. Asquith will deliver his Presidential Address. Papers will be read by Prof. Mackail on "How Homer came into Hellas," and by Prof. Sonnenschein on "The Unity of the Latin Subjunctive." The Greek Pronunciation Committee will present its final report, and the Curricula Committee an interim report. The latter is of general interest and importance, emanating, as it does, from a body of men who may be considered as representative of classical

education in English Universities and schools of various types. The first part of the report deals with the question raised at the Cambridge meeting last year whether a short course of Latin, such as finds place in schools not mainly classical, is of sufficient educational value to justify its retention. There will be a performance of the "Hippolytus" of Euripides (in Dr. Gilbert Murray's English translation) by Miss Horniman's company, with incidental music by Mr. Granville Bantock.

THE Froebel Society has been making an inquiry with respect to schools and institutions in other countries for children between three and seven years of age, and has obtained some most interesting and valuable information on the subject. The countries include France, Germany, Austria, Switzerland, Holland, Denmark, Norway and Sweden, Finland, Russia, Italy, Egypt, Japan, the Colonies, and the United States. As would be expected, the conditions vary greatly in different parts of the world. In most countries the age at which attendance at the primary schools becomes compulsory is six years; but in a few it is seven, and, generally speaking, the State makes no provision for children below this age. In some cases it is done by the municipality, or voluntary effort is supplemented and aided out of public funds, but these institutions are rather of the nursery type, and formal lessons have little or no place in them. The report is to be published as an appendix to a special report on the same subject which is to be issued shortly by the Board of Education.

THE Board of Education has issued (Cd. 4288) the first part of "Statistics of Public Education in England and Wales, 1906-8." The present part is confined to educational statistics; the second part, which will appear later, will deal wholly with financial statistics. The number of technical institutions in England recognized by the Board during 1906-7 was 31, and the number of teachers therein 521. The Board defines a technical institution as one giving an organized course of instruction in day classes, including advanced instruction in science or in science and art, and provided with a staff and equipment adequate for the purpose. The number of students who attended these institutions at any time during the year was 2,655 (including 325 girls and women), and 1,446 of these attended a full course of instruction. Of the 2,330 boys and men attending, 542 were under seventeen years of age and 469 were twenty-one years of age or more. The number of evening schools and classes in England, recognized by the Board, for the education of persons already engaged in some occupation which takes up the greater part of their time, was 5,368 in 1906-7. These classes varied very widely in character and scope; 29,946 teachers were employed in them, 687,681 students attended during the year, and the Board paid grants on account of 515,897. There were in the same year 676 secondary schools in England recognized by the Board as eligible for grants as compared with 600 in the previous year. These schools accommodated 62,712 boys and 50,877 girls, the numbers in the preceding year being respectively 60,353 and 44,681.

THE Central School of Arts and Crafts in Kingsway (Southampton Row), by far the most magnificent of the schools so far opened under the auspices of the London County Council, was inaugurated by means of an exhibition of the students' work lasting three days. On the first floor is the splendidly commodious department for silversmiths' and allied work; on the second floor the finely equipped school of "book production" (printing, binding, lithography, &c.); on the third floor the school of drawing, design, and modelling; and on the fourth floor the sections for embroidery and needlework, with the stained-glass and the decorative department on a yet higher floor of the great building. While the majority of the classes will be held in the evenings, the teaching work is practically continuous. Most of the students are of the male sex, but there are also classes for female workers in lace, needlework, painting, &c. A library of architectural works for loan and reference is being formed, as well as a museum for specimens and models. A technical day school for boys is to be run in connexion with the new scheme, its object being to enable lads that intend to enter some branch of the silversmiths' trade or "kindred crafts" to pursue their general education, and, incidentally, to obtain such knowledge of the principles of design and construction as may enable them ultimately to shape a career for themselves. Ten free studentships are offered by the L.C.C. to boys possessed

of good mechanical ability, and the fees generally are very moderate. For the past twelve years the work of the school has been conducted in restricted premises in Regent Street.

An informal Conference on the question "How to Create an Intelligent Interest in Reading among Boys and Girls" was held at the office of the National Home-Reading Union. Dr. Paton, of Nottingham, presided, and among those present were the editors of the *School World*, *School Guardian*, *School Education*, Mr. Bray, of the L.C.C. Education Department, and the Secretary, Miss A. M. Read. Dr. Paton explained that the object of the Union, so far as it related to boys and girls, was to increase the effectiveness of the reading lesson in day, evening, and Sunday schools, so that the gift of reading may mean a love of systematic reading of the best literature, and may not only broaden school education, but may prolong and confirm its influence. A necessary means to the accomplishment of this object is the formation of reading circles in connexion with the elementary schools. The Union has been instrumental in establishing 1,190 such circles, 435 being in connexion with London schools. The Board of Education is in sympathy with the movement and has circularized the teachers, calling their attention to the advantages offered by the Union. Several speakers dwelt on the need of friendly co-operation between the Home-Reading Union and the local free lending libraries, and Dr. Paton assured the Conference that library committees and chief librarians were helping the work in every way possible. The advantages of old boys' clubs, the need of co-operation on the part of school managers, the sympathetic help of the press in making the objects of the Union known were also considered. The Conference agreed to the proposal that Dr. Paton should draft a summary of the suggestions and forward them to the Board of Education.

THE Diploma of "Associate of the City and Guilds of London Institute" has been awarded to 91 matriculated third year students of the Central Technical College who have completed a full course of instruction; 58 in Civil and Mechanical Engineering; 26 in Electrical Engineering; and 7 in Chemistry. Bramwell Medal, F. H. Bramwell; Siemens Memorial Medal and Premium, R. E. Neale. Certificates have been awarded to 25 matriculated third year students who have completed a full course of instruction at the Central Technical College, and to 62 students who have completed a full course of instruction at the Technical College, Finsbury.

THE Secondary Schools Committee of the Cheshire County Education Committee reported that eight University Scholarships had been awarded to the following students: Louis A. Penn, Wallasey Grammar School; Harved J. Davies, King's, Chester; Gertrude M. Powicke, Romiley; Agnes A. Plant and Harry Richardson, Crewe Secondary; John G. Morgan, Wrexham; Harry Grenville, Wallasey Grammar School and Manchester; and Harold Garner, Liverpool Institute. A scholarship for vocal music was awarded to Miss Elsie Morgan, Crewe, and technological scholarships to C. Warburton and L. Whinyates, Runcorn Secondary School.

THE total number of candidates entered for the Cambridge Local Examinations held in July was 6,014, exclusive of 315 candidates examined at colonial centres. In the Senior Examination 686 boys and 830 girls passed, 60 boys and 13 girls being placed in the First Class. Sufficient merit was shown by 280 boys and 201 girls to entitle them to exemption from one or both parts of the Previous Examination. Of the Junior candidates 1,068 boys and 938 girls passed, the numbers placed in the First Class being 88 and 14 respectively. In the Preliminary Examination 255 boys and 196 girls satisfied the examiners.

FIFTEEN nationalities represented, and not one student of American parentage (says the *New York Herald*), makes the American International College at Springfield, Mass., one of the unique institutions of higher learning in the States. When the institution was first founded it was known as the French Protestant College. In 1894 this name was changed to the French American College, while in 1905 another change was effected to the American International College. With nearly a million immigrants going into America every year, the necessity of educating them is apparent. Coming in such vast numbers

they are destined to powerfully affect the development of the great composite American nation. That they may contribute the best of their inheritance they must be made to share in higher education, which has done so much for America. Of the 110 students in the college about sixty are Italians. The Armenians come second in number and the Greeks third. The other nationalities include Syrians, Persians, Bulgarians, Spanish, Cubans, French, Scotch, Russians, Norwegians, Swedes, Chinese, and Japanese. With such a composite student body it is no easy task to arrange the work, map out the courses of study, and bring about an assimilation of the nationalities. "It is surprising," says Prof. Whiteford, Dean of the College, "how little race jealousy or animosity is shown. These races live together harmoniously and with very little strife. Although English is taught in the classrooms, yet, I believe, it is on the athletic field and in the dining hall that the students make the most rapid advance. As a rule, the foreigner is bashful when thrown with strangers. Students often come to the college who cannot speak a word of English, and yet in a few months' time you will hear them coaching on the baseball field in true American style." The college grounds comprise about five acres of land in one of the pleasantest parts of Springfield. There are six buildings, affording accommodation for about a hundred and twenty-five.

THE Minister of Public Instruction, Victoria, in his Report for 1906-7, writes:

Manual training has proved itself not only one of the most popular, but, at the same time, one of the most valuable, of the new departures taken by the Department during recent years. Its popularity is shown by the fact that, although it is an optional subject and involves a fee of 2d. per lesson, the centres are all full, with the splendid attendance of 92 per cent. As some evidence that the time spent at them is not lost, as was at first feared in some quarters, but that the work develops the intelligence, the mental power of the pupils, it may be observed that at the last Departmental examination for scholarships and exhibitions the majority of the winners were boys who had been members of Sloyd classes. These facts, together with the applications for new centres which have been received from various towns, have led the Department to authorize the training of a fresh group of teachers. Their course of training will be completed in December, and new centres will be established in order of priority of application. One was opened at Creswick in March, and, in spite of the scattered nature of the district, was filled immediately. One of the most striking displays at the recent State Schools Exhibition was the working Sloyd centre and exhibit of finished models. It formed a great centre of attraction and did much to remove any lingering misconception as to the nature of the work.

THE Government of Queensland has decided to grant fifty district scholarships for grammar schools. Each scholarship will have a currency of three years, and the grant will be made each year as long as Parliament provides funds for the purpose. Each of the ten grammar schools in the State will have five scholarships allotted to it. The conditions are the same as those for the annual scholarships and bursaries now granted, except that the winners must attend the grammar schools nearest to their homes. In addition to these scholarships thirty-six State scholarships and bursaries will be given this year. The examination of competitors for these will be held in December next. There are twenty-seven scholarships available for boys and nine for girls. They have a currency of three years, and the papers for examination are English, arithmetic, geography, general knowledge, and a paper on a subject which will be disclosed at the examination. The bursaries total eight—six for boys and two for girls, and entitle winners to free education at a grammar school or any other school approved by the Governor in Council, together with an allowance not exceeding £30 a year for three years. Only candidates who have to board away from home will be eligible holders, and no bursary will be awarded to a child whose parents or guardians are in a position to pay for his education. In each of the preceding cases the candidates must be children who will not attain the age of fourteen years until after December 31 next.

A CORRESPONDENT writes:—"The standard of secondary education in Queensland is set by the grammar schools, which are ten in number and are controlled by boards of trustees, one half of whom are for the most part elected by subscribers to the school funds, the remaining members being appointees of the Government, the State having contributed and still contributing largely

to the establishment and maintenance of these schools. The full school course is usually five years, and the subjects of instruction are Latin, Greek, French, or German, mathematics (including advanced courses in arithmetic, algebra and geometry, and also mechanics, trigonometry, and conic sections), English language and literature, history, ancient and modern (including European history), book-keeping, inorganic chemistry, physics, and other semi-scientific subjects, to which is added, in the case of girls, a thorough musical education. The methods of tuition are modern and scholarly, and the constant successes of the Queensland students, when pitted against the pupils of the neighbouring States in the examinations held by the Sydney and Melbourne Universities, give annual evidence of the high standard of efficiency maintained in the secondary schools of the colony. Revised regulations will come into force in the Queensland educational system. The three principal features are (1) a modification of the method of determining the salaries of head teachers; (2) the making of two additional grades of State schools by (a) reclassifying the present State schools and (b) by grading as State schools all the existing provisional schools which are vested in the department; and (3) the issuing of special regulations for the establishment of continuation schools."

DR. FREDERICK H. M. BLAYDES died at Southsea in his ninetieth year. He was (says the *Athenæum*) "a well known classical scholar, who had a reputation on the Continent as well as at home. He did a large amount of valuable work in his editions of Aeschylus, Sophocles, and Aristophanes, and some of his emendations are likely to hold a permanent place in classical texts. But, like many eminent scholars of an earlier generation, he permitted himself wide divergences from the MSS., which would not be tolerated nowadays, and his 'Adversaria' require careful sifting."

#### UNIVERSITIES AND COLLEGES.

THE University of London has just established an Advanced Certificate in Religious Knowledge, designed specially to meet the needs of teachers—quite undenominational in character, and indicating thorough acquaintance with the historical groundwork. The subjects of the examination are divided into two groups—compulsory and optional. The compulsory subjects include a general knowledge of the contents of the narrative portions of the Old and New Testaments, and the circumstances under which the books were composed, with the general features of the teaching of selected books. The optional subjects include Greek Testament, a period of Church History, the History of Christian Doctrine, the History of Christian Worship, Christian Ethics, Philosophy of Religion, and a Comparative Study of Religions. The first Examination will be held in January at the same time and at the same Centres as the Matriculation Examination of the University. Copies of the Regulations may be obtained from the Registrar of the University Extension Board, University of London, South Kensington, S.W.

The Holiday Course for Foreigners was a great success, many more applications for admission being received than could be entertained. Of the 266 students, Germany sent nearly 100, Sweden 57, Holland 24, France 23, and Denmark 21. There were also students from Japan and from every European country except Spain and Greece.

THE total number of students in the several Faculties of the University in the past session was as follows:—All Faculties excepting Medicine and Technology (including women students), 1,048; Faculty of Medicine (including 15 women students), 327; Faculty of Technology (including one woman student), 149; total, 1,524; allowing for 32 students entered both as Science and Medical students, net total, 1,492. In addition, there were 234 persons attending evening classes. This number is exclusive of about 140 students attending Lectures on Railway Economics and of 200 attending courses in Law and Economics at the Bankers' Institute. The following are the numbers of students who have been working in preparation for the degree examinations of the University in the several Faculties other than Medicine: Arts, ordinary 205 (118), honours 109 (67); Science, ordinary 127 (34), honours 186 (18); Law, 24; Music, 3; Commerce, 38; Theology, 25; Technology, 70 (1); totals, ordinary

492 (153), honours 295 (85). (The figures in brackets denote the number of women students.) In addition to the above, 14 students were preparing for the Teacher's Diploma (9 of these being women students), 52 were preparing for the matriculation examination, and 25 were elected Research students. 105 students in the past session were students of the University Training College for Men—viz., 40 of the first, 31 of the second, and 34 of the third year. 124 students in the past session were students of the University Training College for Women—viz., 59 of the first, 30 of the second, and 35 of the third year.

**Birmingham.** THE Social Study Committee of Birmingham University have organized for the coming session a course of systematic instruction and practical training, which is intended to be of use to the following classes:—(1) officials and others engaged in civic administration in one or other of its branches; (2) workers who desire experience and training in connexion with municipal and social, local government and philanthropic institutions; (3) the clergy and church workers of various denominations; (4) officials of Trade Unions, friendly and other societies. The University will provide lectures, accompanied in appropriate cases by practical demonstrations (e.g., visits of sanitary inspection), will secure facilities for visits, under competent guidance, to public institutions, and will also procure suitable introductions to labour organizations, charitable bodies, &c. The curriculum extends over one year, and consists largely of evening lectures. The lectures will deal with the British Constitution, local government, industrial history, economic analysis, statistics, industrial conditions, sanitation, law for social workers, and methods of social work.

It is with great regret that we record the death of Prof. Churton Collins, practically from overwork. He was a picturesque, militant figure in the University, as he had been before as author, journalist, and Extension lecturer, and he was a great favourite with the undergraduates. He did much useful and stimulating work in literary criticism, well informed, appreciative, and fearlessly outspoken.

**Sheffield.** THE mining department of Sheffield University carries on its work, not merely in Sheffield, but also among the men of the West Riding, Derbyshire, Nottinghamshire, and Leicestershire. In Derbyshire, for example, there are no fewer than 26 centres for local mining classes, and last year there were 611 students, while the total number of students that have been in the Derbyshire classes since 1891–2 is 7,393. During the past seventeen years, 16,589 students in all have received instruction. The number last year was 1,445, against 1,510 in 1906–7, 1,422 in 1905–6, and 1,191 in 1904–5. The number of students at the University courses last year was 215—being a record. The report, on the whole, appears to be very satisfactory. There appear plenty of young fellows anxious to improve themselves, and who persevere in the higher classes. The conduct of the miners has been excellent, and their work good; and the home work has been specially well answered by the majority. Fourteen students entered for the diploma course. In the certificate course at the University there were 100 students. It is interesting to note that 36 hailed from the West Riding, 3 from Sheffield, 59 from Derbyshire, and 2 from Nottinghamshire. Of the 100 only four were taking single courses, while 52 were in their second year, and 44 in their first. Although illness, accidents, and work affected the attendance of about 13, the average attendance for first-year students was 90 per cent., and 76 per cent. for second-year students. No fewer than 18 students got first-class certificates for the complete course and 9 students a second-class certificate. This creates a record for a single session. Several of the students received managers' certificates from the Home Office.

**New Irish Universities.** At a Conference in the City Hall, Dublin (September 3), the following resolution was adopted:—"That the Irish language, both written and oral, be made an essential subject for Matriculation, and up to the point where specialization begins, in the new Universities; that proper provision be made for the teaching of Irish in all the colleges of the new Universities; and that there should be Chairs of Irish Economics, Industries, and Agriculture." A resolution was also adopted stating that Irish should be made a compulsory subject in the National Board's training colleges for teachers.

## THE BRITISH ASSOCIATION EDUCATIONAL SCIENCE SECTION.

### USEFUL KNOWLEDGE.

Address by Prof. L. C. MIALL, D.Sc., F.R.S., President of the Section.

I PROPOSE to speak to you about useful knowledge, and you will, I think, admit the importance and the appropriateness of the subject. . . . I do not wish to exaggerate the importance of useful knowledge. It is not everything, nor yet the highest thing, in education. . . . But the fact that useful knowledge occupies nearly all the school time shows its practical importance, and disposes us to welcome any means of making it more effective.

### BOOK-LEARNING.

The knowledge of books may be an excellent form of useful knowledge; it may also, when it strives merely to record and remember, be unproductive and stupefying. . . . It has been the ambition of many scholars to read everything that was worth reading, and to fill great volumes with the imperfectly digested fragments. In the ages of learning, the schoolmaster too became a pedant. His chief duty he supposed to consist in furnishing his boys with knowledge which they might some day want. If it were not that Nature has endowed schoolboys with a healthy power of resistance, their memories might have come to resemble the houses of those who believe that whenever they throw a thing away they are sure to want it again—houses in which room after room is so packed with antiquated lumber as to be uninhabitable.

The Renaissance called up men who made a vigorous protest against unused learning. Rabelais put into grotesque Latin his opinion that the most learned scholars may be far from the wisest of men. Montaigne said over again in pointed phrases what common-sense people had been saying for ages, that he who knows most is not always he who knows best; that undigested food does not nourish; that memory-knowledge is not properly knowledge at all. . . . Happily for us, a great deal that we once knew, and might foolishly wish to keep, quickly fades from the memory. . . . What we remember so greatly exceeds what we can use that we need not deeply regret the loss that is always going on. . . . No doubt we often find it necessary to recall a multitude of small facts, in order, it may be, to elicit a general conclusion or to produce a telling argument. But is it wise to prepare years in advance by storing all the facts in the memory? I cannot think so. The study of the bodies of animals teaches us that muscle and nerve, which are easily fatigued and require an abundant blood-supply, are never employed in Nature where bone or tendon will serve. Exercise of the memory involves nervous strain, and after an early age a considerable nervous strain. It is more economical and more businesslike to employ mechanical contrivances rather than brain tissue for such purposes, to leave the vast mass of useful facts in grammars, dictionaries, and textbooks, and to collect those for which we have a present use in the notebook or the card-index. There is another appliance which the serious student finds almost as useful as the notebook or the card-index—I mean the waste-paper basket.

The history of learning warns us that it is not good to lay up in our memories a great store of knowledge whose use lies far in the future. Apply to knowledge what moralists tell us about money. It is only the money that you may expect to put to use within a reasonable time that does you any good, and the same holds true of knowledge. Unused knowledge, like unused money, becomes corrupt. Uncritical, ill-mastered knowledge is, at its best, a knowledge of useful things, which, as Hazlitt points out, is not to be confounded with useful knowledge.

If I felt it necessary to show that all book-learning is not futile, I might dwell upon the great subjects of languages and history. But you will gladly allow me to pass on to branches of useful knowledge with which I am more familiar.

### SCIENCE.

It is the function of science to produce verifiable knowledge. Science achieved her earliest successes by investigating the simplest properties of tangible things—number, form, uniform motion. Here she learned how to combine the knowledge of many concrete facts into general statements, which (to the confusion of thought) we call scientific laws. Science applies her general statements to new cases, using facts to make general

statements and general statements to discover or verify facts, so that a considerable part of scientific knowledge is in perpetual use. Science is no longer content with the study of simple properties and tangible things. She will consider facts of every kind as soon as she can find the time. There is no hope of withdrawing from scientific treatment any kind of experience which the human senses or the operations of the human mind furnish; to be safe from the inroads of science, you must betake yourself to some study which does not meddle with facts.

Generalization involves incessant reference of effects to their causes. Facts can only be ill classified and superficially generalized so long as the causes of the facts remain uninvestigated. Science of any good kind sets up, therefore, the habit of methodical inquiry and the habit of reasoning—productive reasoning, we might call it, to distinguish it from the reasoning of the schools. The best examples of productive reasoning are to be found in the investigations of science, and especially of those experimental sciences which deal with simple tangible objects, whose properties can be studied one at a time.

The virtues of science are exactness, impartiality, candour. Scientific impartiality means the determination to accept no authority as binding except the assent of all competent persons. Scientific candour means perpetual readiness to revise opinions which are held in respect. Loyalty, except of one kind, loyalty to herself, science has no use for and does not cultivate.

I think it is true, but you can judge as well as I, that during the last four centuries there has been no generator of useful knowledge at all comparable with science.

#### SPENCER'S ESTIMATE OF THE PLACE OF SCIENCE IN EDUCATION.

Herbert Spencer has raised the question: What knowledge is of most worth? He considers knowledge in its bearing on life and health, on the gaining of a livelihood, on citizenship, on artistic production and enjoyment; lastly, as a means of discipline. The answer which he gives under each head is "Science"; that is his verdict on all the counts. A decision so clear, which is, moreover, powerfully and even eloquently supported, cannot fail to be impressive. It is naturally welcome to those who are devoted to the cause of science, and we can all see that, if accepted, it will simplify many troublesome questions. Will it not guide us in choosing a school staff, in drawing up a curriculum, in fixing the future occupations of our children?

But we must first scrutinize the verdict itself. Let us begin by putting a preliminary question so as to remove all risk of ambiguity. Who or what is to possess the knowledge whose worth is to be estimated? Spencer seems to contend that for everybody and under all possible circumstances science is that knowledge which is most valuable, but this is a conclusion hard to receive. There are persons who are intellectually unfit to acquire the scientific habit of mind, or who follow an occupation incompatible with any but a light and recreative study of science. Suppose that a youth is wholly uninterested in science; or that after fair trial he shows no capacity for it; or that he is eager to become a poet; or that he will inherit a lucrative business in which science plays no part; would not these propensities and circumstances modify our choice? I cannot believe that Spencer was so unpractical as to deny them any weight at all. Is it possible that he was thinking of mankind, of the British nation, or of some other large collection of men; that it is to the nation or the race that science will prove itself of most worth? If this is the right interpretation, we have some ground for blaming Spencer's neglect to mention so important a qualification. Those who admit that the nation requires scientific knowledge beyond knowledge of any other kind are not compelled to maintain that the individual man must give his chief attention to science. A minute division of labour, intellectual as well as manual, is necessary in modern life, and we become every day more dependent upon other people's knowledge. An elementary knowledge of many sciences, such as Spencer valued and himself possessed, steadily becomes less attainable, and less applicable to real business; less attainable, because the standard is always rising; what was a respectable acquaintance with science in the days when Spencer was educating himself would now be thought no better than a smattering; less applicable, because business now requires and commands the science of experts. . . . Obviously the best knowledge of any kind can only be possessed by a few.

Spencer seems to expect that every intelligent mother should enjoy a knowledge of human physiology which will be a sufficient practical guide for the rearing of a family; but here, too, I have my doubts. Since the first publication of his essay the require-

ments of human physiology have risen in a surprising degree. The knowledge that can be got by reading even so admirable a text-book as "Huxley's Lessons" does not nearly suffice for the practical adviser. On this point I can speak with experience. . . . A little knowledge may indeed be dangerous when it is applied to the diagnosis of disease or to sanitary construction.

Those who agree with me that the science which is applicable to industry or to public health is steadily growing harder of attainment will not, I hope, turn this into an argument for restricting the study of science to a few. The elementary science of the school, if good of its kind, is valuable for its effect upon the character and the intelligence; it is necessary for the timely discovery of young people who can be trained to carry on scientific discovery; and it engenders a sympathy with science which is of high importance to the State. If the science of the school does no more than make the phenomena of everyday life a little more comprehensible and a little more interesting, it will fully justify itself.

Spencer would, I feel sure, have admitted that even when science is to be the chief occupation of after-life, it should not occupy more than part of a well ordered course of school study. The chemist or physiologist often requires to express his own meaning by speech or writing; it will be highly advantageous that he should express it clearly and vigorously. He must get effective command of at least one foreign language. He ought to know enough mathematics and drawing to make his own calculations and sketches. He ought to have learned how to use books. Spencer does not exclude literature and the fine arts from education, but in his scheme they are not to claim very much. "As they occupy the leisure part of life, so should they occupy the leisure part of education."

I do not suppose for a moment that this passage was written with the intention of pouring contempt upon literature, and it is really appropriate to the current fiction which to-day is, and tomorrow is cast into the oven, but what insensibility to the claims of the higher literature it betrays! "On traite volontiers d'inutile," says Fontenelle, "ce qu'on ne sait point; c'est une espèce de vengeance."

These considerations move me to reject Spencer's verdict. There is not, and cannot be, a scale of usefulness by which everybody's choice can be at once determined. Before deciding what the schoolboy is to study we must inquire what are his aptitudes, inclinations, and opportunities. And the importance of science, which I do not think Spencer has exaggerated, will be fully recognized when every nation and city, every profession and trade, every person and interest, can be guided as often as need arises, not by their own scientific judgment, but by the judgment of scientific experts.

Every one agrees, in the abstract, that scientific information, the heap of scientific facts, is a small matter in comparison with scientific method and the scientific spirit. We do not, it is true, give effect to our convictions in practice. The teacher of science still loads the memory with facts; the examiner in science still passes or ploughs according to the quantity of facts that the candidates have got up. It requires an effort to keep hopeful, but we must go on steadily pointing out what we take to be the right way. The reformers of science teaching are now bent upon such improvements as these: they wish to see a greatly improved synthesis of the student's knowledge, so that the things that he learns in one place and from one teacher should be intimately combined with what he learns in another place and from another teacher. Further, they wish to see a large extension of personal inquiry and personal verification of the fundamental scientific facts. It is thus, we think, that the future man of science will become possessed of a compact and harmonious body of useful knowledge, which may in favourable cases incorporate with itself the experience of after-life and exhibit the incomparable virtue of healthy natural growth.

#### TECHNICAL EDUCATION.

Of technical learning I must say but little, and that little must be said with reserve. For my only acquaintance with the subject is indirect, and arises from long connexion with a city and University where technical education is prominent. I hope not to express presumptuous opinions on a kind of useful knowledge which I know so superficially.

Technical education may be pursued in at least three ways: (1) We may seek to qualify the pupil for his calling by a thorough training in some science or art, and then, by the application, under the guidance of an expert, of that science or art to a particular industry. The experience of at least two generations



seems to show that this method is really effective; it does what it professes to do. (2) The second method aims at no more than supplying information directly applicable to the industry in question. Surely this is the least profitable of the three. The information is not accurately lodged, either in the memory or in the notebooks of the students; it soon becomes obsolete in consequence of the advance of knowledge; and it does little to cultivate intelligence or the power of doing. Where intelligence and the power of doing already exist, mere information may be valuable, but the best storehouse of information is the printed book. (3) Lastly, we may aim at nothing more than facility by repetition. Such practical arts as reading, writing, drawing, needlework, and cookery are largely acquired by imitation and constant practice. Skill in these arts is a tool, whose profitable application depends much upon the intelligence and enterprise of the possessor. Independent attempts to meet difficulties, friendly criticism of these attempts, questioning about the causes of failure, are the expedients which a wise and experienced teacher, ever at hand, would employ. Such a teacher is, of course, rarely to be had, but is now and then found in a sensible mother. Perhaps the best substitute for the sensible mother would be plain, practical lessons on elementary science, such as the Edgeworths, Dawes, and Henslow used to give.

#### LITERATURE.

Literature differs from most kinds of useful knowledge in having an immediate value. Like beautiful scenery, health, liberty, friendship, and other felicities of life, it is good in itself, apart from the advantages which it brings. Nevertheless, literature is not satisfied with delighting. Like architecture, it aims at utility as well as beauty, and employs its power of delighting to instruct and guide.

The benefits which we receive from literature are comparable with those which we receive from good society. We are expected to enjoy and appreciate; we are not to be for ever asking: "What have I got that I can carry away?" Literature may be more than good society; it may compare with the intimate talk on grave subjects of a wise and high-minded friend. Unfortunately those whose office it is to introduce us to literature often treat it as if it were only a particular sort of useful knowledge. They occupy our attention so completely with grammar, metre, etymology, and historical allusions that we have no leisure to enjoy and appreciate. . . .

I have little fear that the scientific age which is now upon us will be permanently hurtful to literature. No new Lucretius, it may be, will write on the Universe, no new Milton on the Creation and the Fall. But contemplative and lyrical poetry will survive all changes in our philosophy. The higher criticism, which is the study of life as well as of letters, will survive too. One literary art, the art of rhetoric, may be weakened and lost when the scientific spirit becomes predominant—that sort of rhetoric, I mean, which may be fitly described as insincere eloquence. Rhetoric seeks above all to persuade, and, in a completely scientific age, men will only allow themselves to be persuaded by force of reason. Even in our imperfectly scientific age those men gain most by speech who have something important to say, who say no more than they know, and who use all possible plainness.

It will be enough for my present purpose if we can agree that literature has an aim and purpose of its own, and must not be treated simply as a branch of useful knowledge. Literature and science, for instance, are incommensurable.

#### THE NECESSITY OF CHOOSING.

It is an intellectual luxury to run over the kinds of useful knowledge that we should like to possess. Among them come languages, ancient and modern, some giving access to high literature, some yielding historical or scientific information, some acquainting us with communities or modes of thought very unlike our own. Then come a multitude of sciences, which, perhaps, show the engineer how to build railway bridges or tell the navigator how to cross the Atlantic or help us to improve our health and lengthen our lives. I barely mention history, geography, and innumerable practical arts. We seem to be led into a well filled treasury and invited to say what we will have. But one unpleasant condition is laid down—we may choose what we please, but we must pay for it. A new study generally means outlay of money and always means outlay of time. We soon find ourselves forced to behave like the man whose wife has tempted him into a fine London shop. Like him, we begin to ask: "How much can I afford to spend here?"

Every head master and head mistress is occupied with the eternal question how to make room for all the things that are demanded of the school. Theorizers, who have no responsibility for the time-table, insist from time to time upon new additions, and are happy if they can only express their own opinions with an emphasis which satisfies their sense of justice. It is my opinion that far too much has already been conceded to demands which, reasonable when taken separately, are unreasonable when taken together. I have known the time-table of a girls' school overloaded to such a point that in one form chemistry and English literature got no more than an hour a week between them. The head mistress, no doubt, hated the arrangement, but had to conform.

I have said that the grounds for introducing each separate subject are often perfectly reasonable. Thus, by ancient usage, Latin is made a necessary subject in certain schools. Then a claim is put in for Greek as more interesting and equally important. French and German demand admission, and put forward claims which can hardly be overstated. The result is that some boys in secondary schools attempt four languages, and many attempt three. Then we usually find that no foreign language, ancient or modern, is mastered to the point at which it can be used in reading, writing, or conversation. Our wish to be fair and consistent has landed us in an absurdity. The root of the whole difficulty lies in the fact that, while there are perhaps fifteen or twenty branches of knowledge eminently fit to be taught in school, no pupil can profitably undertake more than five or six at a time. . . . I wish that the head master or head mistress might find courage and strength to require that every subject admitted to the curriculum should come round frequently, at least for two or three years, as nearly as may be once a day, but we cannot be rigid in these matters.

The sciences taught in school may spoil one another's chances in the same way. Not a few schools are convinced that they must have chemistry and physics because of their industrial importance, hygiene because of its relation to the health of the community, physiology to make the hygiene intelligible. The schoolboy is made to buy more sciences than he can pay for, and his time is gone before he reaps any of the advantages which are so much desired.

#### TOO MUCH AND TOO LONG.

One inevitable result is that the school hours, including the preparation of lessons, are nearly always too long. Another result is that the schoolboy who is willing, but not very clever, is often overworked. I have known many such cases myself, and have also known cases in which excellent results have been attained in a good deal less than the customary time. If we could consent that our pupils should remain ignorant of many useful things, if we could materially shorten the lessons of very young pupils, and if we could bring the home lessons into much smaller compass, I believe that the education which we offer would really be more valuable.

#### NATURAL AND ARTIFICIAL EDUCATION.

If we had a pupil put into our hands for solitary instruction, like the Emile of Rousseau, we should find it wise to begin by studying him closely, and three things would particularly require attention—his aptitudes, his inclinations, his opportunities. The first two are self-explanatory, but the word "opportunities" may present some difficulties. It includes, of course, opportunity of learning, but the chief stress is to be laid upon opportunity of exercise in after-life. This is the opportunity which stimulates interest and rewards exertion. Moral character, intellectual character, curiosity, love of knowledge, equipment for practical life, and, so far as I can see, all considerations which ought to govern the choice of a study, come under one or other of the three requisites—aptitude, inclination, opportunity.

In school we have not so much solitary pupils as groups of pupils to consider, and this compels us to accept compromises which are familiar to every teacher. We have often to study the wants of a school form as well as the wants of an individual.

Some writers have given to the education which considers first of all aptitude, inclination, opportunity, the name of "Natural Education," while that which makes its choice of studies on abstract or arbitrary grounds, with little reference to the needs of the pupil, they call "Artificial Education." We may be allowed to revive these terms for the sake of brevity. To me they seem appropriate as well as convenient in practice.

The advocates of natural education have sometimes reached absurdity by pressing the claims of one of the three requisites to the neglect of the rest. Tolstoy would make inclination supreme,

even in early education. He exemplifies Quick's remark that writers on the school course who are not schoolmasters are almost all revolutionary. Others have attended too exclusively to the opportunity of future exercise. The old grammar schools, thinking much of the future wants of the pupils who might wish to enter the Church, often added Hebrew to the compulsory Latin and Greek. Fortification was frequently taught to little boys. When the Berlin Realschule was founded (1747) it offered, among other things, instruction in the rearing of silkworms and the discrimination of ninety kinds of leather.

Nothing, I think, gives us a clearer notion of what natural education can accomplish under favourable circumstances than foreign travel, which is a form of self-education prescribed by grown-up people to themselves. Even the milder forms of compulsion are wanting here; aptitude, inclination, and opportunity are everything. The preparation, the actual journey, and the recollections yield abundance of instruction to those who use them well. For weeks before setting out the traveller will turn over maps and conversation books, inquire about handy cameras or collecting boxes, and study the country which he is about to visit with an eagerness which he never felt before. The journey itself, if only it be such a journey as an active mind will frame, cannot but call forth many powers, physical, intellectual, and moral, that are rarely exercised at home. The love of science, the love of languages, the love of scenery, the love of adventure, the love of society, the love of poetry, all get a new stimulus. And the journey, already profitable in anticipation and in execution, is not exhausted when we return home. Our experiences in unfamiliar countries vivify many a page of history and many a scrap of useful knowledge which would have been otherwise languidly remarked or passed by altogether.

Let us suppose that all is done, not *by* the traveller, but *for* him, that routes are chosen, hotel bills paid, carriages and boats hired, languages interpreted, information supplied, all without effort on his part. In a few months he will barely remember what places he has seen and what he has passed by. This may remind us that natural education is only kept alive by *doing*.

Of course the grown-up person is not like a child, and there is need of steady and impartial government, of drill, in short, if the child is to take all the pains that are indispensably necessary in school work. All our teaching cannot be recreative. Does not this show, some of you will say, that your natural education is inadequate, and that a sterner thing, which takes little or no account of inclination, is demanded in school? I think not. I think that inclination is a power that we ought to employ as often and as far as we can. No doubt it is inadequate; our very definition makes inclination only one of three requisites. The child at school may usefully remind us that the opportunity of future exercise in some cases becomes necessity, and will take no denial. Nevertheless all three should be considered, and that teacher will prosper best who lets none of them drop out of sight. Do not forget, too, that inclination is the modifiable requisite; we can stimulate, and even create it; we can also fatally discourage it. It is only natural education, I still maintain, which can count upon the energetic co-operation of the child.

On the other hand, if we ignore aptitude, inclination, and opportunity—if we pour out information upon which the pupil does no work, merely because we think it ought to be good for him, then we have a dull, perhaps a sullen, mind to deal with, which neither will nor can learn to good purpose. The example for all time of artificial education is, or lately was, the setting of every boy in every grammar school to learn Latin, if not Latin and Greek.

Those who believe that natural education is at once the most formative and the most productive, that it helps to build up body and mind, that it encourages the acquisition of truly useful knowledge, should attend to one point which often escapes notice. Natural education demands leisure for the pupil. At the present moment the leisure of the pupil has been reduced to a very small amount indeed. We strive for efficiency, for good examination results, for knowledge of useful things. The negligence of the old race of schoolmasters, which winked at monstrous abuses but allowed a certain independent school-life, has been replaced by zeal and conscientiousness, which occupy every hour, and sometimes treat independent occupations as mere idleness. Long rambles, such as were the delight of my boyhood, when we used to go miles in search of a wasp's nest, are in certain modern schools abolished by compulsory games. Some day or other (the reform will not come in my time) we shall recognize that the chief occupation of the young child should be spontaneous natural play. . . .

#### HEURISTIC METHODS.

Dr. Armstrong's heuristic method is well known in this section. He tells us that neither the name nor the thing is altogether new, and the same may be said of nearly every educational expedient. Promising schemes are proposed, tried perhaps on a small scale, and dropped, often for lack of enterprise on the part of the teachers, and years after some one discovers them again. Dr. Armstrong tells us where he got the name and quotes a passage from Edmund Burke, which clearly describes the method. It is now a good many years since I saw Mr. Heller give several lessons on this plan in elementary schools in London, and was then permanently convinced of the real value of the heuristic method. I only wish that we had a score of such, each worked out as carefully as Dr. Armstrong's model.

The method need not be confined to experimental science, nor to science at all. I have attempted something of the same kind in elementary biology. Why should not teachers of history carry out a little historical research with the help of an upper form? Suppose that the subject chosen was English town and country life in the sixteenth century. Harrison's "Description of England," Shakespeare's plays, Walton's "Lives," some of the modern books which collect the testimony of foreign visitors during the reigns of Elizabeth and James I., Spenser's "View of the State of Ireland," and Hume Brown's "Scotland before 1700" are, let us suppose, accessible to the class. Useful materials from these and any other sources might be arranged in a card-index. Co-operation is eminently desirable, and a little club of pupils might well make their index in common. Then the materials should be treated in literary form, every detail of literary workmanship receiving attention. I fully expect to be told that this plan has actually been tried in some school or other. The historical researches of the school may give opportunity for the use of foreign languages, for map drawing, or for the handling of statistical information. . . .

The advocates of learning by inquiry and learning by doing will descend even into the nursery. What an opportunity is afforded by toys!—an opportunity that those who purchase all their children's toys throw away. Surely every little girl ought to be encouraged to make plausible dolls out of the rag-bag, every little boy to make his own menagerie, his own boats and whistles and sledges. Even the bought toy gives opportunity for inquiry. Ask any child if he has noticed that the animals of the Noah's Ark are always thicker at one end, usually the hinder end. There is a reason for this, and a curious reason, which the child may be helped to discover.

#### MASTERY OF SOMETHING.

Let us indulge less than we do the passion of intellectual avarice, if only because avarice blinds us to the relative values of things. The old French anatomist Méry said of himself and his colleagues that they were like the rag-pickers of Paris, who knew every street and alley, but had no notion of what went on in the houses. The accumulation of miscellaneous knowledge of useful things—copious, inexact, inapplicable—may, like rag-picking, leave us ignorant of the world in which we live. Let us try to reach the inner life of something, great or small. The truly useful knowledge is mastery. Mastery does not come by listening while somebody explains; it is the reward of effort. Effort, again, is inspired by interest and sense of duty. Interest alone may tire too quickly; sense of duty alone may grow formal and unintelligent. Mastery comes by attending long to a particular thing—by inquiring, by looking hard at things, by handling and doing, by contriving and trying, by forming good habits of work, and especially the habit of distinguishing between the things that signify and those that do not.

It is too much to expect that mastery will often be attained in school. School is but a preparation, not, I think, for promiscuous learning, but for the business of life. The school will have done its part if in favourable cases it has set a pattern which will afterwards develop itself naturally and harmoniously.

#### SCIENCE IN SECONDARY SCHOOLS.

A Sub-Committee of the Committee on the Curricula of Secondary Schools, consisting of Prof. R. A. Gregory (Chairman), Mr. W. D. Eggar, Mr. O. H. Latter, Mr. Hugh Richardson, Mr. C. M. Stuart, and Mr. G. F. Daniell (Secretary) presented their report of an inquiry into the sequence of studies in the

Science Curriculum. The following extract from the circular letter will show the scope of the inquiry:—

The Sub-Committee charged to make inquiries about the best sequence of scientific studies in boys' secondary schools (which for purposes of this inquiry may be taken to mean schools other than public elementary or technical institutions) recognize that the actual order in which science subjects are taught depends upon a variety of circumstances. Such are the type of school, local conditions, the future career of pupils, external examinations, and the personal preferences and qualifications of teachers.

But we suspect that there is a natural order of treatment which is indicated by the mutual interdependence of the subjects, and to an even more important degree by the brain development of the pupil. We anticipate that, from the replies of experienced teachers, inspectors, and examiners, we shall obtain trustworthy information on this question.

It seems of importance to specify the average age of the class in which the work has been done; to describe the method of teaching, giving an indication of the relative importance (a) of lectures, tutorial work, laboratory work, and (b) of text-books used by the boys, dictated notes, notes composed by the boys.

A series of specific questions—questions relating to the sequence of studies in the science section of the curriculum of boys' schools—were submitted to the science masters and inspectors who were consulted. The results of the inquiry are summarized. Following are the conclusions:—

#### OPINIONS AND RECOMMENDATIONS OF THE SUB-COMMITTEE.

(1) The organization of the studies of chemistry and physics, and especially their correlation, shows marked improvement, both in secondary day schools and in the "sides" of those large public schools in which the science work is regarded as an important part of the general intellectual training.

(2) The attention universally given to laboratory practice and to the development in the boys of the powers of *doing* and *describing* deserves nothing but praise. The considerable degree of freedom given to teachers has clearly encouraged independent experiment and thoughtful criticism as regards their work. The resulting variety and elasticity in their methods is, in our judgment, a good feature which we wish to preserve. As indicated below, we desire to give greater freedom to teachers by modification of the influence of examinations.

(3) We are in sympathy with the endeavour of the Public Schools Science Masters' Association to overcome the neglect of science in preparatory schools. The boys should be made to feel from the first that the study of science is an essential part of their education. Both in the preparatory departments of day schools and in preparatory schools some mensuration should be included as part of the mathematical work. But an essential part of the preparatory course in science should be natural history (including some physical geography) and the rudiments of physics. The real value of these studies depends upon training in observation.

(4) No school course can be considered complete without at least two years' systematic practical work in science. We direct the careful attention of head masters as well as science masters to the problem of how, without overpressure, to make the study of science an intellectually fruitful and stimulating part of the work in higher secondary schools of those boys whose special gifts are linguistic or literary. We think that the value of sound scientific literature of a general character and of good lectures well illustrated for older and intellectual boys is underrated. Evolution, geology, electricity, optics, sound, human physiology, and astronomy seem suitable subjects. The feeling that there has been of late years a loss of popular interest in science is shared by your Committee, who feel that we must look to the schools to improve matters. While fully recognizing the importance of quantitative methods, we feel that qualitative work also deserves encouragement and respect. We wish to avoid producing the student described by Prof. J. J. Thomson (Section A, Liverpool, 1896) in the words, "he commences his career by knowing how to measure or weigh every physical quantity under the sun, but with little desire or enthusiasm to have anything to do with them."

(5) We are struck with the unanimity shown by our correspondents concerning the influence of external examinations upon the teaching of science. This influence is found to be harmful. The harm is produced partly by having to work along the lines of too rigid a syllabus, but chiefly from the fact that science is intended to teach *principles*, while the examination asks for *details*. A boy may have derived the full benefit from a course of science lessons without remembering the experiments therein; for the examination, however, he has not to repeat these experiments; he has to memorize them, and to study how to re-

produce what he remembers in the approved examination style. Anything further from true scientific method could not possibly be conceived. It has been suggested that the written and practical examination should be replaced by, or include, an oral examination based upon the candidate's own work as shown in his notebooks, leading on to its application to other problems, and the plan is worth trying; it is hoped that some examining bodies may be induced to make some experiments in this direction. Working on the lines of a prescribed syllabus limits the teacher's initiative and discourages research methods. The syllabus in nearly all cases prescribes too much for the majority of schools, and, therefore, too much is attempted in the schools. This prevents sufficient attention to the scientific method of inquiry. There are many branches of science, but one scientific method. This consists in obtaining facts and ideas by experiment or observation, classifying and comparing them, and discovering a formula or principle to express them. All the school work in science should be imbued with the aim of cultivating an appreciation of and familiarity with scientific method. Examinations will continue to impede this aim in so far as the school work is forced to conform to the examination rather than *vice versa*.

(6) We desire a more extended recognition of geography as a science subject in association with elementary geology. Rightly taught by means of exercises, both in and out of school, geography is capable of providing a training in scientific method, of inspiring interest in natural phenomena, and of co-ordinating work in many branches of science.

(7) We are of opinion that more attention may wisely be given to the claims of biology in upper forms.

(8) We note with satisfaction that the necessary correlation is observed as regards chemistry and physics. We find that there is too little correlation of (a) mathematics with physics, (b) chemistry with English composition, (c) Nature study with art, (d) physics with workshop instruction, (e) geography with all other branches, especially meteorology and Nature study. The need for more correlation of mathematics and physics implies the need for more co-operation between teachers of those subjects. We believe that the classification into mathematical sets might be accepted by the science masters as the classification for science sets also. It should be pointed out that much of the work which has been done in the physical laboratory can advantageously be transferred to the mathematical classes. Mensuration, including the greater part of the work frequently described as elementary physical measurements, should be part of the mathematical teaching. The work in the physical laboratory should, even at the beginning, be of a truly experimental character.

(9) We are impressed with the need of bringing all science work into closer touch with everyday experience (see Prof. Miers's Address to the Public Schools Science Masters' Association, January, 1908, published in an abridged form in the *School World*, March, 1908).

(10) We question the value of the stream of elementary text-books continually poured forth. The multiplication of such books is an impediment rather than an aid to progress. On the other hand, there is a need of inspiring and well written books on scientific works and achievements. It is unwise to limit a boy's ideas in science to the narrow experience he can gain in a laboratory or can hear in a classroom; such a course must in many cases lead to distaste for science. What is wanted is a scholarly literature of science.

(11) There are too few laboratory assistants in secondary schools of all types; a most wasteful "economy."

#### TRAINING FOR TEACHING.

By CHARLES MACGREGOR.

No system of training will ever produce finished teachers; but every system should send forth students with some knowledge of the principles and methods of teaching, and with so much skill in practice as will bridge the gap between experience and inexperience, and serve to lessen the difficulties of that first period of responsible work which is often so profitless to the pupils and painful to the teacher. The students should go forth knowing what has been thought and done educationally in the past, knowing the best that has been thought and done in the present, aware that education is in process of evolution, and full of the desire to contribute to its advance.

1. Sound knowledge is the first essential for teaching of the right kind, and any satisfactory system must be based on a sound general education, or must provide for that. The ordinary

school subjects of English, science, mathematics, history, and geography should be restudied with more maturity of mind, on a higher intellectual plane, and in a more philosophical manner than is possible in a secondary or preparatory school. Concentration of effort should also be aimed at, and the subjects not spread over the whole course, as in the Ecoles Normales, and in some of the German Seminars and of our own colleges.

2. The students must know not only the material they are to work with, but also the material they are to work upon. They must go through a serious course of psychology, not introspective psychology only, but experimental psychology, and, above all, child study. With the study of the mind must proceed the study of the body, and this also must be thoroughly practical, under a competent medical officer. It might include a little anthropometry. A third part of this division should include a short course in ethics, helping the students to the better consideration of the problems of moral education. All this work—psychology, hygiene, and ethics—must possess a vital connexion with the students' work in the schools.

3. To the knowledge of the materials students are to use, and the knowledge of the material they are to work on, must be added knowledge of the methods by which these are to be connected and skill in their use. This involves (a) history and science of education; (b) study of particular methods of teaching school subjects; and (c) practice in teaching. Needless to say, these three must be correlated in the closest possible fashion. Detachment is disastrous.

(a) The history must be brought up to date and include the work of Parker and Dewey, as well as that of Herbart or Rousseau. There should certainly be also a course of lectures on educational systems of other countries, and at least an introduction given to the valuable stores of material in the Board of Education Reports.

(b) In connexion with the study of methods there should be a special school at the Centre, where students may see methods and experiments which they are not likely to see in the ordinary schools. (It is a misfortune that our City schools are not used to some extent for experimental purposes. Some blind experimentation goes on, but little conscious experiment towards a definite issue, and no systematic examination and comparison of results. Joint Committees of Head Masters, School Board, Training Authorities, and of the local Inspectorate could do valuable work in this direction.) Each student should be accustomed to the idea of experiment in education, and each also should have to prepare a thesis requiring observational, if not experimental, work.

(c) An effective system of training, besides providing for such school work as will give reality to the studies already mentioned, must allow for an adequate amount of practice in teaching. A student may have an excellent knowledge of methods and yet make a poor use of them.

The period of training for non-University students should be three years, and for University students four. The following is an outline of a suitable arrangement of the professional work for the non-University students.

*First Year.*—Psychology, experimental psychology and child study = 100 hours; hygiene = 40 hours; ethics = 20 to 30 hours; two hours per week in the schools, chiefly for observational and experimental work correlated with these subjects.

*Second Year.*—History and science of education = 100 hours; methods, criticism, and demonstration lessons at the Centre = 60 hours; attendance at schools two hours per week during the winter and four during the summer = 80 hours. At the beginning of the summer should be given out the subject for a thesis, to be handed in at the end of the following winter.

*Third Year.*—About six hours per week of teaching practice and at least a fortnight's continuous teaching = 150 to 200 hours; work on thesis and oral on same; special study for kindergarten, housewifery, or rural courses = 200 hours.

During the last two years great advance has been made in Scotland in the provisions for the training of teachers. The country is divided into four provinces, with Centres at the four University towns. The gathering of students into these Centres where they can have the best educational facilities has been rendered possible by the grant of use of the public schools for practice purposes, one of the most valuable features of the new regime. There are courses of training for elementary- and for secondary-school teachers, as well as for teachers of special subjects (art, &c.). For the last two classes the period of training is one year; for the first class, two years if they are not graduating, and three if they are.

The two-year course is, in practice, a fairly crowded one of 1,800 hours, one third of which are given up to professional work—education, psychology, hygiene, logic, ethics, methods, and teaching; the other two-thirds are for "culture subjects"—science, mathematics, &c. The regulations, however, permit of the omission of any subject of general education from the curriculum. Of the time for professional work, about 250 hours are allowed for the study of methods and practice in teaching. This period is devoted to lectures and discussions on methods, to demonstration and criticism lessons, and to properly supervised practice in the schools. It will be seen that the provisions go a considerable way towards meeting the requirements set forth above.

### SALARIES AT BÂLE.

(From the *Neue Züricher Zeitung*.)

THE staff of the Gymnasium at Bâle have addressed a printed memorandum to the Education Department asking for a revision of the system of salaries. They begin by pointing out—and that with perfect justice—that the existing system, basing salaries on the number of hours during which each teacher is employed per week, compels the masters at the Gymnasium to teach for more hours weekly than are compatible with the really conscientious performance of their duties. The regulations presuppose that the teachers in higher schools will, as a rule, teach for 27 to 28 hours weekly, those in middle schools for 30. The length of time is too great for a master in a Gymnasium, who is rightly expected to remain in touch with the progress of knowledge. Thus he has to choose between two alternatives, both equally prejudicial to the school in which he is employed: either he must not take full work, or he must give up any idea of further study or research. The memorandum points out that the number of hours required of a teacher in the Bâle Gymnasium is considerably greater than what is expected in similar schools in other countries and in other cantons of Switzerland (Bâle 25 to 30, France 15, Prussia 22, Zurich 20 to 22, Lucerne 20, &c.). In spite of the proportionately low average of hours in the German Gymnasiums, recognized medical and educational authorities have protested against the overworking of the teachers in the higher schools. In 1899 the Medical Congress at Munich formulated almost unanimously the following recommendation: "To get rid of the prevalent overpressure of the teachers in the higher schools, their normal weekly work should be fixed at 16 to 18 hours at most."

But the system of payment by time, still existing in Bâle, but long since abolished in other cantons and replaced by fixed salaries with a strictly limited number of hours, is incompatible with the reforms demanded by medical and educational experts in the interest of the schools. The Bâle system seems really intended to secure the most complete exploitation of the teacher's strength. Moreover, on purely educational grounds it is desirable to adopt the system preferred in other cantons, at any rate in schools in which specialists are employed even in the lower classes. For the necessity imposed by the Bâle system of making up each teacher's hours to a prescribed number often frustrates the best intentions of drawing up the time-table on sound educational principles. Unity and consistency of method are essential conditions of success, especially in the lower classes. But, under the Bâle system, with the different numbers of hours assigned to each subject in the several classes, it is often impossible for the teacher to move up with his class. Moreover, subordinate subjects, such as geography and history, must often be utilized to make up the time-table of this or that teacher. Hence arises a frequent change of teachers, involving great difficulties both for them and for their pupils, and often preventing the growth of a feeling of pleasure and satisfaction in the work.

PROF. BORGMAN has resigned the Rectorship of St. Petersburg University as a protest against the policy of the Minister of Education. It is also reported that the Council of Ministers has empowered the Minister of Public Instruction to forbid women to attend University lectures in future, but to permit those who have already received permission, and whose transfer to higher educational institutions for women is impossible, to complete their studies at Universities.

## MACMILLAN & CO.'S NEW BOOKS.

# A SCHOOL ARITHMETIC.

By **H. S. HALL, M.A.**, and **F. H. STEVENS, M.A.**

Complete, with Answers, 4s. 6d.; without Answers, 3s. 6d. Or, in Two Parts—Part I., with Answers, 2s. 6d.; without Answers, 2s. Part II., with Answers, 2s. 6d.; without Answers, 2s. Answers, 1s. KEY in Preparation.

This work follows closely the recommendations of the Mathematical Association.

## A Modern Arithmetic with Graphic and Practical Exercises.

By **H. SYDNEY JONES, M.A.** Parts I. and II., with or without Answers, 2s. 6d. each. Complete, with or without Answers, 4s. 6d.

## A New Algebra.

By **S. BARNARD, M.A.**, and **J. M. CHILD, B.A., B.Sc.**

Volume I., containing Parts I., II., and III. 2s. 6d.

Part I.—A generalized Arithmetic in which letters are employed to represent Natural Numbers and the idea of Algebraic Form is introduced.

Parts II. and III.—Zero and Negative Numbers and Fractions are considered. These two new classes of numbers are defined so that the expressions  $a-b$  and  $a/b$  may always have a meaning.

## PRACTICAL ARITHMETIC AND MENSURATION.

By **F. CASTLE, M.I.M.E.** 2s.

## MACMILLAN'S OROGRAPHICAL MAP OF EUROPE.

Designed by **B. B. DICKINSON, M.A.**, and **A. W. ANDREWS, M.A.** Cloth, mounted on Rollers, 15s. ALSO NOTES TO SAME, limp cloth, 1s.

## INDEXING AND PRÉCIS WRITING.

By **G. B. BEAK, M.A., F.R.G.S.** Limp cloth, 2s. 6d. KEY to same, 1s. 6d. net.

## A LATIN READING BOOK. Gotham and other Stories.

By **Rev. E. D. STONE**, formerly Fellow of King's College, Cambridge, and Assistant Master at Eton. Crown 8vo, 1s. 6d.

## SIEPMANN'S PRIMARY FRENCH SERIES. NEW VOL. Le Lac de Gers.

Par **RODOLPHE TOPFFER**. Adapted and edited by **F. L. CARTER, M.A.** Globe 8vo, limp cloth, 1s.

MACMILLAN & CO., LTD., ST. MARTIN'S STREET, LONDON, W.C.

## THE EDUCATIONAL SUPPLY ASSOCIATION, LTD., 42 HOLBORN VIADUCT, LONDON,

SUPPLY EVERY SCHOOL REQUISITE,

PUBLISH AND SEND GRATIS AND POST FREE THE FOLLOWING CATALOGUES:—

CATALOGUE OF SCHOOL STATIONERY AND REQUISITES;

CATALOGUE OF SCHOOL FURNITURE;

CATALOGUE OF SCHOOL TEXT-BOOKS;

CATALOGUE OF REWARD BOOKS AND PRIZES;

CATALOGUE OF CHEMICAL APPARATUS, CHEMICALS, AND REAGENTS.

## Requisites for Geometrical Drawing.

THE EDUCATIONAL SUPPLY ASSOCIATION has prepared a series of Boxes of Mathematical Instruments suited to the new requirements concerning Geometrical Drawing. The instruments are in all cases thoroughly reliable; they are manufactured expressly for the Association, some of the articles being protected by patents. As no unnecessary useless articles are included, a serviceable box of instruments is supplied of a better quality than would otherwise be possible and at a lower price than usually obtains for boxes of instruments of a similar quality.

### BOXES OF MATHEMATICAL INSTRUMENTS.

The "SCHOLARS" Box of Instruments. 1s. per Box.

Cloth-covered box, containing Brass Pencil Compass to take any size pencil, Lead Pencil, two Set Squares, Six-inch Boxwood Rule, and Protractor.

The "PREPARATORY SCHOOLS" Box of Instruments. 1s. 4d. per Box.

Cloth-covered box, containing Patent Brass Pencil Compass, Divider Point, Black Lead Pencil, Compass Pencil, two Set Squares, Brass Semi-circular Protractor, Six-inch Rule marked centimetres, &c.

The "CAMBRIDGE" Box of Instruments. 1s. 9d. per Box.

Cloth-covered box, containing every instrument required by Students entering for the Cambridge Local Examinations in accordance with the Official Schedule.

### THE "SAFETY" MATHEMATICAL INSTRUMENTS (Patent).

The "SAFETY" Mathematical Instruments are provided with a bow head which can be detached and screwed over the steel point, thus protecting it from injury and rendering it safe to carry the instrument in a satchel or in the pocket. One great advantage of these instruments is that, if the protecting portion is lost, an ordinary compass still remains; the compass takes a pencil of any size.

The "VIADUCT SAFETY" Pencil Compass ... .. 6s. 6d. per dozen.

The "VIADUCT SAFETY" Divider ... .. 5s. 6d. per dozen.

### RULED PAPER FOR MATHEMATICS.

The Ruled Paper supplied by the Educational Supply Association is noted for the quality of the paper and the accuracy of the rulings. Papers with a great variety of rulings have been prepared—which are supplied either simply as paper or made up into books.

Samples and Particulars of these will be forwarded on application.

# CLERGY MUTUAL ASSURANCE SOCIETY,

2 &amp; 3 THE SANCTUARY, WESTMINSTER, S.W.

[FOUNDED 1829.]

Patrons—THE ARCHBISHOP OF CANTERBURY; THE ARCHBISHOP OF YORK.  
 President—THE BISHOP OF LONDON. Vice-President—THE LORD HARRIS.  
 Chairman—THE DEAN OF CANTERBURY. Deputy-Chairman—SIR PAGET BOWMAN, BART.  
 Secretary—W. N. NEALE, Esq. Actuary and Manager—FRANK B. WYATT, Esq., F.I.A.

The Society offers the **BENEFITS** of **MUTUAL LIFE ASSURANCE** without personal liability on highly favourable terms to  
**THE CLERGY AND THEIR RELATIVES.**

**ALL PROFITS BELONG TO THE MEMBERS.**

Accumulated Fund, **£4,242,820.**

Annual Income, **£453,897.**

Bonuses Distributed, **£4,256,464.**

## LOW PREMIUMS. LARGE BONUSES.

Notwithstanding the lowness of the Premiums charged, the **BONUSES** are on an **EXCEPTIONALLY HIGH SCALE.**

**NEW AND SPECIAL POLICIES.** Application is invited for the **PROSPECTUS**, and **Leaflets** explaining two new Policies, with valuable Options.

**1. WHOLE-LIFE CONVERTIBLE ASSURANCES.** Very Low Premium—about one half the usual rate—during first ten years.

**2. PENSION POLICIES.** Premiums returnable with compound interest in case of death or surrender before pension age. Option to commute for cash.

Assurances without profits, at low rates of premium, may be effected, and Life Annuities on favourable terms may be purchased, by any person irrespective of any special qualification by relationship to the Clergy.

## SPECIMEN OF RATES FOR £1,000, WITH PROFITS.

Age next Birthday.	£1,000 Payable at Death.			£1,000 Payable at Age 60 or earlier Death.		
	£.	s.	d.	£.	s.	d.
25	20	1	8	27	3	4
30	23	3	4	32	10	10
35	26	10	0	40	1	8
40	31	1	8	51	5	0

**NOTE.**—Under the Reduced Premium System (explained in Prospectus) four-fifths only of these Premiums need be paid, the other one-fifth remaining a charge to be repaid out of Bonus.

**No Agents employed and no Commission paid for the introduction of business, whereby £10,000 a year is saved to the Members.**

Assurances can be effected by direct communication with the Office, 2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

## FOR THE LOCAL EXAMINATIONS.

*NOW READY.*

## THE PRELIMINARY EDITION OF CARTER'S SCRIPTURE MANUALS.

### 1. ST. MATTHEW.

CROWN 8vo. CLOTH, 1s. NET.

Contains just what is wanted and no more. No difficult words. All explanations simple.

THE

## PRELIMINARY GEOGRAPHY

Of ENGLAND AND WALES, SCOTLAND, IRELAND, and INDIA, with an Introduction on **Physical Geography, Maps, Geographical Terms, position and climate in reference to Geography, &c., &c.**

By A. G. HAYNES, B.A.

CROWN 8vo. CLOTH, 1s.

**THE GEOGRAPHY OF INDIA** may be had separately, price 3d.

## SHORT FRENCH EXAMINATION PAPERS (110).

Each containing Six Idiomatic Sentences to render into French. Very useful for Oral Work. Second Edition. Price 2s. 6d., cloth.

"A very useful set of questions."—*Modern Language Quarterly*.  
 "We noticed at the time of its appearance this very useful collection of test papers, and need only here add that the key is full and accurate save for some obvious misprints and one or two slips that we have noticed."—*Journal of Education*.

A KEY, issued to Teachers and Private Students only, can be obtained from the Publishers, 6s. net. (A list of errata is issued with this.) By H. E. LADELL, M.A., late Head Master of the London International College, Isleworth.

## THE PUBLIC SCHOOL SPELLING CARD.

Fiftieth Thousand. Price 6d. By the same Author.

Containing nearly 1,000 words (in which actual mistakes have frequently been made, as collected from Dictations, Essays, Examination Papers, &c., during a period of more than fifteen years), with Rules.

Also, in Book Form, "HOW TO SPELL AND SPEAK ENGLISH." Third Edition. Price 1s.

This also embodies most of the errors in the sentences set for correction in the Examination Papers of the London Matriculation, the Oxford and Cambridge Locals, the College of Preceptors, &c.

## FRENCH ESSENTIALS AND FRENCH CONVERSATION SENTENCES.

Third Edition. Price 2s. cloth. By the same Author.

"This short grammar is compiled by a master who knows his business. The type is good, the arrangement good, and there is nothing superfluous."—*Journal of Education*.

"The sentences are a useful addition."—*Bookman*.

## BOOKS BY ALL PUBLISHERS IN STOCK.

LARGE STOCK OF STATIONERY READY FOR IMMEDIATE DESPATCH.

**PROMPT EXECUTION OF ORDERS GUARANTEED.**

**RELFE BROTHERS, LTD., 6 CHARTERHOUSE BUILDINGS, ALDERSGATE, LONDON, E.C.**

# SELECT LIST

OF BOOKS FOR

## SECONDARY SCHOOLS.

**Text-Book of Geography.** By G. C. FRY, M.Sc. 4s. 6d.  
 This book is intended for use in the upper forms of schools and by candidates for the London University Matriculation, the Teacher's Certificate and Preliminary Certificate, and other Examinations of similar standard. It deals with both general and Regional Geography.

**The Government of the United Kingdom, its Colonies and Dependencies.** By A. E. HOGAN, LL.D., B.A. 2s. 6d.

The treatment of the subject falls under the following headings:—Introduction — Legislature — Executive — Judicial System — Local Government — Imperial Government.

**Elements of the Duties and Rights of Citizenship.** By W. D. ASTON, B.A., LL.B. *Third Edition.* 1s. 6d.

"Might be well introduced as a text-book into the upper classes of secondary schools."—*Guardian.*

**The School Arithmetic.** An Edition of the *Tutorial Arithmetic* for School use. By W. P. WORKMAN, M.A., B.Sc., Head Master of Kingswood School, Bath. *Second Edition.* 3s. 6d. Also in two Parts:—Part I., 2s.; Part II., 2s.

"The best arithmetic for schools on the market."—*Mathematical Gazette.*

**Geometry. Theoretical and Practical.** By W. P. WORKMAN, M.A., B.Sc., and A. G. CRACKNELL, M.A., B.Sc.

PART I. Contains the matter of Euclid I., III. (1-84), IV. (1-9). With or without Answers. 2s. 6d.

PART II. Euclid II., III. (85-87), IV. (10-16), VI. 2s.

"One of the best books on modern lines."—*Oxford Magazine.*

**Plant Biology.** By Professor CAVERS, D.Sc., F.L.S., A.R.C.S., Professor of Biology at the Hartley University College, Southampton. 3s. 6d.

"The very best of the multitudinous works of this class that have passed through our hands."—*Guardian.*

**Life Histories of Common Plants.** By Professor F. CAVERS, D.Sc., F.L.S., A.R.C.S. 3s.

An Introductory Course of Botany based on the Experimental and Observational Study of Types.

**The New Matriculation Heat; The New Matriculation Light; The New Matriculation Sound.** By R. W. STEWART, D.Sc. 2s. 6d. each volume.

These volumes provide a complete school course of co-ordinated theoretical and practical work in Elementary Heat, Light, and Sound.

**Magnetism and Electricity, The School.** By R. H. JUDE, M.A., D.Sc. 3s. 6d.

"A useful text-book, that seems much sounder as regards fundamental conceptions than most elementary works on electricity."—*Oxford Magazine.*

**An Introductory Course to Chemistry.** By H. W. BAUSOR, M.A. 2s. 6d.

A text-book for beginners, written on modern lines.

**The Matriculation English Course.** By W. H. LOW, M.A., and JOHN BRIGGS, M.A., F.Z.S. 3s. 6d.

"The matter is clearly arranged, concisely and intelligently put, and marked by accurate scholarship and common sense."—*Guardian.*

**The Matriculation French Course.** By ERNEST WEEKLEY, M.A. *Third Edition, Enlarged.* 3s. 6d.

This book, though written primarily to meet the requirements of London University Matriculation Examination in French, is generally suitable as a school text-book, and as such has met with a wide adoption.

**The Tutorial Latin Grammar.** By B. J. HAYES, M.A., and W. F. MASOM, M.A. *Fourth Edition.* 3s. 6d.

"It is accurate and full without being overloaded with detail, and varieties of type are used with such effect as to minimize the work of the learner."—*Schoolmaster.*

**University Tutorial Press, Ltd.,**

W. B. CLIVE, 157 Drury Lane, London, W.C.

### ADVERTISEMENT SCALE.

Whole Page—Ordinary	£4 10 0	.....	Position	£5 10 0
Half Page	" 2 10 0	.....	"	3 0 0
Quarter Page	" 1 10 0	.....	"	1 15 0
Per inch in broad column (half width of page)	...			0 7 0
Narrow Column (one-third page)	.....			2 0 0

General Scholastic Advertisements (Colleges, Schools, Classes, Tuition, &c.), 3s. 6d. for 6 lines, or 4s. 6d. the inch.

Situations Vacant and Wanted—30 words or under, 2s.; each additional 10 words, 6d. (For 1s. extra, Replies may be addressed to the Publishing Office, and will be forwarded post free.)

### CURRENT EVENTS.

At the meeting of members of the College of Preceptors on October 23, Prof. J. Adams will read a paper on "The Teacher's Imperfections: How to deal with them."

ON October 1 Prof. Adams will deliver at the College of Preceptors the first of a course twelve lectures to teachers on "The Practical Teacher's Problems." The lectures will be given on successive Thursday evenings.

Mlle. A. M. GACHET will address the Société Nationale des Professeurs de Français en Angleterre on "La Femme Poète," at the College of Preceptors, on October 31, at 4 p.m.

THE General Meeting of the Classical Association will be held at Birmingham on October 8-10.

THE Board of Education Library is closed for the purpose of removal to the new building in Charles Street, Whitehall, and will not reopen until October 15.

IN connexion with the meeting of the British Honours Association the University of Dublin conferred the following honorary degrees:—

D.Sc.: Mr. Francis Darwin, F.R.S.; Sir David Gill, K.C.B., F.R.S.; Dr. William Napier Shaw, F.R.S.; Captain Henry George Lyons, F.R.S.; Prof. Horace Lamb, F.R.S.; Prof. Charles Scott Sherrington, F.R.S.; Prof. Ernest Rutherford, F.R.S.; Prof. Archibald Byron Macallum, F.R.S.; Dr. Albert Kossel; and Dr. Ambrose Arnold William Hubrecht.

M.D.: Sir Thomas Lauder Brunton, Bart., F.R.S.  
 LL.D.: Sir James Augustus Henry Murray.

MR. NORIE MILLAR, of Cleve, Chairman of Perth School Board, the Rev. Dr. John Smith, Chairman of Govan School Board, and Lord Newlands ("whose recent benefactions to the University of Glasgow merit the gratitude of the whole profession") have been elected honorary Fellows of the Educational Institute of Scotland.

THE Russian Minister of Public Instruction has announced that official sanction will not be accorded to any of the Russian Universities to grant honorary degrees to Count Tolstoy.

SIR JOHN HOLDER has presented to the University of Birmingham a stained glass window for the Great Hall, illustrating various branches of University work. The cost is about £1,000.

DR. HENRY JULIAN HUNTER has left some £14,000 to Sheffield University.

**Appointments  
and Vacancies.**

MR. ROBERT FORSYTH SCOTT, M.A., Fellow and Senior Bursar, has been elected Master, of St. John's College, Cambridge, in succession to the late Dr. Taylor.

THE REV. E. W. WATSON, M.A., Professor of Ecclesiastical History in King's College, London, and Rector of Sutton (Bedfordshire), has been appointed Regius Professor of Ecclesiastical History in the University of Oxford. (The appointment is understood to have been declined by Canon Hensley Henson.)

THE Chair of English Literature in the University of Birmingham is vacant through the lamented death of Prof. J. Churton Collins.

PROF. D. J. HAMILTON has resigned the Erasmus Wilson Chair of Pathology in Aberdeen University, which he has held since 1882.

MR. PERCY T. HERRING, M.D., assistant in the Physiology Department of Edinburgh University, has been appointed to the new Chandos Chair of Physiology in the United College, St. Andrews.

DR. HUGH MARSHALL, Lecturer in Chemistry, Mineralogy, and Crystallography in Edinburgh University, has been appointed Professor of Chemistry in University College, Dundee.

IN Queen's University, Kingston (Ontario), the Rev. Ernest F. Scott, M.A. Glas., B.A. Oxon., of the South U.F. Church, Prestwick, has been appointed Professor of Church History; and Mr. Archibald Young Campbell, of St. John's College, Cambridge, Assistant Professor of Classics.

MR. A. H. MACKENZIE, M.A. Aberd., has been appointed Professor of Science and Manual Training at the Training College for Secondary Teachers at Allahabad.

THE REV. W. LOWER CARTER has been appointed Lecturer in Geology in the East London College.

MR. ALFRED W. GIBB, M.A., D.Sc. Aberd., has been appointed Lecturer in Geology in Aberdeen University.

THE REV. WILLOUGHBY C. ALLEN, M.A., Exeter College, Oxford, has been appointed Principal of the Church of England Theological College, Manchester.

THE REV. A. W. PARRY, B.A., B.Sc., Principal of Exeter Training College, has been appointed Principal of the South Wales Training College.

MR. ERNEST B. LUDLAM, M.Sc. Vict., Science Master, Ackworth School, Pontefract, has been appointed Science Master in charge of the Chemistry Department at Clifton College, in succession to the late Mr. W. A. Shenstone, F.R.S.

MR. F. W. ROGERS, M.A. Dub., has resigned the Head Mastership of Chelmsford Grammar School.

MR. G. AIMER RUSSELL, M.A., B.Sc., Rector of Peterhead Academy, has been appointed Rector of Paisley Grammar School, in succession to Mr. James Stirling, retired.

MR. K. V. PLUM, M.A. Oxon., assistant master at Epsom College, has been appointed Head Master of Skipton Grammar School.

MR. C. H. HIRST WALKER, M.A. Oxon., F.C.S., Head Master of Oldbury Secondary School, has been appointed Principal of the new Secondary School, Whitehaven.

MR. JOHN HENDERSON STEWART, M.A., B.Sc., Science Master, Bathgate Academy, has been appointed Senior Science Master at Peterhead Academy.

Literary Items. AMONG the forthcoming publications of the Oxford University Press we note "The Renaissance and the Reformation," by E. M. Tanner; a revised text of Aristotle's "Poetics" (with critical introduction, English translation, and commentary), by Prof. Bywater; "The Moral System of Dante's 'Inferno,'" by W. H. V. Reade; and fresh additions to numerous valuable series. In the Student's Series of Historical and Comparative Grammars, a "Comparative Greek Grammar," by Prof. Joseph Wright, is next on the list.

THE Caxton Publishing Company announce a comprehensive work, "The Book of Nature Study," in six volumes, written by well known authorities and edited by Prof. J. Bretland Farmer, D.Sc., F.R.S., of the Royal College of Science, London. The aim is to give detailed and systematic guidance to parents and teachers in introducing children to the study of Nature. Technical language is avoided as far as possible. The work is elaborately illustrated, and will contain a series of folding models showing internal structures, &c.

AN English translation of the studies and notes appended to the French edition of the first volume of Stubbs's "Constitutional History," by M. Petit-Dutaillis, Rector of the University of Grenoble, has just been published by the Manchester University Press.

THE Walter Scott Publishing Company is issuing an illustrated edition of Wilson's "Tales of the Borders" in twenty-four 1s. pocket volumes, and a new edition of Ibsen's works in six volumes, edited by William Archer. Interesting additions to various popular series are also promised.

General. THE Board of Education are prepared to receive applications both from men and women who either are, or are qualified to become, secondary-school teachers and who desire to obtain employment for at least a year in Prussia as assistants in secondary schools. Similarly, the Board will receive annually from the Prussian Kultus Ministerium lists of candidates recommended for appointment to secondary schools in England. Full particulars and forms of application from the Director of Special Inquiries and Reports, the Board of Education, Whitehall, London.

THE buildings at Eton College constituting the memorial of Old Etonians that fell in the South African war are now completed. The original estimate of the cost was some £40,000. The work is in Renaissance style.

A CHAIR of Irish History has been founded in the University of Notre Dame—the largest Catholic educational institution in the United States.



CLASS LISTS

OF CANDIDATES WHO HAVE PASSED THE CERTIFICATE EXAMINATION OF THE COLLEGE OF PRECEPTORS.—JULY, 1908.

LIST OF SUCCESSFUL CANDIDATES AT COLONIAL CENTRES.

N.B.—The small italic letters denote that the Candidate to whose name they are attached was distinguished in the following subjects respectively:—

- a. = Arithmetic. | d. = Drawing. | f. = French. | ge. = German. | h. = History.
al. = Algebra. | e. = English. | g. = Geography. | gr. = Greek. | l. = Latin.
s. = Scripture.

The small figures 1 and 2 prefixed to names in the Second and Third Class Lists denote that the Candidates were entered for the First and Second Classes respectively.

[Bracketing of names denotes equality.]

BOYS.

- FIRST CLASS [OR SENIOR].—PASS DIVISION.
Turtle, M.A. d. Queen's Coll., Nassau, Bahamas
Lightbourn, P.M. Queen's Coll., Nassau, Bahamas
SECOND CLASS [OR JUNIOR].—HONOURS DIVISION.
Surrey, M.P. s.f.gr. Private tuition
Walker, C.C. d. Wei-hai-wei S.
Samarasinghe, W. al. Private tuition
Deutrom, C.F. al.fl. Private tuition
Dinsdale, F.A. g. Wei-hai-wei S.
Nicholas, C.J.S. a.al. Private tuition
SECOND CLASS [OR JUNIOR].—PASS DIVISION.
1Earl, H. Private tuition
Nagamuttu, C. Private tuition
Sandiford, S. St. Joseph's Inter. S., Georgetown, B. Guiana
De Silva, G.P. Private tuition
Coomaraswamy, E. City Coll., Colombo
Samarasinha, L.P. Private tuition
Vanderzell, T.C. Private tuition
Zubair, C.M.M. Private tuition
Puvirayasinghe, S.J. Private tuition
1Audries, G.E. Private tuition
De Silva, S. Private tuition
Rae, F.R. Queen's Coll., Nassau, Bahamas

- Kelly, H.N. Queen's Coll., Nassau, Bahamas
Bethel C.P. Queen's Coll., Nassau, Bahamas
Newman, W.P. Private tuition
THIRD CLASS.—HONOURS DIVISION.
Bowling, R.A.J. s.e.h.g.a. The Middle S., Georgetown, B. Guiana
Dinsdale, G.K. e.al. Wei-hai-wei S.
Dening, B.C. e.al.ge. Wei-hai-wei S.
Wong, R.A. s.e.a. The Middle S., Georgetown, B. Guiana
Clifton, F.W. a.d. Wei-hai-wei S.
Summers, J.F. al. Wei-hai-wei S.
THIRD CLASS.—PASS DIVISION.
2Newsam, H.A. St. Joseph's Inter. S., Georgetown, B. Guiana
2Sears, E. De W. Queen's Coll., Nassau, Bahamas
1Brito, A.L. E.J. Private tuition
Ammon, J. D'Rhune s.a. Werk-en-Rust Wesleyan S., Georgetown, B. Guiana
2Phillips, H. The Middle S., Georgetown, B. Guiana
Mansfield, J.G. a. Wei-hai-wei S.
Williams, D.H. a. Wei-hai-wei S.
Jones, F.S. C. e. St. Joseph's Inter. S., Georgetown, B. Guiana
Wei-hai-wei S.

- (Faria, A. s. The Middle S., Georgetown, B. Guiana
(Lammert, E.G. d. Wei-hai-wei S.
Seiman, O.C. a. St. Joseph's Inter. S., Georgetown, B. Guiana
Piercy, S.J. a. Werk-en-Rust Wesleyan S., Georgetown, B. Guiana
Ryllle, V.L.V. a. St. Joseph's Inter. S., Georgetown, B. Guiana
Munsie, E.W. s. Wei-hai-wei S.
Yhap, S. a. The Middle S., Georgetown, B. Guiana
Todd, J.F. The Middle S., Georgetown, B. Guiana
Christiani, J.L. St. Joseph's Inter. S., Georgetown, B. Guiana
Lightbourn, C.H. d. Queen's Coll., Nassau, Bahamas
Koo, J.T. The Middle S., Georgetown, B. Guiana
Babb, V.H. a. The Middle S., Georgetown, B. Guiana
2Sears, R.R. Queen's Coll., Nassau, Bahamas
Hughes, D.J. Wei-hai-wei S.
Jumbo, E.T. Bishop Crowther Memorial S., Abonema
Stoby, P.S. St. Joseph's Inter. S., Georgetown, B. Guiana
D'Andrade, C.F. St. Joseph's Inter. S., Georgetown, B. Guiana
Jack, A.H. Wei-hai-wei S.
Sylvester, E.L. a. Werk-en-Rust Wesleyan S., Georgetown, B. Guiana
D'Andrade, J.R. St. Joseph's Inter. S., Georgetown, B. Guiana

GIRLS.

- SECOND CLASS [OR JUNIOR].—PASS DIVISION.
De Weever, I. St. Joseph's Inter. S., Georgetown, B. Guiana
Lewis, E.E. The Middle S., Georgetown, B. Guiana
THIRD CLASS.—PASS DIVISION.
2Sweeting, R. al.d. Queen's Coll., Nassau, Bahamas
Bowe, L.E.O. Queen's Coll., Nassau, Bahamas
Callender, A. Ursuline Conv., Georgetown, B. Guiana
Spencer, E. e.a. Ursuline Conv., Georgetown, B. Guiana
Wills, O. a. Ursuline Conv., Georgetown, B. Guiana

- (2Wolfe, A.M. Queen's Coll., Nassau, Bahamas
Henry, V. e.d. St. Ursula's Coll., Krugersdorp
Ogle, C. a. Ursuline Conv., Georgetown, B. Guiana
2Sands, L.D. St. Hilda's High S., Nassau, Bahamas
2Johnson, H.M. Queen's Coll., Nassau, Bahamas
Dollar, H. e. St. Ursula's Coll., Krugersdorp
Fey, F.M. Conv. of Mercy, Charlestown, B. Guiana
Fernandes, A. a. Conv. of Mercy, Charlestown, B. Guiana
Brown, A.L. Queen's Coll., Nassau, Bahamas
2Albury, M.A. Queen's Coll., Nassau, Bahamas
Thompson, D.A. Queen's Coll., Nassau, Bahamas

- Bowe, M.I. s. Queen's Coll., Nassau, Bahamas
Cummings, C. Ursuline Conv., Georgetown, B. Guiana
Higgs, G.S. Queen's Coll., Nassau, Bahamas
Lyons, R. St. Ursula's Coll., Krugersdorp
Habbard, C. e.a. Private tuition
Fernando, S.A. Private tuition
Franker, F.V. Werk-en-Rust Wesleyan S., Georgetown, B. Guiana
Raeburn, M. e. St. Ursula's Coll., Krugersdorp
Ross, M. Conv. of Mercy, Charlestown, B. Guiana
Brown, M.A. Queen's Coll., Nassau, Bahamas

LOWER FORMS EXAMINATION.—PASS LIST.

BOYS.

- Ashhurst, L.N. The Middle S., Georgetown, B. Guiana
Briggs, H.L. Bishop Crowther Memorial S., Abonema
Brown, F.W.O. Queen's Coll., Nassau, Bahamas
Chan-A-Chung, R. The Middle S., Georgetown, B. Guiana
Cheong, A.A. The Middle S., Georgetown, B. Guiana
Clarke, E.A. The Middle S., Georgetown, B. Guiana
Clutsam, K.H. McC. Queen's Coll., Nassau, Bahamas
Cole, G.M. Queen's Coll., Nassau, Bahamas
Crompton, J.L. Wei-hai-wei S.
Cyrus, E. St. Joseph's Inter. S., Georgetown, B. Guiana

- Da Silva, A.A.M. The Middle S., Georgetown, B. Guiana
Downer, L.A. The Middle S., Georgetown, B. Guiana
Farnum, E.L. The Middle S., Georgetown, B. Guiana
Fraser, W.L. The Middle S., Georgetown, B. Guiana
Gaspar, J.de S. St. Stanislaus Coll., Georgetown, B. Guiana
Gonsalves, J.de C. St. Stanislaus Coll., Georgetown, B. Guiana
Hill, A.C.H.D. Wei-hai-wei S.
Hing, R.C. The Middle S., Georgetown, B. Guiana
Lammert, R.D. Wei-hai-wei S.

- Melville, A.L. The Middle S., Georgetown, B. Guiana
Melville, D.L. The Middle S., Georgetown, B. Guiana
Miller, A.C. St. Joseph's Inter. S., Georgetown, B. Guiana
Pestana, V. St. Stanislaus Coll., Georgetown, B. Guiana
Reece, B.St. A. St. Stanislaus Coll., Georgetown, B. Guiana
Sealy, C.E. The Middle S., Georgetown, B. Guiana
Small, S.A.C. St. Joseph's Inter. S., Georgetown, B. Guiana
Walrond, A.C. St. Stanislaus Coll., Georgetown, B. Guiana
Wiltshire, F.H.R. The Middle S., Georgetown, B. Guiana

GIRLS.

- Archer, E.A. The Middle S., Georgetown, B. Guiana
Beer, M.E. Wei-hai-wei S.
Brink, E. St. Ursula's Coll., Krugersdorp
Brink, L. St. Ursula's Coll., Krugersdorp
Chase, L.M. The Middle S., Georgetown, B. Guiana
Christianni, E.G. Conv. of Mercy, Charlestown, B. Guiana
Correia, H. Ursuline Conv., Georgetown, B. Guiana
Cutting, A. Ursuline Conv., Georgetown, B. Guiana
de Freitas, U. Conv. of Mercy, Charlestown, B. Guiana

- Evertz, E.H. Conv. of Mercy, Charlestown, B. Guiana
Faria, H. Ursuline Conv., Georgetown, B. Guiana
Goveia, O. Ursuline Conv., Georgetown, B. Guiana
Henry, J. St. Ursula's Coll., Krugersdorp
Hill, N.E.F. The Middle S., Georgetown, B. Guiana
Jellicoe, D.E.V. Queen's Coll., Nassau, Bahamas
Kelly, G.M. Queen's Coll., Nassau, Bahamas
Lewis, H. Ursuline Conv., Georgetown, B. Guiana
Melville, P. St. Ursula's Coll., Krugersdorp

- Menendez, K.L. Queen's Coll., Nassau, Bahamas
Palmer, D. St. Ursula's Coll., Krugersdorp
Payne, M. Ursuline Conv., Georgetown, B. Guiana
Player, T. St. Ursula's Coll., Krugersdorp
Pritchard, A.M. Queen's College, Nassau, Bahamas
Proctor, I. Ursuline Conv., Georgetown, B. Guiana
White, A.R. Conv. of Mercy, Charlestown, B. Guiana
Whyte, A.M.J. Conv. of Mercy, Charlestown, B. Guiana

## COLLEGE OF PRECEPTORS.

PROFESSIONAL PRELIMINARY EXAMINATION—PASS LIST.  
SEPTEMBER, 1908.

THE Supplementary Examination by the College of Preceptors for Certificates was held on the 8th, 9th, and 10th of September in London, and at five other local centres—viz., Birmingham, Bristol, Leeds, Liverpool, and Manchester. The following candidates obtained Certificates:—

## First Class [or Senior].

## Pass Division.

Barton, M. H.	Gillett, S. H.	Packman, C. W. G. V.
Benson, F.	Hills, W. A. S.	Wedgwood, G.

## Second Class [or Junior].

## Honours Division.

Kenyon, J. H. S. h.	Penman, Miss J. e. h. g. f. l.	van Geyzel, L. E. g.
Peak, N. a.	Samuel, J. T. ch.	Whitten, M. G. a. al. f. g. e.

## Pass Division.

Austin, W. A. a.	Garry, E. W. a.	Ord, G. g.
Bann, W. W.	Griffiths, A. E.	Parker, C. a.
Bates, R. N. a.	Hands, P. T.	Pearse, H. E. a.
Blake, P. a.	Heddy, W. R. H. a.	Pearson, M.
Bleakley, A. D.	Hollis, H. F.	Phillips, P. F. G.
Boucher, H. M.	Horsley, L.	Price, H. P.
Breese, M. C. a.	Jenkins, E. E.	Richards, L. P.
Buck, E.	Jennings, E. A.	Rowbotham, E. S. a.
Buckley, H. H.	Judge, E. W.	Stevens, S.
Buer, W. B.	Kemp, J. W. h. a.	Stewart, W. A.
Cockcroft, W. L.	Kersh, M. E.	Stokes, G. A.
Cole, A. H. a.	Kettlewell, N. H. a.	Taylor, H. F.
Cook, Miss J. M.	King, J. H. a.	Townshend, O. B.
Crossley-Meates, B.	Klosz, R. L.	Tydemann, B. V.
Cutting, J. A. W. a.	Millett, H.	Wallace, P. A. a.
Davenport, T.	Moors, R. H.	Ward, E.
Davies, W.	Mulliner, N.	Welton, F. E.
Deane, G. S.	Mullins, G. E.	Williams, H. B.
Elphick, S. E.	Neal, F. J. a.	Woodcock, E. C.
Fisher, A. L. W.	Neal, J.	Woods, R. S.
Fraser, A. L.	Nicholson, R.	

N. B.—The small italic letters denote that the candidate to whose name they are attached was distinguished in the following subjects respectively:—

a. = Arithmetic	g. = Geography.
al. = Algebra.	ge. = German.
ch. = Chemistry.	h. = History.
e. = English.	l. = Latin.
f. = French.	

## THE COLLEGE OF PRECEPTORS.

## MEETING OF THE COUNCIL.

A MEETING of the Council was held at the College, Bloomsbury Square, on September 19. Present: Mr. E. A. Butler, Vice-President, in the chair; Prof. Adamson, Dr. Armitage-Smith, Mr. Baumann, Rev. J. B. Blomfield, Rev. A. W. Boulton, Mr. Brown, Mr. J. L. Butler, Mr. Hawe, Rev. R. Lee, Mr. Millar-Inglis, Dr. Morgan, Mr. Pinches, Mr. Rushbrooke, and Mr. Vincent.

The minutes of the last meeting were read and confirmed.

The Secretary reported that the Summer Examination for Diplomas had been held on August 31 to September 4, and had been attended by 343 candidates. The Professional Preliminary Examination had been held on September 8 to 10, and had been attended by 204 candidates.

He reported that the Local Examinations conducted by the College on behalf of the Newfoundland Council of Higher Education had been held at 100 centres in June last, and the class lists of the successful candidates, together with the examiners' reports on their work, had been sent out to the Newfoundland authorities on the 22nd of August. The total number of candidates examined in the four grades was 2,297.

A proposal made by the Council of the Law Society, for a common form of certificate to be supplied by examining bodies whose certificates are accepted in lieu of the Law Preliminary Examination, was referred to the Examination Committee for consideration.

The report of the Finance Committee was adopted.

It was resolved that the name of a member of the College, against whom a conviction had been recorded in a criminal court, should be removed from the Members' List, in accordance with Sect. I. cl. 8 of the By-Laws.

Mr. C. Pendlebury, M.A., 40 Glazbury Road, West Kensington, was elected a member of the Council.

The following persons were elected members of the College:—

Mr. G. H. Green, L.C.P., 83 Seymour Road, Harringay, N.  
Mrs. D. M. Hogben, Ivydene Hall, Great Malvern.

The following books had been presented to the Library since the last meeting of the Council:—

By the AGENT-GENERAL FOR NEW SOUTH WALES.—Annual Report of the Department of Mines, New South Wales, 1907.

By DR. A. E. C. DICKINSON.—Beazley's Dawn of Modern Geography, Vol. II.; Labande's Un Diplomate Français à la Cour de Catherine II. (2 vols.); Maspéro's Dawn of Civilization (Egypt and Chaldea), and the Passing of the Empires (850 B.C.—330 B.C.).

By SIR WILLIAM MATHER.—Humberson's Short History of National Education in Great Britain and Ireland.

By G. BELL & SONS.—Ashton's Intermediate Grammar; Baker and Bourne's Elementary Mensuration.

By A. & C. BLACK.—Reynolds' Asia (Regional Geography).

By BLACKIE & SON.—Blackie's Elementary Modern Algebra, Part III.; Clark's Laboulaye's Yvon et Finette.

By HACHETTE & Co.—Bue's Graduated French Composition; Ceppi's French Lessons on the Direct Method (Intermediate Course); Paillardon's La Vie par l'Image.

By LONGMANS & Co.—Report on Moral Instruction and Training in Schools (2 vols.).

By METHUEN & Co.—Chottin's Remy le Chevrier; Evans's La Bataille de Waterloo; Hett's Short History of Greece; Lydon's Preliminary Geometry.

By the OXFORD UNIVERSITY PRESS.—Smith's Bouët-Willaumez's Batailles de Terre et de Mer.

By RIVINGTONS.—Pardoe's Transitional French Reader.

By the UNIVERSITY OF LONDON.—The Libraries of London.

Calendars of Glasgow University; University of Manitoba; University College, Bristol; St. Andrews University; The London School of Economics and Political Science.

## INTERNATIONAL MORAL EDUCATION CONGRESS.

## PRESIDENTIAL ADDRESS.

By Prof. M. E. SADLER.

## THE SCHOOL COMMUNITY.

It may be convenient if I attempt to sketch in outline the plan which has been prepared by the Committee for our discussions during the Congress. We begin by considering the ethical aims of a school, elementary or secondary; day school or boarding school; for boys alone or for girls alone; or for boys and girls together. We propose to examine the means which each kind of school can command in its task of helping in the formation of character, and to review the limitations under which the work of each is, necessarily or unnecessarily, at present done. It will be observed, therefore, that the programme takes the *school community*, not the individual pupil, as the unit for our first consideration. This is significant of the educational thought of our time. In an age which throbs with individualism and which is possessed by an intense desire for self-realization and for full personal development, our wisest educators see that there is a moral influence of great value in the responsibilities and collective duties imposed upon its individual members by a school community which is morally healthy, wisely organized, largely self-governing, and not too closely watched. It is fitting that an educational congress held in England emphasis should thus be placed upon the school community. For it was in England that nearly eighty years ago, at a time when the spirit of individualism threatened to become too self-assertive through the stir of industrial and commercial life which resulted from the development of the factory system and our rapidly extending trade, Thomas Arnold of Rugby and his contemporaries (for in this great work Arnold stood most conspicuous but not alone) developed the restraining and moralizing power of self-government in a school community, set among surroundings which appeal to the imagination, which cultivate the sense of beauty, and which inspire loyalty to what was noble and self-sacrificing in the past. The idea of the school community is a medieval idea touched by the modern spirit. England, the pioneer of new developments of the factory system, is of all countries one of the most conservative in the continuity of her educational tradition. Thomas Arnold's name we honour to-day as the man who first impressed upon modern educational thought the value of the school community as a factor in moral training and in the formation of character. But Arnold was a Wykehamist and an Oxonian. At Winchester and at Oxford he had learnt the moral power of collegiate life. And the magical influence of Winchester and of Oxford, and of other great institutions of similar lineage and like antiquity, is in part due to the fact that there, as in some other English institutions, there still is preserved much that was best in the tradition of the Middle Ages.

*Factors in Corporate School Life.*

Regarding, therefore, the corporate life of the school as being of especial importance, we pass on to the next discussion on the programme of the Congress—namely, to the analysis of the factors which make this corporate life most potent for good in its influence upon character. Of capital importance in this connexion is the personality of the teacher. The power, the secret sources, of personality are difficult to analyse. But it is a kindling ray of sympathy and insight that enables personality to transmit its power. And with this must go the power of example and, in appealing to the confidence of young people, the half instinctive choice of right methods of approach. A country which desires for itself an inspiring and invigorating education will, if it allow itself to be guided by unmistakable evidence, do wisely to attach very high importance to the human element in its educational organization. It will not be niggardly of human influence, however generous it may be with bricks and mortar. It will not choose its teachers by intellectual tests alone. It will attach an even greater value to pastoral instinct and to the spirit of self-sacrifice than to the possession of a brilliant University degree. It will not allow its teaching staff to be masculine in the wrong places, or get too overwhelmingly feminine in others. It will enable its teachers to know their pupils one by one, at home as well as at school, and to have regard to their individual needs. It will see that the teacher receives exact and careful preparation for his future duties, and is enabled and encouraged to go on learning how to fulfil them with deeper insight and with ripe experience illuminated by study and reflection. And, if it is wise, the community will not allow anxious fears for the future, and the dread of want or dependence in old age to harass the teacher's mind and to darken the cheerfulness of a happy and unselfish disposition.

A second factor in the corporate life of the school, to the discussion of which the Congress will next proceed, is the intellectual and moral influence of a well-chosen course of study directed by teachers who thoroughly know their subject and who are determined that their pupils should understand what they learn and (even though it be but a little) learn it well.

A third factor in the corporate life of a school, and consequently next to be discussed at the Congress, is the organization of those duties and recreations which teach young people, through having responsibilities, to rise to the height of the graver responsibilities which await them in later years. This side of school organization must be determined, in large measure, by sensible medical advice. In the moral tone of a school a great deal depends upon open windows, sunlight, wise diet, easy clothing, cold water, and plenty of sleep. Experience also shows that school life may be kept fresh and wholesome by well chosen organized school games, provided that games are not allowed to dominate the situation and to become the one fount of honour among the young. There is also strong reason for thinking that the moral and character-forming influences of a school are strengthened by making constructive, practical work—"real work," as boys call it, work done for the needs of the community in a spirit of thoroughness, of science, and of service—a very much more important part of school training than the sedentary traditions of the Revival of Learning have so far allowed. We have all, I venture to submit, much to learn from the experience of the best industrial schools.

*"WORDS IN SEASON WISELY SAID."*

But, apart from the corporate life of the school, there must be, and in good education always is and always has been, some direct imparting of moral ideas. Men and women need the inspiring force of a clearly apprehended religious and moral ideal. The Congress will therefore proceed to discuss how far such an ideal should be directly inculcated upon the pupils, having regard to the recalcitrancy of youth and to the fact that the efficacy of sermons is not always so great as the preacher, warm with his own emotions, sometimes allows himself to assume. The Congress will consider the moral influence which may be exerted through skilful and tactful suggestion, whether such suggestion be conveyed by the teacher's tone of voice and expression or by the lessons read from his bearing and his life, or by the texture of the school curriculum, or by art and by music, or by the inspiration of poetry and of noble prose, or by the dignity and reverence shown in school festivals and worship, or by the beauty of school buildings and of playing-fields which bear witness to the liberality of benefactors and awaken honourable memories of the past.

Apart, however, from such indirect and individual suggestion,

however skilfully may be planned its incidence upon the heart and mind of those sensitive to its teaching, the long experience of educators (including in that category parents and employers of labour and even elder comrades at school or at home) has led to the unanimous conviction that there is a need at the right moment for words in season wisely said. This is the germ of what, in technical and rather forbidding language, we call direct moral instruction. How far such instruction should be extended, how far it should be punctually recurrent, how far it should be anticipated by its recipients at a given hour in the cycle of each week or day are subjects upon which the Congress hopes to learn much from the experts by whose names the roll of this Congress is adorned. I venture to allow myself but one observation. Some difference of opinion upon this important subject may, I think, be traced to an unconscious divergence in educational ideals. At the present time two ideas of the right organization of a school are in contrast amongst us. One of these views lays especial stress upon what may be called the didactic power and duty of the school. The other view lays especial stress upon the educative power of the varied activities of a school community. Those who incline to the first of these two views instinctively turn to methods of moral instruction which repel and even irritate those who incline to the second. But both agree in the belief that the highest work of a school is to kindle noble ideals of life and of duty. For my own part, being a member of the party of the Left-Centre, I suspect that neither of these two ideals holds the whole of the truth, and that neither in its extreme form is really applicable to all the needs, the complicated and elusive needs, of the young. Perhaps the discussions of the Congress may help us to a synthesis of the two conflicting views. Perhaps we may be led to think that the right course is to blend with the more abstract and didactic part of school work, especially in the elementary and middle secondary schools, a larger measure of constructive occupation and of self-directing activity. Presiding over our deliberations might stand two busts, those of Pestalozzi and of Herbart; with perhaps a few apt quotations from John Dewey.

But, to whatever conclusion we incline, we cannot but be impressed by the profound and immediately practical character of the problem under review and by the fact that the roots of it strike down into the deepest things. The organizers of the Conference have therefore (wisely in my judgment) determined to invite distinguished representatives of different schools of thought to submit to us the results of their mature reflection upon the place which religious education should have in moral training, and to communicate to us the results of the experience gained in many types of schools by those imparting religious instruction on the one hand, or civic and moral instruction upon a basis detached from theological teaching on the other. I am persuaded that nothing but good can ensue from the temperate and respectful consideration of these vital matters, at a gathering attended by scholars and teachers, many of whom bear illustrious names. You will not, I venture to hope, regard me as passing beyond the limits of my duty if I feel it right to state, with deep respect for the convictions of those who differ from me, and with an earnest belief that we have all much to learn from the practice and criticism of those who hold a view conflicting with our own, that in my personal judgment there are certain parts of moral education, necessary to the good life, which are inseparable from one or other form of religious belief.

*RELATIONS BETWEEN HOME AND SCHOOL.*

But the school is not a thing apart. It is influenced by social conditions and by the home. The Congress will therefore proceed to discuss the relations between home and school. It will also review the special difficulties of schools in poor districts; the need for educational care through the critical years of adolescence; the work of boys' and girls' clubs; the influence of old scholars' associations; the educative power of holiday camps for boys and girls alike; the work of continuation classes in training for citizenship, for self-respect and skill in practical occupations and for the making of good homes; and (not least important) the remarkable influence of the Adult Schools, of the Workers' Educational Association, and of the People's High Schools in Denmark in shaping character and in inspiring young men and women with a worthy ideal of life.

This will bring the Congress, in its review of the relations between schools and the life of the outside community, to the consideration of biological questions of great moment—to the influence of heredity and of environment, and to the educational

needs which arise in dealing with the physiological and psychological conditions induced by adolescence.

#### SPECIAL PROBLEMS.

May I, in conclusion, emphasize three points as deserving special consideration?

First, how far is it possible, under present conditions, for our public elementary schools, which train the vast majority of the citizens of the future, to furnish for their pupils the precious character-forming influence of a corporate school life? Is it not desirable that the classes, committed to the charge of the teachers, should be made smaller? But (to use Bishop Berkeley's word) one query more: Can a teacher individualize more than thirty or thirty-five pupils in one class?

Secondly, should not more be done in the course of preparation at our Day Training Colleges especially to give teachers the opportunity of more systematic preparation for the duty of moral education? Is it not important that the teacher should be equipped more fully than is often now the case, with the knowledge needed for the task of guiding conduct and of endeavouring to impart faith in a moral ideal? And, if the answer to these queries is in the affirmative, ought not the period of the teacher's professional training to be extended, in order that the course of preparation may thus be deepened without risk of overpressure and of intellectual congestion?

Thirdly, is it not necessary that, under the conditions of modern life, more should be done to give educational help and guidance to young people during the years of adolescence? So far as statistics enable us to judge the true state of the case, not more than one out of every three children who leave the elementary schools of England and Wales at thirteen and fourteen years of age receives, during the years which follow, any kind of systematic educational care. Far too great a number pass out of the range of all good educational influence. Far too few receive the regular training which might help in quickening an ideal of personal and civic duty. This surely is a problem which calls for the earnest consideration of all educators, and of the statesmen to whom is committed the guidance of governmental effort in national education.

#### THE SCOPE AND AIM OF ETHICAL EDUCATION.

By FELIX ADLER,

Professor of Applied Ethics, Columbia University, New York.

Ethical education must embrace human conduct in all its branches. Ethics is not "three-fourths of conduct," or any other fraction of conduct, but controls, or should control, the whole of conduct. The practice of singling out as specially moral the virtues of social intercourse, such as gentleness, devotion to the happiness of others, self-sacrifice, &c., is misleading in the extreme. It gives colour to the belief that the moral end is but one along with other ends of life, such as the ends of science, of art, of material enrichment, of pleasure, &c.

But ethical science is the science of the sovereign end, the science at least which sets out with the assumption that there is a sovereign end and which undertakes to search for it. . . . It follows therefrom that, in all properly ethical teaching, the thought that there is an aim transcending all others needs to be constantly brought home to the pupil, and that he is to be assisted in discovering the relations which connect all the minor with the major ends. The saying of Aristotle still holds good: "If, then, there be an end which we desire for its own sake, and if we are not for ever to choose one thing for the sake of something else, since this would be a *progressus ad indefinitum* which would stamp human endeavour as idle and vain, it is evident that this final end must be life's highest good."

Further, it follows, so far as school education is concerned, that the ethical note is to be sounded in the teaching of all branches of the curriculum, in the teaching of mathematics, of natural science, in the manual training no less than in history, literature, and art. If the whole nature of man is to be ethically affected, and not merely that side of him which is prominent in social intercourse, the system of instruction in all its branches must be made to contribute to this result. It follows also, as a matter of course, that the feelings and the will must be enlisted in behalf of the ethical aim. Indeed, one of the gravest perils connected with ethical education, as all agree, is that of over-emphasizing the intellectual side of it. . . .

Ethical education should aim to include the whole nature of the pupil and not merely to inculcate the virtues of social intercourse. This was the first general statement submitted. The second is: ethical education must be pervaded by the ethical

spirit. Emphasis on the spirit, as opposed to the letter, is indeed a commonplace. But it behoves us to attach a precise meaning to the term *spirit* if we would understand the real scope and force of the above statement. The ethical standard is an ideal standard, to which we can never more than remotely approximate.

The worth of a man consists never in his actual moral achievements; but in the constant effort he puts forth towards higher achievement. The glint of goodness, so far as it shines into human life, appears, so to speak, in the moment of transition from one level to a higher level. The ethical spirit, therefore, consists in the blending of a profound humility, respecting the results one has attained, with the unrelaxing determination still to strive. And the true ethical teacher is he who communicates to his pupils the impulse to strive. There need be no fear on this account that the pupil will overlook the distance which separates him from the master. On the contrary, recognizing the comparative height to which the master has risen above him, and impressed at the same time with the small value which the latter attaches to his superior acquirements, the pupil will be shamed out of his own conceit, and realize as he could not otherwise do the infinity of the task which is set to human beings.

It would seem, then, that the personality of the teacher is the decisive factor in ethical education. But the phrase, "personality of the teacher," is to be understood in the sense just expounded. It is not enough, as is commonly said, that the teacher shall be right-minded, impartial, honest, strict in the performance of duty, in order to impress the same qualities on his pupils. All these qualities may, after all, but produce a kind of technical righteousness. Without the ethical spirit, the spirit of humility and striving, they will fail to reach the mark.

And one other most important amendment of the common view as to the influence of the personality of the teacher I would here venture to submit. It is undoubtedly true that the right teacher, the teacher "by the grace of God," may, and often does, exercise an influence for life upon his pupils. But yet the very best results cannot be reached by a single teacher, a fine personality in the midst of other less worthy or unworthy members of the staff of teachers. It is the whole staff in their relations with one another that produces the most lasting effect. It is the exemplary conduct, not of one, but of the whole body of masters acting in one spirit and for one purpose that will leave its abiding trace on the nature of the pupils and reconstitute their life in its inmost motives.

The greatest difficulty in the discussion of this entire subject, however, remains. It has sometimes been said by adherents of the movement for ethical education, as well as by its critics, that the object of the movement is to substitute a naturalistic morality for a supernatural morality, a secular or mundane for a theological, a scientific for a religious morality. I cannot too earnestly express my complete dissent from such views as these.

Again, it has been held that in ethical education, avoiding contentious issues, we should confine ourselves to propagating those points of morality which are common to the different philosophical and religious sects, to those simple and fundamental moral teachings upon which all can agree. To this common fund theory, however, as it may be called, there is a twofold objection. First, that the common fund does not really exist, or at all events to an infinitely smaller extent than is supposed. . . . The second objection is that the method of arriving at agreement by the elimination of differences, if it be applicable at all, would lead us to a residual minimum of morality, wholly devoid of vitality and of the power to move. . . .

The hope of agreement and progress in ethical education depends for its realization upon our willingness to stake everything on verification in experience. But by experience I here mean experience in the moral field, and by verification the method appropriate to the moral field and not some alien method that may apply in other fields. The great step, it seems, to be taken at this time is to bring about at least a provisional segregation of the moral sphere from that of science, art, &c., to study patiently the phenomena that lie within this sphere, and no longer to treat it as a dependency either of theology on the one hand or of physical science on the other. Of the sort of paramount principle or rule which I have in mind as forming the starting-point of ethical education, examples may be found in the golden rule of the New Testament and in the Kantian rule: "Treat thy fellow man, never merely as a means, but ever also as an end." But other formulas have to be found covering sections of the moral sphere to which these do not adequately apply, and the task of discovering them will be the prime task

of the student of a progressive ethical science. It will sufficiently appear from what has been said that the help of the metaphysician, of the theologian, and of the earnest thinker, whatever his personal bias be, so far from being discarded, is liberally welcomed.

Finally, a few statements to indicate my position in regard to some practical aspects of the movement for ethical education.

I fear nothing so much as a too rapid extension of this movement, a mushroom growth of it. The work is so difficult and delicate that it should not be entrusted to any except to teachers thoroughly trained and possessing the qualifications before mentioned.

If it is put into the hands of others harm will come of it instead of good, and a reaction will inevitably follow. Of no other subject is it so true—*Corruptio optima pessima*.

Direct teaching, whenever it is given, should not be given in the form of ethics lessons. The assimilation of it to the ordinary school lesson should most carefully be avoided. It should take the form of intimate communion between the master and his pupil friends. It should consist of a series of talks on the wisdom of life, embodying the experience which an older seeker after moral salvation has gathered, and which he passes on to those who are setting out, if perchance he may aid them in their quest.

But it seems to me best on all accounts that this part of the work should not be undertaken by the State, both for the reason already given, the scarcity of suitable teachers, and because State teaching, as at present organized, almost inevitably tends to become formal and mechanized. The task of direct ethical teaching had better be left, for the present at least, in the hands of voluntary associations.

#### IDEAS AS MORAL FORCES.

By Prof. JOHN ADAMS, University of London.

It is generally admitted that such ideas as *evolution* and *liberty* are moral forces. But we feel that these form part rather of the social environment than of the equipment of the individual. In moral education we are more interested in those ideas that the individual regards as specially his own. The plain man usually regards his ideas as a sort of possession. He has worked for them; he has them; they are his property. This attitude of mind clearly corresponds to the psychological view of the ideas as presented content, as material on which the soul works, as the furniture of the soul. From this standpoint ideas are inert things that can be manipulated by some force outside themselves, but that have no force of their own. The newer view is that ideas are in themselves forces. In dealing with ideas there is danger of that hypostatization to which we are all tempted. The man who regards ideas as his possessions naturally treats them as if they have in some sort an existence apart from himself; and even when the newer view is adopted this tendency remains. Psychologists, even while warning others of the dangers of hypostatization, are frequently led into speaking of ideas as if these were independent entities. They talk, for instance, of ideas acting and reacting upon each other: an obvious impossibility unless they have an independent existence.

The true view is that the soul is one and indivisible, and the ideas are the manifestations of its activity. In their fight against the faculty psychology, recent writers have striven to avoid hypostatization by referring to what are usually called faculties as "modes of being conscious." The expedient admits of further application. An idea is as much a mode of being conscious as is, say, memory or imagination. The ideas are, indeed, only highly specialized faculties. This is illustrated by the newer way of describing the concept. The old view was that by a process of abstraction and generalization we contrived to reach a general idea that formed a part of our stock of knowledge. The concept was static. The new view is that the concept means the acquiring of the power to deal intelligently with certain contingencies that arise in a more or less uniform way. My concept of a dog, for example, is the power I have acquired of behaving myself more or less intelligently towards dogs. Thus, our ideas cannot properly be described as our possessions. It is quite as reasonable to say that they possess us as that we possess them. Indeed, it is quite common to hear such an expression as "he is completely possessed by that idea." The truth is that we *are* our ideas and cannot be separated from them. Whatever force an idea has comes from the soul of which it is a manifestation. But ideas are forces none the less, and can be manipulated from without as well as from within. Their importance in moral education cannot well be over-estimated.

The process of moral education is well expressed in a word that used to be very popular in religious writing—*edification*. It is the educator's business to build up the soul, and the ideas are the forces at his disposal. From this point of view ideas are the paid-up capital of experience. They are the power left behind as the result of the exercise of function. The ideas that form the equipment of a person at any given moment *correspond* to the world of his experience. This does not mean that there is any real *resemblance* between mental content and the external world. We do not carry about in our souls tiny replicas of our material environment. What we have acquired is an organized system of reactions that enables us to meet the exigencies of an experience that is continually varying, but varying according to certain reasonably uniform laws.

The moral application may be made clear by a consideration of what takes place in temptation. What we have here is the attempt of some external influence to call into activity certain ideas that already exist in the soul that is under temptation. It does not consist in the putting of evil ideas into the soul—this would only be the preparation for future temptation. "For from within, out of the heart of men, proceed evil thoughts" and the rest.

To strengthen our pupils against the hour of temptation, it is not enough to supply them with a mental content of ideas that are good. It is the force of the ideas that counts. In the ultimate resort no idea can be regarded merely as presented content; every idea has some presentative activity, however small. The way to increase the presentative activity of an idea is to arrange that it shall be frequently brought into consciousness. This secures a quantitative increase; but if we wish to give the activity a bias to act in a given direction, we must regulate the conditions under which we present the idea. The same idea presented to different souls will produce different exercises of activity according to the previous experience of the souls in question.

The educator has not the power to restrict completely the ideas that may be presented from without to the souls of the pupils. Even if the monastic ideal is applied in its most drastic form there remains the moral surd of that relative non-ego that we call the body. "Dich kannst du nicht entfliehen." The teacher's negative work is to reduce undesirable presentations to a minimum. On the positive side he has to build up all the ideas into a whole that is organized in such a way as to lead to those forms of activity that he desires. Ideas of evil may be present in the soul of the pupil; but they may be so related to ideas of good that the total resultant of the idea forces is morally satisfactory.

This deliberate moral organization is the best way to meet the difficulties of those who are never tired of complaining that a knowledge of right by no means secures that right shall be done. It is well, at the same time, to point out that it is too frequently forgotten that knowledge of evil does not necessarily mean that evil will be done. The sight of means to do good deeds may have as powerful effects as the sight of means to do ill deeds. As a process temptation works both ways, though custom has limited the word to the less desirable application. The chief lever at the teacher's disposal in manipulating ideas is suggestion.

*Conclusions:* (1) Ideas are never wholly passive; (2) the presentative activity of ideas can be deliberately increased by the teacher; (3) character can be formed by the manipulation of the idea forces quantitatively and qualitatively.

#### LONDON SECONDARY EDUCATION.

THE Report of the Executive Officer to the London County Council on Higher Education for the year ended July 31, 1907, contains some interesting facts, especially with regard to secondary-school accommodation, with regard to which some striking comparative figures are given. The Report says:

It has often been stated that one of the principal weaknesses in the educational system of this country has been the inadequate supply of secondary schools. The great public schools for boys and the high schools for girls have provided for the needs of those who can afford to pay fairly high fees, but there has been no national system of secondary education adequate to meet the needs of all classes of the population. The Royal Commission on Secondary Education in 1895 called public attention to this need, and advocated the establishment of Local Authorities which should be empowered to provide secondary education. It was not, however, until the passing of the Acts of 1902 and 1903 that

such Authorities were created, and there is little doubt that the power given to County Councils under those Acts to organize and promote secondary education within their areas is one of the most useful features of that legislation. Before giving details as to secondary-school accommodation in London, it may be interesting to consider briefly the provision made for secondary-school education in certain foreign countries and in certain counties and towns in England.

#### SECONDARY-SCHOOL ACCOMMODATION PER 1,000 OF POPULATION.

##### (a) Public and Private Schools.

	Boys.	Girls.	Total.
Essex .....	6.11	5.76	11.87
Hampshire .....	6.58	3.88	10.46
Derbyshire .....	3.53	1.54	5.07
Exeter .....	11.14	13.73	24.87
Birkenhead .....	6.59	8.72	15.31
Newcastle-upon-Tyne...	6.79	5.88	12.67
Liverpool .....	4.14	3.70	7.84
Huddersfield.....	3.99	3.46	7.45

##### (b) Public Schools only.

	Boys.	Girls.	Total.	Over 9 years of age only.
Prussia.....	5.04	—	—	12.67
Connecticut...	—	—	—	13
Massachusetts...	—	—	—	17.26
Maine .....	—	—	—	18.94
United States ...	—	—	—	10.61

No figures are available in the London area with regard to the provision of accommodation in private schools, but as regards accommodation in public and semi-public schools, a preliminary investigation shows that the figures may be taken as follows:—

	Boys.	Girls.	Total.
London .....	3.4	4.3	7.7

These figures are comparable with those given under (b) from Prussia and America which relate to public schools only.

In comparing the figures for London, however, with those of the United States and Prussia, it should be remembered that the accommodation in London provides for a very large number of children under the age of thirteen years. Such children in London form about one-half of the total of those in secondary schools.

Even allowing for the fact that a considerable proportion of London children of the upper and middle classes receive their education at boarding schools in the country, it will be clear from the facts given above that the provision of secondary-school accommodation for London falls very far short of that of Prussia, and very short not only of that of the progressive States of the American Union, but even of the average for the whole Union. In order to provide 10.61 secondary-school places per 1,000 of the population in London (the standard for the United States generally), it would be necessary to increase the present accommodation by nearly one-half.

The proposals at present under the consideration of the Council provide for the erection of buildings accommodating 5,010 pupils. This, however, does not represent the increase in accommodation which will be provided, since no fewer than 3,370 places will be required in lieu of places now provided in buildings which are unsatisfactory or which will be required for other purposes. The proposed increase is therefore only 1,640. It is estimated that this increase will enable the Council to meet the assessed needs of its own scholarship holders.

Since the establishment of the Council's scholarship scheme in 1905, the problem of increasing the secondary-school accommodation in London has been a pressing one. Some additional accommodation has been secured by giving building grants to aided schools, whereby they have been enabled to increase the number of pupils admitted, although in certain cases the additions have not allowed the number of children to be appreciably increased, but have merely saved the school from ceasing to be recognized by the Board of Education on account of overcrowding.

The Executive Officer goes on to show that the greater part of the secondary education in London is provided in schools not maintained by the Council. There are about 90 such schools under the management of governing bodies, of which 40 are independent of the Council's assistance. The Council does, however, make grants to 51 secondary schools, so as to enable them to maintain a higher standard of efficiency or to accommodate a larger number of pupils than would be possible with the income from fees and endowments alone.

With regard to the training of teachers, it is estimated that the Council will require to engage annually for the next few years 1,450 trained, certificated teachers. Of this number 570 are expected to come from colleges not maintained by the Council, leaving 880 to be supplied from the Council's training schools. The annual output from these schools in 1907 was 745; but arrangements are being made to provide further accommodation.

## REVIEWS.

MISS BEALE.

*Dorothea Beale of Cheltenham.* By Elizabeth Raikes.  
(10s. 6d. net. Constable.)

In her own "History of the Ladies' College," Cheltenham, Miss Beale narrated very carefully the origin and growth of the institution, and she left ample materials for the continuation of the story from 1900 down to the time of her death in the end of 1906, as well as "many letters, diaries, and autobiographical fragments," which, with letters and reminiscences of friends, furnish adequate means of depicting her personality. Her biographer has made very full use of the materials, and has carried out her task with thorough sympathy and with undoubted success. The volume will be prized as a gracious memorial by pupils and friends of Miss Beale, and it will be welcome to the public as a record of educational development under the guidance of a devoted, energetic, and masterful personality. There are ten illustrations, including three portraits of Miss Beale at different periods.

"The daughter must have resembled her father both in literary taste and zeal." We could have wished to learn more about her father: he "belonged to a family with cultivated tastes and interests"; he was a "busy man" pursuing many interests; he was "fond of music," and "was also a prime mover in getting up concerts of sacred music"; and apparently his circumstances were comfortable. His letters show that he was an eminently sensible man. "The home atmosphere was serious and intellectual: Dorothea said she owed much to the literary tastes of her parents"; and she grew up in the midst of "the constant practice of all those qualities which are the law of a well ordered religious home." Compelled to leave school at thirteen, she entered upon "a valuable time of education under the direction of myself"; already "dreaming much, and seeking for a fuller realization of the great spiritual realities, which make one feel that all knowledge is sacred." In 1847, at sixteen, she was sent to a fashionable school for English girls in the Champs Elysées—an experience terminated by the Revolution of 1848. She was now "a grave and quiet girl," "remarkable even in a studious sedentary family for her love of reading and study," not without knowledge of "a stern side of life" (which is left unexplained), and with "an innate sense of duty already hedging her steps and protecting her strong, eager spirit from flights of 'unchartered freedom.'" We can quite understand how she would assist the studies of her younger sisters and brothers; we can well believe that she conscientiously darned socks; but that she "dressed a doll," even "for a little sister's birthday"—well, it might have been a duty, and "it is on record."

At Queen's College Miss Beale was first a pupil and then a teacher, and her experience here proved an important factor in her training for her life's work. But she soon began to feel "that there was a tendency for the whole administration to get too much into the hands of one person, and that there was consequently not enough scope for that womanly influence which she felt to be so important where the education of young girls is concerned." So she resigned and took a smaller salary at Casterton. But there "the constant restraints, the monotonous life, the want of healthy amusements," and so forth, had produced "a spirit of open irreligion and a spirit of defiance very sad to witness"; and the strain of teaching a round dozen of different subjects was severe, to say nothing of the aggravation of difficulties by theological differences. One more remove, and Miss Beale found her fitting sphere—the realization of a dream of her youth—"an air-castle school, with a central quadrangle, cloisters and rooms over": she was elected Principal of the Ladies' College, Cheltenham, not indeed without more religious questionings, in 1858. Here she reigned and governed for forty-eight years. She found the place brick and she left it marble.

The task was far from easy. The College was in a very shaky condition when she took it in hand, and administrative difficulties were sufficiently trying. How the Principal eventually triumphed by tact, resolution, and organizing power, and how she ruled her scholastic community, will be read with great interest in the ample details of this biography. By 1875 the pupils had risen from 80 to 300; in 1883 they were 500; in 1893 they were 800; at Miss Beale's death they were verging on 1,000. And her energies overflowed her college: St. Hilda's Settlement at Shoreditch and St. Hilda's College at Oxford are emanations

from Cheltenham, and the Guild of the Cheltenham Ladies' College for old pupils was one of the most fruitful of her extra-college enterprises. The root of all her success was her intense religious conviction, guided by a masculine judgment and will-power.

Deep religious life [says her biographer] was no phase nor change of thought which came to her with years of experience. It was not wrought for her in the furnace of sorrow, though many times there renewed and purified. It was so much the dominating force of her mind and life—that by which every day and every year shew as controlled and inspired—that it may be reverently regarded as a special gift to one called to a great service. "I cannot," she wrote, "recall the time when God was not a present friend." . . . But the religion of Dorothea Beale was far, indeed, from being a mere succession of beautiful and comforting thoughts. It meant authority; it involved all the difficulties of daily obedience; it meant the fatigue of watching, the pains of battle, sometimes the humiliation of defeat. . . . Sorrow and regret for sin and mistakes passed into fresh effort against them; the perception of a beautiful thought or idea became a new motive for definite acts of charity and diligence.

Though treating her own personal expenditure with a monastic strictness, Miss Beale was very free-handed in relief of difficulties in the development of schemes for the benefit of her protégées in connexion with undertakings associated with the College. But she was properly stringent in requiring value for her money and in seeing that it was neither thrown away nor bestowed on those that could fend for themselves by reasonable exertion.

Never heartily sympathetic with what is generally called charitable work, afraid of seeing money given without a really equivalent return in usefulness and good work, there was one appeal to which she never turned a deaf ear. Probably she never knew any case of a girl honestly trying to improve herself, and failing in the effort for want of means, without trying to help her. Her usual plan was to advance money, which she found was almost invariably returned to her in the course of time. She would, wherever it seemed right, ask for its return on the ground that it might be of use to others, and because she was ever careful to make those she helped recognize that the possession of money is a stewardship only. But it was offered and lent, and sometimes given, in such a way that there should be no personal feeling of obligation and debt. "There is a loan fund," she would say when there occurred a question of the removal of a promising pupil from the college on the score of expense. And hardly any one ever heard her say more than this of the large system of help which she initiated, and to a very great extent sustained alone.

"In teaching Miss Beale's definite aim was to inspire. She sought but little to inform, but much to kindle a thirst for knowledge, a love of good and beautiful things, and to awaken thinking power." Her biographer asks: "What was the secret of her really marvellous influence?" The answer is: "Personal magnetism she undoubtedly possessed, and that of a rare and abiding quality, a quick eye to perceive, and a touch which could evoke the best even in the most unlikely. But her influence and power for good came surely as much from what she would not do as from what she actually did for her children. Her strength lay in what she would herself call 'passive activity.' It was her claim not to teach them so much as to lead them to the One Teacher, to bring them into such relationship with Him that they could hear His Voice."

Her pupils, no doubt, were devoted to her—in one sense or another. Let us call her a Puritan—a Saint upon earth. Yet her biography, with all the earnestness and strenuousness of an elevated purpose, strikes the merely human outsider with a certain chill—as through the vacant aisles of a solemn cathedral or from an Alpine peak. There is no sense of relaxation, no leisure to look around upon the world and find it, after all, genial and beautiful. However, the great usually dwell apart and alone. Miss Beale was great in her own sphere. She did great things for the education of women—for education generally. Her children will call her blessed.

#### OPTICAL THEORY AND PRACTICE.

*The Theory of Optical Instruments.* By E. T. Whittaker, M.A., F.R.S. (2s. 6d. net. Cambridge University Press.)

We note with the greatest interest the progress of the issue of the "Cambridge Tracts in Mathematics and Mathematical Physics." The present tract is contributed by Dr. Whittaker, the Royal Astronomer of Ireland and one of the general editors of the able series. It may be stated that the author's principal object in undertaking to prepare his short treatise was to make good a deficiency felt to exist by a number of students of

astronomy, photography, and similar subjects. The practice and the study of such branches of science constantly bring the student face to face with the defects to which optical instruments are liable, and which it is his first aim to obviate as far as possible. A scientific investigation of coma, astigmatism, distortion, &c., accurate from the mathematician's point of view, but set forth in language as simple and direct as might be practicable, was felt to be a desideratum. It is just on these lines that Dr. Whittaker has framed his work, giving his readers an analysis of the defects of instruments, of the causes of the same, and of the best means of overcoming them, at least partially. The examination of the subject is based on direct reference to the first principles underlying the theory of light, and the whole discussion is prosecuted with a restrained vigour and a delightful simplicity of manner which reveal undeniably the work of a master mind. The contents of the treatise lend themselves to a division of the tract into three chapters. The first of them, going back to the very elements of the theory, treats of the present-day explanation of the cause of light and its mode of propagation. The laws of reflexion and refraction are shown to arise as immediate consequences of the truth of the wave theory and of the influence of different media on the velocity with which the waves advance. Image formation, whether due to a single refraction or to a series of refractions, the lens, the spherical mirror, astigmatism, the existence of primary and secondary foci, and other equally important subjects, are considered in due order. The second chapter brings the reader to the study of defective images and their origin. Each source of imperfection is sufficiently investigated in its turn and a description of the available means of correction follows. Nevertheless, it has to be admitted finally that, theoretically, a perfect optical instrument is absolutely unattainable. The proof which establishes the unwelcome truth was discovered by Klein, and has been incorporated in the present tract. In the third—the final—chapter, the writer gives a short but most instructive, as well as interesting, account of some of the chief instruments in use at the present day. Although the work is, in the first place, intended for the student of applied science and for the practical worker, yet there is much in it that the author hopes and believes will prove valuable and attractive to the worker in the field of pure mathematics. As an example, we may mention Klein's investigation to which allusion has already been made, and in which use is made of the imaginary circle at infinity. Further, the tract may serve in some sense as a guide in the event of changes taking place in the "regulation" University course in geometrical optics.

## GENERAL NOTICES.

### CLASSICS.

*Some Passages in the Early History of Classical Learning in Ireland.* By the Right Hon. Mr. Justice Madden, M.A., Hon. LL.D., Vice-Chancellor of the University of Dublin. (Dublin: Hodges, Figgis, & Co. London: Longmans.)

This is an Address delivered in November last at the inaugural meeting of the Trinity College (Dublin) Classical Society, revised and furnished with notes and an appendix of pertinent extracts. Though Mr. Justice Madden does not intend it "as a serious contribution to the investigation" of the early history of his country's learning, yet, as he says, "a superficial outcrop may be useful as evidence of a rich mine beneath the surface, ready to repay the labour of the patient worker." While referring briefly to the classical culture of the early monastic schools, he deals mainly with the generation preceding the foundation of Trinity College in 1591. "I have no doubt," he says, "that the use of Latin as a written and spoken language outside the Pale is a survival from the centuries during which Ireland was the University of western Europe"—a remark that suggests large scope for investigation. At the beginning of the reign of Elizabeth, "within the Pale, and in the principal cities outside its boundary, there were grammar schools formed on the English model, some of them evidently of a high order, from which students proceeded to the English Universities. In Celtic Ireland there were schools of a different kind, endowed and protected by the chieftains, in which students were educated, not only in the native law and medicine, and in the bardic literature, but in the Latin classics." Mr. Justice Madden recalls Sir Henry Sidney's attempt to establish an Irish University, and sketches generally his policy of educational reform. Especially interesting are the appended extracts from Stanyhurst's description of Ireland in Holinshed, and particularly the section dealing with Shakespeare's use of Stanyhurst's writings. The whole Address is most instructive and suggestive. It will, no doubt, be the starting-point of fresh inquiries.

Mr. Fisher Unwin has just issued a second impression of the late Dr. E. S. Shuckburgh's excellent work "Augustus: the Life and Times of the Founder of the Roman Empire," in his valuable "Half-Crown Library of History and Biography" (2s. 6d. net). This will be a welcome boon to the student and to the general reader.

#### MATHEMATICS.

- (1) *The "Alert" Arithmetics*. Books I. and II. By Henry Wilkinson. (Pupil's Books, 3d. each; Teacher's Books, 4d. each. Nelson.) (2) *Correlated Arithmetics (Scheme II.)*. Books I. and II. (Scholar's), 3d. each; Book I. (Teacher's), 1s. net. By T. W. Trought, B.A. (Pitman.) (3) *"Adaptable" Arithmetics*. Book I. Scholar's Book, 4d.; Teacher's Handbook, 1s. (Blackie.) (4) *Practical Arithmetics*. Pupil's Series, Book VI., 5d. Teacher's Series, Book V., 1s. 6d. By W. Knowles, B.A., B.Sc. Lond., and H. E. Howard. (Longmans.)

We have here specimen volumes of each of the above publications. The first two treatises, at least in so far as the early numbers are concerned, are illustrated not merely by diagrams, but by pictures. Of these the "Alert" Arithmetics (Nelson) are likely to be found, from a pictorial point of view, especially fascinating by little children. Either work, in the hands of a good teacher, affords material for a very thorough training in the groundwork of arithmetic. The leading feature to be noted with regard to the "Adaptable" Arithmetics (Blackie) is that each book is arranged so as to give complete instruction in some section or sections of the subject. The method adopted really accounts for the title selected, as the little text-books may be adapted very readily to the special needs of special schools. The "Practical" Arithmetics (Longmans), if we may judge the whole from the part, form an excellent series. The work is planned on the lines of Mr. C. T. Millis's scheme for the correlated teaching of arithmetic, geometry, and the elements of practical mathematics. In fact, the publication might well have been given a more general title than it bears at present. The course, we are told, has stood well the test of actual employment for class purposes.

*The Teaching of Practical Arithmetic to Junior Classes*. By J. L. Martin. (2s. 6d. Harrap.)

Though there is little that is really new in Mr. Martin's manual, yet the text gives within a small compass much that will be found instructive and suggestive by teachers whose work lies more or less among junior pupils. The book must appeal more particularly to the young professional, by whom there is no doubt very much may be learnt from its pages as to the best methods of dealing with first principles.

*Algebraic Examples*. Book I. By A. F. Van der Heyden, M.A. (1s.; with Answers, 1s. 6d. Edward Arnold.)

The elementary portion of a two-volume compilation. Book I., containing a valuable and carefully graduated series of exercises in elementary algebra, is suitable for pupils until they are ready to advance further than quadratic equations. The author has evidently worked with a higher aim than that of merely framing questions the solution of which involves practice in the early processes of algebra. Many of the examples lead to the acquisition of information the possession of which is calculated to help the student materially in later work.

*Geometry for Schools*. By E. Fenwick, M.A., LL.D. Camb., B.Sc. Lond. (1s. 6d. Heinemann.)

Are we to look on this publication as a class-book to be used principally by the teacher, or is it to be placed in the hands of the scholars? If intended primarily for the former, then it is decidedly good; for it gives clear and terse, but nevertheless, in general, sufficiently full proofs of the theorems of elementary geometry. In accordance with the new ideas the problems have been set apart for a special course. Alternative modes of demonstrating the same propositions are constantly given, and it is this feature which renders the text-book less suitable for students than for their teachers: for the former are more than liable to be hindered and not helped by varied demonstrations of the same theorem. The style in which the volume has been issued is bold; the type is large, but of a rather unusual and in some respects trying character, whilst the diagrams present a somewhat rough appearance.

#### ENGLISH DICTIONARIES AND ENGLISH ETYMOLOGIES.

*The Student's English Dictionary*. By John Ogilvie, LL.D. Edited by Charles Annandale, M.A., LL.D., editor of Ogilvie's "Imperial Dictionary," &c. (4s. 6d. net. Blackie.)

Though this is a new edition of a work that has done excellent service for a generation, it is practically an entirely new work; for, while all the old articles have been thoroughly revised, they have really been to a great extent rewritten, and many thousands of additional articles have been inserted. Besides, extensive and varied appendixes have been added by way of supplement to the information of the dictionary proper. The new matter deals largely with scientific and technical terms and with the natural expansion of the vocabulary of modern speech and literature; and it includes numerous phrases and idioms not previously treated in the volume. The etymologies, too, have been recast in the light of modern philological investigation. There are nearly 800 illustrations—much more than double the former number. The price is all but incredible. As Dr. Annandale justly says, the volume "may claim to be second to no work of reference of similar scope."

*An English Dictionary, Etymological, Pronouncing, and Explanatory*. By John Ogilvie, LL.D. (1s. net. Blackie.)

Another extraordinarily cheap dictionary for school and general use, and as good as it is cheap. There is a supplement of technical and other newer vocabularies; and explanatory lists of affixes and suffixes, of foreign words frequently occurring in English authors, and of abbreviations and contractions often used in printing and writing are usefully appended.

*Significant Etymology; or Roots, Stems, and Branches of the English Language*. By the Very Rev. James Mitchell, M.A., D.D. (Blackwood.)

This is not exactly a dictionary; but it is of a cognate character. It is "not written for philologists"—who would find excuse for occasional grumbling over it—"but for intelligent and thoughtful men and women who are interested in the study of their own language and of the sources from which it is derived." The words are discussed not alphabetically at all, but in groups, "beginning with words connected with the universe at large; then the heavenly bodies; the earth, its two great domains of land and water; the mineral, vegetable, and animal kingdoms; man, his bodily structure, including food, clothing, and habitation, his mental powers, his moral faculties, and his spiritual nature." We leave Dr. Mitchell to make up matters with the philologists against a second edition, and prefer to regard the useful and attractive aspect of his book. It certainly does furnish an extraordinary variety of interest, and will prove very instructive to such as are not professed philologists. It recalls, in a general way, Trench's "Study of Words," though the scheme is different. It is written in an easy and agreeable style.

#### HISTORY.

*History of England for use in Schools*. By Arthur D. Innes, M.A., formerly Scholar of Oriel College, Oxford. (4s. 6d. Cambridge University Press.)

Mr. Innes writes more especially for the middle and upper forms of schools, and he covers the whole space of English history, with a vigilant regard to proportion and to the educational value of historical teaching. He presents the facts "as a story, a drama, in which events are born of events, each successive scene is the product of the previous scene, great actors play their parts, and picturesque incidents give colour and interest to the whole." He writes with great spirit and vividness, as well as with simplicity and lucidity, and he is remarkably well furnished with the latest results of historical inquiry. Appended are six admirable summaries—constitutional, ecclesiastical, Scottish, Irish, Indian, and Colonial; half-a-dozen careful genealogical tables; a glossary of technical terms, political phrases, &c.; a chronological summary, and an index. There are 13 maps and 8 plans. The work is exceptionally capable and useful.

*A History of Scotland for Schools*. By P. Hume Brown, M.A., LL.D., Fraser Professor of Ancient (Scottish) History and Palæography, University of Edinburgh. (3s. Oliver & Boyd.)

There can be no doubt at all that this is the best of school histories of Scotland. It is based on the most advanced results of modern investigation—speaking generally, and ignoring some traditional embellishments (like Randolph's chaplet, Edward's army of "one hundred thousand men, of whom forty thousand were horsemen," at Bannockburn, and legendary stories that should have been left with Mr. Meikle in the "Junior History" and labelled as imaginative and romantic). The volume gives the cream of the author's Scottish studies in simple language and in broad and comprehensive outlook. Genealogical tables are appended, and the illustrations are very numerous and very good.

The revised edition of *The Student's American History*, by D. H. Montgomery, published by Messrs. Ginn in "The Leading Facts of History Series," has suffered undeserved neglect at our hands. It is an admirable work, distinguished by the fullness of its treatment of political and constitutional history, and of the chief events bearing on the development of the nation. "It quotes the statements of public men, original documents, and authorities in order that the history of our country may speak for itself on the points of greatest interest to the student and the teacher"—a number of them in facsimile. Various important groups of matters—documents, tables, &c.—are given in appendix. There are 29 full- and double-page maps, 48 maps in the text, and 30 illustrations.

Messrs. Macmillan reissue *The History of Italy*, by William Hunt, M.A., D.Litt., Vicar of Congresbury, which has long held an honoured place in the "Historical Course for Schools" edited by Freeman (3s. 6d.).

Mr. Fisher Unwin reissues *The Hungry Forties*—a remarkable series of "descriptive letters and other testimonies from contemporary witnesses" depicting "life under the bread tax." Mrs. Cobden Unwin furnishes a touching introduction. The book constitutes a grim challenge on a very grave question.

#### EDUCATION.

*Pestalozzi: an Account of his Life and Work*. By H. Holman, M.A. Cantab., formerly Professor of Education in the University College of Wales, Aberystwyth. (3s. net. Longmans.)

"To say the least of it, he is very much to be envied and pitied who



cannot still learn something from Pestalozzi." Mr. Holman's aim is "to provide students, and teachers who still study, with the material for a thoughtful survey of the principles and practices of one of the greatest of the world's pioneer educators and educationists." He has laboured to set forth clearly what Pestalozzi thought, wrote, and did rather than to expound his own views about these things, though he gives his own views freely enough, but in due subordination to his principal object. This, we take it, is the best service that he could have done, whether to Pestalozzi or to modern educationists: the thing is to get at the original sources and to deal with the man and his work at first hand—the more arduous, but the only profitable procedure. So far as Mr. Holman inevitably "has, by selection, given a particular tone and colouring to his view of his hero, he has deliberately chosen to make it as appreciative as possible." So far as he errs, he errs on the safe side. The treatment is singularly fair, comprehensive, and enlightened, and it keeps in steady view the relations of Pestalozzi and his work to the spirit of the age he lived in. There is no better account of Pestalozzi in English. The volume is a substantial, and in a sense an original, contribution to the history of educational theory and practice; it is sincerely and deliberately worked out; and it is plainly and agreeably written. There are four illustrations, one of them an interesting portrait frontispiece.

In the *Cape of Good Hope Education Report for 1907*, Dr. Muir, the Superintendent-General of Education, presents an account of very satisfactory progress. The local administration of public schools has now passed practically into the hands of the School Boards, only 268 out of 2,104 schools remaining outside their control at the date of the report, and probably none at all now. The schools for European children have increased by 454, while the pupils enrolled have increased by 6,482—unprecedentedly large increases; but no substantial advance is reported in either respect as regards coloured children. The average attendance of European pupils exceeds 90 per cent.; that of coloured children has considerably improved, and now stands at over 83 per cent. The level of attainments, though lower than it ought to be, is rapidly rising in the case of European pupils; but the majority of the coloured do not get beyond Standard II. The quality of the instruction shows steady improvement, and Nature study and elementary agriculture are being added, where possible, to the general curriculum. The percentage of certificated teachers has risen from 50 to 53 per cent. of the total number of teachers at work. Building schemes have been kept back by the financial depression, which has also, this year as last, unfortunately curtailed even Dr. Muir's statistics: "The making of a break in the series," as he justly remarks, "practically ruins the whole for the purposes of the educational statistician." There has been a considerable increase in the number of students attending the five University colleges, though there is no noteworthy development to record in connexion with the higher education. This report is one more testimony to the signal ability and discretion of Dr. Muir's administration.

*The Red Code*, 1908 (English and Welsh editions combined), by J. H. Yoxall, M.A., and Ernest Gray, M.A., is the sixteenth annual issue (1s. net, Educational Supply Association, for the N.U.T.). The information is very full and the annotations are extremely useful. The work has been revised down to September of this year.

#### RELIGIOUS AND MORAL.

*Bible Lessons for the Young and Notes and Outline Lessons for Teachers* thereon. By the Rev. M. G. Glazebrook, D.D., Canon Residentiary of Ely, formerly Head Master of Clifton College. (4s. 6d. Rivingtons.)

The "Bible Lessons" consist of 120 passages selected from the Authorized Version, with occasional connecting narratives in abstract, and are accompanied by 8 maps for different periods. The "Notes and Outline Lessons" contain a scheme for each Bible lesson, with adequate notes: "they suggest a general line of treatment and supply the necessary information, but leave the handling of the lesson to the teacher's own initiative." A very serviceable "Dictionary" of information on special subjects is appended. The whole work is marked by ability and good sense.

*The Prayer Book in the Making*. By the Rev. Frank H. Weston, M.A., Vicar of Lastingham, Yorks. (5s. net. Murray.)

Mr. Weston addresses his history of the Book of Common Prayer to "the plain man," the average church-going layman—"him that occupieth the room of the unlearned." The disposition of the matter is lucid and the style is appropriately simple. The study of the book need not be confined to the "unlearned": all readers will find it instructive as well as interesting.

*Recollections and Letters of the Rev. W. H. E. McKnight, M.A.*

By Edith Isabel Thomson. (6s. Masters.)

"With the death of the Rev. W. H. E. McKnight expired the male line of a branch of the ancient and once powerful clan MacNaught." Mr. McKnight was Rector of Silk Willoughby in Lincolnshire from 1879 to his death in 1896 at the age of seventy-eight. His niece has drawn freely upon his letters and speeches (political as well as ecclesiastical). The interest mainly lies in the record of a serious, unobtrusive, and affectionate character, devoted with single mind to his parish duties, with occasional excursions into general politics. Such lives, indeed, count for much in the national sum, and tho

affectionate record may be read with sympathy widely beyond the family and friends of the late rector.

*The Profit of Love: Studies in Altruism*. By A. A. McGinley. (5s. net. Longmans.)

Mr. McGinley, avoiding the sentimental aspect of love, deals with its practical and permanent influence upon the physical and moral well-being and upon the development of the individual and of the race. "What the author insists on," the Rev. George Tyrrell explains in a vigorous preface, "is that we need men and women rather than schemes and systems; that the remedy is to be sought in character rather than in legislation; that we must work at the roots of social good and evil, not at the branches and extremities." That is to say, without minimizing any of the various efforts at social elevation, the fundamental thing is character: "our first duty to our neighbour is an inward one—a duty of judgment and feeling, 'to love him as myself.'" The treatment is broad, comprehensive, earnest, and full of thoughtful suggestion.

#### MISCELLANEOUS.

*The Country Home* (6d. net, Constable), a monthly that has now appeared in half-a-dozen numbers, is most varied, practical and interesting, and it is very liberally and effectively illustrated.

Messrs. Baird & Tatlock (45 Renfrew Street, Glasgow), Instrument Makers to the Admiralty, issue pamphlets illustrating their Simple Improved Theodolites, combined with plane table, and combined with plane table and sextant, for school and college use in practical geography, mathematics, &c.

#### FIRST GLANCES.

##### CLASSICS.

*Greek Anthology, Select Epigrams* from the. Translated by J. W. Mackail, M.A., LL.D., sometime Fellow of Balliol College, Professor of Poetry in the University of Oxford. 2s. net. Longmans (Pocket Library).

[Admirable translation (in prose), accurate and graceful. Very welcome in cheap and agreeable form.]

*Hannibal, Scenes from the Life of: Selections from Livy*. Edited by W. D. Lowe, M.A., formerly Scholar of Pembroke College, Cambridge; Lecturer in Education, Durham University; and Junior Censor, University College, Durham. 1s. 6d. Clarendon Press.

[Passages judiciously selected and arranged; historical introduction; full notes; English exercises for retranslation; vocabularies; 5 maps. Very attractive and serviceable for beginners.]

*Latin Delectus, The New*. Book I. By W. Jenkyn Thomas, M.A., Head Master of the Hackney Downs School, and E. P. Doughty, M.A., Classical Master at the same School. 1s. 6d. Horace Marshall.

[For earlier reading in schools with a leaving age of about sixteen. Extracts varied and interesting; ample notes; vocabulary; 8 excellent illustrations.]

*Latin Grammar, A First*. By E. H. Scott, M.A., late Head Master of the Boys' Secondary School, Barberton, Transvaal, and Frank Jones, Assistant Master, King Edward's Grammar School, Aston, Birmingham. 2s. Blackie.

[Essentials selected and driven home.]

*Latin Grammar, A School*. By H. G. Ford, M.A., Assistant Master in Bristol Grammar School, formerly Scholar of Wadham College, Oxford. 2s. 6d. Methuen.

[“To meet the needs of boys of varying ages and standards, from those of a beginner to those of an ordinary sixth form.” Based on sixteen years' experience. Thoughtful and careful work.]

*Ovid: Metamorphoses XI*, 410-748. Edited J. F. Stout, B.A. Camb. 1s. 6d. Clive (University Tutorial Series).

[Useful introduction and notes.]

##### MATHEMATICS.

*Algebra, A New*. Vol. I. (containing Parts I, II, and III, with answers). By S. Barnard, M.A., Assistant Master at Rugby School, late Fellow and Lecturer at Emmanuel College, Cambridge, and J. M. Child, B.A., B.Sc., Lecturer in Mathematics, Technical College, Derby, formerly Scholar at Jesus College, Cambridge. 2s. 6d. Macmillan.

[“An attempt to meet the growing demand for a school algebra which contains a logical development of the subject in accordance with modern views.”]

*Algebra, The Eton*. Part I. By P. Scoones, M.A., and L. Todd, M.A., Assistant Masters at Eton College. 2s. 6d. Macmillan.

[Up to and including quadratic equations and simple graphs. Examples only; abundant and well chosen. Specimen examples worked, to secure uniformity of method.]

*Arithmetic, A Modern*; with Graphic and Practical Exercises. By Sydney Jones, M.A., late Scholar of Christ's College, Cambridge, Head Master of Cheltenham Grammar School. Part II, with answers. 2s. 6d. Macmillan.

[“The essential parts of arithmetic are dealt with in the spirit of recent recommendations.” Exercises abundant.]

- Arithmetic, Girls', McDougall's. Book I. (for Class IV.). 4d.  
 Arithmetic of Commerce, The Elements of the. By H. H. Talbot. 1s. 3d. Jack (Commercial Series).  
 [Worked examples and exercises plentiful.]  
 Arithmetic, Practical, and Mensuration. By Frank Castle, M.I.M.E., Mechanical Laboratory, Royal College of Science, South Kensington. 2s. Macmillan.  
 [Practical processes "in accordance with modern ideas as to the needs of evening continuation schools and technical classes."]  
 Calculus, Differential, for Beginners. By Alfred Lodge, Assistant Master at Charterhouse, formerly Fereday Fellow of St. John's College, Oxford, late Professor of Pure Mathematics at the Royal Indian Engineering College, Cooper's Hill. With an Introduction by Sir Oliver Lodge, D.Sc., F.R.S., LL.D., Principal of the University of Birmingham. 4s. 6d. George Bell (Cambridge Mathematical Series).  
 [Third edition, revised; miscellaneous examples added.]  
 Conic Sections, Analytical Geometry of the. By the Rev. E. H. Askwith, D.D. 7s. 6d. net. A. & C. Black.  
 [Complete treatise. Seventy-six diagrams in text.]  
 Geometry, A Preliminary. By Noel S. Lydon, Owen's School, Islington. 1s. Methuen.  
 [Full and careful course; numerous exercises.]  
 Geometry, Concurrent Practical and Theoretical. By W. J. Potter, M.A. Cantab., Second Master, The Roan School for Boys, Greenwich. Part I. 1s. 6d. net. Ralph, Holland, & Co.  
 [Substance of Euclid I., 1-34, with additions.]  
 Geometry, Modern. By C. Godfrey, M.A., Head Master of the Royal Naval College, Osborne, formerly Senior Mathematical Master at Winchester College, and A. W. Siddons, M.A., Assistant Master at Harrow School, late Fellow of Jesus College, Cambridge. 4s. 6d. Cambridge University Press.  
 [Sequel to the author's "Elementary Geometry." 56 theorems; 679 exercises.]  
 Mensuration, Elementary. By W. M. Baker, M.A., Head Master of the Military and Civil Department of Cheltenham College, and A. A. Bourne, M.A., formerly Head Mathematical Master on the Classical Side at Cheltenham College. 1s. 6d. George Bell (Cambridge Junior Mathematical Series).  
 [Elementary treatment; range fairly complete. Numerous examples; revision papers at various stages.]

## ENGLISH LITERATURE.

- Blackie's Red Letter Shakespeare.—(1-3) King Henry VI., Parts I., II., and III. 1s. 6d. net each.  
 [Charming edition.]  
 Cassell's Readings from Dickens. 6d. (limp cloth).  
 [Popular extracts, "given as condensed by Dickens himself for his readings." Very good selection. Four coloured and four plain plates.]  
 Chambers's "Standard Authors."—(1) Hereward the Wake (C. Kingsley); (2) The Lances of Lynwood (Charlotte M. Yonge); (3) Tom Brown's School Days (Hughes); (4) The Talisman (Scott). 1s. each.  
 [Good type and tasteful get-up. Attractive series.]  
 Ginn's "Standard English Classics."—(1) Selections from Byron. Edited by Samuel Marion Tucker, Professor of English Literature, Florida State College for Women. 1s. (2) Selections from Poe. Edited by J. Montgomery Gambrill, Head of the Department of History and Civics, Baltimore Technical Institute. 1s. 6d.  
 [Good literary introductions; brief notes. (1) has illustrations; (2) has a portrait of Poe as frontispiece. Type and get-up agreeable.]  
 Heath's "English Classics."—(1) Bacon's Essays. Edited by Fred Allison Howe, LL.B., Ph.D. 1s. 6d. (2) Joan of Arc, and the English Mail Coach (De Quincey). Edited by Charles M. Stebbins, M.A. 1s.  
 [(1) Adequate introduction, biographical and literary; considerable notes; glossary, index. (2) Useful biography and account of the romantic revival in English literature; brief notes, with questions interspersed. Excellent series.]  
 Nelson's Library.—(1) Eight Days, a Tale of the Indian Mutiny, by R. E. Forrest. (2) The Wages of Sin, by Lucas Malet. (3) Lady Audley's Secret, by Miss Braddon. (4) The Pit, by Frank Norris. (5) An Adventurer of the North, by Sir Gilbert Parker. 7d. each.  
 [Good reading; agreeable type; flexible binding; frontispiece to each volume.]

## POETRY FOR SCHOOL AND HOME.

- Girl's Book of Poetry, The. In 3 Parts: Junior, Intermediate, and Senior. 4d. each. Macmillan.  
 [Very good selection, well graduated.]  
 Longfellow, The Shorter Poems of. Selected by G. Clifford Dent. 3d. net. Dent (Temple English Literature Series for Schools).  
 [Biographical introduction; brief notes.]

- Macmillan's Departmental Poetry Books. Five Books: Infants; Junior I.; Junior II.; Senior I.; Senior II. Edited by S. C. B. Edgar, M.A., Kent Road Higher Grade School, Glasgow. 2d., 4d., 5d., 5d., 5d.  
 [Contain all the poems given in the Scottish Education Department's Memorandum on the teaching of English as "typical examples of poems suitable for the various divisions of a primary school." Capital selection; large and clear type.]  
 McDougall's Alexandra Recitation Books. No. 6. 2d.  
 [Good selection; brief notes after each passage.]  
 McDougall's Divisional Poetry Books. Book I.: for Infants, 2d.  
 [30 pieces; suitable; well printed.]  
 Oxford Elementary School Books. (1) First Book of Verse; (2) Second Book of Verse; (3) Third Book of Verse. 2d., 3d., 3d. Henry Frowde; Hodder & Stoughton.  
 [Appropriate selections; agreeable type and get-up. Each book has a coloured frontispiece.]  
 Patriotic Songs for Schools. 2d. net. National Society's Depository.  
 [Collection of Songs in one, two, and three parts, adapted for the use of children. Almost all taken from the "Song Book for Schools." Music arranged and harmonized by Sir C. Villiers-Stanford, Mus.Doc., Professor of Music in the University of Cambridge.]  
 Pitman's Illustrated Poetry Books for Schools. Book III. 5d.  
 [Beautifully printed and profusely illustrated.]  
 Reciter, Empire Day: Poems of Patriotism, of Labour, and of Peace. No. 71 of "The Penny Poets" (39 Whitefriars Street, E.C.).  
 [Stirring pieces, well selected.]  
 Rhymes and Stories. Compiled and edited by Marion F. Lansing, M.A. Illustrated by Charles Copeland. 1s. 6d. Ginn (The Open Road Library of Juvenile Literature).  
 [First volume of the series. Familiar rhymes, nursery tales, &c. Liberal and effective illustration. Well got up.]  
 Verse, A Book of, for Boys and Girls. Compiled by J. C. Smith. Parts I., II., and III. 4d., 6d., 1s. Parts I.-III. 2s. cloth. Clarendon Press.  
 [Excellent and abundant selection; well arranged.]  
 Verse for School and Home, A Treasury of. Selected and arranged by M. G. Edgar, M.A. Parts I. and II. 6d. each; limp cloth, 8d. Harrap.  
 [Old favourites and fresh pieces; very useful selection.]

## GERMAN.

- Andersen in German. Edited by Walter Rippmann. With Illustrations by Thomas, Charles, and William Robinson. 1s. 4d. Dent (Modern Language Series).  
 [Seven stories; exercises appended. Charming reader.]  
 Bell's First German Course. By L. B. T. Chaffey, M.A., Assistant Master at Eton. 2s. Bell's Modern Language Series.  
 [Rapid reading lessons, with necessary helps; short stories. Grammar outline appended. Vocabulary; illustrations.]  
 Science German Course. By C. W. Paget Moffatt, M.A. Lond., M.B., B.C. Cantab. 3s. 6d. Clive (University Tutorial Series).  
 [Enough grammar for translation from German; 88 passages in German—general, mathematics, physics, chemistry, &c. Vocabularies, separate and general. Very serviceable.]  
 Science Students, German Grammar for. By W. A. Osborne, M.B., D.Sc., Professor of Physiology and Histology in the University of Melbourne, and Ethel E. Osborne, M.Sc. 2s. 6d. net. Whittaker.  
 [To enable one "to read scientific articles and treatises published in the German tongue." Special stress on chemistry in the exercises. Well planned and executed. Most useful.]  
 Science Students, A Second German Course for: Readings from recent German Scientific Publications. Selected, arranged, and annotated by H. G. Fiedler, Professor of German in the University of Oxford (formerly in the University of Birmingham), and F. E. Sandbach, Lecturer in German in the University of Birmingham. 2s. 6d. net. Moring (De la More Press).  
 [Supplement to the authors' "First German Course for Science Students," but may follow any other similar course, such as Prof. and Mrs. Osborne's (above). Progressively arranged. Very useful notes; grammar summary appended. Excellent selection.]

## EDUCATION.

- Board of Education.—(1) Statistics of Public Education in England and Wales, 1906-7-8: Part I., Educational Statistics. Cd. 4288. 2s. 3d. (2) Syllabus of the Preliminary Examination for the Elementary School Teacher's Certificate, 1910. (3) Syllabus of the Certificate Examination for Teachers in Elementary Schools, 1910. (4) Syllabus of the Preliminary Examination of Blind Candidates for the Elementary School Teacher's Certificate, 1909. (5) Syllabus of the Certificate Examination for Blind Teachers in Elementary Schools, 1909. (6) Circular 596 (Medical Inspection of School Children). 1d. (7) Syllabuses and Lists of Apparatus applicable to Technical Schools, &c., in England and Wales, 1906-9. 4d.

# OXFORD UNIVERSITY PRESS.

## THE OXFORD GEOGRAPHIES.

By A. J. HERBERTSON, M.A., Ph.D., Reader in Geography in the University of Oxford.

### *The Preliminary Geography.*

Second Edition, 160 pages, with 72 Maps and Diagrams. 1s. 6d.

*Preparatory Schools Review.*—"Where a class-book of geography is first introduced, this should be the book. There is nothing else so good."

### *The Junior Geography.*

Second Edition. 288 pages, with 166 Maps and Diagrams. 2s.

*School World.*—"Is good everywhere. The sketch maps are most interesting and most instructive."

### *The Senior Geography.*

Second Edition. 370 pages, with 117 Maps and Diagrams. 2s. 6d.

*School World.*—"The relation of cause and effect is continually insisted upon, and the lesson driven home by the frequent insertion of educative maps and plans and cross-sections."

## OXFORD TREASURY OF ENGLISH LITERATURE.

By G. E. HADOW, Tutor in English Literature, Lady Margaret Hall, Oxford; and W. H. HADOW, Fellow of Worcester College, Oxford. Three Vols. 3s. 6d. each.

Vol. III—*Jacobean to Victorian.*

*Guardian.*—"It would be difficult to name a more complete work of its kind even in the matter of selection, while the literary criticism is illuminating and original."

*Previously Published.*

Vol. I—*Old English to Jacobean.* Second Edition.

Vol. II—*Growth of the Drama.* Second Edition.

## PALGRAVE'S GOLDEN TREASURY.

With 100 Additional Poems to the end of Nineteenth Century. From 1s. net. *(World's Classics.)*

*Schoolmaster.*—"The value of the work as a representative collection has been decidedly enhanced."

## THE RENAISSANCE AND THE REFORMATION.

A Text-Book of European History, 1494-1610. By EMMELINE M. TANNER, History Mistress at Sherborne School for Girls. With Maps. 3s. 6d. [*Immediately.*]

## TROIS SEMAINES EN FRANCE.

An Illustrated Reader, with Questions for Conversation and Grammatical Exercises. By D. L. SAVORY, French Lecturer at Goldsmiths' College, University of London; and L. CHOUVILLE, B. & S. L., Assistant Master at the Perse School, Cambridge. Second Edition. 2s.

*The Journal of Education.*—"The narrative is simple and natural. . . . The questionnaire provides a searching test."

## SELECTIONS FROM ERASMUS,

Principally from his Epistles. By P. S. ALLEN, Fellow of Merton College, Oxford; Editor of "Erasmian Epistolae." With Life of Erasmus, 5 Illustrations, Notes, and Vocabulary of Special Words. 3s. 6d.; and on India paper, 4s.

*Educational Times.*—"A good selection with judicious notes."

## SCENES FROM THE LIFE OF HANNIBAL.

**SELECTIONS FROM LIVY.** Edited, with Historical Introduction, Notes, Maps, Vocabularies, and English Exercises. By W. D. LOWE. Fcap. 8vo, 1s. 6d.

## OLD TESTAMENT HISTORY.

Narrated for the most part from the Bible. By GEORGE CARTER. With Maps. 2s.

## SCHOOL ALGEBRA.

By W. B. PATERSON (20th Wrangler), Trinity College, Cambridge; Mathematical Master, Mercers' School; formerly Mathematical Master, Christ College, Brecon; and Assistant Mathematical Lecturer, Owens College, Manchester. Part I. [*Immediately.*] With Answers. 2s. 6d. Without Answers. 2s.

## AN INTRODUCTION TO THE THEORY OF GROUPS OF FINITE ORDERS.

By HAROLD HILTON, Lecturer in Mathematics at Bedford College, formerly Fellow of Magdalen College, Oxford, and Assistant Mathematical Lecturer at the University College, Bangor. 14s. net.

*Athenaeum.*—"The student who is making a serious study of this branch of pure mathematics will find this text-book of great assistance."

## TYPES OF FLORAL MECHANISM.

Part I, Types II-XII (Jan. to April). With Diagrams and 39 Coloured Plates. By A. H. CHURCH. 21s. net.

*School World.*—"It would be difficult to conceive a work more useful, instructive, or inspiring. . . . In the school library and in the country house the work will truly be a thing of beauty, and a joy to all who make use of it."

Select List of Educational Works, List of Books set for various Examinations, and Complete Catalogue (144 pages) post free.

London: HENRY FROWDE, Oxford University Press, Amen Corner, E.C.

# MESSRS. BELL'S NEW BOOKS

## MASON'S NEW ENGLISH GRAMMARS.

Revised in accordance with Modern Requirements by

A. J. ASHTON, M.A., Senior English Master, Kelvinside Academy, Glasgow; and Examiner in English to the College of Preceptors.

NOW READY. 125 pages. 1s.

### MASON'S JUNIOR ENGLISH GRAMMAR.

JUST PUBLISHED. 218 pages. 2s.

### MASON'S INTERMEDIATE ENGLISH GRAMMAR.

READY SHORTLY (Completing the Course).

### MASON'S SENIOR ENGLISH GRAMMAR.

JUST PUBLISHED. Crown 8vo. 1s. 6d.

## ELEMENTARY MENSURATION.

By W. M. BAKER, M.A., and A. A. BOURNE, M.A.

The intention of the authors has been to make the subject of Mensuration accessible to those who know no Mathematics except elementary Arithmetic. Although the character of the book is elementary, however, its range is fairly complete, and it will be found useful for all examinations where elementary Mensuration is required.

IN PREPARATION. Crown 8vo. 2s.

## A LATIN READER

(Verse and Prose).

By W. KING GILLIES, M.A. (Glas.), B.A. (Oxon.), Snell Exhibitioner, Balliol College, Senior Classical Master in the High School of Glasgow; and HECTOR J. ANDERSON, M.A. (Edin.), B.A. (Oxon.), Exhibitioner of Oriol College, Inspector of Training Colleges, Cape Colony.

Crown 8vo. With the Original Maps. 2s.

## JOSEPH HALL.—MUNDUS ALTER ET IDEM

(An Old World and a New).

Edited for School Use, with Introduction, Notes, and Vocabulary, by E. J. ANDERSON, M.A., Inspector of Training Colleges in Cape Colony, late Classical Master at Hillhead Public School, Glasgow.

Pott 8vo. Illustrated. 1s.

## TALES BY ERCKMANN-CHATRIAN.

*Le vieux Tailleur. Le Combat de Coqs. Pourquoi Menebourg ne fut pas rendu.*

Edited, with brief Notes and Vocabulary, by O. H. PRIOR, Assistant Master at Rugby.

Third Edition, Revised.

## A FRENCH HISTORICAL READER

By H. N. ADAIR.

With Illustrations, Brief Notes, a Vocabulary, and a new Composition Supplement. 2s. Without Supplement, 1s. 6d. Supplement separately, 6d. net.

Ready immediately. Crown 8vo. Illustrated. 2s.

## A GERMAN HISTORICAL READER

By J. E. MALLIN, B.A., Strand School, King's College.

## BELL'S ENGLISH TEXTS FOR SECONDARY SCHOOLS.

General Editor—A. GUTHKELCH, M.A.

*New Volumes.*

**CHARLES READE: The Cloister and the Hearth.** Abridged and Edited by the Rev. A. E. HALL, B.A., Assistant Master, Bancroft's School. 1s.

**SCOTT: A Legend of Montrose.** Abridged and Edited by F. O. LUCKHURST, Assistant Master, Sir Walter St. John's School, Battersea. 1s.

**ENGLISH ODES.** Selected and Edited by E. A. J. MARSH, M.A., Assistant Master, Hanley Secondary School. 1s.

*Write for full Prospectus.*

London: GEORGE BELL & SONS, York House, Portugal Street, W.C.

Cambridge University.—(1) Local Examinations (Preliminary, Junior, Senior): Examination Papers, July, 1908, with Lists of Syndics and Examiners, and Regulations for the Examinations in July and December, 1908. 2s.; by post, 2s. 3d. Clay (Cambridge University Press Warehouse). (2) Preliminary Local Examination: Class Lists (Boys and Girls) for Examination in July, 1908. (3) Local Examinations: Class Lists (Boys) for Examinations in July, 1908. (4) Local Examinations: Class Lists (Girls) for Examinations in July, 1908. (5) Supplementary Tables, &c. 1s. net. Clay (Cambridge University Press Warehouse).

L.C.C.—(1) Report on Schools for Blind, Deaf, and Defective Children, 1907. 1s. (2) Report on Higher Education, 1907. 4d. (3) Teachers' Classes Handbook, showing classes and lectures organized by the L.C.C. and open to teachers in London schools, elementary and secondary. (4) Scholarships and Training of Teachers' Handbook. 1d.; post free, 3d. P. S. King.

Library Association: Class List of Best Books and Annual of Bibliography, 1907-8. 1s. 6d. net. Libraco (60 Wilson Street, Finsbury Square, E.C.).

[Third annual issue; much enlarged. Very useful guide.]

Manchester: Municipal School of Technology and Municipal School of Art—Calendar for 1908-9. 6d.; by post, 10d.

[Very full information. Amply illustrated.]

Northampton Polytechnic Institute (St. John Street, E.C.): Announcements Educational and Social for Session 1908-9.

[Most ample syllabuses; fresh improvements.]

Oxford and Cambridge Locals, Normal Guide to. 6d. net. Normal Correspondence College.

Oxford University—Local Examinations: Division Lists for 1908—(1) Preliminary Candidates, 6d., by post, 7d.; (2) Junior Candidates, 6d., by post, 8d.; (3) Senior Candidates, 6d., by post, 8d. Oxford: Parker.

People, The Education of a. Inaugural Lecture by George H. Locke, Professor of History and Theory of Education and Dean of the School for Teachers, Macdonald College, Montreal.

#### PRACTICAL MANUALS AND PAMPHLETS.

Cinematograph in Science, Education, and Matters of State. By Charles Urban, F.Z.S.

[Explanation of numerous applications.]

Cookery Book, Leng's. 6d. net.

[Mainly for artisan and middle-class households. Simple, varied; extremely useful.]

Dress-Cutting, Manual of. By A. Guerre, Inspectress of the Professional School of the Pupils of the Seine, &c. 6d. Macmillan.

[Authorized English edition. Illustrated.]

Field Experiments in Staffordshire and Shropshire, and at the Harper Adams Agricultural College, Newport (Salop): Joint Report for Season 1907. Staffordshire County Council Education Committee.

Garden, The School: A Handbook of Practical Horticulture for Schools. By J. E. Hennessey. 1s. Blackie.

[Systematic, simple, instructive.]

Girls, How to Make our, Graceful. By Gwendoline E. Kelly and Lucie Henley-White. Harrap.

[Manual of deportment, with exercises (musical accompaniment). Illustrations. Interesting brochure.]

Handwriting, Modern, The Public School. By R. Wenlock, F.R.G.S. 6d. net. F. Hodgson (89 Farringdon Street, E.C.).

[Good example of clear formation; well chosen exercises. Useful practical suggestions in Introduction.]

"One & All" Garden Books (edited by E. Owen Greening, F.R.H.S.). No. 13, Onions, by Horace J. Wright, F.R.H.S. No. 14, Climbers, by T. W. Sanders, F.L.S., F.R.H.S. No. 15, Peas, by Horace J. Wright. No. 17, Beans, by R. Lewis Castle, F.R.H.S. 1d. each. Agricultural and Horticultural Association (92 Long Acre, W.C.).

[Practical, serviceable pamphlets.]

Photo Manual, Leng's. 6d. net.

[“All about photography,” for amateurs. Excellent.]

Plastics: an Educational Handwork. By William Harbutt, A.R.C.A. Author, Bathampton, Bath.

[“A combined system of manual training, modelling, and drawing.” Instructive. Numerous illustrations.]

#### MISCELLANEOUS.

Celebration Days, British. Cards: small, 1s. per dozen; large (20 x 25), 1s. net each. Charles & Dible.

[Ornamental design.]

Electrical Legislation. Address to Students of the Institution of Electrical Engineers by Robert Hammond, Hon. Treasurer.

Nursery Rhymes, Aunt Kate's. With Music. 1d. Leng.

Scotland, Guide to, Leng's. 1d.

[Handy, and judiciously informatory.]

1908.

## COLLEGE OF PRECEPTORS.

(Incorporated by Royal Charter.)

BLOOMSBURY SQUARE, LONDON, W.C.

### Lectures for Teachers

ON THE

## SCIENCE, ART, AND HISTORY OF EDUCATION.

### THE PRACTICAL TEACHER'S PROBLEMS.

To be delivered by Professor J. ADAMS, M.A., B.Sc., F.C.P., Professor of Education in the University of London.

The Second Course of Lectures (Thirty-sixth Annual Series) will commence on Thursday, October 1st, at 7 p.m.

The matters to be dealt with are such as interest all classes of teachers, and will be treated with that frankness that is possible in an unreported discourse, but is out of the question in a printed book. While the lecturer will lose no opportunity of indicating how present educational conditions may be improved, he will take the present conditions as the basis and show how to make the best of things as they are. The Lectures will be copiously illustrated by references to actual experience in all kinds of Schools.

#### SYLLABUS.

I. (Oct. 1.) *The Teacher's Library*: three main sections, books needed by teacher as (a) human being, (b) knowledge-monger, (c) educator: (a) and (c) too often neglected: special value of books used by teacher during childhood: the upper and lower limit of professional books under (c); possibility of excess in educational theory: plea for greater recognition of newer class of literary presentations of educational problems: teaching “the inarticulate profession”: practical help that may be had from such books: how to use educational periodicals.

II. (Oct. 8.) *How to get some good out of Psychology*: need for a change in the point of view: rational and experimental psychology: need of both by the teacher: danger of pedantry in both: place of the proposed middleman between the psychologist and the practical teacher: the teacher must be allowed to direct the psychologist (not the psychologist the teacher) as to the results to be sought: list of things the teacher wants to know, compared with the list of things the psychologist wants to tell him: teacher must not confine himself to child-psychology, his profession demands the treatment of his fellow adults as well.

III. (Oct. 15.) *How to deal with Officials*: an example of the teacher's need of adult psychology: the difference between the human being and the official: the invariable third: official questions and answers: how to interpret them: the official mind and how to approach it: an instructive bit of law: the official art of compromise: manipulation of conflicting official regulations: the whole question reviewed from the point of view of the teacher as himself an official.

IV. (Oct. 22.) *How to deal with Parents*: generally wrong attitude of teachers towards parents: *in loco parentis* theory: “foster parent”: getting at parents through children and *vice versa*: parents' antagonism to school authority has definite relation to their social rank: special difficulties of different classes of teachers: conflicting influences of fathers and mothers: genuine co-operation between school and home: golden mean between parental indifference and interference.

V. (Oct. 29.) *How to Learn*: the other side of teaching: absence of the desire to know: how to rouse it: even when desire is present there is difficulty enough: kinds of learning: reproduction: the dynamic view: constructive learning: rhythm of learning: concentration and diffusion: fallacies about thoroughness: temporary and permanent learning.

VI. (Nov. 5.) *Class Management and Teaching*: ordinary psychology deals with the individual: teacher needs collective psychology as well: relation of class to crowd or mob: minimum number to constitute a class: sympathy of numbers: class leaders: difference between class teaching and private coaching: advantages and difficulties in having to teach several persons at the same time: the average pupil: the type: the composite: the ghostly class.

VII. (Nov. 12.) *How to combine Lecturing and Teaching*: teachers' general disapproval of lecturing: nature of lecturing as opposed to teaching: newer methods of teaching history, geography, and geometry are demanding a certain amount of lecturing: dangers of lecturing in schools as compared with colleges: the pupils' share in the process of lecturing: the art of listening: intermittent hearing: the lecturer's relation to the text-book.

VIII. (Nov. 19.) *Written work in School*: absolute necessity for a good deal of written work in school: note-taking, exercise writing, essays: crudery of correction: the surd of efficient correction in (a) quantity, (b) quality: co-operative correction: psychological dangers of correction: the norm of correction: spelling and dictation exercises: analysis of most common errors and their causes.

IX. (Nov. 26.) *Verbal Illustration*: nature of illustration in general: distinction from exposition: mental backgrounds: relativity of illustration to the materials at command: exemplification: enumeration: nature of analogy and its place in illustration: the metaphor and other illustrative figures: how to find suitable verbal illustrations: source books of illustration.

X. (Dec. 3.) *Graphic Illustration*: the actual object and the model as means of illustration: the value of the picture as illustration, especially as compared with a verbal description: different illustrative values of a picture according as it is used for intellectual, moral, or aesthetic teaching: the diagram as compared with the picture: dangers that lurk in diagrammatic illustration: certain weaknesses in our space sense: supremacy of the straight line in illustration.

XI. (Dec. 10.) *How to deal with Dullness*: nature of dullness: its relativity to time and subject: the temporary dunce: the permanent dunce: the all-round dunce: the specialized dunce: the scale of dullness: the “defective point”: subjective and objective dullness: stage at which objective dullness is welcomed by the pupil: the tyranny of “problems,” and the legitimate claims of the relatively dull.

XII. (Dec. 17.) *The Problem of Examinations*: various functions of examinations: teacher as examiner: how to prepare an examination paper: allocation of marks: how to make the best of the external examiner: the personal equation: the use of “old examination papers”: preparation of “set books”: “the index” in revision of examination work: how to prepare pupils for an external examination with the minimum educational damage.

The Fee for the Course of Twelve Lectures is Half-a-Guinea.

\* \* The Lectures will be delivered on THURSDAY EVENINGS, at 7 o'clock, at the College, Bloomsbury Square, W.C.—Members of the College have free admission to all the Courses of Lectures.

**MATHEMATICS.**

16439. (R. J. DALLAS.)—Show that  $\frac{1}{1} \frac{2}{2+} \frac{3}{3+} \dots$  is equal to  $1/(e-1)$ .

Solutions (I.) by A. H. S. GILLSON and T. K. VENKATARAMAN, M.A.; (II.) by A. M. NESBITT, M.A., C. M. ROSS, and others.

(I.) Let  $u \equiv \frac{1}{1+} \frac{2}{2+} \frac{3}{3+} \dots$  to infinity. Then, since

$$\frac{1}{\alpha} \mp \frac{\alpha}{\beta \pm 1} \mp \frac{\beta}{\gamma \pm 1} \mp \frac{\gamma}{\delta \pm 1} \mp \dots = \frac{1}{\alpha} \pm \frac{1}{\alpha\beta} + \frac{1}{\alpha\beta\gamma} \pm \frac{1}{\alpha\beta\gamma\delta} + \dots;$$

therefore

$$\frac{1}{1+} \frac{1}{1+} \frac{2}{2+} \frac{3}{3+} \dots \text{ ad inf.} = \frac{1}{1} - \frac{1}{2!} + \frac{1}{3!} - \frac{1}{4!} + \dots = 1 - e^{-1};$$

therefore  $\frac{1}{1+u} = \frac{e-1}{e}$ ; therefore  $u = \frac{1}{e-1}$ .

(II.) Denote the expression by E, and put

$$E = \frac{1}{1+} \frac{2}{2+} \dots \frac{r}{r+a_r}$$

Let this be assumed  $= \frac{u_r + U_r a_r}{v_r + V_r a_r} = \frac{u_{r+1} + U_{r+1} a_{r+1}}{v_{r+1} + V_{r+1} a_{r+1}}$ .

Now, since  $a_r = \frac{r+1}{r+1+a_{r+1}}$ ,

$$\text{this becomes } \frac{(u_r + U_r)(r+1) + u_r a_{r+1}}{(v_r + V_r)(r+1) + v_r a_{r+1}}$$

Hence, by equating the terms

$$U_{r+1} = u_r, \quad u_{r+1} = (u_r + u_{r-1})(r+1),*$$

with corresponding relations for the v's; the latter may be written

$$u_{r+1} - (r+2)u_r = -(u_r - (r+1)u_{r-1});$$

and so again for the v's. But  $E = \frac{u_1 + u_0 a_1}{v_1 + v_0 a_1}$ , so that  $u_1 = v_1 = v_0 = 1$ ,

$$u_0 = 0. \quad \text{Thus } \left. \begin{aligned} u_r - (r+1)u_{r-1} &= 1, & \text{when } r &= 1 \\ v_r - (r+1)v_{r-1} &= -1, & \text{when } r &= 1 \end{aligned} \right\}$$

It follows, then, that  $u_{r+1} - (r+2)u_r = (-1)^{r+1}$ ,

while  $v_{r+1} - (r+2)v_r = (-1)^r$ .

Taking, then, the equations already obtained

$$\begin{aligned} u_1 - 2u_0 &= 1 & \dots\dots\dots(1), \\ u_2 - 3u_1 &= -1 & \dots\dots\dots(2), \\ u_3 - 4u_2 &= 1 & \dots\dots\dots(3), \\ \dots & \dots & \dots\dots\dots \\ u_{r+1} - (r+2)u_r &= (-1)^r & \dots\dots\dots(r+1). \end{aligned}$$

Multiply them by factors which will make all but  $u_{r+1}$  and  $u_0$  vanish on addition; i.e., multiply the mth equation by  $(r+2)!/(m+1)!$ , we get

$$u_{r+1} - 2u_0 = (r+2)!/2! - (r+2)!/3! + (r+2)!/4! - \dots + (-1)^{r+1}(r+2)!/(r+2)!,$$

the equation for the v's having the signs of the right-hand side reversed. Thus

$$E = \lim_{r \rightarrow \infty} \frac{u_{r+1}}{v_{r+1}} = \lim_{r \rightarrow \infty} \left[ \frac{\left(\frac{1}{2!} - \frac{1}{3!} + \dots\right)}{\left\{1 - \left(\frac{1}{2!} - \frac{1}{3!} + \dots\right)\right\}} \right] = \frac{1/e}{1-1/e} = \frac{1}{e-1}.$$

The PROPOSER contributes the following solution:—

The functions  $n!$  and sub-factorial  $n$  are both solutions of the succession equation  $u_{n+1} = n(u_n + u_{n-1})$ . Now, if  $p_n/q_n$  be the nth convergent of the continued fraction

$$\frac{b_1}{a_1 +} \frac{b_2}{a_2 +} \dots \frac{b_n}{a_n +} \dots,$$

we have  $p_{n+1} = a_n p_n + b_n p_{n-1}$ ,  $q_{n+1} = a_n q_n + b_n q_{n-1}$ .

Putting  $a_n = b_n = n$ , we see that, if  $a_1 b_1$  and  $a_2 b_2$  are properly chosen, the fraction whose nth component is  $n/n$  will have

$$p_n = \text{sub-factorial } (n+1), \quad q_n = \text{factorial } (n+1).$$

We must take  $b_1 = 1$ ,  $a_1 = 2$ ,  $b_2 = 2$ ,  $a_2 = 2$ , and then

$$\frac{1}{2+} \frac{2}{2+} \frac{3}{3+} \dots \frac{n}{n} = \frac{\text{sub-factorial } (n+1)}{\text{factorial } (n+1)}.$$

\* It is clear from early cases that we may take these results without any constant multiplier.

In limit  $n = \infty$ , this fraction is thus  $= 1/e$ , and hence the absolutely consistent form  $\frac{1}{1+} \frac{2}{2+} \dots \frac{n}{n+} \dots$ , is  $= \frac{1}{e-1}$ .

A Proof of Euc. VI. 3 which was recently drawn up by a boy named Hunt, of the Church of England Grammar School, Melbourne.

Communicated by W. F. BEARD, M.A.

Mr. Beard writes:—It will be noticed that the following proof does not involve any proposition but Euc. VI. 1:—

Let ABC be a triangle, and let the bisector of the  $\angle BAC$  meet BC at D. To prove

$$BD/DC = BA/AC,$$

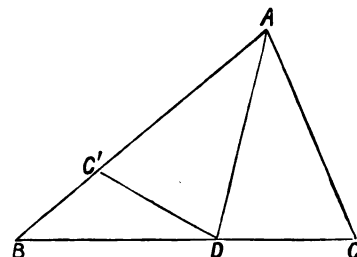
turn the  $\angle CAD$  about AD till it coincides with the equal angle BAD. Let C fall at C'; then

$$BD/DC = \Delta BAD/\Delta CAD$$

(Euc. VI. 1)

$$= \Delta BAD/\Delta C'AD$$

$$= BA/AC' \text{ (Euc. VI. 1)} = BA/AC.$$



16348. (W. F. BEARD, M.A.)—ABC is a triangle; the escribed circle opposite A, whose centre is I, meets the circum-circle at D; ID produced meets the circum-circle again at E. Prove that IE is equal to the diameter of the circum-circle.

Solutions (I.) by Rev. W. ANDERSON, M.A., the PROPOSER, and many others; (II.) by JAMES BLAIKIE, M.A.

(I.) Let O be the circum-centre; R,  $r_a$  the radii of the circum-circle and escribed circle.

$$\begin{aligned} ID \cdot IE &= \text{square of tangent from I to the circum-circle} \\ &= OI^2 - R^2 = 2Rr_a; \end{aligned}$$

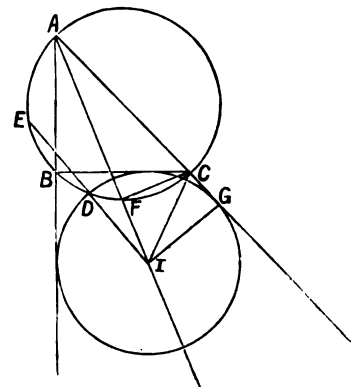
but  $ID = r_a$ ; therefore  $IE = 2R$ .

(II.) Let IA meet the circum-circle at F, and let AC touch the ex-circle at G,

$$\begin{aligned} \angle FIC &= \angle ICG - \angle IAC \\ &= \angle ICB - \angle IAB \\ &= \angle ICB - \angle FCB \\ &= \angle ICF; \end{aligned}$$

$$\text{therefore } IF = FC, \quad ID \cdot IE = IF \cdot IA;$$

$$\text{therefore } IE = FC \cdot IA/IG = FC/\sin \angle FAC = 2R.$$



16448. ("λ, μ.")—Resolve into three linear factors  $(\alpha + \beta + \gamma)^3 - 9(\alpha^2\beta + \beta^2\gamma + \gamma^2\alpha)$ .

Solution by S. T. SHOVELTON, M.A., and V. DANIEL, B.Sc.

If the factors are assumed to be

$$(ka + l\beta + m\gamma)(ma + k\beta + l\gamma)(la + m\beta + k\gamma),$$

we have, by comparison of terms,

$$klm = 1, \quad km^2 + ml^2 + lk^2 = -6, \quad k^2m + m^2l + l^2k = 3, \quad k^3 + l^3 + m^3 + 3klm = 6.$$

Therefore k, l, and m are roots of  $x^3 - 3x - 1 = 0$ . Therefore,

$$k = \omega^2 \sqrt[3]{(-\omega) + \omega^2 \sqrt[3]{(-\omega^2)}}, \quad l = \omega \sqrt[3]{(-\omega) + \omega^2 \sqrt[3]{(-\omega^2)}},$$

and

$$m = \omega \sqrt[3]{(-\omega) + \omega^2 \sqrt[3]{(-\omega^2)}},$$

where  $\omega$  and  $\omega^2$  are cube roots of unity.

16458. (C. M. ROSS.)—Prove that the value of the determinant

$$\begin{vmatrix} 1+x^2 & x & 0 & 0 & \dots \\ x & 1+x^2 & x & 0 & \dots \\ 0 & x & 1+x^2 & x & \dots \\ \dots & \dots & \dots & \dots & \dots \end{vmatrix}$$

of the mth order is  $1 + x^2 + x^4 + \dots + x^{2m}$ .

*Solutions (I.) by Lt.-Col. ALLAN CUNNINGHAM, R.E.;  
(II.) by D. P. VARADARAJAN, B.A., and others.*

(I.) Let  $1 + x^2 = y$  (for shortness), and let  $\Delta_m$  denote the determinant of  $m$ th order. Then, it will be found by working out a few cases (say of  $m = 2, 3, 4, 5, \dots$ ), and thence by induction, that

$$\begin{aligned} \Delta_m &= y\Delta_{m-1} - x^2\Delta_{m-2} = \Delta_{m-1} + x^2(\Delta_{m-1} - \Delta_{m-2}) \\ &= (1 + x^2 + x^4 + \dots + x^{2m-2}) + x^2 \cdot x^{2m-2} \\ &= 1 + x^2 + x^4 + \dots + x^{2m}. \end{aligned}$$

(II.) Let  $f(m)$  denote

$$\begin{vmatrix} 1+x^2 & x & 0 & 0 & \dots \\ x & 1+x^2 & x & 0 & \dots \\ 0 & x & 1+x^2 & x & \dots \end{vmatrix}$$

of the  $m$ th order. Then

$$f(m) = (1+x^2)f(m-1) - x \begin{vmatrix} x & x & 0 & 0 & 0 & \dots \\ 0 & 1+x^2 & x & 0 & \dots \\ 0 & x & 1+x^2 & x & \dots \end{vmatrix}$$

of the  $(m-1)$ th order. But

$$\begin{vmatrix} x & x & 0 & 0 & \dots \\ 0 & 1+x^2 & x & 0 & \dots \\ 0 & x & 1+x^2 & x & \dots \end{vmatrix} = x \begin{vmatrix} 1 & 0 & 0 & 0 \\ 0 & 1+x^2 & x & 0 \\ 0 & x & 1+x^2 & x \end{vmatrix} = xf(m-2);$$

therefore

$$f(m) = (1+x^2)f(m-1) - x^2f(m-2).$$

Hence

$$\begin{aligned} f(m) - f(m-1) &= x^2[f(m-1) - f(m-2)] \dots \dots \dots (1), \\ f(m-1) - f(m-2) &= x^2[f(m-2) - f(m-3)] \dots \dots \dots (2), \\ \dots &= \dots \dots \dots \\ f(3) - f(2) &= x^2[f(2) - f(1)] \dots \dots \dots (m-2); \end{aligned}$$

therefore, by addition,

$$f(m) - f(2) = x^2[f(m-1) - f(1)], \quad f(1) = 1 + x^2, \quad f(2) = 1 + x^2 + x^4;$$

therefore  $f(m) = x^2f(m-1) + 1 + x^2 + x^4 - x^2 - x^4 = 1 + x^2f(m-1)$ .

Hence  $f(m) = 1 + x^2(1 + x^2(1 + x^2(\dots)))$  to  $m$  terms;

therefore  $f(m) = 1 + x^2 + x^4 + x^6 + x^8 + \dots + x^{2m}$ .

N.B.—With a different notation, namely,  $\Delta_m, \dots$ , for  $f(m), \dots$ , the Proposer's solution is similar to Solution II., but the last two lines he replaces as follows:—

Again, multiplying the equations (1) to  $(m-2)$  together,

$$\Delta_m - \Delta_{m-1} = (x^2)^{m-2} [\Delta_2 - \Delta_1] = x^{2m} \dots \dots \dots (A).$$

Eliminating  $\Delta_{m-1}$  between (A) and  $\Delta_m - x^2\Delta_{m-1} = 1$ ,

$$(1-x^2)\Delta_m = 1 - x^{2m+2};$$

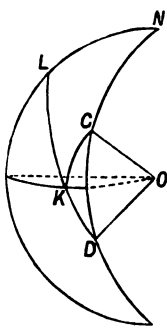
therefore

$$\Delta_m = 1 + x^2 + x^4 + \dots + x^{2m}.$$

18291. (Communicated by I. ARNOLD.)—A person engages to travel from London to Constantinople, and to touch the Equator in his journey. Required the point of contact and the length of his track, admitting it to be the shortest possible, and the Earth a sphere.—[From Hann's *Spherical Trigonometry*.]

*Solution by JAMES BLAIKIE, M.A.*

Let L, C, D, O, N represent London (longitude  $0^\circ$ , latitude  $51\frac{1}{2}^\circ$ ), Constantinople (longitude  $29^\circ$ , latitude  $41^\circ$ ), the image of Constantinople in the Equator, the centre of the Earth, and the North Pole, and let the great circle LD meet the Equator in K.



Then, by great circle geometry,  $LK + KC = LD$ ; a minimum.  
Also, by spherical trigonometry,  $\cos LOD = \cos NOL \cos NOD + \sin NOL \sin NOD \cos LND$ ,  
 $= -\cdot 10 = \cos 96^\circ$  approximately;  
therefore  $LD = \frac{90}{\cos 96^\circ}$  Earth's circumference,  
 $= 6700$  miles approximately.

To find K we may use analytical geometry, taking the Equator as the plane of  $xy$ , the meridian of London as the plane of  $xz$ , and  $ax + by + cz = 0$  as the equation of the plane LD. The co-ordinates of L are  $r \cos 51\frac{1}{2}^\circ, 0, r \sin 51\frac{1}{2}^\circ$ . Those of D are  $r \cos 41^\circ \cos 29^\circ, r \cos 41^\circ \sin 29^\circ, -r \sin 41^\circ$ .

Also at K  $y/x = -a/b = \tan \text{long. K}$ . Substituting the co-ordinates of L and D in the equation in turn and simplifying, we obtain

$$-a/b = \cdot 3096 = \tan 17^\circ 12' \text{ approx.}$$

Hence K is a point in the Congo Free State.

*The Nagel Point.*

By W. GALLATLY, M.A.

Let H be the ortho-centre of ABC. Along AH, BH, CH mark off  $AP = BQ = CR = 2r$ , so that the perpendiculars at P, Q, R to AH, BH, CH meet in the Nagel Point N.

Since  $\angle HPN = 90^\circ$ , PQR lie on the circle (HN); and  $\angle PQR = \angle PHR =$  angle between AH, CH = B; so that PQR is inversely similar to ABC. It can readily be proved (Fuhrmann's "Synthetische Beweise," p. 109) that I the in-centre of ABC is also the in-centre of PQR, so that I is the double point for ABC, PQR.

Since H is the ortho-centre and N the Nagel Point of ABC, while O, I are corresponding points for the mid-point triangle  $A'B'C'$ ; therefore  $IO = \frac{1}{2} \cdot HN$ , and  $OI$  is parallel to  $HN$ ; therefore  $IO = \omega N$ , where  $\omega$  is the centre of circle (HN), and  $I\omega NO$  is a parallelogram.

Again  $(\omega I)(OI)$  are pairs of homologous points in PQR, ABC, so that the linear ratio for the two figures is given by  $m = \omega I/OI$ .

But this is also the ratio of the radii; therefore

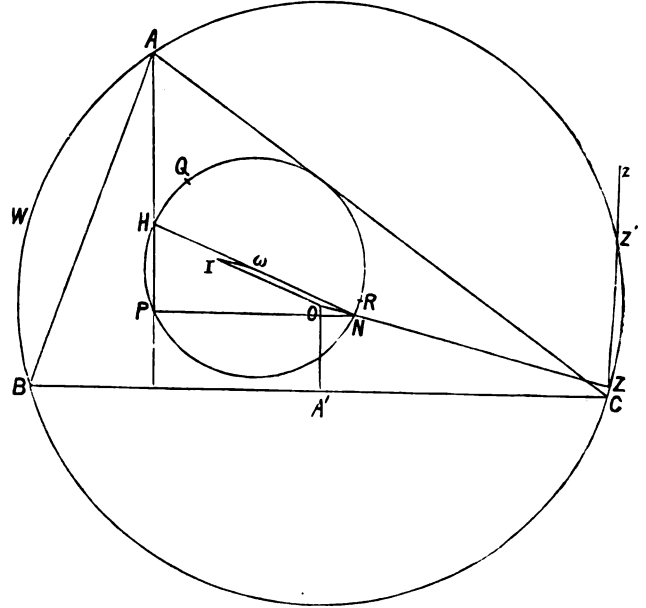
$$\omega I/OI = \omega N/R = OI/R;$$

therefore

$$\omega I \cdot R = OI^2 = R(R-2r);$$

therefore

$$\omega I = ON = R-2r.$$



Hence the circle described with centre N and radius  $2r$  touches the circle ABC.

This is a form of Feuerbach's Theorem, for, with regard to the anti-complementary triangle, N is the in-centre and O the centre of the nine-point circle.

Let ON cut the circle ABC in Z. Then, since

$$\omega I/\omega N = \omega I/OI = OI/OZ,$$

and since the angles  $I\omega N, IOZ$  are equal, and drawn in contrary directions; therefore N and Z are homologous points, and  $ZABC, NPQR$  are similar.

To prove that AZ is parallel to QR. Let  $\theta, \theta'$  be the angles made by AZ, QR with BC. Then  $\theta = \angle AZB - \angle ZBC = \angle C - \angle NQR$ , by similar figures,  $= \angle QRP - \angle NPR = \theta'$ .

The figure NRQP being similar to ZCBA,  
 $ZA : ZB : ZC = NP : NQ : NR = b-c : c-a : a-b$ .

So that the normal co-ordinates of Z are

$$[1/(b-c) \cdot 1/(c-a) \cdot 1/(a-b)].$$

The Simson line of Z for ABC is parallel to HN. Draw ZZ's perpendicular to BC, so that AZ' is parallel to the Simson line of Z.

Then  $\angle AZ's = \angle ACZ = \angle PRN$  (by similar figures) =  $\angle PHN$ ; therefore AZ' is parallel to HN.

The point W, diametrically opposite to Z, in the circle ABC, is homologous to H, diametrically opposite to N in PQR. Hence the co-ordinates of W are proportional to those of H in reference to PQR; i.e., to  $1/HP, 1/HQ, 1/HR$ . But

$$HP = 2r - 2R \cos A \cos B + \cos C - 1;$$

therefore W is  $1/(\cos B + \cos C - 1, \dots)$ .

The isogonal conjugate to the tangent at Z is

$$a(b-c)^2/a + \dots = 0,$$

which may be written in the elegant form

$$(aa + \dots)(a/a + \dots) = (a + \beta + \gamma)^2.$$

**8860.** (D. BIDDLE.)—A liqueur is ordered to consist of four spirits A, B, C, D, in the proportions 1, 2, 3, 10. When an eighth part is drawn off from the full vessel and consumed, it is found that B has been omitted, and that an excess of D has taken its place. Without necessarily refilling the vessel, introduce B, and rectify the proportions of the several spirits, with the least possible loss of material, and at the least possible extra expense, the relative cost of A, B, C, and D being 1,  $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$ , and allowance being made for the difference in cost between the interchanged B and D.

*Solution by the PROPOSER.*

$$1 + 2 + 3 + 10 = 16.$$

We will therefore suppose the vessel, when full, to contain a pint of 16 oz., each ounce of 480 minims; also the cost of A, B, C, D to be respectively 20s., 10s., 5s., 2s. 6d. per oz. The cost of the proper liqueur should thus be £4, but of the imperfect, only £3 5s., of which an eighth has been already consumed, reducing the value of what remains to £2 16s. 10 $\frac{1}{2}$ d.

	A	B	C	D
The proper quantities in the full vessel are, in minims ... ..	480	960	1440	4800
The quantities, as wrongly put... ..	480	—	1440	5760
The quantities now in the vessel ... ..	420	—	1260	5040
Reduce further by 320 minims, leaving	400	—	1200	4800
Then add 80 of A, 960 of B, 240 of C ...	480	960	1440	4800

We thus have the vessel full of the proper liqueur, and the cost of the additions has been 3s. 4d. + 20s. + 2s. 6d., or £1. 5s. 10d., which, added to £3 5s., makes the total cost £4. 10s. 10d. But, if we take the rejected 320 minims above referred to, and add to them, 4 of A, 48 of B, and 12 of C, the further cost is only 2d. + 1s. + 1 $\frac{1}{2}$ d., or 1s. 3 $\frac{1}{2}$ d., to obtain an additional four-fifths of an ounce of the genuine liqueur, of value 4s. Supposing this to be done, there is no loss of material at all, and full value received for the money expended, especially if the vendor be made to bear, as he should, the cost of the portion consumed, in consequence of the error on his part.

**15997.** (H. BATEMAN, B.A.)—Given a system of cubics passing through the six corners of a quadrilateral and through another fixed point O, prove that all those that touch a given line through O will touch another given line through O, the cubics which touch the line at O being excepted.

*Additional Solution by Prof. NANSON.*

The cubics which pass through the six corners, the point O, and a point P on the given line all pass through a ninth point Q. This point is plainly the one point common to the four conics which pass through O, P and any three non-collinear corners; and it may be shown to be the meet of the second tangents from O, P to that in-conic of the quadrilateral which also touches OP. For the tangents from O, P to a variable conic which touches OP and three of the sides of the quadrilateral trace out homographic pencils and therefore meet on a fixed conic passing through O, P. But, taking the variable conic to be a pair of points, one at the meet of two of the three sides, and the other at the meet of the third side with OP, we see that the fixed conic circumscribes the triangle formed by the three sides. Hence the meet of the tangents from O, P to the conic which touches OP and all four sides necessarily coincides with Q.

Taking now a second point P' on OP, all cubics through the six corners, the point O, and the point P', pass through a fixed point Q' on OQ. But when P, P' coincide, so do Q, Q'. It follows, then, that any cubic of the system which touches a fixed line OP through O also touches another fixed line through O, viz., the mate OQ of OP in the involution pencil determined at O by the conics inscribed in the given quadrilateral. The cubics which touch the given line at O must be excepted because P has been assumed to be distinct from O.

**QUESTIONS FOR SOLUTION.**

**16200.** (Professor SANJANA, M.A. *Corrected.*)—The great circle bisecting perpendicularly the side BC of a spherical triangle ABC meets the great circles bisecting internally and externally the angle A in the points D, E. Prove that  $\angle EBC = 90^\circ - \angle DBC = \frac{1}{2}(B + C)$ , and arc DE =  $\tan^{-1} \{2 \sin a \div [\cos \frac{1}{2} a \sin(B + C)]\}$ . What are the corresponding results for a plane triangle?

**16510.** (Professor E. HERNÁNDEZ.)— $l$  nombres  $a, b \dots k, l$  étant donnés, si on forme le tableau

$$\left. \begin{matrix} a, 2a, 3a \dots la \\ b, 2b, 3b \dots lb \\ \dots \dots \dots \\ k, 2k, 3k \dots lk \end{matrix} \right\} \dots \dots \dots (1)$$

il y aura autant de colonnes dont tous les nombres sont des multiples de  $l$  qu'indique le plus grand commun diviseur des nombres  $a, b, c \dots l$ .

**16511.** (Rev. F. H. JACKSON, M.A.)—Obtain a more general form of Abel's result

$$(x + a)^n = x^n + na(x + b)^{n-1} + \frac{n(n-1)}{2!} a(a-2b)(x + 2b)^{n-2} + \dots,$$

referred to in the Solution to Question 16403, *Educational Times*, August, 1908, viz.:

$$(x + a)^{(n)} = x^n + [n] a(x + b)^{(n-1)} + \frac{[n][n-1]}{[2]!} a(qa - [2]b)(x + [2]b)^{(n-2)} + \dots + \frac{[n][n-1][n-2]}{[3]!} a(qa - [3]b)(q^2a - [3]b)(x + [3]b)^{(n-3)} + \dots$$

in which

$$(x + a)^{(n)} = (x + a)(x + aq)(x + aq^2) \dots \text{to } n \text{ factors}$$

$$[n] = (q^n - 1)/(q - 1);$$

the general term of the series being

$$\frac{[n]!}{[r]! [n-r]!} a(qa - [r]b)(q^2a - [r]b) \dots (q^{r-1}a - [r]b)(x + [r]b) \dots \dots (x + q^{n-r-1}[r]b).$$

**16512.** (Communicated by Professor E. B. ESCOTT.)—Sum to  $n$  terms the series

$$\frac{(1+r)(1+2r)}{5!} + \frac{(1+r)(1+2r)(1+3r)}{6!} + \dots$$

(Chrystal, *Algebra*, Part II., Chap. 31, Exer. 25.)

**16513.** (The late R. W. D. CHRISTIE.)—Find an endless chain of integral solutions of  $A^2 + B^2 = C^2$ , where  $A - B = a^2 + b^2$ ,  $C - A = a^2$ ,  $C - B = 2d^2$ , are all integers.

**16514.** (R. F. DAVIS, M.A.)—Factorize algebraically

$$(1) 4x^6 + 2a^5x + a^6, \quad (2) x^7 - 2a^2x^5 + a^7;$$

and thence write down the factors of 4,000,021 and 9,800,001.

**16515.** (Professor COCHEZ.)—Résoudre  $x^r - x = (2x - x^r)^{1/r}$ .

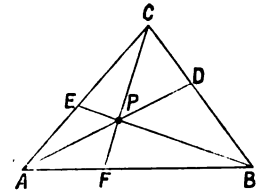
**16516.** (R. CHARTRES.)—P is a random point within the triangle ABC ( $\Delta = 1$ ). Show that the mean value of the area

$$AEF = \int_0^{\infty} \frac{1}{n^2(n+1)^2} dx,$$

and the mean of

$$DEF = \int_0^{\infty} \frac{1}{n^3(n+1)^3} dx,$$

without calculating their numerical values.



**16517.** (M. T. NARANIENGAR, M.A.)—In a bicircular quartic, if any number of straight lines be drawn through any given point to cut the curve in four points, the product of the segments of each will be the same. Generalize the result.

**16518.** (Professor NEUBERG.)—Étant donnée la courbe  $y = \sin^2 x$ , trouver (1) les points d'inflexion; (2) l'aire comprise entre l'axe Ox et l'arc compris entre les points  $x = 0, x = \pi$ ; (3) le volume engendré par cette aire tournant, soit autour de Ox, soit autour de Oy.

**16519.** (Professor NANSON.)—Two ellipses have their axes parallel and the centre of one moves along the perimeter of the other. Find the envelope of the moving ellipse and deduce the parallels of an ellipse.

**16520.** (V. MADHAVARAO, M.A.)—The normal to a parabola at any point P cuts the curve again at Q, and the perpendicular QK to PQ cuts the diameter at P in K. Show that, if a parallel to the directrix through K meet PQ produced in R, QR = the diameter of curvature at P.

**16521.** (V. RAMASWAMI AIYAR, M.A.)—Normals AP, BP, CP are drawn to a conic, meeting at P on the curve. Show that the pedal circle of the triangle ABC with respect to P subtends at P an angle which is fixed whatever the conic and wherever the point P thereon.

**16522.** (S. NARAYANA AIYAR.)—S is a variable point on the circum-circle of a fixed triangle ABC. For different positions of the point S four systems of conics can be described circumscribing the triangle ABC with S as focus. Show that the directrices of each system of these conics are concurrent and that the points of concurrence are the in- and ex-centres of the triangle ABC.

**16523.** (A. M. NESBITT, M.A.)—Show, geometrically, that a rectangular hyperbola reciprocates into itself with respect to a concentric circle through its vertices; and prove that in space of  $n$  dimensions the surface  $xy \dots z = c^n$  reciprocates into itself with respect to the hyper-sphere  $x^2 + y^2 + \dots + z^2 = nc^2$ .

**16524.** (Professor MORLEY.)—A triangle sets up in its plane a Cremona transformation by taking the polar line of any point. Given in a plane a Desargues configuration (the complete figure of two perspective triangles), prove that there are  $\infty^2$  such transformations which will send the ten points of the configuration into the ten lines on five points.

**16525.** (JAMES BLAIKIE, M.A.)—Points P, Q, R are taken on the altitudes of a triangle ABC such that  $AP/BC = BQ/CA = CR/AB$ ; prove that the centroids of PQR, ABC coincide. Hence show that the centroids of the triangles formed by joining (1) the vertices, (2) the centroids of the equilateral triangles described similarly on the three sides of any triangle coincide with the centroid of the original triangle.

**16526.** (V. DANIEL, B.Sc.)—How should a right-angled triangle be drawn to comply with the specification:—"As remote as may be from an isosceles triangle"?

**16527.** (Professor SANJANA, M.A.)—The small circle described about a spherical triangle ABC meets the great circles bisecting internally and externally the angle A in the points F, F'. Prove that

$$\cot \frac{1}{2} \angle FF' = \sqrt{[\cot^2 R + \frac{1}{2} \tan^2 R \sin^2 (B-C)]},$$

and give the analogous result *in plano*.

**16528.** (C. M. ROSS.)—If  $\tan(\theta + i\phi) = \cos \alpha + i \sin \alpha$ , show that  $\frac{1}{2}(2n\pi + \pi) = \theta$  and  $\phi = \frac{1}{2} \log \tan(\frac{1}{2}\pi + \frac{1}{2}\alpha)$ .

**OLD QUESTIONS AS YET UNSOLVED (IN OUR COLUMNS).**

**9886.** Every square number is divisible into two sequences from  $m$  (any integer).

**9889.** Take any number of my digits (1, 2, or 3 together) and I am equal to a sequence from unity. Cast out the nines from my dozen divisors and you'll find the factors of each of my digits. I am a famous number, but not a *perfect* number, and both myself and the sum of my digits are divisible by a *perfect* number.

**10944.** (W. J. GREENSTREET, M.A.)—If

$$\phi(x) = a_0 + a_1x + \dots + a_nx^n + \dots$$

$$\psi(x) = b_0 + b_1x + \dots + b_nx^n + \dots,$$

(1) show that  $a_0b_0 + a_1b_1 + \dots + a_nb_n + \dots = \int_0^{2\pi} [\phi(\theta)\psi(\theta)d\theta]/2\pi$ ;

and (2) find  $a_0 + ma_1x + m(m-1)a_2x^2/2! + \dots$

**11289.** (Professor RAMASWAMI AIYAR.)—If parallel forces acting at  $(n+2)$  points in space of  $n$  dimensions be in equilibrium, they will be in equilibrium when each is transferred to the centre of the hypersphere passing through the points of application of the other  $(n+1)$  forces.

[This is an extension of Professor Neuberg's Question 10765.]

**11298.** (Professor NILKANTHA SARKAR.)—A number of light rigid rods are loosely jointed together at their extremities so as to form a closed polygon, and a force applied to each side perpendicular and proportional to it. their lines of action meeting in a point. Prove that, if equilibrium be maintained, the polygon will be inscribable in a circle, and, if S be the point through which the forces act, O the centre of the circumscribed circle, and SO be produced to S' so that SS' is bisected in O, the stress at any angular point of the polygon will be perpendicular and proportional to the distance of the point from S'.

**11529.** (Professor SYAMADAS MUKHOPADHYAY, B.A.)—Find the chance that a line which meets a sphere of radius R also meets another sphere of smaller radius  $r$  whose centre is at a given distance  $d$  from the centre of the first. Examine the three cases, when the second sphere (1) lies wholly within, (2) lies wholly without, and (3) intersects the first sphere.

**NOTICE TO CORRESPONDENTS.**

It is requested that all Mathematical communications should be sent to the Mathematical Editor,

Miss CONSTANCE I. MARKS, B.A., 10 Matheson Road, West Kensington, W.

**LATEST SELF-FILLING FOUNTAIN PEN.**

**UNUSUAL OFFER AS AN ADVERTISEMENT FOR A SHORT PERIOD ONLY**  
 The Self-Filling and Self-Cleaning Perfection Fountain Pen (worth 15/-) to Teachers for 4/- only, or 3 Pens for 10/6.

This is an advertisement offer, & will be withdrawn at the end of this year.

**ORDER NOW BEFORE IT IS TOO LATE.**

Money returned if not fully satisfied. Guaranteed for 2 years.



Description:—Non-leakable, fills and cleans itself in a moment—a press, a fill—fitted with large 14-carat gold nib, iridium tipped, guaranteed to last for years. No other Pen like it for reliability, steady flow and smooth writing. Every Pen a pleasure.

Makers—

THE RED LION MANUFACTURING CO., Ltd., 71 High Holborn, London, W.C.

No need to buy any other Pen while this offer lasts.

To obtain this advantage, mention "The Educational Times."

**DENT'S**

**NEW**

**MATHEMATICAL AND SCIENTIFIC SERIES FOR SCHOOLS.**

*SOME RECENT ADDITIONS.*

**HISTORICAL GEOGRAPHY ON A REGIONAL BASIS.**

By ERNEST W. DANN, B.A., THE GRAMMAR SCHOOL, REIGATE.

**Vol. I.—THE BRITISH ISLES. Vol. II.—EUROPE.**

Price 2s. 6d. each.

*Extract from Preface.*—These little volumes have been written to give students a more definite idea of the interrelation of Geography and History than they can possibly gain from the passing allusions in books entirely devoted to the one or the other subject. Of the importance of Historical Geography there can be no doubt: but there is a great deal of confusion of terms. It is often forgotten that Geography is the substantive and Historical the adjective, and it is most important to give the science its proper *physical* basis. Moreover, the study of it should be based upon reason and not upon memory. Kaleidoscopic political changes at rapid intervals do not require a high order of intelligence to acquire, and are merely interesting; the study of man on the earth is a far deeper matter.

**ELEMENTARY TRIGONOMETRY.** By CECIL HAWKINS, M.A., Senior Mathematical Master at Haileybury College, Hertford. Small crown 8vo, without Answers, 3s. 6d.; with Answers, 4s.

**GEOMETRICAL CONICS.** By Professor G. H. BRYAN, F.R.S., and Prof. R. H. PINKERTON, M.A. 3s. 6d.

**ANALYTICAL CONICS.** By Prof. CHARLOTTE ANGUS SCOTT, D.Sc., Bryn Mawr College, U.S.A. 3s. 6d.

**AN INTRODUCTION TO PRACTICAL BOTANY.** By E. H. DAVIES, B.Sc. (Lond.), F.G.S., County School, Barry, Glam. Small crown 8vo, 2s.

**SCHOOL HYGIENE.** By HERBERT JONES, D.P.H. (Camb.), Fellow and Hon. Secretary to the Incorporated Society of Medical Officers of Health; Fellow of the Royal Sanitary Institute, &c. Small crown 8vo, 2s.

**PRACTICAL NATURE STUDY FOR SCHOOLS.** By OSWALD H. LATTER, M.A., Senior Science Master at Charterhouse, formerly Tutor at Keble College, Oxford. Part I. (Pupil's Book), 2s. 6d. net; Part II. (Teacher's Aid and Answers), 6s. net.

**A FIRST BOOK OF GEOMETRY.** By W. H. YOUNG, Sc.D., Senior Examiner to the Welsh Examination Board, and Mrs. YOUNG, Ph.D. With three Coloured and many other illustrative Diagrams. Crown 8vo, 1s. 6d. net.

*The Westminster Gazette* says:—"The child does everything himself: he is not taught, he learns. The ideal which the authors have set themselves is excellent, and the book is evidently the outcome of much patient care and thought."

**A FIRST STATICS.** By C. S. JACKSON, M.A., late Scholar of Trinity College, Cambridge; Instructor of Mathematics, R.M. Academy, Woolwich; and E. M. MILNE, M.A., Royal Naval College, Dartmouth. With over 200 Diagrams and numerous Examples. Crown 8vo, with or without Answers, 4s. 6d.

**ELEMENTARY PRACTICAL PHYSICS.** By F. J. TRISTRAM, M.A., B.Sc. Fcap. 8vo, 1s. 6d.

*Education* says:—"This admirable little book approaches very near to our ideal of an elementary text-book of Practical Physics. . . . Fortunate, indeed, is the student who has his powers of observation and manipulative skill trained on the lines indicated in this excellent little book."

**GERMAN SCIENCE READER.** Compiled by C. R. Dow, M.Sc. Part I., Mathematics, Physics, and Chemistry. Small crown 8vo, 2s.

This book consists of passages on Scientific subjects in German, by the translation of which it is hoped that the student will acquire a knowledge of the more commonly occurring scientific expressions. In a book of this size it is impossible to bring in every term which would be met with in the perusal of a German scientific text-book; but it is believed that all the more common ones have been included.

**LIGHT: For Intermediate Students.** By F. E. REES, B.Sc., late Demonstrator of Physics, University College, Bangor. Small crown 8vo, 2s.

*The Schoolmaster* says:—"The book, which covers a considerable amount of ground, is exceedingly well done. It displays knowledge and thoughtful care on every page. Apart from its general use as an elementary text-book of the subject, it will, in particular, serve the requirements of those entering for an Intermediate Examination in Physics. It is worthy of notice that the pages are not crowded with text."

*A detailed list of the series may be had upon application.*

*The Publishers invite application for specimen copies with a view to introduction.*

London: J. M. DENT & CO., Aldine House, Bedford Street, W.C.



# BOOKS, &c., adapted to the New Requirements in GEOGRAPHICAL TEACHING.

SECOND EDITION, REVISED. Demy 4to, 6s. net.

## A PROGRESSIVE COURSE OF COMPARATIVE GEOGRAPHY ON THE CONCENTRIC SYSTEM.

By P. H. L'ESTRANGE, B.A., Assistant Master at Malvern College. With 177 Illustrations and 172 Maps and Diagrams in Colour.

Also in Two Volumes as under:—(1) **The Text**, with 177 Illustrations, 3s. 6d. net; (2) **The Maps and Diagrams**, with Index, 3s. 6d. net. Forming **Philips' Progressive Atlas of Comparative Geography**.

In use at Charterhouse, Rugby, Malvern, Repton, and other Public Schools, and at many Secondary Schools and Pupil-Teachers' Centres.

## A JUNIOR COURSE OF COMPARATIVE GEOGRAPHY.

Being Course A (Text only) of the "Progressive Course." By P. H. L'ESTRANGE, B.A. Demy 8vo, 2s. 6d. net.

The *Educational News* says:—"The method is sound, and the book should help to bring about a revolution in geographical teaching."

## A RATIONAL GEOGRAPHY.

By ERNEST YOUNG, B.Sc., Head Master of the Lower School of John Lyon, Harrow. In Three Parts, with numerous Maps and Diagrams. Crown 8vo, 1s. 6d. each.

The *Schoolmaster* says:—"We very strongly commend it to the notice of our readers. Whoever has to give a lesson in geography will find it of service. It is full of hints and new ideas."

## MACKINDER'S GEOGRAPHICAL STUDIES.

A Course of Elementary Studies in Geography. By H. J. MACKINDER, M.A., Director of the School of Economics and Political Science in the University of London.

**Book I.—OUR OWN ISLANDS.** With numerous Coloured Maps and Illustrations. Crown 8vo, 2s. 6d. Also in Two Parts, each 1s. 3d.

**Book II.—LANDS BEYOND THE CHANNEL.** With numerous Coloured Maps and Illustrations. Crown 8vo, 1s. 9d.

## APPLIED GEOGRAPHY.

By J. SCOTT KELTIE, LL.D., Secretary of the Royal Geographical Society. Second Edition just published. Crown 8vo, 2s. 6d.

Sir GEORGE TAUBMAN GOLDIE, K.C.M.G., President R.G.S., says:—"The best short manual on the general question (economic geography) is still, to my mind, that by Dr. Keltie."—*Address to the Edinburgh Geographical Society*.

## PHILIPS' COMPARATIVE SERIES OF LARGE SCHOOLROOM MAPS.

The *Geographical Teacher* says:—"Can be thoroughly recommended. There can be no hesitation in advising teachers to select this series."

**PHILIPS' SCHOOL ATLASES.** Prices from 6d.

**PHILIPS' SCHOOL GLOBES.** Prices from 1s. 6d.

*Descriptive Lists of any of the above and Complete Catalogue of Educational Publications may be had post free on application.*

GEORGE PHILIP & SON, Ltd., 32 Fleet Street, London.

## The "A.L." "HISTORICAL SEQUENCES" CHARTS.

FOUR CHARTS, 45 in. × 35 in., PRINTED IN COLOURS.

Any Single Chart, O.R.V. ... .. net, 4/-  
Set of Four Charts, O.R.V. ... .. " 14/-  
Set of Four Charts, on Calico and  
on Top-lath ... .. " 10/6

Chart I. The Age of Feudalism (1066-1272).  
,, II. The Growth of Parliament (1272-1485).  
,, III. The Age of Discovery (1485-1689).  
,, IV. The Era of Progress (1689-1901).

In the various Charts **Horizontal Bands** are allotted to Rulers, Prominent Men, Constitutional History, Notable Events, Growth of Parliament, Discoveries and Colonization, Treaties, Wars, Literature, &c. The Charts

Represent **graphically** Historical Facts, and

Correlate the chief **Historical** events with **Geographical Incidents, Growth of Empire**, and the growth and importance of **Literature**.

E. J. ARNOLD & SON, LTD, LEEDS & GLASGOW.

## CAREY'S "GRADUS AD PARNASSUM."

WITH THE ENGLISH MEANINGS.

Revised, Corrected, and Augmented by a Member of the University of Cambridge.

Post 8vo, cloth, price 7s.

THE STATIONERS' COMPANY, STATIONERS' HALL, LONDON.

NOW READY.

Demy 8vo, cloth, price 2s. 6d., free by post.  
To Members of the College the price is 1s., or 1s. 6d. free by post.

## THE CALENDAR OF THE COLLEGE OF PRECEPTORS FOR THE YEAR 1908.

FRANCIS HODGSON, 89 FARRINGTON STREET, LONDON, E.C.

Psychology of Language Teaching: Phonetics.

## HOWARD SWAN,

Post-Graduate in Psychology, Berkeley University; Harvard; Research Student, London University; recently Professor Imperial College of Languages, Peking; Author of "Facts of Life," "Colloquial French," &c.

For Self-study Course in French in 50 weekly booklets for teachers, apply **Manager, 1 Albemarle Street, W.**

TEACHING AND TRAINING IN METHOD OF LANGUAGE TEACHING, PSYCHOLOGY AND PHONETICS; ENGLISH, FRENCH, GERMAN (CHINESE, JAPANESE if desired).

*Pupils can be taken during autumn and winter in beautiful surroundings in Switzerland.*

Address: Villa Von Stietenron, Chailly sur Clarens, Switzerland.

# Cambridge University Press

## A History of Classical Scholarship. By

J. E. SANDYS, Litt.D., Fellow of St. John's College and Public Orator in the University of Cambridge.

Vol. II.—From the Revival of Learning to the End of the Eighteenth Century (in Italy, France, England, and the Netherlands).

Vol. III.—The Eighteenth Century in Germany, and the Nineteenth Century in Europe and the United States of America.

Vols.  
II. and III.  
Large crown 8vo  
8s. 6d. net each.

The volumes now published begin with the Revival of Learning and end with the present day. They include a survey of the lives and works of the leading scholars from the fourteenth to the nineteenth century. Each of the periods embraced in these volumes opens with a chronological conspectus of the scholars of that period, giving the dates of their births and deaths, and, in the last four centuries, grouping them under the nations to which they belong. The two volumes contain sixty-two portraits and other illustrations.

## The Student's Handbook to the University and Colleges of Cambridge. Seventh Edition. Revised to June 30, 1908.

Crown 8vo  
3s. net.

"This is an extremely business-like little book, well printed and comely in appearance, and a marvel of cheapness. For the modest sum of three shillings, the intending or actual student and his friends can purchase all the information compressible into 400 odd pages, about present means and methods of education practised on the banks of the Cam."—*Guardian*.

"The book should be on the shelves of every head master and head mistress."—*School World*.

## Experimental Elasticity. A Manual for the

Laboratory. By G. F. C. SEARLE, M.A., F.R.S., University Lecturer in Experimental Physics. (Cambridge Physical Series.)

Demy 8vo  
5s. net.

This volume has its origin in the manuscript notes prepared by the author from time to time for the use of the students attending his class in Practical Physics at the Cavendish Laboratory, and its purpose is to give the substance of his course of instruction in the subject in a form which may be useful to students. Its three chapters deal with the Elementary Theory of Elasticity, Solutions of some simple Elastic Problems, and Experimental Work in Elasticity.

## Mechanics and Hydrostatics. An Element-

ary Text-Book, Theoretical and Practical. By R. T. GLAZEBROOK, M.A., F.R.S., Director of the National Physical Laboratory.

Crown 8vo  
6s.

Or in 3 Parts:—  
Dynamics, 3s.  
Statics, 2s.  
Hydrostatics,  
2s.

It has now come to be generally recognized that the most satisfactory method of teaching the Natural Sciences is by experiments which can be performed by the learners themselves. In consequence, many teachers have arranged for their pupils courses of practical instruction designed to illustrate the fundamental principles of the subject they teach. The portions of this book designated "experiments" have for the most part been in use for some time as a Practical Course for Medical Students at the Cavendish Laboratory at Cambridge. The rest of the book contains the explanation of the theory of those experiments, and an account of the deductions from them. It is with the hope of extending some such system as this in colleges and schools that the author undertook the publication of the present book and others of the series.

## Heat and Light. An Elementary Text-Book,

Theoretical and Practical. By R. T. GLAZEBROOK, M.A., F.R.S.

Crown 8vo  
5s.

Or in 2 Parts:—  
Heat, 3s.  
Light, 3s.

"Mr. Glazebrook's volumes on Heat and Light deal with these subjects from the experimental side, and it is difficult to admire sufficiently the ingenuity and simplicity of many of the experiments without losing sight of the skill and judgment with which they are arranged."—*Saturday Review*.

## Electricity and Magnetism. An Elementary

Text-Book, Theoretical and Practical. By R. T. GLAZEBROOK, M.A., F.R.S.

Crown 8vo  
6s.

"Every schoolmaster and teacher who has under consideration the selection of a text-book for his better students should most certainly look into this book."—*Guardian*.

## Elementary Algebra. By C. H. FRENCH, M.A.,

and G. OSBORN, M.A., Mathematical Masters at the Leys School, Cambridge.

Crown 8vo  
4s. 6d.

This book includes Common Logarithms and the Binomial Theorem for a positive integral index, so that it covers the ground of all school examinations not requiring a special knowledge of the subject. It is amply sufficient for such examinations as the London Matriculation, the Cambridge Previews, the ordinary pass-work of the Higher Certificate Examination of the Oxford and Cambridge Board, the Oxford and Cambridge Locals, and others of similar standard.

## Algebra for Secondary Schools. By CHARLES

DAVISON, Sc.D., Mathematical Master at King Edward's High School, Birmingham.

Crown 8vo  
6s.

The author's aim has been to prepare a text-book that may be of use in all but the highest classes of a secondary school. The subjects included are, for the most part, those which are common to all text-books of elementary algebra; but a few, such as indeterminate equations of the first degree, the remainder theorem and simple partial fractions, are introduced at an earlier stage than usual. The applications of graphs are confined to the illustrations which they afford of the methods of solving simultaneous equations and of the theory of quadratic equations and expressions. In the solution of simultaneous quadratic equations, they are especially useful, as they serve to show the geometrical meaning of every step in the process employed.

## Modern Geometry. By C. GODFREY, M.A.,

Head Master of the Royal Naval College, Osborne, and A. W. SIDMONS, M.A., Assistant Master at Harrow School.

Crown 8vo  
4s. 6d.

The present volume is a sequel to the "Elementary Geometry" written by the same authors. It covers the schedule of Plane Geometry required for the Special Examination in Mathematics for the Ordinary B.A. Degree at Cambridge; and represents what the authors take to be a useful course for any student of Mathematics, whether he intends to read for Mathematical Honours or to take up Physics or Engineering. For those who ultimately make a special study of Geometry, this book would serve as an introduction to more advanced treatises.

## Elementary Geometry (Practical and Theoretical). By C. GODFREY, M.A. and A. W. SIDMONS, M.A.

Crown 8vo  
3s. 6d.  
Or in  
Two Volumes  
2s. each.  
Or in  
Five Parts  
1s. each.

"After a careful examination of the various books on the new geometry that have recently been published, we have no hesitation in commending this book as the best for preparatory schools."—*Preparatory Schools Review*.

"This book deserves to be placed on the list of text-books to be used in all secondary schools."—*Local Government Chronicle*.

## Plane Geometry for Secondary Schools.

By CHARLES DAVISON, Sc.D., and C. H. RICHARDS, M.A., Mathematical Masters at King Edward's High School, Birmingham.

Crown 8vo  
4s.  
Or in  
Four Parts  
1s. each.

This book may now be obtained in four separate parts, corresponding to the four main divisions of the work:

Book I.—Triangles and Parallelograms.  
Book II.—Areas.  
Book III.—The Circle.  
Book IV.—Proportion applied to Geometrical Magnitudes.

"The plan of the present volume is good. Whilst the leading propositions appear in the form of bookwork, others scarcely less important are discussed as worked riders. A full complement of exercises for individual practice in original solution is, moreover, included, the questions being sometimes set as exercises on special propositions, and sometimes classed together as miscellaneous problems and theorems."—*Educational Times*.

## The Winchester Arithmetic. By C. GODFREY,

M.A., Head Master of the Royal Naval College, Osborne, and G. M. BELL, B.A., Senior Mathematical Master at Winchester College.

Crown 8vo  
3s.  
Teachers'  
Edition with  
Interleaved  
Answers  
6s. net.

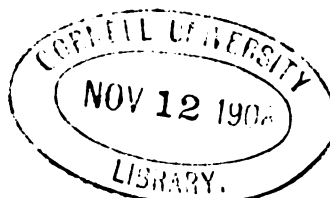
"The first real attempt made in a text-book to give a sound grounding to the boy of average wants and average capabilities. . . . The substance and arrangement of the chapters fulfil in a highly satisfactory manner the requirements which modern tendencies have demanded in a general grounding of the subject."—*Guardian*.

"This admirable text-book will rank high amongst its fellows, and it would be difficult to find a school arithmetic more worthy of general use."—*Nature*.

"All the arithmetic that needs to be, or ought to be, over-taken in a secondary school, is here admirably presented in a slim volume of less than 200 pages. . . . It is one of the best and most workable of the recent arithmetics."—*Bookman*.

LONDON: CAMBRIDGE UNIVERSITY PRESS WAREHOUSE, FETTER LANE. C. F. CLAY, Manager.

London: Printed by C. F. HODGSON & SON, 2 Newton Street, High Holborn, W.C.; and Published by FRANCIS HODGSON, 89 Farringdon Street, E.C.  
[Entered at the New York Post Office as Second Class matter.]



# THE EDUCATIONAL TIMES,

AND

## Journal of the College of Preceptors.

Vol. LXI.] New Series, No. 571.

NOVEMBER 2, 1908.

{Published Monthly, price, to Non-Members, 6d.; by Post, 7d. Annual Subscription, 7s.

### COLLEGE OF PRECEPTORS. (INCORPORATED BY ROYAL CHARTER.)

#### MEMBER'S MEETING.

The next Monthly Meeting of the Members will take place on Wednesday, the 18th of November, at 7.30 p.m., when Professor J. W. ADAMSON will read a Paper on "The Experimental Study of Instruction."

A discussion will follow the reading of the Paper. Members have the privilege of introducing their friends.

#### LECTURES FOR TEACHERS.

On Thursday, 1st of October, JOHN ADAMS, M.A., B.Sc., F.C.P., Professor of Education in the University of London, commenced a Course of Twelve Lectures on

#### "THE PRACTICAL TEACHER'S PROBLEMS."

The matters to be dealt with are such as interest all classes of teachers, and will be treated with that frankness that is possible in an unreported discourse, but is out of the question in a printed book. While the Lecturer will lose no opportunity of indicating how present educational conditions may be improved, he will take the present conditions as the basis and show how to make the best of things as they are. The Lectures will be copiously illustrated by references to actual experience in all kinds of Schools. The Lectures will be given on Thursday Evenings at 7, beginning on October 1st.

For Syllabus, see page 460.

The Fee for the Course is Half-a-Guinea.

Members of the College have free admission to this Course.

#### EXAMINATIONS.

**Diplomas.**—The next Examination of Teachers for the Diplomas of the College will commence on the 28th of December, 1908.

**Practical Examination for Certificates of Ability to Teach.**—The next Practical Examination will be held in October.

**Certificate Examinations.**—The Christmas Examination for Certificates will commence on the 8th of December, 1908.

**Lower Forms Examinations.**—The Christmas Examination will commence on the 8th of December, 1908.

**Professional Preliminary Examinations.**—These Examinations are held in March and September. The Spring Examination in 1909 will commence on the 2nd of March.

**Inspection and Examination of Schools.**—Inspectors and Examiners are appointed by the College for the Inspection and Examination of Public and Private Schools.

The Regulations for the above Examinations can be obtained on application to the Secretary.

C. R. HODGSON, B.A., Secretary.  
Bloomsbury Square, W.C.

### UNIVERSITY OF ST. ANDREWS.

#### L.L.A. DIPLOMA FOR WOMEN.

The attention of Candidates is drawn to the Ordinary and Honours Diplomas for Teachers, which are strongly recommended as suitable for those who are or intend to be teachers.

Examinations are held at Aberdeen, Birmingham, Blackburn, Brighton, Bristol, Cardiff, Croydon, Devonport, Edinburgh, Glasgow, Hull, Inverness, Leeds, Liverpool, London, Manchester, Newcastle-on-Tyne, Norwich, Nottingham, Oxford, St. Andrews, Sheffield, Swansea, and several other towns.

Information regarding the Examinations may be obtained from the SECRETARY, L.L.A. Scheme, The University, St. Andrews.

### UNIVERSITY OF ST. ANDREWS.

#### UNIVERSITY HALL.

Warden:

Miss FRANCES H. MELVILLE, M.A.

UNIVERSITY HALL, for Women students, was opened in 1896, under the government of the University of St. Andrews.

The usual Course of Study at University Hall is in preparation for the Degree Examinations of the University of St. Andrews, of which all the Classes and Degrees in Arts, Divinity, Science, and Medicine are open to women on the same terms as to men.

The Sessions of Residence are the two University Sessions, viz. the Winter Session, October to March; the Summer Session (Optional), April to June.

University Hall fees for residence—Winter Session, £30-£50; Summer Session, £15-£25.

Matriculation and Class Fees average £10 for the Winter Session.

For further information, apply to the WARDEN, University Hall, St. Andrews, Fife.

### LONDON COLLEGE OF MUSIC. (Incorporated.)

GREAT MARLBOROUGH STREET, LONDON, W.

Patron: HIS GRACE THE DUKE OF LEEDS.

Dr. F. J. KAERN, Mus. Bac. Cantab., Principal.

G. AUGUSTUS HOLMES, Esq., Director of Examinations.  
EXAMINATIONS, 1908.

The NEXT EXAMINATION in PIANOFORTE PLAYING, SINGING, THEORY, and all branches of Music will be held in London and 400 Provincial Centres in DECEMBER, when Certificates will be granted to all successful candidates.

The Higher Examinations for the Diplomas of Associate (A.L.C.M.), Licentiate (L.L.C.M.), the Teachers' Diploma, L.C.M., and Fellowship (F.L.C.M.) also take place in DECEMBER.

Gold and Silver Medals and Book Prizes are offered for competition according to the Regulations.

LOCAL SCHOOL CENTRES.—Full particulars with reference to the formation of these Centres will be forwarded to Principals of Schools upon application.

SYLLABUS for 1908, together with Annual Report, may be had of the SECRETARY.

In the Educational Department students are received and thoroughly trained under the best Professors at moderate fees. The College is open 10 a.m. to 9.30 p.m. A COURSE OF TRAINING in Pianoforte and Singing for Teachers is held at the College.

VACATION LESSONS for Teachers and others are given at Easter, August, and Christmas.

T. WEEKES HOLMES, Secretary.

### Diploma Correspondence College, Ltd.

Principal—J. W. KNIPE, L.C.P., F.R.S.L.  
Vice-Principal—S. H. HOOKER, B.A., Hons. Lond.

Specialty arranged Courses for

LONDON MATRICULATION,  
**B.A., B.D., B.Sc.,**  
A.C.P., L.C.P., &c.

#### FREE GUIDES

on application to the SECRETARY.

WOLSEY HALL, OXFORD.



### THE ASSOCIATED BOARD OF THE R.A.M. AND E.C.M. FOR LOCAL EXAMINATIONS IN MUSIC.

PATRON: HIS MAJESTY THE KING.

PRESIDENT: H.R.H. THE PRINCE OF WALES, K.G.

LOCAL CENTRE EXAMINATIONS (Syllabus A). Examinations in Theory at all Centres in March and November; in Practical Subjects at all Centres in March-April, and in the London District and certain Provincial Centres in November-December also. Entries for the March-April Examinations close Wednesday, February 10th, 1909.

SCHOOL EXAMINATIONS (Syllabus B). Held three times a year, viz. March-April, June-July, and October-November. Entries for the March-April Examinations close Wednesday, February 3rd, 1909.

Specimen Theory Papers set in past years (Local Centre or School) can be obtained on application. Price 3d. per set, per year, post free.

Syllabuses A and B, entry forms, and any further information will be sent post free on application to—

JAMES MUIE, Secretary.

15 Bedford Square, London, W.C.

Telegrams: "Associa, London."

### BIRKBECK COLLEGE.

BREAMS BUILDINGS, CHANCERY LANE, E.C.

#### DAY AND EVENING CLASSES.

Principal—G. ARMITAGE-SMITH, D.Lit., M.A.

The College provides approved courses of instruction for the Degrees of the University of London in the Faculties of Arts, Science, Economics, Laws, under Recognized Teachers of the University.

Well appointed Laboratories. Facilities for research. New Session commenced on Monday, 28th September.

Full particulars on application to

H. WELLS EAMES, Secretary.

### CHURCH EDUCATION CORPORATION.

#### CHERWELL HALL, OXFORD.

Training College for Women Secondary Teachers.

Principal—Miss CATHERINE I. DODD, M.A. (late Lecturer in Education in the Manchester University).

Students are prepared for the Oxford, the Cambridge, and the London Teacher's Diploma. Special arrangements made for Students to attend the School of Geography.

Exhibitions and Scholarships awarded in December and July.—Apply to the PRINCIPAL.

## FREE GUIDE

TO

## LONDON UNIVERSITY MATRICULATION

Post free, from

THE SECRETARY,  
Murlington House, Cambridge;

or from the London Office of

University Correspondence College,  
32 Red Lion Square, Holborn, W.C.

**UNIVERSITY COLLEGE OF NORTH WALES, BANGOR.**

(A Constituent College of the University of Wales.)  
Principal—Sir H. R. REICHEL, M.A., LL.D.

New Session began September 29th, 1908. The College Courses are arranged with reference to the Degrees of the University of Wales; they include most of the subjects for the B.Sc. Degree of the London University. Students may pursue their first year of Medical study at the College. There are special Departments for Agriculture (including Forestry) and Electrical Engineering, a Day Training Department for Men and Women, and a Department for the Training of Secondary and Kindergarten Teachers.

Seasonal fee for ordinary Arts Course, £11. 1s.; for Intermediate Science or Medical Course, £15. 15s. The cost of living in lodgings in Bangor averages from £20 to £30 for the Session. There is a Hall of Residence for Women Students; fee, from Thirty Guineas for the Session.

At the Entrance Scholarship Examination (held in September) more than 20 Scholarships and Exhibitions, ranging in value from £40 to £10, will be open for competition.

For further information and copies of the various Prospectuses apply to

JOHN EDWARD LLOYD, M.A.,  
Secretary and Registrar.

**UNIVERSITÉ DE RENNES (France). FRENCH COURSE for FOREIGNERS OF BOTH SEXES.**

WINTER TERM: From 15 Nov. 1908 to 15 Feb. 1909.  
SUMMER TERM: From 1 March to 8 June, 1909.  
DIPLOMAS.

Diplômes de Langue et Littérature Françaises; Doctorat. Reduction of 50% on railway fares from Dieppe or Calais to Rennes. Apply for Prospectus to Prof. FEULLERAT, Faculté des Lettres, Rennes.

**DENMARK HILL PHYSICAL TRAINING COLLEGE FOR LADY TEACHERS, LONDON, S.E.**

Full preparation for Public Examinations. British College of Physical Education: English and Swedish systems. Massage and Remedial Work. Board of Education: Science. Swimming and Sports. Schools supplied with fully qualified Sports Mistresses. For particulars apply—Miss E. SPELMAN STANGER, Trevena, Sunray Avenue, Denmark Hill, London, S.E.

**WANDSWORTH TECHNICAL INSTITUTE SECONDARY SCHOOL.**

ASSISTANT MASTER required in January. English Subjects and French; German desirable. Graduate with good experience. Salary £150, rising by £10 (in accordance with the Scale of the London County Council) to £300. Further particulars and application forms, which must be returned on or before 17th November, may be obtained from the REGISTRAR.

**POST VACANT IN SWITZERLAND.**

**THE REV. G. A. BRENNEMANN,**

M.A., British Chaplain, Neuchâtel, Switzerland, wishes to find—(1) a GRADUATE in Classical Honours, (2) a GRADUATE in Mathematical Honours, for early in January, two to three hours' help daily with private pupils, Matriculation (Woolwich), in return for board and lodging; help French and German. (3) A COMPETENT ASSISTANT for about 18 hours a week, English Teaching (Elementary), four or six hours immediately, rest in April. Remuneration £100 per annum (eventually 24 hours £150). Good disciplinarian; experience and knowledge of French by April essential. Preference given to one who could take both the Classical (or Mathematical) and English work.

**TO HEAD MASTERS.**—Principal,

large London Private School, strongly recommends SENIOR ASSISTANT, who has held post nine years. Systematic teacher. Disciplinarian. Latin, French, English, Mathematics, Book-keeping, Shorthand, Games.—X., Educational Times Office, 89 Farringdon Street, London, E.C.

**OUTDOOR LIFE FOR WOMEN.**—

LEATHERINGSETT SCHOOL OF GARDENING, POULTRY, AND DAIRY WORK. Preparation for Examinations. Highly certificated teachers. Pleasant home for Students near Cromer. Write K., 536 SHILLEY'S, Gracechurch Street, E.C.

**TUITION IN ESPERANTO.**

MR. CHARLES COWPER, F.B.E.A., is open to Engagements for preparing pupils for the Oxford Local and other Examinations in Esperanto. Schools or Private Tuition. London and near Suburbs. Several years' successful experience in Lecturing and Class-Teaching. Apply (in the first instance by letter), 121 Castellain Mansions, Maida Vale, W.

**BEDFORD COLLEGE FOR WOMEN**

(UNIVERSITY OF LONDON),  
YORK PLACE, BAKER STREET, LONDON, W.  
Principal—Miss M. J. TUKE, M.A.

The Half-Term begins on Thursday, November 12th. Lectures are given in preparation for all Examinations of the University of London in Arts, Science, and Preliminary Medicine for the Teachers' Diploma (London); for the Teachers' Certificate (Cambridge); and for the Cambridge Higher Local Examination. There is a Special Course of Scientific Instruction in Hygiene.

Six Laboratories are open to Students for Practical Work. Students may attend the Art School who are taking other subjects at the College.

A Single Course in any subject may be attended. Regular Physical Instruction is given, free of cost, to Students who desire it by a fully qualified Woman Teacher.

Students can reside in the College. THREE ENTRANCE SCHOLARSHIPS, two in Arts and one in Science, will be offered for Competition in June, 1909.

Full particulars on application to the PRINCIPAL.

**BEDFORD COLLEGE FOR WOMEN**

(UNIVERSITY OF LONDON),  
YORK PLACE, BAKER STREET, LONDON, W.  
DEPARTMENT FOR PROFESSIONAL TRAINING IN TEACHING.

Head of the Department:—Miss MARY MORTON, M.A.

The Course includes full preparation for the Examinations for the Teaching Diplomas granted by the Universities of London and Cambridge.

Students are admitted to the Training Course in October and in January.

ONE FREE PLACE, value £26. 5s.; ONE SCHOLARSHIP of the value of £20, and a limited number of GRANTS of £10, are offered for the Course beginning in January, 1909.

They will be awarded to the best candidates holding a Degree or its equivalent in Arts or Science.

Applications should reach the HEAD OF THE DEPARTMENT not later than December 12th.

**THE CAMBRIDGE TRAINING COLLEGE FOR WOMEN TEACHERS.**

Principal—Miss M. H. WOOD.  
Girton College, Cambridge; Classical Tripos, M.A. (London); Lit.D. (Dublin), late Vice-Principal of St. Mary's College, Paddington.

A residential College providing a year's professional training for Secondary Teachers.

The course includes preparation for the Cambridge Teacher's Certificate (Theory and Practice), and for the Teacher's Diploma of the London University. Ample opportunity is given for practice in teaching science, languages, mathematics, and other subjects in various schools in Cambridge.

Students are admitted in January and in September. Full particulars as to qualifications for admission, scholarships, and bursaries may be obtained on application to the PRINCIPAL, Cambridge Training College, Wollaston Road, Cambridge.

**ST. GEORGE'S TRAINING COLLEGE FOR WOMEN TEACHERS IN INTERMEDIATE AND SECONDARY SCHOOLS, EDINBURGH.**

This College provides a year's Professional Training for well educated women who intend to become Teachers. The Course is supervised by the Edinburgh Provincial Committee for the Training of Teachers and recognized by the Scotch Education Department and by the Teachers' Training Syndicate of the University of Cambridge.

Prospectus and further particulars from the Principal, Miss M. R. WALKER, 5 Melville Street, Edinburgh.

**THE INCORPORATED FROEBEL EDUCATIONAL INSTITUTE, TALGARH ROAD, WEST KENSINGTON, LONDON, W.**  
Recognized by the Board of Education as a Training College for Secondary Teachers.

Chairman of the Committee—Sir W. MATHER.  
Treasurer—Mr. C. G. MONTEFIORE, M.A.  
Secretary—Mr. ARTHUR G. SYMONDS, M.A.

**TRAINING COLLEGE FOR TEACHERS.**

Principal—Miss E. LAWRENCE.  
KINDERGARTEN AND SCHOOL.  
Head Mistress—Miss A. YELLAND.

Students are trained for the Examinations of the National Froebel Union and other Examinations.

TWO SCHOLARSHIPS of £20 each, and two of £15 each, tenable for two years at the Institute, are offered annually to Women Students who have passed certain recognized Examinations.

Prospectuses can be obtained from the PRINCIPAL.

**The Tutorial Institute,**  
39 BLOOMSBURY SQUARE, LONDON.

Principal:  
J. F. EWEN, M.A.,  
Honours in Mathematics and Physics.

Founder and late Principal of  
The London and Northern Tutorial College.

The Principal has had over 12 years' successful experience in preparing by Correspondence and Orally for the Higher Examinations qualifying Secondary Teachers. Over 2,000 successes have been officially credited to his students, who have completed over 300 Diplomas and Degrees. Strong Staff of Tutors, all University Graduates, mostly in Honours.

CORRESPONDENCE INSTRUCTION.  
All Fees payable by Instalments.

A.C.P.—New Classes now forming. All subjects, £4. 4s. Education, £1. 11s. 6d.

L.C.P.—Graduates exempt from all subjects except Education. Full Course, £2. 12s. 6d. A.C.P.'s can complete extra work for L.C.P. for Composition Fee, £4. 4s. Education alone, £1. 11s. 6d.

Diploma Guide Free.

Inter. Arts.—Full Courses. 20 lessons each subject, £1. 11s. 6d.

B.A.—Thorough Tuition by Honours Graduates.

Inter. Science.—Special Attention to Mathematics and Physics. Full Course, £2. 2s. each subject.

B.Sc.—Expert help by eminent specialists.

Matriculation.—Full Preparation in usual subjects, 10s. 6d. monthly.

Higher Locals.—Fullest and most successful help. Usual Subjects, £1. 11s. 6d. each.

FROEBEL CERTIFICATES.—Thoroughly practical instruction by highly qualified Teachers.

Froebel Guide Free.

L.L.A. SPECIAL ORAL CLASSES.  
Evenings and Saturdays. More Successes and Diplomas than all other classes combined.

New Practical Guide to L.L.A. Free.

**JOINT AGENCY FOR WOMEN TEACHERS.**

(Under the management of a Committee appointed by the Teachers' Guild, College of Preceptors, Head Mistresses' Association, Association of Assistant Mistresses, and Welsh County Schools' Association.)

Address—74 GOWER STREET, LONDON, W.C.

Registrar—Miss ALICE M. FOUNTAIN.

This Agency has been established for the purpose of enabling Teachers to find work without unnecessary cost. All fees have therefore been calculated on the lowest basis to cover the working expenses.

Head Mistresses of Public and Private Schools, and Parents requiring Teachers, or Teachers seeking appointments, are invited to apply to this Agency.

Many Graduates and Trained Teachers for Schools and Private Families; Visiting Teachers for Music, Art, and other special subjects; Foreign Teachers of various nationalities; Kindergarten and other Teachers are on the Register, and every endeavour is made to supply suitable candidates for any vacancy.

School Partnerships and Transfers are arranged.

Hours for interviews (preferably by appointment)—

11 a.m. to 1 p.m., and 3 to 5 p.m.

Saturdays, 11 a.m. to 1 p.m., and 2 to 3 p.m.

**THE JOINT SCHOLASTIC AGENCY.**

23 Southampton Street, Bloomsbury Square, W.C.

Managed by a Committee of Representatives of the following Bodies:—

- HEAD MASTERS' CONFERENCE.
- INCORPORATED ASSOCIATION OF HEAD MASTERS.
- COLLEGE OF PRECEPTORS. TEACHERS' GUILD.
- INCORPORATED ASSOCIATION OF ASSISTANT MASTERS.
- ASSOCIATION OF TECHNICAL INSTITUTIONS.
- ASSOCIATION OF PREPARATORY SCHOOLS.
- WELSH COUNTY SCHOOLS.

Registrar: Mr. E. A. VIRGO.

The object of this Agency is to render assistance at a minimum cost to Masters seeking appointments.

The lowest possible fees are therefore charged.

A PROSPECTUS will be sent ON APPLICATION. Interviews (preferably by appointment) 12 p.m.—1.30 p.m., and 3 p.m.—5.30 p.m. Saturdays, 12 p.m.—1 p.m.

**EARLYON COLLEGE.**  
55 AND 56 CHANCERY LANE.

**LONDON UNIVERSITY EXAMINATIONS.**  
LONDON MATRICULATION, INTER. ARTS and SCIENCE, B.A., and B.Sc. Classes (small) Day and Evening. M.A. Classes. B.A. Honours Classes. Elementary Greek Class.

Classes and Tuition for Legal and Medical Preliminaries, Accountants', Scholarship Examinations, Previous, Responsons, and General.

Papers Corrected for Schools. Vacation Tuition. Private tuition for all Examinations. Prospectus and full details on application to E. C. B. KERRIN, B.A. Lond., First of First Class Classical Honours. Editor of "Phaedo," "Pro Plancio," &c.

**SUCCESSSES.**

1892-1907.—London Matric., 149; Inter. Arts, Sc., and Prel. Sci., 140, 6 in Hons.; B.Sc., 1895-1906, 25; B.A., 1891-1906, 95, 14 in Hons.; Medical Prelim., 249; Responsons and Previous, 60; Law Prelim., 62; other Successes, 400.

**B.A. (LOND.), 1906 and 1907, 15, 3 in Classical Honours. M.A., 8. INTER. ARTS, 1907, 6 out of 8.**

**FREE.**

The Principals of the Normal Correspondence College have, through the courtesy of the College of Preceptors, issued the following

**FREE GUIDES.**

- 1. A.C.P. 100 pages.
  - 2. L.C.P. 84 "
  - 3. F.C.P. 75 "
- And have also published the following Guides.
- 4. PREL. CERT. 120 pages.
  - 5. CERTIFICATE. 92 "
  - 6. MATRICULATION. 84 "
  - 7. IRISH UNIVERSITY. 60 "
  - 8. OXFORD & CAMBRIDGE LOCALS 100 "

These Guides are supplied gratis to all who mention this paper and state they intend sitting for examination.

"They are written by experts whose advice is the best procurable."—*Educational News.*  
"Will undoubtedly help greatly towards success."—*Schoolmistress.*

**NORMAL CORR. COLLEGE,**

47 MELFORD ROAD, EAST DULWICH, S.E., and  
110 AVONDALE SQUARE, LONDON, S.E.

**MR. ERIC WILLIAMS** can accept Engagements at Schools and Colleges for his *Patriotic Recital*, now being officially given with great success on behalf of Lord Roberts's Veterans' Relief Fund under the patronage of His Majesty the King and Field-Marshal Earl Roberts. The Recital, comprising selections from Shakespeare, Longfellow, Tennyson, &c., interspersed with humorous pieces. For terms and vacant dates address—**ERIC WILLIAMS**, c/o Educational Times, 89 Farringdon Street, London, E.C.

**CORRESPONDENCE TUITION,**  
Classes or Private Lessons in all Subjects for all Examinations, &c., at moderate fees. Special tuition for MEDICAL Prelims. and DIPLOMA Exams. Many recent successes.—**F. J. BORLAND, B.A., L.C.P.** (Science and Math. Prizeman), Victoria Tutorial College, 87 Buckingham Palace Road, S.W.; and **Stalheim**, Brunswick Road, Sutton, Surrey.  
Schools visited and Examinations conducted.

**WALTER J. DICKES, B.A. (Lond.)**

PRIVATE TUITION FOR EXAMINATIONS, &c.

BEECHEN CLIFF, THE GARDENS, E. DULWICH, LONDON, S.E.

**HYGIENE, SCHOOL HYGIENE, SCHOOL NURSES' CERTIFICATE, &c.**

**SPECIAL** Postal Tuition for Examinations of the Board of Education and Royal Sanitary Institute. Particulars post free.—**Mr. L. C. HANN, A.R. San. I.**, 20 Richmond Gardens, Southampton.

**UNIVERSITY TUTORIAL COLLEGE**

(Affiliated to University Correspondence College),  
**RED LION SQUARE, HOLBORN, W.C.**



**Day and Evening Classes**

ARE HELD FOR

**MATRICULATION,**

Inter. Science and Arts,  
Prelim. Sci. (M.B.), B.Sc., and B.A.

Classes and Private Tuition may be taken up for the College of Preceptors, Legal Prelim., and the Entrance Examinations to Oxford and Cambridge Universities.

Private Tuition may be taken up at any time of the year, either during Term or the ordinary School Vacation.

Recapitulation Classes are held immediately preceding all the more important Examinations.

Vacation Classes are held in Practical Science during the Christmas, Easter, and Summer Vacations.

At the last Matriculation Examination, the Official Pass List credits University Tutorial College with more than four times as many successes as any other Institution.

Prospectus may be had, post free, from

**THE PRINCIPAL,**  
University Tutorial College,  
32 Red Lion Square, Holborn, W.C.

**BURLINGTON CORRESPONDENCE COLLEGE.**

Principal—**Mr. J. CHARLESTON, B.A.**  
(Honours Oxon. and Lond.)

**TUTORS.**—The Staff includes Graduates of London, Oxford, Cambridge, and Royal Universities.

**METHOD.**—Thoroughly individual system, which ensures the closest attention to the needs of each student.

**Rapid Preparation for:—**

- Matriculation,
- Intermediate Arts and B.A.,
- Intermediate Science and B.Sc.,
- L.L.A. (St. Andrews),

**COLLEGE OF PRECEPTORS' DIPLOMAS.**

Address—**THE PRINCIPAL,**  
Burlington Correspondence College,  
OLAPHAM COMMON, LONDON, S.W.

Messrs.  
**TRUMAN & KNIGHTLEY, LTD.,**  
Educational Agents,  
158 to 162 OXFORD STREET,  
LONDON, W.

Telegrams—"TUTORESS, LONDON."  
Telephone—No. 1136 City.

This Agency is under distinguished patronage, including that of the Principals of many of our leading Schools.

**A.—EMPLOYMENT DEPARTMENT.**

(i.) ASSISTANT MASTERS & TUTORS.

MESSRS. TRUMAN & KNIGHTLEY introduce University and other qualified ENGLISH and FOREIGN MASTERS and TUTORS to Schools and Private Families.

(ii.) ASSISTANT MISTRESSES.

MESSRS. TRUMAN & KNIGHTLEY introduce University, Trained, and other qualified ENGLISH and FOREIGN LADY TEACHERS to Girls' and Boys' Schools.

(iii.) LADY MATRONS AND HOUSE-KEEPERS.

MESSRS. TRUMAN & KNIGHTLEY introduce well qualified and experienced LADY MATRONS, HOUSEKEEPERS, and HOUSE MISTRESSES to Boys' and Girls' Schools.

No charge is made to Principals, and no charge of any kind is made to candidates unless an engagement be secured through this Agency, when the terms are most reasonable.

**B.—SCHOOL TRANSFER DEPARTMENT.**

A separate Department, under the direct management of one of the Principals, is devoted entirely to the negotiations connected with the Transfer of Schools and Introduction of Partners.

MESSRS. TRUMAN & KNIGHTLEY, being in close and constant communication with the Principals of nearly all the chief Girls' and Boys' Schools in the United Kingdom, to many of whom they have had the privilege of acting as Agents, and having on their books always a large number of thoroughly genuine Schools for Sale and Partnerships to negotiate, as well as the names and requirements of numerous would-be purchasers, can offer unusual facilities for satisfactorily negotiating the TRANSFER of SCHOOLS, and arranging PARTNERSHIPS.

No charge is made to Purchasers, and there is no charge to Vendors unless a Sale or Partnership be effected through this Agency.

All communications and enquiries are treated in the strictest confidence.

**C.—PUPILS' DEPARTMENT.**

MESSRS. TRUMAN & KNIGHTLEY have a carefully organized Department for the introduction of Pupils to Schools and other Educational Establishments. No charge is made for registration.

Any negotiations entrusted to MESSRS. TRUMAN & KNIGHTLEY receive prompt and careful attention, every effort being made to save clients as much time and trouble as possible.

Full particulars will be forwarded on application.

1908.

## COLLEGE OF PRECEPTORS.

(Incorporated by Royal Charter.)

BLOOMSBURY SQUARE, LONDON, W.C.

## Lectures for Teachers

ON THE

## SCIENCE, ART, AND HISTORY OF EDUCATION.

## THE PRACTICAL TEACHER'S PROBLEMS.

To be delivered by Professor J. ADAMS, M.A., B.Sc., F.C.P., Professor of Education in the University of London.

The Second Course of Lectures (Thirty-sixth Annual Series) commenced on Thursday, October 1st, at 7 p.m.

The matters to be dealt with are such as interest all classes of teachers, and will be treated with that frankness that is possible in an unreported discourse, but is out of the question in a printed book. While the lecturer will lose no opportunity of indicating how present educational conditions may be improved, he will take the present conditions as the basis and show how to make the best of things as they are. The Lectures will be copiously illustrated by references to actual experience in all kinds of Schools.

## SYLLABUS.

I. (Oct. 1.) *The Teacher's Library*: three main sections, books needed by teacher as (a) human being, (b) knowledge-monger, (c) educator: (a) and (c) too often neglected: special value of books used by teacher during childhood: the upper and lower limit of professional books under (c): possibility of excess in educational theory: plea for greater recognition of newer class of literary presentations of educational problems: teaching "the inarticulate profession": practical help that may be had from such books: how to use educational periodicals.

II. (Oct. 8.) *How to get some good out of Psychology*: need for a change in the point of view: rational and experimental psychology: need of both by the teacher: danger of pedantry in both: place of the proposed middleman between the psychologist and the practical teacher: the teacher must be allowed to direct the psychologist (not the psychologist the teacher) as to the results to be sought: list of things the teacher wants to know, compared with the list of things the psychologist wants to tell him: teacher must not confine himself to child-psychology, his profession demands the treatment of his fellow adults as well.

III. (Oct. 15.) *How to deal with Officials*: an example of the teacher's need of adult psychology: the difference between the human being and the official: the invariable third: official questions and answers: how to interpret them: the official mind and how to approach it: an instructive bit of law: the official art of compromise: manipulation of conflicting official regulations: the whole question reviewed from the point of view of the teacher as himself an official.

IV. (Oct. 22.) *How to deal with Parents*: generally wrong attitude of teachers towards parents: *in loco parentis* theory: "foster parent": getting at parents through children and *vice versa*: parents' antagonism to school authority has definite relation to their social rank: special difficulties of different classes of teachers: conflicting influences of fathers and mothers: genuine co-operation between school and home: golden mean between parental indifference and interference.

V. (Oct. 29.) *How to Learn*: the other side of teaching: absence of the desire to know: how to rouse it: even when desire is present there is difficulty enough: kinds of learning: reproduction: the dynamic view: constructive learning: rhythm of learning: concentration and diffusion: fallacies about thoroughness: temporary and permanent learning.

VI. (Nov. 5.) *Class Management and Teaching*: ordinary psychology deals with the individual: teacher needs collective psychology as well: relation of class to crowd or mob: minimum number to constitute a class: sympathy of numbers: class leaders: difference between class teaching and private coaching: advantages and difficulties in having to teach several persons at the same time: the average pupil: the type: the composite: the ghostly class.

VII. (Nov. 12.) *How to combine Lecturing and Teaching*: teachers' general disapproval of lecturing: nature of lecturing as opposed to teaching: newer methods of teaching history, geography, and geometry are demanding a certain amount of lecturing: dangers of lecturing in schools as compared with colleges: the pupils' share in the process of lecturing: the art of listening: intermittent hearing: the lecturer's relation to the text-book.

VIII. (Nov. 19.) *Written work in School*: absolute necessity for a good deal of written work in school: note-taking, exercise writing, essays: drudgery of correction: the surd of efficient correction in (a) quantity, (b) quality: co-operative correction: psychological dangers of correction: the norm of correction: spelling and dictation exercises: analysis of most common errors and their causes.

IX. (Nov. 26.) *Verbal Illustration*: nature of illustration in general: distinction from exposition: mental backgrounds: relativity of illustration to the materials at command: exemplification: enumeration: nature of analogy and its place in illustration: the metaphor and other illustrative figures: how to find suitable verbal illustrations: source books of illustration.

X. (Dec. 3.) *Graphic Illustration*: the actual object and the model as means of illustration: the value of the picture as illustration, especially as compared with a verbal description: different illustrative values of a picture according as it is used for intellectual, moral, or aesthetic teaching: the diagram as compared with the picture: dangers that lurk in diagrammatic illustration: certain weaknesses in our space sense: supremacy of the straight line in illustration.

XI. (Dec. 10.) *How to deal with Dullness*: nature of dullness: its relativity to time and subject: the temporary dullness: the permanent dullness: the all-round dullness: the specialized dullness: the scale of dullness: the "defective point": subjective and objective dullness: stage at which objective dullness is welcomed by the pupil: the tyranny of "problems," and the legitimate claims of the relatively dull.

XII. (Dec. 17.) *The Problem of Examinations*: various functions of examinations: teacher as examiner: how to prepare an examination paper: allocation of marks: how to make the best of the external examiner: the personal equation: the use of "old examination papers": preparation of "set books": "the index" in revision of examination work: how to prepare pupils for an external examination with the minimum educational damage.

The Fee for the Course of Twelve Lectures is Half-a-Guinea.

\* \* The Lectures will be delivered on THURSDAY EVENINGS, at 7 o'clock, at the College, Bloomsbury Square, W.C.—Members of the College have free admission to all the Courses of Lectures.

## MESSRS. BELL'S NEW BOOKS

DETAILED PROSPECTUSES ON APPLICATION.

MASON'S  
NEW ENGLISH GRAMMARS.

Revised in accordance with Modern Requirements by

A. J. ASHTON, M.A.,  
Senior English Master, Kelvinside Academy, Glasgow; and Examiner in English to the College of Preceptors.

NOW READY. 125 pages. 1s.

## MASON'S JUNIOR ENGLISH GRAMMAR.

JUST PUBLISHED. 218 pages. 2s.

## MASON'S INTERMEDIATE ENGLISH GRAMMAR.

READY SHORTLY (Completing the Course).

## MASON'S SENIOR ENGLISH GRAMMAR.

JUST PUBLISHED. Crown 8vo. 1s. 6d.

## ELEMENTARY MENSURATION.

By W. M. BAKER, M.A., and A. A. BOURNE, M.A.

JUST PUBLISHED. Crown 8vo. 2s.

## A LATIN READER

(Verse and Prose).

By W. KING GILLIES, M.A. (Glas.), B.A. (Oxon.), Snell Exhibitioner, Balliol College, Senior Classical Master in the High School of Glasgow; and HECTOR J. ANDERSON, M.A. (Edin.), B.A. (Oxon.), Exhibitioner of Oriol College, Inspector of Training Colleges, Cape Colony.

Pott 8vo. Illustrated. 1s.

## TALES BY ERCKMANN-CHATRIAN.

Le vieux Tailleur. Le Combat de Coqs. Pourquoi Hanebourg ne fut pas rend.

Edited, with brief Notes and Vocabulary, by O. H. PRIOR, Assistant Master at Rugby.

(Bell's Illustrated French Readers.)

Third Edition, Revised and Enlarged.

## A FRENCH HISTORICAL READER

By H. N. ADAIR, M.A. (Oxon.).

With Illustrations, Brief Notes, a Vocabulary, and a new Composition Supplement. 2s. Without Supplement, 1s. 6d. Supplement separately, 6d. net.

JUST PUBLISHED. Crown 8vo. Illustrated. 2s.

## A GERMAN HISTORICAL READER

By J. E. MALLIN, B.A., Strand School, King's College.

Crown 8vo. 438 pages. 4s. 6d.

## A GERMAN READER AND THEME-BOOK.

By CALVIN THOMAS, Professor in Columbia University, and WILLIAM A. HERVEY, Instructor in Columbia University.

NOW READY. Demy 8vo. 6s. 6d. net.

## GENERAL CHEMISTRY FOR COLLEGES.

By ALEXANDER SMITH, B.Sc., Ph.D., F.R.S.E., Professor of Chemistry and Director of General and Physical Chemistry in the University of Chicago; Author of "An Introduction to General Inorganic Chemistry," &amp;c.

## BELL'S ENGLISH TEXTS FOR SECONDARY SCHOOLS.

General Editor—A. GUTHKELCH, M.A.

New Volumes.

CHARLES READE: *The Cloister and the Hearth*. Abridged and Edited by the Rev. A. E. HALL, B.A., Assistant Master, Bancroft's School. 1s.SCOTT: *A Legend of Montrose*. Abridged and Edited by F. C. LUCKHURST, Assistant Master, Sir Walter St. John's School, Battersea. 1s.

ENGLISH ODES. Selected and Edited by E. A. J. MARSH, M.A., Assistant Master, Hanley Secondary School. 1s.

Write for full Prospectus.

GEORGE BELL &amp; SONS, Portugal Street, W.C.

## HARRAP & COMPANY'S NEW BOOKS.

### The New Concrete Practical Arithmetic.

#### SPECIAL FEATURES.

1. The *thing* is taught before the sign or its name.
2. Number and variety of the problems concrete and practical in character.
3. Pupils make actual measurements themselves.
4. Attention paid to short direct business methods of computation.
5. The numbers used not so large as to cause mental fatigue, discouragement, or waste of time.
6. Fractions are introduced at an early stage, and applied to tables of money, length, capacity, &c.
7. Examples selected so as to prepare for the workshop, the counter, or the home.

#### SECTION ONE.

#### THE BEGINNER'S ARITHMETIC.

Part One, 80 pages, price 4d. Part Two, 128 pages, price 6d.  
Complete, One Shilling, in cloth binding. Answers, sewed, 3d.

"One of the most interesting books for a beginner that I have ever seen."—  
E. YOUNG, Lower School of John Lyon, Harrow.  
"The Beginner's Arithmetic" is a most excellent introduction to this subject,  
and I shall recommend it to the Teachers in this district."—One of H.M.I.

#### SECTION TWO.

#### THE INTERMEDIATE ARITHMETIC.

Part One, 192 pages, sewed, 4d.; cloth, 6d.  
Part Two, 192 pages, sewed, 4d.; cloth, 6d.

#### JUST READY.

### Pioneers of Education.

#### A NEW SERIES OF MONOGRAPHS ON THE GREAT EDUCATORS.

By GABRIEL COMPAYRÉ, Membre de l'Institut; Recteur de l'Académie de Lyon; Author of "Psychology Applied to Education," "Lectures on Pedagogy," "A History of Pedagogy," &c.

Crown 8vo. Price 2s. 6d. net per volume. Gilt top. Each with Portrait.

1. **J. J. Rousseau and Education by Nature.**
2. **Herbert Spencer and Scientific Education.**
3. **Pestalozzi and Elementary Education.**
4. **Herbart and Education by Instruction.**
5. **Montaigne and the Education of the Judgment.**

Other Volumes in Preparation.

### The Elizabethan Shakespeare.

#### PRINTED FROM THE FIRST FOLIO.

#### TO BE COMPLETED IN FORTY VOLUMES.

Each Play to be edited, with an Introduction and Full Notes, by  
WILLIAM HENRY HUDSON, Lecturer to the University Extension  
Board of the University of London.

Each Volume will contain a Complete Glossary and a list of Variorum  
Readings.

Price 2s. 6d. net per Volume, with Photogravure Portrait Frontispiece.

#### First Volumes—

1. **The Merchant of Venice.**
2. **Love's Labour's Lost.**
3. **The Tragedie of Julius Cæsar.**

Other Volumes are in active Preparation and will appear at intervals.  
A Prospectus containing full details of plan of Text and Notes, Specimen Pages  
of Text, Notes, Glossary, &c., will be sent post free to any address.

#### JUST READY.

### Myths of the Norsemen.

#### FROM THE EDDAS AND SACAS.

By H. A. GUERBER, Author of "The Myths of Greece and Rome," &c.  
With Sixty-four exquisite Full-page Illustrations by eminent Scandi-  
navian, German, and English Artists, and a complete Glossary and  
Index. Demy 8vo, 8½ x 5½ inches, 416 pages. Bound in handsome  
cloth cover, richly decorated and embossed with an appropriate  
design, gilt top. Price 7s. 6d. net.

### The Myths of Greece and Rome.

By H. A. GUERBER.

With Sixty-four Full-page Illustrations after the best works of Famous  
Artists. Cloth, gilt top, price 7s. 6d. net.

This most exquisite and attractive book proved to be one of the greatest successes  
of last year, and the new volume is sure of an equally cordial welcome. Both as  
regards its letterpress and its illustrations, "Myths of the Norsemen" is a fitting  
companion to "The Myths of Greece and Rome."

GEORGE G. HARRAP & CO., 15 York Street, Covent Garden, London.

## GEORGE GILL & SONS, LTD.

A selection of Works included in

### "The Oxford and Cambridge Edition"

required for the

## 1909

## LOCAL AND COLLEGE OF PRECEPTORS EXAMINATIONS.

### Religious Knowledge.

<b>THE OXFORD AND CAMBRIDGE EDITION ST. MATTHEW.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXON. AND CANTAB. EDITION ST. MATTHEW.</b> Edited by Rev. F. MARSHALL, M.A. ( <i>Preliminary</i> ) ... ..	net 1 0
<b>THE OXFORD AND CAMBRIDGE EDITION ACTS I.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXON. AND CANTAB. EDITION ACTS I.</b> Edited by Rev. F. MARSHALL, M.A. ( <i>Preliminary</i> ) ... ..	net 1 0
<b>THE OXFORD AND CAMBRIDGE EDITION KINGS I.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION EZRA.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION NEHEMIAH.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION PRAYER BOOK.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION CHURCH CATECHISM.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION CHURCH CATECHISM.</b> Explained specially for Preliminary Candidates. Edited by Rev. F. MARSHALL, M.A. ... ..	0 6

### English.

<b>THE OXFORD AND CAMBRIDGE EDITION TEMPEST.</b> Edited by STANLEY WOOD, M.A., and A. SYMS-WOOD, B.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION HENRY V.</b> Edited by STANLEY WOOD, M.A., and Rev. F. MARSHALL, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION MACBETH.</b> Edited by STANLEY WOOD, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION JULIUS CÆSAR.</b> Edited by STANLEY WOOD, M.A., and A. SYMS-WOOD, B.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION RICHARD II.</b> Edited by STANLEY WOOD, M.A. ... ..	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION LAMB'S TALES FROM SHAKESPEARE.</b> Edited by STANLEY WOOD, M.A. (Selection Set for 1909 Cambridge Local) ... ..	1 4
<b>THE OXFORD AND CAMBRIDGE EDITION LAYS OF ANCIENT ROME.</b> Edited by Rev. G. PRRESTON, M.A. ... ..	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION LAY OF THE LAST MINSTREL.</b> Edited by Rev. F. MARSHALL, M.A. ... ..	2 0

In the above works the necessary "Notes" have been added to enable Candidates to answer questions set by the Examiners.

#### GUIDES

to the 1909 Local Examinations, Specimen Pages, and Complete Lists of the "prescribed" Books contained in the

Oxford and Cambridge Edition,  
Post free.

## HISTORICAL ATLAS,

#### With CHRONOLOGICAL NOTES.

By E. A. BENIANS, M.A., and T. H. KNIGHT, M.A. 96 pp. Crown 8vo, net, 8d.  
Intended to provide suitable material for a general knowledge of British History  
and more especially for use as a supplementary work in Examination Preparation.

Complete Catalogue post free.

London: GEORGE GILL & SONS, Ltd., 13 Warwick Lane, E.C.

# ARTISTIC SCHOOL PRIZES

Speciality:

**BOOKS BOUND IN LEATHER AND OTHER  
FANCY BINDINGS.**

**JUST ISSUED.**

**NEW ILLUSTRATED CATALOGUE.**

**POST FREE.**

*A large selection of Books in each of the following Bindings is kept in stock:—*

<b>Full Morocco,</b>	<b>Half Morocco,</b>
<b>Full Calf,</b>	<b>Half Calf,</b>
<b>Tree Calf,</b>	<b>Antique Calf,</b>
<b>Victorian Calf,</b>	<b>Half Velium,</b>
<b>Paste Grain,</b>	<b>Padded Paste Grain.</b>

## THE EDUCATIONAL SUPPLY ASSOCIATION

ISSUES

**The Crown Series of Standard Authors.**

**An Unique Series of Sixty Volumes.**

**Bound in Half Calf at 2s. 9d. each.**

**Bound Paste Grain, Gilt Back & Top, 2s. each.**

*A Specimen Book will be sent for inspection on condition that it is returned promptly, post free.*

**THE EDUCATIONAL SUPPLY ASSOCIATION, Ltd.,  
42 HOLBORN VIADUCT, LONDON.**

## ANIMAL LIFE.

By **F. W. GAMBLE, D.Sc., F.R.S.,**  
Lecturer in Zoology, Victoria University, Manchester.

With numerous Line and Half-Tone Illustrations. **6s. net.**

*Manchester Guardian:—"The style is very attractive, and the book is based on a very intimate knowledge of the details of the subject matter and on much experience in original investigation."*

London: **SMITH, ELDER, & CO.**

## THE RUGBY PRESS

undertakes every description of Letterpress

**PRINTING FOR SCHOOLS.**

*Estimates furnished. Enquiries solicited.*

Address— **GEORGE OVER, Printer, Rugby.**

University  
Correspondence College.  
**ANNUAL DINNER  
AND  
REUNION**

**HOLBORN RESTAURANT,**

*Friday, November 27, 1908, at 7 p.m.*

Tickets may be had of the **SECRETARY, 32 Red Lion Square, W.C.**

## MATHEMATICAL BOOKS.

**CATALOGUE** of Second-hand Ancient and Modern, Curious and Rare Mathematical Books on application to **GALLOWAY & PORTER, Book-sellers, Cambridge (Eng.).**

**NOTICE TO SCHOOLS.**  
**CHARLES FRY'S**  
**Shakespearean Matinées**  
At 3 p.m.  
**ROYAL COURT THEATRE.**

Nov. 7 ... .. **CYMBELINE**  
Nov. 14 ... .. **TEMPEST.**  
Nov. 21 ... .. **MUCH ADO ABOUT NOTHING.**

Schools half-price on application before the day to **MANAGER, 22 Albion Road.**

**BADGES,  
HAT BANDS, CAPS**

**AT WHOLESALE PRICES.**

Write—**SCHOOLS AGENT, 1 Arundel Villas, Chelmsford Road, South Woodford, N.E.**

## The Practice of Instruction

A MANUAL OF METHOD GENERAL AND SPECIAL

Edited by **JOHN WILLIAM ADAMSON, B.A.,**

Professor of Education in King's College, London ;  
Examiner in Education to the Universities of London, Durham, and Liverpool,  
and to the College of Preceptors.

Cloth, pp. 536. Price **4s. 6d.** net. Post free, **4s. 10d.** net.

**NOTE.**—A prospectus, showing the scope and structure of this important new work on Method, and giving specimen pages from its various sections, will be sent on application.

*School (December, 1907) says:—"It is probably the best manual of method that has yet appeared in English."*

LONDON: **NATIONAL SOCIETY'S DEPOSITORY,**  
19 GREAT PETER STREET, WESTMINSTER, S.W.

## IDOLA PULPITORUM: PITFALLS OF THE PRACTICAL TEACHER.

*For this series of Articles, see "THE JOURNAL OF EDUCATION."*

**INTRODUCTORY ARTICLE**, by Professor ADAMS [November, 1906]; **CLASSICS**, by H. G. HART [December, 1906]; **ENGLISH**, by ARTHUR BURRILL [January, 1907]; **FRENCH**, by CLOUDESLEY BRERETON [February and March, 1907]; **SCIENCE**, by T. PERCY NUNN [April, 1907]; **NATURE STUDY**, by T. RAYMONT [May, 1907]; **HISTORY**, by S. S. F. FLETCHER [June, 1907]; **PHYSICAL TRAINING**, by Colonel MALCOLM FOX [July, 1907]; **DRAWING**, by W. E. SPARKES [August, 1907]; **DOMESTIC SCIENCE**, by ALICE RAVENHILL [October, 1907]; **GEOMETRY**, by H. WINIFRED STURGE [December, 1907]; **GEOGRAPHY**, by Dr. A. J. HERBERTSON [January, 1908]; **MUSIC TEACHING**, by ARTHUR SOMERVELL [June, 1908]; **ARITHMETIC**, by P. B. BALLARD [July, 1908].

Subscription is 7s. per annum; single numbers, 8d. post free.

Offices: **3 BROADWAY, LUDGATE HILL, E.C.**

## EXAMINATION PAPER

AS USED BY THE

## COLLEGE OF PRECEPTORS.

In strict accordance with the College requirements, and each Sheet bears their Watermark.

Packed in Reams of 480 Sheets ... .. per Ream, **2s.**  
" " 960 " " " " " **4s.**

Bookkeeping Paper, ruled for Ledger, Cash Book, and Journal, 1s. per 100 Sheets.  
Music Paper, 1s. per 100 Sheets.

*Remittance should accompany Order.*

**F. W. SHELBORNE & CO., Wholesale and Retail Stationers,**  
63 HIGH HOLBORN, LONDON, W.C.

**SECONDHAND BOOKS AT HALF PRICES!  
NEW BOOKS AT 25% DISCOUNT!**

**BOOKS** for A.C.P., L.C.P., F.C.P., Matric, University, Certificate, Scholarship, L.L.A., B.A., and ALL other Examinations supplied. State wants: send for List. Books sent on approval. **BOOKS BOUGHT**, best prices given. — **W. & G. FOYLE, 135 Charing Cross Road, W.C.**

## THE METRIC AND ENGLISH WEIGHTS & MEASURES

Is the ONLY Table Book published giving all the Metric Weights and Measures in full, with their English Equivalents, as AUTHORIZED BY THE BOARD OF TRADE, as well as the Metric Equivalents of ALL the English Weights and Measures.

The Metric System is now being taught in all Schools, and is being largely used by Manufacturers throughout the British Empire.

Retail, Price 1d., Post Free 1½d.

Published by

**PERCY E. RADLEY, 30 Theobald's Road, London, W.C.**



# THE SCHOLARS' CARTOONS.

A SERIES OF DECORATIVE LITHOGRAPHS

ILLUSTRATING

GREAT EVENTS AND INCIDENTS OF BRITISH NATIONAL LIFE.

Designed by eminent British Artists, and reproduced with the advisory assistance of Educational Authorities.



FIRST SERIES in course of publication, containing Original Designs by—

**WALTER CRANE; FRANK BRANGWYN, A.R.A.; CAMPBELL TAYLOR;  
JOHN HASSALL; Professor GERALD MOIRA; SPENCER PRYSE.**

*The first four Prints created an enormous interest at the Moral Education Congress.*

PROSPECTUS GRATIS. PRINTS SENT ON APPROVAL.

**HANFSTAENGL, 16 PALL MALL EAST, S.W.**

## THE School World.

A MONTHLY MAGAZINE OF EDUCATIONAL WORK AND PROGRESS.

EACH NUMBER CONTAINS EIGHTY COLUMNS OF READING MATTER.

PRICE 6d. VOLUME IX., 1907, 7s. 6d. NET.

The aim of THE SCHOOL WORLD is to provide information of practical and permanent value to Schoolmasters and Schoolmistresses. To this end all important changes and developments affecting any branch of the work of teachers in secondary and other schools are dealt with by leading authorities and experienced teachers.

The Magazine has become indispensable to all who desire to keep in touch with modern and effectual methods of education.

MACMILLAN & CO., Ltd., LONDON.

LARGEST STOCK  
of SECOND-HAND  
School, Classical,  
Mathematical, and  
Scientific Books  
in London.

ESTABLISHED 1854.

Keys and Translations.

BOOKS BOUGHT.

**J. POOLE & CO.,**  
104 Charing Cross Rd.,  
AND  
2 Manette Street, Soho,  
LONDON, W.C.

NEW AND SECOND HAND. ALL ENQUIRIES ANSWERED.

**EDUCATIONAL BOOKSELLERS**

# Cambridge University Press

**A History of Classical Scholarship.** By J. E. SANDYS, Litt.D., Fellow of St. John's College and Public Orator in the University of Cambridge.

Vol. II.—*From the Revival of Learning to the End of the Eighteenth Century (in Italy, France, England, and the Netherlands).*

Vol. III.—*The Eighteenth Century in Germany, and the Nineteenth Century in Europe and the United States of America.*

Vols. II. and III. Large crown 8vo 8s. 6d. net each.

"These volumes complete a book, the only one of its kind in English, which all lovers of classical literature will wish to possess. . . . The volumes are lavishly illustrated by appropriate portraits. They successfully carry on a work which has a peculiar value of its own as covering, with sound erudition, the whole of a field as yet not thoroughly worked except in particular places."—*Scotsman*.

**The English Grammar Schools to 1660: their Curriculum and Practice.** By FOSTER WATSON, M.A., Professor of Education in the University College of Wales, Aberystwyth.

Crown 8vo 6s. net.

The object of this book is to present an account of the development of the teaching in the English Grammar Schools from the time of the Invention of Printing up to 1660. It is a history of the practice of the schools, of their curricula, and of the differentiated subjects of instruction, in distinction from the history of the theories of educational reformers as to what ought to be taught, and how existing methods might be improved. Throughout, the attempt has been made to describe really representative documents and school text-books, as the safest way of securing a sound basis for the study of the school practice of the time.

## THE REVISED VERSION. SCHOOL EDITION.

Foolscap 8vo, with Introduction, Notes, and Maps, price 1s. 6d. net each volume.

These Editions will, it is hoped, serve a good purpose in drawing the attention of young scholars to the importance of some of the changes made in the Revised Version, and in presenting in a clear and intelligible form the best and most approved results of recent theological works on these books.

**The Gospel according to St. Matthew.**

Edited by the Rev. A. CARR, M.A. With 3 Maps.

"The most approved results of recent biblical criticism are embodied in the splendid notes; but independent of its intrinsic value, there are three artistic maps incorporated in the text. An edition as remarkable for its elegance as for its high utility."—*School World*.

**The Gospel according to St. Mark.** Edited

by Sir A. F. HORT, Bart., M.A., and MARY DYSON HORT (Mrs. George Chitty). With 2 Maps.

"Sir A. F. Hort's little book on St. Mark is a model of what such books should be."—*Glasgow Herald*.

**The Gospel according to St. Luke.** Edited

by the Rev. E. WILTON SOUTH, M.A. With 2 Maps.

**The Gospel according to St. John.** Edited

by the Rev. A. CARR, M.A. With 2 Maps.

"Mr. Carr has succeeded in presenting the best and most approved results of recent theological work on St. John in a clear and intelligible form. . . . The introductory matter deserves a special word of praise."—*Guardian*.

**The Acts of the Apostles.** Edited by the

Rev. C. WEST WATSON, M.A. With 3 Maps.

*Annotated editions of the remaining books of the New Testament are in preparation.*

**A Course of Pure Mathematics.** By G. H.

HARDY, M.A., Fellow and Lecturer of Trinity College, Cambridge.

Demy 8vo 12s. net.

This book has been designed primarily for the use of first year students at the Universities whose abilities reach or approach something like what is usually described as "scholarship standard." The author hopes that it may be useful to other classes of readers, but it is this class whose wants he has considered first.

A considerable space is occupied with the discussion and application of the fundamental ideas of the Infinitesimal Calculus, Differential and Integral. But the general range of the book is a good deal wider than is usual in English treatises on the Calculus.

**The Elementary Theory of Direct Current**

**Dynamo Electric Machinery.** By C. E. ASHFORD, M.A., Head Master, Royal Naval College, Dartmouth; and E. W. E. KEMPSON, B.A., Assistant Master, Royal Naval College, Dartmouth.

Crown 8vo 3s. net.

The authors of this little book believe that in the training of an Electrical Engineer there should be included a knowledge of the theory of the subject built up logically from first principles, each step being illustrated with the help of some piece of machinery or practical appliance of a general and simple rather than an elaborate or necessarily up-to-date type.

The present book does not cover much ground, but the authors have attempted to present as logical a treatment as is possible in so elementary a work.

**Elementary Algebra.** By C. H. FRENCH, M.A.,

and G. OSBORN, M.A., Mathematical Masters at the Leys School, Cambridge.

Crown 8vo 4s. 6d.

This book includes Common Logarithms and the Binomial Theorem for a Positive Integral Index, so that it covers the ground of all school examinations not requiring a special knowledge of the subject. It is amply sufficient for such examinations as the London Matriculation, the Cambridge Previous, the ordinary pass-work of the Higher Certificate Examination of the Oxford and Cambridge Board, the Oxford and Cambridge Locals, and others of similar standard.

**Algebra for Secondary Schools.** By CHARLES

DAVISON, Sc.D., Mathematical Master at King Edward's High School, Birmingham.

Crown 8vo 6s.

The author's aim has been to prepare a text-book that may be of use in all but the highest classes of a secondary school. The subjects included are, for the most part, those which are common to all text-books of elementary algebra; but a few, such as indeterminate equations of the first degree, the remainder theorem and simple partial fractions, are introduced at an earlier stage than usual. The applications of graphs are confined to the illustrations which they afford of the methods of solving simultaneous equations and of the theory of quadratic equations and expressions. In the solution of simultaneous quadratic equations, they are especially useful, as they serve to show the geometrical meaning of every step in the process employed.

**Modern Geometry.** By C. GODFREY, M.A.,

Head Master of the Royal Naval College, Osborne, and A. W. SIDONS, M.A., Assistant Master at Harrow School.

Crown 8vo 4s. 6d.

The present volume is a sequel to the "Elementary Geometry" written by the same authors. It covers the schedule of Plane Geometry required for the Special Examination in Mathematics for the Ordinary B.A. Degree at Cambridge; and represents what the authors take to be a useful course for any student of Mathematics, whether he intends to read for Mathematical Honours or to take up Physics or Engineering. For those who ultimately make a special study of Geometry, this book would serve as an introduction to more advanced treatises.

**Inorganic Chemistry.** By E. I. LEWIS, B.A.,

B.Sc., Assistant Master at Oundle School.

Demy 8vo 5s.

"Deserves a high place, not only in the school, but generally as an excellent introductory first course."—*Nature*.  
"A decidedly original work, very superior to the average text-book used in schools, especially in throwing light on general principles."—*School World*.

## CONTENTS.

	Page		Page
Leader: The International Moral Educational Congress .....	465	Current Events .....	479
Notes .....	466	Fixtures—Honours—Endowments and Benefactions—Appoint- ments and Vacancies—Scholarships and Prizes—Literary—General.	
The Education Bill: Anticipations of a Common Ground of Settlement—Mr. Asquith among the Classics—Greek Literature through English: a Birmingham Experiment—Supply and Training of Teachers—Decline of German in Schools—Cleanliness of School- rooms and School Attendance.		The Teacher's Imperfections, and How to Deal with them. Address by Prof. Adams .....	483
Summary of the Month .....	468	The British Association: more Educational Papers ... ..	486
Universities and Colleges .....	469	Training in Teaching. By Miss C. P. Treman. Influence of Mental Values of Types of Education. By Prof. Culverwell. Tests of Educational Efficiency. By T. P. Gill.	
Oxford—Cambridge—London—Birmingham—Aberystwyth.		Correspondence: Moral Instruction (Harrold Johnson).....	488
The Educational Ladder .....	471	Reviews .....	488
The Moral Education Congress: more Papers .....	472	The Life of Tolstoy: First Fifty Years (Maude)—A Study of Mathe- matical Education (Branford)—The Woman and the Sword (Lorraine).	
Co-education: (1) By the Rev. Cecil Grant; (2) by J. H. Badley; (3) by Isabel Cleghorn. Moral Instruction, Direct and Indirect. By Dr. F. H. Hayward. The Balance of Studies. By A. C. Benson.		General Notices .....	490
The Church and the Adolescent. Address by Prof. Sadler.....	473	Christmas Books .....	492
Conférences Françaises: L'Expédition du Mexique. Par M. Huguenet .....	475	Historical and Descriptive—Tales of Adventure—Romance of Science—Fairy Tales—Old Favourites in New Dress—Stories for Girls—For the Children—Various.	
College of Preceptors: Teachers' Diploma Examination, Summer, 1908: Results ...	476	First Glances .....	495
Meeting of the Council.....	486	Mathematics .....	496

## The Educational Times.

### *The International Moral Education Congress.*

THE promoters of the International Congress on Moral Education can scarcely have anticipated, even in their sanguine moments, a success greater than that which has actually been achieved. Throughout the four days of the meeting large audiences, drawn from all quarters of the globe, attentively followed discussions which never lacked animation, and which were more than once prolonged by request beyond the hour set down on the programme. The interest thus exhibited within the cosmopolitan gathering itself appears to have had a parallel amongst the general public outside, if we may judge from the attention accorded to the Congress by the daily and weekly newspapers. There seems to be a growing conviction amongst the nations that the present time is critical, that it calls for a more than usual emphasis upon the moral factor in education; and this common cause of anxiety easily becomes the occasion for conference. The obvious danger is that those who confer should lose the sense of proportion and ignore the complexity of their problem while exaggerating one or two of its factors. The catholicity of the Congress saved it from this danger. Though the school stood in the foreground of debate, there was an ample recognition of the many diverse influences which go to form the full education of child and man. Very few indeed must be those members of the Congress who can retain the opinion that moral education is a thing apart, either in the schoolroom or in the larger world beyond its walls.

Of course, there were grave differences of opinion, even upon some fundamental principles: if there were no differences, there need be no conference. But this Congress enjoys a distinction probably unique. Within its fold men discussed the thorny question of the relation of religion to morals frankly, yet without bitterness. While there was no compromise on either side, both listened with respect and even with sympathy. The same admirable temper marked the debates on points of difference less fundamental. Surely the fact is full of hope. A clear understanding of the position as it appears from different points of view is

essential to the choice of common ground, and this, in turn, must precede common action. Nor were there wanting, during the course of the proceedings, signs of the possibility of effecting some degree of assimilation or reconciliation of principle. It is noteworthy that Canon Lyttelton and Mr. F. J. Gould both find in social service a central conception for moral education, and that a Salvation Army delegate, while repudiating Heaven and Hell as moral sanctions, agrees with the French speakers who insisted that morality does not await some "far-off divine event," but is the business of the moment amongst men upon this earth. The Congress was one in this at least, that it united the men who care for the things of the spirit. If succeeding gatherings maintain this unity and the fine temper which distinguished the days of this first Congress, they cannot but powerfully influence the course of education within the civilized world of the future. But to secure this, the Executive Committee, which is charged with the duty of handing on the tradition of the first meeting to the next, must exercise a wise forbearance, a large-hearted tolerance, and a scientific impartiality which will see that no school of opinion is prevented from sharing in labours whose aim is the advantage of all.

It is needless to say that the first Congress suffered from the defects of its qualities. Its original intention was to be "severely practical" and to confine its attention in the main to the affairs of the schoolroom, leaving other no less important aspects of education to be dealt with by subsequent congresses. Fortunately, the intention was not strictly carried out. Had it been invariably adhered to, there would have been a loss of perspective and a restriction of interest which would have prejudiced, or even have prevented, the holding of a second international gathering. But the expression of the intention, no doubt, ensured that papers and speeches did not stray too far from the paths of usefulness. On the other hand, the wider outlook upon the problems of education, which the Congress actually occupied, brought into view a multiplicity of matters of varying degrees of importance. So far as this meant that the Congress was in living contact with many different interests, it was all to the good. Yet the practical, concrete applications of the four days' labour were in the same measure hindered or curtailed. In the sense of practice, no issue

was fought to a close, so that the members in most cases probably went away with much "to think about," yet little of this was in a form which could be straightway applied in the classroom, the committee of the Education Authority, or the office of the administrator. The remedy would seem to lie in the prescription of much fewer subjects of discussion, and the liberal employment of sectional meetings appealing more to the expert; it would not then be necessary to consider at one and the same sitting, let us say, "The Kindergarten," "L'Enseignement moyen en Belgique," and "Berufsethik." But, certainly, division of labour comes more naturally at a later Congress than the first.

The practical person in search of history and directions, instead of criticism and general principles, will find his account in the published volume of "Papers," to which about one hundred and fifty persons have contributed; he may possibly esteem even more highly than their contributions the summarized replies to questions with which the book closes. In any case, the volume will provoke thought and stimulate experiment which may very well be focused at the Congress of 1912. Meantime, the Executive Committee has been requested to consider the feasibility of establishing an International Bureau which shall be in a position to collect and disseminate information, amongst the contributing persons and nations, as to what is being done throughout the world on behalf of moral education. A further scheme to be considered is that of an International Journal having a similar purpose. No doubt the organizers will be careful to seek the co-ordination of these agencies with those of other international bodies interested in social work. The practicability of the plan is largely a financial question, and, in view of the manifest advantage to the world at large which the realization of the proposal would bring about, it is to be hoped that a few wealthy persons may come forward to furnish it with material support. Few suggestions for ensuring peace amongst the nations are likely to be more fruitful than one which enlists them all in the task of developing individual character on the lines of a sound morality.

### NOTES.

THE Government will proceed with the Education Bill as soon as the Licensing Bill gets through Committee. There has evidently been a good deal of quiet negotiation during recent months with a view to a settlement by general agreement, without disturbing the fundamental postulates of public control and the abolition of religious tests. The *Daily News* (October 22) says, apparently with inspiration:

Broadly speaking, the position in single-school areas will, we believe, remain as in the Bill as originally drafted—i.e., the schools will pass absolutely to the Public Authority. In the urban areas the proposals under mutual discussion leave the contracting-out clause on the basis of the 47s. grant and no rate-aid untouched, and add the right of denominational entry two days a week in regard to all schools. This proposal, we believe, would be subject to the option of the Local Authority. Further, the head teacher in no case would, we gather, be allowed to give denominational teaching. The denomination would bear the cost of such teaching, the teaching to be restricted to the opening half-hour of the school day, and the religious basis of all schools being that controlled by the Cowper-Temple clause. The power of the Local Authority to decline the right of entry would be in many parts of the country a powerful instrument for bringing the denominational schools under the Local Authority, in addition to which the 47s. grant would

leave on an average 8s. a child to be provided by the denomination. Past experience of the impoverishment of Church schools suggests that this margin would not generally be forthcoming from voluntary sources. We learn that the Roman Catholics are not included in the negotiations, owing to their demand that the contracting-out facility should be based upon the four-fifths arrangement instead of the 47s. grant and exclusion from the rates. We are, of course, unable to state the precise position of the negotiations or the extent to which they involve the Churches, but there is no doubt, as we have said, that they have discovered a very close approximation to a common ground of settlement.

THOUGH the Prime Minister has probably but little time to spare for the cultivation of classical literature, no doubt the Balliol leaven still works; and at Birmingham he addressed the Classical Association with as much vigour and zest as if he had been clearing a way through the tangle of the Licensing Bill or the jungle of unemployment. He certainly did not underrate the efficacy of the work of the Association. As regards methods of studying and teaching the classics, the Association "had already in the course of two years brought about a radical change which, both in the magnitude of its scale and the rapidity of its execution, might well excite the envious admiration of iconoclasts and revolutionaries in other walks of life." Yes; but a good deal of strenuous and persistent work has yet to be done in order to secure the permanence of the impressions that have been made. Without under-estimating the value of the results of archæological investigation, Mr. Asquith properly laid stress on the superior importance of literary and philosophic treatment in the study of ancient literature. "In truth, the great writers of antiquity remain their own best interpreters," though the diggers are to be listened to when they come forward with definitely established facts. Mr. Asquith was also on firm ground when he deprecated the older limited views, both of the scope of the "classics" and of the handling of them as instruments of education, and recognized the advantages of the wider outlook of our time, the more scientific spirit, and the quickened consciousness of their relation to other forms of knowledge and other departments of investigation. It is pleasant to know that the pressure of practical problems in modern life has not yet effected the expulsion of the classical learning and spirit from the realm of statesmanship.

It seems better that Birmingham should read the classics in translations than not read them at all. Prof. Sonnenschein describes in the *Classical Review* an experiment in the teaching of Greek literature which he has already applied in the teaching of Latin literature. Under a recent regulation of the University, a course of Greek literature may be taken as a subject for the Arts degree in the second or third year of study. The class will meet three times a week, and take up in the three terms, successively, Homer, the Drama, and Plato. The reading of essential or representative portions will be accompanied by lectures on the literary aspects and contents of the works; but attention will be concentrated in the main upon the reading of the works themselves, with a view to the appreciation of them as human documents. There need be no doubt that such a course will interest the students; whether it will interest them so far as to lead them to tackle the original Greek subsequently, that is on the knees of the gods. In any case, it is well to bring as many Greekless students as possible

even into such remote (or near) contact with the mind of Greece. Likely enough, the students "may form a better idea of the contribution made by the mind of Greece to our European civilization than is formed by many a schoolboy who has painfully toiled through the elements of the Greek language and a few isolated products of the literature." But is it not largely this unnecessarily painful toil that has brought us at last to Prof. Sonnenschein's almost despairing experiment? We are learning—painfully, in our turn—the virtue of method.

In the eight years between the last two meetings of the National Federation of Assistant Teachers at Manchester, the affiliated associations have doubled and the membership has tripled: the affiliated associations have increased from 66 to 135, and the members from 6,820 to 18,100. Mr. H. Pearson, in a thoughtful presidential address at the recent meeting, dealt carefully with the supply and the training of teachers. "There is an over-supply of teachers, and several hundreds of them are unable to find posts." We must endeavour, he said, "to realize what this means to present as well as to future teachers, and what will be its probable effect upon their prospects and conditions of service." He holds that training should be dealt with first, not only for the interest and importance attaching to it, but also because the supply must depend to a great extent upon the type of training—upon the method, the cost, the nature, and the duration of the training. While welcoming the efforts to broaden the teacher's education, Mr. Pearson is rather lukewarm over "the change which postpones the technical training to such a late stage of the novitiate" as the age of twenty-one. "The new type of training," he says, "may foster students, but it cannot create teachers: the power to assimilate knowledge is no criterion of the faculty to impart it." True; but, on the other hand, it may be said that a teacher cannot impart what he has not got, and the intellectual exercise must count for something. To relieve over-supply, Mr. Pearson suggests the obvious remedy of "an immediate reduction in the size of classes." "There will never be a real 'glut' of teachers while classes in the elementary schools contain more than forty pupils." This is, of course, practically a demand for more money. While awaiting the formulation of a national standard of staffing, Mr. Pearson suggests a scheme for securing an adequate supply of teachers, the first essential being the gradual replacement of supplementary teachers by fully qualified teachers, the process to be spread over a period of five years.

THE decline in the school teaching of German is strikingly illustrated in a memorandum recently issued by the Scottish Modern Languages Association. The statement is based upon replies to circulars that were sent to thirty of the chief Higher Grade and Higher Class Secondary Schools in which modern languages had been taught in past years with conspicuous success. "The replies from both classes of schools were in remarkable agreement, showing the effect of the recent regulations for the Intermediate and Junior Student curricula upon the study of these languages in schools." French was found to be little affected. But, as to German, within the past seven years "there has been a

decrease of 39 per cent. in the number of beginners, of 30 per cent. in the whole number studying the language, and of 43 per cent. in the number taking the language in the highest school class." "In 1900 about 1,000 candidates took the Higher Grade paper in German in the Leaving Certificate Examination; it is believed that only about 500 candidates entered for that grade this year"; and "a similar reduction has taken place in the number of candidates presented for the Lower Grade." Further, "there has been a deterioration of quality in the pupils taking German." Then there is the reaction upon intending teachers. "In the Training Colleges the number of students of German has fallen from about 700 in 1900 to about 70 in 1908. In 1900 German was taken by hundreds of pupils in the Central Classes of Pupil-Teachers: to-day all the German classes have been dropped." The cause of this decrease, the Memorandum states, "is (i.) the preferential treatment given to Classics in the Leaving Certificate, Preliminary, and Bursary Examinations by compulsions and higher marks, and (ii.) above all, the recent Departmental regulations regarding Science and Drawing in the Intermediate curriculum, and regarding Science and Drawing and other practical subjects in the Junior Student curriculum." Even if freedom were granted to replace Science and Drawing by a third language in the third year of the Intermediate course, it would probably be a long and difficult business to recover the lost ground in German.

"To cleanse a schoolroom properly," says a recent Memorandum of the Scotch Education Department, "it is necessary to destroy the germ life as well as to remove the visible dust. This is why periodic disinfection is advisable, even when no known infectious disease has been present." Very good; but is this "advisable" thing actually done? The annual report of the Medical Officer of Health of a southern county strikes us as very far from reassuring, even as regards the ordinary cleansing; and the term "periodic" appears to be interpreted in a very lax sense. The question seems to be of lively interest in Bucks, for a Buckingham correspondent has telegraphed to a London contemporary results of certain experiments carried out under the direction of the Staff Science Master of the Bucks County Council. "For the past six months the floors of twenty-five schools in the county have been sprayed nightly with a liquid germicide." "The cost up to date has been £22. 10s., and the calculated increase of grants due to the additional attendance in the disinfected schools, as compared with the non-disinfected schools, amounts to £37. 7s. 6d." One is always glad to find a school balance on the right side. At the same time, we cannot help thinking that the connexion between the attendances and the spraying operations needs to be demonstrated in scientific detail. And if the causal relation is definitively established in this country district, what is to be anticipated when scientific investigation penetrates to slum schools in our large cities? What is the relation between the conditions of those southern schools in Scotland and the attendance of pupils? The cause of cleanliness needs no advocacy; but there must be some reasonable practical limit to scrubbing and spraying, and it is for science to say what it is.

## SUMMARY OF THE MONTH.

THE ARCHBISHOP OF CANTERBURY, speaking at the inauguration of new Church schools in Windmill Road, Croydon, said that in areas where there were Council and denominational schools there was no unfairness to any one; rather was the rate-payer relieved and the parent given a choice of schools. As regards "one-school areas," he believed means could be devised whereby that choice could still be given without having separate schools. He did not despair of a solution to the education problem which would preserve the principles for which each side cared most, and he was doing his very best to bring about that result.

ON October 8, Dr. Clifford, on behalf of the National Passive Resistance Committee, wrote to Mr. Asquith calling his attention to the position occupied by the members of the Passive Resistance League after five years of protest, and urging him to push his Education Bill through the House of Commons without delay, and without permitting it to be so altered as to force them to pay a rate for any sectarian teaching. Mr. Asquith replied (October 14):

I can assure you that I am fully alive to the grievances to which, notwithstanding all the efforts exerted by the Government and the House of Commons since 1906, a large and important section of the community are still exposed, and can only repeat what I said the other day at Leeds—that a removal of the cause of those grievances is, in the opinion of the Government, an essential condition of the settlement which they will use all their efforts to achieve.

At the thirty-sixth Annual Meeting of the London Teachers' Association the affairs of the body were reported to be in an extremely satisfactory condition. The membership, 15,000, had increased during the year by 1,276. It was mentioned that seventeen members had been so enthusiastic as to pay their subscriptions twice over last year. Mr. C. W. Hole, the retiring president, criticized the attitude of the L.C.C. toward the teachers' superannuation scheme. He was extremely disappointed that the L.C.C. had not given them the same measure as was meted out to its other officers. The teachers received less superannuation than any other body of officers. Although the scheme was primarily enlarged because it was found they were not being treated generously, the teachers had not been included. Mr. W. P. Folland, the new President, also dealt with the question of superannuation, protesting that members of the Association were being excluded from benefits which Parliament deliberately conferred upon them.

THE conference convened by the Workers' Educational Association at Birmingham with the object of furthering the interests of the democracy in higher education, included some two hundred delegates from various parts of the country. Mr. W. Temple, of Oxford, son of Archbishop Temple, the first president, occupied the chair. He said they were at the beginning of a period that would be marked by the claim of the workers to their share of the privileges and responsibilities of education. There was nothing, and could be nothing, that would convince the country at large of the genuineness of that claim so much as a movement like theirs, which claimed not power for selfish ends, but power to be made fit to use political power for real good. There was, he was sure, at Oxford a new sense of the duty towards labour, and the Association had brought about that new sense. Prof. Muirhead (Birmingham) said most of the workers in the world were waking up, and they were hungry for knowledge. Mr. W. J. Morgan (Birmingham) spoke in favour of the opening of continuation schools in the afternoon. He did not think the time was ripe for raising the school age. A great many people were below the poverty line and could not afford to keep their children at school until they were fifteen. It was decided to hold next year's conference at Sheffield.

At the Birmingham meeting of the Classical Association, the gramophone was used to demonstrate the principles of Greek lyrical rhythm. The subject was introduced by the Rev. Prof. Henry Browne, who advocated a radical change in the teaching of Greek poetry. An interesting experiment, he said, had been undertaken in Birmingham University to communicate some knowledge of the masterpieces of Greece through transla-

tions; but, while he was fully in sympathy with that, he thought it would be admitted that the beauty of literature depended to a great extent on external form, and rhythm was an essential element in form. Prof. Mackail (Oxford) read a paper on "How Homer came into Hellas." He traced the various phases through which Homer's work was transmitted, and declared that the organic unity and life of the "Iliad" and "Odyssey" were so complete and powerful that they came through substantially intact. Mr. Gilbert Murray and Prof. Mahaffy expressed scepticism as to this conclusion.

MR. ASQUITH'S presidential lecture, which drew a large audience, was mainly devoted to a defence of the literary and philosophical regard for classics as against the archaeological. The great masters of literature were not to be dethroned, and the work of the Association lay in the direction of rendering the study of them less tedious and less conservative. Prof. Sonnenschein discoursed amusingly and suggestively on the mysteries of the Latin subjunctive. The "Hippolytus" of Euripides (in Prof. Murray's translation) was successfully performed by Miss Horniman's company from Manchester. The membership of the Association has risen to 1,350. Lord Cromer was elected President for the ensuing year.

THE Board of Education has drawn up a new scheme for the Birkbeck College, on account of the dissolution of the City Polytechnic and the constitution of the Birkbeck College as a separate Polytechnic Institute. The main object of the scheme is to reconstitute the governing body, but some change is made in the purposes for which the College is to be used. In place of the objects set forth in the general regulations for the management of an industrial institute attached to the scheme of June 23, 1891, a new schedule of the objects of the College is set forth which differs from the original scheme mainly in the following particulars:—Instruction in the application of rules and principles of arts and science to handicrafts, trade, or business, and instruction in the details of handicrafts, trade, or business are omitted, and there is no reference to musical and other entertainments or exhibitions. The new governing body is to consist of thirty-seven persons, including a president and two vice-presidents, to be appointed by resolution of the governors, each for the term of one year, except that Lord Alverstone is to be President for life and Mr. Norris and Mr. White are to be Vice-Presidents for six years. There are to be fifteen co-optative governors, to be appointed by resolution of the governors, each for five years, and nineteen representative governors to be appointed as follows:—five by the London County Council, three by the Central Governing Body of the City Parochial Foundation, two by the London Chamber of Commerce, two by the Corporation of the City of London, two by the Senate of the University of London, and one each by the Hebdomadal Council of the University of Oxford, the Council of the Senate of the University of Cambridge, the Institute of Bankers, the Council of the Royal Society, and the Governing Body of the Imperial College of Science and Technology.

DR. WARREN, Vice-Chancellor of Oxford University, reviewing in Convocation the events of the past academic year, referred specially to Prof. Churton Collins among the losses sustained by the University. Reform was expected, he said, and with the aid of the Chancellor they would address themselves to it. In his own opinion, what called most pressing for consideration was the reform of the Hebdomadal Council and of Congregation, possibly at a later stage of Convocation, the investing of the Boards of Faculties with greater powers both of regulating studies and of appointing teachers, and more economy and specialization in lectures. Scholarships ought to be administered, if possible, with more regard to the real needs of the candidates, yet in such a way as not to destroy that healthy rivalry of competition which was of value. The question would have to be considered what was the best course of study for workingmen candidates who could only spend a short time at the University, and how this study should be rewarded or recognized by diplomas or otherwise. Dr. Warren was then duly admitted to office, and nominated as Pro-Vice-Chancellors the Principal of Brasenose, the Principal of Jesus, the Dean of Christ Church, and the Warden of New College.

THE Royal Agricultural College, Cirencester, after an existence of sixty-three years, has been reorganized, that its sphere of

activity and usefulness may be greatly widened, and that it may no longer be handicapped by non-eligibility to receive grants from public moneys. Taking advantage of the enlarged powers now conferred upon it, the College proposes to advance the cause of agriculture in general, and the agricultural interests of the West of England in particular, by actively engaging in the following kinds of work:—(1) scientific research in agricultural subjects; (2) co-operation with the University of Bristol (by which it will, no doubt, be fully recognized) in the establishment of degree courses and degrees in agriculture and forestry; (3) continuance of the important work of training landowners, estate agents, and colonists; (4) training county scholars in agriculture; (5) continuing and extending the system of short courses for sons of tenant farmers; (6) establishing classes in subjects of rural education for the benefit of teachers; (7) co-operation with county councils in their instructional and experimental work; (8) acting as a bureau of information for the benefit of West of England agriculturists.

MR. ERIC WILLIAMS repeated his very successful dramatic recital in aid of Lord Roberts's Veterans' Relief Fund at Ramsgate, on September 28, before a large and appreciative audience. General Sir Harry Prendergast, V.C., G.C.B., attended on behalf of Lord Roberts's Committee. He was received at the Harbour Station by the Mayor and Deputy-Mayor of Ramsgate, General Sir Charles Warren, K.C.B., G.C.M.G., and a Guard of Honour comprising the Chatham House College contingent of the Junior Division of the Officers' Training Corps. A contingent of the East Kent Yeomanry, under the command of Lieut. Robert Sebago Montefiore, formed an escort. Mr. Williams repeated his recital last month at Dover and at St. Leonards; and (as announced in our advertisement columns) he is open to accept further engagements at schools and colleges.

MR. R. BOSWORTH SMITH died at Bingham's Melcombe, Dorchester, in his seventieth year, after a long illness. He was educated at Marlborough and Oxford. A scholar of Corpus, he was elected a Fellow of Trinity in 1863. In 1864 he became an assistant master at Harrow, where he remained for thirty-seven years—till 1901. Since his retirement he has lived in Dorset. His most important works are "Mohammed and Mohammedanism," "Carthage and the Carthaginians," and "The Life of Lord Lawrence." He was a keen student of Nature, especially of birds; in 1905 he collected a number of articles into a volume on "Bird Life and Bird Lore." His second son, a lieutenant in the Navy, was in command of the torpedo boat destroyer, "Cobra," when it went down off the Lincolnshire coast in September, 1901.

DR. DANIEL C. GILMAN, first President of the Johns Hopkins University, Baltimore, and afterwards Head of the Carnegie Institute, Washington, died suddenly (October 13) at Norwich, Connecticut, his birthplace. Born in 1831 and educated at Yale, Cambridge, and Berlin, he became President of the University of California in 1870. Five years later he went in the same capacity to the Johns Hopkins University. His work there, over a period of twenty-six years, gained for him a place among the foremost American educators of his generation. He organized the University on a plan which was afterwards adopted in many other institutions, and he raised it to its present prominent position. In 1891 Dr. Gilman left Baltimore for Washington, where he spent three years organizing the Carnegie Institute. In addition to the work of his scholastic career, Dr. Gilman was appointed by President Cleveland to act as commissioner in the Venezuela and British Guiana boundary dispute. He was President, from 1901 to 1907, of the National Civil Service Reform League, President of the American Oriental Society, trustee of the Russell Sage Foundation for the improvement of the conditions of social life, and a prominent member of various other societies and institutions.

#### UNIVERSITIES AND COLLEGES.

Oxford. THE October term opened with great rumours of movements in the air and of general reformation of the University. It was confidently reported that the Chancellor was to be in residence and take a leading part in the furtherance of the movement. But the Chancellor has not appeared, and at present rumour has proved a lying jade; and

whatever may be impending still only impends, and the older Fellows still sip their port (their younger confrères are content with lemonade) and deplore the restless spirit of change. It seemed possible that the prospect of changes at hand might cause excitement and contest at the elections to the Hebdomadal Council, but in two of the sections—Heads of Houses and Masters of Arts—there were only three candidates for the three vacancies. It was left for the professors to put up a fight, as five professors were nominated.

Those elected were Prof. Gotch, a man of sound judgment and affairs—though a scientist—and acceptable to all parties; Prof. Wright, who may perhaps be said to be safe rather than conspicuous; and a new man in Prof. Haverfield, whose rather unpractical views will perhaps carry little weight in the august body. Prof. Oman—regarded, rightly or wrongly, for many years as a firebrand—and Prof. Gardner, disliked possibly as a rather prejudiced critic of the University system, were the unsuccessful two.

We have four new Professors. By the retirement of Prof. Bywater from the Regius Chair of Greek we lose from the active staff a man with a European reputation and an extraordinary range of accurate knowledge. It is fair to say that a University whose main function at birth was the teaching of the classics may pride itself on having in the two classical chairs men of such accepted authority as Robinson Ellis and Ingram Bywater.

In Gilbert Murray Mr. Asquith has chosen the right successor: his career as an undergraduate was extraordinarily brilliant, and when Glasgow took him away when just a graduate to be a Professor, most held their breath—with admiration or envy—at the rapidity of promotion. But Prof. Murray has gone far since then, and he brings to the Chair a striking personality and a mind which can go far further than the perhaps narrow limits of "pure scholarship."

The other new professors are the Rev. G. A. Cooke, a Hebrew scholar of pre-eminence, to succeed Dr. Cheyne as Oriël Professor; and another Ecclesiastical Professor in the Rev. E. W. Watson, from King's College, in succession to Dr. Bigg. Several resident Oxonians were mentioned as possible or probable nominees, but it is perhaps better to maintain the discretion of silence.

The last professor is a new creation—Prof. Jenkin for the Engineering School. With our recent additions to the Museum, our promised Electrical Laboratory, the new Forestry building, and the Engineering School, we are making some effort to meet the modern cry for the practically useful. It will have been noticed that the Drapers' Company have offered to erect the new electrical laboratory, and it is an open secret that they have been prompted to make their generous offer through the intervention of the Principal of Hertford.

Oxford has lost from the teachers two men who in different ways were of conspicuous standing in Oxford—Dr. Fairbairn, of Mansfield, and Prof. Miers. The former has resigned his post as Principal of Mansfield after some twenty years. Many of us can remember the heartburnings and jealousy in Oxford when these "new colleges" were founded, and Dr. Fairbairn had rather a difficult task in starting practically on new lines in a conservative University; but he started quietly and with no effort at self-advertisement, and he steadily won for himself an accepted position and justified the reputation with which he came among us. Prof. Miers has gone to London University, and we have lost in him a specialist in his own branch, a man with few, if any, rivals as a general sound man of business, and ready and willing to use his gifts in any department for the benefit of the University—a man *sui generis*, prompt, cautious, effective. He is a great loss to the University and to Magdalen College, to which he was as professor attached.

Lastly—though in order of precedence it should come in another place—the Vice-Chancellor has undertaken another year of office. The University may consider itself fortunate. Dr. Warren has had his critics, as any man who tries to take a leading part in many departments will have; but, ever since his election, when quite a junior Fellow, to the Presidency of Magdalen College—formerly one of the closest of corporations—he has justified, by his devotion to his duties and by his *gravitas* (a word which must not be taken to imply that he is insensible of the humours of life), the honours which have fallen to him.

Games are still played in Oxford. The river is in favour, and, with the unusual number of a dozen entries, there should be some good racing for the Coxwainless Fours, the finals of which will be rowed just when this paper is appearing. There seems

good reason to hope that the Rugby team will be of unusual excellence, and the back division will contain more Internationals than we have known since the historic days of "Harry" Vassall.

LARGE as is the entry of freshmen, quantity has not been sacrificed to quality. On all sides it is clear that there is a marked tendency to regard the University as a place of solid learning where a genuine training can be obtained for the business of life. The chief attractions to the outside public are the Engineering and Medical Schools, the numbers in which increase by leaps and bounds. Oriental accessions, too, are noticeable in our Law School, and the names on the lecture lists have a faint *souffron* of Gilbert and Sullivan.

Two new Professors start work this term—Prof. Oppenheim takes the place of Prof. Westlake in the Whewell Chair of International Law, while Mr. Pope fills the Chair of Chemistry held for so many years with such success by the veteran Prof. Liveing. Prof. Pope, whose appointment is likely to prove an unqualified success, was not hampered by a University training, but will be none the less welcome on that account, and, if he lives up to his reputation, will make his mark in scientific circles. One of the favourites for the appointment was Dr. Fenton, who for many years has done yeoman's service at the Laboratory, and, what is more, has found time to do important research work in his subject. It is a curious fact that many of our most efficient teachers are men whose claims have never been recognized by their own colleges. There have been cases of men good enough for Bishoprics and Professorships who have not had the chance of teaching grammar or quadratics to classes in their own colleges.

The appointment of Mr. C. T. Heycock as Goldsmiths' Reader in Metallurgy was an obvious one, but noticeable for all that. In conjunction with Mr. Neville, of Sidney, the new Reader was responsible for most valuable research work on the nature and properties of alloys. Mr. Heycock, like Dr. Griffiths, the present Principal of Cardiff University College, with whom he was so long and intimately associated in teaching work, is another example of the faults of a system which recognizes only too late the value of teaching ability in a University.

The retiring Vice-Chancellor delivered the customary valedictory oration at the beginning of term and the incoming Vice-Chancellor, Dr. Mason, Master of Pembroke, was duly admitted to office. Rapid changes have taken place in masterships of colleges during the past few years. The latest loss which the University has sustained is that of the Master of St. John's, whose sudden death, while enjoying a brief and well earned holiday on the Continent, came as a great shock to his numerous friends. The appointment of Mr. Robert Forsyth Scott to the vacant post is undoubtedly one which will tend to the advancement of the college. It is reported that Mr. Larmor was the most serious rival in the opinion of the electors.

The Syndicate which is considering the question of substitutes for the general examination has not yet delivered itself of a report: it is difficult to imagine what alterations could with advantage be made in this particular examination, but there are people among us who crave for change and who, living in a realm where poll candidates are regarded as denizens of a lower sphere, treat the poor undergraduate as a fit subject for the untutored experiments of meddlesome incapacity.

A useful change has been made in the arrangements for the first M.B. Examination, which is now held three times a year instead of twice. The October examination as now constituted is a practical recognition of the fact that much of the best work is done in Vacation time, and that a period for rest and digestion is not altogether out of place even after an intellectual meal. Our Cambridge menus are sometimes a trifle crude.

Local politics have entered upon a novel phase: two ladies have entered the lists and desire municipal honours—Miss Julia Kennedy, the well known daughter of the illustrious Prof. Kennedy, and Miss J. S. Phillpott, the daughter of an equally well known Bishop. If they are successful, they will certainly not diminish the efficiency of our local Senate.

Magdalene has made amazing strides in popular favour under the energetic rule of Mr. Donaldson, and in a few years' time the picturesque little college by the river will prove itself a power to be reckoned with in every department of University activity. Its numbers are steadily increasing, and the successes it gained on the river in the May term are proving the prelude to an advancement all along the line.

Our prospects in things athletic are not as bad as the London

prints would have us believe. The new President, Mr. D. C. R. Stuart, has splendid material for next year's crew, including his younger brother Colin, who may in time rival his brother's successes. In the football field it is not so certain that the abnormally strong side which Oxford puts into the field will be so very superior to the less fancied team of this University. At any rate, we possess in K. G. McLeod one who is probably the best three-quarter of the century, and at least six other members of the team are quite in the running for International honours. The golf team promises to be fairly good: it will almost certainly include a Magdalene freshman named Walker, who has lowered the record for the Royston links to 68 within a week of his appearance on the scene. Things are very quiet, and there seems no prospect of any excitement this side of Christmas.

A MEETING of Convocation was called for London. October 13, but a quorum could not be secured and therefore no business could be transacted.

Sir Edward Busk, who, as Chairman of Convocation, would have presided, explained informally to the meeting the amendments which the Senate had passed modifying Statute 125 dealing with the period of study necessary before the acquisition of the first degree. The statute, as it stands at present, enacts that that period should be not less than three years from the date of Matriculation. The most important modification was to the effect that a student might be allowed to take the Final Examination before the end of the three years' course provided that, after passing the Intermediate Examination, he should have attended for two years an approved course of study for the Final Examination. This modification, explained Sir Edward, was adopted on the suggestion of Convocation. Another provision of almost equal importance was to the effect that a course of study extending over not more than one year taken in another University approved for the purpose, after the passing of the Intermediate Examination, might be accepted in lieu of an approved course of study taken in London University. It was agreed that Sir Edward Busk should informally present to the Senate the approval of the meeting.

The Matriculation Pass List gives 51 names in the First Division and 364 in the Second Division. The usual lists of supplementary certificates are added.

Sir Arthur Rücker was presented (September 28) by the administrative staff of the University with a rose-bowl, designed and executed in hand-beaten and repoussé silver by Messrs. Ramsden & Carr. It bears the arms of the University, of Brasenose College, Oxford, of which Sir Arthur is an Honorary Fellow, and of his own family, displayed between panels of briar-rose pattern, and is encircled with the following inscription:—"I was wrought for Sir Arthur William Rücker, D.Sc., F.R.S., on his retirement from the Principalship of the University of London, to mark the affectionate esteem of the Officers and Staff." The presentation was made, on behalf of his colleagues, by Mr. Philip J. Hartog, the Academic Registrar.

The following Doctorates have been conferred: D.Sc. in Physiology, Dr. David Forsyth (Guy's); D.Sc. in Chemistry, Dr. S. J. M. Auld (East London College) and Henry Bassett (external student); D.Lit. in History, J. W. Horrocks (external student).

A SUPERANNUATION scheme for members of the professorial staff is to be put into operation next session. Under this a professor who reaches the age of sixty-five years will retire on a pension. The scheme is established on a contributory basis.

In the Degree Examinations of June last 75 Aberystwyth. students qualified for the B.A. or B.Sc. degree, including 47 in Honours, 10 of them obtaining

First Class and 15 Second Class Honours; 6 obtained the Secondary Education Certificate of the University and 6 the Cambridge Teachers' Diploma. There was an unusually large number of candidates at the Entrance Scholarship Examination in September. Of the 22 awards, 19 fell to pupils of Welsh County schools. Of the total number (470) of present students, 443 are matriculated and pursuing full degree courses. An increasing number of post-graduate students are engaging in scientific research, the new laboratories proving an invaluable addition to the resources of the College in this respect. The new athletic grounds are nearly ready for use, and a large and admirably



fitted gymnasium has been erected at a cost of £2,000—mostly contributed by a former student. The practice of the normal students has been extended, use being made of the schools of Newtown, in addition to the practice at Swansea and Aberystwyth. Though the number of students and the income from students' fees showed an increase last session, there is a deficit on the general college income and expenditure account of £1,648. 19s. 9d., as compared with £1,670. 14s. in the previous year.

### THE EDUCATIONAL LADDER.

**BOARD OF EDUCATION.**—Whitworth Scholarships and Exhibitions. Scholarships (£125 a year each, for three years): W. H. Mead, Southsea; W. White, Portsmouth; W. H. Stock, Swindon; E. Bate, London. Exhibitions (£50 for one year): A. H. Gabb, Swindon; A. McKenzie, Devonport; R. Bassett, Devonport; S. L. Dawe, Devonport; A. J. Triggs, Devonport; A. C. Lowe, Harrogate; J. R. Pike, Portsmouth; H. R. Allison, Gillingham; A. E. Beal, Sheerness; C. R. Kemp, London; H. L. Guy, Penarth, Glamorgan; H. G. Stephens, Leicester; F. E. Rowett, Chatham; C. E. Haddy, Torpoint, R.S.O., Cornwall; W. E. Tong, Gosport; G. W. Bird, Plymouth; C. W. Limbourne, Plumstead; W. G. Pitt, Plumstead; E. J. Cox, Gosport; G. H. Reid, Stonehouse, Devon; D. Watson, Swindon; J. E. Burkhardt, Newcastle-on-Tyne; P. R. Higson, London; A. J. Sear, Portsmouth; E. O. Hale, Stantonbury, Bucks; F. C. Ham, Plumstead; A. R. C. Winn, Hornchurch, Essex; J. Scobie, London; F. Bray, Devonport; C. P. T. Lipscomb, Plumstead.

Royal Exhibitions, National Scholarships, and Free Studentships (Science), 1908.—Royal Exhibitions: A. Riddle, Portsmouth; T. J. Hornblower, Southsea; A. H. Gabb, Swindon; A. E. Stone, Portsmouth; F. Morris, Portsmouth; S. B. Hamilton, Halifax; A. H. Barrett, Southsea. National Scholarships for Mechanics (Group A): B. C. Carter, Southsea; A. J. White, Southsea; H. H. German, Devonport; W. F. Boryer, Portsmouth; H. Mawson, Hunslet, Leeds. Free Studentships for Mechanics (Group A): G. W. Bird, Plymouth; H. G. Stephens, Leicester. National Scholarships for Physics (Group B): J. Lamb, Gateshead; H. Billett, Swindon; F. C. Hobbs, Bristol; R. Ecker, Norwich; T. W. Johnstone, Neyland, Pembroke-shire. Free Studentships for Physics (Group B): P. H. S. Kempton, Swindon; W. Jevons, Smethwick. National Scholarships for Chemistry (Group C): W. A. C. Newman, Leeds; E. W. Yeoman, Southampton; F. Hargreaves, Burnley; L. D. Goldsmith, London; E. Jobling, Hull; E. O. Jones, Leeds. Free Studentship for Chemistry (Group C): L. Owen, Trefriw, Carnarvonshire. National Scholarships for Biology (Group D): E. Hill, Bradford; H. Wormald, Wakefield; T. E. Herbert, London. Free Studentship for Biology (Group D): E. T. Halnan, London. National Scholarships for Geology (Group E); H. Hart, Camborne; A. Sharples, Burnley; J. W. Chalouner, Burnley.

**CAMBRIDGE UNIVERSITY.**—Balfour Studentship (£200 a year): Cecil Clifford Dobell, B.A., Trinity. Charles Oldham Shakespeare Scholarship: T. S. Sterling, B.A., Downing. Gedge Prize (Chemistry): Edward Mellanby, B.A., Emmanuel. Geographical Scholarship: Thomas Dunbabin, B.A., Corpus Christi (Rhodes Scholar).

*Emmanuel.*—Research Studentships: £150, T. H. Laby, B.A.; £140, R. D. Klecman, B.A.; £100, H. S. Tasker, B.A.—all members of the College. Exhibition of £50 for two years (to advanced student): L. J. Russell, M.A., B.Sc., Glasgow University. Exhibitions of £30 for two years: W. T. Gordon, M.A., B.Sc., Edinburgh University, and A. Ll. Hughes, B.Sc., Liverpool University.

*Trinity.*—Elected to Fellowships: Alfred Reginald Brown (King Edward's School, Birmingham), in Moral Science; Geoffrey Bulmer Tatham (Uppingham School), in History; John Edensor Littlewood (St. Paul's School), in Mathematics; Cecil Clifford Dobell (Sandringham School, Southport), in Natural Science.

**DURHAM: ARMSTRONG COLLEGE, NEWCASTLE.**—Daglish Fellow: H. C. Annett, B.Sc. College Fellowships: B. J. M. Lane and S. Woolff. Charles Mather Scholarship: S. G. Edgar. Junior Pemberton Scholarship: R. C. Burton. Nathaniel Clark Scholarship: H. B. Tilley. Alder Scholarship: Divided between T. R. Burrell and W. Herbertson. Shipwrights' Company Scholarship: A. Piekworth. Osbeck Exhibition for Surveying: H. M. Hudspeth. Osbeck Exhibition for Metallurgy: E. L. Ford. Freire-Marreco Medal: D. Tiplady. Gladstone Memorial Prize: G. H. Hunter. Entrance Exhibitions in Science: T. H. Lusher, T. E. Sayer. Entrance Exhibition in Literature: Daisy Bowie. Lloyds' Register Scholarship in Naval Architecture: W. R. Edgar. Corporation Exhibitions: S. L. Baister, D. M. Clough, M. L. Haigh, H. Hope, M. G. McClery, G. McIntosh, W. S. Oliver, A. T. Parsons, G. E. Stephenson, and F. H. Walker.

**LLANDOVERY COLLEGE.**—Entrance Scholarships: Ll. P. Jones (Llandaff Cathedral School), D. Ll. Ellis (St. Deiniol's, Bangor), E. de Q. Mears (Baintree, Essex), O. M. Williams (Pontyminster), E. E. Roberts (Christ Church Cathedral School, Oxford), T. B. Jones (Bridgend School),

C. B. Davies (Cowbridge School), G. Thomas (Bow School, Durham), C. A. Loveluck (Port Talbot School), K. Davies (Morpeth School, Northumberland), C. Thomas (Swansea School), C. Bowen (Llanely School), H. R. Jones (Llanely School), I. A. Aubrey (Llanely School), G. Powell (Bridgend School). Foundation Scholarships; J. C. Morris, J. R. Lewis, W. H. Jones (Llandovery College), L. D. Lewis (Pentre).

**LONDON: QUEEN'S COLLEGE.**—Arnott Scholarship: Dorothy Pain. Plumtre Scholarship: Marion Baxter. Professors' Scholarships not awarded. The following students have qualified for the Associateship of the College:—Gladys Baker, Marion Baxter, Phyllis Cherrill, Monica Geikie Cobb, Marion Thompson, and Margaret Tribe.

**LONDON UNIVERSITY.**—*The Medical Schools.*—*Charing Cross.*—Epsom Scholarship: A. M. Jones. Huxley Scholarship: E. A. Sutton. Entrance Scholarships: E. H. Morris, C. E. Williams (dental), K. V. Smith. Universities Scholarship: T. Beaton, London University.

*Guy's.*—Senior Science Scholarship for University Students: N. Mutch, B.A., Emmanuel College, Cambridge. Certificate: H. W. Barber, B.A., Clare, Cambridge. Junior Science Scholarships: J. F. G. Richards, Preliminary Scientific (M.B.) Class, Guy's Hospital; W. L. Webb, Preliminary Scientific (M.B.) Class, Guy's Hospital. Certificate: G. S. Miller, Preliminary Scientific (M.B.) Class, Guy's Hospital. Entrance Scholarships in Arts: A. J. E. Smith, Rugby; H. W. Evans, Modern School, Bedford.

*King's.*—Sambrooke Exhibition: V. W. Draper, Huddersfield Technical College. Warneford Scholarships: J. H. Dancy, Queen Elizabeth's Grammar School, Faversham; W. C. S. Wood, St. Bees Grammar School; M. A. W. Thomas, Marlborough.

*London.*—Price Scholarship in Science: D. E. Morley. Science Scholarships: J. R. K. Thomson, A. R. Elliott. Epsom Scholarship: K. Biggs. Price Scholarship in Anatomy and Physiology, open to students of Oxford and Cambridge: H. Scott Wilson, Queen's, Oxford.

*St. Bartholomew's.*—Senior Entrance Scholarships in Science: N. Mutch, B.A., Emmanuel College, Cambridge, and A. F. S. Sladden, B.A., Jesus College, Oxford. Junior Entrance Scholarship in Science: Equal, C. L. Williams, Plymouth Technical School, and V. W. Draper, Huddersfield Technical College. Entrance Scholarship in Arts: Equal: F. H. L. Cunningham, Felsted, and G. T. Loughborough, Bradfield. Jeaffreson Exhibition in Arts: W. E. R. Saunders, Wellingborough Grammar School.

*St. George's.*—University Entrance Scholarship: J. Ellison, Downing, Cambridge; G. H. Varley, St. John's, Oxford. Entrance Scholarships in Science: P. Whitehead, King's College; H. E. Thorne, St. Paul's.

*St. Mary's.*—Entrance Scholarships—Open Scholarships in Natural Science: B. W. Armstrong, Boston Grammar School; F. P. Bennett, University College, Cardiff; J. R. M. Whigham, Westminster City School; F. C. Robbs, Clarence College, Gravesend. University Scholarships: A. W. Bourne, B.A., Downing College, Cambridge; W. A. Berry, Queen's College, Belfast.

*University.*—Bucknill Scholarship: H. W. Davies, University College, Bangor. Epsom Scholarship: J. A. Cowan. Exhibitions: R. L. Horton, University College, London; C. J. A. Griffin, University College, London.

**LONDON SCHOOL OF MEDICINE FOR WOMEN.**—St. Dunstan's Exhibition: U. Griffin, London School of Medicine for Women. Scholarship: N. Tribe, Queen's College, Harley Street.

**OXFORD UNIVERSITY.**—Junior Kennicott Scholarship: Arthur L. Sadler, B.A., St. John's. Pusey and Ellerton Scholarship: Samuel H. Hooke, Jesus College. The second Pusey and Ellerton Scholarship was not awarded.

Satisfied the examiners in the Theory, History, and Practice of Education: J. H. Baines, B.A., University College; A. S. Baker, B.A., St. John's; B. L. Broughton, B.A., non-collegiate, and O. J. Coudrey, B.A., Pembroke; R. M. Morgan, University College of Wales, Aberystwyth; Emma Backhouse, B.A. Lond., University College of Wales, Aberystwyth; Edith Beard, Royal Holloway College, B.Sc. Lond; Ellen J. Benham, Adelaide, South Australia; Alice Blake, St. Hilda's Hall; Mary Cornish, St. Hugh's Hall; Phyllis Monk and Margaret E. Sale, Girton. Adjudged worthy of distinction: William G. Briggs, B.A., Magdalen; A. J. B. Green, B.A., Jesus; H. E. McL. Icely, B.A., Brasenose; and Gertrude M. Thomas, M.A. Lond., University College, Cardiff.

*Brasenose.*—Senior Hulme Scholarships (£150 a year, for four years): Edmund C. Cleary and Charles E. Fairburn, Scholars of the College.

*Merton.*—History Fellowship: F. M. Powicke, M.A. Mauc. and Oxon., Assistant Lecturer in History, Manchester University.

*St. John's.*—Fellowships: John Handyside, B.A., Jenkyns Exhibitioner of Balliol; Guy Dickens, M.A., New College; M. P. Appleby, B.A., Trinity; and A. P. Brown, B.A., New College—the last two on the Fereday Foundation.

**SHEFFIELD UNIVERSITY.**—Technical Scholarships: A. G. Barkworth and C. D. Bradshaw (Central Secondary School, Sheffield). Technical Free Studentships: W. Bagnall and R. Genders (Central Secondary School, Sheffield), H. W. Barnes (Ashville College, Harrogate).

## THE MORAL EDUCATION CONGRESS.

## MORE PAPERS IN SUMMARY.

## CO-EDUCATION.

(1) By the Rev. CECIL GRANT,  
Head Master of St. George's School, Harpenden.

It is fair that I should state the main conditions which I consider no less essential than co-education, though I have no doubt that they will not meet with unanimous agreement. Firstly, then, the school must be frankly on a religious basis, the appeal in all matters resting finally upon the religious sanction (Do this because it is the will of God). Secondly, obedience must be demanded and obtained, every disciplinary means necessary to this end being employed. Thirdly, this discipline must be approved by the general consent of the community and, except in the rarest cases, by the sense of justice of the individual, even at the moment of punishment. Fourthly, prefects must be given wide powers, and must be prepared to discuss any person or any matter freely and frankly with the head master. Fifthly, there must be no precedent which may not be disregarded and no tradition which may not be broken through. It may, perhaps, be necessary to add that experience proves that none of these five conditions are at all impossible to realize.

As to the reasons for the vital difference which I attribute to co-education. After all, "I do not know why, but it is so," would not be so inadequate an answer as it sounds. It has to suffice as an explanation of electricity, but electricity is none the less serviceable. I think, however, that some explanation is not difficult to find. It is dangerous to tamper with Nature, as civilization has in a thousand ways discovered. "Male and female created He them" embodies a natural law, and, when natural laws are disregarded, unexpected results follow. "It is not good that the man should be alone" may very well be true at an earlier age than has been suspected.

The dangers admittedly belonging to an adult monastic establishment may well show themselves even less avoidable in a monastery for boys. We are finding in many other respects that education must not be one-sided—that you must not, for example, feed a young mind on one kind of mental diet only. But if anything educational can be truly stigmatized as one-sided, surely to educate boys apart from girls is that thing.

Is co-education difficult work? It is in every respect easier to work than the rival system. Does co-education require master and mistresses of an unusual stamp? Yes, and so does any other kind of education. Can a sufficient supply of such be obtained? Yes, if they are properly sought for and adequately remunerated. I admit that this last would give co-education an unfair advantage over nearly all other English schools.

(2) By J. H. BADLEY, Bedales School, Petersfield.

Two conditions at least seem to me essential: (1) There must be equality of age and standing, and no overwhelming predominance of numbers or influence on the one side or the other; (2) while there is little need to distinguish the activities of boys and girls up to fourteen or twenty, there must, in the later years, be more variety of work and play, with possibility of separate lines of choice according to the bent and needs of the individual. Granted these conditions, there is nothing but gain in the presence of the sexes together. It is good for both to come under the influence of the other sex as well as of their own; for the boy to have to do with women and with girls whose intellect and personality command his respect, and for the girl to learn, by daily contact with boys, what are the things they resent, the weaknesses they despise, the virtues they honour. But, great as these gains are, the deepest influence of co-education on character is in the mutual understanding, forbearance, and respect between the sexes that it brings in place of a mutual ignorance that fosters at once contempt and idolization of each sex by the other; thereby making possible a truer comradeship of ideas and motives, of work and self-government shared together, not only during the school years, but as basis for the fuller community of work and interests throughout life now everywhere demanded.

And what of the danger of the early development of the sex-instinct, leading to silliness and flirtation, if not to serious attachments, to which boys and girls at school ought not to be

exposed? I am far from asserting that co-education is right for all, without exception and under all circumstances; but for most I am quite sure that it is at once a safeguard and a most valuable training. For we have to remember that the instinct is there; and, instead of ignoring or trying to repress it, we must find conditions that allow of its normal development and teach its control, and we must be ready to give guidance, when necessary, in the meaning and mastery of this as of the other powers. In the natural intercourse between the sexes in all sides of their life at school, and in the personal guidance for which this gives opportunity, is one of the greatest means to strengthen character and make life wholesome. It is as mistaken to suppose that this must intensify sex-consciousness as to fear (as others do) that it may weaken sex-attraction by dispelling its mystery. If co-education helps our children to enter less blindly upon lifelong responsibilities, and to make the comradeship that grows from community of aims the basis of marriage, this is by no means its least service. It will not change the laws of Nature; but it will help to produce a sounder type of girl and boy—and in this and in their mutual knowledge and sympathy and respect lie at once the true foundations of marriage and the best hope of the future.

(3) By ISABEL CLEGHORN, Sheffield.

This paper deals with co-education only in elementary schools. Great as are the objections to co-education as hindering the best educational progress of girls, the objections which *can* (and which *cannot*) be urged against it on what, for want of a better word, we must term the *moral* side, are still more serious, especially in the senior department of co-educational schools.

These departments, often deplorably large, are, as a rule, under a head master, and it is impossible for him to exert that necessary—nay, vital—interest required by elder girls. Of far more importance than the training of the intellect and the imparting of knowledge is the training of the womanly qualities and the development of the womanly character. To the girl from the slum home the value of the gentle, refining, humanizing influence of the good woman teacher is often the best thing in life to get.

However good may be the mixed school, however zealous and whole-hearted may be its master, no man can enter into all the hopes, the fears, the aspirations, and little vanities of the girl just beginning to feel the approach of womanhood. . . .

To sum up, there is a point in the education of boys and girls when their lines run no longer parallel, and that point is reached, to my mind, about the age of ten or twelve years, when the boy begins to feel that he will soon have to face the responsibilities of work and the girl looks forward to the responsibilities of home.

The system of co-education in our elementary schools is fraught with much danger to the best interests of both boys and girls from physical, educational, and moral standpoints, and Local Education Authorities would be well advised to pause and seek more inner knowledge of the working of the system before either building new mixed schools or combining the separate departments of old ones.

## MORAL INSTRUCTION, DIRECT AND INDIRECT.

By Dr. F. H. HAYWARD, London County Council Inspector.

Dr. Hayward assumes (1) that the child needs moral instruction, or (if the phrase be preferred) moral "suggestion"; (2) that the moulding agency consists in ideas or ideals that are impressed on the child's mind by education and environment; (3) that mere "training" is morally inadequate for such a being as the child is; and (4) that ideas are of different degrees of efficacy on conduct. He then proceeds:

If these assumptions can be justified, the case for moral instruction in *some form* is established. But what form shall the instruction take?

1. With regard to a multitude of simple habits, hygienic and other, the method must be frankly imperative. Now, an imperative method is a direct method, though it may not be called a method of moral instruction, the latter term usually implying an element of elucidation. Sooner or later the habit must be explained and justified to the child, and this process constitutes one form of direct moral instruction.

2. Such moral instruction as is given in connexion with religious instruction seems also essentially "direct." I would emphasize this point, because there are many people, especially

secondary masters, who seem to regard the proposal of direct moral instruction as something revolutionary. Almost every primary school in England has given this direct, though somewhat unsystematic, moral instruction for years, and I invite all critics to explain their silence during that time.

3. In upper classes and in secondary schools there seems need of lessons—perhaps one a week would be enough—on the duties of life and citizenship. Such lessons would naturally take the "direct" form.

Where, then, does "indirect moral instruction" come in? Let me point out that by "indirect moral instruction" is not here meant "moral training," which, as already indicated, is not of general efficacy apart from insight. Nor is "atmosphere" meant. I have not the smallest confidence in the average boy or girl learning the refinements of moral duty from pictures of Constable or Raphael or from the singing of songs. I believe that the English mind is usually unable to perceive subtle moral analogies or to draw any but the most obvious moral generalizations. Hence we come across case after case of what passes for "hypocrisy" or "inconsistency," but what is, in fact, nothing but a lack of moral lucidity or of precision in the application of a moral terminology. Almost every one desires to be "temperate," "just," "patriotic," and so forth; yet nearly every one fails, more or less, merely through inability to recognize all the ramifications of these virtues. The present writer, for example, though a teetotaller and non-smoker, is alleged to be "intemperate" (or even "enthusiastic") in matters of controversy. Though moral inconsistency is not confined to the English nation (as the plays of Ibsen sufficiently show), it is, perhaps, more characteristic of this nation than of any other, owing to the inveterate distrust of system and of ideas, which is known as English "common sense."

If "indirect moral instruction" is neither "training" nor "atmosphere," what is it? It is the provision of abundant, varied, and appropriate material in the form of stories, poems, and the like, taken from sacred and profane literature and history. I suggest that this material be so reorganized and enriched that every moral idea be copiously illustrated, though not to the exclusion of other ideas, aesthetic, utilitarian, &c. Up to the age of about twelve, the use of this material need not be accompanied by any argumentative or systematic elucidation of the implicit moral ideas, though there will inevitably be casual elucidations. Our pupils will be thus acquiring a moral terminology, or—what is much the same thing—accumulating apperception material for moral judgment. They will be learning to call *this* good and *this* bad, but they will be learning to do so informally; at any rate, they will be unconscious that behind the various subjects will lie a deeply laid scheme for the creation in them of a conscience.

At about the age of twelve, however, the various moral ideas may be brought into the focus of consciousness; distinctions may be drawn; ambiguities removed; arguments adduced; other examples given, and so forth. In other words, "direct and systematic moral instruction" will begin. And if such awful words as "moral" and "systematic" send a cold shiver down any English dorsum, I suggest that its owner try to invent a superior terminology, which is indeed badly needed.

I need scarcely point out that the relation between indirect and direct moral instruction is the same as that between "Nature study" and science, and between the practical study of a language and the formal study of its grammar. Similar difficulties and dangers exist in all three cases, the chief of which is the premature introduction of the second factor. Fortunately, however, the most earnest advocates of direct moral instruction usually admit that such instruction needs for its success a large amount of indirect moral instruction.

#### THE BALANCE OF STUDIES.

By ARTHUR C. BENSON, University of Cambridge.

What I desire to see realized—and it is not, I think, an impossible ideal—is that all boys should be turned out effective members of a commonwealth, able at all events to do their share of the world's work and to live by their labour. That first; for, whatever idealistic claims an educational programme makes, it remains unjustified and unjustifiable if it does not produce capable and efficient members of the body politic.

But when that is once secured, then I believe that the aims of education ought to be far wider, more liberal, more sympathetic,

more idealistic than they are. A hard and austere scheme of mental training is enunciated by classicists and scientists alike, which professes to combine both mental stimulus and mental discipline, but which in reality sacrifices the former to the latter, except in the case of the few specialists to whom the scheme is naturally adapted.

The plain truth is that we pitch our educational standard too high; we do not condescend enough; we drive when we ought to be guiding; we compel when we ought to attract. We do not study individual taste enough; we tend to crush personality, and call the process "fortifying."

Efficiency, intellectual pleasure, the love of virtue—it seems to me sometimes that we make, in our educational systems, very little attempt to secure any one of the three. We muddle away the first by sacrificing common sense to austerity of ideal; we despise and suspect the second; we are shy and reticent about the third. And yet I hold that these three things are like the trinity of Christian Graces, the three underlying aims of all education worth the word. Let us try to hold them all more simply in view, and not be misled or shamed by being called emotional or sentimental or easy-going, or any other of the epithets with which the Pharisees of the world have always tried to stone the prophets.

If we can get a child to *feel*, generously and swiftly, and not to be afraid or ashamed of feeling, we have done all that can be done; it is like the Gospel caution about seeking the Kingdom of Heaven *first*; afterwards, all things are added to the faithful seeker, as long as he has not sought the Kingdom for the sake of the ensuing conveniences, but for itself.

#### THE CHURCH AND THE ADOLESCENT.

At the Church Congress in Manchester Prof. M. E. Sadler read a comprehensive and suggestive paper on "The Care of the Church for her Members between the Ages of Fourteen and Twenty-one." He said:—

The subject appointed for our discussion this afternoon brings before us the question of how most wisely to secure educational and pastoral care for young people of both sexes during the critical time of adolescence and in the opening years of manhood and womanhood. This is a question which deeply concerns the economic as well as the religious and moral well-being of the nation. In many other countries besides our own its urgency and difficulty are being more clearly realized year by year. It is not a question for the Church of England alone, though the responsibility of the Church and of its individual members is great in regard to it. It is a problem which all the Churches in the land and all other organizations working for the moral and physical welfare of the nation should, so far as honesty of conviction allows, join hands in attacking. In dealing with it in an effective and systematic way, the authority of Parliament and the action of great Government Departments and Local Education Authorities are indispensable. Not less necessary are the goodwill and earnest co-operation of all employers of labour and of the great organizations of workmen. But what above all is necessary is a stronger and more enlightened sense of responsibility throughout the nation in regard to the physical, intellectual, and spiritual welfare of young people during the critical years which follow the close of the elementary school course. Our chief task is to secure this deeper sense of personal responsibility on the part of parents, of employers, of shareholders, and of those whose votes in elections can bring influence to bear upon the action of Government Departments (especially those which, like the Post Office, the War Office, and others, employ much adolescent labour) and of the municipalities. Of the growth of this deeper sense of responsibility there are some hopeful signs, and we should recognize with gratitude the example set by many public-spirited and considerate firms and the strong desire of the high officials of the Post Office to grapple with their part of the problem. But it is still necessary to make the Treasury realize the gravity of the question, and, in order to do this, to press the matter upon the thoughts and conscience of the nation, for the public expenditure of which the Treasury is trustee. . . .

#### THE INFLUENCE OF EVOLUTIONARY THOUGHT UPON EDUCATIONAL IDEALS.

Evolutionary thought has changed the perspective of our thinking about national education. It bids us be less in a hurry

for quick results. As Keble said: "Growth is slow, when roots are deep." We see how gradual must be the ascent of a populous community towards a higher plane of custom and of conduct, and how many factors, spiritual and economic as well as administrative and (in the narrower sense of the word) educational, must work together to bring about any lasting change for good. But the new way of thinking, though it has disinclined us to be sanguine about the immediate outcome of any new law or regulation, has deepened our conviction of the necessity for the systematic organization of national life, on lines which will foster health, reality of individual conviction, and the spirit of brotherhood. It turns our thoughts to the future, while deepening our reverence for those great institutions which are the bond between the future and the past. It teaches us to think always of the continuous succession of human life, and bids us endeavour to provide a social and spiritual environment in which new lives may come to birth and grow to maturity with less of tragic waste of promise and less of the cruelty of injustice and neglect. Under the influence of this new way of thinking, men realize that national education comprises many influences besides the influence, the indispensable and precious influence, of the schools. It means the power of a social environment which should both inspire and control. Home and school and the religious society to which the parents belong must work together for the educational care of the children. All three factors, raised to a higher power of devotion, must be brought into closer union for their common task. And the regular training and discipline of the young must be carried forward far beyond the premature conclusion of the elementary day-school course through the sensitive and momentous years of adolescence, so that the duties of manhood and womanhood may be entered upon with physical powers rightly trained, with the mind stored with just and inspiring thoughts, and the whole character uplifted by voluntary allegiance to a moral and spiritual ideal. This is the purpose to which the new way of thinking is insensibly directing us. And we are beginning to realize with shame that our present form of educational organization is pitifully far below that which it is our duty to create.

#### SOCIAL CHANGES CALL FOR NEW EFFORT IN NATIONAL EDUCATION.

Modern methods of factory production make it in some cases profitable to the employer to use the comparatively unskilled labour of boys and girls, who have just left the elementary schools, in such a way as to use up an unfair share of the physical and moral capital of the rising generation. It has never been so easy as it is in England to-day for a boy or girl of thirteen or fourteen years of age to find work (often involving long hours of deteriorating routine) in which there is little mental or moral discipline, but for which are offered wages that, for the time, look large and flatter the sense of being independent of school discipline and of home restraint. After a few years the lad, at the very time when he begins to want a man's subsistence, finds himself out of line for skilled employment and only too likely to recruit the dismal ranks of unskilled labour. This is one cause of premature unemployment. The recent return of the proceedings of Distress Committees under the Unemployed Workmen Act in England and Wales, during the year ended March 31, 1908, shows that more than half (53·3 per cent.) of the unemployed whose applications were entertained belonged to the class of general or casual labour. Considerably more than half (57·7 per cent.) out of the total number of applicants, who, after investigation were found qualified for assistance under the Act, were under forty years of age. And at least one out of every four of the total number (28 per cent.) was under thirty. Another piece of evidence points to the gravity of the evils resulting from our present lack of educational care during the initial years of adolescence. In the recently issued Annual Report of the Commissioners of Prisons, the Borstall Association point out that "when a boy leaves school, the hands of organization and compulsion are lifted from his shoulders. If he is the son of very poor parents, his father has no influence, nor indeed a spare hour, to find work for him, he must find it for himself; generally he does find a job, and if it does not land him in a blind alley at eighteen he is fortunate. On he drifts, and the tidy scholar soon becomes a ragged and defiant corner loafer. Over 80 per cent. of our charges admit that they were not at work when they got into trouble." Can we escape the conclusion that certain developments of modern industry, impersonal in their lack of a sense of civic responsibility, are imperilling the permanent and future interests of the State? Can we hide from ourselves the fact that

in many callings connected with transport and communication and in some branches of manufacture, the unskilled or injuriously specialized labour of adolescents is being used to a degree which calls for counteracting measures if grave and lasting injury is to be averted from the national life? And what is true of many boys is true also of an increasing number of girls. Modern industrial organization, with its tempting bribe of early wages and early independence, is beginning to use up an unfair share of the physique and of the still unformed character of multitudes of those girls who might be wisely trained for the duties of future motherhood and home-making.

#### SUGGESTIONS FOR ACTION.

There are many signs which may encourage us to take a reasonably hopeful view of the possibility of lessening these evils. Everything turns in the last resort upon the attitude of the public mind. And it is evident that people are beginning to think seriously about the practical steps which may be taken to grapple with the problem. . . .

What we need in England is greater combination of effort in dealing with a problem which is national, and not sectional, in its significance. Above all things, we need to preserve and to increase the volume of personal service in this work, to retain the devotion which has its source in religious belief, to shun the temptation to be too utilitarian in our educational ideas, and to avoid the error of thinking that legislation and the administrative action of public officials (though both are indispensable) can ever play more than a supplementary part in a task which is essentially one of pastoral oversight and of personal devotion.

Well knowing that I speak to an audience largely composed of experts, I will sum up with a brevity, which I hope no one will mistake for dogmatism, some of the remedies in regard to which there seems to be a growing consensus of opinion among English students of education. A practical handling of the problem will involve drastic reforms in the elementary day schools. The large classes should be reduced to thirty or thirty-five. The leaving age, as in Scotland, should be raised to fourteen. For the rank and file of the pupils there should be much more practical and constructive work in the higher standards, and much less reliance upon oral teaching. For many of the pupils a simpler course of study would be more helpful intellectually. Steps should be taken everywhere, as has already been done in many places, to organize the supply of accurate information about the wages and future prospects of employment in different callings, and thus to assist teachers or managers in giving wise counsel to pupils and not less to parents whose sense of responsibility and realization of future possibilities it is possible and highly desirable thus to stimulate and strengthen. Great good will also come from the movement for the readjustment of old methods of teaching in Sunday schools in the light of new knowledge which psychological investigation has placed at our command. The number of Old Scholars' Associations in connexion with public elementary schools should be increased. Hearty encouragement should be given to any efforts which foster the healthy influence of corporate life in connexion with continuation schools. Approved continuation classes should, wherever possible, be organized as part of the work of lads' or girls' social clubs. Local Authorities and private benefactors may render an important service to the community by providing more playgrounds in town and country with proper supervision for organized games. And, as Dr. Paton, of Nottingham, has urged, more use should be made of school buildings at night as social institutes for healthy recreation, including classes for physical development.

For my own part I am drawn to the further conclusion that it will eventually be found desirable and necessary to lay all employers under a statutory obligation to enable their young workers, up to the age of seventeen, to attend during the day-time or in the late afternoon courses of suitable instruction provided or approved by the Local Authority of the district. I realize the immense difficulties involved in any such requirement, and I do not look for any early adoption of the plan. There is, indeed, much to be done before we shall reach the point at which suitable continuation classes can be provided for all young people, and before the elementary schools can be placed in the position of being able to give the kind of preliminary education which all far-sighted members of the teaching profession are agreed in thinking desirable. But it is towards the statutory recognition of a new responsibility on the part of the employer, and towards the statutory enforcement of a more

prolonged attendance on the part of the pupil at the elementary school and then at the day continuation school that, unless I am wholly mistaken, the trend of events is moving. . . .

#### THE DANGER OF GIVING AN EDUCATIONAL MONOPOLY TO THE SECULAR STATE.

The Trades Union Congress has recently carried, by an immense majority, a resolution, the ultimate implication (though not, I venture to believe, the conscious intention) of which would be the effective discouragement of any kind of school or class other than those confined to secular education and under the direct management of the officials of public authorities. I would speak of this policy with the respect due to the judgment and experience of those who approve it, but nevertheless with a strong hope that it may not represent the final judgment of the nation.

It would, I believe, be a moral disaster to civilization if the training of the young were to become the jealously guarded monopoly of the secular State. The medieval Church, in her long-sustained effort to retain monopoly of educational control, was beyond doubt actuated in great measure by a noble and disinterested motive, but she was none the less wrong in this part of her conception of her practical duty. By committing herself in good faith to a false ideal of educational unity she impaired the spiritual and intellectual freedom of Europe and unwittingly injured the cause which she herself had most at heart. Not less noble and disinterested is the motive of many of those who, in our own days, would confer the vast rights of educational monopoly upon the secular State. They imagine that tragic inequalities of opportunities might be redressed, that pitiful waste of moral power and of mental promise might be prevented, if only the whole system of national education were placed, beyond possibility of competition or challenge, in the sole charge of Government. But such a monopoly, even if it could be effectively realized, would be injurious to education. At first, indeed, it might result in some real, and much apparent, gain. But, in the long run, a State monopoly in education would restrict the growth of new ideas, hamper individual initiative, discourage experiment, and either impose upon us a crippling uniformity of regulation or provoke a bitter conflict between contending ideals of life and duty, a conflict which would not only destroy the best hopes of educational advance, but cause a deep cleavage in our national life.

In the nature of things, education is a quasi-public, quasi-private thing. Its power over civic ideals is so great that the management of it, and the aspirations and purpose of those who provide it, can never lie wholly outside the watchful care of the statesmen and public servants who are responsible for national welfare. On the other hand, at the heart of all that is worthy of the name of education lie the spiritual forces which give to human life its highest significance and reveal its true meaning. Therefore, education cannot be committed to the sole charge of a purely secular organization, which is charged (by its own profession) with an exclusively secular mission, without being deprived of much of its deepest influence upon individual character. It cannot justly be argued in favour of an educational monopoly in the hands of the secular State that thus we should escape controversy on religious questions and in regard to the ideals of personal life. Experience shows that in educational matters the attempt to escape controversy by secularization leads, sooner or later, to far worse things than such controversy as we have in England to-day. Bleach education white of all that entails controversy, and what is left in our hands has little power of spiritual nutrition or of intellectual stimulus. . . .

But, if the educational monopoly of a Church and the educational monopoly of the secular State are alike inexpedient, we are led to seek a solution which will combine in national educational religious freedom for individuals and for organized groups of citizens with such measure of State supervision and aid as are needed to secure healthy conditions in the home, in the school, and in the workshop, sound physical development, large intellectual opportunities, and a strong sense of personal obligation for service in behalf of the community. I submit that *variety of types of school set in a framework of national organization* can alone give us that practical synthesis of effort which will satisfy the ineradicable convictions of the different groups in a community so varied as our own.

### CONFÉRENCES FRANÇAISES.

SOCIÉTÉ NATIONALE DES PROFESSEURS DE FRANÇAIS.

#### L'EXPÉDITION DU MEXIQUE.

Par M. A. P. HUGUENET.

Le 26 septembre dernier, M. Huguenet, professeur à Queen's College, nous parlait de la malheureuse expédition du Mexique, entreprise par Napoléon III, et qui fut, à tous les points de vue, rien moins que glorieuse pour nos armes.

Le conférencier esquisse à grands traits l'histoire de cette vaste contrée, rappelle les diverses races conquérantes qui s'y sont succédées depuis le VII<sup>e</sup> siècle; la domination espagnole; puis, de nos jours, la proclamation de l'indépendance, la création d'un empire éphémère en 1822, l'adoption d'un gouvernement républicain en 1824, et nous montre le désordre et l'anarchie régnant depuis lors en maîtres, l'état et le peuple s'épuisant en luttes intestines de tous les instants.

En 1861, la France, l'Angleterre et l'Espagne, se trouvant lésés dans leurs intérêts respectifs, interviennent, et envoient au Mexique un corps expéditionnaire. Mais devant les prétentions du Cabinet des Tuileries, l'Angleterre et l'Espagne refusent leur coopération, rembarquent leurs troupes, et la France reste seule en face de Juarez. Le but secret était de renverser la république et de fonder un empire capable de contrebalancer la puissance des Etats-Unis et de paralyser leur développement. Le général de Lorencez reçut ordre de commencer les hostilités. Le conférencier nous retrace alors cette campagne. Peu nombreux d'abord, les Français, battus à Puebla, durent attendre des renforts. L'effectif fut porté à 35,000 hommes sous le commandement du général Forey. En 1863, Puebla fut investi, et bientôt se rendit sans conditions. Peu après, Forey et Bazaine faisaient leur entrée à Mexico. Une junte fut créée pour choisir un gouvernement, et se prononça pour le rétablissement de l'empire, offrant la couronne à l'archiduc Maximilien d'Autriche, désigné par Napoléon. Mais Juarez ne renonçait pas à la lutte et tenait Bazaine en alerte. Maximilien avait bien été reconnu par les puissances de l'Europe, mais non par les Etats-Unis. Le gouvernement de Washington réclamait impérieusement la fin de l'occupation française, et force fut d'abandonner Maximilien à lui-même. Il se rendait du reste impopulaire tant aux cléricaux qu'aux patriotes. Le pays se soulevait, le péril augmentait, les petits désastres se multipliaient, et à la fin de janvier 1867, l'armée française, en pleine retraite sur la Vera Cruz, s'y embarquait définitivement. Maximilien, résolu à défendre son trône, avait refusé de la suivre. Trahi par ses généraux, il fut fait prisonnier à Queretaro et fusillé le 19 juin 1867.

Témoin oculaire de cette campagne, le conférencier ne pouvait être qu'intéressant. Il nous a fait assister à la vie du soldat en campagne, aux mille poignantes péripéties tant de la défaite que de la victoire, et nous a fourni des détails circonstanciés sur l'aspect du pays, les restes de son ancienne civilisation, les mœurs et coutumes de ses habitants. Aussi la satisfaction générale s'est-elle traduite en généreux applaudissements.

Mr. JOHN KING, Director of Studies, has issued his report to the Edinburgh Provincial Committee for the Training of Teachers for the session 1907-8. He states that the session will always be memorable for the initiation of the new system of training teachers in Scotland. The transfer of the two Presbyterian Training Colleges is now an accomplished fact: the curricula have been remodelled on the lines of the new regulations. Satisfactory progress has also been made in the difficult and important work of defining the relation of the Training College to the various central institutions—the Heriot-Watt College, the College of Agriculture, the School of Cookery, and the College of Art, with all of which it must co-operate in the work of training the different classes of teachers. When the session opened in October 766 students were admitted to training for the general certificate, including 423 new students, 301 who returned for a second year, and 42 who returned for a third year of training. Of the 343 students returning, 137 had been previously enrolled under the Church of Scotland, 114 under the U.F. Church of Scotland, and 92 under the Provincial Committee.

COLLEGE OF PRECEPTORS.—TEACHERS' DIPLOMA EXAMINATION.  
SUMMER, 1908.

THE Summer Examination commenced on the 31st of August and was held in London and at the following Local Centres:— Birmingham, Bristol, Leeds, Liverpool, Manchester, Newcastle-on-Tyne, Plymouth, Beterverwagting (British Guiana) Bombay (India), Madras (India), Trinidad (West Indies).

The total number of candidates examined was 323.

The following are the names of the candidates who passed in the various subjects: (*hon.*) attached to a name, or to a letter denoting a subject, indicates that the candidate obtained Honours in the subject:—

**Theory and Practice of Education.**

LICENTIATESHIP.

Bennison, T. M.  
Bowyer, J. S.  
Butt, E. H.  
Ford, A. C.  
Gaul, H.  
Goodfellow, G. H.  
Haire, T. A.  
Harris, R.  
Haward, R. W.  
Hemmings, F. J.  
Jacobs, C. E.  
Larcombe, H. J.  
Moore, W. I.  
Oke, W.  
Palmer, H. J.  
Pickles, H.  
Riordan, J. E.  
Tyson, C.  
Watson, E. A.

ASSOCIATESHIP.

Anderson, Miss E. M.  
Armstrong, R. V.  
Astbury, Miss F. M.  
Avery, H. C.  
Bowtell, Miss A. M.  
Burrow, Miss E. B.  
Chapman, R. W.  
Chubb, A. C.  
Clarke, W. E.  
Classey, O.  
Cleator, J. M.  
Corlett, A.  
Culshaw, W. H.  
Curtis, E. V.  
Diggins, Miss A. M.  
Duttrille, Miss C. A. C.  
Eaves, A. T.  
Edney, H. G.  
Ellis, A. C.  
Elwy Jones, W. P.  
Fell, C. G.  
Firth, J. E.  
Freeman, C. E. D. W.  
Galletley, L.  
Gay, F. P.  
Gloyd, Miss A. E.  
Hambridge, Miss E. R.  
Hanger, Miss L. B.  
Harrison, W. H.  
Harrold, A.  
Higgins, A. L.  
Hutchason, Miss L. C. M.  
Jackson, J.  
Jacoby, Miss E. G.  
Jeffery, E.  
Jones, J. R.  
Keeley, F. F.  
Leach, F. R.  
Le Messurier, Miss F. M.  
Litchfield, C. E.  
Lock, A.  
Long, T. M.  
McMillan, Miss E.  
Mitchell, F. D.  
Musket, Miss E. G.  
Newman, W. E.  
Newton, E. A.  
Normanton, H. W.  
O'Callaghan, Miss J.  
Pearce, A. J.  
Philpot, Miss L.  
Pitt, Miss M. M.  
Portass, A.  
Ridding, C. H.  
Robinson, W. R.  
Salmon, Miss E. V.  
Schofield, Miss A.  
Smith, Miss B. M. A.  
Spence, W. S.  
Stuart, R.  
Sunderland, G.  
Swift, J. A. (*Stirchley*)  
Tiller, E. A.  
Trewick, R.

Wallis, T. E.  
Washington, J. H.  
Watson, J.  
Whitehouse, Miss L. M.  
Whitehurst, Miss J.  
Wiles, Miss E. E.  
Williamson, Miss C.  
Wilson, A. H.  
Wright, Miss E. E.  
Wright, R. A.  
Wrigley, Miss C. M.

**English Language.**

(Subject No. 1.)

Alexander, Miss C. M.  
Ashworth-Kershaw, R.  
Avery, H. C.  
Benson, J.  
Bolshaw, A. S.  
Bouneville, Miss T.  
Brookson, C. W.  
Cadinan, C. F. M.  
Christopherson, H.  
Clarke, Miss A. L.  
Clarke, E. H.  
Copley, S.  
Curling, Miss M. A. (*hon.*)  
Curnow, Miss M. N.  
Curtis, E. V.  
Czisz, Miss L.  
Davis, Miss A. E.  
Dunning, Miss M.  
Elwy Jones, W. P.  
Evans, J. M.  
Ferraro, J. H.  
Ford, A. C.  
Fretwell, O. N.  
George, A. F.  
Gibbens, L. R. W.  
Gillingham, Mrs. F. M.  
Gray, T. W.  
Green, A. L.  
Green, W. H.  
Harris, T. I.  
Haward, R. W.  
Hobbs, R. H.  
Hood, F. W.  
Hopkin, D.  
Houghton, W. H.  
Howells, W.  
Hughes, C. W.  
Jones, W. J.  
Jull, Miss E. M.  
Kiln, Miss A. R.  
Lias, J. W.  
Lock, A.  
Macpherson, Miss C.  
Maddie, Miss M. D.  
McCarthy, C. J.  
McMillan, Miss A.  
Medway, L. J.  
Moloney, Miss N. M.  
Morriss, W. E.  
Naylor, J. J.  
Normanton, H. W.  
Parry, Miss K.  
Pinnington, H. E.  
Portass, A.  
Reilly, T.  
Russell, Miss J.  
Rowlands, Miss S. G.  
Scally, Miss M.  
Sedgwick, Miss E. J.  
Self, Miss F. L.  
Shaw, E. E.  
Shaw, F. S.  
Slater, R.  
Stafford, Miss A.  
Stokes, A. P.  
Sunderland, G.  
Swift, J. A. (*Stirchley*)  
Taylor, Miss J.  
Thomas, R. W.  
Thompson, A. J.  
Washington, J. H.  
Watson, J.

Whitehouse, Miss L. M.  
Wilkinson, Miss F.  
Woodfield, S. P.  
Wright, R. A. (*hon.*)  
Wrigley, Miss C. M.

**English History.**

Alexander, Miss C. M.  
Anderson, Miss E. M.  
Black, Miss F. C.  
Blackman, E. E. S.  
Boggis, Miss G. H.  
Brooksbank, H. H.  
Brookson, C. W.  
Cadinan, C. F. M.  
Christopherson, H.  
Cleator, J. M.  
Collister, Miss K.  
Copley, S.  
Cossins, Miss F.  
Curling, Miss M. A. (*hon.*)  
Curnow, Miss M. N.  
Curtis, E. V.  
Czisz, Miss L.  
Davis, Miss A. E.  
Dunning, Miss M.  
Durrington, Miss M.  
Evans, J. M. (*hon.*)  
Ford, A. C.  
Fowles, J.  
Gee, H.  
George, A. F.  
Glover, Miss S.  
Gray, T. W.  
Green, W. H.  
Haskew, F.  
Hassagen, A. F.  
Hood, F. W.  
Hopkin, D.  
Howells, W.  
Hughes, C. W.  
Kemp, Miss E. M. (*hon.*)  
Lawrence, W. J.  
Leatham, A. E.  
Lias, J. W.  
Lock, A.  
Macpherson, Miss C.  
Meakin, Miss L. M.  
Medway, L. J.  
Moloney, Miss N. M.  
Morriss, W. E.  
Naylor, J. J. (*hon.*)  
Normanton, H. W.  
O'Callaghan, Miss J.  
Page, Miss A.  
Pinnington, H. E.  
Reilly, T. (*hon.*)  
Russell, Miss J.  
Scally, Miss M. (*hon.*)  
Shaw, E. E.  
Shaw, F. S.  
Slater, R.  
Spindler, Mrs. E. M.  
Stafford, Miss A.  
Stokes, A. P.  
Swell, E. O.  
Swift, J. A. (*Stirchley*)  
Thompson, A. J.  
Threapleton, H.  
Walter, Miss A. S.  
Watson, J. (*hon.*)  
White, B. S.  
Wilkinson, Miss F.  
Wright, R. A.

**Geography.**

Ashworth-Kershaw, R.  
Bloxham, Miss O. M.  
Boggis, Miss G. H.  
Brown, F. C.  
Christopherson, H.  
Clarke, W. E.  
Curling, Miss M. A.

Curtis, E. V.  
Czisz, Miss F.  
Elliott, A.  
Elphick, Miss G. C.  
Ferraro, J. H.  
Ford, A. C. (*hon.*)  
Fowles, J.  
George, A. F.  
Green, A. L.  
Green, W. H.  
Harrison, E. A.  
Haward, R. W.  
Holmes, R. H.  
Hopkin, D.  
Houghton, W. H.  
Jones, W. J.  
Lee, Miss K.  
Lias, J. W.  
Lock, A.  
Macpherson, Miss C.  
McGahey, M. R.  
Naylor, J. J.  
Nodder, E.  
Normanton, H. W.  
O'Callaghan, Miss J.  
Parry, Miss K.  
Pring, Miss E. W.  
Reilly, T.  
Riley, H.  
Rowlands, Miss S. G.  
Scally, Miss M.  
Shaw, F. S.  
Slater, R.  
Stafford, Miss A.  
Stanway, H. G.  
Stokes, A. P.  
Thompson, A. J.  
Threapleton, H.  
Upton, R. J.  
Washington, J. H.  
Watson, J.  
White, B. S.  
Wright, R. A.  
York, Miss L. M. (*hon.*)

**Arithmetic.**

Abbs, Miss L. S.  
Anderson, Miss E. M.  
Ashworth-Kershaw, R.  
Benson, Miss A. J.  
Boggis, Miss G. H.  
Bolshaw, A. S.  
Brimelow, F. (*hon.*)  
Cadinan, C. F. M.  
Curling, Miss M. A.  
Davies, J. R. B.  
Elliott, A.  
Elwy Jones, W. P.  
Evans, J. M.  
Ferraro, J. H. (*hon.*)  
Ford, A. C.  
Ford, Miss R. M.  
Fowles, J.  
Frodsham, R. H.  
Gee, H.  
George, A. F. (*hon.*)  
Gibbens, L. R. W.  
Gray, T. W.  
Green, A. L.  
Green, W. H.  
Haffenden, C. G.  
Harris, T. I.  
Haward, R. W.  
Head, Miss B. M. M.  
Hickey, Miss A. F. F.  
Holmes, R. H.  
Hood, F. W.  
Hopkin, D.  
Hosken, W. T.  
Houghton, W. H.  
Howells, W.  
Hughes, C. W.  
Johnson, Miss M. E.  
Jones, W. J.  
Kiln, Miss A. R.  
Lawrence, W. J.  
Lias, J. W. (*hon.*)

Lyon, P. S.  
Marsh, W.  
McGahey, M. R.  
Medway, L. J.  
Morriss, W. E.  
Naylor, J. J.  
Nevard, Miss L. M.  
Nodder, E. (*hon.*)  
Normanton, H. W.  
O'Callaghan, Miss J.  
Owen, Miss I. L.  
Parkerson, L. S.  
Pinnington, H. E.  
Reilly, T.  
Riley, H.  
Robinson, W. R.  
Russell, Miss J.  
Russell, Miss C. J.  
Scally, Miss M.  
Slater, R.  
Stafford, Miss A.  
Stanway, H. G. (*hon.*)  
Stead, Miss L. M.  
Stuart, R.  
Summers, A. W.  
Sunderland, G.  
Swell, E. O.  
Thomas, R. W.  
Thompson, A. J.  
Threapleton, H.  
Udall, J. (*hon.*)  
Waide, D.  
Walter, Miss A. S.  
Watson, J.  
White, B. S.  
Wilkinson, Miss F. (*hon.*)  
Wilson, J. M.  
Woodfield, S. P.  
Wright, R. A. (*hon.*)  
Wrigley, Miss C. M.

**Mathematics.**

LICENTIATESHIP.  
Baldwin, H.  
Bennison, T. M.  
Booth, J. B. B.  
Elworthy, R. T.  
Farrow, Miss M. A. ch.ph.  
Honohan, Miss L. a.ph.  
Manser, F. H. p.ch.  
Marsh, W. p.ch.  
Murray, Miss J. ph.b.  
Thomas, Miss E. ph.b.  
Whalley, Miss A. L. ph.b.  
Wykes, J. E. m.ph.  
ASSOCIATESHIP.  
Brimelow, P.  
Brookson, C. W.  
Cadinan, C. F. M.  
Curtis, E. V.  
Elliott, A.  
Evans, J. M.  
Ferraro, J. H. (*hon. algebra*)  
Francis, W. J.  
Frodsham, R. H.  
George, A. F.  
Gray, T. W.  
Hopkin, D.  
Houghton, W. H.  
Howells, W.  
Keeley, P. F.  
Lawrence, W. J.  
Lias, J. W.  
McCarthy, C. J.  
Medway, L. J.  
Morriss, W. E.  
Munro, F. W.  
Nodder, E.  
Norman, A. P.  
Stuart, R.  
Threapleton, H.  
Tresidder, J. M.  
Udall, J.  
Upton, R. J.  
Waide, D.  
White, B. S.  
Williams, J. W. H.  
Wilson, J. M.

**Languages.**

e. = Higher English,  
f. = French, g. = German,  
l. = Latin.

LICENTIATESHIP.

Ford, A. C. e.f.  
Harris, Miss J. D. e.f.  
Quinlan, Miss W. e.f.  
Wykes, J. E. e.l.

ASSOCIATESHIP.

Alexander, Miss C. M. f.  
Ashworth-Kershaw, R. f.  
Benson, Miss A. J. f.  
Bolshaw, A. S. f.  
Chapuzet, Miss E. M. L. f. (*hon.*)

Czisz, Miss L. g. (*hon.*)  
Gamble, Miss M. f.  
Green, A. L. g.  
Lock, A. f.  
Medway, L. J. f.l.  
Moloney, Miss N. M. f.  
Pinnington, H. E. f.  
Reilly, T. l.  
Scally, Miss M. f.  
Thomas, H. f. (*hon.*)  
Tomlinson, Miss E. M. f.  
Wright, Miss C. M. f.

**Science.**

a = Astronomy.  
b = Botany.  
ch = Chemistry,  
g = Geology,  
m = Mechanics,  
p = Experimental  
Physics.  
ph = Animal Physiology.  
z = Zoology.

LICENTIATESHIP.

Baldwin, H. a.ch.  
Bennison, T. M. ch. (*hon.*) g.  
Cobbett, C. W. m.ph.  
Elworthy, R. T. p.ch.  
Farrow, Miss M. A. ch.ph.  
Honohan, Miss L. a.ph.  
Manser, F. H. p.ch.  
Marsh, W. p.ch.  
Murray, Miss J. ph.b.  
Thomas, Miss E. ph.b.  
Whalley, Miss A. L. ph.b.  
Wykes, J. E. m.ph.

ASSOCIATESHIP.

Anderson, Miss E. M. p.ph.  
Bridgford, Mrs. E. J. ph.b.  
Clarke, Miss A. L. ph.b.  
Clarke, E. H. ph.z.  
Clarke, W. E.

ph. (*hon.*) b. (*hon.*)  
Davis, Miss A. E. ph.b.  
Fairhurst, Miss C. ch.ph.  
Hiddleston, Miss M. ch.ph.  
Holmes, R. H. p.m.  
Hughes, Miss E. M. G. ph.b.  
Jones, W. J. ch. ph.  
Naylor, J. J. ch. ph.  
O'Callaghan, Miss J. ch. (*hon.*) ph.  
Ridler, Miss C. M. ph.b.  
Stone, Miss E. A. ph.b.  
Tole, H. A. p.ph.  
Washington, J. H. ph.b.  
Watson, J. ph.b. (*hon.*)  
White, Miss M. H. ch. ph.  
Wright, R. A. ph.ch. (*hon.*)

**Animal Physiology.\***

LICENTIATESHIP.  
Quinlan, Miss W.

\* Under Old Regulations.

Diplomas were awarded to the following, who had satisfied all the prescribed conditions:—

<b>LICENTIATESHIP.</b>		
Bennison, T. M.	Culshaw, W. H.	Le Messurier, Miss F. M.
Booth, J. B. B.	Diggins, Miss A. M.	McCarthy, C. J.
Butt, E. H.	Duttrulle, Miss C. A. C.	McMillan, Miss E.
Cobbett, C. W.	Eaves, A. T.	Mitchell, F. D.
Gaul, H.	Edney, H. G.	Munro, F. W.
Haire, T. A.	Ellis, A. C.	Muskett, Miss E. G.
Harris, R.	Elphick, Miss G. C.	Newman, W. E.
Honohan, Miss L.	Firth, J. E.	Newton, E. A.
Jacobs, C. E.	Freeman, C. E. D. W.	O'Callaghan, Miss J.
Larcombe, H. J.	Frodsham, R. H.	Pearce, A. J.
Moore, W. I.	Galletley, L.	Philpot, Miss L.
Mosedale, G. H.	Gay, F. P.	Pitt, Miss M. M.
Oke, W.	Gloyn, Miss A. E.	Portass, A.
Palmer, H. J.	Goodfellow, G. H.	Pring, Miss E. W.
Pickles, H.	Hambidge, Miss E. R.	Ridding, C. H.
Quinlan, Miss W.	Hanger, Miss L. B.	Salmon, Miss E. V.
Tyson, C.	Harrison, W. H.	Schofield, Miss A.
Watson, E. A.	Harrold, A.	Smith, Miss B. M. A.
Wykes, J. E.	Hashagen, A. F.	Spence, W. S.
	Haward, R. W.	Swift, J. A. (Stirchley)
	Hennings, F. J.	Tiller, E. A.
	Higgins, A. L.	Tole, H. A.
	Hughes, Miss E. M. G.	Trewick, R.
	Hutchason, Miss L. C. M.	Wallis, T. E.
	Jackson, J.	Watson, J.
	Jacoby, Miss E. G.	Whitehurst, Miss J.
	Jeffery, E.	Wiles, Miss E. E.
	Jones, J. R.	Williams, J. W. H.
	Jones, W. J.	Williamson, Miss C.
	Keeley, P. F.	Wilson, A. H.
	Lawrence, W. J.	Wright, Miss E. E.
	Leach, F. R.	Wright, R. A.
	Leatham, A. E.	Wrigley, Miss C. M.
	Lee, Miss K.	

The Prize for **Mathematics** was awarded to Herbert James Larcombe.

AT THE EXAMINATIONS OF THE  
**COLLEGE OF PRECEPTORS,**  
**MR. H. J. SMITH'S STUDENTS**  
 HAVE BEEN SINGULARLY SUCCESSFUL.

At the A.C.P. Exam., September, 1907:  
 Of 336 candidates, only 9 passed in *every* subject; only 2 obtained Honours in English.  
 Mr. A. V. S., a student in Mr. Smith's Classes, **passed in all subjects**, and obtained **Honours in English**.

At the A.C.P. Exam., January, 1908:  
 Of 513 candidates, only 13 passed in *every* subject.  
 Mr. J. E., a student in Mr. Smith's Classes, **passed in all subjects**, with **Honours in English and History**.  
 Only one other candidate out of the 513 obtained Honours in two subjects.

On several occasions Mr. Smith's students have been the only candidates to obtain Honours.

At the Exam. in December, 1907, the following results were obtained in English:—

<b>Students in Mr. Smith's Classes</b>	<b>No. of Successes</b>	<b>6</b>	<b>No. with Honours</b>	<b>2</b>
<b>In all other Classes and Private Students</b>	<b>No. of Successes</b>	<b>81</b>	<b>No. with Honours</b>	<b>1</b>

These results are sufficient to show that Mr. Smith's students obtained **THE BEST AND THE MOST EFFICIENT ASSISTANCE**.

For Full Particulars, Prospectus, Fees, and Testimonials, write to  
**MR. H. J. SMITH, B.Sc. LOND.,**  
 Rosebery House, Breams Buildings,  
 Chancery Lane, London, E.C.

# A GOOD ADVERTISEMENT

is not of much use unless you have a good Prospectus to send to Enquiring Parents, and

# A GOOD PROSPECTUS

is of no use unless Parents see it.

# LET US PREPARE

you a good Prospectus, and give your School a

# GOOD ADVERTISEMENT

in our

# PATON'S LIST OF SCHOOLS AND TUTORS

which now has a World-wide Circulation.

**The Twelfth Edition is now in hand for Press.**

# WRITE US,

with copy of your present Prospectus, and we will send you (without any charge) Specimens and Full Particulars, with proof of value.

# OUR GOLD MEDALLIST

Photographs Schools within reasonable distance of London—expert work only.

**J. & J. PATON,**  
**EDUCATIONAL AGENTS,**

**143 CANNON STREET, LONDON, E.C.**

# NELSON'S

## YOUNG FOLKS' BOOKSHELF

INSTRUCTIVE ——— INSPIRING ——— INEXPENSIVE

Messrs. Thomas Nelson & Sons have now issued  
the first part of the first volume of this UNIQUE  
——— SERIES of children's books, entitled ——

## BRITAIN OVERSEAS;

OR

### THE EMPIRE IN PICTURE AND STORY

A graphic and beautifully illustrated description of the British Empire—the story of how it was built up and how it is governed, of its countries, natural wonders, peoples, cities, and industries. Complete in 10 Fortnightly Parts, which will form one handsome volume of 320 pages, with 22 large Coloured Plates and hundreds of Black-and-White Pictures.

*10 Fortnightly Parts at 2d. per Part*

Competitions with Handsome Prizes have been  
arranged in connection with "Britain Overseas."

THE ATTENTION OF TEACHERS, and all interested in the education and welfare of children, is specially directed to Messrs. Nelson's new scheme of publishing high-class and beautifully illustrated books for the young at a trifling sum per week.

### WHAT ONE PENNY A WEEK WILL DO if spent in buying "BRITAIN OVERSEAS."

#### IN SCHOOL:

- IT WILL** provide fresh, fascinating, and educational **Supplementary Reading** for 20 weeks.
- IT WILL** serve as the basis of many interesting and helpful **conversational lessons**, and supply subjects for **composition and home lessons**.
- IT WILL** impress on the children the stirring **story of the Empire**, increase their knowledge of their vast heritage, and help to build up a wise and true Imperial patriotism.

#### AT HOME:

- IT WILL** encourage **home reading**, and thus stimulate the general intelligence of the children.
- IT WILL** provide them with wholesome reading of absorbing interest, and lay the foundations of much useful knowledge.
- IT WILL** encourage them to enter for interesting **competitions**.
- IT WILL** encourage the children to buy books for themselves and build up a **library of their own**.

*Please bring Nelson's Young Folks' Bookshelf  
- - under the notice of your Scholars. - -*

For Specimen Copies and full particulars of this comprehensive scheme apply to  
**Messrs. THOMAS NELSON & SONS,** PATERNOSTER ROW, LONDON;  
OR PARKSIDE, EDINBURGH.



# BLACKIE'S LIST.

A NEW ANTHOLOGY FOR SCHOOLS.

## THE CALL OF THE HOMELAND.

A COLLECTION OF ENGLISH VERSE.

Selected and Arranged by

R. P. SCOTT, LL.D., and K. T. WALLAS.

In Two Books. Each, 1s. 6d. net. Crown 8vo, cloth boards.

A Collection of English Verse, much of it contemporary, designed to illustrate the extended conception of patriotism that is developing in the national literature, both in the mother country and in her scattered family of young nations.

The Poems have been grouped according to their subject—

Book I.—Echoes from History—Britain Overseas—The Sea—The Changing Year.  
Book II.—The English Countryside—Home—Exile—Compatriots—The Call to Serve—The Call to Happiness.

## GEOGRAPHY.

STRUCTURAL—PHYSICAL—COMPARATIVE.

A TEXT-BOOK FOR SENIOR STUDENTS.

By J. W. GREGORY, D.Sc., F.R.S., Professor of Geology in the Glasgow University.

With Series of specially constructed Coloured Maps and Sketch Maps and Plans in Black and White. Large 8vo, 6s. net.

The main purpose of this book is to put before the student the most important facts concerning the Structural Geography of the Earth, and the evolution of our present continents from older lands. It marks a new departure both in aims and in method. It furnishes the student with such knowledge of the entire surface of the Earth as will ensure his acquisition of geographical perspective.

## A FIRST GEOGRAPHY.

By C. A. F. RODGERS, M.A. F.R.G.S.,

Assistant Master, Bradford Grammar School; and an Examiner in Geography to the College of Preceptors.

With Coloured Pictures and Diagrams on every page. Small 4to, cloth, 1s.

## A GENERAL GEOGRAPHY OF THE WORLD.

By HENRY E. EVANS, B.A., L.C.P.

A Text-book for Students preparing for University and other Public Examinations. 416 pages, crown 8vo, cloth boards, 3s. 6d.

## INTRODUCTION TO THE NATURAL HISTORY OF LANGUAGE.

By T. G. TUCKER, Litt.D. (Camb.), Hon. Litt.D. (Dublin),  
Professor of Classical Philology in the University of Melbourne.

Demy 8vo, cloth, 10s. 6d. net.

A new Treatise which gathers together the results of the great amount of philological work that the last quarter of a century has produced. It is intended to fulfill to-day the purpose which was served in its time by Max Müller's "Science of Language."

## GERMANY IN STORY AND SONG.

Edited by REGINALD WAKE, L.C.P., Modern Language Master, Bridgworth Grammar School, and EUGEN BRECHTEL.  
Illustrated, 2s. net.

## A THREE-TERM COURSE IN GERMAN.

By J. GREIG COCHRANE, M.A.

Illustrated. Crown 8vo, cloth boards, 2s. net.

## INTERMEDIATE GEOMETRY.

Experimental, Theoretical, Practical. By A. LEIGHTON, M.A., B.Sc., F.E.I.S.  
Crown 8vo, cloth boards, 1s. 6d.

## HEROES OF THE EUROPEAN NATIONS.

From Early Greece to Waterloo. By A. R. HOPE MONCRIEFF. 1s. 6d.

## READINGS IN ENGLISH HISTORY.

From Original Sources. Edited by E. B. MORGAN, B.Litt., and E. J. BALLEY, B.A. Illustrated. Vol. I., B.C. 64 to A.D. 1154, 2s. Vol. II., 1154 to 1485, 2s. 6d. Vol. III., 1485 to 1688, 2s. 6d.

## LANDMARKS OF EUROPEAN HISTORY.

By E. H. M'DOUGALL, M.A. Oxon.; late Assistant in the Tewfikieh School and Training College, Cairo. With many Coloured and Sketch Maps, Index, &c. 3s. 6d.

## A BRIEF SURVEY OF EUROPEAN HISTORY.

By ARTHUR HASSALL, M.A. An excellent general sketch of European History from Charlemagne to the Present time. Crown 8vo, cloth, 4s. 6d.

Write for full particulars to—

BLACKIE & SON, Ltd., 50 Old Bailey, E.C.

## ADVERTISEMENT SCALE.

Whole Page—Ordinary	£4 10 0	.....	Position	£5 10 0
Half Page	" 2 10 0	.....	"	3 0 0
Quarter Page	" 1 10 0	.....	"	1 15 0
Per inch in broad column (half width of page)	...			0 7 0
Narrow Column (one-third page)	.....			2 0 0

General Scholastic Advertisements (Colleges, Schools, Classes, Tuition, &c.), 3s. 6d. for 6 lines, or 4s. 6d. the inch.

Situations Vacant and Wanted—30 words or under, 2s.; each additional 10 words, 6d. (For 1s. extra, Replies may be addressed to the Publishing Office, and will be forwarded post free.)

## CURRENT EVENTS.

At the monthly meeting of members of the College of Preceptors on November 18, Prof. J. W. Adamson will read a paper on "The Experimental Study of Instruction."

M. L'ABBÉ MARGUERÉ will address the Société Nationale des Professeurs de Français en Angleterre at the College of Preceptors, on November 28, at 4 p.m. Subject: "Elle et Lui."

The University of London announces the following courses of Advanced Lectures during the current term:—

(1) Six lectures on "Early Greece and the East," by Mr. D. G. Hogarth, M.A., F.B.A., Fellow of Magdalen College, Oxford, at King's College, on Thursdays, at 4.30 p.m.

(2) Eight lectures on "Algal Flagellates and the Lines of Algal Descent," by Dr. F. E. Fritsch, D.Sc., Ph.D., F.L.S., at University College, on Mondays, at 5 p.m.

(3) Four lectures on "The Geological Structure of the Area of the Vosges," by Miss C. A. Raisin, D.Sc., Morton-Sumner Lecturer in Geology, at Bedford College, on Mondays, at 5 p.m., beginning November 16.

Admission free, without ticket.

PROF. SIR FREDERICK BRIDGE, M.V.O., D.Mus., M.A., will deliver a course of five lectures (with illustrations) on "Composers of Classical Songs" at the University of London, on Fridays, November 6, December 4, February 12, March 5, and April 2. Open free. Tickets from the Academic Registrar.

The programme of University Extension Lectures for the current session has just been issued by the University Extension Board. It includes an unusually interesting series of courses. The subject of "London" is receiving special attention, and the eleven courses which have been arranged on this subject should prove especially attractive in view of the Pageant which it is proposed to hold in London next year. A series of lectures and demonstrations in different historic buildings has also been arranged on Saturday mornings and afternoons throughout the session.

The London University Extension Board have arranged two central courses of lectures at the University during the current session—(1) 24 lectures on "Renaissance and Modern Architecture," by Mr. Banister Fletcher, F.R.I.B.A., on Mondays, at 8 p.m.; (2) 24 lectures on "English and French Painters," by Mr. Percival Gaskell, R.B.A., on Tuesdays, at 3 p.m. The courses commenced on October 5 and 6. Tickets and particulars from the Registrar to the Board.

The Board has also arranged a Three-Term Training Course for Lecturers. The Michaelmas Term work consists of 10 weekly classes on "Voice Production and the Management of the Voice," by Mr. H. H. Hulbert, M.A. Oxon., M.R.C.S., L.R.C.P., Lecturer on Voice Training at the London Day Training College and for the L.C.C., on Mon-

days, at 6 p.m. (commenced October 5), at the University. A further series of 10 classes will be given by Dr. Hulbert in the Lent Term; and, in the Summer Term, 4 lectures on "The Art of Lecturing" will be given by Prof. John Adams, M.A., B.Sc., and 4 lectures on "The Delivery of Lectures" by Dr. Hulbert. The lectures in the Summer Term will be followed by six meetings for practical work. The final two meetings of the course may be given up entirely to practice in lecturing.

KING'S COLLEGE, London, has organized a complete series of evening classes in English, covering the whole ground for Pass and Honour students in the School of English Language and Literature and for the M.A. course; also evening lectures of a more popular character. Prof. Gollancz takes supervision. Fees very moderate.

PROF. JOHN ADAMS, M.A., B.Sc., is delivering a course of eight lectures on "The Educational Bearings of the various Theories of the Nature of Ideas" at the London Day Training College (Southampton Row, W.C.), on Saturdays, at 11.30 a.m. Open without fee to teachers. Cards from Prof. Adams. Give full name and address of applicant and of the school where applicant teaches.

THE Geographical Association's first monthly meeting will be held on November 13, at 8.15 p.m., at the London Day Training College, Prof. Adams in the chair. Mr. H. J. Mackinder will deliver an address to teachers of geography. Full particulars as to the Association from Mr. J. F. Unstead, 39 Greenholm Road, Eltham.

UNDER the auspices of the Federated Associations of London Non-Primary Teachers, in conjunction with the Mathematical Association, a Conference will be held at the Polytechnic, Regent Street, W., on November 28, at 3 p.m., Prof. Bryan, President of the Mathematical Association, in the chair. Prof. Perry will deliver an address on "The Correlation of the Teaching of Mathematics and Science." Cards from Mr. P. Abbott, 5 West View, Highgate Hill, N.

A RECEPTION for the American teachers now visiting England has been arranged by the Association of Assistant Masters in Secondary Schools, in conjunction with the Assistant Mistresses' Association, at the Charterhouse, E.C., on November 10, at 8.30 p.m.

MR. CHARLES FRY'S Shakespearian Company, at the Royal Court Theatre, will give "Cymbeline" on November 7, "The Tempest" on November 14, and "Much Ado about Nothing" on November 21, at 3 p.m. Schools and students admitted to reserved seats at half price.

ON occasion of the visit of the International Conference on Electrical Units and Standards (October 17), the University of Cambridge conferred the honorary degree of Sc.D. upon Dr. Svante August Arrhenius, Director of the Department of Physical Chemistry in the Nobel Institute of the Royal Academy of Sciences, Stockholm; M. Gabriel Lippmann, Professor of Physics at the Sorbonne, Paris; Mr. Samuel W. Stratton, Director of the Bureau of Standards in the Department of Science and Labour, Washington; and Dr. Emil Warburg, Honorary Professor of Physics in the University of Berlin and President of the Physikalische-Technische Reichsanstalt in Charlottenburg.

ON occasion of the jubilee of the Museum, the University of Oxford conferred the honorary degree of D.Sc. upon Prof.

August Arrhenius, Stockholm, and Dr. Augustus G. Vernon Harcourt, M.A., F.R.S., Christ Church.

LORD CURZON has been elected Lord Rector of the University of Glasgow, defeating Mr. Lloyd George and Mr. Keir Hardie; and Mr. George Wyndham has been elected Lord Rector of the University of Edinburgh, defeating Mr. Winston Churchill and Prof. Osler.

THE University of Toronto has conferred the honorary degree of LL.D. upon Lord Milner.

THE University of Wales will confer the honorary degree of LL.D. upon Mr. Lloyd George, M.P., D.C.L., Chancellor of the Exchequer.

MR. G. LAMBERT CATHCART, M.A., Senior of the Junior Fellows, has been co-opted a Senior Fellow of Trinity College, Dublin, on the retirement of the Rev. J. W. Barlow.

LORD RAYLEIGH, Chancellor of Cambridge University, appeals for funds. The Cambridge University Association has raised its collection from £115,000 to £139,000 since the Duke of Devonshire's appeal in February, 1907; and a Committee of Cambridge men has been formed in London to help the Association, the present Duke of Devonshire being Vice-Chairman. The immediate objects are: (1) the completion of the fund for the School of Agriculture; (2) the completion of the fund for building the new museum of archaeology and ethnology; and (3) the adequate endowment of modern languages.

THE Drapers' Company has offered £22,000 to the University of Oxford for the establishment of an electrical laboratory.

MRS. E. A. FREEMAN has presented to the University of Oxford a collection of pen-and-ink sketches of English and Continental churches by the late Prof. Freeman, and a number of diplomas of membership of foreign learned societies and foreign decorations conferred upon him. These memorials will be placed in the Freeman Library.

LORD RENDEL has given a suitable site for the Welsh National Library: and the President, Sir John Williams, has contributed a valuable collection of books and manuscripts, said to be worth £20,000. Other donations have been received, and there has already been raised for the building fund a sum of £20,000, which will be supplemented by a Treasury grant.

LORD RENDEL has given £1,000 (for the ninth time) to the University College of Wales, Aberystwyth.

UNIVERSITY COLLEGE, Cardiff, has received a bequest of £100 under the will of the late Mrs. Henry Richard.

THE Hungarian Minister of Agriculture has presented various exhibits (including models, photographs, designs, collections of seeds, &c.), shown at the Hungarian Exhibition, Earl's Court, to the British Museum, King's College, London, the University of Cambridge, the Royal College of Science, Dublin, and various other scientific and educational bodies.

MR. JACOB SASSOON has given ten lakhs of rupees (£66,000) to establish a Central College of Science in Bombay.

DURING the past year Yale University received gifts to the amount of £252,688—some £20,000 more than the total teaching expenses.

FROM time to time during the past six months (says *Nature*) handsome bequests to assist the development of higher education in the United States have been announced in *Science*. In addition to many gifts of £10,000 or less, the following benefactions have been made. By the will of the late Mrs. Frederick Sheldon, £60,000 has come to Harvard University, and the amount will be increased eventually to something like £160,000; and the same University has also received from its class of 1883 the sum of £20,000. Princeton University has announced a gift of £50,000 from Mrs. Russell Sage, and the University of Virginia received the same amount by the will of the late Mr. E. W. James. Mr. Andrew Carnegie has given £40,000 to the Mechanics' Institute of New York City, and £20,000 to Rochester University. The Hampden Agricultural School obtained £32,000 by the will of the late Miss Alice Byington, and from that of the late Mr. Warren D. Potter the Massachusetts College of Pharmacy has benefited to the extent of £30,000. The children of the late Rev. Orlando Harriman have presented £20,000 to Columbia University, and Yale University has received £15,000 by the will of the late Mr. G. B. Griggs. There would not appear to be any falling off in the enthusiasm shown for higher education by wealthy Americans, who continue to be fully alive to the need for well endowed colleges throughout the States in order to fit American citizens to hold their own in the ever increasing industrial competition.

**Appointments and Vacancies**  
 DR. GEORGE GILBERT AIMÉ MURRAY, M.A., LL.D., Fellow of New College, Professor of Greek in the University of Glasgow 1889-99, has been appointed Professor of Greek in the University of Oxford, in succession to Mr. Ingram Bywater, resigned.

THE REV. J. W. BARLOW, M.A., Senior Fellow of Trinity College, Dublin, has resigned the Vice-Provostship, to which he was elected in 1899; and Dr. Benjamin Williamson, Senior Fellow, has been appointed to the office of Vice-Provost for the remainder of the present year.

THE REV. NEWPORT J. D. WHITE, D.D., Canon of St. Patrick's Cathedral, has been appointed (from temporary to) permanent Deputy for the Regius Professor of Divinity in Dublin University (Dr. Gwynn).

MR. JAMES MACKINNON, M.A., Ph.D., Lecturer in History in the University of St. Andrews, has been appointed Professor of Ecclesiastical History in the University of Edinburgh, in succession to the Rev. Malcolm C. Taylor, D.D., resigned. The Rev. Prof. Cowan, D.D., of Aberdeen University, is understood to have declined the appointment.

PROF. ALEXANDER OGSTON, M.A., M.D., will resign the Chair of Surgery in Aberdeen University at the end of the current session, after twenty-six years' service.

PROF. SIR EDWARD ELGAR has resigned the Peyton Chair of Music in Birmingham University, to which he was appointed on its foundation in 1905.

AT King's College, London, the Rev. George Body, D.D., Canon of Durham, has been appointed Special Lecturer in Pastoral Theology for 1909; Dr. St. Clair Thomson, Professor of Laryngology in King's College Hospital Medical School; Mr. H. Moore, Assistant Lecturer in Physics; and Mr. B. F. Baker, Demonstrator in Metallurgy. The Rev. George Owen, who has been appointed by the Committee of the London School of Chinese as Director, has also been elected to the Chair of Chinese in King's College.

MR. H. BYRON HEYWOOD, B.Sc. Lond., D.Sc. Paris, has been appointed Assistant Lecturer in Mathematics at the East London College (University of London).

MR. ST. GEORGE STOCK, M.A. Oxon., has been appointed Lecturer in Greek in Birmingham University.

MR. ALLEN MAWER, M.A. Cantab., B.A. Lond., Fellow of Gonville and Caius College, Cambridge, and Lecturer in English in the University of Sheffield, has been appointed Professor of English Language and Literature at Armstrong College, Newcastle (University of Durham).

AT Leeds University, Mr. H. S. Raper, M.Sc., and Mr. W. E. Crowther, B.Sc., have been appointed joint Demonstrators in Physiology; Mr. J. M. Hector, B.Sc., Lecturer in Agricultural Botany; and Miss M. V. Lebour, M.Sc., Junior Demonstrator in Zoology.

AT University College, Cardiff, Miss Doris Grunell, B.A., D.Litt. Paris, has been appointed Assistant Lecturer in French Language and Literature; and Mr. R. R. McKenzie Wallace, Assistant Lecturer in Physiology, in place of Dr. F. W. Lamb, who has been appointed Senior Demonstrator in Physiology in Manchester University.

MR. MATTHEW MONIE has been appointed Lecturer in Geology at the Glasgow Agricultural College.

MR. ARTHUR L. F. SMITH, M.A., Fellow of All Souls, has been elected to an official Fellowship at Magdalen College, Oxford, as Tutor in Modern History.

DR. WALTER COLQUHOUN has been appointed Professor of Physiology at Anderson's College, Glasgow, in room of Prof. R. Spiers Fullarton, resigned.

MR. J. T. REES has been appointed Superintendent of Education for the Borough of Swansea.

THE REV. F. B. WESTCOTT, M.A., sometime Fellow of Trinity College, Cambridge, will retire from the Head Mastership of Sherborne School at the end of the current term, after sixteen years' service.

THE REV. W. F. BURNSIDE, M.A., Cheltenham College, has been appointed Head Master of the Clergy Orphan School, Canterbury.

MR. JOSHUA HOLDEN, M.A., Head Master, Todmorden Secondary School, has been appointed Head Master of the new Secondary School at Cleckheaton.

MR. R. O. CHEW, B.Com. Manc., has been appointed Head Master of the new Municipal School of Commerce, Cardiff.

MR. W. REITH MACGREGOR, M.A., L.C.P., Assistant Master of Method, Central H.G. School, Aberdeen, has been appointed a Sub-Inspector of Schools under the Scottish Education Department.

\* \* \*

MR. JOHN H. W. MERRYWEATHER, M.A. Oxon., assistant master, Charterhouse, will retire at the end of the present term, and the Rev. E. E. Bryant, M.A. Cantab., will succeed him as House Master of Gownboys.

\* \* \*

MISS EDITH BEDDOWS, B.A. Birm., has been appointed an assistant tutor at the new Day Training College, Sunderland.

\* \* \*

MISS E. B. COOK, Assistant Mistress of Method, Homerton Training College, Cambridge, has been appointed Superintendent and Mistress of Method in the Yorkshire Training School of Cookery and Domestic Science.

Miss Florence Mason, assistant, has been promoted Head Teacher in Laundry Work in the same institution.

\* \* \*

MR. G. O'HANLON, B.A. Oxon., has been appointed Sixth-Form Tutor at Sherborne School.

\* \* \*

MR. C. M. DALRYMPLE, M.A. Cantab., Ph.D. Marb., and Mr. C. L. R. Thomas, B.A. Oxon., have joined the staff of University College School, Frognal, Hampstead.

\* \* \*

THE REV. C. H. ROWLAND, B.A. Toronto, Modern Language Master at Listowel High School, has been appointed Modern Language Master at Upper Canada College, Toronto.

SOME free studentships (L.C.C. grants) Scholarships and Prizes. are vacant at the School of Art Wood Carving, Exhibition Road, Kensington. Apply to the Manager.

\* \* \*

THE Glasgow City Educational Endowments Board have announced the arrangements for the bursary competitions to be held next year. The governors offer fifty school bursaries (stage 1) of the annual value of £5, tenable for two years, and fifty-five school bursaries (stage 2) of £10, tenable for two years. There will be twenty-four technical and higher education bursaries of £15, tenable for two years. Three University bursaries of £25, tenable for four years, will be offered; and the governors have instituted 120 bursaries for scholars who are in attendance at continuation classes, to be competed for at the close of each session. The Glasgow General Educational Endowments Board have also issued their bursary scheme, under which there will be twenty-five school bursaries (stage 1) of £5 for two years, and thirty school bursaries (stage 2) of £10 for two years. The technical and higher education bursaries of £15 will number seventeen, and there will be fifty continuation class bursaries of £3.

Literary Items. THE authors of "The King's English" (Oxford University Press) have reduced the work by a good half—chiefly by curtailing the controversial element and the number of quotations—and will presently offer it in its new form to such as "want a shorter and a cheaper book."

\* \* \*

THE Cambridge University Press announces a long expected work by Prof. Foster Watson—"The English Grammar Schools to 1660: their Curriculum and Practice." Also several new volumes of the "Cambridge English Classics," as well as various educational series.

MR. FROWDE has become joint publisher to the Early English Text Society, which is including in its extra series the "Promptorium Parvulorum"—the first English-Latin Dictionary (circa A.D. 1410), edited from the MS. in the Chapter Library at Winchester, by A. L. Mayhew, M.A.

\* \* \*

MESSRS. A. & C. BLACK announce a new work by Canon Cheyne on "The Decline and Fall of the Kingdom of Judah." The introduction contains explanations and answers to objections on the North Arabian (miscalled the Jerahmeel) theory. The same firm promises shortly another instalment of Dr. Hans Driesch's "Gifford Lectures," including a detailed analysis of the concept of teleology and its relation to the inorganic sciences.

\* \* \*

THE fresh crisis in the Near East recalls "A Military Geography of the Balkan Peninsula," by Prof. Lyde and Colonel Mockler-Ferryman, which was published by Messrs. A. & C. Black some three years ago. Though primarily military, the volume contains valuable historical and political information, with useful coloured maps.

\* \* \*

MESSRS. SAMPSON LOW, MARSTON, & Co. offer Captain Mahan's famous books on "Sea Power" in five volumes in a new and cheaper edition. Their new Illustrated Announcement List promises a variety of other interesting works.

\* \* \*

THE Gresham Publishing Company announce a comprehensive and elaborate work, in twelve quarterly volumes, "The Standard Cyclopædia of Modern Agriculture and Rural Economy," written by distinguished authorities on the special subjects and amply illustrated, under the editorship of Prof. R. Patrick Wright, Principal of the West of Scotland Agricultural College, Glasgow.

\* \* \*

THE *Art Craftsman*, a new "Monthly Magazine of Applied Arts and Industries" (3d.), incorporating "The Art Metal Worker," made a very successful first appearance in October. It is practical, and it is liberally illustrated.

\* \* \*

THE Oxford Local Examinations Delegacy General. has resolved to hold a Senior and Junior Local Examination during the week March 15-20 next year, the subjects being the same as those for the corresponding July examinations in the year. It is believed that this examination will be of use for candidates wishing to qualify as elementary teachers, for bursaries offered by various bodies, and for persons desirous of entering the professions. A preliminary examination will be held in July only.

\* \* \*

THE new extension buildings of Haileybury College, erected at a cost of £30,000, were opened by H.R.H. the Princess Alexander of Teck (October 17).

\* \* \*

THE Oxford University Press, which has exhibited in four different groups at the Franco-British Exhibition, has been awarded four Grand Prizes:—for printing; for books and bookbinding; for reproductions of old manuscripts and drawings; and for Oxford India paper. The last is the only Grand Prize awarded for paper.

\* \* \*

THE Canadian Government Emigration Department has had a new atlas prepared, "essentially and primarily a geography of Canada." School teachers and others interested in Canadian development can obtain copies free of charge on application to Mr. J. Obed Smith, Assistant Superintendent of Emigration, 11-12, Charing Cross, S.W.

## THE TEACHER'S IMPERFECTIONS AND HOW TO DEAL WITH THEM.

ADDRESS BY PROF. JOHN ADAMS, M.A., B.Sc.

At the Evening Meeting of the members of the College of Preceptors on Friday, October 23, Mr. F. STORR in the chair. Prof. ADAMS read the following paper:—

Scattered through the various works on education are many references to what the teacher should be and should know. Too frequently the stress is on the knowing, but there are a number of passages that are of sufficient breadth to be worth quoting as a sort of overture to what we have to say here. In dealing with imperfections it is well to come to some understanding regarding the general view of what perfection is.

### THE PERFECT TEACHER.

Montaigne makes a judicious distinction between mere attainments and character: "My desire is, therefore, that the parents or guardians . . . be very careful in choosing his tutor, whom I would recommend for having a head rather well made than well filled, yet both are desirable. And I would prefer wisdom, judgment, civil manners, and modest behaviour to bare and mere literal learning. . . . I would not have the teacher do all the talking, but allow the pupil to speak when his turn comes. Socrates, and after him Arcesilaus, made their pupils speak first, and then would speak themselves. . . . It is a sign of a noble and undaunted spirit to know how far to condescend to childish proceedings, how to second, and how to guide them."

No self-respecting teacher should ever be in the shameful position of having to confess that he has never read the famous description of the Good Schoolmaster as found in Thomas Fuller's "The Holy and Profane State." In his usual careful way Fuller supplies us with the various headings under which he considers the teacher's qualities: (1) his genius inclines him with delight to his profession; (2) he studies the scholars' natures as carefully as they their books (under this head he gives an analysis of pupil-character that is well worthy the teacher's attention); (3) he is able, diligent, and methodical in his teaching; (4) he is, and will be known to be, an absolute monarch in his school; (5) he is moderate in inflicting deserved correction; (6) he makes his school free to him who sues him *in forma pauperis*; (7) he spoils not a good school to make thereof a bad college; (8) out of his school he is no whit pedantical in carriage or discourse.

Sir Thomas Elyot, in his "The Governour," has some plain speaking on the subject of what schoolmasters should be, but are not. His ideal of a tutor is thus expressed: "A tutor, whiche shulde be an auncient and worshipfull man, in whom is aproued to be moche gentilles, mixte with grautie, and, as nighe as can be, suche one as the childe by imitation folowynge may grow to be excellent. And if he be also lerned, he is the more commendable." Elyot's views of the ideal tutor are perhaps even better brought out in his account of the office of a tutor. "The office of a tutor is firste to knowe the nature of his pupil, that is to say, wherto he is mooste inclined or disposed, and in what thyng he setteth his most delectation or appetite. If he be of nature curtaise, piteouse, and of a free and liberall harte, it is a principall token of grace (as hit is by all scripture determined). Than shall a wyse tutor purposely commende those vertues, extolling also his pupil for hauyng of them; and therewith he shall declare them to be of all men mooste fortunate, which shall happen to haue such a maister. And moreouer shall declare to hym what honour, what loue, what commodite shall happen to him by these vertues. And if any haue ben of disposition contrary, than to expresse the enormities of theyr vice, with as moche detestation as may be. And if any daunger haue therby ensued, misfortune or punishment, to agreue it in suche wyse, with so vehement wordes, as the childe may abhorre it, and feare the semblable aduenture."

Turning to modern writers, we find that Thomas Arnold quite agrees with Montaigne on the matter of the well made head: "What I want is a man who is a Christian and a gentleman—an active man, and one who has common sense and understands boys. . . . I prefer activity of mind, and an interest in his work, to high scholarship."

In the first chapter of Dr. Fitch's well known book, "Lectures on Teaching," we have an account of the ideal teacher. Here, as elsewhere, we have a strange mixture of attainments and qualities. He places in the first rank "ample and accurate knowledge of the thing taught"; but he is obviously not less impressed by

the necessity of having the best possible character in the teacher: "But in the case of the schoolmaster as in that of the priest, or of the statesman, mind and character have to be influenced; and it is found that in the long run nothing can influence character like character. You teach not only by what you say and do, but very largely by what you are."

While John Locke is as exacting as any of the others in his demands from the ideal teacher, he recognizes frankly the difficulty of finding the sort of person he wants. In his "Thoughts on Education" we have the following passage:—"In all the whole Business of Education, there is nothing like to be less hearken'd to, or harder to be well observed, than what I am now going to say; and that is, that Children should, from their first beginning to talk, have some *discreet, sober, nay wise* Person about them, whose Care it should be to fashion them aright, and keep them from all Ill, especially the Infection of Bad Company. I think this Province requires great *Sobriety, Temperance, Tenderness, Diligence, and Discretion*; Qualities hardly to be found united in Persons that are to be had for ordinary Salaries, nor easily to be found anywhere."

The difficulty is where to find such a person. To this difficulty the practical-minded Locke is keenly alive: "For those of small parts, age and virtue are unfit for this employment: and those who are greater will hardly be got to undertake such a charge. You must therefore look out early, and enquire everywhere; for the world has people of all sorts. . . . I can only say, Spare no care nor cost to get such a one. . . . But be sure take nobody upon friends' or charitable, no nor bare great recommendations. Nay, if you will do as you ought, the reputation of a sober man, with a good stock of learning (which is all usually required in a tutor), will not be enough to serve your turn. In this choice be as curious as you would be in that of a wife for him: for you must not think of trial or changing afterwards: that will cause great inconvenience to you, and greater to your son."

### THE IDEAL TEACHER AND THE ACTUAL TEACHER.

What Locke formally proclaims most men frankly admit when the matter is put before them. The general feeling of the public is that the very best men and women are required for the office of teacher, and it is very complimentary to our profession that there is a tacit assumption that we have the sort of men and women that are required. It is true that in individual cases the public is only too ready to point out the imperfections of the teachers that come directly in contact with it; but, all the same, there is a recognized convention that treats the teacher *qua* teacher as a person of almost perfect character. Manuals of school method, for example, almost invariably take it for granted that the teacher has a perfect character. He may be very ignorant of school method, and therefore need the help of the writer of the manual, but, as for character, that is taken as one of the data of the problem. It is assumed that all that has to be discovered in moral training is how the teacher can make his pupils like himself.

Now, we who are within the profession know how far short we come of the ideal that is set up for us as human beings. We know that we are full of imperfections, and sometimes we are extremely depressed when we compare our own failings with the ideals that we have in our own minds and that we set before our pupils as attractively as we can. We know that we are very far from perfect, but is it quite reasonable to expect us to be perfect? Is it even desirable? In all the ideals that we have just considered it is clear that nothing short of perfection is demanded of us. It is assumed that we cannot get too good a man as a schoolmaster. Now this view is at least of doubtful validity and is based upon the exaggeration of one aspect of the teacher's work. The teacher is certainly an example to his pupils, and it is *almost* impossible to overestimate the importance of the power of imitation as a moral force in school life. But it is not quite impossible, and, as a matter of fact, the place of imitation is sometimes misunderstood through not taking account of other modes of interaction between master and pupil.

### INTERACTION OF TEACHER AND PUPIL.

In manuals of school method there is frequently found a saying that is so generally accepted as to be regarded as almost axiomatic: "As is the master, so is the school." But this is not quite the same thing as to maintain that "As is the master, so is the pupil." We are apt to think if we but get a man of particularly fine character—a man who, as was said of Arnold, "might have been a Prime Minister"—the pupils will naturally resemble him. No doubt there is a strong tendency for the

pupil to imitate the master, and in certain respects there is likely to be a striking resemblance between the two. But imitation is not the only force at work in the process of education. The teacher performs other functions than that of a model. His work is active as well as passive. The teacher-character reacts upon the pupil-character, and sometimes the result is that the pupil-character becomes the opposite to, or, at any rate, the counterpart of, the teacher-character. When a seal is impressed upon wax, the result is something that corresponds to but does not resemble the seal. The qualities of the master may produce quite the opposite qualities in the pupil. Remember what John Stuart Mill says about the influence of strong-willed parents on their children. Speaking from his personal experience, he maintains that the exercise of parental will leaves no room for the development of the will of the child, and that strong-willed parents have weak-willed children. In the intercourse of life it is often found that the unselfishness of one person trains up another person in selfishness. It is sometimes said, for example, that the unselfishness of sisters has a great deal to do with the selfishness of brothers. Cromwell trained his Ironsides to resemble him in many ways, but in some directions his training produced an attitude of mind that was opposed to, because complementary to, his own. The power of command on the one side, for instance, was balanced by the facility of obedience on the other. The educator must not seek to impress his character upon the educand as a seal impresses wax. Rather he must strive to discover the ideal character possible to each individual, and so apply his influence as to foster the development of this character. The educational principle underlying the contemptuous saying, "Don't do as I do, do as I tell you" has at least the saving grace of modesty. Were it of practical application, it would be one of the most valuable principles of the developing science of education. Unfortunately the power of imitation is so great that the educator cannot divest himself of the responsibility involved in the mere process of living in contact with his pupils. He must walk circumspectly as a model to his class, however unwillingly he adopts this difficult part. But he can mitigate the force of imitation by manipulating the exercise of certain of his characteristic qualities. He must modify his conduct so as to suppress certain of his tendencies which are harmless and even creditable in themselves, but are unwholesome in school because they restrict the corresponding activities of the pupils. There is no harm in being a fluent talker, for example. This quality in its place is a valuable asset to the teacher. But it is also a source of danger, since the teacher is tempted to talk too much, and not to allow the pupils to talk enough. In many directions the educator's first duty is to efface himself. The teacher of vigorous personality and strong motor temperament is very apt to think he is doing capital work when he is letting off his force in strenuous teaching, while, as a matter of fact, he is repressing the energies of his pupils who ought to be doing their share and are not permitted. The drawing master, for instance, who always conducts his criticism by simply taking the pencil and putting the matter right, is abusing his technical skill with the pencil, and proves his incapacity as a teacher.

Even intellectual work may be so conducted that it weakens where it should strengthen. Listen to this public eulogy of a distinguished teacher: "His students had such implicit confidence in his knowledge, and such reverence for his opinion, that after leaving him they no longer cared to think for themselves. They were satisfied by the conclusions reached by a mind so much superior to their own, possessing a grasp and insight which they realized was so far in advance of anything they could ever hope to attain."\*

Meant as a panegyric, this is really an indictment of the teacher in question. It is a proclamation of disastrous professional failure. This is one of the many cases in which the personal advantages of the man may interfere with his success as a teacher. Quickness of perception and ease in mastering problems are in themselves excellent qualities, but if they render the teacher incapable of realizing the difficulties of his pupils they become to that extent hindrances. The cure is to be sought, naturally, not in a deliberate blunting of perception—as in the case of the brilliant lawyer who, when he had to deal with a duller opponent, always drank a bottle of stout so as to reduce his mind to a state of dullness that could cope with the confused thinking of his rival—but in a careful study of the pupil's point

of view, and a deliberate adaptation of teaching methods to meet that view.

In actual teaching, what the teacher is and knows and does is naturally of importance, but is of less importance than what the pupils know and do. In education the thing that matters is what the pupil does or thinks. We cannot be too frequently reminded that teaching and learning are correlative terms. However attractive the teacher may be, he cannot learn for the pupil, and if the pupil does not learn, the teaching has been in vain. It is not enough that the teacher teaches and the pupil learns. Unless the pupil learns because of the teaching there has been no genuine teaching done. It is quite possible—and probably much more common than outsiders would imagine—that the teacher may go through a process that he calls teaching, and the pupils go through a process that is really learning, and yet the two processes have no causal relation.

#### ADVANTAGES OF IMPERFECTIONS.

We can never have too good a man as a teacher, but we can have a man whose goodness is thrown away because of his incapacity to bring his good qualities to bear upon his pupils in the only way that will produce the effect he desires. It is comforting for those among us who are modest enough to feel that we could not make quite satisfactory Prime Ministers that we may yet be first-rate teachers where potential Premiers fail. We do not require to be perfect human beings in order to be excellent teachers; in fact, the question not unnaturally arises whether we may not be even better teachers because of our imperfections.

There is danger in even suggesting that our weaknesses may actually be of advantage to us in our professional work. We at once think of lowered ideals, decreased effort, self-complacent content with things as they are. But those of us who venture to speak to teachers about their professional work have so much to do in the way of screwing up the pitch that we may well rejoice in occasionally finding an opportunity of saying a comforting word. There can be no harm in confessing that certain of the teacher's weaknesses as a human being not only do no harm to his professional work, but actually help it. A man has more influence over others when he has gone through their experience. From this point of view a teacher may be "faultily faultless." The sedentary bookish teacher, for example, may altogether fail to understand the temptations of the strongly motor pupil who disturbs the peace of the class or comes in with a record of violence in the playground. The master who has never stolen an apple is not on that account a better judge in a case of orchard robbery. Historians tell us that the execution of Cranmer produced more effect upon the people of England than the executions of many braver men, because Cranmer's hesitations and vacillation appealed to a wider circle than did the heroism of the others. The ordinary man can understand Cranmer's recantation better than Dr. Taylor's dancing to the stake. But it does not follow that we admire Cranmer more, and even when we find that our personal imperfections are not altogether disadvantageous in our professional work we must not become complacent over them, much less cultivate them.

#### IMPERFECTION IN KNOWLEDGE.

Taking up our imperfections in the way of professional equipment we have no difficulty whatever in deciding how they should be treated. If our knowledge of the subjects we teach is insufficient there is nothing for it but to apply ourselves at once to such study as shall remedy the defect. It is true that even here there are those who maintain that there is a certain advantage in imperfect preparation. It is sometimes said that the teacher who has a very profound knowledge of his subject is apt to be unsympathetic towards beginners, and, in fact, incapable of teaching the rudiments of the subject at all. This view is certainly wrong. A teacher cannot know too much of anything. All that is implied is that a learned teacher may not give enough attention to the practical details of his profession. He may rest content with knowing his subject, and make the fatal error of neglecting the study of the nature of the pupil and of the best methods of presenting matter to the pupil. Any defects, therefore, in knowledge of the subject matter to be taught, or of the best methods of teaching the subject, must be regarded as imperfections of the teacher that have no redeeming feature. Such defects are hindrances in his work, and must be made good if the teacher is to remain in the profession without loss of self-respect.

\* Quoted by S. B. Sinclair: "The Possibility of a Science of Education," page 13.

## IMPERFECTION IN PERSONAL CHARACTER.

Of imperfections in the personal character there are, from the teacher's standpoint, really two classes. To one class belong those qualities that are necessarily inimical to success in teaching, to the other those qualities that need not necessarily injure the usefulness of the teacher in his work and may indeed in some measure help him.

*Lack of Sympathy.*

After making several rather elaborate classifications of the first kind of personal imperfections, I find that they always resolve themselves into different manifestations of one fundamental defect that is in itself fatal to even a moderate degree of success in our profession. *Lack of sympathy* is the one irremediable defect in a teacher. By sympathy must be understood sharing in another's joys as well as in his woes. The literal meaning of the word rather limits us to the first use. The Germans seem to feel the need of the double application of the word more than we do, for they have two separate words: they have not only *Mitleid* but *Mitfreude*. The educational equivalent for "sympathy" is really the power to put oneself in the place of another, to view matters from his point of view; and the possibilities of success in the profession vary in direct ratio to the degree in which this power is possessed. Its absence means that the person cannot even begin to be a teacher.

The lack of sympathy shows itself in a great variety of ways. The dead coldness towards pupils that is so repellent in some unsuccessful teachers is one of the most marked symptoms. Naturally, unsympathetic coldness must be distinguished from that reserve that is a source of strength in certain teachers. Sympathy does not by any means demand gush, though all truly sympathetic reserve can occasionally thaw out into something that may fairly be called enthusiasm. But unsympathetic coldness never thaws, and is pathologic. A sense of humour is never found where sympathy is absent, and without a sense of humour no teacher can be really successful. We need not go quite so far as the London head master who maintained that all the equipment the teacher needs is a knowledge of his subject and a sense of humour; yet it must be admitted that no one who is defective in the sense of humour can be a really fine teacher. This is one of the imperfections that have no compensation. Though a person cannot have humour without sympathy, it is possible to have sympathy without humour, though by the very nature of the case the sympathy must be limited. Many teachers with a feeble sense of humour are able, by the keenness of their sympathy in other directions, to compensate to some extent for the lack and to get at their pupils through other channels. But at the best the lack of humour is a positive defect that tells against the teacher.

Another defect arising from the lack of sympathy is shown in the boredom that marks the work of some teachers who are always looking at the clock. The unsympathetic teacher may have a vivid enough imagination as a personal gift, but is unable to use it effectively in teaching, and the same is true in a less degree of the other mental processes. It is a debatable point whether the power of sympathy can be cultivated. It is probable that the matter stands practically in the same position as the discussion about the possibility of improving the memory. As memory, considered as a natural endowment, cannot be improved, and yet by a careful training the original natural power may be used to greater advantage by skilful manipulation of the matter on which it is exercised, so the power of sympathy with which a teacher comes into the world may be used to greater or less advantage according to circumstances. The unsympathetic teacher will never become sympathetic if he takes no trouble to make himself acquainted with the things in which his pupils are interested. Sympathy must be nurtured by being supplied with the proper material. If, after doing his best to become acquainted with the pupils' points of view on various matters, and giving earnest attention to the subjects that seem to interest the pupils, he still feels cold and unsympathetic, the teacher had better consider the advisability of seeking a new line of life.

*Defects of Temper.*

Of the imperfections that are really defects to be deplored in themselves and that yet are not necessarily detrimental to the teacher, perhaps the chief is bad temper. A sour temper is often allied to lack of sympathy; but a quick temper may go along with a very amiable disposition. No doubt a chronic ill-temper is an evil in any school. "Hadst thou a curst master when thou went'st to school?" is as apposite a question to-day as it was in Shakespeare's time. There are still schools and classes in

which the pupils may "read the day's disasters in his morning face." But, after all, if the outbursts are not violent or long continued, no real damage is done to the school relations—particularly if the master's temper is usually lost in cases where the objects of the outburst feel that they are in the wrong. Further, teachers who are the victims of bad temper have often the chance of giving an admirable lesson in self-control. When the pupils know that the master has a bad temper, and that now and again he lets it go, and always regrets it afterwards, they note with interest and admiration every time they see that he is tempted to lose his temper and yet restrains himself. All this implies that the teacher does not really feel a little proud of his bad temper. The attitude of mind that makes a man speak apologetically, but complacently, of his "so-and-so of a temper" is fatal in a teacher. The pupil's sense of justice revolts at being exposed to the caprices of such self-satisfied losers of self-control.

Quick temper very often goes with what is called the motor temperament, and, as the temperament that is regarded as specially suitable in a teacher is what is called a "converted or perverted motor," we get a suggestion of the process the temperamental psychologists would recommend in the way of dealing with quick temper. Horace Mann's description of the Scottish schoolmaster's promptness is a good example of the motor temperament at work. Mann tells us that the error is committed, the blow administered, and the next pupil questioned before the onlooker has time to realize what it is all about. There is no need for all this haste. The teacher in question would have done his work all the better if he had restrained the motor tendency and, by voluntary inhibition, had given time for the resulting action to be based upon the whole character of the teacher, and not upon the small arc of it that was involved in the instantaneous reaction to the stimulus of the error. The control of the temper can be won by a judicious cultivation of inhibition, resulting in certain delays that have the double advantage of giving the pupil time to think and the master time to get his impulses into equilibrium.

*The Distribution of Dullness.*

Teachers, as a class, are very frequently accused of dullness. There is a Scottish saying which implies that a little dullness is not altogether undesirable in a wife; and perhaps the saying may be transferred to the teacher without serious error, if it does not imply that he is stupid or that he is dull all along the line. Universal dullness would render a teacher intolerable to his class; but dullness properly distributed among the various subjects, and among the various hours of the time-table, may have an excellent effect on the class. There is nothing more tiresome than continual brilliancy. Dullness, then, is one of the teacher's imperfections that tend towards good. The place of routine and comparative dullness is not yet sufficiently recognized in our school arrangements. We are so busy stimulating our pupils that we forget that they sometimes require to lie fallow for a little while.

*Less Reputable Imperfections.*

Unfortunately there are other personal imperfections of teachers that are less reputable than those already mentioned, and the problem arises how we are to deal with them. Take such disagreeable matters as greed, laziness, slovenliness in dress, indecision, spitefulness, flippancy, we shall find that our office as teachers puts us in a very favourable position for overcoming them. We are provided with many keen young critics whose influence is none the less potent that they are not allowed to express their verdicts to ourselves. Further, we are given over into their hands by having to condemn in our official capacity—whether directly or indirectly does not materially alter the case—all offences against the minor and major morals; and therefore must frequently have to condemn ourselves. Everybody maintains that boys are very severe critics, though it is generally admitted that they are just. It is seldom that we have the bitterness contained in the boy's answer when asked where his (clerical) head master was: "He's in the garden practising self-abnegation." The head master had just given a school sermon on self-abnegation and was at that moment in the garden smoking.

Even the most indifferent among us cannot feel happy in doing something that we have directly or indirectly condemned in others. If we find fault with Smith minor for coming into class with untied bootlaces, we cannot feel comfortable in our own unbrushed coat; and so with more important matters.

## SIMULATION AND DISSIMULATION.

There arises here a very serious problem: How far is the teacher entitled to conceal his imperfections? how far is he entitled to appear better than he really is? On the one hand, it is surely not desirable to parade our weaknesses before our pupils, and, on the other, it looks uncommonly like hypocrisy to do our best to appear better than we are. Some ingenious teachers draw a distinction between "simulation" and "dissimulation." They maintain that a teacher is not entitled to simulate a virtue that he does not possess; but, on the other hand, he is not called upon to proclaim a defect that mars his character. He may disseminate his weaknesses, but may not simulate virtues that are not his.

Obviously it is not to the advantage of the pupils that they should know all the weaknesses of their teachers, and equally obviously it is not to the teacher's advantage to pretend to be better than he is—unless he is at the same time trying to be better. In the case of teachers honestly trying to improve their character, the Lange-James theory of the relation between emotion and its expression may give some justification in modifying the outward appearances so as to suggest a state within that does not yet exist, but is on its way to come into being.

The reverence that we owe the young prevents us from daring to appear in our true colours. But, on the other hand, the very shame we feel at being compelled to conceal our true selves is a strong incentive to make those selves worthy to bear the light of day.

Prof. Adams having replied to questions put by one or two members of the audience, a hearty vote of thanks to the lecturer, proposed by the Chairman and carried by acclamation, concluded the proceedings.

## THE COLLEGE OF PRECEPTORS.

## MEETING OF THE COUNCIL.

A MEETING of the Council was held at the College, Bloomsbury Square, on October 17. Present: Mr. Eve, in the chair; Mr. Bain, Mr. Barlet, Rev. J. O. Bevan, Rev. J. B. Blomfield, Mr. Brown, Miss Dawes, Mr. Hawe, Dr. Maples, Dr. Marx, Mr. Millar-Inglis, Mr. Pendlebury, Mr. Pinches, Miss Punnett, Mr. Rule, Mr. Rushbrooke, Rev. Dr. Scott, Mr. Starbuck, Rev. J. Twentyman, Mr. Walmsley, and Mr. White.

The minutes of the last meeting were read and confirmed.

The Secretary reported the results of the recent Summer Examination of Teachers, and diplomas were granted to those who had satisfied the prescribed conditions. (For list, see page 476.) The Prize of £5 for Mathematics was awarded to Mr. H. J. Larcombe.

Prof. J. Adams was appointed to give the Psychology Course of Lectures to Teachers in the early part of next year.

Saturday, January 23, 1909, was fixed as the date of the next Ordinary General Meeting of the members of the College, and it was decided that the annual dinner should take place on the evening of the same day.

The report of the Finance Committee, showing the result of the operations of the College during the first three quarters of the current year, was adopted. It was resolved that the sum of £100 should be invested in the purchase of Great Eastern Railway Debenture Stock on account of the Teachers' Training Fund.

It was resolved: "That it be referred to a Special Committee to consider what steps, if any, should be taken to extend the social work of the College."

The following persons were elected members of the College:—

Miss E. O. Cudlipp, A.C.P., 10 Darnley Road, Hackney, N.E.

Mr. E. J. Still, Emwell School, Warminster.

The following books had been presented to the Library since the last meeting of the Council:—

By the RESEARCH DEFENCE SOCIETY.—Experiments on Animals.  
By G. BELL & SONS—Adair's French Historical Reader; Baker and Bourne's Elementary Mensuration; Gillies and Anderson's Latin Reader; Prior's Tales by Erckmann-Chatriain, First Series; Smith's General Chemistry for Schools and Colleges.

By W. B. CLIVE.—London University Guide and U.C.C. Calendar, 1909; Matriculation Directory, September, 1908.

By MACMILLAN & Co.—Barnard and Child's New Algebra, Vol. I.; Castle's Practical Arithmetic and Mensuration; Dowse's Book of Poetry Illustrative of English History, Part II.; Hutchison's Scott's Tales of a Grandfather, First Series; Jones's Modern Arithmetic, Part II.; Martin's Stories from the Arabian Nights, and Grimm's Fairy Tales; Stone's Latin Reading Book; Williamson's Plato's Apology of Socrates.

By METHUEN & Co.—Trevelyan's English Life Three Hundred Years Ago.  
By J. MURRAY.—Martin's Examples in Practical Arithmetic, Part II.; Earl Stanhope's Reign of Queen Anne; Wyld's The Teaching of Reading.  
By WHITTAKER & Co.—Biddlecombe's Thoughts on Natural Philosophy; Bird's Junior Geography.  
Calendars of Birkbeck College; University College, London; Aberdeen University; Royal College of Surgeons of England; Armstrong College, Newcastle-on-Tyne; University of Leeds; and Queen's College, Cork.  
Incorporated Accountants' Year-Book.

## THE BRITISH ASSOCIATION

## MORE EDUCATIONAL PAPERS IN SUMMARY.

## TRAINING IN TEACHING.

By Miss C. P. TREMAIN.

DURING recent years public interest in educational matters has greatly increased. There is now a tendency to make the provision of the means of education a national, county, or municipal charge, instead of relying on private initiative. Logically, the first step towards improvement in education would be to direct attention to the better professional training of teachers. But school buildings, equipment, codes and curricula, examinations, and system of scholarships have received far more attention, and the necessity for teachers being specially prepared for their work on intelligent, rational, and thoughtful lines has only lately been realized. Primary-school teachers, both men and women, secondary-school women teachers, and teachers of special technical subjects form the main body of "trained" teachers, but even of these a large majority are still untrained. Only a very small proportion of men actively engaged in secondary-school teaching, or in directing and inspecting primary and secondary-school work hold a teacher's diploma.

The training of teachers has three distinct stages:—

(i.) General Education in school, college, or University, where the methods of teaching employed have an important, if indirect, influence on future teachers.

(ii.) Professional Training in training college or department, where the course should include instruction in the theory and practice of education and in school hygiene. The course should be largely determined by the previous general education of the student rather than by his future work; it should be *intensive* rather than *extensive* as regards time; it is best pursued alone, not as in most primary training colleges along with the general education. The short post-graduate training for intending secondary-school teachers seems to give better results than the longer course for intending primary-school teachers who are pursuing degree and training courses together. The purpose in studying the theory of education is to induce a scientific habit of mind in approaching educational questions. Practice in education, which includes the preparation and presentation of lessons by the student, the hearing and reporting on lessons given by others, aims at developing and increasing skill in teaching. The aim of training is not to produce finished and perfect teachers, but rather "aspiring" and intelligent ones who will be able to adapt themselves to, and learn from,

(iii.) The Experience Stage of Training, in which the student passes into the responsible classroom teacher. This has often been the sole training of successful teachers, but the increasing complexity of life, the urgent need for clear ideals on the part of experts to whom democratic educational bodies look for guidance, as well as the needs of the taught, imperatively demand that future teachers shall regard their work from a professional standpoint. Those who so regard their work will not feel that finality is reached when a teaching diploma has been obtained, nor even when their pupils obtain brilliant examination results.

Theory and practice should correct and supplement each other. This may be attained through the work of students in demonstration schools and classes, and still more by the active participation in school teaching of all members of the training college staff. The teaching should be under the most natural conditions possible, and therefore series of lessons in the ordinary course are to be preferred to criticism and the so-called "Model" lessons.

Some problems in training which press for solution are—

(a) *How to adjust the claims of liberal and professional education*—cf. German and American normal colleges.—The special difficulties in primary-school teaching, which have caused a premium to be placed on the pupil-teacher system (e.g., unwieldy classes), are gradually disappearing, and many county council



schemes show a better way than this for preparing future teachers. Secondary schools are displacing pupil-teacher centres and less actual practice in teaching is required of a student before he enters a training college.

(b) *How to obtain adequate school practice for those who have had no experience as pupil-teachers or student-teachers.*—A demonstration school plus classes in schools of different scope and management would seem to afford the best practice. There are special difficulties due to local and other conditions in obtaining adequate practice. Schools are sometimes afraid of admitting graduates who teach under supervision to classes which are readily entrusted to untrained teachers fresh from college. The work of supervising school practice must be individual; hence training to be efficient must necessarily be expensive. The trainer of teachers, in addition to good school experience and progressive knowledge of educational principles, needs sympathetic insight in dealing with students.

(c) *How efficiently to test practical work in teaching.*—Here there has been a great advance from the examination "show" lesson of earlier days. But it would appear desirable to withhold the full certificate of ability to teach until the young teacher has shown, after experience as a responsible teacher under suitable conditions, his powers as teacher and governor. The executive powers of an individual cannot be tested in the same way as his receptive and reflective powers.

A special difficulty in training at present is, that more has to be attempted in the time than can be done efficiently. The secondary school, which is recognized as taking part in the work of training teachers, would render valuable assistance by directing more attention to the subjects which are necessary to every teacher (*e.g.*, the mother tongue, drawing, clear enunciation, physical culture, &c.).

#### INFLUENCE OF MENTAL VALUES OF TYPES OF EDUCATION.

By Prof. E. P. CULVERWELL, F.T.C.D.

While the application of psychology to the practice of education has doubtless been of great service, there is a dangerous tendency not only to investigate, but to *decide*, questions of curriculum and method on purely psychological grounds. The chief object of this paper is to show that this claim is invalid, and that even our limited knowledge of physiology can give us help in criticizing psychological arguments.

The psychological discussion of a question may be as exhaustive as possible, and yet may omit the determining factor; for psychology can never be a science complete in itself. This follows from the fact that changes in mental states may be due to physiological changes which have no mental counterpart—*e.g.*, the whole mental outlook may be changed by a dreamless sleep.

Whether mental conditions are wholly determined when the physiological conditions are given is unknown; yet the following assumptions may be generally accepted:—(1) There is no mental change without a corresponding passage of energy from one region of the brain to another. (2) To every difference in mental action there corresponds a difference in the mode of this passage of energy. (3) Whenever a mental state is revived there is some revival of the corresponding passage of energy. In particular we may assume that if the whole mental state is vividly revived, then the original nervous action is closely repeated; if the revival is but faint or partial, then the corresponding nervous disturbance or oscillation is faint or partial compared with the original one.

These assumptions can be applied to a destructive criticism of the psychological argument against the theory of formal education. It follows from them that there is a marked physiological difference between what we commonly speak of as superficial thought on the one hand and deep thinking on the other, and that experience alone can exonerate the method of interest from the charge of producing superficial rather than deep thinking.

For consider the difference between concrete and abstract thought. Concrete thinking, if mere recollection, implies the revival in its natural form of the nerve disturbance which originally passed. It also includes a comparison of two ideas in regard to a common element which is strong in both. This is a less complicated operation than to compare them in regard to an element which is weak in both. In the former case the excitation follows the natural path—what we may describe as the path of least natural resistance. In the latter case, how-

ever, the excitation has to be of a very special character: it must be so arranged as not to excite the more vigorous—and therefore, as we should suppose, the more easily excited nervous oscillations—and yet it must excite the less vigorous one. If the thinking be very abstract—*e.g.*, the deduction of a common principle underlying many sense experiences which were not simultaneously received—then it is evident that the stimulation must be of a very specialized kind. The great majority of mankind is unable to stimulate the brain in this way. Instead of keeping so many different brain oscillations simultaneously excited, the nervous energy flows along the path of least natural resistance, and some vigorous element in one of the many images to be compared excludes the other ideas altogether.

The Herbartian argument against formal education, as well as such psychological and physiological arguments as those of Prof. Bagley in his "Educative Process," fall to the ground when examined in connexion with the physiological point of view.

It is well to observe that the ordinary man has little power of abstract reasoning. With most men the nervous energy follows the path of natural least resistance, except so far as they are trained. Inconsistent ideas lie side by side in our minds; we can only direct the energy along the natural path. In other words, we take things at their face value. If we had more practice in comparing ideas which lie far apart in our minds (the comparison of which has therefore but little immediate interest), we might see far more deeply than we do. Thus we have no *a priori* right to expect that an education which follows the path of interest will be the best for producing the highest kind of organization of which a given brain is capable. With some brains no doubt it will. With others it may lead to superficiality.

An instance of the excessive tendency to do away with formal reasoning is to be found in the amount of geometrical construction and example now usual before the principles of true demonstration are entered on.

#### TESTS OF EDUCATIONAL EFFICIENCY.

By T. P. GILL.

This paper, while dealing with the general question in the title referred also to the situation in Ireland, which is now at a moment of great significance for education. A new University system is about to be organized, and the country is being called on to take stock of her whole educational equipment and to consider the end to which she wishes it to conduce. The situation is thus one of general as well as particular interest. What results does the country intend her educational system to produce? By what means does she propose that the results are to be produced? How does she propose to assure herself that she is getting these results? In other words, what is to be the aim, the method, and the test of the educational activity of the nation? It is one of the most practical tasks of the hour in Ireland to consider these questions, and the answers to them should be known and understood by the teachers in every school—from the Kindergarten to the University—and, if possible, by every parent.

In connexion with the aim of a national system of education, it is desirable to examine what is meant by educational efficiency. Efficiency must be considered (1) from the individual and (2) from the social and national point of view. It must be all-round efficiency, physical, mental, and moral—aspects closely related, yet distinct in themselves. It is the business of education to develop all three. Again, efficiency is the fitting of the individual (*a*) to pursue efficiently his calling in life, his trade or profession, and (*b*) to be a good man and a good citizen. The professional, the bread-and-butter efficiency is necessary; and not only is it necessary to aim at it in connexion with professional or technical education, but from an early stage in general education it is essential that the pupil should be made to think of what is to be his calling in life and how he is best to prepare himself for it. This object of education, however, must be pursued in such a way as not to eclipse the higher end of producing the good man and the good citizen. On the contrary, it must be realized that the practical efficiency itself is impaired in proportion as the higher end is neglected or lost sight of. National and individual efficiency in every country has suffered from this error. So has national and individual happiness. Ireland must study to avoid this error.

In connexion with methods and tests, the suitability of certain methods and tests to produce the results aimed at must be considered. The influence of the test on the method is sometimes so great that it is impossible to separate them. For instance,

the fact that a written examination was imposed by law as the sole test has fatally governed the whole character of the Irish intermediate system for nearly two generations. Tests and methods must vary with the things being dealt with. Physical, mental, and moral things cannot be tested in the same way. The subject, the circumstances, and the end in view must always be borne in mind in devising a test or a method. Moreover, in a test, in considering any one part, we must provisionally examine the whole—see if all the parts are there and if the proportions are right. In other words, the time-table, the very vital question of the disposal of the pupil's time, must be taken into account. In a test we cannot look at the individual pupil alone, we cannot judge the pupil apart from the system and the teacher.

Educational tests may be considered under the three aspects: physical, mental, and moral. (1) Physical: in connexion with the general bodily development of the pupil and the effects of bodily health and occupation upon intellectual efficiency and moral strength; in connexion with manual training; and in connexion with the question in its broadest sense of discipline, order, and method. (2) Mental: the aim of producing a logically disciplined mind. The end of testing here is to see that the observing and reasoning faculty is being rightly trained: that cram is avoided; that observing, thinking, and correlating power is being developed. (3) Moral: the test here should aim at ascertaining whether the teachers have the right outlook and influence; whether the pupil is being really led on to know, admire, and love the right things; to understand his duties, private and public; to select true aims in life; to develop a noble individuality. The importance, in relation to his moral strength and general efficiency, of making the pupil from an early stage think about his trade, profession, or career in life, and of thus giving a personal and purpose-like character to his education.

How are these aims being followed or hindered in the Irish educational system at the present time, and how far is it practicable, by improvements in the methods of testing or other means, to get them followed more effectively? How far is the work of the system in its different branches—primary, intermediate, technical, agricultural, University—susceptible of development in these directions under existing machinery?

## CORRESPONDENCE.

[We do not hold ourselves responsible for the opinions expressed by our correspondents.—Ed. E.T.]

### MORAL INSTRUCTION.

To the Editor of "The Educational Times."

SIR,—The press in general has been so generous in its reports of the International Moral Education Congress recently held, and has so clearly perceived its great significance, that I venture to ask you, in view of the wide interest that has been created in the cause of the moral education of the young, to allow me to call attention in your columns to the work of the Moral Instruction League, whose propaganda during the past ten years prepared the way for this important Congress, and which exists to give practical effect to the promotion of the cause for which the Congress was held.

The League has already influenced the Board of Education to make some provision for moral instruction in public elementary schools, and some sixty Local Education Authorities to take action in the direction of providing in their schools for more or less systematic moral instruction. Its graduated Syllabus of Moral and Civic Instruction for Elementary Schools (a copy of which I shall be glad to send gratis to your readers on receipt of a post-card) has already been very widely adopted, and its moral-lesson books, adapted to the various ages of children, have been welcomed by all, since they present moral ideas to children in ways that cannot fail to interest them and give offence to none, since they keep strictly to that neutral moral ground which is common to all theological and non-theological bodies.

I shall be glad to supply further information about the League to any desiring the same.—I am, Sir, &c.,

HAROLD JOHNSON,

Secretary of the Moral Instruction League.

6 York Buildings, Adelphi, London, W.C.

October 6, 1908.

## REVIEWS.

TOLSTOY.

*The Life of Tolstoy: First Fifty Years.* By Aylmer Maude. (10s. 6d. net. Constable.)

Mr. Maude has special qualifications for writing a biography of Tolstoy: he has lived in Russia for twenty-three years; he has known Tolstoy well for several years, having visited him frequently in Moscow and stayed with him repeatedly at Yásnaya Polyána (Bright Glade); he has to a certain extent acted in co-operation with him; and he has studied his works with a more than friendly enthusiasm, which, however, has not blunted his critical faculty. He thus disposes his readers to anticipate a reasonably full and accurate statement of the facts of Tolstoy's life and an instructive estimate of the bearing of these facts, mental as well as external. This is all the more important, inasmuch as "so many people are interested in Tolstoy and so few seem to understand him."

Tolstoy is "descended on his father's side, and still more on his mother's, from aristocratic families who were more or less in passive opposition to the Government, and who shared the humanitarian sympathies current in the early years of the reign of Alexander I." He was born in 1828 at Yásnaya Polyána, an ancestral estate near Toula. His childhood was singularly happy: he himself, notwithstanding his sensitive introspective nature, speaks of "that splendid, innocent, joyful, poetic period of childhood, up to fourteen." In 1841 the family removed to Kazán, where Tolstoy studied at the University from 1844 to 1847. On matriculation his knowledge seems to have been unequal: of history "I knew nothing," he says, and of geography "still less; I was asked to name the French seaports, but I could not name one." At the end of the first year he failed in his examinations, not altogether, it appears, from his own fault. "Ivanóv, Professor of Russian History, prevented me from passing to the second course (though I had not missed a single lecture and knew Russian history quite well) because he had quarrelled with my family. The same professor also gave the lowest mark—a 'one'—for German, though I knew the language incomparably better than any student in our division." The gay life of Kazán society, however, had something to do with his failure to take his degree.

In the spring of 1847, Tolstoy returned to his estate of Yásnaya Polyána "to 'perfect' himself, to study, to manage his estate, and to improve the condition of his serfs." Next year he went to St. Petersburg and passed a couple of University examinations, but got deeply into debt, and proposed to "enter the Horse-guards as a Junker" (volunteer cadet). However, he spent the next three years partly at Yásnaya and partly in Moscow—"among the wildest and most wasted years of his life," with penitence and self-reproach interspersed. In 1851, he went to the Caucasus, where his eldest brother Nicholas was an artillery officer. Here he did a considerable amount of fighting and of writing. In 1854, he at length received the order allowing him to pass the examination (then a mere formality) entitling him to become an officer, and presently he joined the Russian army in the Crimea. The first of his three sketches of the siege of Sevastopol happened to have been read in proof by the Emperor Alexander II., who gave instructions to "take care of the life of that young man"; and so he was removed from Sevastopol to the command of a mountain platoon at Belbék some fourteen miles off. Towards the end of the war he was sent home with despatches, but his hopes of promotion from sub-lieutenant were dashed by a suspicion that he was the author of some popular soldiers' songs that scarcely pleased the authorities. His "experience of how war is recorded produced in him that supreme contempt for detailed military histories which he so often expressed in later years." He left the army in 1856. He married in 1862. Occasional travel, constant literary work, and social philanthropy fill out the rest of the period.

The important thing, however, is the mental and moral vicissitudes of the great writer and industrious thinker. Mr. Maude deals fully with the genesis, progress, and character of Tolstoy's numerous writings up to his fiftieth year, and tells us a great deal about his literary friends and associates. The moral aspect is a complex problem, and can be dealt with only in detail: the autobiographical sketches are not to be taken without some grains of salt, which Mr. Maude is careful to supply. If a general expression must be attempted, perhaps nothing could be said better than this:

In later times, when Tolstoy's reputation was world-wide, critics often

amused themselves by pointing out inconsistencies in his conduct and questioning his sincerity. But the proof of his sincerity is writ large in the story of his life. Time after time, from the earliest pages of his diary, we find him vehemently resolving never more to do certain things, but always to do other things, and again and again confessing, in the greatest tribulation, that he had failed to carry out his intentions; yet, in spite of everything, he returns, and again returns, to his earliest ideals, and gradually shapes his life into accord with them, and eventually forms habits which, when he first extolled them, appeared utterly beyond his reach. Not insincerity, but impetuosity, retrieved by extraordinary tenacity of purpose, has always characterized him. It is the same with his thirst for knowledge as with his yet deeper thirst after righteousness. Often as he was swayed by the lures of life, each of those two great desires found its satisfaction at last.

And, again: "A knowledge of the social surroundings in which Tolstoy grew up is essential to a due understanding of the doctrines he subsequently taught."

It was because he grew up in a detached and irresponsible position that the state of his own mind and soul was to him so much more important than the immediate effect of his conduct on others, and the same cause led him to remain in ignorance of lessons every intelligent man of business among us learns of necessity.

His independent position made easier the formation of that state of mind free from intellectual prejudice which enabled him later on to examine the claims of the Church, of the Bible, of the economists, of governments, and the most firmly established manners and customs of society, untrammelled by the fear of shocking or hurting other people, though all the time his feelings were so sensitive that it has never been possible for him to doubt or question the goodness of those lines of conduct which he had admired and approved when in childhood he saw them practised by those near and dear to him.

Contrasting his moral attitude with that of a young Englishman anxious to do right in our day, I should say that Tolstoy had no adequate sense of being a responsible member of a complex community with the opinions and wishes of which it is necessary to reckon. On the contrary, his tendency was to recognize, with extraordinary vividness, a personal duty revealed by the working of his own conscience and intellect, apart from any systematic study of the social state of which he was a member.

He thus came to see things in a way we do not see them, while he remained blind to some things with which we are quite familiar.

There is great truth in this analysis, and it suggests much that is to be taken into account in estimating Tolstoy's teaching.

Mr. Maude devotes a special chapter to the Yásno-Polyána School. Tolstoy had already described his experiences. Mr. Maude's summary is this:

One of the profoundest convictions impressed on Tolstoy's mind by his educational experiments was that the peasants and their children have a large share of artistic capacity, and that art is immensely important because of its humanizing effect on them and because it arouses and trains their faculties. Unfortunately, the works—literary, poetic, dramatic, pictorial, and plastic—now produced are being produced expressly for people of leisure, wealth, and a special, artificial training, and are therefore useless to the people. This deflection of art from the service of the masses, of whom there are millions, to the delectation of the classes, of whom there are but thousands, appears to him to be a great evil.

The whole work is most interesting. Mr. Maude has worked laboriously and sincerely and with pronounced success. There are eight illustrations, six of them containing portraits of Tolstoy at different periods.

#### EDUCATION IN MATHEMATICS.

*A Study of Mathematical Education.* By Benchara Branford, M.A. (4s. 6d. Clarendon Press.)

Long experience in the work of training both students and teachers, an enthusiastic love of the profession of teaching, and an earnest desire to forward the cause of efficient education, all contribute to fit the writer for the production of this treatise. To some considerable extent the volume is developed from notes for lectures on the subject, and this probably accounts for a tendency to repeat the same statements and for a rather disconnected style. Some of the root principles which the writer wishes to inculcate are very generally admitted; others, perhaps, have not hitherto been much advocated. Thus, for instance, there are few now who fail to see the advantage of teaching the various branches of mathematics included in a school course in such a manner that each may lend its aid to the study of the others. On the other hand, possibly only the few have devoted attention to the following question: How far does the ideal mathematical development of the individual reflect the mathematical progress of the world generally in the march of ages? It seems rational to accept Mr. Branford's view that the history

of mathematics, if fully recorded and closely studied, would show development along natural lines and that the teacher of mathematics would be enabled to derive from this source inspiration for his own work in training the individual. The author advocates with much wisdom the theory that, if we would attain substantial success in the education of the young in mathematics, we should study the mathematical equipment with which the individual child first enters the schoolroom and should graft the subsequent teaching on that. Such a course would prevent the school from appearing an absolutely new world, and would, moreover, obviate the evil due to constantly recurring discontinuity in school and home life and experience. One observes with pleasure the instruction to teachers to *educate* in the true sense of the word. The power of an able teacher to derive from his class the elements of such knowledge as he wishes to mould into a compact whole and to cause to lie in the minds of his pupils, as it already lies in his own, is truly great; the influence of the teaching which proceeds along these lines is really lasting. Mr. Branford brings out in clear relief the stages by which the mind of the average child arrives at the full comprehension of any mathematical truth. The phases of absence of knowledge, of the reception of vague impressions, of incomplete grasp of the truth, and of full conviction pass gradually from one into the other, and it is disastrous to hurry unduly the successive stages.

Much that is likely to be very suggestive to teachers, whether beginners or not in the practice of the profession, is contained in the various chapters which describe more or less in detail lessons either actually given by the author or given by others in his presence. One very interesting section records a geometry lesson as given to a class of blind children. Another specially suggestive chapter contains an autobiographical account of the training in mental arithmetic of the well known calculator and engineer Bidder. A very salutary note of caution is struck with reference to the recent reform movement in the teaching of mathematics. In the interests of progress it was necessary to break away from the old system, but there is at present a danger of going to the other extreme and of making mathematical teaching too arbitrary in its character. Hence in the future it may very possibly be deemed advisable to construct a general fundamental, but sufficiently elastic, scheme of development embracing elementary mathematics generally. Students of the science of education in general and of the science of mathematical education in particular will do well to follow closely the arguments of the author of the present work.

#### A "PRIZE" NOVEL.

*The Woman and the Sword.* By Rupert Lorraine. (6s. Fisher Unwin.)

The latest addition to Mr. Fisher Unwin's "The First Novel Library" may fairly take rank with the best of the interesting series, which now numbers fifteen volumes. It is not to be expected that an author already tolerably well known should enter into competition even for a hundred-guinea prize; but the system does offer an excellent opportunity for the debut of a fresh aspirant, and a whale may upon occasion sail in among the minnows. Mr. Rupert Lorraine is perhaps not a practised story-teller; but he has read up the period of his heroine's adventures, and he depicts them with not a little graphic force. "The woman" of the story, though spirited in difficulties, which she incurs with astonishing thoughtlessness, exercises but little power of attraction. The essential interest centres in "the sword," and specially in the doings of "a war-worn soldier of fortune, whose blade had been at the service of half the captains in Europe" in the days of Wallenstein and Gustavus Adolphus. True, he had just retired from military service after twenty years of the tented field; but the vagaries of the heroine (as we must call the lady) took him back to the Continent, and led him through certain adventures among more or less disorganized bands in the neighbourhood of Nordhausen. We thus obtain some glimpses of the shocking state of the country resulting from long years of demoralizing warfare. The private element of the story involves a necessary villain, and the Count von Zinkendorf performs the part with a thoroughness without much relief. Substantially, it is a story of adventure. There is no development of character, no nice discrimination of qualities. It is a rude time, a rough scene: and the narrative, in consonance with the time and the scene, is direct and forcible, with little utilization of the obvious opportunities for contrast—for the troubles of the heroine do not serve the occasion—and with

little assistance from the resources of constructive art. A vigorous story of rough adventure, with lights on the deplorable social conditions within the range of the scenes: one cannot say more. Some unfortunate misprints, which mar an otherwise agreeable volume, should be eliminated against another edition.

## GENERAL NOTICES.

### CLASSICS.

*Vergil.* Translated by John Jackson. (3s. 6d. net. Clarendon Press.)  
A prose translation of a great poem is at best but stewed fruit, palatable enough in its way, but still a very different sort of thing from the original. Mr. Jackson has made a serious and sustained effort, thinking out the meaning with constant care, not only in the more crucial and contested passages, but throughout the poems, and expressing it in plain, vigorous, and not too ornate language. He cannot escape comparison with Prof. Mackail. We are not sure, indeed, whether he has not taken some pains to avoid Prof. Mackail's phraseology: where the one speaks of a "rustic reed," the other speaks of a "rural pipe"; where the one "wonders" the other "marvels"; and so forth. In any case, Mr. Jackson is quite independent and establishes a claim to at least complementary consideration. His translation will be very useful to students: it will not merely operate as a "crib," but it will also make them think. It is a worthy addition to the Oxford series of translations.

*Lays of Hellas.* By Charles Arthur Kelly, M.A., late Scholar of Oriol College, Oxford. (3s. 6d. net. Kegan Paul, Trench, Trübner, & Co.)

Mr. Kelly unfortunately did not live to see his lays in book form. There are six ballads on thrilling episodes of Greek history, and from thirty to forty sonnets inspired by various historical scenes of the ancient Greek world. They have all appeared at one time or other in well known periodicals, and for the present volume they have been generally revised and amended. The author's deep interest in the subjects is evident. It must be said, however, that Mr. Kelly's appreciation was stronger than his powers of expression and of dramatic conception. Some of the sonnets, indeed, furnish very good verses, and even groups of good verses; but hardly one of them escapes the marring intrusion of some strangely unpoetic turn, as if the writer could not wait for the tarrying thought or expression. Still, youthful readers will probably catch some of his enthusiasm.

*Tertullian De Baptismo.* Edited by J. M. Lupton, M.A., Assistant Master and Librarian in Marlborough College. (4s. 6d. net. Cambridge University Press.)

This treatise of Tertullian's is of special value as being the earliest extant work upon its subject and as treating the doctrine in considerable fullness. Mr. Lupton speaks justly of "the natural ability and force of the man, his training as a rhetorician, his multifarious reading, and the practice in the courts which gave sharpness and precision to his language." The introduction deals comprehensively with the main aspects of the work—historical, doctrinal, and textual. The notes are very carefully directed to really important matters, and they are both lucid and concise. Useful indexes are appended. The volume belongs to the valuable series of Cambridge Patristic Texts, and will be very welcome to Patristic students.

### MATHEMATICS.

- (1) *The Oxford Elementary Arithmetics.* Teacher's Books I. and II., 6d. each; Pupil's, I., II., and III., 2d. each. By H. A. Jamieson, M.A. (Henry Frowde and Hodder & Stoughton.) (2) *The "A. L." Methodic Arithmetic.* Books A-D, 3d. each; Answers (in single separate volume), 9d. By David Thomas. (E. J. Arnold.) (3) *Arnold's "Effective" Arithmetics.* Books I.-V., 2d. each; VI., 3d. (Edward Arnold.) (4) *Practical Arithmetic Examples.* Part I. By J. L. Martin. (6d. John Murray.)

(1) Of "The Oxford Elementary Arithmetics" we have before us specimens both of the Teacher's and the Pupil's series. The Teacher's volumes comprise the exercises which form the entire contents of those for scholars, and the former are, moreover, furnished with excellent notes for the guidance of masters and mistresses, together with useful tables and the answers to many of the exercises. Each volume covers the ground assigned for the work during a school year. The type is good, with clear script figuring, and the frequent enclosure of each digit of a number in its own square compartment is calculated to give emphasis to the principle of local value.

(2) Books A to D of the "A. L. Methodic Arithmetic" provide the earlier portions of a course the later stages of which were given in volumes recently noticed in these columns. We need but recall here the leading feature of the compilation—namely, that the left-hand pages show methods of neat working and arrangement, whilst on the right-hand are sets of questions for solution by the pupils.

(3) Arnold's "Effective Arithmetics" are in six serviceable compact Parts and are suitable for the successive standards of elementary schools. Teachers will find in them a large collection of questions for class use, graduated in difficulty and of an essentially practical character.

(4) We notice also Part I. of another excellent publication—"Practical

Arithmetic Examples." Issued by Mr. John Murray, it combines simple notes on arithmetic with a quantity of material for practice, and has been arranged with a view to the requirements of Standards V. and VI. of elementary schools. The author, Mr. J. L. Martin, has taken as the basis of his work Consterdine and Andrew's "Practica Arithmetic."

*Euclid Simplified.* By Saradaranjan Ray, M.A. (Calcutta: The City Book Society.)

The work has now reached its fourth edition, a fact that sufficiently justifies its production. Adapted in scope to the needs of Matriculation and Intermediate students, it constitutes a valuable and largely successful attempt to secure the advantages of modern ideas without removing all the old familiar landmarks. The method by which the writer has sought to blend the old and the new will meet with full appreciation, principally when the volume falls into the hands of those who recognize an undeniable element of weakness in the recent text-books on geometry considered as a whole—namely, the want of some uniformity in the scheme of development of the subject. In the present work the general sequence of Euclid is maintained, but the relative importance of the propositions is made evident, the leading ones helping to form the framework of text, whilst the minor problems and theorems occupy in general their old places, but are printed in smaller type and classed as exercises, for the solution of which hints as to standard methods are frequently given. Many important theorems are introduced at appropriate stages of the course and are accorded due prominence, but they are designated by supplementary numbers or letters and leave Euclid's references intact.

### SCIENCE.

*The Physics of Earthquake Phenomena.* By Cargill Gilston Knott, D.Sc., &c., Professor of Physics (1883-91) in the Imperial University of Japan, Lecturer in Applied Mathematics in the University of Edinburgh. With many diagrams. (14s. net. Clarendon Press.)

The volume consists of the Thomson Lectures delivered in 1905-6 at the United Free Church College in Aberdeen—probably the only systematic course ever delivered on the subject in this country. Dr. Knott was infected by the seismological enthusiasm of Prof. Milne, his colleague in the University of Tokio. "It was my good fortune," he says, "to witness the conception and growth of many of his most fruitful ideas, to see how, at every turn, he appealed to experiment to elucidate a new problem in seismology, and to note the persistent ingenuity with which he followed up an almost invisible line of research." In the present volume Dr. Knott does not attempt to deal with all even of the important aspects of seismology; he purposely limits his discussion to such phenomena as have suggested physical investigations or as, from their nature, touch closely on physical theory. He treats the subject, in fact, "not as a branch of technical geology, but as belonging to the wider domain of natural philosophy, both experimental and mathematical." He describes the more outstanding phenomena of earthquakes, gives an account of seismic surveys, examines the principles of construction of the more efficient instruments devised for obtaining a continuous record of a shock, discusses the devices for measuring surface motions, investigates the distribution and (at considerable length) the periodicity of earthquakes, considers the manner in which seismic disturbances are transmitted through the material of the earth (elasticity), and so on. The treatment is very simple and most interesting, and the volume is an able contribution to the literature of the subject.

A fourth impression (second edition) of *First Stage Steam*, by J. W. Hayward, M.Sc., A.M.I.Mech.E., Assistant Professor of Mechanical Engineering in McGill University, Montreal, issues from the University Tutorial Press (Clive, 2s.). Exposition, worked-out examples, and exercises are alike excellent. The work meets the requirements of the Board of Education Examination; and the examination papers set in 1901-07 are appended.

*An Elementary Study of Chemistry*, by William McPherson, Ph.D., Professor of Chemistry, and William E. Henderson, Ph.D., Associate Professor of Chemistry in Ohio State University, appears in a revised edition (1906), largely rewritten (6s., Ginn). It is a practical and serviceable work, clearly and fully explanatory, with plenty of exercises and ninety figures.

### ENGLISH LITERATURE.

*The Shakespeare Apocrypha:* being a Collection of Fourteen Plays which have been ascribed to Shakespeare. Edited, with Introduction, Notes, and Bibliography, by C. F. Tucker Brooke, B.Litt., Senior Demy of Magdalen College, Oxford. (3s. net. Clarendon Press.)

"The ambition of the editor has been to provide an accurate and complete text, with adequate critical and supplementary matter, of all those plays which can, without entire absurdity, be included in the 'doubtfully Shakespearian' class." Mr. Brooke cuts down "a list, as complete as seems practicable, of the uncanonical plays which have been ascribed to Shakespeare"—forty-two in number—to thirteen: "Arden of Faversham," "Lochrine," "Edward III.," "Mucedorus," "The First Part of Sir John Oldcastle," "Thomas Lord Cromwell," "The London Prodigal," "The Puritan," "A Yorkshire Tragedy," "The Merry Devil of Edmonston," "Fair Em," "The Two Noble Kinsmen," and "The Birth of Merlin." To these he adds "Sir Thomas More," a play discovered less than a century ago, but more or less probably revised at least by Shakespeare. In the introduction

he deals very fully and instructively with the history and claims of the fourteen. The text is reproduced in the original spelling, and critical notes are freely given at the foot of the page. Explanatory and other notes are appended; and there is a careful bibliography. Mr. Brooke has expended immense labour and minute care upon the text, as well as upon the investigation of the claims, of the various plays; and he has laid all Shakespearean students under a deep debt of gratitude. The Clarendon Press must also share in the recognition; for the typography, though sufficiently difficult, is remarkably accurate, and the get-up is chaste and agreeable.

*The Diary of John Evelyn.* Edited by Austin Dobson, Hon. LL.D. Edin. (3s. 6d. Macmillan. The Globe Edition.)

Evelyn's so-called "Diary" answers to its name in so far as it is a narrative of events arranged under specific dates in chronological order; but it was not, like Pepys's diary, always composed day after day on the given dates, "but must often have been 'written up' long after the incidents recorded, and sometimes when the writer's memory betrayed him, or when he inserted fresh information under a wrong heading." It is rather a book of memoirs. Though never intended for publication, it is usually written with measure and reserve, so that the psychological interest is by no means prominent. However, it presents a chronicle that extends continuously for more than sixty years, from the stormy years preceding the Commonwealth to the early period of Queen Anne—"an age," as Evelyn's epitaph characterizes it, "of extraordinary Events and Revolutions." "His position," says Dr. Dobson, "gave him access to many remarkable persons, in and out of power, and his report of such occurrences as came under his notice is scrupulously careful and straightforward. Touching at many points the multifarious life of his epoch and reflecting its varied characteristics with insight and moderation, his records have a specific value and importance which fairly entitle them to be regarded as unique." Dr. Dobson adopts Forster's text, with some corrections. He has handled freely the notes of Bray and Foster, so as to utilize them to the best advantage; and he has added a large number of illustrative and explanatory notes of his own, the result of much patient and tedious investigation. Some Letters of Evelyn's and a list of his works are appended, and there is a very full index. An admirable edition.

#### HISTORY.

*The Life of Alexander Severus.* By R. V. Nind Hopkins, B.A., late Senior Scholar of Emmanuel College, Cambridge. (4s. Cambridge University Press.)

This essay gained the Prince Consort Prize in 1906, and is now published as No. 14 of the valuable series of "Cambridge Historical Essays." The period lies in the first half of the third century: Alexander lived from A.D. 203 to 235. The ancient historians furnish a considerable amount of material for the history of Alexander's reign, though only one of them can be taken on trust; but Mr. Hopkins has diligently ransacked other sources—the Code and the Digest, coins and inscriptions—and has read widely in the literature of his subject. Alexander had a very difficult part to play, and it is to be remembered, in estimating his career, that he was still a very young statesman when he died. It is a great deal, in the circumstances, to be able to say for him that "he laboured with sincerity, if without insight, and for a brief moment he revived something of the broken majesty of Rome." Mr. Hopkins treats the reign of Alexander, as well as his personality, with breadth, insight, and competent knowledge, and thus makes a valuable as well as interesting contribution to the study of an important period of the Empire.

*An Introductory History of England.* Vol. II.: From Henry VII. to the Restoration. By C. R. L. Fletcher, Fellow of Magdalen College, Oxford. (5s. Murray.)

Readers of Mr. Fletcher's first volume will need no further persuasion to read his second volume. Though he professes to write "for boys," and does indeed write admirably for boys, there can be no doubt that the full-grown man or woman will follow his narrative with unflagging interest and with much profit. When he speaks of his "crabbed, tortuous, and elliptical English," he but perpetrates a genial libel on his pen: he writes with remarkable simplicity and vigour, and, if a pregnant Greek word slips in here and there, the reader innocent of Greek will readily get over the stile—and remember it. The history of the period is presented in masterly selection and arrangement, with a running criticism that puts life into the succession of dramatic pictures. The work rests on a solid and extensive groundwork of serious historical study, and is moulded by a vivid realization of the significance of the recorded facts. The social life of the times, as well as the political and military movements, is forcibly depicted. The dedication to Prof. Pollard is a refreshing testimony to the mutual generosity of modern workers in the same literary fields. There are three maps, a genealogical table, and an index—all very useful.

#### FOLK-SONG.

*Folk-Songs from Somerset.* Gathered and edited, with Pianoforte Accompaniment, by Cecil J. Sharp and Charles L. Marson, Vicar of Hambridge. Third and Fourth Series. (5s. each net. Simpkin & Co.)

There are twenty-five songs in each of the series, and we hope the anticipation that the field is practically exhausted has not been realized. These collections are full of interest to the lover of songs and ballads—

an interest fostered by the appended notes, which point to other forms gathered from other sources and preserved in other books. The Somerset songs, Mr. Sharp tells us, "have travelled far beyond the limits of the county in which they were recovered: they have obtained a footing in the Universities, in several of the public schools as well as in many elementary schools, and they have been heard upon the concert platform of London and of many of the chief cities of the provinces." Most deservedly—if the singers would only bear in mind Mr. Marson's caution and render them "with the utmost simplicity and directness and with close attention to time and rhythm." "To be able to compose melodies of the sweep, power, variety, and intricacy of these," says Mr. Marson, "would place any man instantly at the head of all the melodists of the world. Indeed, no one man, not even if he were a Beethoven, could compose tunes of such good general level, and at times of such surpassing excellence, as those which have been evolved or composed communally by many generations of men in the long period of the racial life." We are greatly indebted to Mr. Sharp and Mr. Marson for so much salvage of the national musical heritage and for the influence their collections have had and are having upon the laudable movement for the revival of English folk music.

*English Folk-Song: Some Conclusions.* By Cecil J. Sharp. (Simpkin & Co.)

An exhaustive treatise on English folk-song must, of course, await the recovery of the existing material by such researches as have been conducted by Mr. Sharp and Mr. Marson in Somerset and by others in a few other counties. Though the present tentative work is entitled "English" folk-song, it is, in fact, based almost entirely upon the author's experiences of Somerset, or rather, of about two-thirds of Somerset, which has yielded him between twelve and thirteen hundred tunes out of the fifteen hundred of his collection; but the probability is strong "that the distribution of folk-songs throughout the kingdom is to a large extent independent of locality." Moreover, while past attention has been given mainly to the words of the old ballads, Mr. Sharp concerns himself mainly with music. "I have recorded many of the characteristics of the folk-singer," he writes; "his manner of singing, peculiarities of intonation, his attitude towards tradition, and so forth, all of which have come under my own observation. I have also enunciated certain theories concerning the origin and nature of the folk-song that have been deduced from these observations and to which they seem to lead." All this is necessarily provisional, subject to modification by the results of extended research. The inquiry is most patiently and carefully and ably worked out, and forms a very valuable contribution to the study of the evolutionary origin of the folk-song. Mr. Sharp adopts the view of communal origin in the sense expressed by Boehme: "First of all one man sings a song and then others sing it after him, changing what they do not like."

#### ART IN THE SCHOOLROOM.

*The Scholars' Cartoons,* "a series of decorative lithographs illustrating great events and incidents of British national life, designed by eminent artists and reproduced and published with the advisory assistance of educational and artistic authorities by Franz Hanfstaengl" (16 Pall Mall East, S.W.), are intended to supply schools and scholars with "instructive and decorative pictures of indisputable artistic merit" at a moderate price. "Each series will consist of ten Prints, some of which will be original lithographs, drawn by the artists themselves on stone, and the others will be careful reproductions of original drawings, made specially for this series." The collaborators of the first series are Walter Crane, John Hassall, Gerald Moira, Leonard Campbell Taylor, Spencer Pryse, and Frank Brangwyn, A.R.A. The size will be uniform: 28½ × 21 in., the printed surface being 26½ × 19. We have two specimens: "The Arrival of Julius Caesar" and "The Defeat of the Spanish Armada," both from drawings by John Hassall. The outlines are fine, and the colouring is very successfully managed. We hope Mr. Hanfstaengl will be encouraged to carry out the full programme.

#### MISCELLANEOUS.

The first three Parts of *The Wild Beasts of the World*, by Frank Finn (1s. net each, Jack), are very attractively written and presented in spacious type, with liberal and vigorous illustration. The treatment happily combines scientific accuracy and popular expression. The complete work will consist of seventeen Parts, containing a hundred reproductions in full colours from drawings by Louis Sargent, Charles E. Swan, and Winifred Austin. It will be most interesting and instructive to young readers.

The August issue of the *Art Workers' Quarterly* was a special International Art Congress number (1s. net; 8 Clifford's Inn, Fleet Street, E.C.). The articles are of practical value and the illustrations are profuse and excellent.

The Summer number of the *Geographical Teacher* (1s. net to other than members of the Geographical Association: George Philip & Son) has been delayed till the autumn "in order to make the information about Geographical Courses at our Universities as complete as possible." This information is adequately full, and the rest of the number is well up to the usual high standard.

The thirty-first volume of the *Geographical Journal* (January–June, 1908: Stanford) is a most instructive compendium of current geographical

information and discussion, with numerous and excellent maps and illustrations.

The first volume of the *Report of the United States Commissioner of Education* for the year ending June 30, 1906, contains a vast amount of information on education and educational institutions not only in America, but throughout the civilized world. As usual, the articles are very full and well informed and the statistics are abundant and valuable.

From Messrs. Misch & Co. (Cripplegate Street, E.C.) we have some attractive specimens of coloured post-cards, the pictures being mainly of a religious significance.

We have received from Mr. A. J. Johnson, Tollington House, Coppetts Road, Muswell Hill, N., a list and samples of some two hundred lantern slides illustrating the Life and Plays of Shakespeare, the pictures being chosen from photographs and from representative pictures by well known artists. They should prove very useful by way of rendering more vivid the scenes of the dramas.

We have unfortunately overlooked Mr. Percy Lindley's sketch of *Holidays in Belgium and the Belgian Ardennes*, charmingly written and charmingly illustrated. It is said that a Highland minister, going up to the general Assembly of the Church in Edinburgh and finding himself a week or two late, sent word to his people that he would stay till next year and make sure of being in time. Holiday-makers should make a note of this little pamphlet against next year.

## CHRISTMAS BOOKS.

### HISTORICAL AND DESCRIPTIVE.

*Heroes of Modern Crusades*, by Edward Gilliat, M.A. Oxon., sometime Master at Harrow School (5s., Seeley), is a worthy addition to the admirable "Library of Romance." It consists of "true stories of the undaunted chivalry of champions of the down-trodden in many lands." There are the crusades against slavery, against brutalities of law and administration, against ignorance, drink, and oppression. Among the champions are Wilberforce and Clarkson, Abraham Lincoln, St. Vincent de Paul, John Howard, Oberlin, Romilly, Father Mathew, Lord Shaftesbury, General Gordon, Sir George Williams, Quintin Hogg, Dr. Grenfell, and Dr. Barnardo. The volume is alive with interest throughout. It does "seem strange that wrongs so terrible should need to have been righted in times so near to ours"; and it is well that the new generation should know the story of these "heroes of our modern Crusades," who had to fight so strenuous and so sustained a battle against ignorance, prejudice, and self-interest. And it is not to be forgotten that the battle is still raging. Sixteen illustrations.

*Between Two Crusades*, by Gertrude Hollis (2s. 6d., S.P.C.K.), is a tale of A.D. 1187, the events arising on the breach of the four years' treaty made between Christians and Saracens on the death of King Baldwin the Leper (1185), by Reginald of Chatillon, the Christian lord of Kerak, a fortress near the southern end of the Dead Sea, on the main caravan route from Egypt. The wrath of Saladin gives promise of keen conflict, and the promise is adequately fulfilled. Blood flows freely at the Horns of Hattin (a saddle-backed hill, "where Christ preached the Sermon on the Mount"); the castle of Tiberias falls to Saladin; and so on to the loss of the Holy Sepulchre and the downfall of the Latin kingdom of Jerusalem. There will be keen interest in following the adventures of the two youths, Henfrid de Castellan and Ralph of Kingston. Illustrations by Adolf Thiede.

*Dame Joan of Pevensey*, by the Rev. E. E. Crake (1s. 6d., S.P.C.K.), is "a Sussex tale." The sea-fight off Pevensey Haven between Sir John Pelham, the Deputy-Constable of Pevensey Castle, and the "fierce Paynims," in the year of grace 1390, was "rather a combat of demons than of men, for no one asked or gave quarter"; but the Englishmen won the day, and rescued from the hands of the pirates Sir Thomas de Lescure and his daughter, the Mistress Joan. As Sir John's son, a youth of nineteen, was prominent in the fray, the reader begins to anticipate. However, there are adventures on the Continent to follow: Sir Thomas has to rescue his chateau of "Sans Egal" from a usurper, and John Pelham has to fight a hot-blooded French chevalier. And Pevensey Castle itself needs to be defended. Mr. Crake shows no great narrative fluency, but the story is well put together, and it is full of animation and bustle. Illustrations (coloured) by Oscar Wilson.

*The Bravest Gentleman in France*, by Herbert Hayens (3s. 6d., Nelson), is a stirring tale of war and adventure in the days of Louis XIII. Louis Greville, a boy of seventeen, goes to Paris with his guardian, who is presently assassinated in the street, apparently for the possession of a green bag with papers in it—papers that play a very important part in the history of the hero. The Duke of Montmorency and Cardinal Richelieu were then at daggers drawn, and Louis's guardian was bound to the Duke by the strongest ties of gratitude and affection. Louis is thus thrown into a vortex of intrigue and conspiracy, and naturally has to fight duels, to spell out mysteries, to battle for his party, and to feel the bitterness of defeat as well as the sweetness of victory. His training by his guardian stands him in good stead in danger, and he manifests fine natural qualities in trying circumstances. Who he really was must

be discovered from that green bag. A gallant story told with great verve. Four illustrations in colour.

*The "Grey Fox" of Holland*, by Tom Bevan (2s., Nelson), is a bustling tale of adventure in Holland during the insurrection against Philip II. The date is 1576. The experiences of Simon Renard and Dirk Dirckzoon will be followed with sustained interest through plots and counter-plots and fighting on sea and on land; and the general movement, with the social conditions of the time and region, is sketched with a vigorous hand. Readers that remember "Beggars of the Sea" and "Red Dickon the Outlaw" will be glad to meet Mr. Bevan again. Two illustrations in colour.

"Peeps at Many Lands" is the general name of an attractive and instructive series of volumes published by Messrs. A. & C. Black. The most considerable of them is *The World*, from the fertile and engaging pen of Ascott R. Hope, who takes us round our own country first, and then conducts us through the other countries of the world, pointing out to us the more distinctive characteristics of the peoples, and telling us things of interest from their history. By the time we have finished our tour, we get a capital general notion of the various countries and their peoples, and we feel that we have picked up our information in an extremely easy and agreeable way. Mr. Hope is always good company, and knows how to instruct without seeming to want to indoctrinate. This should be a favourite volume. Thirteen full-page illustrations in colour.—Two of the smaller volumes are: *England*, by John Finemore; and *Siam*, by Ernest Young, B.Sc., Head Master of the Lower School of John Lyon, Harrow, and formerly of the Education Department, Siam. Both are well written, and full of interest; and each has 12 full-page illustrations in colour. The series conveys much useful information in agreeable fashion, and ought to be very popular.

*The Pageant of British History*, described by J. Edward Parrott, M.A., LL.D., and depicted by more than a score of our most eminent artists in thirty-two illustrations in colour and thirty-two more in black and white, makes a very handsome volume. In spacious type and in pictorial binding. Outstanding events are selected for narration, not in historical detail, but on broad lines, and with a certain elevation of manner—after the fashion of a pageant. The reader will gain a general impression of the story as it passes in picturesque grouping under his eyes. Young people will read it with avidity. Messrs. Nelson are the publishers.

### TALES OF ADVENTURE.

*The Galleon of Torbay*, by E. E. Speight (6s., Chatto & Windus), announces itself as "a romance telling how some Western men and women, Virginia bound, were lost for three hundred years, how a Devon boy found their old city beyond the lagoons and led the folk from havoc, how a brown maiden fell in love with him in the heart of danger and followed him through the unknown mountains, and how a Yorkshire cricketer harboured them in Mexico; with many another adventure, into which is woven a span of the wild girlhood of the Moon-wind." Here is material of promise for lively pages, and the promise is fully satisfied. The "blend of cricket and woodcraft" brings the adventurers through strange tangles of difficulty and danger; the grit of Devonshire and Yorkshire is justly glorified; and the mystery of the Mani people, who had migrated three hundred years before, under the pressure of Spanish outrage, from the volcanic region of Central America to a new home "that lieth between the hidden channels and the untraversed mountains," on the borders of Yucatan and Guatemala, is astonishingly unveiled. Mr. Speight writes in slightly quaint style and with great delicacy of feeling.

*Adventures among Wild Beasts*, by H. W. G. Hyrst (5s., Seeley), is a collection of "romantic incidents and perils of travel, sport, and exploration throughout the world." The stories mostly fall within the first sixty years of the last century, for wild beasts are not so plentiful now as they were in the time of our grandfathers: civilization is not good for them. The encounters between the hunter and the quarry "display the marvellous instinct of the animal not less than the courage and resource of the man." The interest, accordingly, is most varied and instructive. Mr. Hyrst finds his examples among beasts of all sorts in all parts of the world—bears, reindeer, walrus, elephants, tapirs, yaks, peccaries, wild cats, &c. The stories are effectively told, in their characteristic settings. Twenty-four illustrations.

*Fire, Snow, and Water*, by Edward S. Ellis (2s. 6d., Cassell), depicts striking aspects of "Life in the Lone Land" through a series of incidents that are supposed to have occurred a short time before the surrender of its territorial rights by the Hudson Bay Company. The adventures of Brinton Warren (son of one of the directors of the Company) and Fred Newton will be followed with tense interest. The burning of their ship is only a beginning; buffaloes, wolves, musk oxen, Athabasca "zephyrs," "the malignant Chippewyan," and so forth, furnish materials of abundant natural and human concern. A French Canadian, who comes early on the scene, plays an important part in the developments right down to the end. The story moves briskly, and it is simple, natural, and instructive. Four illustrations.

*Rolf the Rebel*, by Bessie Marchant (2s., S.P.C.K.), is the story of the son of a baronet, who went out to the West Indies for his health, grew heartily sick of the sleepy aristocratic life of Havana, and fought as a rebel insurgent in Cuba. The insurgent chief, Ycabo Baneza and

his fortunes probably attract as much interest as the hairbreadth escapes of Rolf. The scenes are varied and picturesque, and the incidents are developed naturally and briskly. Three coloured illustrations by W. S. Stacey.

#### ROMANCE OF SCIENCE.

*Astronomy of To-day*, by Cecil G. Dolmege, M.A., LL.D., D.C.L. (5s. net, Seeley), is a popular introduction to the science in non-technical language. Dr. Dolmege attempts "to take the main facts and theories of astronomy out of those mathematical forms which repel the general reader, and to present them in the ordinary language of our workaday world." To the general reader, then, he makes the whole exposition perfectly plain and simple and presents the phenomena in a very attractive form. He avails himself of all the historical interest of discovery and of successive speculation, and at the same time gives the most recent views on questions of difficulty. The volume is most instructive. Twenty-four illustrations and twenty diagrams.

In *Scientific Ideas of To-Day* Mr. Charles R. Gibson offers a popular account of the nature of matter, electricity, light, heat, &c., in non-technical language (5s. net, Seeley). The subjects are technically treated under the title of "Physics"—formerly of "Natural Philosophy"—a title not attractive to everybody; but everybody ought to know something about such common phenomena, and Mr. Gibson avoids technicalities and uses language that is within the reach of all readers: "his explanations demand no previous knowledge of science whatever, and no acquaintance with mathematics." He has essayed a very difficult task, but he succeeds in conveying in the simplest possible manner a great deal of information about modern scientific ideas, and the charm of the volume will no doubt lead many of his readers to further inquiries. Those who have read his previous volumes on similar lines will not need any recommendation to take up the present one. "Men of science do not stumble over discoveries by mere chance; there is always a chain of facts leading up to each discovery." And Mr. Gibson takes care to utilize the historical and personal interest attending discoveries in the scientific subjects that he deals with. A very interesting and stimulating work. Forty-two illustrations and diagrams.

*The Romance of Modern Geology*, by E. S. Grew, M.A. (5s., Seeley), "describes in simple but exact language the making of the earth, with some account of prehistoric animal life." How the earth took its shape; the effects of weather, rivers, the sea upon its history; the operation of cold and ice on the earth and of fire within it; the formation of the planet and its stages of growth, with the vicissitudes of earthquake, &c.; the development of life and the succession of more and more efficient brains—these are but a few points in a most comprehensive, well considered, and interesting history. The exposition is very simple and lucid, so that there is no need of any preliminary technical knowledge in order to understand it, and every page is instructive as well as absorbing. The volume is an admirable addition to "The Library of Romance." Twenty-five illustrations.

*The Romance of Bird Life*, by John Lea, M.A. (5s., Seeley), belongs to the same excellent series. It is "an account of the education, courtship, sport and play, journeys, fishing, fighting, piracy, domestic and social habits, instinct, strange friendships, and other interesting aspects of the life of birds." Here is a medley rivaling the contents of a haggis. Under appropriate headings Mr. Lea groups an extraordinary amount of observation, industriously gathered from the most diverse quarters and effectively pieced together. The interest is continuous, and the array of facts impresses the reader. The volume deserves to be widely circulated. Twenty-six illustrations.

*Denizens of the Deep*, by F. Martin Duncan, F.R.P.S. (3s. 6d., Cassell), treats of the plants and the more common animals to be found at the seaside, with an introductory chapter of hints on collecting and photographing. It is essentially, but not severely, descriptive, and there are sixty-three illustrations from original photographs by the author, effectively reproduced. The volume would be an instructive companion to an enterprising boy let loose on the beach to explore the seaweeds and to hunt for crabs "and things."

*Trees Shown to the Children*, by Janet Harvey Kelman, in thirty-two coloured plates and described by C. E. Smith (2s. 6d. net, Jack), is the sixth volume of a charming and instructive series. The pictures are carefully drawn and deftly coloured. The descriptions are simple and clear, with the added interest of historical and social lore that has grown about many of the trees.

#### FAIRY TALES.

*Grimm's Fairy Tales* are always to the front at Christmas, and very rightly so. Here is a bright edition by J. R. Monsell, who also embellishes the volume with a dozen colour plates of lively fancy, to say nothing of numerous illustrations. The boy that gets this book will be a "Hans in luck." (3s. 6d. Cassell.)

*The Book of Princes and Princesses*, by Mrs. Lang, edited by Andrew Lang, is a charming addition to the long series of magic volumes issuing from the same partnership. The stories are all true stories: Mr. Lang makes this open avowal, although he knows well that there is a decided reluctance to read true stories; only, as nobody is obliged to read this bookful of true stories, everybody will read them, for it is the obliga-

(Continued on page 494.)

# OXFORD UNIVERSITY PRESS.

## THE OXFORD GEOGRAPHIES.

By A. J. HERBERTSON, M.A., Ph.D., Reader in Geography in the University of Oxford.

### *The Preliminary Geography.*

Second Edition, 160 pages, with 72 Maps and Diagrams. 1s. 6d.  
*Preparatory Schools Review*.—"Where a class-book of geography is first introduced, this should be the book. There is nothing else so good."

### *The Junior Geography.*

Second Edition, 288 pages, with 166 Maps and Diagrams. 2s.  
*School World*.—"Is good everywhere. The sketch maps are most interesting and most instructive."

### *The Senior Geography.*

Second Edition, 370 pages, with 117 Maps and Diagrams. 2s. 6d.  
*School World*.—"The relation of cause and effect is continually insisted upon, and the lesson driven home by the frequent insertion of educative maps and plans and cross-sections."

## THE RENAISSANCE AND THE REFORMATION.

A Text-Book of European History, 1494-1610. By EMMELINE M. TANNER, History Mistress at Sherborne School for Girls. With Maps. 3s. 6d. [Immediately.]

## OXFORD TREASURY OF ENGLISH LITERATURE.

By G. E. HADOW, Tutor in English Literature, Lady Margaret Hall, Oxford; and W. H. HADOW, Fellow of Worcester College, Oxford. Three Vols. 3s. 6d. each.

### Vol. III—Jacobean to Victorian.

*Guardian*.—"It would be difficult to name a more complete work of its kind even in the matter of selections, while the literary criticism is illuminating and original."

Previously Published.

Vol. I—Old English to Jacobean. Second Edition.

Vol. II—Growth of the Drama. Second Edition.

## VIRGIL.

Translated by JOHN JACKSON. Extra fcap, 8vo, 3s. 6d. net; on Oxford India paper, 4s. 6d. net. [Oxford Library of Translations.]

## SCOTT'S WOODSTOCK; or, The Cavalier.

Edited, with Introduction, Notes, and Glossary, by J. S. C. BRIDGE, New College, Oxford. 2s.

## SCOTT'S ROB ROY.

Edited, with Introduction and Notes, by B. S. RAIT, New College, Oxford. With 44 Illustrations. 2s.

## A BOOK OF VERSE FOR BOYS AND GIRLS.

Compiled by J. C. SMITH. Part I, paper, 3d.; cloth, 4d. Part II, paper, 6d.; cloth, 8d. Part III, paper, 1s.; cloth, 1s. 3d. Parts I-III, cloth, 2s. In leather bindings, from 3s. 6d. Second Impression.

## DEUTSCHES REFORMLESEBUCH.

Enthaltend dreissig Erzählungen aus der deutschen Geschichte, mit Fragen für Sprechübungen, mit grammatischen Übungen und einem deutschen Wörterverzeichnis. Herausgegeben von D. LL. SAVORY, Dozenten an der Universität, London, Goldsmiths' C. lege, früherer Oberlehrer am Marlborough College, und z. z. Lektor an der Universität Marburg. Mit Abbildungen. With 15 full-page and numerous other Illustrations. Price 2s. 6d.

## TROIS SEMAINES EN FRANCE.

An Illustrated Reader in the Direct Method, with Questions for Conversation and Grammatical Exercises. By D. LL. SAVORY, French Lecturer at Goldsmiths' College, University of London; and L. CHOUVILLE, B. es L., Assistant Master at the Perse School, Cambridge. Second Edition. 2s.  
*The Journal of Education*.—"The narrative is simple and natural. . . . The questionnaire provides a searching test."

## SCENES FROM THE LIFE OF HANNIBAL.

SELECTIONS FROM LIVY. Edited, with Historical Introduction, Notes, Maps, Vocabularies, and English Exercises. By W. D. LOWE. Fcap, 8vo, 1s. 6d.

## SCHOOL ALGEBRA.

By W. E. PATERSON, Trinity College, Cambridge; Mathematical Master, Mercers' School; formerly Mathematical Master, Christ College, Brecon; and Assistant Mathematical Lecturer, Owens College, Manchester. Part I. (now ready). With Answers, 3s. Without Answers, 2s. 6d.

Select List of Educational Works, List of Books set for various Examinations, and Complete Catalogue (144 pages) post free.

London: HENRY FROWDE, Oxford University Press, Amen Corner, E.C.

tion that causes the reluctance. There are fourteen stories, admirably told; and the volume is beautifully got up, with eight coloured plates and numerous illustrations by H. J. Ford (6s. Longmans.)

*Fairy Tales from South Africa*, collected from original native sources and arranged by Mrs. E. J. Bourhill and Mrs. J. B. Drake, with illustrations by W. Herbert Holloway, are very welcome varieties. Most of them were told by Swazis, others by Zulus, others by tribes on the Portuguese border and by the Mapoch Kafirs. It is not so very easy to get hold of such stories: "You see, the Kafirs are afraid white people would laugh at them, and so they will only begin if they are quite sure you are really interested." We are quite sure that readers of this collection will be really interested; we are not so sure, though, that they will not laugh over them. (3s. 6d. Macmillan.)

#### OLD FAVOURITES IN NEW DRESS.

Messrs. Duckworth issue a popular edition of three famous books by the late Richard Jefferies, in liberal type and in tasteful get-up. (1) *After London, or Wild England*, a weirdly imaginative forecast of a relapse into barbarism, with glints of future recovery. (2) *Amoryllis at the Fair*, with an introduction by Edward Garnett. This work, says Mr. Garnett, "is one of the truest criticisms of human life you are likely to meet with. The song of the wind and the roar of London unite and mingle therein for those who do not bring the exacting eye of superiority to this most human book." (3) *Bevis, the Story of a Boy*, with an introduction by E. V. Lucas. This is the *Bevis* of "Wood Magic," but still a boy, yet "so much older as to be able to sail a boat, make a real gun, and shoot an otter." As a book for boys, says Mr. Lucas, "*Bevis*, I think, stands alone in its blend of joy in the open air, sympathetic understanding of boy nature, and most admirable writing." The book was first published a quarter of a century ago in three volumes; a few years later it was issued in one volume with pictures, but abridged: Messrs. Duckworth here and now give its first real chance of popularity with boys. We heartily echo Mr. Lucas's wish: "May it be very successful!" (3s. 6d. each.)

Messrs. Macmillan are issuing a new "Shilling Edition" of the best works of some of the most popular writers of English fiction. We have Kingsley's *Westward Ho!* and Mrs. Craik's *The Head of the Family*—both beautifully printed, furnished with frontispieces and decorated title-pages, and strongly and chastely bound (1s. net each). It needs no prophet to foretell that this series will prove a conspicuous success.

#### STORIES FOR GIRLS.

A spirited and charming story is *That Girl*, by Ethel Turner (6s., Fisher Unwin). The scene is laid at Sydney. Captain Curtis, having come into an unexpected fortune, retires from seafaring and settles on a hillside near the town; but his happiness is incomplete because the owner of the land between him and the shore, Mrs. Henderson, will not sell it to him at any price—just because he is Captain Curtis. On his last voyage Mr. and Mrs. Henderson, with their little daughter, had been marooned by him because the daughter had caught smallpox. The daughter died, and so did her nurse, who had previously bargained that in case of her death Mr. Henderson should suitably maintain her daughter, Marie Neil, to the age of eighteen. Hence Mrs. Henderson's implacable enmity. She builds a row of villas between the Captain and the sea, but the children of the place naturally mix, and the life-lines of the orphan and ill-used Marie get intertwined with those of the hillside family. The story is deftly and naturally worked out, not without the aid of dramatic entertainments, which have important bearings on the future of the heroine and of the bright and manly son of the Captain. Twenty-five pretty illustrations by Frances Ewan.

In *Margery Redford and her Friends* (5s. net, Chatto & Windus) Mrs. M. H. Spielmann illustrates the operations of the observant and analytical intellect of a "little Miss Sherlock Holmes." If a haystack is burned down, a necklace of pearls missing, a pet dog stolen, an examination paper cribbed, and so forth, the culprit is as good as lost the moment she starts upon his tracks. In the last turn of all the position is reversed, and somebody divines a little secret of her own. The episodes are strung together in a natural way, and each of them is developed in a simple and dramatic manner, which young readers will find entertaining and perhaps suggestively instructive. Sixteen illustrations by Gordon Browne, R.I.

#### FOR THE CHILDREN.

Messrs. Blackie are, as usual, very liberal benefactors of the young folk this Christmas. We have backed *Blackie's Children's Annual* (3s. 6d.) from its first appearance; and this year it has several full-page plates more than ever before, so that now over fifty of the pictures (that is, a third of the whole) are printed in colour. Both the authors and the artists have proved their knack of pleasing the children. The "Annual" is now in its fifth year and thriving amazingly. Besides, there are picture books, in great variety, to suit all purses. The *Three Jovial Puppies*, by J. A. Shepherd, rhymes by E. D. Cuming (6s. net), is a spacious book with vigorous pictures illustrating humorous adventures. In the *Fairy Ring*, written and illustrated by Florence Harrison (6s. net), is also of ample proportions and daintily executed, within and without, with a pretty fancy and a delicate taste. *Peggy's Travels*, pictured by Alice M. Cook and written by Walter Cook (3s. 6d.), has sixteen full-

page coloured plates and sixty illustrations in black and white, and shows how Peggy took afternoon tea with little Japs, visited the Great Wall of China, drew water from a well in Egypt, feasted on bananas in the South Sea Islands, and so forth. It will be instructive as well as amusing to accompany her. *Dutchie Doings*, pictured by Ethel Parkinson and rhymed by Walter Chapman (3s. 6d.), has twenty-four full-page coloured drawings and tells, in picture and in verse, how a little Dutch town girl and her country cousins visit each other and have strange adventures in farmyard and market-place, and on and even in the canals—a cheery and charming volume. *Some Kiddies*, by Ruth A. Hobson (2s. 6d.), contains a delightful series of twelve pictures in full colour and over twenty vignettes in two colours, and the thoughts of the "Kiddies" are expressed in simple and pretty verses. Then there are Nature pictures and stories and verses. *Tales and Talks in Nature's Garden*, by Mrs. Alice Talwin Morris (3s. 6d.), has over thirty pages in full colour and a great many black-and-white illustrations by Gordon Browne, R.I., while the "tales and talks" are simple and sensible, dealing in a natural way with common objects and scenes. *The Rabbit's Day in Town* (1s. 6d.) is an extravaganza, humorously illustrated in twenty-two full-page pictures in full colour by Walter Corbould, and explained in couplets by E. H. Procter, the music for the verses being very simple. *Out of Doors*, by Mrs. Alice Talwin Morris (1s.), is a good specimen of the "Nature-Story Picture Books," containing over thirty full-page drawings, with smaller illustrations, the cover and some twenty pages being in colour. The stories are bright and attractive. *Gulliver's Travels*, retold by Agnes Crozier Herbertson and illustrated in great spirit by John Hassall, R.I. (1s.), is sure to be a grand favourite. There are some sixty illustrations, about a third of them in bright colours. In the charming sixpenny series of "Animal Picture Books," we have *The Pussycat Hunt*, "a most exciting run"; *Naughty Little Jumbos*, with wondrous trunks and humours; and *Fin at the Seaside*, including croquet and golf and a crab-race, the performers being animals. Each book contains both coloured and black-and-white illustrations, and they are all brightly got up.

Messrs. Nelson also offer some delightful books for the children. *The Menagerie Book* (2s. 6d.) pictures in graphic style and in deft colouring the more important animals, as well as the visitors to the show; and the showman makes a characteristic speech in explanation. Directions are given how to cut out and arrange parts so as to obtain a more vivid representation. A handsome and elaborate contrivance, which the young folk will appreciate. Then there is *The Little Robinson Crusoes*, "or Donald and Betty's Adventures on an Uninhabited Island," narrated cleverly by Harold Avery, and skilfully illustrated by fifty-two pictures, a goodly number of them full-page and in colours, by Harry Rountree (2s. 6d.). Most splendid of all is *Alice's Adventures in Wonderland*, with ninety-two coloured illustrations, many of them full-page, by Harry Rountree. The volume is spaciously printed and handsomely got up, and it will be a long delight to the fortunate possessor.

Messrs. Caswell provide their usual varied and agreeable literary entertainment for the children at the Christmas season. There is *Bo-Peep*, a veritable "treasury for the little ones," with appropriate stories both in prose and in verse, and a profusion of illustrations in all the colours of the rainbow (2s. 6d.). There is *Tiny Tits*, a favourite "magazine for very little folks," with attractive little stories in very simple language, and with abundance of speaking illustrations (1s. 4d.). Then there are some new-comers: *Stories for All* (1s.); *Out-of-School Tales* (1s.); *The Transformations of the Truefitts*, by S. H. Hamer—all of them generously printed and illustrated, as well as amusing.

Messrs. Macmillan issue charming editions of *The Rose and the Ring* (Thackeray), with the author's numerous and humorous illustrations, and *Through the Looking Glass* (Lewis Carroll), with fifty illustrations by John Tenniel (1s. net each). The type is excellent and the form is convenient.

Messrs. Jack have added to their delightful "Told to the Children" series *Stories of Beowulf*, admirably told by H. E. Marshall, with eight weird pictures by J. R. Skelton. A new volume of their similar "Stories from History" series is *Stories of the Vikings*, deftly told by Mary Macgregor, and illustrated with eight pictures in colour by Monro S. Orr.

Messrs. Chatto & Windus present *Yesterday's Children*, charmingly illustrated by Millicent Sowerby in many full-page coloured pictures, to say nothing of pretty head-pieces and tail-pieces, and written in descriptive verses of uncommon merit by Githa Sowerby. Among "yesterday's children" are the Spartan, the first doll, the nun, fairies, the May Queen, the jester, the sampler, mermaids, the Sphinx, &c. A clever and engaging collection.

*The Children's Aeneid*, "told from Virgil in simple language," by the Rev. Alfred J. Church, M.A. (5s., Seeley), is sure to be a first favourite with the children that are fortunate enough to have it placed in their hands. The story is retold in simple and charming form, and with a keen eye for effect, the point of each episode standing out clear. Students of the original will be interested to read the narrative in this fresh and pointed presentation; and so, it may be hoped, will the general reader innocent of Latin. Twelve illustrations deftly drawn and coloured.

#### VARIOUS.

*The Peace of the Church* and a dozen other short stories "for Sunday evenings," by Mary H. Debenham (2s. 6d., National Society), are based on facts or episodes of church history in Anglo-Saxon, medieval, and



# CLERGY MUTUAL ASSURANCE SOCIETY,

2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

[FOUNDED 1829.]

Patrons—THE ARCHBISHOP OF CANTERBURY; THE ARCHBISHOP OF YORK.  
 President—THE BISHOP OF LONDON. Vice-President—THE LORD HARRIS.  
 Chairman—THE DEAN OF CANTERBURY. Deputy-Chairman—SIR PAGET BOWMAN, BART.  
 Secretary—W. N. NEALE, Esq. Actuary and Manager—FRANK B. WYATT, Esq., F.I.A.

The Society offers the **BENEFITS** of **MUTUAL LIFE ASSURANCE** without personal liability on highly favourable terms to  
**THE CLERGY AND THEIR RELATIVES.**

**ALL PROFITS BELONG TO THE MEMBERS.**  
**Accumulated Fund, £4,242,820. Annual Income, £453,897.**  
**Bonuses Distributed, £4,256,464.**

**LOW PREMIUMS. LARGE BONUSES.** Notwithstanding the lowness of the Premiums charged, the **BONUSES** are on an **EXCEPTIONALLY HIGH SCALE.**  
**NEW AND SPECIAL POLICIES.** Application is invited for the **PROSPECTUS**, and Leaflets explaining two new Policies, with valuable Options.

**1. WHOLE-LIFE CONVERTIBLE ASSURANCES.** Very Low Premium—about one half the usual rate—during first ten years.

**2. PENSION POLICIES.** Premiums returnable with compound interest in case of death or surrender before pension age. Option to commute for cash.

Assurances without profits, at low rates of premium, may be effected, and Life Annuities on favourable terms may be purchased, by any person irrespective of any special qualification by relationship to the Clergy.

**SPECIMEN OF RATES FOR £1,000, WITH PROFITS.**

Age next Birthday.	£1,000 Payable at Death.			£1,000 Payable at Age 60 or earlier Death.		
	£.	s.	d.	£.	s.	d.
25	20	1	8	27	3	4
30	23	3	4	32	10	10
35	26	10	0	40	1	8
40	31	1	8	51	5	0

NOTE.—Under the Reduced Premium System (explained in Prospectus) four-fifths only of these Premiums need be paid, the other one-fifth remaining a charge to be repaid out of Bonus.

No Agents employed and no Commission paid for the introduction of business, whereby £10,000 a year is saved to the Members.

Assurances can be effected by direct communication with the Office, 2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

modern times. They are pleasantly written, as are all the stories in the long list of Miss Debenham's works. Four illustrations.

*The Red Light*, by C. E. C. Weigall (2s. 6d., Cassell), tells its story with vigour and directness, and in excellent tone. The contrast of rich and poor runs throughout, with interesting turns of the wheel of fortune, which brings things right in the long run. The style, too, is markedly good. An unpretentious, but excellent, story. Four illustrations by Malcolm Patterson.

*The Mystery of the Squire's Pew* and five short stories, by Katherine E. Vernham (1s. 6d., National Society), make attractive reading. They show considerable dramatic force in construction and characterization, and a breezy freshness in the dialogue. Two illustrations.

*Hearty Gray*, by William Webster (1s. 6d., S.P.C.K.), is "a tale of the East Coast"—of the fishing town of Veringham. "Hearty" (christened David) was a fine young fisherman, partner with his widowed father; and Letty, an orphan niece of the husband of a married sister of Hearty's, kept house for the two. Besides, there is Maggie, a young neighbour. Moreover, Granny dies, leaving £300, in three bags; and, when the depository is searched, there are only two bags, and Hearty has the key, given to him by Granny. So Hearty is in a compound pickle and has to be got out of it somehow. A plain story, with many a true touch of human interest. Three coloured illustrations.

*His Father's Son*, by G. R. Wynne, D.D. (1s., S.P.C.K.), is a tale of childhood in the main, concerned with the activities of Perry Walton from eight onwards—making dams and water-wheels, handling guns, revolvers, and rifles, and having varied adventures more or less exciting, his father pronouncing him "a chip of the old block." Eventually he goes through a twelvemonth of the South African War and meets his fate—not at the hands of the enemy, but from the eyes of a cousin who nurses him through an illness. The childish adventures contain the main interest of the story. Frontispiece and diagram.

*Robin of Sun Court*, by Eleonora H. Stooke (1s., National Society), is a very charming story of a "ragged Robin" brought up in "one of the worst slums of Plymouth," with a good mother and a weak, drunken step-father. There are good people in the mean street as well as bad. The tone is excellent and the style good.

*Guy's Ordeal*, by H. Elrington (1s., S.P.C.K.), narrates somewhat crudely the adventures of the son of a poor clergyman who was sent on holiday to Clevedon Farm, where he was received as a boy that had been advertised for and set to menial labour, the occupant of the farm to whom he had been sent having removed to Clevedon Manor and been careless enough to date his invitation simply Clevedon.

## FIRST GLANCES.

### EDUCATION.

Board of Education.—(1) Memorandum giving outline of the successive Legislative and Administrative Conditions affecting the relation of the Board of Education to Agricultural Education in England and Wales, with Appendixes giving information as to the Parliamentary Grants available for Agricultural Education. 2½d. (2) Syllabus of Qualifications required for (i.) the Art Class Teacher's Certificate, (ii.) the Art Master's Certificates. 1d. (3) Circular 597: Student Teachers. (4) Syllabus for the Preliminary Examination for the Elementary School Teachers' Certificate, 1909. (5) Prospectus of the Royal College of Art, London, 1908-9. 3d. Wyman.

Chile, Republica de. *Anales de la Universidad, Año 65°, Marzo-Diciembre de 1907; Año 66°, Enero i Febrero de 1908.* Santiago de Chile: Imprenta Cervantes.

[Articles varied and able.]

L.C.C.—The Organization of Education in London. 3d. King.

London Matriculation Directory. No. 50, September, 1908. With articles on Text-books. 1s. University Tutorial Press.

London Town, Past and Present. By W. W. Hutchings. Part I. 7d. net. Cassell.

[New work, profusely illustrated; to be completed in 26 fortnightly parts.]

London University Guide and University Correspondence College Calendar, 1909. University Correspondence College.

[Contains the Regulations for Examinations in 1909 and 1910, with much pertinent information and suggestion, as well as the programme of the University Correspondence College.]

Moral Education, Papers on, communicated to the First International Moral Education Congress. Edited by Gustav Spiller. 5s. Nutt. Shorthand, The Oxford (Dover); 19th edition. 6d.

### MISCELLANEOUS.

Industrial Peace and Industrial Efficiency: Proposals submitted by Sir Christopher Furness, M.P., to a Conference of Trades Union Representatives at West Hartlepool (October 7).

Tutonish: an International Union Language, under a Liberal Anglo-Saxon Leadership. By Elias Molee, Ph.B. 1s. net. Kegan Paul, Trench, Trübner, & Co.

**MATHEMATICS.**

**16504.** (S. G. SOAL.)—Given the ratio ( $k$ ) of the two interior diagonals AC, BD of a cyclic quadrilateral (ABCD), and the distance ( $l$ ) between their middle points, express in terms of ( $k$ ) and ( $l$ ) the length of the exterior diagonal (FG).

*Solution by R. F. DAVIS, M.A.*

Let AB, DC intersect in E; DA, CB in F. Denote AB, BC, CD, DA, AC, BD, CE, BE, AF, BF by  $a, b, c, d, p, q, x, y, u, v$  respectively.

Then  $x : y = u : v = p : q = k : 1$ ,

where  $k$  is given. By a well known theorem,

$$EF^2 = x(x+c) + u(u+d).$$

But  $x(x+c) = y(y+a)$  or  $k(x+c) = x/k+a$ .

$$x = (kc-a)/(1/k-k); \quad x+c = (c/k-a)/(1/k-k);$$

$$x(x+c) = \{c^2+a^2-(k+1/k)ac\}/(1/k-k)^2.$$

Similarly,  $u(u+d) = \{b^2+d^2-(k+1/k)bd\}/(1/k-k)^2.$

Hence  $(1/k-k)^2 \cdot EF^2 = a^2+b^2+c^2+d^2-(k+1/k)pq$ , since  $ac+bd = pq = -(p^2+q^2) = 4l^2.$

**16490.** (Professor NANSON.)—Find the condition that the three involutions determined by three pairs of points on the same base may have one focus in common.

*Solution by M. T. NARANIENGAR, M.A.*

Let  $(aa')(BB')(CC')$  denote the distances of the three pairs of points from a certain origin. Then, if  $f$  denote the distance of the common focus from the same origin, we have

$$f^2 \{ (a+a') - (b+b') \} - 2f(aa' - BB') + aa' (b+b') - BB' (a+a') = 0 \dots (1),$$

and two other similar equations.

The condition required is therefore the condition that the three quadratics in  $f$  should have one root common.

By varying the position of the origin the condition may be expressed in the following simple form:  $-xyz + a^2x + b^2y + c^2z = 0$ , where  $a, b, c$  are the semi-lengths of AA', BB', CC', and  $x, y, z$  are the distances between their middle points taken analytically.

**16460.** (Professor E. B. ESCOTT.)—To find prime numbers  $p$  such that  $(p^2-1)^2$  shall have three or more divisors of the form  $px+1$  where  $x$  is less than  $p$ . Are there any values of  $p$  for which there are four divisors other than the following?—

$p = 29,$	$x = 1, 6, 11, 27,$
$p = 71.$	$x = 1, 9, 19, 69,$
$p = 239,$	$x = 1, 16, 41, 237,$
$p = 3191,$	$x = 1, 57, 666, 3189,$
$p = 60761,$	$x = 1, 47, 1559, 60759,$
$p = 2370059,$	$x = 1, 1540, 17821, 2370057,$
$p = 6679639,$	$x = 1, 2585, 35531, 6679637.$

*Solution by the PROPOSER.*

It is evident that, if  $px+1$  is a factor of  $(p^2-1)^2$ , the remaining factor is of the form  $py+1$ . Putting  $(p^2-1)^2 = (px+1)(py+1)$  and expanding, we have  $p^3-2p = pxy+x+y \dots (1).$

Let  $x+y = pz$ . Substituting for  $y$  in the equation (1), we have  $z = (p^2+x^2-2)/(px+1) \dots (2).$

In (2)  $p$  and  $x$  may be interchanged without affecting  $z$ .

If (2) be considered as an equation in  $x$ , we have  $x_1+x_2 = pz$  and  $x_2 = pz-x_1$ .

Since  $p$  and  $x$  may be interchanged, we may put

$$x_1' = p, \quad p' = pz-x_1.$$

Similarly,  $x_2' = p'z-p = (pz-x_1)z-p$ ;

and, as before,  $x_1'' = p', \quad p'' = p'z-p.$

We see, then, that in the recurring series

$$P_n : x_1, p_1, p_1 z - x_1, \dots \dots \dots (3),$$

where the scale of recurrence is  $P_{n+2} = zP_{n+1} - P_n$ , any two consecutive terms will give values for  $x$  and  $p$ , where  $(x_1, p_1)$  is any solution of (1).

We have for every value of  $p$  the evident solutions  $x = 1$  and  $x = p-2$ ,  $z = p-1$  and  $z = 2$ . So for every prime  $p$  in the series

$$P_n : 1, x, x^2-x-1, x^3-2x^2-x+1, \dots \dots \dots (4),$$

where the recurrence formula is  $P_{n+2} = (x-1)P_{n+1} - P_n$ , the number  $(x^2-1)^2$  has three divisors.

*Examples.*—  $x = 3$  |  $P_n : 1, 3, 5, 7, 9, 11, \dots$   
 $4$  |  $1, 4, 11, 29, 76, 199, \dots$   
 $5$  |  $1, 5, 19, 71, 265, \dots$   
 $\vdots$  |  $\vdots$

If any numbers occur in two series (excepting the first series), the corresponding value of  $(p^2-1)^2$  will have four divisors. Some of these may be found by equating two of the terms of (4).

Let  $x^3-2x^2-x+1 = y^2-y-1 \dots \dots \dots (5)$

or  $4x^3-8x^2-4x+9 = (2y-1)^2 \dots \dots \dots (6);$

then we find only the following solutions of (6):—

$$x = 1, 2, 4, 5, 7, 40, 134, 189;$$

$$y = 1, 1, 6, 9, 16, 247, 1540, 2585;$$

$$y^2-y-1 = -1, -1, 29, 71, 239, 60761, 2370059, 6679639.$$

If we put  $x^5-4x^4+2x^3+5x^2-2x-1 = y^2-y-1$

or  $4x^5-16x^4+8x^3+20x^2-8x+1 = (2y-1)^2 \dots \dots \dots (7),$

we find only the solutions:

$$x = 1, 2, 3, 6;$$

$$y = 2, 1, 4, 57;$$

$$y^2-y-1 = 1, -1, 11, 3191.$$

We have then the seven values of  $p$  given in the question.

**16445.** (Professor NANSON.)—Salmon has shown that the locus of the focus of a parabola described about a triangle is an octavic, but Hudson has shown (*Reprint*, New Series, Vol. XI., p. 108) that the locus is a quintic. Reconcile these results.

*On the more general Proposition of the Locus of the Foci of Parabolas satisfying three Conditions.*

By T. J. I'A. BROMWICH.

[Extracted from *The Messenger of Mathematics*, New Series, No. 439, November, 1907, and reprinted by kind permission.]

In Salmon's *Conic Sections* (6th Edition, p. 390) there is a curious oversight in applying the theory of characteristics to the problem stated above.

In general, if a system of conics satisfies four conditions, the locus of the intersection of tangents to the system drawn from two fixed points A, B is a curve of degree  $3\nu$ , and the points A, B are multiple points of order  $\nu$  on the curve; where  $\nu$  is the number of conics of the system which can be drawn to touch a given line.

But if one of the prescribed four conditions is to touch AB, then (as proved by Salmon) any line through A cuts the locus in only  $\nu$  points (instead of  $2\nu$ ) distinct from A; and Salmon infers that the locus is then of degree  $2\nu$ , assuming that A, B are still  $\nu$ -fold points on the locus.

But the assumption in italics seems to be untrue; in fact, to find the branches of the locus which pass through A, we must consider the conics of the system which touch AB at B. It will be seen that each of these gives a branch passing through A. Thus if there are  $\lambda$  conics which touch AB at B, the point A will be a  $\lambda$ -fold point on the locus.

Hence, assuming that A, B have no special relation to the remaining three conditions which specify the system of conics, we find the result: *The locus of the intersection of tangents from A, B, to a system of conics which touch AB and satisfy three other conditions, is a curve of degree  $(\lambda + \nu)$  and the points A, B are  $\lambda$ -fold points on the locus.*

It is perhaps worth while to tabulate the values of  $\lambda, \nu$  in the simpler cases corresponding to the various forms of the conditions:—

(1) 3 points,	$\lambda = 1, \nu = 4.$
(2) 2 points, 1 line	$\lambda = 2, \nu = 4.$
(3) 2 lines, 1 point	$\lambda = 2, \nu = 2.$
(4) 3 lines,	$\lambda = 1, \nu = 1.$

Of course case (4) gives the well known elementary proposition that the locus of the focus of a parabola touching 3 lines is a circle.

In these four cases  $\lambda$  is equal to the smaller of  $\mu$  and  $\nu$ , where  $\mu$  denotes the number of conics of the system which pass through a given point. But  $\lambda$  is not always obtained by this rule, as may be seen by considering the parabolas which pass through two points and touch a fixed line at one of these points; then  $\lambda = 1, \mu = 2, \nu = 2$ .

My attention was directed to this locus by a problem proposed by Mr. R. F. Davis in *The Educational Times*, asking for a discussion of the locus of the focus of a parabola passing through three fixed points. Now here  $\nu$  is 4, and so Salmon's result gives a curve of degree 8, with quadruple points at the circular points. But from the solutions given by Mr. Youngman and Professor W. H. Hudson (*Educational Times Reprint*, Vol. XI., pp. 84, 103) for certain special cases of the problem, it appears that the locus is of degree 5, without singularity at the circular points. This, of course, agrees with the synthetic solution given above in case (1).

By elementary analysis it is not hard to express the co-ordinates of the focus in the form

$$x = f(t)/h(t), \quad y = g(t)/h(t),$$

where  $f, g, h$  are of the fifth degree in  $t$ . Thus the locus is unicursal;

but a determination of its Cartesian equation is not easy. On the other hand, if  $\rho_1, \rho_2, \rho_3$  are the distances of the focus from the fixed points A, B, C, it is not difficult to see that

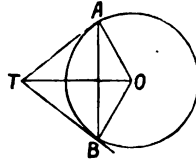
$$a^2\rho_1^2 + b^2\rho_2^2 + c^2\rho_3^2 - 2bc\rho_2\rho_3 \cos A - 2ca\rho_3\rho_1 \cos B - 2ab\rho_1\rho_2 \cos C = 4a^2$$

using the ordinary notation. This is found by expressing the fact that  $\rho_1, \rho_2, \rho_3$  are equal to the distances of A, B, C from some line (the directrix). When  $a = b$ , and  $C = \frac{1}{2}\pi$ , this equation reduces at once to the Cartesian equation given by Professor Hudson.

**16481.** (W. F. BEARD, M.A.)—Two conics S, S' cut one another in A, B, C, D: the pole of AB, with regard to S, lies on S'. Prove that the pole of CD with regard to S also lies on S'.

*Additional solution by G. G. MORRICE, M.D.*

Project C, D into the focoids. The pole of CD, with regard to S, is then the centre of the circle S; and we only have to prove that the circum-circle S' of the triangle formed by AB and its pole passes through the centre O of S.



**16488.** (Professor S. SIRCOM.)—Give a general description of the cubic surface :—

$$x^3 + (z - y - 1)x^2 - 2(3yz - 8)x + (z + y - 1)(4z^2 - 4yz + 3y^2 - 16z + 8y + 16) = 0,$$

and determine its real right lines.

*Solution by W. H. BLYTHE, M.A.*

Write  $z + 2$  for  $z$ . Then

$$x^3 + (z - y + 1)x^2 - 2x(3yz + 6y - 8) + (z + y + 1)(4z^2 - 4zy + 3y^2) = 0.$$

When  $x = 0$  we have one real straight line in the plane  $z + y + 1 = 0$  and two imaginary straight lines, having the origin as one real point.

Any plane of the form  $x = k(z + y + 1)$  will cut the surface in the straight line  $x = 0, z + y + 1 = 0$  and in a conic.

The projection of this conic (orthogonal) upon the plane  $x = 0$  will be

$$(k^3 + k^2 + 4)z^2 + 2yz(k^3 - 3k - 2) + (k^3 - k^2 + 3)y^2 + 2z(k^3 + k^2) + 2y(k^3 - 6k) + k^3 + k^2 + 16k = 0.$$

The condition for a parabola is

$$5k^4 + 11k^3 - 10k^2 - 12k + 8 = 0.$$

Roots approximately  $\cdot 79, \cdot 7, -1\cdot 13, -2\cdot 52$ .

The condition for straight lines

$$k(71k^4 + 223k^3 - 140k^2 - 328k + 128) = 0.$$

Roots approximately  $1\cdot 12, \cdot 38, -1\cdot 37$  and  $-3\cdot 22$ , and 0.

The form of the equation

$$x[4z^2 + (y + 5)^2 - 41] = (x + y + z + 1)[(2z - y)^2 + y^2 + (x - y)^2]$$

is worth notice.

Giving different values to  $k$ , and tracing the curves in each section, we find the shape of the surface.

Suppose the surface to be seen from a point in the straight line  $x = 0, y - z = 0$  at a considerable distance from the origin. We find one infinite sheet upon which lie three real straight lines. These three straight lines lie in the plane  $x + 1\cdot 4(y + z + 1) = 0, 1\cdot 4$  being an approximate value. We also find a second sheet composed of two infinite hyperbolic portions. The position of these may be indicated by the section  $x - \cdot 75(y + z + 1) = 0$ , the projection of which upon the plane  $x = 0$  is a straight line, together with the hyperbola

$$319z^2 - 490yz + 183y^2 + 9100 = 0$$

transferred to the centre  $z = -32, y = -39$ .

In the following description denote the infinite sheet by A. The portion of the second sheet that lies behind the plane of the picture and high up to the right by B, and the remaining portion of the second sheet that lies in front of the plane of the picture and low down to the left by C.

We note that B and C taken together appear somewhat like the hyperboloid of revolution  $504(X^2 + Y^2) - 2Z^2 + 9100 = 0$ , taking rectangular co-ordinates at the centre of the hyperboloid, the axis of revolution being approximately

$$x = \cdot 75(y + z + 1), 4z - 3y = -17.$$

To trace section by section—

- I.  $k = 1\cdot 12$ . The conic represents two imaginary straight lines; the plane touches B.
- II.  $k = 1$ . An ellipse cut from B, which rapidly changes to
- III.  $k = \cdot 79$ , which is a parabola also cut from B.
- IV.  $k = \cdot 75$ . A hyperbola cut from B and C.
- V.  $k = \cdot 7$ . We again have a parabola cut from B; the sections now become ellipses cut from B.

- VI.  $k = \cdot 39$ . The ellipse has diminished to a point; the plane again touches B in two imaginary straight lines. The revolving plane now does not meet the surface except in the straight line  $x = 0, z + y + 1 = 0$ .
- VII.  $k = 0$ . Again we have two imaginary straight lines. In this, and all following sections, the revolving plane cuts or touches A.
- VIII.  $k = -\cdot 333$ . An ellipse touching  $x = 0, z + y + 1 = 0$ .
- IX.  $k = -1$ . An ellipse  $4z^2 + (y + 5)^2 - 41 = 0$ .
- X.  $k = -1\cdot 13$ . A parabola.
- XI.  $k = -1\cdot 3$ . A hyperbola.
- XII.  $k = -1\cdot 4$ . Two straight lines.
- XIII.  $k = -1\cdot 5$ . The hyperbola takes the conjugate form.
- XIV.  $k = -2\cdot 52$ . A parabola.
- XV.  $k = -3$ . An ellipse.
- XVI.  $k = -3\cdot 22$ . Two imaginary straight lines; the plane touches the surface at a point. The conic is imaginary from  $k = -3\cdot 22$  to  $-\infty$  and from  $\infty$  to  $1\cdot 12$ .

**5966.** (ELIZABETH BLACKWOOD.)—Find the average area of the circle that passes through three points taken at random on the surface of a sphere.

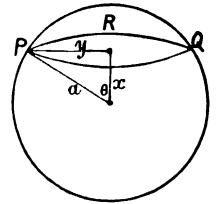
*Solution by R. CHARTRES.*

Area of circle PQR =  $\pi y^2$ . Number of cases =  $4\pi x^2$ .

$$M = \int_0^{\pi} (\pi y^2) 4\pi x^2 dx \div 3\pi a^3 = \frac{4}{3}\pi a^2.$$

Generally, the mean of the  $n$ th power of the area

$$\begin{aligned} &= \int_0^{\pi} (\pi y^2)^n 4\pi x^2 dx \div 3\pi a^3 \\ &= 6\pi^n a^{2n} \int_0^{\frac{1}{2}\pi} \sin^{2n} \theta \cos^2 \theta \sin \theta d\theta \\ &= \frac{6\pi^n a^{2n}}{2n+3} \int_0^{\frac{1}{2}\pi} \sin^{2n+1} \theta d\theta. \end{aligned}$$



**16479** (i.) (W. J. GREENSTREET, M.A.)—Solve  $\Sigma(b-c)x = 0; \Sigma(b^2-c^2)yz = 0; \Sigma(b-c)yz + \Sigma a(b^2-c^2) = 0$ .

*Solutions* (I.) by D. M. KELKAR, B.A., L.T.; (II.) by A. M. NESBITT, M.A.; (III.) by C. M. ROSS.

(I.) From the equations

$$(b-c) + (c-a) + (a-b) = 0, (b-c)x + (c-a)y + (a-b)z = 0$$

we get, by cross multiplication,

$$(y-z)/(b-c) = (z-x)/(c-a) = (x-y)/(a-b) = k \text{ (suppose);}$$

therefore  $y-z = k(b-c), z-x = k(c-a), x-y = k(a-b)$  ..... (1).

Similarly, from  $\Sigma(b^2-c^2)yz = 0$  and  $\Sigma(b^2-c^2) = 0$ , we get

$$x(y-z)/(b^2-c^2) = y(z-x)/(c^2-a^2) = z(x-y)/(a^2-b^2);$$

therefore, from (1),

$$kx/(b+c) = ky/(c+a) = kz/(a+b) = l \text{ (say);}$$

therefore  $x = l(b+c)/k, y = l(c+a)/k, z = l(a+b)/k$  ..... (2).

Substituting these values in  $\Sigma(b-c)yz = -\Sigma a(b^2-c^2)$ , we get

$$(l^2/k^2) \Sigma(b-c)(a+b)(a+c) = -\Sigma a(b^2-c^2),$$

i.e.,  $-(l^2/k^2)(a-b)(b-c)(c-a) = -(a-b)(b-c)(c-a)$ ;

therefore

$$l/k = \pm 1.$$

Hence, from (2),  $x = \pm(b+c); y = \pm(c+a); z = \pm(a+b)$ .

(II.) If we put  $x = \lambda a + \mu, y = \lambda b + \mu, z = \lambda c + \mu$  (an assumption which the first equation entitles us to make), the second yields

$$\lambda^2 \Sigma bc(b^2-c^2) + \lambda \mu \Sigma(b+c)(b^2-c^2) + \mu^2 \Sigma(b^2-c^2) = 0,$$

or, dividing by  $\Pi(b-c), \lambda^2 \Sigma a + \lambda \mu = 0$ . Now  $\lambda$  is not zero, from the third equation; so that  $\lambda \Sigma a + \mu = 0$ . This third one yields  $\lambda^2 \Sigma bc(b-c) = \Pi(b-c)$  or  $\lambda^2 = 1$ , whence  $x = \pm(a-\Sigma a) = \pm(b+c), y = \pm c, z = \pm c$ , the signs being all positive or all negative.

[Rest in Reprint.]

*Sur les Erreurs de Racines des Nombres approchés.*

By Professor E. HERNÁNDEZ.

Soient  $a + \epsilon$  et  $a - \epsilon$  des valeurs approchés par excès et par défaut du nombre exact  $a$ .

L'erreur absolue de la racine  $m$ -ième, est

$$\begin{aligned} &\sqrt[m]{(a+\epsilon)} - \sqrt[m]{a} \\ &= \frac{\epsilon}{\sqrt[m]{(a+\epsilon)^{m-1}} + \sqrt[m]{(a+\epsilon)^{m-2}}\sqrt[m]{a} + \dots + \sqrt[m]{(a+\epsilon)}\sqrt[m]{a^{m-2}} + \sqrt[m]{a^{m-1}}} \end{aligned}$$

dans le premier cas, et

$$\sqrt[m]{a} - \sqrt[m]{a-a} = \frac{a}{\sqrt[m]{a^{m-1}} + \sqrt[m]{a^{m-2}}\sqrt[m]{a-a} + \dots + \sqrt[m]{a}\sqrt[m]{(a-a)^{m-2}} + \sqrt[m]{(a-a)^{m-1}}}$$

dans le second.

On déduit facilement que

$$\sqrt[m]{a+a} - \sqrt[m]{a} < \frac{a}{m\sqrt[m]{(a+a)^{m-1}}} \text{ et } \sqrt[m]{a} - \sqrt[m]{a-a} < \frac{a}{m\sqrt[m]{(a-a)^{m-1}}}$$

Les erreurs relatifs correspondants auront pour expressions

$$\frac{\sqrt[m]{a+a} - \sqrt[m]{a}}{\sqrt[m]{a+a}} < \frac{a}{ma} \text{ et } \frac{\sqrt[m]{a} - \sqrt[m]{a-a}}{\sqrt[m]{a}} < \frac{a}{m\sqrt[m]{a}\sqrt[m]{(a-a)^{m-1}}}$$

Mais on a évidemment

$$\frac{a}{m\sqrt[m]{a}\sqrt[m]{(a-a)^{m-1}}} < m \frac{a}{(a-a)} = \frac{a}{ma} \left(1 + \frac{a}{a-a}\right)$$

On voit qu'en tout rigueur, on peut dire que l'erreur relatif de la racine est plus petit que la  $m$ -ième partie de l'erreur relatif du nombre proposé, seulement quand celui-ci est approché par excès. Dans le cas où le nombre est approché par défaut, tout ce qu'on peut dire, c'est que l'erreur relatif de la racine  $m$ -ième est plus petit que  $2a/ma$ .

16477. (The late R. W. D. CHRISTIE.)—Prove that an infinite number of solutions can be obtained from

$$3^2 + a^2 = b^2$$

e.g. 3, 4, 5; 3,  $\frac{5}{4}$ ,  $\frac{13}{4}$ ; 3,  $\frac{7}{8}$ ,  $\frac{25}{8}$ ; &c., ad inf.

Solutions (I.) by SARADAKANTA GANGULI, M.A., and others;  
(II.) by Professor SANJANA, M.A., and M. T. NARANIENGAR, M.A.

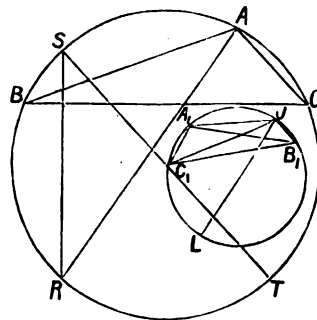
(I.) The equation  $(3n)^2 + x^2 = y^2$ , where  $n$  is any integer, can be solved in integers by the rule of Plato, or by the rule of Pythagoras, according as  $n$  is even or odd. If  $i$  and  $l$  be the values of  $x$  and  $y$  respectively corresponding to a particular value of  $n$ , a solution of the equation in question will be  $3, i/n, l/n$ . Since an infinite number of integral values can be given to  $n$ , an infinite number of solutions can be obtained from the given equation.

(II.) As  $b^2 - a^2 = 9$ , we may put  $b+a = 9, \frac{1}{2}.9, \frac{1}{3}.9, \frac{1}{4}.9, \dots, 2.9, 3.9, 4.9, \dots$ ; then  $b-a = 1, 2, 3, 4, \dots, \frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \dots$ . Solve the simple equations and the given results will be obtained.

Generalization of some Brocard Theorems.

By W. GALLATLY, M.A.

Describe a circle on any straight line JL as diameter. Draw JA<sub>1</sub>, JB<sub>1</sub>, JC<sub>1</sub> parallel to BC, CA, AB. Draw AR parallel to JL, and RS perpendicular to BC, so that S is the pole of the Simson line parallel to JL. Let ST be the diameter through S, so that SRT = 90°, TR is parallel to BC, and arc RB = arc TC.



(1) A<sub>1</sub>B<sub>1</sub>C<sub>1</sub> is inversely similar to ABC.

For, JB<sub>1</sub> being parallel to CA, and JC<sub>1</sub> to AB, it follows that

$$B_1A_1C_1 = B_1JC_1 = A.$$

(2) The figure ASBTC is similar to AJB<sub>1</sub>LC<sub>1</sub>.

Since JC<sub>1</sub> is parallel to AB<sub>1</sub> and JL to AR, therefore

$$LJC_1 = RAB = TSC,$$

from equal arcs BR, TC. So LJ B<sub>1</sub> = TSB. Therefore L and T are homologous points in the two figures; so also are the diametrically opposite points J and S.

(3) SA, SB, SC are respectively parallel to B<sub>1</sub>C<sub>1</sub>, C<sub>1</sub>A<sub>1</sub>, A<sub>1</sub>B<sub>1</sub>.

For SBA = JB<sub>1</sub>A<sub>1</sub>, from similar figures = JC<sub>1</sub>A<sub>1</sub>. But JC<sub>1</sub> is parallel to AB. Therefore SB is parallel to A<sub>1</sub>C<sub>1</sub>.

(4) If  $\alpha, \beta, \gamma$  be the coordinates of J for A<sub>1</sub>B<sub>1</sub>C<sub>1</sub>, then

$$a \cdot JL = JB_1 \cdot JC_1;$$

therefore

$$\alpha : \beta : \gamma = 1/JA_1 : 1/JB_1 : 1/JC_1.$$

Hence, by similar figures, the coordinates of S with regard to ABC are as  $1/JA_1, 1/JB_1, 1/JC_1$ . Similarly, the coordinates of T are as  $1/LA_1, 1/LB_1, 1/LC_1$ .

It will be noted that the position of S depends solely on the direction of JL, and therefore S may be fitly called the "Simson Point" for the direction JL.

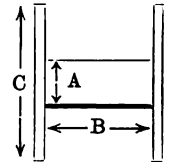
As examples examine the circles on OI, OH, as well as the Brocard circle on OK.

The relations between the two figures being reciprocal, the Simson line of J for A<sub>1</sub>B<sub>1</sub>C<sub>1</sub> is parallel to ST.

QUESTIONS FOR SOLUTION.

16529. (M. T. NARANIENGAR, M.A.)—A luminous point is placed within a triangle whose sides reflect. Prove that the successive images formed by reflection in the sides in a definite order will lie on one of three definite pairs of parallel straight lines. Find the conditions that there may be an infinite number of images.

16530. (Communicated by W. G. RANDALL.)—A quantity of cable has to be packed on a drum, the size of the flange C varying, but the width B and diameter A of the hub being constant. Draw a graph to give the following information:—The size of flange and number of layers of cable corresponding to any length of cable of any over-all diameter which has to be packed.



16531. ("λ. μ.")—Has the equation  $y^2 = 4x^4 - 40x^2 - 8x^2 + 60x + 9$  any solutions, integral or fractional, other than  $x = 0, y = \pm 3; x = 1, y = \pm 5; x = 1\frac{1}{2}, y = \pm 7\frac{1}{2}$ ?

16532. (T. STUART, D Sc.)—Find the lowest integral values of  $\theta, \phi, \psi$ , satisfying the equation  $(\theta^2 - \phi, \psi^2)/(\phi^2 - \theta, \psi^2) = \text{a square}$ .

[NOTE.—This equation is closely connected with the celebrated Eulerian equation  $X^4 + Y^4 = U^4 + V^4$ .

16533. (W. J. GREENSTREET, M.A.)—In an examination the candidates must get  $x$  marks on the first of the four papers set. The maximum number obtainable on each paper is  $y$ , and the minimum for a pass is  $z$ . In how many ways can a candidate just get his  $y$  marks for a pass?

16534. (JAMES BLAIRIE, M.A.)—A rectangular parallelepiped has its length and breadth each equal to twice its height. Show that it can be cut into five parts which can be arranged so as to form a polyhedron bounded by six square and eight hexagonal faces. Also show that such polyhedra can be placed together so as to fill space.

16535. (Professor SANJANA, M.A.)—Two right circular cylindrical surfaces are placed with their axes in the same plane. The radii of their circular sections being equal and the axes being inclined to each other at a given angle, find the volume enclosed by the surfaces.

16536. (Professor MORLEY.)—Six points in space determine a cubic curve R<sup>3</sup> and a Weddle surface W. Let (at)<sup>6</sup> be the binary sextic determining the 6 points on R<sup>2</sup>, and observe that any binary sextic S, expressible as the sum of two-sixth powers, determines by its two cubic factors two points of space. Prove that, if S be apolar to (at)<sup>6</sup>, the two points lie on W.

16537. (Professor NANSON.)—A chord of a conic passes through a fixed point. Show that the normals at its extremities meet on a unicursal cubic. Show, also, that the cubic breaks up into a conic and a straight line when the point is on an axis of, or at an infinite distance from a tangent to, the given conic. Show further that the two conics cannot coincide unless the given conic is a parabola and that they do then coincide for a particular position of the point.

16538. (SARADAKANTA GANGULI, M.A.)—The reciprocal polar of the evolute of the ellipse  $x^2/a^2 + y^2/b^2 = 1$  with respect to the circle described on the distance between the foci as diameter is  $a^2/x^2 + b^2/y^2 = 1$ . Also trace this curve.

16539. (Professor NEUBERG.)—De tout point M(x, y) d'une courbe donnée C on déduit un point M<sub>1</sub>(x<sub>1</sub>, y<sub>1</sub>) d'une nouvelle courbe C<sub>1</sub> au moyen des formules

$$x_1 = ax/y + b, x_1^2 + y_1^2 = c/y + e.$$

La tangente en M à C et le normale en M<sub>1</sub> à C<sub>1</sub> rencontrent respectivement l'axe Ox ou Oy en des points T et N<sub>1</sub> tels que le produit OT.ON<sub>1</sub> a une valeur constante.

16540. (W. F. BEARD, M.A.)—Prove geometrically that the latus rectum of the parabola, which has closest contact with an ellipse at any point, varies inversely as the cube of the diameter through the point.

16541. (W. AUSTIN SLEIGH, B.A. Suggested by Question 15977.)—If O, L, M be the centres of the circles SPS', GCg, GCl, prove that the sum of the squares of the radii of these last two is half the sum of the squares of OG, Og.

16542. (V. RAMASWAMI AIYAR, M.A.)—Given a harmonic pentagon H. On a given base AB, and on the same side of it, five harmonic pentagons A, B, C<sub>i</sub>, D<sub>i</sub>, E<sub>i</sub> [i = 1, 2, 3, 4, 5] are described directly similar to H. Prove (1) that the five points C<sub>i</sub> lie on a circle X<sub>c</sub>, and form the vertices of a harmonic pentagon H<sub>c</sub>, directly similar to H; in like manner, the five points D<sub>i</sub> lie on a circle X<sub>d</sub> and form the vertices of a harmonic pentagon H<sub>d</sub> directly similar to H, &c.; (2) that if

ABCDE be a variable harmonic pentagon, described on AB on the side in question, with Brocard angle equal to that of H, the loci of the vertices C, D, and E are the circles  $X_c$ ,  $X_d$ , and  $X_e$ ; (3) that if C', D', E' be inner limiting points of the circles  $X_c$ ,  $X_d$ ,  $X_e$  respectively and the line AB, then ABC'D'E' is a regular pentagon; and (4) that the circles  $X_c$ ,  $X_d$ ,  $X_e$  are all touched by a pair of circles passing through A and B. [The theorems are stated for a pentagon; but similar theorems hold when H is a harmonic polygon of any number of sides. Have these extensions of properties connected with the Neuberg circle of a triangle (corresponding to one of the sides taken as the base) been given?—PROPOSER.]

16543. (A. M. NESBITT, M.A.)—EF is a common tangent to two circles, ADDE and ADCF. CDB is drawn parallel to EF, and G is the harmonic conjugate of D with respect to BC. If the circles GDA and EDF cut in H, prove that DH is perpendicular to BC.

16544. (C. E. YOUNGMAN, M.A.)—Across two given circles B, C, through the point A common to both, draw that chord PAQ which makes the area PBCQ maximum.

16545. (S. NARAYANAN, B.A., L.T.)—Prove that the nine-point centre of a triangle is equidistant from the middle points of the joins of any point in a side with the corresponding vertex and the ortho-centre.

16546. (C. M. ROSS.)—If  
 $\cot^{-1}(a+x) + \cot^{-1}(a+y) + \cot^{-1}(a+z) = \cot^{-1}a$ ,  
 $\cot^{-1}(b+x) + \cot^{-1}(b+y) + \cot^{-1}(b+z) = \cot^{-1}b$ ,  
 $\cot^{-1}(c+x) + \cot^{-1}(c+y) + \cot^{-1}(c+z) = \cot^{-1}c$ ;  
 $a, b, c$  being unequal quantities the above equations are not consistent unless  $bc+ca+ab=1$ .

OLD QUESTIONS AS YET UNSOLVED (IN OUR COLUMNS).

10525. (Professor WOLSTENHOLME, M.A., Sc.D.)—The pedal of the parabola  $y^2 = 4ax$  is taken with regard to the point (X, Y): prove (1) that the three inflexions of the pedal lie on the straight line

$$x(3a+X) - yY + X(a-X) = 0;$$

also (2) that if from each inflexion P be drawn a straight line Pp touching the pedal in p, a conic can be drawn touching the pedal in the three points p, and this conic will touch the nodal tangents.

10585. (J. J. BARNIVILLE.)—The asymptotes of three equilateral hyperbolas coincide in pairs so as to form an equilateral triangle; the trilinear equation of the curve being  $a\beta\gamma \pm d^3 = 0$ , find the intercepted area.

10686. (D. BIDDLE.)—A hollow cylinder of radius R revolves about its (vertical) axis with a uniform angular velocity v, and there radiate from the axis, at uniform distances d, n thin laminæ, each forming a sector of the horizontal circle bounded by the cylinder, and each one n-th of the circle in extent. They are placed in uniform spiral fashion, so that they completely obstruct vision through the cylinder when this is viewed parallel to its axis. From a height (= d) above the first sector, a sphere of radius r is allowed to fall vertically, but at random, over the cylinder. Assuming  $g = 32.1$ , and disregarding the resistance of the air, find the probability that the sphere misses all the sectors.

10682. (Professor REALIS.)—Trouver la valeur de l'intégrale  
 $\int x^n / (P_n x^n + P_{n-1} x^{n-1} + \dots + P_2 x^2 + P_1 x + 1)^{1-m} dx$ ,  
 où l'on a posé  $P_k = \{(k+1)(k+2) \dots (k+m-1)/(m-1)!\}$   
 $m$  désignant un nombre entier plus grand que l'unité, et  $n$  un entier positif quelconque.

11790. (Professor NASH.)—Prove that every prime number of the form  $6n+1$  can be expressed in the form  $x^2 - 3y^2$  and that no prime of the form  $6n-1$  can be so expressed. [This can be proved without using any of the  $q$ -series of elliptic functions.]

11798. (Captain DE ROCQUIGNY.)—Aucun nombre triangulaire ne peut être une puissance exacte de 2.

NOTICE TO CORRESPONDENTS.

It is requested that all Mathematical communications should be sent to the Mathematical Editor,  
 Miss CONSTANCE I. MARKS, B.A., 10 Matheson Road, West Kensington, W.

Vol. XIII. (New Series) of the "Mathematical Reprint" is now ready, and may be had of the Publisher, FRANCIS HODGSON, 89 Farringdon Street, E.O. Price to Subscribers, 5s.; to Non-Subscribers, 6s. 6d.

PUBLIC SCHOOL MODERN HANDWRITING.

By R. WENLOCK, F.R.G.S.

Medallist and First Prizeman, Royal Society of Arts, Member of the London Chamber of Commerce, County School, Barry, Glamorganshire.

A Handbook intended as a substitute for the engraved copy-book headlines, containing an Exposition of the Principles, Specimens of writing and 26 Exercises. Price 6d. net. Crown 8vo.

FRANCIS HODGSON, 89 Farringdon Street, London, E.C.

TO TEACHERS OF LITERATURE. THE Gc LANTERN SLIDES.

Over 200 Slides illustrating the

Life and Plays of Shakespeare,

From Photographs and Drawings by distinguished artists, admirably adapted for Shakespearean Lectures and Readings, as well as for School Use in the Study of the Plays set for the College of Preceptors and other Examinations.

Lists and full particulars from  
 ALFRED J. JOHNSON,  
 Tollington House, Coppetts Road, Muswell Hill, N.

LATEST SELF-FILLING FOUNTAIN PEN.

UNUSUAL OFFER AS AN ADVERTISEMENT FOR A SHORT PERIOD ONLY

The Self-Filling and Self-Cleaning Perfection Fountain Pen (worth 15/-) to Teachers for 4/- only, or 3 Pens for 10/6.

This is an advertisement offer, & will be withdrawn at the end of this year.

ORDER NOW BEFORE IT IS TOO LATE.

Money returned if not fully satisfied. Guaranteed for 2 years.



Description:—Non-leakable, fills and cleans itself in a moment—a press, a fill—fitted with large 14-carat gold nib, iridium tipped, guaranteed to last for years. No other Pen like it for reliability, steady flow and smooth writing. Every Pen a pleasure.

Makers—

THE RED LION MANUFACTURING CO., Ltd., 71 High Holborn, London, W.C.

No need to buy any other Pen while this offer lasts.

To obtain this advantage, mention "The Educational Times."

EDUCATIONAL WORKS

By A. K. ISBISTER, M.A., LL.B.

(Late Dean of the College of Preceptors.)

Sixteenth Edition, with Map. 12mo.

CESAR'S COMMENTARIES on the GALLIC WAR.

BOOKS I.-V. With Notes, Critical and Explanatory, a Vocabulary of all the Words in the Text, and

Easy Reading Lessons for Beginners ..... price 3s. 6d.

BOOKS I.-VII. do. do. .... price 4s. 6d.

Do (without the Reading Lessons) ..... 4s. 0d.

Twenty-fifth Edition.

BOOK I. (with Vocabulary, Reading Lessons, &c.) ... 1s. 6d.

Fourteenth Edition. 12mo, price 3s. 6d.

XENOPHON'S ANABASIS, Books I. to III. With

Notes, Vocabulary of all the Words in the Text, and a Series of Easy Reading Lessons for Beginners. Designed as a First Greek Reading Book in Schools.

New Edition. 18mo, price 9d.

THE ELEMENTS OF BOOK-KEEPING, by SINGLE

and DOUBLE ENTRY; with Practical Explanations and Exercises on the most useful Forms for Business.

New Edition. 12mo, price 1s. 6d.

LESSONS IN ELOCUTION AND EXPRESSIVE

READING FOR BOYS, based on Grammatical Analysis; with a choice Selection of Extracts for Reading and Repetition, classified, of Goldsmith's "Deserted Village," set out into Principal and Subordinate Sentences, illustrating the theory of Emphasis and Pauses.

New Edition. 12mo, price 1s. 6d.

LESSONS IN ELOCUTION AND EXPRESSIVE

READING FOR GIRLS, based on Grammatical Analysis; with a choice Selection of Extracts for Reading and Repetition, classified, under heads for practice in various styles of Reading, and annotated for Expression, Emphasis, and Pauses, and the Analysis of Sentences, with the figure [of a Girl] showing the proper attitude in Reading.

**"The True University of These Days is a Collection of Books."**—THOMAS CARLYLE.

For a long time Teachers have been able to make collections of non-copyright works for a small expenditure. They can now add to their bookshelves the best books of their own time by purchasing the volumes of

# NELSON'S SHILLING LIBRARY

A Series of Copyright Works on Travel, Biography, History, and General Literature, issued by arrangement with some of the leading Publishers.  
LIBRARY STYLE. CLOTH ELEGANT. GILT TOP. ILLUSTRATED.  
**FIRST FOUR VOLUMES NOW READY**

## SCRAMBLES AMONGST THE ALPS - Edward Whymper.

The classic of mountaineering literature. Mr. Whymper was the first to conquer the Matterhorn; and the tale of the years of failure and the many daring attempts, as well as of the tragedy which clouded his success, is little short of a saga.

## COLLECTIONS AND RECOLLECTIONS - Rt. Hon. G. W. E. Russell.

Mr. G. W. E. Russell is, in one sense, the Charles Greville of our own day, intimately acquainted with the inner workings of social and political life, and commenting upon them with a shrewd and delicate humour. The present volume is his best known work, and no such miscellany of good stories and witty sayings is to be found in modern literature.

## THE GREAT BOER WAR - Sir A. Conan Doyle.

This is the *only* single-volume history of the war. The object of the publishers in including it in Nelson's Shilling Library is to enable the hundreds of thousands of people who either fought themselves in South Africa, or had friends and relations fighting there, to acquire a memento of the great struggle in a cheap form.

## LIFE OF JOHN NICHOLSON - Captain Trotter.

John Nicholson was the man of destiny of our Indian Empire, and the tale of his deeds in the Mutiny is perhaps the most stirring of all the tales of Britain's wars. Captain Trotter's biography is the standard work on the subject, and it will be welcomed by many readers.

### READY IN NOVEMBER.

THE MEMORIES OF DEAN HOLE.  
WILD LIFE IN A SOUTHERN  
COUNTY - Richard Jefferies.  
THE PSALMS IN HUMAN  
LIFE - R. E. Prothero.  
LIFE OF GLADSTONE - Herbert W. Paul.

### READY IN DECEMBER.

THE FOREST - Stewart E. White.  
THE GOLDEN AGE - Kenneth Grahame.  
THE SIMPLE ADVENTURES  
OF A MEMSAHIB - Sara J. Duncan.  
THE REMINISCENCES OF SIR HENRY  
HAWKINS (Lord Brampton).

**Price ONE SHILLING NET per Volume.**

On Sale at all Booksellers and Bookstalls.

**THOMAS NELSON AND SONS,**  
35 & 36 Paternoster Row, London, E.C.; Edinburgh, Dublin, and New York.

# THE EDUCATIONAL TIMES,

AND

DEC 11 1908

Journal of the College of Preceptors.

Vol. LXI.] New Series, No. 572.

DECEMBER 1, 1908.

{Published Monthly, price, to Non-Members, 6d.; by Post, 7d. Annual Subscription, 7s.

## COLLEGE OF PRECEPTORS. (INCORPORATED BY ROYAL CHARTER.)

### GENERAL MEETING.

The Half-Yearly General Meeting of the Members of the Corporation will be held at the College, Bloomsbury Square, W.C., on Saturday, the 23rd of January, 1909, at 3 p.m.

### MEMBERS' DINNER.

The Members' Dinner will take place at the Hotel Cecil, Strand, W.C., on Saturday, the 23rd of January, at 6.30 p.m. Tickets (not including wine), 6s. each. Members who intend to be present are requested to send early notice to the SECRETARY. Members may obtain tickets for their friends.

### LECTURES FOR TEACHERS.

The First Course of Lectures (Thirty-seventh Annual Series), by Prof. J. ADAMS, M.A., B.Sc., F.C.P., on "The Application of Psychology to the Work of the School," will commence on Thursday, February 4th, at 7 p.m.

The Course is meant to meet the needs of Teachers who wish to improve their acquaintance with what underlies the principles of their profession, whether they have any examination in view or not. The reading of the students will be guided, and problems set for their exercise. Every opportunity will be taken of making practical applications of psychological principles to the work of the class-room. The Fee for the Course is Half-a-Guinea. The Lectures will be delivered on Thursday Evenings at 7 o'clock, at the College, Bloomsbury Square, W.C.

### EXAMINATIONS.

**Diplomas.**—The next Examination of Teachers for the Diplomas of the College will commence on the 28th of December, 1908.

**Practical Examination for Certificates of Ability to Teach.**—The next Practical Examination will be held in February.

**Certificate Examinations.**—The Midsummer Examination for Certificates will commence on the 29th of June, 1909.

**Lower Forms Examinations.**—The Midsummer Examination will commence on the 29th of June, 1909.

**Professional Preliminary Examinations.**—These Examinations are held in March and September. The Spring Examination in 1909 will commence on the 2nd of March.

**Inspection and Examination of Schools.**—Inspectors and Examiners are appointed by the College for the Inspection and Examination of Public and Private Schools.

The Regulations for the above Examinations can be obtained on application to the Secretary.

C. R. HODGSON, B.A., *Secretary*.  
Bloomsbury Square, W.C.

## UNIVERSITY OF ST. ANDREWS.

### L.L.A. DIPLOMA FOR WOMEN.

The attention of Candidates is drawn to the Ordinary and Honours Diplomas for Teachers, which are strongly recommended as suitable for those who are or intend to be teachers.

Examinations are held at Aberdeen, Birmingham, Blackburn, Brighton, Bristol, Cardiff, Croydon, Devonport, Edinburgh, Glasgow, Hull, Inverness, Leeds, Liverpool, London, Manchester, Newcastle-on-Tyne, Norwich, Nottingham, Oxford, St. Andrews, Sheffield, Swansea, and several other towns.

Information regarding the Examinations may be obtained from the SECRETARY, L.L.A. Scheme, The University, St. Andrews.



## THE ASSOCIATED BOARD OF THE E.A.M. AND E.C.M.

FOR LOCAL EXAMINATIONS IN MUSIC.

PATRON: HIS MAJESTY THE KING.

PRESIDENT: H.R.H. THE PRINCE OF WALES, K.G.

**LOCAL CENTRE EXAMINATIONS (Syllabus A).** Examinations in Theory at all Centres in March and November; in Practical Subjects at all Centres in March-April, and in the London District and certain Provincial Centres in November-December also. Entries for the March-April Examinations close Wednesday, February 10th, 1909.

**SCHOOL EXAMINATIONS (Syllabus B).** Held three times a year, viz., March-April, June-July, and October-November. Entries for the March-April Examinations close Wednesday, February 3rd, 1909.

Specimen Theory Papers set in past years (Local Centre or School) can be obtained on application. Price 3d. per set, per year, post free.

Syllabuses A and B, entry forms, and any further information will be sent post free on application to—

JAMES MUIR, *Secretary*.

15 Bedford Square, London, W.C.

Telegrams: "Associa, London."

## BIRKBECK COLLEGE.

BREMS BUILDINGS, CHANCERY LANE, E.C.

DAY AND EVENING CLASSES.

*Principal*—G. ARMITAGE-SMITH, D.Lit., M.A.

The College provides approved courses of Instruction for the Degrees of the University of London in the Faculties of Arts, Science, Economics, Laws, under Recognized Teachers of the University.

Well appointed Laboratories. Facilities for research. *New Session commenced on Monday, 28th September.* Full particulars on application to

H. WELLS EAMES, *Secretary*.

## UNIVERSITÉ DE RENNES (France).

### FRENCH COURSE for FOREIGNERS

OF BOTH SEXES.

WINTER TERM: From 15 Nov. 1908 to 15 Feb. 1909.

SUMMER TERM: From 1 March to 8 June, 1909.

DIPLOMAS.

Diplômes de Langue et Littérature Françaises; Doctorat.

Reduction of 50% on railway fares from Dieppe or Calais to Rennes. Apply for Prospectus to

Prof. FEUILLEBAT, Faculté des Lettres, Rennes.

## Diploma Correspondence College, Ltd.

*Principal*—J. W. KNIFE, L.C.P., F.R.S.L.  
*Vice-Principal*—S. H. HOOKE, B.A., Hons. Lond.

*Specially arranged Courses for*

LONDON MATRICULATION,  
**B.A., B.D., B.Sc.,**  
A.C.P., L.C.P., &c.

### FREE GUIDES

on application to the SECRETARY.

WOLSEY HALL, OXFORD.

## LONDON COLLEGE OF MUSIC.

(Incorporated.)

GREAT MARLBOROUGH STREET, LONDON, W.

PATRON: HIS GRACE THE DUKE OF LINDS.  
Dr. F. J. KARN, Mus. Bsc. Cantab., Principal.  
G. AUGUSTUS HOLMES, Esq., Director of Examinations.  
EXAMINATIONS, 1909.

The NEXT EXAMINATION in PIANOFORTE PLAYING, SINGING, THEORY, and all branches of Music will be held in London and 400 Provincial Centres in APRIL, when Certificates will be granted to all successful candidates.

The Higher Examinations for the Diplomas of Associate (A.L.C.M.), Licentiate (L.L.C.M.), the Teachers' Diploma, I.C.M., and Fellowship (F.L.C.M.) take place in JULY (JUNE for Scotland and Ireland) and DECEMBER.

Gold and Silver Medals and Book Prizes are offered for competition according to the Regulations.

LOCAL SCHOOL CENTRES.—Full particulars with reference to the formation of these Centres will be forwarded to Principals of Schools upon application.

SYLLABUS for 1909, together with Annual Report, is now ready, and may be had of the SECRETARY.

In the Educational Department students are received and thoroughly trained under the best Professors at moderate fees. The College is open 10 a.m. to 9.30 p.m.

A COURSE of TRAINING in Pianoforte and Singing for Teachers is held at the College.

VACATION LESSONS for Teachers and others are given at Easter, August, and Christmas.

T. WEEKES HOLMES, *Secretary*.

## CHURCH EDUCATION CORPORATION.

### CHERWELL HALL, OXFORD.

Training College for Women Secondary Teachers.

*Principal*—Miss CATHERINE I. DODD, M.A. (late Lecturer in Education in the Manchester University).

Students are prepared for the Oxford, the Cambridge, and the London Teacher's Diploma. Special arrangements made for Students to attend the School of Geography.

Two Scholarships of £40 each are offered students with a degree entering Cherwell Hall in January 1909.

Exhibitions and Scholarships awarded in December and July.—Apply to the PRINCIPAL.

## DENMARK HILL PHYSICAL TRAINING COLLEGE FOR LADY TEACHERS, LONDON, S.E.

Full preparation for Public Examinations. British College of Physical Education: English and Swedish systems. Massage and Remedial Work.

Board of Education: Science. Swimming and Sports.

Schools supplied with fully qualified Sports Mistresses. For particulars apply—Miss E. SPERLMAN STANGER, Trevena, Sunray Avenue, Denmark Hill, London, S.E.

## FREE GUIDE

TO

LONDON UNIVERSITY

## MATRIGULATION

Post free, from

THE SECRETARY,

Burlington House, Cambridge; or from the London Office of University Correspondence College, 32 Red Lion Square, Holborn, W.C.

**UNIVERSITY OF WALES.**

**MATRICULATION EXAMINER-SHIP IN FRENCH.**

Appointment to the above Examinership will be shortly made. Applications should be sent, on or before January 6<sup>th</sup>, 1909, to the Registrar, University Registry, Cathays Park, Cardiff, from whom further particulars may be obtained.

**THE METRIC AND ENGLISH WEIGHTS & MEASURES**

Is the ONLY Table Book published giving all the Metric Weights and Measures in full, with their English Equivalents, as AUTHORIZED BY THE BOARD OF TRADE, as well as the Metric Equivalents of ALL the English Weights and Measures.

The Metric System is now being taught in all Schools, and is being largely used by Manufacturers throughout the British Empire.

Retail, Price 1d., Post Free 1½d.

Published by

PERCY E. RADLEY, 30 Theobald's Road, London, W.C.

**SECONDHAND BOOKS AT HALF PRICES! NEW BOOKS AT 25% DISCOUNT!**

**BOOKS for A.C.P., L.C.P., F.C.P.,** Matric., University, Certificate, Scholarship, L.L.B., B.A., and ALL other Examinations supplied. State wants: send for List. Books sent on approval. **BOOKS BOUGHT,** best prices given.—W. & G. FOYLE, 135 Charing Cross Road, W.C.

Sixteenth Edition, with Map. 12mo.

**CÆSAR'S COMMENTARIES ON THE GALLIC WAR.** By A. K. ISBISTER, M.A., LL.B., late Dean of the College of Preceptors.

**BOOKS I.-V.** With Notes Critical and Explanatory, a Vocabulary of all the words in the Text, and *Easy Reading Lessons for Beginners* ..... price 3s. 6d.  
 BOOKS I.-VII. do. do. 4s. 6d.  
 Do. (without the Reading Lessons) 4s. 0d.

Twenty-fifth Edition.

**BOOK I.** (with Vocabulary, Reading Lessons, &c.) ..... 1s. 6d.  
 LONDON: LONGMANS & CO., PATERNOSTER ROW, E.C.

**EXAMINATION PAPERS.**

Set at the Examinations of the College of Preceptors.

**CERTIFICATE EXAMINATION.**—The Papers set at the Midsummer and Christmas Examinations, Sixpence each Set, by post Sevenpence. (Back Sets from Midsummer, 1882, except Midsummer, 1895, Midsummer, 1896, and Christmas, 1900, are still to be had.)

The Freehand Drawing Copies set at the above Examination can also be had, price 2d. each; or 1s. 6d. per dozen.

Also the Outline Maps for the Second and Third Classes, price 1d. each map, by post, 1½d.; or 9d. per dozen, by post, 10d.

The COLLECTED PAPERS in the following subjects for several years back may also be had in separate books, price 6d. each, by post 7d.:

- |                           |                            |
|---------------------------|----------------------------|
| Arithmetic (3 Parts).     | English History (4 Parts). |
| Algebra (3 Parts).        | French (4 Parts).          |
| Scripture (4 Parts).      | Latin Unscens (3 Parts).   |
| Geography (3 Parts).      | Music.                     |
| English Grammar (7 Pts.). |                            |

Answers to the Arithmetic and Algebra, 1s. each.

**PROFESSIONAL PRELIMINARY EXAMINATION.**—The Papers set at the March and September Examinations. Sixpence each Set, by post Sevenpence. (Back Sets from March, 1882, still to be had.)

**LOWER FORMS EXAMINATION.**—The Papers set at the Midsummer and Christmas Examinations, price 3d. each, by post, 4d.; also the Drawing Copies, 2d. each, or 1s. 6d. the dozen.

**DIPLOMA EXAMINATION.**—These Papers are published only in the College Calendar. See page 318.

London: FRANCIS HODGSON, 89 FARRINGTON ST., E.C.

**BEDFORD COLLEGE FOR WOMEN**  
 (UNIVERSITY OF LONDON).  
 YORK PLACE, BAKER STREET, LONDON, W.  
 DEPARTMENT FOR PROFESSIONAL TRAINING IN TEACHING.

Head of the Department:—Miss MARY MORTON, M.A.

The Course includes full preparation for the Examinations for the Teaching Diplomas granted by the Universities of London and Cambridge.

Students are admitted to the Training Course in October and in January.

ONE FREE PLACE, value £26. 5s.; ONE SCHOLARSHIP of the value of £20, and a limited number of GRANTS of £10, are offered for the Course beginning in January, 1909.

They will be awarded to the best candidates holding a Degree or its equivalent in Arts or Science.

Applications should reach the HEAD OF THE DEPARTMENT not later than December 12th.

**THE CAMBRIDGE TRAINING COLLEGE FOR WOMEN.**

Principal—Miss M. H. WOOD, M.A., Lit. D., Girton College, Cambridge Classical Tripos.

A residential College providing a year's professional training for Secondary Teachers.

Preparation for the London and the Cambridge Teachers' Diploma. Ample opportunity for practice in teaching science, languages, mathematics, and other subjects. Fees £65 to £75. Admissions in January and September.

For particulars apply—The PRINCIPAL, Training College, Cambridge.

**MARIA GREY TRAINING COLLEGE FOR WOMEN TEACHERS.**

Students are prepared for the London and Cambridge Teachers' Diplomas and the Higher Certificate of the National Froebel Union.

SCHOLARSHIPS of from £15 to £25 offered to Graduates in January, 1909. For further particulars as to Middlesex Scholarships, Hall of Residence, &c., apply to the Principal, Miss ALICE WOODS, at the College, Salisbury Road, Brondesbury, London, N.W.

**ST. GEORGE'S TRAINING COLLEGE FOR WOMEN TEACHERS IN INTERMEDIATE AND SECONDARY SCHOOLS, EDINBURGH.**

This College provides a year's Professional Training for well educated women who intend to become Teachers.

The Course is supervised by the Edinburgh Provincial Committee for the Training of Teachers and recognized by the Scotch Education Department and by the Teachers' Training Syndicate of the University of Cambridge.

Prospectus and further particulars from the Principal, Miss M. R. WALKER, 5 Melville Street, Edinburgh.

**THE INCORPORATED FROEBEL EDUCATIONAL INSTITUTE, TALGARH ROAD, WEST KENSINGTON, LONDON, W.**  
 Recognized by the Board of Education as a Training College for Secondary Teachers.

Chairman of the Committee—Sir W. MATHER.

Treasurer—Mr. C. G. MONTEFIORE, M.A.

Secretary—Mr. ARTHUR G. SYMONDS, M.A.

**TRAINING COLLEGE FOR TEACHERS.**

Principal—Miss E. LAWRENCE.

**KINDERGARTEN AND SCHOOL.**

Head Mistress—Miss A. YELLAND.

Students are trained for the Examinations of the National Froebel Union and other Examinations.

TWO SCHOLARSHIPS of £20 each, and two of £15 each, tenable for two years at the Institute, are offered annually to Women Students who have passed certain recognized Examinations.

Prospectuses can be obtained from the PRINCIPAL.

Tenth Edition, 12mo, price 3s. 6d.

**THE ILLUSTRATED PUBLIC SCHOOL SPEAKER AND READER,** based on Grammatical Analysis, comprising a choice Selection of pieces for Reading and Recitation, annotated for Expression, Emphasis, and Pauses, and illustrated by Diagrams and Figures exhibiting to the eye the appropriate gestures and positions; to which is added a selection of Greek, Latin, French, and German Extracts, suitable for "Speech Days" at Public Schools.  
 LONDON: LONGMANS & CO., PATERNOSTER ROW, E.C.

Fourteenth Edition, 12mo, price 3s. 6d.

**XENOPHON'S ANABASIS,** Books I. to III. By A. K. ISBISTER, M.A., LL.B. With Notes, Vocabulary of all the Words in the Text, and a Series of Easy Reading Lessons for Beginners. Designed as a First Greek Reading Book in Schools.  
 LONDON: LONGMANS & CO., PATERNOSTER ROW, E.C.

**JOINT AGENCY FOR WOMEN TEACHERS.**

(Under the management of a Committee appointed by the Teachers' Guild, College of Preceptors, Head Mistresses' Association, Association of Assistant Mistresses, and Welsh County Schools' Association.)

Address—74 GOWER STREET, LONDON, W.C.

Registrar—Miss ALICE M. FOUNTAIN.

This Agency has been established for the purpose of enabling Teachers to find work without unnecessary cost. All fees have therefore been calculated on the lowest basis to cover the working expenses.

Head Mistresses of Public and Private Schools, and Parents requiring Teachers, or Teachers seeking appointments, are invited to apply to this Agency.

Many Graduates and Trained Teachers for Schools and Private Families; Visiting Teachers for Music, Art, and other special subjects; Foreign Teachers of various nationalities; Kindergarten and other Teachers are on the Register, and every endeavour is made to supply suitable candidates for any vacancy.

School Partnerships and Transfers are arranged.

Hours for interviews (preferably by appointment):—

11 a.m. to 1 p.m., and 3 to 5 p.m.

Saturdays, 11 a.m. to 1 p.m., and 2 to 3 p.m.

**THE JOINT SCHOLASTIC AGENCY.**

23 Southampton Street, Bloomsbury Square, W.C.

Managed by a Committee of Representatives of the following Bodies:—

HEAD MASTERS' CONFERENCE.

INCORPORATED ASSOCIATION OF HEAD MASTERS.

COLLEGE OF PRECEPTORS. TEACHERS' GUILD.

INCORPORATED ASSOCIATION OF ASSISTANT MASTERS.

ASSOCIATION OF TECHNICAL INSTITUTIONS.

ASSOCIATION OF PREPARATORY SCHOOLS.

WELSH COUNTY SCHOOLS.

Registrar: Mr. E. A. VIRGO.

The object of this Agency is to render assistance at a minimum cost to Masters seeking appointments. The lowest possible fees are therefore charged.

A PROSPECTUS will be sent ON APPLICATION.

Interviews (preferably by appointment) 12 p.m.-1.30 p.m., and 3 p.m.-5.30 p.m. Saturdays, 12 p.m.-1 p.m.

Crown 8vo, 348 pages, price 3s. 6d.

**SCHILLING'S SPANISH GRAMMAR.** Translated and edited by FREDERICK ZAGEL.

FRANCIS HODGSON, 89 FARRINGTON STREET, LONDON, E.C.

Crown 8vo, 164 pages, price 2s. 6d.

**SCHILLING'S "DON BASILIO."** A Practical Guide to Spanish Conversation and Correspondence. Translated and edited by FREDERICK ZAGEL.

FRANCIS HODGSON, 89 FARRINGTON STREET, LONDON, E.C.

**THE HAMILTONIAN SYSTEM.**

A Short and Easy Method of Learning a Foreign Language by a Close Interlinear Translation.

"This System differs from the ordinary literal translations, in giving a truly literal translation placed word for word under the words of the original, which are only so far changed in order as seemed essential to the sense. The aim is to be strictly literal, and the student is at once saved all trouble about the meaning of each word."  
 —MR. RICHARD A. PROCTOR, in *Knowledge*.

Limp cloth, price 1s.

**CÆSAR'S GALLIC WAR. Book I.** With Text as well as Interlinear Translation. Books I. to VI. Price 4s. 6d.

**VIRGIL'S ÆNEID. Books I. to IV.** Price 3s. 6d.

**BUTROPIUS.** Limp cloth, price 1s. 6d.

**FLORIAN'S FABLES.** Limp cloth, price 1s.

**PHILRIN'S FABLES.** Limp cloth, price 1s. 6d.

Each Book contains the Text as well as the analytical, interlinear, and literal Translation.

Full List of the Series on Application.

FRANCIS HODGSON, 89 FARRINGTON ST., E.C.



**CARLYON COLLEGE.**  
55 AND 56 CHANCERY LANE.

**LONDON UNIVERSITY EXAMINATIONS**  
LONDON MATRICULATION, INTER. ARTS and SCIENCE, B.A., and B.Sc. Classes (small) Day and Evening. M.A. Classes, B.A. Honours Classes. Elementary Greek Class.  
Classes and Tuition for Legal and Medical Preliminaries, Accountants', Scholarship Examinations, Previous, Responsions, and General.  
Papers Corrected for Schools. Vacation Tuition. Private tuition for all Examinations.  
Prospectus and full details on application to R. C. B. KERIN, B.A. Lond., First of First Class Classical Honours, Editor of "Phaedo," "Pro Plancio," &c.

**SUCCESSSES.**

1892-1907.—London Matric., 149; Inter. Arts, Sc., and Prel. Sci., 140, 6 in Hons.; B.Sc., 1896-1906, 25; B.A., 1891-1905, 95, 14 in Hons.; Medical Prelim., 249; Responsions and Previous, 60; Law Prelim., 62; other Successes, 400.

**B.A. (LOND.), 1908 and 1907, 15, 3 in Classical Honours. M.A., 8.**  
**INTER. ARTS, 1907, 6 out of 8.**

**FREE.**

The Principals of the Normal Correspondence College have, through the courtesy of the College of Preceptors, issued the following

**FREE GUIDES.**

- |   |            |
|---|------------|
| 1. A.C.P.                                     | 100 pages. |
| 2. L.C.P.                                     | 84 "       |
| 3. F.C.P.                                     | 75 "       |
| And have also published the following Guides. |            |
| 4. PREL. CERT.                                | 120 pages. |
| 5. CERTIFICATE.                               | 92 "       |
| 6. MATRICULATION.                             | 84 "       |
| 7. IRISH UNIVERSITY.                          | 60 "       |
| 8. OXFORD & CAMBRIDGE LOCALS                  | 100 "      |

These Guides are supplied gratis to all who mention this paper and state they intend sitting for examination.

"They are written by experts whose advice is the best procurable."—*Educational News.*  
"Will undoubtedly help greatly towards success."—*Schoolmistress.*

**NORMAL CORR. COLLEGE,**

47 MELFORD ROAD, EAST DULWICH, S.E., and  
110 AVONDALE SQUARE, LONDON, S.E.

**Mr. ERIC WILLIAMS**

can accept Engagements at Schools and Colleges for his

**PATRIOTIC RECITAL,**

now being officially given with great success on behalf of Lord Roberts's Veterans' Relief Fund under the patronage of His Majesty the King and Field-Marshal Earl Roberts.

The Recital, comprising selections from Shakespeare, Longfellow, Tennyson, &c., interspersed with humorous pieces.

For terms and vacant dates address—ERIC WILLIAMS, c/o Educational Times, 89 Farringdon Street, London, E.C.

**CORRESPONDENCE TUITION,**

Classes or Private Lessons in all Subjects for all Examinations, &c., at moderate fees. Special tuition for MEDICAL Prelims. and DIPLOMA Exams. Many recent successes.—F. J. BOBLAND, B.A., L.C.P. (Science and Math. Prizeman), Victoria Tutorial College, 87 Buckingham Palace Road, S.W.; and Stalheim, Brunswick Road, Sutton, Surrey.  
Schools visited and Examinations conducted.

**WALTER J. DICKES, B.A. (Lond.)**

PRIVATE TUITION FOR EXAMINATIONS, &c.

BEECHEN CLIFF, THE GARDENS, E. DULWICH, LONDON, S.E.

**University Tutorial College.**

(Affiliated to University Correspondence College.)



**Christmas Vacation Classes.**

**MATRICULATION.**

A Recapitulation Class for the January, 1909 Examination commences Monday, December 21st. Daily Lectures are taken up in each subject and arrangements are made for Students to specialize on their weaker subjects.  
FEE: Five Subjects, £4. 4s.

At the last Examination (Sept. 1908), 42 Students of University Tutorial College were successful. The official list for this Examination credits U.T.C. with more than four times as many Successes as any other institution.

**INTER. SCIENCE AND ARTS, PRELIM. SCI. (M.S.), B.Sc. and B.A.**

Annually for the last ten years about 300 Students of University Tutorial College have passed London University Examinations.

Practical Classes in Chemistry, Physics, Geology, Botany and Zoology commence Monday, December 21st, and meet daily for three weeks.

**PRIVATE TUITION.**

Private Tuition may be taken up at any time during the Vacation.

Full particulars may be had from

THE PRINCIPAL,  
University Tutorial College,  
32 Red Lion Square, Holborn, W.C.

**BURLINGTON  
CORRESPONDENCE  
COLLEGE.**

Principal—Mr. J. CHARLESTON, B.A. (Honours Oxon. and Lond.)

TUTORS.—The Staff includes Graduates of London, Oxford, Cambridge, and Royal Universities.

METHOD.—Thoroughly individual system, which ensures the closest attention to the needs of each student.

**Rapid Preparation for:—**

- Matriculation,
- Intermediate Arts and B.A.,
- Intermediate Science and B.Sc.,
- L.L.A. (St. Andrews),
- COLLEGE OF PRECEPTORS' DIPLOMAS.

Address—THE PRINCIPAL,  
Burlington Correspondence College,  
OLAPHAM COMMON, LONDON, S.W.

Messrs.  
**TRUMAN & KNIGHTLEY,**  
LTD.,  
Educational Agents,

158 to 162 OXFORD STREET,  
LONDON, W.

Telegrams—"TUTORESS, LONDON."  
Telephone—No. 1136 City.

This Agency is under distinguished patronage, including that of the Principals of many of our leading Schools.

**A.—EMPLOYMENT DEPARTMENT.**

(i.) ASSISTANT MASTERS & TUTORS.

MESSRS. TRUMAN & KNIGHTLEY introduce University and other qualified ENGLISH and FOREIGN MASTERS and TUTORS to Schools and Private Families.

(ii.) ASSISTANT MISTRESSES.

MESSRS. TRUMAN & KNIGHTLEY introduce University, Trained, and other qualified ENGLISH and FOREIGN LADY TEACHERS to Girls' and Boys' Schools.

(iii.) LADY MATRONS AND HOUSE-KEEPERS.

MESSRS. TRUMAN & KNIGHTLEY introduce well qualified and experienced LADY MATRONS, HOUSEKEEPERS, and HOUSE MISTRESSES to Boys' and Girls' Schools.

No charge is made to Principals, and no charge of any kind is made to candidates unless an engagement be secured through this Agency, when the terms are most reasonable.

**B.—SCHOOL TRANSFER DEPARTMENT.**

A separate Department, under the direct management of one of the Principals, is devoted entirely to the negotiations connected with the Transfer of Schools and Introduction of Partners.

MESSRS. TRUMAN & KNIGHTLEY, being in close and constant communication with the Principals of nearly all the chief Girls' and Boys' Schools in the United Kingdom, to many of whom they have had the privilege of acting as Agents, and having on their books always a large number of thoroughly genuine Schools for Sale and Partnerships to negotiate, as well as the names and requirements of numerous would-be purchasers, can offer unusual facilities for satisfactorily negotiating the TRANSFER of SCHOOLS, and arranging PARTNERSHIPS.

No charge is made to Purchasers, and there is no charge to Vendors unless a Sale or Partnership be effected through this Agency.

All communications and enquiries are treated in the strictest confidence.

**C.—PUPILS' DEPARTMENT.**

MESSRS. TRUMAN & KNIGHTLEY have a carefully organized Department for the introduction of Pupils to Schools and other Educational Establishments. No charge is made for registration.

Any negotiations entrusted to MESSRS. TRUMAN & KNIGHTLEY receive prompt and careful attention, every effort being made to save clients as much time and trouble as possible.

Full particulars will be forwarded on application.

1908.

## COLLEGE OF PRECEPTORS.

(Incorporated by Royal Charter.)

BLOOMSBURY SQUARE, LONDON, W.C.

## Lectures for Teachers

ON THE

## SCIENCE, ART, AND HISTORY OF EDUCATION.

## THE PRACTICAL TEACHER'S PROBLEMS.

To be delivered by Professor J. ADAMS, M.A., B.Sc., F.C.P., Professor of Education in the University of London.

The Second Course of Lectures (Thirty-sixth Annual Series) commenced on Thursday, October 1st, at 7 p.m.

The matters to be dealt with are such as interest all classes of teachers, and will be treated with that frankness that is possible in an unreported discourse, but is out of the question in a printed book. While the lecturer will lose no opportunity of indicating how present educational conditions may be improved, he will take the present conditions as the basis and show how to make the best of things as they are. The Lectures will be copiously illustrated by references to actual experience in all kinds of Schools.

## SYLLABUS.

I. (Oct. 1.) *The Teacher's Library*: three main sections, books needed by teacher as (a) human being, (b) knowledge-monker, (c) educator: (a) and (c) too often neglected: special value of books used by teacher during childhood: the upper and lower limit of professional books under (c): possibility of excess in educational theory: plea for greater recognition of newer class of literary presentations of educational problems: teaching "the inarticulate profession": practical help that may be had from such books: how to use educational periodicals.

II. (Oct. 8.) *How to get some good out of Psychology*: need for a change in the point of view: rational and experimental psychology: need of both by the teacher: danger of pedantry in both: place of the proposed middleman between the psychologist and the practical teacher: the teacher must be allowed to direct the psychologist (not the psychologist the teacher) as to the results to be sought: list of things the teacher wants to know, compared with the list of things the psychologist wants to tell him: teacher must not confine himself to child-psychology, his profession demands the treatment of his fellow adults as well.

III. (Oct. 15.) *How to deal with Officials*: an example of the teacher's need of adult psychology: the difference between the human being and the official: the invariable third: official questions and answers: how to interpret them: the official mind and how to approach it: an instructive bit of law: the official art of compromise: manipulation of conflicting official regulations: the whole question reviewed from the point of view of the teacher as himself an official.

IV. (Oct. 22.) *How to deal with Parents*: generally wrong attitude of teachers towards parents: *in loco parentis* theory: "foster parent": getting at parents through children and *vice versa*: parents' antagonism to school authority has definite relation to their social rank: special difficulties of different classes of teachers: conflicting influences of fathers and mothers: genuine co-operation between school and home: golden mean between parental indifference and interference.

V. (Oct. 29.) *How to Learn*: the other side of teaching: absence of the desire to know: how to rouse it: even when desire is present there is difficulty enough: kinds of learning: reproduction: the dynamic view: constructive learning: rhythm of learning: concentration and diffusion: fallacies about thoroughness: temporary and permanent learning.

VI. (Nov. 5.) *Class Management and Teaching*: ordinary psychology deals with the individual: teacher needs collective psychology as well: relation of class to crowd or mob: minimum number to constitute a class: sympathy of numbers: class leaders: difference between class teaching and private coaching: advantages and difficulties in having to teach several persons at the same time: the average pupil: the type: the composite: the ghostly class.

VII. (Nov. 12.) *How to combine Lecturing and Teaching*: teachers' general disapproval of lecturing: nature of lecturing as opposed to teaching: newer methods of teaching history, geography, and geometry are demanding a certain amount of lecturing: dangers of lecturing in schools as compared with colleges: the pupils' share in the process of lecturing: the art of listening: intermittent hearing: the lecturer's relation to the text-book.

VIII. (Nov. 19.) *Written work in School*: absolute necessity for a good deal of written work in school: note-taking, exercise writing, essays: drudgery of correction: the surd of efficient correction in (a) quantity, (b) quality: co-operative correction: psychological dangers of correction: the norm of correction: spelling and dictation exercises: analysis of most common errors and their causes.

IX. (Nov. 26.) *Verbal Illustration*: nature of illustration in general: distinction from exposition: mental backgrounds: relativity of illustration to the materials at command: exemplification: enumeration: nature of analogy and its place in illustration: the metaphor and other illustrative figures: how to find suitable verbal illustrations: source books of illustration.

X. (Dec. 3.) *Graphic Illustration*: the actual object and the model as means of illustration: the value of the picture as illustration, especially as compared with a verbal description: different illustrative values of a picture according as it is used for intellectual, moral, or aesthetic teaching: the diagram as compared with the picture: dangers that lurk in diagrammatic illustration: certain weaknesses in our space sense: supremacy of the straight line in illustration.

XI. (Dec. 10.) *How to deal with Dullness*: nature of dullness: its relativity to time and subject: the temporary dunce: the permanent dunce: the all-round dunce: the specialized dunce: the scale of dullness: the "defective point": subjective and objective dullness: stage at which objective dullness is welcomed by the pupil: the tyranny of "problems," and the legitimate claims of the relatively dull.

XII. (Dec. 17.) *The Problem of Examinations*: various functions of examinations: teacher as examiner: how to prepare an examination paper: allocation of marks: how to make the best of the external examiner: the personal equation: the use of "old examination papers": preparation of "set books": "the index" in revision of examination work: how to prepare pupils for an external examination with the minimum educational damage.

**The Fee for the Course of Twelve Lectures is Half-a-Guinea.**

\*. The Lectures will be delivered on THURSDAY EVENINGS, at 7 o'clock, at the College, Bloomsbury Square, W.C.—Members of the College have free admission to all the Courses of Lectures.

## The Practice of Instruction

A MANUAL OF METHOD GENERAL AND SPECIAL

Edited by JOHN WILLIAM ADAMSON, B.A.,

Professor of Education in King's College, London ;  
Examiner in Education to the Universities of London, Durham, and Liverpool  
and to the College of Preceptors.

Cloth, pp. 536. Price 4s. 6d. net. Post free, 4s. 10d. net.

NOTE.—A prospectus, showing the scope and structure of this important new work on Method, and giving specimen pages from its various sections, will be sent on application.

*School* (December, 1907) says:—"It is probably the best manual of method that has yet appeared in English."

LONDON: NATIONAL SOCIETY'S DEPOSITORY,  
19 GREAT PETER STREET, WESTMINSTER, S.W.

## THE RUGBY PRESS

undertakes every description of Letterpress

## PRINTING FOR SCHOOLS.

Estimates furnished. Enquiries solicited.

Address— GEORGE OVER, Printer, Rugby.

IDOLA PULPITORUM:  
PITFALLS OF THE PRACTICAL TEACHER.

For this series of Articles, see "THE JOURNAL OF EDUCATION."

**INTRODUCTORY ARTICLE**, by Professor ADAMS [November, 1906]; **CLASSICS**, by H. G. HART [December, 1906]; **ENGLISH**, by ARTHUR BURRELL [January, 1907]; **FRENCH**, by CLOUDESLEY BRERETON [February and March, 1907]; **SCIENCE**, by T. PERCY NUNN [April, 1907]; **NATURE STUDY**, by T. RAYMONT [May, 1907]; **HISTORY**, by S. S. F. FLETCHER [June, 1907]; **PHYSICAL TRAINING**, by Colonel MALCOLM FOX [July, 1907]; **DRAWING**, by W. E. SPARKES [August, 1907]; **DOMESTIC SCIENCE**, by ALICE RAVENHILL [October, 1907]; **GEOMETRY**, by H. WINIFRED STURGE [December, 1907]; **GEOGRAPHY**, by Dr. A. J. HERBERTSON [January, 1908]; **MUSIC TEACHING**, by ARTHUR SOMERVELL [June, 1908]; **ARITHMETIC**, by P. B. BALLARD [July, 1908].

Subscription is 7s. per annum; single numbers, 8d. post free.

Offices: 3 BROADWAY, LUDGATE HILL, E.C.

## EXAMINATION PAPER

AS USED BY THE

## COLLEGE OF PRECEPTORS.

In strict accordance with the College requirements, and each Sheet  
bears their Watermark.

Packed in Reams of 480 Sheets... .. per Ream, 2s.  
" " " 960 " " " " 4s.

Bookkeeping Paper, ruled for Ledger, Cash Book, and Journal, 1s. per 100 Sheets.  
Music Paper, 1s. per 100 Sheets.

Remittance should accompany Order.

F. W. SHELBOURNE & CO., Wholesale and Retail Stationers,  
63 HIGH HOLBORN, LONDON, W.C.

BY A. K. ISBISTER, M.A., LL.B.

4to, 1s. each.

**ENGRAVED ACCOUNT BOOKS.** Ruled and Interleaved  
for copying.

- No. I. Business Forms. 1. Bills of Parcels and Book Debts.  
2. Invoices. 3. Account Sales. 4. Receipts. 5. Promissory Notes and Drafts. 6. Bills of Exchange.  
No. II. Day-Book and Cash-Book.  
No. III. Ledger, Index, and Balance Sheet.

LONDON: LONGMANS &amp; CO., PATERNOSTER ROW, E.C.

## MESSRS. BELL'S NEW BOOKS

DETAILED PROSPECTUSES SENT ON APPLICATION.

JUST PUBLISHED. EIGHTH EDITION. Revised and Enlarged.  
Crown 8vo. 3s. 6d.

### ELEMENTARY BOTANY.

By **FEROY GROOM, M.A.** (Cantab. et Oxon.), D.Sc. (Oxon.),  
F.L.S., F.R.S.S.; Assistant Professor of Botany in the Imperial  
College of Science and Technology.  
With 275 Illustrations.

Third Edition, Revised and Enlarged.

### A FRENCH HISTORICAL READER

By **H. N. ADAIR, M.A.** (Oxon.).

With Illustrations, Brief Notes, a Vocabulary, and a new Composition  
Supplement. 2s. Without Supplement, 1s. 6d. Supplement  
separately, 6d. net.

JUST PUBLISHED. Crown 8vo. Illustrated. 2s.

### A GERMAN HISTORICAL READER

By **J. E. MALLIN, B.A.**, Strand School, King's College.

Pott 8vo. Illustrated. 1s.

### TALES BY ERCKMANN-CHATRIAN.

*Le vieux Tailleur. Le Combat de Coqs. Pourquoi Hunne-  
bourg ne fut pas rendu.*

Edited, with brief Notes and Vocabulary, by **O. H. PRIOR**, Assistant  
Master at Rugby.

(Bell's Illustrated French Readers.)

A Second Series of Tales by Erckmann-Chatrian is in preparation and will  
be issued shortly.

### BELL'S ILLUSTRATED CLASSICS.

Pott 8vo. With many Illustrations. With or without Vocabulary.  
1s. 6d. each. NEW VOLUME.

**VIRGIL: Aeneid, Book XI.** Edited, with Intro-  
duction and Notes, by **L. D. WAINWRIGHT, M.A.**, Assistant  
Master at St. Paul's School. [Ready immediately.]

*This book is required for the Cambridge Locals, 1909.*

### TWO NEW SERIES OF PRIZE BOOKS.

Write for full List of Messrs. Bell's Books for Prizes.

### THE QUEEN'S TREASURES SERIES.

Small crown 8vo, with 8 Coloured Plates and Decorated Title-page, Covers,  
and End-papers by **M. V. WHEELHOUSE**. 2s. 6d. net each.

NOW READY.

**COUSIN PHILLIS.** By Mrs. GASKELL.  
With an Introduction by THOMAS SECCOMBE.

**SIX TO SIXTEEN.** By Mrs. EWING.

**A FLAT-IRON FOR A FARTHING.** By Mrs.  
EWING.

Prospectus and Specimen Plates sent on application.

### LES CLASSIQUES FRANÇAIS ILLUSTRÉS.

Small crown 8vo. With 8 Full-page Colour Plates and numerous  
Illustrations in Black-and-White. 5s. net each.

"Charmingly illustrated. . . . A delightful series of French classics in  
French."—*Spectator*.

**GEORGE SAND: Les Maîtres Sonneurs.** Préface  
d'ÉMILE FAGUET, de l'Académie Française. Illustrations de M. V.  
WHEELHOUSE.

**GEORGE SAND: La Mare au Diable.** Notice  
Analytique de C. A. SAINTE-BRUYE. Illustrations de GERTRUDE LEESE.

**GEORGE SAND: François le Champi.** Illustra-  
tions de GERTRUDE LEESE.

**H. DE BALZAC: Les Chouans.** Préface de  
GUSTAVE LANSON. Illustrations de J. BLAKE GREENE.

LONDON: GEORGE BELL AND SONS,  
York House, Portugal Street, W.C.

## GEORGE GILL & SONS, LTD.

A selection of Works included in

"The Oxford and Cambridge Edition"

required for the

1909

## LOCAL AND COLLEGE OF PRECEPTORS EXAMINATIONS.

### Religious Knowledge.

<b>THE OXFORD AND CAMBRIDGE EDITION ST. MATTHEW.</b> Edited by Rev. F. MARSHALL, M.A. . . . .	1 6
<b>THE OXON. AND CANTAB. EDITION ST. MATTHEW.</b> Edited by Rev. F. MARSHALL, M.A. ( <i>Preliminary</i> ) . . . . .	net 1 0
<b>THE OXFORD AND CAMBRIDGE EDITION ACTS I.</b> Edited by Rev. F. MARSHALL, M.A. . . . .	1 6
<b>THE OXON. AND CANTAB. EDITION ACTS I.</b> Edited by Rev. F. MARSHALL, M.A. ( <i>Preliminary</i> ) . . . . .	net 1 0
<b>THE OXFORD AND CAMBRIDGE EDITION KINGS I.</b> Edited by Rev. F. MARSHALL, M.A. . . . .	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION EZRA.</b> Edited by Rev. F. MARSHALL, M.A. . . . .	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION NEHEMIAH.</b> Edited by Rev. F. MARSHALL, M.A. . . . .	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION PRAYER BOOK.</b> Edited by Rev. F. MARSHALL, M.A. . . . .	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION CHURCH CATECHISM.</b> Edited by Rev. F. MARSHALL, M.A. . . . .	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION CHURCH CATECHISM.</b> Explained specially for Preliminary Candidates. Edited by Rev. F. MARSHALL, M.A. . . . .	0 6

### English.

<b>THE OXFORD AND CAMBRIDGE EDITION TEMPEST.</b> Edited by STANLEY WOOD, M.A., and A. SYMS-WOOD, B.A. . . . .	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION HENRY V.</b> Edited by STANLEY WOOD, M.A., and Rev. F. MARSHALL, M.A. . . . .	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION MACBETH.</b> Edited by STANLEY WOOD, M.A. . . . .	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION JULIUS CAESAR.</b> Edited by STANLEY WOOD, M.A., and A. SYMS-WOOD, B.A. . . . .	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION RICHARD II.</b> Edited by STANLEY WOOD, M.A. . . . .	1 6
<b>THE OXFORD AND CAMBRIDGE EDITION LAMB'S TALES FROM SHAKESPEARE.</b> Edited by STANLEY WOOD, M.A. (Selection Set for 1909 Cambridge Local) . . . . .	1 4
<b>THE OXFORD AND CAMBRIDGE EDITION LAYS OF ANCIENT ROME.</b> Edited by Rev. G. PRESTON, M.A. . . . .	1 0
<b>THE OXFORD AND CAMBRIDGE EDITION LAY OF THE LAST MINSTREL.</b> Edited by Rev. F. MARSHALL, M.A. . . . .	2 0

In the above works the necessary "Notes" have been added to enable Candidates to answer questions set by the Examiners.

### GUIDES

to the 1909 Local Examinations, Specimen Pages, and Complete Lists of the "prescribed" Books contained in the

Oxford and Cambridge Edition,  
Post free.

The Oxford and Cambridge Edition

OF

## EXAMINATION PREPARATION PAPERS

Graduated and arranged by Rev. F. MARSHALL, M.A., and C. CUDWORTH, M.A.,  
FOR THE 1909 EXAMINATIONS.

List post free.

## HISTORICAL ATLAS,

With CHRONOLOGICAL NOTES.

By E. A. BENIANS, M.A., and T. H. KNIGHT, M.A. 96 pp. Crown 8vo, net, 8d.  
Intended to provide suitable material for a general knowledge of British History  
and more especially for use as a supplementary work in Examination Preparation.

Complete Catalogue post free.

LONDON: GEORGE GILL & SONS, Ltd., 13 Warwick Lane, E.C.

# ARNOLD'S MATHEMATICAL SERIES.

## ARITHMETIC AND MENSURATION.

- Arnold's Shilling Arithmetic. By J. P. KIRKMAN and J. T. LITTLE. 1s.  
 Five Thousand Arithmetical Examples and Exercises. By R. W. K. EDWARDS. 3s. 6d.  
 An Arithmetic for Schools. By J. P. KIRKMAN and A. E. FIELD. 3s. 6d.  
 The Mercantile Arithmetic. By R. WORMELL. 4s.  
 Exercises in Arithmetic (Oral and Written). By C. M. TAYLOR. Three parts, 1s. 6d. each.  
 Elementary Plane and Solid Mensuration. By R. W. K. EDWARDS. 3s. 6d.

## ALGEBRA.

- Algebraic Examples. By A. F. VAN DER HEYDEN. Two books, 1s. 6d. each.  
 Elementary Algebra. By W. D. EGGAR. 3s. 6d.  
 The Elements of Algebra. By R. LACHLAN. 2s. 6d.

## GEOMETRY.

- The Elements of Geometry. By R. LACHLAN and W. C. FLETCHER. 2s. 6d.  
 Elementary Geometry. By W. C. FLETCHER. 1s. 6d.  
 A First Geometry Book. By J. G. HAMILTON and F. KETTLER. 1s.  
 A Second Geometry Book. By J. G. HAMILTON and F. KETTLER. 3s. 6d.  
 Plane Geometry. By T. PETCH. 1s. 6d.  
 The Elements of Plane Geometry. By E. J. EDWARDES. 3s. 6d.  
 Elementary Solid Geometry. By W. H. JACKSON. 2s. 6d.  
 Elementary Solid Geometry. By F. S. CARRY. 2s. 6d.  
 Geometrical Conics. By G. W. CAUNT and C. M. JESSOP. 2s. 6d.  
 The Elements of Euclid. By R. LACHLAN. 4s. 6d. (*Also in parts.*)

## GENERAL MATHEMATICS.

- Test Papers in Elementary Mathematics. By A. C. JONES and C. H. BLOMFIELD. 3s.  
 A Note-book of Experimental Mathematics. By C. GODFREY and G. M. BELL. 2s.  
 Practical Trigonometry. By H. C. PLAYNE and R. C. FAWDRY. 2s. 6d.  
 Elements of Trigonometry. By R. LACHLAN and W. C. FLETCHER. 2s.  
 An Introduction to Elementary Statics. By R. NETTELL. 2s.  
 Graphical Statics Problems. By W. M. BAKER. 2s. 6d.  
 Vectors and Rotors. With Applications. By Prof. O. HENRICI and G. C. TURNER. 4s. 6d.  
 Preliminary Practical Mathematics. By S. G. STARLING and F. C. CLARKE. 1s. 6d.  
 Practical Mathematics. By F. C. CLARKE. 3s. 6d.  
 An Elementary Treatise on Practical Mathematics. 3s. 6d.  
 Mathematical Drawing. By Prof. G. M. MINCHIN and J. B. DALE. 7s. 6d. net.  
 The Calculus for Engineers. By Prof. J. PERRY. 7s. 6d.  
 Five-Figure Tables of Mathematical Functions. By J. B. DALE. 3s. 6d. net.  
 Graphs and Imaginaries. By J. G. HAMILTON and F. KETTLER. 1s. 6d.  
 Oblique and Isometric Projection. By J. WATSON. 3s. 6d.  
 First Steps in the Calculus. By A. F. VAN DER HEYDEN. 3s.  
 Examples in the Mathematical Theory of Electricity and Magnetism. By J. G. LEATHAM. 1s. 6d.  
 Elementary Problem Papers. By C. V. DURELL. 1s. 6d.

## CATALOGUES ON APPLICATION.

London: EDWARD ARNOLD, 41 & 43 Maddox St., W.

# THE School World.

A MONTHLY MAGAZINE OF EDUCATIONAL  
WORK AND PROGRESS.

EACH NUMBER CONTAINS EIGHTY COLUMNS  
OF READING MATTER.

PRICE 6d. VOLUME IX., 1907, 7s. 6d. NET.

The aim of THE SCHOOL WORLD is to provide information of **practical and permanent value** to Schoolmasters and Schoolmistresses. To this end all important changes and developments affecting any branch of the work of teachers in secondary and other schools are dealt with by **leading authorities and experienced teachers.**

The Magazine has become indispensable to all who desire to keep in touch with modern and effectual methods of education.

MACMILLAN & CO., Ltd., LONDON.

## EDUCATIONAL WORKS By A. K. ISBISTER, M.A., LL.B.

(Late Dean of the College of Preceptors.)

- Sixteenth Edition, with Map. 12mo.  
**CÆSAR'S COMMENTARIES on the GALLIC WAR.**  
 BOOKS I.-V. With Notes, Critical and Explanatory, a Vocabulary of all the Words in the Text, and *Easy Reading Lessons for Beginners* ..... price 3s. 6d.  
 BOOKS I.-VII. do. do. 4s. 6d.  
 Do (without the Reading Lessons) ..... 4s. 0d.  
 Twenty-fifth Edition.  
 BOOK I. (with Vocabulary, Reading Lessons, &c.) ... 1s. 6d.  
 Fourteenth Edition. 12mo, price 3s. 6d.  
**XENOPHON'S ANABASIS, Books I. to III.** With Notes, Vocabulary of all the Words in the Text, and a *Series of Easy Reading Lessons for Beginners*. Designed as a First Greek Reading Book in Schools.

New Edition. 18mo, price 9d.  
**THE ELEMENTS OF BOOK-KEEPING**, by SINGLE and DOUBLE ENTRY; with Practical Explanations and Exercises on the most useful Forms for Business.

New Edition. 12mo, price 1s. 6d.  
**LESSONS IN ELOCUTION AND EXPRESSIVE READING FOR BOYS**, based on Grammatical Analysis; with a choice Selection of Extracts for Reading and Repetition, classified, of Goldsmith's "Deserted Village," set out into Principal and Subordinate Sentences, illustrating the theory of Emphasis and Pauses.

New Edition. 12mo, price 1s. 6d.  
**LESSONS IN ELOCUTION AND EXPRESSIVE READING FOR GIRLS**, based on Grammatical Analysis; with a choice Selection of Extracts for Reading and Repetition, classified, under heads for practice in various styles of Reading, and annotated for Expression, Emphasis, and Pauses, and the Analysis of Sentences, with the figure [of a Girl] showing the proper attitude in Reading.

LONDON: LONGMANS & CO., PATERNOSTER ROW, E.C.

# THE SCHOLARS' CARTOONS.

A SERIES OF DECORATIVE LITHOGRAPHS

ILLUSTRATING

GREAT EVENTS AND INCIDENTS OF BRITISH NATIONAL LIFE.

Designed by eminent British Artists, and reproduced with the advisory assistance of Educational Authorities.

FIRST SERIES in course of publication, containing Original Designs by—

**WALTER CRANE; FRANK BRANGWYN, A.R.A.; CAMPBELL TAYLOR;**  
**JOHN HASSALL; Professor GERALD MOIRA; SPENCER PRYSE.**

*The first four Prints created an enormous interest at the Moral Education Congress.*

PROSPECTUS GRATIS. PRINTS SENT ON APPROVAL.

**HANFSTAENGL, 16 PALL MALL EAST, S.W.**

## Modern Aids for Teaching Geography.

### BACON'S Excelsior Maps. CONTOUR EDITION.

*Now Ready: EUROPE, ASIA, AFRICA.*

*Ready in December: NORTH AMERICA, SOUTH AMERICA.*

*Ready early in 1909: AUSTRALIA and BRITISH ISLES.*

Messrs. G. W. BACON & CO., LTD., are now issuing a New Series of their well known Excelsior Wall Maps. The New Series is coloured Orographically instead of Politically. The Heights of Land are shown by different shades of Green and Brown, and the Depths of Water by varying shades of Blue. The same Bold Outlines and Lettering as in the original series are retained throughout.

The Contours have been prepared with the greatest care from Governmental and other Surveys, and these Maps will certainly rank as one of the most popular, useful, and satisfactory aids for carrying out modern ideas of teaching Geography.

Size about 5 feet by 4 feet.

**Price 16s.**

London: G. W. BACON & CO., Ltd., 127 Strand.

LARGEST STOCK  
of SECOND-HAND

School, Classical,  
Mathematical, and  
Scientific Books  
in London.

Keys and Translations.

BOOKS  
BOUGHT.

ESTABLISHED  
1854.

**J. POOLE & CO.,**  
104 Charing Cross Rd.,

AND

2 Manette Street, Soho,  
LONDON, W.C.

NEW AND SECOND HAND. ALL ENQUIRIES ANSWERED.

**EDUCATIONAL BOOKSELLERS**

# Messrs. LONGMANS & CO.'S HISTORICAL LIST

## A Student's History of England.

FROM THE EARLIEST TIMES TO 1901.

By **SAMUEL RAWSON GARDINER, D.C.L., LL.D.**

Vol. I.: B.C. 55—A.D. 1509. With 173 Illustrations. Crown 8vo, 4s.

Vol. II.: 1509—1689. With 96 Illustrations. Crown 8vo, 4s. Vol. III.: 1689—1901. With 109 Illustrations. Crown 8vo, 4s.

COMPLETE IN ONE VOLUME. With 378 Illustrations. Crown 8vo, 12s.

**PREPARATORY QUESTIONS ON THE ABOVE.** By R. SOMERVELL, M.A., Assistant Master at Harrow School. Crown 8vo, 1s.

## A School Atlas of English History.

With 66 Maps and 22 Plans of Battles, &c. Fcap. 4to, 5s.

## Outline of English History.

B.C. 55—A.D. 1901. With 96 Woodcuts and Maps. Fcap. 8vo, 2s. 6d.

## A SHORT HISTORY OF ENGLAND.

FROM THE EARLIEST TIMES TO THE DEATH OF QUEEN VICTORIA.

By **CYRIL RANSOME, M.A.**

With Tables, Plans, Maps, Index, &c. Crown 8vo, 3s. 6d.

Or in Two Parts, 2s. each. Part I.: to 1603; Part II.: 1603 to 1901.

**A SUMMARY OF RANSOME'S SHORT HISTORY OF ENGLAND.** With 22 Maps and Plans and 34 Genealogical Tables. 1s.

## A HISTORY OF ENGLAND.

By the **Rev. J. FRANCK BRIGHT, D.D.**

With numerous Maps and Plans.

Period I.—**MEDIAEVAL MONARCHY:** The Departure of the Romans to Richard III. 449 to 1485. 4s. 6d.

Period II.—**PERSONAL MONARCHY:** Henry VII. to James II. 1485 to 1688. 5s.

Period III.—**CONSTITUTIONAL MONARCHY:** William and Mary to William IV. 1688 to 1837. 7s. 6d.

Period IV.—**THE GROWTH OF DEMOCRACY:** Victoria. 1837 to 1880. 6s.

Period V.—**IMPERIAL REACTION:** Victoria. 1880 to 1901. 4s. 6d.

*This Edition has received numerous Additions, and brings up British History to the Accession of King Edward the Seventh.*

## A CLASS-BOOK HISTORY OF ENGLAND.

By the **Rev. D. MORRIS, B.A.**

The One Hundred and Ninth to One Hundred and Sixteenth Thousand.

With 24 Historical Maps and Plans of Battles, and 29 Illustrations engraved on Wood. Fcap. 8vo, 3s. 6d.

EIGHTH EDITION, REVISED, AND WITH ADDITIONAL ILLUSTRATIONS.

## A HISTORY OF GREECE.

FROM THE EARLIEST TIMES TO THE DEATH OF ALEXANDER THE GREAT.

By **C. W. C. OMAN, M.A., F.S.A.**

With 13 Maps and Plans and 84 Illustrations. Crown 8vo, 4s. 6d.

LONGMANS, GREEN, & CO., 39 PATERNOSTER ROW, LONDON, E.C.

# Messrs. LONGMANS & CO.'S LIST.

By **BENJAMIN HALL KENNEDY, D.D.,**

*Late Regius Professor of Greek in the University of Cambridge.*

**THE REVISED LATIN PRIMER. 2/6.**

**A SHORTER LATIN PRIMER. 1/-**

**EXERCISES ON THE SHORTER LATIN PRIMER.**

By M. G. and J. KENNEDY, and H. WILKINSON, M.A. Crown 8vo, 1s. 6d.

*A KEY, for the use of Masters only. 2s. 9d. net, post free.*

By **T. K. ARNOLD, M.A.**

**Practical Introduction to Latin Prose Composition.** Edited by G. GRANVILLE BRADLEY, D.D., formerly Dean of Westminster. 5s.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

By **LÉON CONTANSEAU, M.A.**

**A Practical Dictionary of the French and English Languages.** Post 8vo, 3s. 6d.

**A Pocket Dictionary of the French and English Languages.** Being a careful Abridgment of the Author's "Practical French and English Dictionary," preserving all the most useful features of the Original, condensed in a much smaller Volume. Square 18mo, 1s. 6d.

\*• *Special Edition for Travellers and Pocket Use, bound in leather tuck, price 3s. 6d. net.*

By **A. A. SOMERVILLE, M.A.**

**A First French Writer.** For the use of Lower and Middle Forms of Schools. Crown 8vo, 3s. 6d.

## LONGMANS' FRENCH COURSE.

**Longmans' French Grammar.** By T. H. BERTENSHAW, B.A., Mus. Bac., Assistant Master in the City of London School. Crown 8vo.

**Grammar. Part I.** Up to and including Regular Verbs, with Vocabulary, &c., 1s.

**Grammar. Part II.** Including Pronouns, Adverbs, Irregular Verbs, Subjunctive Mood, Infinitive, and Participles, with Vocabulary, &c., 1s.

**Parts I. and II.** Complete in One Vol., 2s.

*KEY and SUPPLEMENT, for the use of Masters only.*

**Longmans' Illustrated First Conversational French Reader.** With Notes and full Vocabulary. By T. H. BERTENSHAW, B.A., Mus. Bac. With 86 Illustrations (including 18 Views of the Public Buildings, &c., of Paris, and Plan of Paris, illustrating "Ma Première Visite à Paris"). Crown 8vo, 1s. 6d.

**Longmans' Illustrated First French Reading Book and Grammar.** By JOHN BIDGOOD, B.Sc., and THOMAS HARBOTTLE. Crown 8vo, 1s.

**Longmans' Illustrated Second French Reading Book and Grammar.** By JOHN BIDGOOD, B.Sc., and J. WATSON CAMPBELL. With 40 Illustrations. Crown 8vo, 2s.

By **G. G. BRADLEY, D.D.,** formerly Dean of Westminster.

**Aids to Writing Latin Prose.** Containing 144 Exercises. With an Introduction comprising Preliminary Hints, Directions, Explanatory Matter, &c. Edited and arranged by T. L. PAPILLON, M.A. Crown 8vo, 5s.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

By **H. G. LIDDELL, D.D.,** and **ROBERT SCOTT, D.D.**

**Greek-English Lexicon.** 4to, 36s.

**Greek-English Lexicon.** Abridged from the above. Revised throughout. Square 12mo, 7s. 6d.

By **H. R. HEATLEY, M.A.,** and **H. N. KINGDON, M.A.**

**Gradatim.** An Easy Latin Translation Book for Beginners. With Vocabulary. Fcap. 8vo, 1s. 6d.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

**Exercises on Gradatim.** By H. R. HEATLEY, M.A., and the Rev. A. SLOMAN, M.A. Fcap. 8vo, 1s. 6d.

**Excerpta Facilia.** A Second Latin Translation Book. Containing a Collection of Stories from various Latin Authors. With Notes at end, and a Vocabulary. Crown 8vo, 2s. 6d.

*A KEY, for the use of Masters only. 5s. 3d. net, post free.*

By **ARTHUR SIDGWICK, M.A.**

**A First Greek Writer.** Crown 8vo, 3s. 6d.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

**Introduction to Greek Prose Composition.**

With Exercises. Crown 8vo, 5s.

*A KEY, for the use of Masters only. 5s. 3d. net, post free.*

**Scenes from Greek Plays.** Rugby Edition.

Abridged and Adapted for the use of Schools. Fcap. 8vo, 1s. 6d. each.

**Aristophanes.**—The Clouds. The Frogs. The Knights. Plutus.

**Euripides.**—Iphigenia in Tauris. The Cyclops. Ion. Electra. Alcestis.

Bacchae. Hecuba. Medea.

**An Introduction to Greek Verse Composition.**

By ARTHUR SIDGWICK, M.A., and F. D. MORICE, M.A. With Exercises. Crown 8vo, 5s.

*A KEY, for the use of Masters only. 5s. 2½d. net, post free.*

By **FRANCIS DAVID MORICE, M.A.**

**Stories in Attic Greek.** With Notes and Vocabulary. Crown 8vo, 3s. 6d.

# Cambridge University Press

**The English Grammar Schools to 1660 : their Curriculum and Practice.** By FOSTER WATSON, M.A., Professor of Education in the University College of Wales, Aberystwyth.

Crown 8vo  
6s. net.

A history of the practice of the schools, of their curricula, and of the differentiated subjects of instruction, in distinction from the history of the theories of educational reformers as to what ought to be taught, and how existing methods might be improved. Throughout, the attempt has been made to describe really representative documents and school text-books, as the safest way of securing a sound basis for the study of the school practice of the time.

**Chaucer.—The Clerkes Tale and the Squieres Tale.** Edited, with Introduction, Notes, and Glossary, by L. WINSTANLEY, M.A., Lecturer in English in the University College of Wales, Aberystwyth.

Foolscap 8vo  
2s. 6d.

The editor has attempted to give a clear and concise outline of Chaucerian grammar, but the main stress has been laid, as is perhaps fitting in one of the greatest of English poets, rather on the literary than on the linguistic side. The history of the "Clerkes Tale" is given much more fully than can be found elsewhere, comparing it with the originals in Petrarch and Boccaccio, and also with the most interesting of later versions, while the sources of the "Squieres Tale" have been investigated as carefully as our existing knowledge admits.

**The Electra of Sophocles.** With a Commentary, abridged from the larger edition of Sir RICHARD C. JEBB, by GILBERT A. DAVIES, M.A.

Crown 8vo  
4s.

This abridgment follows the same lines as its predecessors in the same series. The editor has made it his aim to omit nothing which contributed directly to the elucidation of the play, but in very few cases, has made small alterations and additions with the view of making particular points clearer.

THE REVISED VERSION FOR SCHOOLS

With Introduction and Notes.

**The Gospel according to St. Luke.** Edited by the Rev. E. WILTON SOUTH, M.A. With 2 Maps.

**The Acts of the Apostles.** Edited by the Rev. C. WEST WATSON, M.A. With 3 Maps.

Foolscap 8vo  
1s. 6d. net  
each.

The present editions will, it is hoped, serve a good purpose in drawing the attention of young scholars to the importance of some of the changes made in the Revised Version, and in presenting in a clear and intelligible form the best and most approved results of recent theological works on these books.

**Trees : A Handbook of Forest Botany for the Woodlands and the Laboratory.** By the late H. MARSHALL WARD, Sc.D., F.R.S.

Vol. IV.  
Fruits.  
Crown 8vo  
4s. 6d. net.

The Author intended to write three volumes in addition to those already published, but was not spared to complete his full scheme. He, however, left behind sufficient manuscript to make up two volumes. The present volume has been seen through the press by Mr. Percy Groom, and will be succeeded by a final volume, which is now in the press.

## ENGLISH LITERATURE FOR SCHOOLS

A NEW SERIES OF ENGLISH TEXTS WITH BRIEF NOTES.

Extra fcap. 8vo, cloth. Price 1s. 4d. each.

**Defoe.—Memoirs of a Cavalier.** Edited, with Introduction and Notes, by ELIZABETH O'NEILL.

**Cobbett.—Rural Rides.** Selected and Edited by J. H. LOBBAN, M.A.

**Hazlitt.—Characters of Shakespeare's Plays.** Edited, with Introduction and Notes, by J. H. LOBBAN, M.A., Lecturer in English Literature, Birkbeck College, London.

**Captain John Smith.—True Travels, Adventures, and Observations in Europe, Asia, Africa, and America, and the General History of Virginia, New England and Summer Isles, Bks. I.—III.** Edited, with Introduction and Notes, by E. A. BENIANS, M.A., Fellow of St. John's College, Cambridge.

Further volumes are in preparation and will be announced shortly.

BOOKS SUITABLE FOR THE

## CAMBRIDGE LOCAL EXAMINATIONS, July and December, 1909

THE PITT PRESS SERIES.

AUTHOR.	WORK.	EDITOR.	PRICE. s. d.
Lamb	{ Ballads and Poems illustrating English History .....	F. SIDGWICK .....	1 6
	Tales from Shakespeare..... (A Midsummer-Night's Dream, The Winter's Tale, Much Ado About Nothing, The Comedy of Errors, Othello.)	J. H. FLATHER ...	1 6
Bacon	Essays .....	A. S. WEST .....	3 6
Scott	A Legend of Montrose .....	H. F. M. SIMPSON	2 6
Malot	Remi et ses Amis .....	M. DE G. VERRALL	2 0
Molière	Le Bourgeois Gentilhomme ...	A. C. CLAPIN ...	1 6
	Madame Thérèse .....	A. R. ROPES .....	3 0
Anderson	Eight Stories from .....	W. RIPPMANN ...	2 6
Goethe	Boyhood .....	{ W. WAGNER and J. W. CARTMELL }	2 0

THE PITT PRESS SHAKESPEARE FOR SCHOOLS.

With Introduction, Notes, and Glossary by A. W. VERITY, M.A.

**Julius Caesar.** Eleventh Edition. 1s. 6d.

**King Richard II.** Sixth Edition. 1s. 6d.

"Every page shows careful scholarship and a ripe literary judgment; it would be difficult to praise this work (or this series) too highly."—*School World*.

THE CAMBRIDGE BIBLE FOR SCHOOLS AND COLLEGES.

	CARE	net	s. d.
Gospel according to St. Matthew .....	CARE .....	net	2 0
" " Smaller Edition .....	" .....	net	1 0
First Book of Kings (Smaller Edition, 1s.) .....	LUMBY .....	net	2 0
" " Revised Version .....	BARNES .....	net	2 0
Acts of the Apostles (Smaller Edition, 1s.) .....	LUMBY .....	net	3 0
Epistles to the Thessalonians .....	FINDLAY .....	net	1 6

THE REVISED VERSION FOR SCHOOLS.

Gospel according to St. Matthew.....	CARE .....	net	1 6
Acts of the Apostles .....	WATSON.....	net	1 6

LONDON, FETTER LANE; CAMBRIDGE UNIVERSITY PRESS WAREHOUSE. C. F. CLAY, Manager.



## CONTENTS

	Page		Page
Leader: German in the Schools .....	511	The Experimental Study of Instruction: Address by Prof. J. W. Adamson, M.A. ....	523
Notes .....	512	The Teachers' Registration Council: Delegates' Reply to the Board of Education Circular .....	527
The Educational Compromise—The Registration Council—Grievances of Assistant Mistresses—Oxford and the People—The Welsh University Colleges: Business Management—Prospects of State Aid for Maintenance.		Conférences Françaises: La Femme Poète, par Mlle. A. M. Gachet .....	527
Summary of the Month.....	514	College of Preceptors:	
Universities and Colleges.....	516	Practical Examination for Certificates of Ability to Teach ...	528
Cambridge—Manchester—Leeds—Wales—Glasgow.		Meeting of the Council.....	528
The Study of German in Public Elementary Schools: Letter to the President of the Board of Education .....	517	Reviews .....	528
Correspondence: The Council of the College .....	518	A Literary History of France (Faguet)—The Practice of Instruction (Adamson).	
Current Events .....	521	General Notices .....	530
Fixtures—Honours—Scholarships and Prizes—Endowments and Benefactions—Appointments and Vacancies—Literary—General.		Christmas Books .....	531
		Mathematics .....	536

## The Educational Times.

### *German in the Schools.*

A LITTLE over a year ago we reviewed, not very cheerfully or very hopefully, the position of German in English education. We laid stress upon the high importance of a wider and fuller knowledge of German—the educational advantages of the study of the language, the literature to which it is the key, the necessity of a command of it for the purposes of research in every department of study, and its political value for the removal of national misconceptions so “readily exaggerated by the less enlightened press of both countries,” to say nothing of its social and commercial utility. Yet another year's experience scarcely tends to render the outlook more hopeful. Elsewhere we reproduce a letter on the position of German in our secondary schools addressed to the President of the Board of Education by five very important societies fully cognizant of the facts of the case, and representing not merely literary and pedagogical, but also scientific and commercial, interests. The combination of the Modern Language Association, the London Chamber of Commerce Education Committee, the Society of University Teachers of German, the Teachers' Guild, and the British Science Guild masses a weight of opinion that is not to be ignored or undervalued. It is obvious, on the face of the matter, that no such combined representation would be possible if we were not face to face with a really serious tendency of educational administration in a direction that must lead to very unfortunate, if not to disastrous, results.

The evidences of the decay of German in secondary schools below the first rank call for very careful consideration. The first test of the combined societies is applied to the number and the percentage of candidates at the Oxford and Cambridge Local Examinations. In the Junior Oxford Locals, 440 out of 3,226 candidates took German in 1895; 479 out of 8,327 in 1907—a declension from 13·7 to 5·7 per cent. In the Senior Oxford Locals, 351 candidates out of 1,414 took German in 1895; 360 out of 6,370, in 1907—a declension from 24·2 to 5·6 per cent. While the total number of candidates has enormously increased, the number taking German has remained practically stationary. In the

Junior Cambridge Locals, 396 boys out of 5,033, and 557 girls out of 2,696, took German in 1895; 345 boys out of 4,671, and 314 girls out of 3,034, in 1906: the percentage of boys showing a slight drop, from 7·5 to 7·3, and the percentage of girls declining from 20·6 to 10·3, exactly one-half. The total of boys is somewhat diminished, but the falling-off in girls is strongly marked, almost as strongly as the percentage. In the Senior Cambridge Locals, 80 boys out of 680, and 426 out of 1,272 girls, took German in 1895; 108 boys out of 1,721, and 216 girls out of 2,015 in 1906: the percentage of boys dropped from 11·7 to 6·3, while the percentage of girls fell from 33·5 to 10·7. The total of boys increased considerably, while the girls fell off by one-half. Looking at the objects of candidates, so far as one may essay to divine them, one may doubt whether it is quite clear that the percentage test is not to be taken with a certain qualification. There is probably always a considerable proportion of candidates that want the certificate on the lowest terms, without any special regard to the superior utility of any particular subject in their subsequent career; and German may not rank in popular opinion among the softest of the options. However, the only comforting outcome of the review seems to be that the absolute number of boy candidates has somewhat increased in three of these divisions and has fallen off only in one—the Junior Cambridge Locals: the great débâcle is in the total numbers of girl candidates—as far as the separate figures are furnished—and in the percentages. It seems reasonably safe to say that the real meaning of the results demands an inquiry into the nature of the examination papers, and perhaps also into the methods of teaching. Still, the best feature of the tables only shows a practically stationary condition over a period of a dozen years; and, whatever deduction (if any) may fall to be made from the validity of the percentage principle, it is more than sufficiently plain that the position is very far from what it ought to be.

The letter further points to recent reports of the Board of Education certifying a grievous decline of the study of German in Wales and in Scotland, as well as in England. Only last month we summarized the lament of the Scottish Modern Languages Association's memorandum based upon replies to a circular sent to thirty of the principal higher-

grade and higher-class secondary schools. The Education Department of the London Chamber of Commerce is hoarse with complaints of the inadequacy of the supply of candidates for clerkships that possess a competent working knowledge of foreign languages, and these complaints bring us back to the schools that send pupils to the Oxford and Cambridge Local Examinations, as it is from them that the most of the clerks come. The Universities also suffer in natural course. With such conditions prevailing in the schools of supply, it is easy to understand that they "find it increasingly difficult to obtain students prepared to take up the higher study of German." And how far can they go in research without an adequate command of German? The conclusion is not far to seek. Progress in every department—educational, literary, scientific, commercial—is menaced with retardment. This weighty address to the President of the Board of Education was not penned a day too soon.

What can the President do to save the situation? The letter suggests that he might issue a circular to Education Authorities, governing bodies, and the principals of secondary schools, calling their attention to the dangers involved in the decay of the study of German and emphasizing the multiplied advantages of a knowledge of the language. If such a reminder ought not to be necessary, there can be little doubt that it would in some sensible measure be effective. Perhaps there is more to be expected from some way of getting round Latin. Nobody questions the value of Latin, but the superior claims put in for it rest more upon traditional ideas than upon the actual demands of modern life. Avoiding a frontal attack, the letter urges "that the Board should encourage and foster schools of the type of the German *Realschule* and *Oberrealschule*, in which two modern languages, but not Latin, are taught." This is in the right direction, but there is too much novelty about it—some may even scent a menace in it—to hope for the adoption of the suggestion without a course of urgent insistence. It is only fair, however, that "it should, as a general rule, be required that schools should make provision for the teaching of German to those pupils who wish to learn it, as it is now required that provision should be made for the teaching of Latin." The example of German study of English, and of the widespread teaching of German in other countries, should also carry weight. And the more we think of it, the more we feel the desirability of some careful inquiry into the methods of teaching German and into the character of examination papers in German; and perhaps also into the ways of regarding German as a paying examination subject, from the point of view of both teachers and pupils. In any case the question now raised must not be allowed to rest without a satisfactory solution.

## NOTES.

THE prolonged negotiations for an agreed settlement of the thorny points of the education controversy have led to yet another Education Bill. On all grounds, it seems much better to start afresh than to graft the new provisions on

the old Bill. The whole matter can be more satisfactorily reviewed in a regular second-reading debate. All friends of religious and educational peace will join in tribute to the labours of the representatives of the different interests at stake. Elsewhere we set out the main points of the new measure. Already the voice of dissatisfaction is loudly heard through the congratulations to the promoters and framers of the settlement, and forecasts of continued warfare are not wanting. "Since the Reformation," says the Bishop of Manchester, "there has been no such malversation of Church property as is proposed by this Bill: war—bitter and protracted war—is far more likely to result than peace." "The new Bill," says Mr. Hirst Hollowell, "is the worst for education and civil liberty of the four Bills introduced by the present Government." Father Bernard Vaughan thinks the Bill "almost as plausible and clever as it is dishonest and wicked"; his soul is "fired with indignation and with shame and humiliation." The N.U.T. is still in arms against contracting-out and right of entry. After all, a compromise means that you are not to have all the butter to your own side of the dish. It is not easy for militant debaters to look calmly around a question and see their opponents' case as clearly as they see their own. All this was to be anticipated, and the clamour will be re-echoed in Parliament. We are not prepared for any development of strategy that will interfere with the passing of the Bill. The rights and wrongs of the case will be more accurately estimated after a few years' experience of the working of the measure. Meantime the prospect is materially improved, and large steps are taken—deductions notwithstanding—towards a truly national system.

It is matter of regret that the constitution of a Registration Council remains still in suspense. Some six weeks ago Mr. Butcher asked the reasons for the delay; but Mr. Runciman only repeated the reasons already given. The weight of the protests "from various important sections of the teaching profession" against the educational delegates' proposals was still held to "make it difficult to regard a Council so constituted as representative of the profession as required by the statute." Mr. Runciman had referred these protests to the Committee, and was "hoping to receive from them revised proposals which will command general agreement." Very soon thereafter the Committee, after consideration of the White Paper (Cd. 4185), the report of the delegates, and a number of letters received from societies claiming representation, communicated to Mr. Runciman their resolution thereon, "that the plan of a Registration Council already recommended be further pressed upon the Board of Education," adding the opinion that, while some members thought certain modifications might be submitted to the Board as desirable, yet "these modifications can only be made by the Board, which alone is in a position to arbitrate between rival claims." The view adopted by the Committee seems perfectly sound. The profession would be glad to see indications of the willingness of the Board to contribute as suggested to the solution of the difficulties involved. It is time there were decided signs of progress.

THE *Morning Post*, reviewing the grievances of assistant mistresses in secondary schools, points out that, in comparison with the assistant master (who has "at any rate won the substantial advantage of some slight increase in security of tenure"—after a dozen years of persistent effort), the assistant mistress, "whether as regards tenure, salary, or social environment, is in every way in the more deplorable position of the two." On the question of remedy, our contemporary remarks:

The remedy for at any rate the more tangible of these grievances lies in some degree with the Board of Education. But to an even greater extent it rests with the women themselves. As soon as the Board assumed responsibility for secondary education, their inspectors reported with one voice that high-school mistresses were overworked and underpaid. The result has been that in both these points improvement is already discernible. Nor is it over-sanguine to hope that the Board's ameliorating influence will be maintained and extended, and that the question of tenure will also be dealt with in time. But, what is still more important, this prompt recognition of their grievances has encouraged women teachers to demand that in future at educational congresses and conferences, where, hitherto, consideration for their pupils' welfare has provided the main topics for discussion, some attention shall be paid to the conditions of their own life and work. The economic reasons for the original inadequacy of salaries are too well known for recapitulation here. But that women should still continue to hold ill-paid posts is in a large measure their own fault. So long as such posts are accepted, whether through force of circumstances or in a spirit of altruism, so long will they continue to be offered, regardless of the protests of individuals. Up to the present these protests have never taken shape in united action, and there seems to be a tendency to wait for some general panacea such as Parliamentary representation, in spite of the fact that so far his measure of political power has done little enough towards raising the status of the assistant master. Some association will probably be formed sooner or later to deal exclusively with the question of salary, and at some future date it may be possible, as a result of organized co-operation, to finance impecunious teachers during temporary non-employment and so prevent any acceptance of underpaid work. But, unless women are prepared as a body to rely upon themselves in the matter, and to look to the interests of the profession as a whole, any partial attempt at remedy can only end in failure.

THE Joint Committee of University and labour representatives on Oxford and the education of workpeople is energetically tackling a very difficult practical question—how to bring Oxford back to the people. Tutorial classes, financed half by the colleges and half from local sources (grants from the Board of Education, trade unions and other labour bodies), have been, and will increasingly be, established in industrial centres, not for the children of workpeople, but for adult workpeople themselves; and there is a strong demand for the sort of education provided, and, in spite of many difficulties, such as overtime, broken hours, and unsettled conditions of work, reports speak of excellent results. The connexion with the University is established in two ways: first, there will be a selection of the best students at the end of the two years' course, and the successful candidates will be provided with scholarships to enable them to go into residence at the University; and, secondly, it is recommended that all district tutors shall reside and lecture in the University during the summer term. It is, indeed, refreshing to find Oxford in the mood of entering upon such a strenuous and such an unlikely campaign. There is a new spirit in the attempt. There can be nothing but good in the endeavour to interest and to instruct the adult workpeople; and the drafts to Oxford are sure to be well received, and to disseminate and drive home as many fresh ideas as they imbibe. Everybody must wish the best success to the movement. But, after all, it

is a very long way from bringing the people back to Oxford. Why not at once set about arrangements for enabling the poorest youth with brains to go to Oxford as freely as he can go to any Scottish or German University?

THE *Cambrian News* offers stringent criticisms upon the business management of the Welsh University Colleges, and particularly upon the College at its own door in Aberystwyth. The three Colleges want a State contribution of some £30,000 a year towards their maintenance. "There are about fifteen hundred students—this is a liberal estimate (says our contemporary)—and it seems to us that the first duty of the Colleges is to increase the fees of students, to cut down expenses, and to effect other economies which would show that each College was living within its means, however cramped its work might be." Then they might proceed "to prove that they require additional help, not for maintenance, but for development." As far as our contemporary can ascertain, "there is no really efficient managing body to see to the management of the College" at Aberystwyth. "The Court of Governors is practically of no use. It meets four times a year, and does nothing. It cannot do anything. The body is too large, and meets too seldom, to exercise any efficient control, either upon expenditure or management." "The College Council is equally powerless," the greater legal authority resting with the Governors. "The Senate has no power worth mentioning, and is very inadequately represented on the Court of Governors and the Council." Whatever may be the actual facts, and granting that these criticisms may be more or less overcoloured, recent differences of opinion in Welsh academic circles have drawn attention to considerable elements of dissatisfaction; and the present journalistic onslaught may be taken as another symptom of a state of things that demands inquiry. In any case, a grant of some £30,000 a year for maintenance ought to be preceded by a competent and independent investigation.

AT the same time, the wiser course is to be generous, without too minute exploration. It is well to live within one's means, but a state of bareness and cramp is not particularly favourable to development. The personal comparison, in fact, does not in all points correspond with the academic. However, it will be agreed that the administrative department should be sound and capable, and that steps should be taken to see that public grants are first needed and then properly applied. The Chancellor of the Exchequer has the Welsh claim before him, and, though he is an enthusiastic Welshman, has spoken on the subject with measured restraint, even before the University of Wales on an occasion when he might be expected to be expansive. True, he said he was "firmly convinced that it was his duty, not as a Welshman, but as Chancellor of the Exchequer, to review the whole of the circumstances and conditions, not merely of Wales, but of Ireland, and the demands of English and Scotch education to make a very substantial contribution towards the work of the University." But he told Bangor to complete her buildings out of her own pocket, and indicated that he was thinking of bestow-

ing his contributions in salaries—certainly the most necessary and the most effective application—and that even research may have to wait for special endowment. "It would be the worst thing in the world for the Welsh people," he said, "if the Government were to do everything for them in the way of building up their educational system." There is express ground, therefore, for anticipating that Mr. Lloyd George will satisfy himself as to the real needs of the Welsh colleges before dipping his hand into the Exchequer for them. If there be any such administrative futility as is alleged so roundly by our Aberystwyth contemporary, that requires different treatment.

### SUMMARY OF THE MONTH.

The main provisions of the new Education Bill may be summarized as follows:—

1. Rate aid to be confined to schools provided by the Local Education Authority. No child may be compelled to attend a school not so provided.
2. A duty is imposed on the Local Education Authority to provide free accommodation in public elementary schools for all children whose parents desire such accommodation.
3. No teacher of a provided school may be subjected to religious tests or required to give religious instruction.
4. Religious instruction in conformity with the Cowper-Temple Clause to be given in the first three-quarters of an hour in each school day for any child whose parents desire him to receive it.
5. "Right of entry" for denominational instruction in provided schools on two mornings in the week, under conditions.
6. Owners of an existing voluntary school subject to charitable trusts may transfer the school by agreement to the Local Authority.
7. A Local Authority is given power to establish a Religious Instruction Committee, to whom all questions as to the syllabus of religious instruction provided by the Authority will stand deferred.
8. Voluntary schools (except in single-school parishes) may "contract out" and receive a Parliamentary grant—but no rate aid—on the sliding scale.

The "right of entry" (Clause 2 of the Bill) takes the form of provision for affording facilities in provided schools for denominational instruction from 9 to 9.45 on two mornings in the week to children whose parents desire them to receive it, no part of the cost being borne by the Local Authority. Assistant teachers, if permitted by the Local Education Authority, may volunteer to give religious instruction under the clause. A present head teacher of a voluntary school transferred under the Act may also volunteer, with permission of the Authority, so long as he holds his present appointment, or, in case of his transference to the head teachership of any other transferred voluntary school, for five years after the passing of the Bill. The Local Authority may not withhold permission unless the teacher's services are required for the general conduct of the school. Payment is to be made to the Authority in respect of the time spent by the teacher in giving this instruction, in proportion to the salary of the teacher and the time devoted to the instruction.

CLAUSE III. prescribes the conditions under which a school not provided by the Local Education Authority may be recognized as a public elementary school, and thus share in the Parliamentary grant. The school must not be a school in a single-school parish; there must be at least thirty children in attendance; it must satisfy the conditions of the code, and must attain an equal standard of efficiency, as regards teaching staff, school premises, and secular instruction, with provided schools. The school must belong to an Association recognized by the Board of Education for the purpose, and the Parliamentary grant will be paid to the Association. No Association will be recognized unless it is an Association of schools of a certain denomination for the whole of England and Wales.

THE amount of the grant is not an average 47s., as in the case of Mr. McKenna's Bill of this year. There is a sliding scale, varying upwards, in inverse ratio to the size of the school:

Attendance at the School as computed for the purpose by the Board of Education.		Grant per Scholar.
From 30	to 50	
" 51	" 100	55s. 0d.
" 101	" 150	54s. 6d.
" 151	" 200	53s. 6d.
" 201	" 250	52s. 6d.
" 251	" 300	51s. 6d.
" 301	" 350	50s. 9d.
" 351	" 400	50s. 0d.
" 401	" 450	49s. 6d.
" 451	" 550	49s. 0d.
" 551	" 700	48s. 6d.
" 701	" 950	48s. 0d.
" 951	" 1,300	47s. 6d.
" above	1,300	47s. 0d.

This means a considerable increase in the financial responsibility of the Exchequer and a corresponding saving of the rates.

At a meeting of Roman Catholic teachers in London (November 21) the following resolution was passed:—

That this meeting of London Catholic teachers vigorously condemns the proposal for contracting-out contained in the Education Bill, as in its very essence it must, of necessity, be unjust and uneducational, and pledges itself to uncompromising opposition to any legislative proposals which would (a) impose civil disabilities upon Catholic ratepayers; (b) rob Catholic children of their just rights to the full benefits of a national system of education; (c) penalize Catholic teachers by damaging their professional status, reduce their salaries below the recognized scale, and inevitably lead to a recrudescence of the unfair and intolerable conditions to which the Catholic teaching body was subjected prior to 1902.

The tenth meeting of the Federal Council of Secondary School Associations was held (October 28) at the College of Preceptors, Canon Bell in the chair. The position of the negotiations concerning the new Registration Council was considered, but, as the members of the Council were already involved in the action of Dr. Gow's committee, no further steps were taken. A motion from the Assistant Mistresses' Association for a Committee to consider the general question of curricula in secondary schools was discussed, but not carried, the Council feeling that the proposal could not yet be executed efficaciously. The interim Report of the Committee on the Incidence of Taxation was received, and the Committee was instructed to continue its investigations, which had already produced evidence of much inequality and hardship. The Report upon the Constitution and Functions of the Council, prepared by a special Committee, with Dr. Gow as assessor, was received, and it was decided that before further steps were taken the Chairman should ascertain the views of the Head Masters' Conference upon the general question. The Draft Superannuation Scheme of the National Association of Local Government Officers was considered, and it was agreed that the Chairman, with Mr. Cholmeley and Mr. C. H. Greene, should be constituted a special committee to examine and report upon the scheme and recommend action.

THE London County Council Education Committee is considering an extension of the Council's trade schools for girls. The first class for definite trade instruction was established at the Borough Polytechnic in September, 1904, for the training of girls in waistcoat-making. In the following year classes in dressmaking, upholstery, and designing and making of ready-made clothing were authorized, as was also the award of eighty scholarships tenable at the institutions where these classes were held. The progress of these classes was considered sufficiently satisfactory to justify their further extension, and last year additional classes were formed in the above-stated subjects, and also in corset-making, ladies' tailoring, and laundry work. It is now proposed to organize additional classes in these subjects, and also in photography and millinery, at the London County Council Trade School for Girls, the Hammersmith School of Arts and Crafts, and the Borough and Woolwich Polytechnics. The cost, which will be spread over three years, will be £6,400. All the girls who completed their training in April were able to find remunerative employment with good firms. In several important trades the highest positions are often filled by foreigners, who are employed solely owing to their better training and higher technical skill. The Council's schools will, however, train

a) body of workers capable of taking the highest positions attainable.

THE annual general meeting of the Association of Teachers in Technical Institutions was held (November 7) at St. Bride's Institute. Mr. Chas. Harrap, the President, congratulated the members on the steady progress which has been made. He said it is time there was a technical college for training teachers. No one knows better than the members of the Association how difficult it is to get competent technical handicraft teachers—men who have worked at the trade and know how to teach it. Such men, when found, deserve the best treatment from Authorities in order that they may be retained for the benefit of technical instruction generally. Among the difficulties which have to be overcome, if English technical education is to be successful, is the necessity of obtaining the concurrence of both employers and employees in any scheme intended to substitute trade-school training for part or whole apprenticeship. The London County Council has been able to form two consultative committees, one for the book-binding and another for the printing trades, each committee consisting of three employers, three representatives of the employees, and three London County Council nominees. One of these committees has completed its preliminary work, and in due course an experimental school is to be tried where lads can undergo a proper preparatory training for the trade. The youths will generally be selected by scholarship tests, and may enter the preparatory trade training school from twelve and a half years of age. The newly elected President of the Association is Mr. J. Wilson, head of the chemical department, Battersea Polytechnic, S.W., who has acted as Honorary Secretary of the Association since its formation in 1904. His successor in that office is Mr. P. Abbott, head of the mathematical department, Regent Street Polytechnic, London, W.

THE Association of Teachers in Technical Institutions has addressed a letter to the Board of Education drawing attention to the conditions of the Whitworth Scholarship and Exhibition competitions. The Association states, in response to requests from teachers who have been for years preparing candidates for these competitions, that there is a general belief that the competitions are not now in full accord with modern requirements of engineering study and training, and has drawn up the following proposals, which have been put before all engineering teachers in the Association, as well as several engineers who are Whitworth scholars, and therefore may be looked upon as an expression of present opinion on the subject. The objects of the proposals are to prevent mere cram and to encourage systematic training, as well as to give preference to engineering subjects as such. They are also intended to encourage regular workshop engineering extending over at least thirty-six months, since Sir Joseph Whitworth's intention was specially to encourage the practical mechanical engineer. The Association points out that a modern scheme of training for mechanical engineering is incomplete which does not give an opportunity for considerable electrical engineering study and practice, and expresses a hope that the Board of Education will see its way to accept the examinations of the City and Guilds of London Institute in electrical engineering. The principal changes proposed by the Association are: (1) introduction of a qualifying test; (2) a "special" freehand drawing examination to be held; (3) division of subjects into two groups; (4) a new scale of marks; (5) "relative value" factors; (6) introduction of electrical engineering as a subject; (7) more rigorous workshop qualification; (8) the deletion of building construction and drawing and naval architecture as not strictly belonging to mechanical engineering. With a view to embody the above suggestions, they submit an examination scheme. The Council urges that candidates' credentials in the matter of workshop qualifications should be very carefully investigated, and, further, that the time spent in the workshops of a mechanical engineer shall not be less than thirty-six months. Under the present rule it is possible for a candidate to qualify with eighteen months' shop practice.

MR. HENRY D. KIMBER, Chairman of the City of London School Committee, entertained a large and distinguished company at dinner in Lincoln's Inn Hall (October 30), in celebration of the foundation of "The City of London Asquith Scholarship" of £100 a year, tenable at Oxford or Cambridge for three (or four) years. Mr. Asquith made some interesting personal statements:

Among the many and varied congratulations which I have received

since I had the honour of attaining to my present position I can assure you there is none which has gone more nearly to my heart, or for which I feel more sincerely grateful, than that which you have given me to-night. In the first place, I desire to thank the Corporation of London and the Lord Mayor, its honoured representative, for the great distinction which they have done me—one of the most welcome tributes that could be paid to any man—in founding and naming with my name a scholarship in my old school, by which I hope and believe that those who like myself could not, from their own means, or the means of their friends, have by any possibility achieved the advantage of University distinction may in time to come be able, at Oxford or Cambridge, to pursue the studies they have begun at our old school. I remember with gratitude myself that it would not have been possible for me but for the benefactions first of our pious founder, John Carpenter, and then of men like Tite and others, and of the great City Companies, such as the Grocers' Company, to which I am more especially bound to pay my acknowledgments—it would not have been possible for men like myself, born in a humble station in life and not endowed with this world's goods, to have pursued the studies begun at school if it had not been for the beneficence, the wise and far-sighted beneficence, of men in days gone by, which, I am glad to think, is going to be supplemented and rivalled by the Corporation of to-day. And, next, I must acknowledge in the simplest but sincerest possible words the pleasure it gives me to find myself to-night among old schoolfellows, some of them contemporaries, some of them of a later generation, but all united by one common bond of association, of affection, and of loyalty to the City of London School.

MR. ASQUITH paid a handsome and thoroughly well deserved tribute to his distinguished Head Master:

And when I try, as I sometimes do, not to speculate upon what might have been, but to remember what was, and to analyse that debt, while I acknowledge with gratitude much that was due to the stimulating and stirring companionships of boyhood, I find its greatest factor to be the example and the teaching of our old head master, Dr. Abbott. A scholar of the finest type, he taught his pupils as well as any schoolmaster of his time the meaning and the just use of words, but, though bred himself in the straitest school of the old Cambridge scholarship. he was, I think, one of the first of our head masters to show to his class how Shakespeare and Dante might be illuminated and understood by the application of the same scientific methods which had long ago been applied to the classics of Greece and Rome. I see some here to-night—Mr. Rushbrooke, Dr. Garnett, and Mr. Hebb, and I dare say if my eyes had long enough vision I should see others—who sat in the sixth form in those days, and I am perfectly sure that there is not one of them who would not agree with me that those stimulating and vivifying lessons, in which all the acumen of scholarship and all the wealth of learning which Dr. Abbott had derived from close converse with the classics, were brought to bear with intensity, force, and illuminating power upon the study of every modern author and of every period of history. But, my old schoolfellows, behind and beyond all that there was something more. There was the force, the influence, the personality of a man cultured, disinterested, austere, but, at the same time, with a vivid interest in the affairs of mankind and in everything that concerned the boys who came under his charge, and I am perfectly certain there is not a full-grown man here who in those days—the days of the sixties and the seventies—was under Dr. Abbott's tuition and guidance who will not agree with me that the most precious possession we took away with us from the City of London School, whether to Oxford or Cambridge, or to the works of business and to the avocations of life, was the sense of that strong, self-sufficing, but, at the same time, wide-spread, vivifying, many-sided personality to which many of us have looked back in the stress and strain of life as the best example and the best influence. There is nothing, I can honestly say to you, that gives me greater pleasure to-night in meeting this gathering of my old schoolfellows than being able to join with you in this loving and grateful tribute to the man to whose moulding influence we owe so much.

Mrs. RUNCIMAN distributed the prizes to the successful girls attending the Notting Hill High School (November 13). Sir Wm. Bousfield, the Chairman of the Council of the Girls' Public Day School Trust, who presided, was able to refer to another remarkably good year's work carried out under the direction of Miss Steele, the Head Mistress, and her assistants. A Bedford College scholarship had been won by Irene Birch, who also passed the Intermediate Arts Examination at London University; Gladys Westbury secured a scholarship at the Royal Holloway College; and Lilian Lyons, who had been awarded a bursary at the same College, shared with Ethel Clover the distinction of passing the Intermediate Science Examination at London University. Nine girls matriculated at that University, and several other honours had been gained at the examinations held by the Associated Board of the Royal Academy of Music and the Royal College of Music, the Oxford and Cambridge Locals, the National Froebel Union, the Royal Drawing Society, and the St. John's

Ambulance Association. Miss Steele, in her report, made a pleasing reference to the fact that Mrs. Runciman was herself a Notting Hill Girls' School "old girl" and a former winner of a scholarship there.

MR. RICHARDSON CAMPBELL, of Manchester, the representative of the National Conference of Friendly Societies on the Workers' Educational Association, has issued a report, in which he gives a sketch of the special work done by the Association during the last year. Mr. Campbell says: "Though adult education has throughout the nineteenth century received much support and encouragement from individual University men, there has till recently been no machinery for enabling Universities to ascertain the special needs of the working classes as voiced by their representatives, and little organized effort on the part of workpeople to claim the Universities as a common national possession. This state of things has been changed by the formation of the Workers' Educational Association, which has succeeded in bringing academic and working class opinion into alliance." The Workers' Educational Association has now fifty local branches in England and Wales where classes of various kinds are provided, in many cases conducted by teachers and lecturers of ability, provided in several cases by the Committee of Oxford University, who manage the University Extension Lecture system. The Association is now prepared to establish classes specially adapted to the needs of workpeople in any of our towns when the requisite number of applicants (about twenty) can be obtained. The subjects generally taken are economics, history, literature, and political science.

A REPORT on the courses of lectures and practical lessons held within the University of Edinburgh in August last has now been issued by the Acting Committee. It is stated that the total number of lectures, readings, and recitations amounted to about 240, and the total number of practical lessons to nearly 400. The courses were attended by 256 students, of whom 77 were Scottish, 28 English and Irish, 88 German, and 49 French, the remaining 14 being of Russian, Portuguese, Scandinavian, and Italian nationality. Of the total number 133 were men and 123 women, the great majority belonging to the teaching profession. Besides these, there were several hundred occasional students and hearers. Of the 148 certificates of proficiency granted by the Committee 27 were gained by Scottish teachers under the Scottish Education Department and 121 were gained by others, including 55 Germans. The students derived great benefit from these courses, and international goodwill and the cause of national education have been undoubtedly promoted. The Committee deeply regret that the number of students of German is still so small, as German is one of the master-keys to science and art, to industry and commerce, and to ancient languages, as well as to international friendship. The average attendance at the German classes was about 30, at the French 80, at the English classes 100 to 130. The gratifying increase in the number of students from France was mainly due to the patronage of the French Government and to the invaluable services of Prof. F. Herbert. To the students, who worked with admirable zeal, and to the staff of twenty-six professors, lecturers, and teachers, the Committee tender their hearty thanks, and they are specially grateful to the eleven lecturers who so kindly gave their services gratuitously. These services, and the fact that the officials of the Council also act gratuitously, alone render the scheme financially possible.

THE REV. DR. BRUCE, for fifty years pastor of the Highfield Congregational Church, Huddersfield, died at Harrogate (November 6). A native of Aberdeenshire, he graduated at Aberdeen University in 1848, and became a teacher. He had Lord Morley as a pupil at Blackburn, and he was long associated with Huddersfield College, where Mr. Asquith was educated. He was one of those who were instrumental in starting the University Extension examinations and the College of Preceptors examinations at the College, and for some time he was Chairman of the Committee. He was a governor of the Outcote Bank and Spring Street British Schools. For twenty-one years he was a member of the School Board, part of that time occupying the position of Chairman. As a representative of Nonconformity, he was one of those who gave evidence before the Royal Commission on Elementary Education, of which Lord Cross was Chairman, in 1867. He was an active member of many societies for religious

and social work. In 1906 he received the freedom of the burgh of Huddersfield.

THE REV. DR. GEORGE EDWARD JELF, Master of Charterhouse, died on November 19. He was a son of Dr. Jelf, the first Principal of King's College, London. Educated at Charterhouse and at Christ Church, Oxford, he laboured nearly all his life in the Church, mainly at Rochester Cathedral, and it was only last year that he succeeded Canon Haig Brown as Master of Charterhouse. He was a prolific author of esteemed religious works.

DR. EDWARD CAIRD died at Oxford in his seventy-fourth year (October 31). Educated at Glasgow University, a Fellow and Tutor of Merton, he was appointed to the Chair of Moral Philosophy in Glasgow University in 1866, and taught there for twenty-seven years. In 1893 he succeeded Jowett as Master of Balliol, and held the post till his resignation a year back. He was the leading interpreter of Kant, Hegel, and perhaps Comte, in this country; and his Gifford Lectures on the Evolution of Religion, and the Evolution of Theology in the Greek Philosophers, as well as his volumes of Essays on Literature and Philosophy, are esteemed masterly. His influence on his students—"an influence that made for sweetness and light"—was universally regarded as impressive and memorable.

PROF. W. E. AYRTON died on November 8. Educated at University College, London, he took the first place in the Indian Telegraph Service Examination in 1867, and, in India, devoted special attention to electrical engineering. From 1873 to 1878 he was Professor of Natural Philosophy and Telegraphy at the Imperial College of Engineering, Japan. Here he was closely associated with Prof. Perry in electrical and physical researches. In 1879 he was appointed Professor of Applied Physics at the City and Guilds of London Technical College, and in 1884 Chief Professor of Physics at the Central Institution (South Kensington) of the City and Guilds Institute. In 1880 he was Secretary of, and in 1888 President of, the Mathematical and Physical Section of the British Association. Prof. Ayrton's widow, Mrs. Hertha Ayrton, is herself a distinguished scientist and the only woman member of the Institute of Electrical Engineers.

## UNIVERSITIES AND COLLEGES.

(From our own Correspondent.)

WE really have had a very quiet October term so far; but that is not an unmixed evil, and people have had time to attend to their proper work, as they cannot do in times of agitation and argument.

The list of Birthday Honours contained two names honoured in Cambridge and not unknown in the outer world. Prof. J. J. Thomson received a knighthood as some recognition of the epoch-making character of his discoveries in the realm of physical science and as a graceful tribute to the discrimination of the British Association in choosing so capable a President for its Canadian meeting. The other honour, that of K.C.B. to Dr. Donald McAlister, is one which is well deserved by the recipient, both in his character as Principal of Glasgow University and in the more strictly professional rôle of President of the Medical Council. Both of the men whom the Prime Minister has deemed fit to honour are as well known in Cambridge as they are well liked, "J. J." and "Donald" being the usual style and title of those who have now a right to put a handle before their first names.

The Council of the Senate have formulated a new edict with regard to the use and abuse of motor-cars with a view both to prevent inconsiderate driving and to put down unjustifiable extravagance. Here, as will always happen, the sins of the few are visited upon the many, for, taking them as a class, the undergraduate motorist will bear comparison favourably with any class in the country.

The election to the Council of the Senate was rather a tame affair, no burning question being before the University at the moment. Dr. Keynes, the Secretary of the Local Examination Syndicate, and Dr. Kenny, Professor of English Law, were nominees of both parties, and, of course, stood high upon the list in consequence. The Master of Caius (the retiring Vice-Chancellor), the Master of Queens', Prof. Seward, Dr. Tanner, Dr. Mollison, and Mr. Parry were the other members elected.

Parties are now fairly well balanced in our governing body, and faddists are conspicuous by their absence.

We have only been enlivened by one "rag," which took place, according to custom, on November 14, to work off the excitement caused by the football match against the Australians, about which more hereafter. The events of the evening included the burning, either by accident or design, of a large rick of hay worth, it is said, £100. It may be useful for frolicsome youth to bear in mind that penal servitude for life is a possible sequel to such incendiary playfulness.

We have alluded to the Australian match; our men covered themselves with glory, and, though beaten on points—11 to 9—lost by several pieces of absolute hard luck, they proved themselves far the better side in every department of the game, and thereby justified the forecasts expressed in these notes a month ago. Those who are inclined to back their opinions in the form of a wager did so at that time by risking fifty golden sovereigns to one upon the chance of Oxford being victorious on December 12. The investment would not commend itself to cautious men who follow football.

Mrs. Taylor, the widow of the late Master of St. John's, has presented the University with a collection of the Hebrew books belonging to her late husband, and has received the grateful thanks of the University for her munificence.

The affairs of the Library have been before the Senate, and the discussion which resulted was remarkable for the outspoken criticism of one of the staff who knows what he is talking about—Mr. Sayle, to wit. He observed that the most lamentable, the most disgraceful, and the most scandalous feature in the Library was the condition of the catalogue. Mr. Sayle went on to advise the formation of a new catalogue working in the books of the old and present new catalogue into the fresh edition. He withdrew his suggestion in favour of that of a new catalogue by classes, as the weight of expert opinion was against him. Some are with the experts, some are with Mr. Sayle.

A change is to be made in the mode of creation of doctors and masters. For many years the ceremony has entirely lost its meaning, and now will be abolished in favour of a simpler process—a mere list prepared by the Registry, countersigned by the proper official, and presented to the Vice-Chancellor, will take the place of the reading of meaningless lists of names to a sparse and yawning audience in the Senate house.

Cambridge men of a past generation will hear with deep regret that we have lost one of the few remaining links with the past. Andrew Graham, after many years of devoted work in astronomical science, and comparatively few of well earned retirement, died on November 5 at the ripe age of ninety-three. His life was a lesson and his record an example.

Manchester. THE Chemical Schools are being enlarged by a new block of buildings, which, it is expected, will be ready for opening in the early autumn of next year. The main part of the new block will consist of a large laboratory for forty students and fifteen new research laboratories, and the total cost is estimated to be not far short of £20,000.

Leeds. THE number of students in the Textile Industries Department, most of whom are taking complete courses of study, is larger than in any preceding year. Every place is occupied in the worsted and woollen spinning classes, in the first, second, and third year textile designing, weaving and colouring classes, in the cloth-finishing class, and in the class in the conditioning laboratory.

Wales. THE Judicial Committee of the University of Wales (Lord Justice Vaughan Williams, Sir Brynmor Jones, and Sir Isambard Owen) have decided against the claim of the authorities of the North Wales University College to admit the students of the Normal College to the examinations of the University. It is now held that "students of the University" mean students who have received instruction within the walls of one of the three constituent University colleges.

Glasgow. THE University Court have had submitted to them a request by the Senate for an inquiry into the results of the Arts Preliminary Examination in English. Last September there was a similar representation from the General Council. Out of 250 candidates presented,

only 28 passed in English; that is, there were 87 per cent. of failures. A committee was appointed to obtain an explanation from the Joint Board of Examiners (whose methods of revision were freely discussed), and to obtain all necessary information for the Court, such as the questions set and the answers.

The Committee on Educational Policy and Methods submitted to the General Council a report on the proposed institution of lecturers analogous to the *Privatdozenten* of German Universities. The committee, after pointing out that historical and local causes, as well as the system of University finance, have deprived the University of the valuable type of teacher represented by the *Privatdozent*, express the opinion that a corps of *Privatdozenten* receiving fees from students for their services, but no salaries from the University, would modify the demand on the professoriate, and, by replacing to some extent the present staff, would tend to reduce the claims on the fee fund and other University resources. The committee are fully convinced that the introduction of such an order of lecturers would be highly advantageous to the University, and they are anxious to give further consideration to the matter with the object of surmounting the practical difficulties.

### THE STUDY OF GERMAN IN PUBLIC SECONDARY SCHOOLS.

THE following letter on the position of German in secondary schools has been addressed to the President of the Board of Education by representatives of the Society of University Teachers of German, the Teachers' Guild of Great Britain and Ireland, the British Science Guild, the Education Committee of London Chamber of Commerce, and the Modern Language Association:—

We, the undersigned, desire, on behalf the bodies whose names are appended to our signatures, to represent to you the serious neglect into which the study of the German language in public secondary schools is falling.

That the number of pupils in these schools who learn German is small is incontestable; but we have reason to believe that in the schools below the first rank this number is not only small, but diminishing. Evidence of this is supplied by the following tables, which show the number of candidates who entered for the Oxford and Cambridge Local Examinations in certain years, and the number and percentage who offered German:—

#### OXFORD LOCAL EXAMINATIONS.

	JUNIOR.		Percentage.
	No. of Candidates.	No. taking German.	
1895	3,226	440	13.7
1900	4,455	441	9.8
1905	7,011	505	7.2
1907	8,327	479	5.7
SENIOR.			
1895	1,414	351	24.2
1900	1,926	282	14.6
1905	3,664	414	11.2
1907	6,370	360	5.6

#### CAMBRIDGE LOCAL EXAMINATIONS.

	SENIOR.				Percentage.	
	No of Candidates.		No. taking German.		Boys.	Girls.
	Boys.	Girls.	Boys.	Girls.		
1895	680	1,272	80	426	11.7	33.5
1900	921	1,366	62	313	6.5	22.7
1906	1,721	2,015	108	216	6.3	10.7
JUNIOR.						
1895	5,033	2,696	396	557	7.5	20.6
1900	5,413	2,964	319	483	5.9	16.3
1906	4,671	3,034	345	314	7.3	10.3

It will be seen from the above figures that the percentage who offer German is steadily diminishing, and that German as a school subject is being gradually elbowed out.

In this connexion we would bring to your notice the fact that the Reports of the Education Department of the London Chamber of Commerce have repeatedly called attention to the inadequacy of the supply of candidates for clerkships who are acquainted with foreign languages. It is from the schools which send in their pupils for the Oxford and Cambridge Local Examinations that the great bulk of clerks come.

Further evidence of this lamentable decline in the study of German is

supplied by the Report of your Board for 1906-7, which says: "German in Wales, as in England, is finding difficulty in maintaining its ground" (page 83), and the Report on Secondary Education in Scotland for 1907, in which occurs the statement: "German can hardly be said to be holding its ground . . . Inquiry shows that in England the phenomenon is still more strikingly apparent" (page 23).

Evidence is also before us to the effect that the Universities find it increasingly difficult to obtain students prepared to take up the higher study of German.

We are of opinion that this decline of German as a secondary school subject is a matter of grave national importance (a) from the point of view of general literary culture; (b) from the point of view of the public services; (c) from the point of view of practical utility, considering the value of German for serious students in all branches of knowledge, as well as for those taking up a professional, commercial, or technological career; (d) from the point of view of rendering a good understanding between the two peoples less easy.

Taking this view of the important place German should hold in the curriculum of the secondary school, we welcome the recent change in the regulations of your Board, the effect of which we understand to be that so long as provision is made for teaching Latin to pupils who may require it, the Board will offer no objection to a school making French and German the two principal foreign languages in its curriculum.

We would at the same time represent to you that much more must be done if the unfortunate decay of German is to be checked, and we therefore venture to suggest that your Board should consider the desirability of calling the attention of Education Authorities, governing bodies, and the principals of secondary schools to the steady decline in the study of German, and should, by means of a circular, as in the case of Latin, or such other method as may be thought fit, submit to those Authorities and to the public generally the many weighty and urgent reasons for regarding an acquaintance with German as being of the first importance to great numbers of young men and women and a widespread knowledge of the language a national necessity.

We would urge, moreover, that the Board should encourage and foster schools of the type of the German Realschule and Oberrealschule, in which two modern languages, but not Latin, are taught. The latter of these in Prussia ranks in standing with the Gymnasium, and its leaving certificate confers the same rights. Of schools devoting special attention to modern, as against classical languages, there are, at present in this country, very few.

Lastly, we would suggest that it should, as a general rule, be required

that schools should make provision for the teaching of German to those pupils who wish to learn it, as it is now required that provision should be made for the teaching of Latin.

In conclusion, we desire to point out (a) that the study of English is encouraged in German schools of every type; (b) that England seems to be the only country of importance where the study of German is neglected. In the United States, France, and Scandinavia especially, great weight is attached to the teaching of this language.

**CORRESPONDENCE.**

[We do not hold ourselves responsible for the opinions expressed by our correspondents.—ED. E.T.]

**THE COUNCIL OF THE COLLEGE.**

To the Editor of "The Educational Times."

SIR,—The College is to be congratulated upon the recent changes in its By-laws. These (alterations) have been introduced with the evidently sincere desire to interest a greater number of its members in the College affairs. This is clearly a step in the right direction and a promise of future developments. But, as at present determined, the actual election of members of the Council will lie in the hands of the few who can attend the annual meeting in January—that is, will remain practically unaltered. What objection would there be to using as voting papers the list of candidates that is to be sent to every member of the College throughout the country? All the electors could then vote for such candidates as they thought fit, by signing the paper and remitting the same by post in order to reach the Secretary prior to the meeting. In this way members generally could easily take part in the election. It may be added that this method of voting obtains in the Senatorial Elections of the University of London. Hoping that the Council will ultimately see their way to adopt this suggestion, I am, Sir, &c.,

W. D. ROBERTS.

Cheriton Gardens, Folkestone.

**CLERGY MUTUAL ASSURANCE SOCIETY,**

2 & 3 THE SANCTUARY, WESTMINSTER, S.W.

[FOUNDED 1829.

Patrons—THE ARCHBISHOP OF CANTERBURY; THE ARCHBISHOP OF YORK.  
 President—THE BISHOP OF LONDON. Vice-President—THE LORD HARRIS.  
 Chairman—THE DEAN OF CANTERBURY. Deputy-Chairman—SIR PAGET BOWMAN, BART.  
 Secretary—W. N. NEALE, Esq. Actuary and Manager—FRANK B. WYATT, Esq., F.I.A.

The Society offers the **BENEFITS OF MUTUAL LIFE ASSURANCE** without personal liability on highly favourable terms to

**THE CLERGY AND THEIR RELATIVES.**

**ALL PROFITS BELONG TO THE MEMBERS.**

Accumulated Fund, **£4,242,820.** Annual Income, **£453,897.**

Bonuses Distributed, **£4,256,464.**

**LOW PREMIUMS. LARGE BONUSES.**

Notwithstanding the lowness of the Premiums charged, the **BONUSES** are on an **EXCEPTIONALLY HIGH SCALE.**

**NEW AND SPECIAL POLICIES.**

Application is invited for the **PROSPECTUS**, and Leaflets explaining two new Policies, with valuable Options.

**1. WHOLE-LIFE CONVERTIBLE ASSURANCES.** Very Low Premium—about one half the usual rate—during first ten years.

**2. PENSION POLICIES.** Premiums returnable with compound interest in case of death or surrender before pension age. Option to commute for cash.

Assurances without profits, at low rates of premium, may be effected, and Life Annuities on favourable terms may be purchased, by any person irrespective of any special qualification by relationship to the Clergy.

**SPECIMEN OF RATES FOR £1,000, WITH PROFITS.**

Age next Birthday.	£1,000 Payable at Death.			£1,000 Payable at Age 60 or earlier Death.		
	£.	s.	d.	£.	s.	d.
25	20	1	8	27	3	4
30	23	3	4	32	10	10
35	26	10	0	40	1	8
40	31	1	8	51	5	0

NOTE.—Under the Reduced Premium System (explained in Prospectus) four-fifths only of these Premiums need be paid, the other one-fifth remaining a charge to be repaid out of Bonus.

No Agents employed and no Commission paid for the introduction of business, whereby £10,000 a year is saved to the Members.

Assurances can be effected by direct communication with the Office, 2 & 3 THE SANCTUARY, WESTMINSTER, S.W.





# NEW BOOKS FOR BOYS & GIRLS



ALL THE BOOKS IN THE FOLLOWING LIST ARE ILLUSTRATED IN FULL COLOUR.

## HERBERT STRANG'S ANNUAL.

An entirely New Miscellany for Boys, consisting of Complete Stories by HERBERT STRANG, GORDON STABLES, DESMOND COKE, CAPTAIN GILSON, and other well known writers, and articles on a large variety of subjects interesting to boys. Containing Eight Plates in Colour, by JOHN HASSALL, CYRUS CUNEO, and other artists, and numerous Black-and-White Illustrations.

Cloth, olive edges, 5/- net; Picture boards, cloth back, 3/6 net.

"People in search of a really handsome and wholesome gift-book for boys have here the very thing put into their hands."—*Bristol Daily Mercury*.

### NEW BOOKS BY HERBERT STRANG.

"Mr. Henty was the ancient master in this kind; the present master is Mr. Herbert Strang. But Mr. Strang has ten times Henty's historical knowledge and twenty times more narrative skill."—*Manchester Guardian*.

**HUMPHREY BOLD:** His Chances and Mischances by Land and Sea. A story of the time of Benbow. Price 6/- Special Presentation Edition, 7/6 net.

"Mr. Strang . . . has never done anything better than 'Humphrey Bold.'"—*Newcastle Chronicle*.

By CAPTAIN CHARLES GILSON.

**THE LOST COLUMN:** A Story of the Boxer Rebellion. With Map. Price 6/-

"Just the kind of book that an elder boy would revel in. No better could be chosen for a senior reward."—*Teachers' Aid*.

By GEORGE SURREY.

**MID CLASH OF SWORDS:** A Story of the Sack of Rome. Price 5/-

"A tale of the most rousing description."—*Liverpool Courier*.

By WINIFRED M. LETTS.

**BRIDGET OF ALL WORK.** Price 5/-

"A brave, moving story."—*Dundee Advertiser*.

**BARCLAY OF THE GUIDES:** A Story of the Indian Mutiny. Price 5/-

**LORD OF THE SEAS:** A Story of a Submarine. Price 2/6.

By DESMOND COKE.

**THE BENDING OF A TWIG.** New Edition.

Rewritten and Enlarged. Price 5/-  
"Among books of its kind 'The Bending of a Twig' deserves to become a classic."—*Outlook*.

"A real, live school story that carries conviction in every line."—*Standard*.

By CHRISTINA GOWANS WHYTE.

("The new Louisa Alcott.")

**THE FIVE MACLEODS.** Price 6/-

"Altogether a most charming story for girls."—*Schoolmaster*.

By LUCAS MALET.

**LITTLE PETER:** A Christmas Morality. New Edition. Cloth, gilt top, 6/-

BEAUTIFULLY ILLUSTRATED CATALOGUE POST FREE ON APPLICATION.

Henry Frowde and Hodder & Stoughton, London.

## MESSRS. PHILIPS' LIST.

### MACKINDER'S GEOGRAPHICAL STUDIES.

A Course of Elementary Studies in Geography. By H. J. MACKINDER, M.A., Reader in Geography in the University of London. With numerous Coloured Maps and Illustrations. Large crown 8vo.

**Book I.—OUR OWN ISLANDS.** Third Edition. 2s. 6d. Also in Two Parts, each 1s. 3d. **Book II.—LANDS BEYOND THE CHANNEL.** 1s. 9d.

Professor LYDE, University College, London, says of Book II. :—"It is extraordinarily clever; the selection of material is just as admirable as the treatment; it is infinitely the best book on Europe for school use that I have ever seen; and I cannot imagine anything better for the training of a child's outlook faculty."

### A RATIONAL GEOGRAPHY.

By ERNEST YOUNG, B.Sc., Head Master of the Lower School of John Lyon, Harrow. In Three Parts, with numerous Maps and Diagrams. Crown 8vo, 1s. 6d. each.

The Rev. Dr. O'KANE, President of St. Columb's College, Derry, says :—"Your 'Rational Geographies' cover the new (Irish) Intermediate Programme in Geography for all grades very fully. They are the brightest, best printed and illustrated, and most attractive of the books I have seen that meet the requirements of the Course."

In use at Charterhouse, Rugby, Marlborough, Malvern, Repton, Blundell's (Tiverton), Felsted, and other Public Schools, and at many Secondary Schools and Pupil-Teachers' Centres.

SECOND EDITION, REVISED. Demy 4to, 6s. net.

### A PROGRESSIVE COURSE OF COMPARATIVE GEOGRAPHY ON THE CONCENTRIC SYSTEM.

By P. H. L'ESTRANGE, B.A., Assistant Master at Malvern College. With 177 Illustrations and 172 Maps and Diagrams in Colour.

Also in Two Volumes :—(1) **The Text**, with 177 Illustrations, 3s. 6d. net; (2) **The Maps and Diagrams**, with Index, 3s. 6d. net.

### A JUNIOR COURSE OF COMPARATIVE GEOGRAPHY.

Being Course A (Text only) of the "Progressive Course." By P. H. L'ESTRANGE, B.A. Demy 8vo, 2s. 6d. net.

The *Educational News* says :—"The method is sound, and the book should help to bring about a revolution in geographical teaching."

### APPLIED GEOGRAPHY.

By J. SCOTT KELTIE, LL.D., Secretary of the Royal Geographical Society. Second Edition, Revised and Enlarged. Crown 8vo, 2s. 6d.

### PHILIPS' ELEMENTARY ATLAS OF COMPARATIVE GEOGRAPHY.

36 Plates, containing over 80 Maps and Diagrams, with 8 pages of Introductory Letterpress. Stiff covers, 1s.

### PHILIPS' MODERN SCHOOL ATLAS OF COMPARATIVE GEOGRAPHY.

64 Coloured Plates, containing 136 Maps and Diagrams, with Introductory Letterpress and complete Index. Cloth boards, 3s. 6d.

*Descriptive Lists of any of the above and Complete Catalogue of Educational Publications, also new Special List "Aids for the Teaching of Geography according to Modern Methods," may be had post free on application.*

GEORGE PHILIP & SON, LTD., 32 FLEET STREET, LONDON.

## MACMILLAN & CO'S NEW BOOKS.

### BIBLE LESSONS FOR SCHOOLS.

#### THE ACTS OF THE APOSTLES.

By **E. M. KNOX**. Globe 8vo, 3s. 6d.

\*\* Previously published:—*Genesis*, 1s. 6d.; *Exodus*, 1s. 6d.

### A BOOK OF POETRY.

Illustrative of English History. Part III. (*The Hanoverian Dynasty*). Edited by **G. DOWSE, B.A.** Globe 8vo, limp cloth, 9d. [*English Literature for Secondary Schools*].

\*\* Previously published:—Part I. (*A.D. 61-1485*), 9d.; Part II. (*The Tudors and Stuarts*), 9d.

### A SCHOOL ARITHMETIC.

By **H. S. HALL, M.A.**, and **F. H. STEVENS, M.A.** Complete, with Answers, 4s. 6d.; without Answers, 3s. 6d. Or, in Two Parts: Part I., with Answers, 2s. 6d.; without Answers, 2s. Part II., with Answers, 2s. 6d.; without answers, 2s. Answers, 1s. KEY in preparation.

This work follows closely the recommendations of the Mathematical Association.

*EDUCATIONAL NEWS*.—"Explanations and worked out examples are very clearly put, and we consider the whole a model text-book for advanced students."

### A MODERN ARITHMETIC, WITH GRAPHIC AND PRACTICAL EXERCISES.

By **H. SYDNEY JONES, M.A.** Parts I. and II., with or without Answers, 2s. 6d. each. Complete, with or without Answers, 4s. 6d.

*EDUCATIONAL NEWS*.—"With the utmost confidence we recommend this Arithmetic to all teachers of mathematics. They will find in it much that is new, and at the same time necessary for present-day requirements."

### A NEW ALGEBRA.

By **S. BARNARD, M.A.**, and **J. M. CHILD, B.A., B.Sc.** Vol. I., containing Parts I., II., and III. 2s. 6d.

Part I.—A generalized Arithmetic in which letters are employed to represent Natural Numbers, and the idea of Algebraic Form is introduced.

Parts II. and III.—Zero and Negative Numbers and Fractions are considered. These two new classes of numbers are defined so that the expressions  $a-b$  and  $a/b$  may always have a meaning.

*SCHOOL WORLD*.—"It is rich in examples of a varied character, and is admirably fitted for school purposes in virtue of its examples, apart altogether from its special merits as a logical and common-sense introduction to algebra."

### MACMILLAN'S OROGRAPHICAL MAP OF EUROPE.

Printed in 10 Colours. Designed by **B. B. DICKINSON, M.A., F.R.G.S.**, and **A. W. ANDREWS, M.A., F.R.G.S.** Varnished, mounted on Canvas, and Rollers, 15s. Unmounted 11s.

Also NOTES TO SAME, limp cloth, 1s.

*GEOGRAPHICAL TEACHER*.—"This is a very clear and detailed wall map which can be thoroughly recommended. . . . The map is a thoroughly scholarly production, and is a welcome addition to the rapidly growing number of good wall maps of British production. . . . The accompanying hand-book is really a short well-written general geography of Europe, and is worth having for its own sake."

### A LATIN READING BOOK. GOTHAM AND OTHER STORIES.

By **Rev. E. D. STONE**, formerly Fellow of Kings's College, Cambridge, and Assistant Master at Eton. Crown 8vo, 1s. 6d.

*THE SPECTATOR*.—"Mr. Stone has furnished the schoolmaster with what, we are sure, should be a great help."

### SIEPMANN'S PRIMARY FRENCH SERIES.

NEW VOLUME. **LE LAO DE GERS.**

Par **BODOLPHE TOPFFER**. Adapted and Edited by **F. L. CARTER, M.A.** Globe 8vo, limp cloth, 1s.

MACMILLAN & CO., Ltd., St. Martin's Street, London, W.C.

## A GOOD ADVERTISEMENT

is not of much use unless you have a good Prospectus to send to Enquiring Parents, and

## A GOOD PROSPECTUS

is of no use unless Parents see it.

## LET US PREPARE

you a good Prospectus, and give your School a

## GOOD ADVERTISEMENT

in our

## PATON'S LIST OF SCHOOLS AND TUTORS

which now has a World-wide Circulation.

---

*The Twelfth Edition is now in hand  
for Press.*

---

## WRITE US,

with copy of your present Prospectus, and we will send you (without any charge) Specimens and Full Particulars, with proof of value.

## OUR GOLD MEDALLIST

Photographs Schools within reasonable distance of London—expert work only.

---

**J. & J. PATON,**  
EDUCATIONAL AGENTS,  
143 CANNON STREET, LONDON, E.C.

Telephone—5053 Central.

Digitized by Google

# COLLEGE OF PRECEPTORS EXAMINATIONS, 1909.

- CAESAR.—GALLIC WAR, BOOKS III., IV.** By A. H. ALLCROFT, M.A., and F. G. PLAISTOWE, M.A., and others. 1s. 6d. each. Vocabulary. 1s. each. Translation. 1s. each. In One Volume. 3s. each. [Juniors and Seniors.]
- CHAUCER.—PROLOGUE to the CANTERBURY TALES.** By A. J. WYATT, M.A. 1s. [Seniors.]
- CICERO.—PRO MILONE.** By F. G. PLAISTOWE, M.A., and W. F. MASOM, M.A. 3s. 6d. Vocabulary. 1s. Translation. 2s. In One Volume. [Seniors.]
- EURIPIDES.—HECUBA.** By T. T. JEFFERY, M.A. 3s. 6d. Translation. 1s. 6d. In One Volume. 4s. 6d. [Seniors.]
- HORACE.—ODES, BOOK IV.** By A. H. ALLCROFT, M.A., and B. J. HAYES, M.A. 1s. 6d. Vocabulary. 1s. Translation. 1s. In One Volume. 3s. [Seniors.]
- SHAKESPEARE.—JULIUS CAESAR.** By Prof. W. J. ROLFE, D.Litt. 2s. 6d. [Juniors and Seniors.]
- SHAKESPEARE.—THE TEMPEST.** By A. R. WERKES, B.A. 2s. [Juniors and Seniors.]
- VERGIL.—AENEID, BOOK III.** By A. H. ALLCROFT, and W. F. MASOM, M.A. 1s. 6d.\* Vocabulary. 1s. Translation. 1s. In One Volume. [Juniors and Seniors.]
- VERGIL.—AENEID, BOOK XI.** By A. H. ALLCROFT, M.A., and W. F. MASOM, M.A. 1s. 6d.\* Translation. 1s. [Juniors and Seniors.]

\* This Volume contains a complete Alphabetical Lexicon.

Full List of Books for London University, Oxford and Cambridge Locals, College of Preceptors, and other Examinations, post free on application.

University Tutorial Press, Ltd.

W. B. CLIVE, 157 Drury Lane, London, W.C.

## EARLY IN THE VACATION

(Three times a year only)

USE The "DUST-ALLAYER" CO.'S  
ODOURLESS or powerful GERMICIDAL

# FLORIGENE

(A REGISTERED NAME suggested by FLOOR-HYGIENE)  
for the Hygienic and Economic treatment

of all **SCHOOL, LABORATORY,**  
Art Gallery, Library, Museum, and other Floors—  
Either Wood, Concrete, Stone, or Polished; also Linoleums, Cork-Matting, &c.

## "FLORIGENE" LAYS THE DUST

(See the Official Memorandum on the Cleansing and Disinfecting of Schools),

Purifies the atmosphere, aids the prevention of diseases and throat irritations, preserves floors, and greatly reduces labour.

It is easily and quickly used by the unskilled, and each application lasts for 2 to 4 months, or longer, according to the wear.

Scrubbing (unless preferred) and the injurious sprinkling of floors are entirely dispensed with.

Not sticky, but dust and dirt absorb the "Florigene" from the impregnated floors and thus become "weighted"—consequently the floors can be cleaned daily with an ordinary broom alone—the sweepings roll, and are not distributed.

BOOKS, FURNITURE, APPARATUS, &c., are less likely to soil, and seldom require dusting or cleaning.

The cost (if any) is very small when compared with the many advantages.

The "DUST-ALLAYER" CO.'S "FLORIGENE"

(Awarded the Bronze Medal of the Royal Sanitary Institute) is extensively used in Government Buildings (including Royal Colleges, Science and Art and other Departments) and Municipal Buildings, also Colleges, Schools, Laboratories, Libraries, Museums, Offices, &c., with highly satisfactory results.

Send for particulars, *Bacteriological, Medical, and other Reports and Testimonials to the Sole Manufacturers*

THE "DUST-ALLAYER" CO.,

165 QUEEN VICTORIA STREET, LONDON, E.C.

Contractors to Admiralty, War Office, H.M. Office of Works, &c.

## ADVERTISEMENT SCALE.

Whole Page—Ordinary	£4 10 0	.....	Position	£5 10 0
Half Page	" 2 10 0	.....	"	3 0 0
Quarter Page	" 1 10 0	.....	"	1 15 0
Per inch in broad column (half width of page)	...			0 7 0
Narrow Column (one-third page)	.....			2 0 0

General Scholastic Advertisements (Colleges, Schools, Classes, Tuition, &c.) 3s. 6d. for 6 lines, or 4s. 6d. the inch.

Situations Vacant and Wanted—30 words or under, 2s.; each additional 10 words, 6d. (For 1s. extra, Replies may be addressed to the Publishing Office, and will be forwarded post free.)

## CURRENT EVENTS.

THE Annual Meetings of the Assistant Masters' Association will be held on January 6-8 at St. Paul's School, West Kensington, W. There will be an exhibition of books and appliances.

THE following classes for teachers in London secondary and elementary schools are arranged for the Lent term at Bedford College for Women (University of London):—  
(1) Historical Study of the English Language. Lecturer: P. G. Thomas, M.A. Saturdays, at 10.30 a.m., beginning January 16. (2) Some Conceptions of Citizenship and Government. Lecturer: Miss Alice Blundell. Wednesdays, at 6 p.m., beginning January 20. (3) The Teaching of German by the Direct Method. Lecturer: Miss Kathleen Fitzgerald. Mondays, at 6 p.m., beginning January 18. (4) The Hygiene of School Life. Lecturer: J. A. H. Brincker, M.B., B.A., D.P.H. Mondays, 6 p.m., beginning January 18. (5) Nature Study in London Schools. Lecturer: Miss M. R. N. Holmer, M.A. Saturdays, 10.30 a.m., beginning January 16. Tickets of admission from the Executive Officer of the Education Committee, London County Council Education Offices, Victoria Embankment, W.C.

THE Seventh Annual Meeting of the North of England Education Conference will be held at the Municipal School of Technology, Manchester, on January 7-9, under the Presidency of Bishop Welldon.

Honours. MR. ASQUITH has been elected Lord Rector of the University of Aberdeen, receiving 434 votes as against 370 cast for Sir Edward Carson.

MR. LLOYD GEORGE has received the honorary degree of LL.D. from the University of Wales.

THE honour of Knighthood has been conferred upon Dr. N. Bodington, Principal of the University of Leeds, Dr. Donald McAlister, Principal of the University of Glasgow (K.C.B.), and Prof. J. J. Thomson, of Cambridge.

SIR WILLIAM RAMSAY, K.C.B., F.R.S., &c., Professor of Chemistry, University College, London, and Mr. George William Hill, the American astronomer, have been elected Corresponding Members of the Bavarian Academy of Sciences.

THE University of Cambridge has conferred the honorary degree of M.A. upon its new Professors of Chemistry and International Law, the Lecturer in Agriculture, and the Director of the Fitzwilliam Museum.

Scholarships and Prizes. THE London Inter-Collegiate Scholarships Board announce that an examination open to men and women will be held on May 11, 1909, for 20 Entrance Scholarships and Exhibitions of an aggregate total value of about £1,500.

tenable in the Faculties of Arts, Science, and Engineering of University College, King's College, and the East London College.

An examination will also be held in September, 1909, for 23 Medical Entrance Scholarships and Exhibitions of an aggregate total value of about £1,500, tenable in the Faculties of Medical Sciences of University College and King's College and in the Medical Schools of King's College Hospital, St. George's Hospital, Westminster Hospital, and the London School of Medicine for Women.

Full particulars and forms of application from the Secretary of the Board (Alfred E. G. Attoe), University College, Gower Street, London, W.C.

At Bedford College for Women (University of London) there will be awarded in the Training Department for Secondary Teachers, for the Session beginning in January, the following scholarships: (1) a free place (value £26. 5s.); (2) one scholarship of £20; (3) a limited number of scholarships of £10 each. Candidates must hold a degree, or equivalent, in Arts or in Science. Apply to the Head of the Training Department by December 14.

MESSRS. ARNOLD FAIRBAIRNS & Co. (3 Robert Street, Adelphi, W.C.) offer fifty-five prizes (from two guineas to half-a-crown) for colourings of outline drawings in "Fairies' Fountain" (published by the firm). Candidates to be under sixteen. Books to be sent in by January 24.

UNIVERSITY COLLEGE, London, has received from the late Prof. Bunnell Lewis a bequest of his classical and archæological books, photographs, coins, and impressions of gems and seals, and £1,000 to found a "Bunnell Lewis" prize for proficiency in original Latin verse composition, and translations from English and Greek into Latin verse. Also, from an anonymous benefactor (through Dr. Aders Plimmer), the sum of £250 towards the fittings of the new building for the Department of Physiology; £100 from the Chadwick Trustees in connexion with the work done in hygiene and municipal engineering; and the sum of £450 bequeathed by the late Mr. Henry A. Kay.

MR. G. H. KENRICK, the new Lord Mayor of Birmingham, has subscribed a further £10,000 to the funds of the University, making his total contribution £25,000.

OVER £11,000 has been raised for a memorial to the late Sir David Dale, Bart., D.C.L., of Darlington. The interest will be accumulated till the income reaches £500 a year, which will go to endow a Chair of Economics at Armstrong College.

MR. CECIL COCHRANE has given £5,000 to the Armstrong College Endowment Fund.

THE Edinburgh University Endowment Association has given £1,500 to the Edinburgh University Court, to be appropriated in equal proportions to the endowment of the proposed Chairs of French and German.

MRS. ALFRED BOYD has given £1,000 to St. Bartholomew's Hospital, to provide scientific instruments for the new pathological laboratories.

SIR HERBERT ROBERTS, M.P., has offered £1,000 to the building fund of the North Wales University College.

THE Rhodes Trustees have offered the University of Oxford

£250 a year for five years for the teaching of Law, especially of the subjects of the B.C.L. course, which is taken by many Rhodes scholars.

THE Mercers' Company have granted £200, the Goldsmiths' Company £500, and the Skinners' Company £100 for the Geographical Department at the London School of Economics.

THE Committee in charge of the proposed memorial to the late Mr. Augustus F. Warr has offered £4,000 to the University of Liverpool for, or towards, the endowment of a Lectureship in Equity.

THE London County Council has resolved to give the University of London an annual grant of £500 for the classes in English organized at King's College.

MRS. CHARLES TAYLOR, widow of the late Master of St. John's, has offered to Cambridge University such of the (300) Hebrew books of her husband as may be useful for the Library.

MR. GEORGE DEAN, M.B., C.M., Chief Bacteriologist at the Lister Institute of Preventive Medicine, has been appointed Professor of Pathology in the University of Aberdeen. He is a graduate of Aberdeen University and was formerly assistant to his predecessor, Prof. Hamilton.

DR. A. W. W. DALE, Vice-Chancellor and Principal of the University of Liverpool, has been offered and has declined the Principalship of Mansfield College, Oxford.

THE REV. EDMUND LEDGER, M.A., has resigned the Lectureship in Astronomy at Gresham College, which he has held for thirty-five years.

MR. BERNARD PARES has been elected to the new Bowes Chair of Russian History, Language, and Literature in the University of Liverpool.

A PROFESSOR is required for the new Gilmour Chair of Spanish in the University of Liverpool. Not less than £600. Apply to the Registrar by February 15.

THE REV. JAMES HOPE MOULTON, M.A., D.Lit., late Fellow of King's College, Cambridge, has been appointed Professor of Hellenistic Greek in Manchester University. Dr. Moulton will still continue his work at Didsbury College.

MR. GRANVILLE BANTOCK, Principal of the School of Music at the Birmingham and Midland Institute, has been appointed to the Peyton Chair of Music in the University of Birmingham, in succession to Sir Edward Elgar.

DR. T. F. FARMER, F.R.S., Fellow and Tutor of King's College and Superintendent of the University Museum of Zoology, Cambridge, has been appointed Keeper of the Zoological Department of the British Museum of Natural History at South Kensington.

THE REV. C. A. ALINGTON, M.A., Fellow of All Souls, Assistant Master at Eton, has been appointed Head Master of Shrewsbury School.

THE REV. CHARLES H. T. WOOD, M.A. Oxon., Assistant Master and Chaplain at Marlborough College, has been appointed Head Master of Sherborne School.

MR. SAMUEL E. BROWN, M.A. Cantab., B.A., B.Sc. Lond., Senior Science Master at Uppingham (since 1900), has been appointed Head Master of Liverpool Collegiate School.

MR. JAMES EASTERBROOK, M.A. Lond., is about to retire from the Head Mastership of Owen's School, Islington, after twenty-eight years' service.

AN additional Lecturer in French is required by the Curators of the Taylor Institution, Oxford. £150. Apply by December 3.

A CLASSICAL MASTER is required for the Scotch College, Melbourne. £400. Apply to R. G. H. Macfarland, Esq., Campbell College, Belfast.

MR. G. H. WOOLLETT, M.A. Cantab., Science Master, Nottingham High School, has been appointed Head Master of Malden School, New Malden.

MR. C. H. H. WALKER, M.A. Oxon., Head Master of the Secondary School and P.-T. Centre, Oldbury, Birmingham, has been appointed Head Master of the Secondary School, Whitehaven.

MR. J. I. SCOTT, M.A. Oxon., assistant master, Trent College, has been appointed Head Master of Deacon's School, Peterborough.

MR. R. S. SMITH, B.A. Lond., Second Master, Leigh (Lancs.) Grammar School, has been appointed Head Master of the Secondary School, Todmorden.

MR. GEORGE THOMPSON, Principal of County Cork Day, Trades, and Technical School at Queenstown, formerly Manual Instructor under the L.C.C., has been appointed Head Master of the new Preparatory Trades Day School, Liverpool.

Literary  
Items.

MESSRS. NELSON'S "Young Folk's Bookshelf" promises to be a very attractive repertory for home reading in conjunction with school lessons.

It will include volumes of History, Geography, Nature Study, Biography, Science, and what not—two volumes to be issued during each school year. Part I. of the first volume, "Britain Overseas," by J. Edward Parrott, M.A., LL.D. (to be completed in ten fortnightly parts, 2d. net each), is very interesting, well printed, and piquantly illustrated.

MESSRS. METHUEN announce a new series called "The Romance of History," under the general editorship of Mr. Martin Hume, M.A., Pembroke College, Cambridge. The volumes already arranged include "some subjects which will be practically new to English readers"; and scholarship will not be sacrificed to romance. The same publishers have nearly ready, or in active preparation, half-a-dozen new volumes of their handsome "Library of Art."

MESSRS. JACK are issuing a new series, "The Century Bible Handbooks," under the general editorship of Principal Walter F. Adeney, M.A., D.D., by way of completing or supplementing the idea of the "Century Bible" volumes, so as to present a survey of the latest information on Biblical subjects.

MESSRS. CONSTABLE will publish presently a series of lectures on "University Administration," by Dr. Charles W. Eliot, who is just retiring from the Presidentship of Harvard University after forty years' service.

UNIVERSITY COLLEGE HALL, Ealing, was opened by Lord Rosebery as Chancellor of the University of London (November 17). It will accommodate some forty students.

THE REV. R. J. WALKER, M.A., son of Dr. F. W. Walker, late Head Master of St. Paul's School, has been elected Mayor of Hammersmith; and Mr. R. Harris, Art Master at St. Paul's School, has been elected Mayor of Fulham. Miss Dove narrowly missed election at High Wycombe.

HARVARD UNIVERSITY and the Prussian Government have agreed to exchange five students yearly free of fees.

### THE EXPERIMENTAL STUDY OF INSTRUCTION.

AT the Evening Meeting of the members of the College of Preceptors on Wednesday, November 18, Mr. H. W. EVE in the chair, Prof. J. W. ADAMSON read the following paper:—

Nothing in the recent history of education is more striking in itself, nor more promising in respect of future profit, than the position which has been attained during the last twenty or five-and-twenty years by the experimental study of educational practice. It is, of course, unnecessary to say in this place that experiment in the schoolroom is no novelty. But, during the period named, and more especially during the last five years, there has been a noteworthy increase in the number of those who are bringing to bear on schoolroom problems those systematic observations, experiments, and records which mark scientific inquiry as distinguished from the occupations, ordinary or extraordinary, of the general practitioner. The activity of these experimentalists is not confined to one country nor to either hemisphere. They are represented in Germany, Belgium, Switzerland, France, Italy, Hungary, and America; University professors, training college teachers, and practising schoolmasters are included in their ranks.

#### POSITION OF PEDAGOGY.

The standpoint from which they study education may be compared with that occupied by the student of medicine. Chemistry, biology, physiology, anatomy, and other branches of knowledge present matters of interest to such a student, and some study of each of them is incumbent upon him. Yet his concern in these sciences is not quite that of the chemist, biologist, or physiologist; nor is his own proper study a mere accumulation of extracts made from one or all of them. He regards each from his own point of view, that is, as it bears upon the cure or alleviation of disease, or the maintenance of health; and it is this singleness in the point of view which gives unity to the study of medicine.

Prof. Meumann, one of the foremost of the experimental school, thus defines their position in his recently published lectures:

Pedagogy is neither "applied psychology" nor applied logic, nor anything of the kind: it is undoubtedly an independent branch of knowledge, namely, that of the facts of education. Although it may for its own ends employ the results of general psychology, pathology, child study, logic, ethics, and aesthetics, it brings all these under a point of view of its own, that, namely, of education; and, in consequence, problems which appear to be psychological or ethical or of some similar character, undergo modification when turned into educational questions. . . . Pedagogy is therefore as little "applied psychology" as physics is applied mathematics, or biology is "applied" chemistry and physics. It most resembles geography, perhaps, in its extensive employment of other sciences; geography is also in the position of being able to employ almost all other sciences, and yet it remains an independent branch of knowledge.\*

The references in this passage to logic, ethics, and aesthetics are to be taken as indicating that there is no question here of constructing a theory of education upon a purely experimental basis. For example, the study of the purpose, or purposes, of education in general cannot be conducted *in vacuo* nor on an

\* From preface of "Vorlesungen zur Einführung in die experimentelle Pädagogik u. ihre psychologischen Grundlagen." 2 vols. Leipzig, 1907.

empirical foundation; the experimentalists recognize the claims of ethics and sociology in this connexion as readily as they admit the claim of logic in the narrower sphere of instruction. But they are confident that the practice of the schoolroom, and the principles which underlie that practice, stand much in need of the correction or verification which experimental methods make possible.

The history of the idea of evolution during the past half-century no doubt accounts for the labours of the earlier experimentalists. These were, for the most part, students of mental development as it is exhibited during childhood, and amongst races at a low level of culture, or as it is illustrated in different forms of abnormal consciousness. Though the interests of this group of students were psychological rather than pedagogical, the educator has derived profit from their labours which he has applied both to curriculum and to method. Indeed, the second group of experimentalists owes its existence to the advance in genetic psychology brought about by the first. It is not proposed to discuss the experiments, relating chiefly to the choice of studies, which have been carried out, or, rather, are being carried out, by this second group, amongst whom Dewey and Findlay may not invidiously be named. This paper is concerned with those later experimentalists whose inquiries are addressed to the aims, conditions, and processes of the schoolroom, and more particularly to the process of instruction.

#### PEDAGOGICAL EXPERIENCE.

Their province, in short, is that of the "practical teacher." They are, therefore, fully conscious of the value of "experience"; but they are very exacting as to its character. Perhaps the quality which they value most in it is enlightenment. An enlightened experience furnishes a criticism of use and wont and of generalizations concerning teaching and learning which rest upon *a priori* or other unascertained bases. Moreover, the experience which they honour is of that constructive kind whose fruits are not limited to the individual instructor, but may also be employed by other instructors; for the experience which is constituted chiefly by a period of time plus a routine they have no respect at all. Their experiments have regard to the child at work in school, both as an individual pupil apart and as a member of a group; the mental activity of a class as such has also provided material for interesting study. The number and diversity of the investigations is much too great for specific mention, but their comprehensiveness will be gathered from such a list of topics as follows.

#### SUBJECTS OF INQUIRY.

Amongst inquiries of a more particularly psychological kind may be named the study of individuality in pupils, of the mental differences dependent upon sex, of the phenomena of attention, and of association. Imagination and the process of memorizing were amongst the earliest subjects of experiment, as were also the "apperception-masses," or stock of ideas, possessed by the child of six or seven years of age at his entry upon school life. More definitely scholastic experiments were directed to probing the conditions of work in the classroom, such as the effect of practice upon the ease and rapidity of learning, the onset of fatigue, the fluctuation of attention, and similar rhythms, mental and physical, home work and its advantages and disadvantages when compared with work done in school. A group of questions of the first educational importance arises from experiments made with reference to the effects wrought by and through the environment upon the pupil's work, and to the part played by the teacher's activity in the pupil's process of learning. The experimentalists' attention has also been turned to the automatism due to the exaggerated influence of imitation, which is a state of the pupil's mind not infrequently favoured by the conditions of school life. This list of topics could be extended, since the experimentalists' province embraces most things which belong, in Meumann's phrase, to "the economy and technique of learning."

#### METHODS OF INVESTIGATION.

The methods of investigation are various, some being best adapted to the laboratory, others to the classroom, some requiring a large number of "subjects" and the compilation of statistics, others being satisfied by the collaboration of but a few persons. There are matters of inquiry belonging to the sphere of pedagogy which can only be studied with precision when laboratory apparatus is employed and few "subjects" are observed at a time—*e.g.*, questions respecting "reaction-time" and sense-discrimination, the more minute questions respecting fatigue, the "span of attention," the effects of practice. Such

observations and experiments are primarily for the psychologist rather than the teacher, who must for the most part accept the results, verifying them whenever he gets the opportunity.

#### FATIGUE TESTS.

But the wider issues involved even in a study of fatigue may be raised and, in a measure, considered by methods in which the teacher shares. Indeed, so far as fatigue is really a schoolroom phenomenon at all, it is essential that the practising schoolmaster should take a substantial part in its investigation. The methods often employed for its detection or measurement in the laboratory are indirect and depend upon an assumption not easy to establish. The ergograph, which measures the varying power of "pull" in a finger, and the dynamometer, which measures the "squeeze" given by a contracted hand, both assume, so far as they are treated as measures of fatigue, that the freshness or tiredness of one set of muscles is an index of the condition of the entire organism, mental and physical. The same remark applies to the use for the same purpose of the aesthesiometer, which notes the varying discrimination displayed by the same area of skin under conditions which vary in point of fatigue.

Direct tests are less open to these objections, and they are more easily applied in the schoolroom than are those which require the use of instruments. They take such forms as the setting of long sums in addition or multiplication, the giving of dictation, the very rapid memorizing of figures, letters, or nonsense syllables, the discovery of the letters, syllables, or words which are omitted from a page of print, the picking out of given letters from a page printed in an unfamiliar language or from printed "pie." In all these cases there is a definite amount of work to be done which can be expressed as a number, and each "subject's" performance can be measured in that sense, the amount of failure to score the maximum being, in part at least, the measure of his fatigue. Such methods are direct, since they set a "mental" test to discover "mental" fatigue, and, to that extent, are superior to the methods alluded to above. But they share certain common disabilities. The question always arises: How much of the fatigue registered is due to the test itself, and how much represents the subject's condition before the test was applied? A disturbing element in the calculation is the effect of practice, a thing which tends to conceal fatigue, and a similar disturbance is brought about by the partially moral factor which, in sporting phrase, is called "spurt." Direct tests, again, discriminate insufficiently between "boredom" and true weariness.

#### RESULTS.

There is, accordingly, not a little uncertainty attaching to some of the tentative results so far reached through the experimental study of fatigue as exhibited by school children. But one or two conclusions seem to be established. In the first place, mere change is not rest; to be so, it must be change from heavy to light work, or to work which chiefly sets going quite different brain centres. Again, each individual, *teacher as well as pupil*, has his peculiar fatigue-curve: that is, the moment of the onset of fatigue is fairly constant for each person, as are also its progress and culmination; and these facts may be expressed in a form which characterizes that person. I do not know that the point has actually been investigated, but it seems possible also that each person, when acting as teacher, has also his peculiar fatigue-inducing curves, which may be expected to vary with different branches of knowledge and with different aspects of these branches. Teaching a new "rule" in arithmetic might involve greater fatigue to the pupils than superintending exercises undertaken by way of revision.

One should distrust a facile division of studies into those which soon cause fatigue and those which do not. The fatiguing exercise, whatever be the study, is that which calls for close, persistent attention. Here the personal equation of the teacher counts, and from this point of view the subject of study may be little more than a name, and of small importance compared with the "fatigue curves" of teacher and pupil.

The employment of statistical methods rapidly enlarges the sweep of the experimenter's net, and it is a short and an inevitable step to the use of the *questionnaire*, a schedule of carefully framed questions to which the "subjects" are invited to furnish replies.

#### MEMORY IMAGES.

The classic example of the use of the *questionnaire* as a mode of psychological inquiry is Francis Galton's set of questions

respecting visual memory,\* one of the earliest and most fruitful of the investigations into its subject. The inquiry which it initiated has been carried to much greater lengths by later investigators, and it is now generally recognized that the memory apparatus (so to call it) is not only visual, but may be auditory, motor, or of a mixed type. That is to say, experiences are sometimes and by some persons recalled as things heard or as movements made; not all memory images are pictures. The habits of reading and writing have further resulted in certain verbal sub-types; the visual image in such cases is not of a thing, but of its printed or written name, the sound of the name and not another sound is recalled, or the person *feels* himself speaking or writing the name of that which he remembers. So marked are the differences among memory images, that they are used as a basis of classification, minds being divided according to their characteristic type into visual, audile, motile, and mixed type—the last, which appears to include the majority of persons, employing two or more of the other types of memory image.

But the truth is that the *data* for classifying minds in this way are still insufficient, and the rare occurrence (so far as recorded) of the purely auditory and motile types makes the classification of restricted value to the schoolmaster. Of seven hundred children questioned, Netschajeff described the pure audiles as forming but 2 per cent. and the pure visualizers he placed at 5 per cent.

Instead of classifying minds according to these types, it seems safer to say that there are types of ideas, that most minds employ now this type, now that, in varying measure, but that some minds have marked preferences in this respect. The practical point for the teacher is that he should induce, or at least encourage, that preference which is most favourable for a particular study, irrespective of the so-called type of mind, save in the case (probably infrequent) of a pupil *who is known* to be restricted to one type. Thus, when we read that, while visualizers work "in their heads" a short division sum in 15 seconds, audiles take from 35 to 60 seconds to do the same sum, the corollary seems to be that these audiles should be helped in all ways to picture the operation, not hear it performed. A like conclusion is to be drawn from Messmer's assertion that audiles are bad at spelling.†

A study of mental images may reveal to a particular teacher that he himself is one-sided or otherwise restricted in his use of types, and the knowledge may help him to avoid mistakes. But there is one direct application, or attempted application, of the study to practice which seems partly mischievous and partly very hard to achieve. Teachers have been urged to discover the "mind-types" to which their pupils belong individually and to cultivate in each the form of memory which is typically his. The difficulty lies in the facts that memory images are not perceptions, that it is the latter which are most open to the teacher's manipulation, and that what seems to one person an obviously visual experience may appeal chiefly to another as a motor or auditory one. Hence an experience in one order—visual, auditory, tactile, or what not—may be remembered as belonging to quite another. If the differences lie rather in ideas than in "minds," then deliberate training of one type exclusively would be mischievous, assuming, of course, that it is feasible.

#### THE QUESTIONNAIRE.

The *questionnaire* is a mode of inquiry which has been extensively employed and from which much knowledge in the raw state has been gained. But it has its characteristic fallacies, as Galton's own employment of it showed. His "subjects" were carefully chosen, yet some of them (and notably the scientific men) denied the possibility of visualizing. "They had no more notion of its true nature than a colour-blind man who has not discerned his defect has of the nature of colour. They had a mental deficiency of which they were unaware, and, naturally enough, supposed that they who affirmed they possessed it were romancing." The difficulty which children find in describing their own mental states, or even in recounting a process just completed in their minds, is such that any replies to questions which depend on these descriptions should be regarded with grave suspicion. The child's part in such investigations should be confined to unconscious registration. A further danger lies

in the manner of putting the question or in the terms of expressing it. If either gives the child a "lead," the answer is vitiated, owing to the desire to "please teacher" even at the expense of more relevant considerations. Many of the inquiries into "children's ideals" seem to me to be quite futile on this account; indeed, it is probable that a large proportion of error attaches to many results of "child study" obtained by means of *questionnaires*, simply owing to the unregarded effects of "leading" questions.

#### ROTE LEARNING.

It is impossible even to enumerate here the many investigations into rote learning which have been made during the past twenty-five years, or to describe the various methods employed, or to summarize results. One can only illustrate these.

Learning by heart series of nonsense-syllables, of single words or figures, passages of poetry or prose, furnishes different kinds of data and inferences which are of direct assistance to the instructor. Of these, perhaps the most important general conclusion is that we retain most completely and longest matter which, when first presented to us, is arranged in a fashion agreeable to the synthesizing nature of intelligence.\* Ebbinghaus found that one-tenth of the effort required to master a string of unmeaning syllables sufficed to memorize a set of words of the same length which "made sense." The true memory units, like all mental constituents, are not elements, but combinations of a synthetic kind, minor systems belonging to a greater mental system. The more connected and articulate the matter to be learned by heart, the easier and the more rapid the learning. Meumann found that measurable differences in respect of ease and rapidity existed according as the material was unsystematic (*e.g.*, "dates," "vocabularies") or systematic (prose or poetry). Again, there were differences as between prose which is abstract in character and that which may be taken in at a glance; while, for quite another reason, rhythm and rime greatly facilitate the memorizing of verse. "The immediate retention of matter is disproportionately far easier if it has to do with an associated whole rather than with discrete parts. Our most practised 'subjects' retained thirteen letters, as many figures, seven to nine nonsense syllables, ten single words, twenty words of a verse of poetry, twenty-four of a philosophic prose text." Similarly: "Ten words, making fifty to sixty letters, were retained, not in accordance with the number of these letters, but in correspondence with the verbal units" ("Lectures," II., page 30). The corollary is obvious that the first step towards memorizing a passage is to understand it and to grasp its arrangement in clauses. If this is not done, a dead weight, more or less heavy, is thrown into the task. The sooner and the more accurately the gist and the chief points of a passage are seized, the quicker becomes the learning.

There are numerous studies directed to the time and manner of the repetitions which are required in order to memorize matter. Thus, the question, Is it better to concentrate these repetitions within the limits of a single occasion or to distribute them over a period of time? has been answered by Ebbinghaus in favour of the latter alternative. He found that, if the repetitions for learning different series of thirteen nonsense syllables were distributed over three days, there were thirty-eight repetitions for a single series, whereas sixty-eight were necessary when the repetitions were continued at one time until perfect rote was attained. One advantage gained by distribution is that associations occur at the first learning which have become old and well established by the time the last repetition is made, whereas associations made at one and the same time lack the quality of age. The advantage appears to be greater the fuller and the better articulated the matter to be learned is.

Meumann has made a great number of experiments respecting the mode of repetitions, of which he distinguishes three. A passage may be repeated as an undivided whole or as a series of parts learned successively. These modes may be termed respectively the unitary and the sectional. Although experiment shows that the unitary is the more advantageous, most persons spontaneously adopt the sectional mode. Messmer reports that a person learned two eight-lined verses from Schiller's "Dido" by the unitary mode in fourteen repetitions, while thirty-three were necessary for two other verses from the same poem learned by the sectional mode. It was shown later that the verses learned as a whole were better retained than those learned sectionally.

\* "Inquiries into Human Faculty and its Development." Second edition. Pages 57 ff.

† O. Messmer, "Grundlinien zur Lehre von den Unterrichtsmethoden," pages 207 ff.

\* Reference may, perhaps, be permitted to "The Practice of Instruction," Part I., Section I.

It will be remarked that the unitary mode is more in harmony with the general principle already stated; it pays greater respect to the systematic nature of a composition, and follows the lead given by the spontaneous action of the intelligence. Moreover, the associations between part and part are made in the order and direction of the composition itself, in the order in which they will occur when the learning is complete. But on the sectional plan these associations are made in the inverse order.

On the other hand, the unitary mode has disadvantages which, no doubt, account for the customary preference given to the sectional. It calls for a repetition of passages that are well known, or easy to learn, just as frequently as of those which are hard to memorize. Further, attention tends to get slack at the middle parts, rising again as the end is approached.

Meumann therefore advocates a modified form of the unitary plan, by which a short pause is made after each section, though the whole is read continuously right through. Where the matter is difficult to memorize, he thinks the best plan is to go on with the unitary mode till the mind is conscious of a "hard part," to learn this part by itself, and then return to the unitary mode. Of the three modes, Meumann regards the modified one as the quickest, and as ensuring the longest retention and completest reproduction, while the sectional mode he considers less favourable to retention than either of the others.

#### CHILDREN'S DRAWINGS.

Drawing provides a very satisfactory means of discovering the wealth (or poverty) and the general character of children's mental images, and their ability to group these in a given arrangement. A paragraph which depicts some occurrence in a lively manner is read aloud, or better, is placed in print or in writing before the children, who are required to draw the picture so described. For the particular purpose, no attention is paid to the technique or aesthetic value of these drawings, and the pupils should be aware of this, or poor draughtsmen will produce but little. An examination of even a score of such drawings usually reveals some extraordinarily mistaken interpretations of what has been read. Other investigations may also be conducted by help of material obtained in this way; as, for example, the relative capacity of the eye which sees and the hand which draws, the appreciation of beauty, and the knowledge of particular forms of experience—"power of observation," as it is commonly termed. Sully's "Studies of Childhood" have made us familiar with this employment of drawing by the investigator.

#### ASSOCIATION.

The great merit of the procedure is that the child unconsciously registers the facts, thus eliminating one great source of error. The same automatic registration may be employed in the study of the associations of ideas in individual children. Neither in this case nor in that of the drawing tests should the "subjects" be informed of the purpose of the exercise. The experimenter gives out or writes down a term; almost any noun will serve, but the more general in meaning the better; as, "house," "book," "water," &c. The "subject" writes this word and the next ten, twenty, or more which occur to him at the moment. Amongst other information to be got from an analysis of these word-lists is a knowledge of the writer's type of thinking and of his interests. Binet has produced a most striking study of two sisters, which was based largely on lists of associations obtained in a similar manner. Such lists yield their most significant results when comparisons can be instituted between one list and another. A collection of lists which have been made by a large class of boys, or girls, or, better still, by a group of both sexes, will on inspection suggest the best mode of analysis, and so assist in its own interpretation.

#### PERIODICITY OF ATTENTION.

As an illustration of an inquiry dealing with a group of children rather than with single pupils, Schuyten's observation of the periodicity of attention may be recalled. The investigation extended over a school year of ten months, August and September being holiday months. "The observations were carried out in four schools in Antwerp (two higher and two lower, with boys' and girls' divisions) and at four different times (presumably in each month). The classes to be observed were entirely separated from the rest, so that no external distraction was possible. The teacher stood behind the class and the observer stood so that he had the whole class under his eye, without himself being conspicuous. At a given signal the pupils began to read the books

which were lying open before them—silently, of course. The observer noted those who did not read—that is, did not attend. In this way the number of children who kept their attention fixed throughout a period of five minutes was counted. The following states the percentage of those who so attended throughout the working months of the year: January, 68; February, 63; March, 77; April, 69; May, 64; June, 42; July, 27; October, 48; November, 62; December, 67.

The curve is inversely proportional to that of the mean monthly temperature in Antwerp. Thus, attention seems to be inversely proportional to the temperature of the air, greater in winter than in summer. Further curves showed that attention was greater in upper classes than in lower, greater amongst boys than amongst girls, fell from 8.30 a.m. to 11, and from 2 p.m. to 4, was greater at 2 in the afternoon than at 11 in the morning, but at 2 p.m. was always less than at 8 a.m." ("Die experimentelle Pädagogik," Vol. IV., 1907).

This passage is cited for its method rather than for the "further curves," whose value as a general index must depend upon the number and variety of children observed. As they stand, these statements are more in harmony with *a priori* opinion than is the table of percentages quoted above. In the latter the figures for March and July exemplify some of the surprises of the experimental method.

#### THE "CORPORATE MIND."

A recent development of psychology which points to the gregarious nature of man as the fact of cardinal importance in all study of human mental process may prove ultimately to be of assistance to the schoolmaster. Whether or no, he is not tempted to forget the existence of the characteristic in his pupils. A number of persons attending simultaneously to one and the same object generates a common feeling and activity which is something more than the sum of the individual minds present. Indeed, this "corporate mind" often leads some of the constituent factors to surprise themselves. Kipling's soldier in the panic-stricken regiment "heard a beggar squealing" amidst the rout, and was presently astonished to discover that that "beggar" was himself. Experiments on the "mind of the class" show that class-work tends to establish a level of attainment, both in quality and in quantity, which is in favour of the weaker pupils, more especially in such activities as physical drill, singing, reciting. The younger the children, or the bigger the class, or the more mechanical the exercise, the more marked is this effect. But not all school exercises are best performed under the stimulus which the class-room supplies. Meumann has shown that solitary pupils do better than when they are in class, if the work requires imaginative power or a brief, but concentrated, attempt to memorize.

#### "HOWLERS."

There is one field of study which lies open to all teachers and examiners, but which, so far as I know, has not yet received any serious consideration, though its laughter-provoking power is fully appreciated. The careful analysis of schoolboy "howlers" would, I believe, prove a great self-revelation to all of us who are at least secondarily responsible for them, and, beyond the glimpses afforded of the individual pupil's mental processes, such an analysis, if it grew out of a large number of observations, might be expected to throw much light on the defects of method. The first requisite would be the keeping of a careful record, so that the sense of humour should not be allowed to trick the memory into making smart "copy" for the newspapers. The "howler" itself should be registered, the circumstances amidst which it is perpetrated, and whatever explanation could be assigned to it, more particularly any explanation extracted from the perpetrator.

#### EXPERIMENTAL MORAL INSTRUCTION.

A record of this kind is none the less valuable because it is a history of mistakes; indeed, it is for that very reason so much the more to the purpose. One experimentalist of the true scientific temper is prepared to risk the exposure of even graver failures. Dr. Häberlin\* proposes that, inasmuch as "the goal of moral education is dependent upon the personality of the educator," individual teachers should put on record the moral aims which from time to time they have had before them, the means they have employed to attain these, and the results

\* See "Papers . . . communicated to the First International Moral Education Congress," page 76.



which have ensued. These experiences are to be made common property through the good offices of a central bureau and the pages of a periodical devoted to the purpose.

The proposal reminds us that there are large fields of inquiry almost untouched by the experimentalists: it is admitted that their studies sometimes prove inconclusive, and that the harvest is as yet small. But the experimental movement is young, and these are the defects of youth. If to ask questions be a sign of health in the child, then this movement is in a healthy state at present, for it has certainly raised more problems than it has discovered solutions.

The CHAIRMAN, in inviting discussion on the lecture, remarked that many teachers, now no longer young, had made experiments, but not in the systematic and profitable way indicated by the lecturer.

Mr. SALISBURY said that in America many notable efforts had been made towards the experimental study of pedagogy, especially by Prof. Dewey and Colonel Parker, and, although these experiments had been conducted in an unsystematic way, they had thrown some light on the problems of general methods of instruction and of the successful approach to the mind of the child. But the results were not yet ripe for use by practical teachers.

Mr. BAKER mentioned that, in order to test the power of visualization of numbers, he had often asked his pupils to count backwards, and was astonished to find that many of them were quite unable to do so. He considered that experiments of the kind described by the lecturer had a real practical value.

A vote of thanks to the lecturer concluded the proceedings.

## THE TEACHERS' REGISTRATION COUNCIL.

### DELEGATES' REPLY TO BOARD OF EDUCATION CIRCULAR.

The following letter appeared in the *Times* of October 30:

To the President of the Board of Education.

SIR,—The Committee of delegates from twelve educational societies who, in March last, submitted to you a draft scheme for a Teachers' Registration Council, met again on October 10 to consider the White Paper (Cd. 4185) issued by your Board in July. The Chairman also read, or reported, to the meeting a number of letters from other societies which claim representation on a Registration Council.

1. In regard to the White Paper, attention was chiefly directed to the report of an interview which a deputation had with Sir Robert Morant on May 13 (pages 8–11) and to Sir R. Morant's letter of comment dated July 8 (pages 18–20). The members of the deputation made the following statements: (a) that, as they were invited to the interview and did not ask for it, they went prepared only for a friendly and informal discussion of which no report would be published; (b) that the report was not submitted in proof to any of them; (c) that they did not see the report till two months, or more, after the interview; (d) that while they cannot, at this distance of time, impugn the accuracy of the report so far as it professes to be verbal, they are agreed that some of the inferences drawn from the report are not justified.

2. Of the letters communicated by the Chairman, seventeen had been addressed to your Board and were forwarded to him by your Secretary. Of these, one was a letter from a private individual, asking for information. The rest may be thus classified: six were from societies of teachers of music (viz., the Union of Graduates in Music, the National Conservatoire of Music, the Royal College of Organists, the Incorporated Society of Musicians, the Guildhall School of Music, the National Society of Music). Four were from societies of teachers of art (viz., the London Association of Art Masters, the Society of Art Masters, the Art Teachers' Guild, the Royal Drawing Society). Two were from societies of teachers of shorthand (viz., the Society of Certificated Teachers of Shorthand and the Incorporated Phonographic Society jointly with the Incorporated Society of Shorthand Teaching). One each from the Froebel Society, the National Association of Manual Training Teachers, the Incorporated Gymnastic Teachers' Institute, and the National Association of Head Teachers.

Besides these, the Chairman reported letters addressed to him personally by the Welsh County Schools Association, the Association of Teachers of Domestic Science, Prof. Adams on behalf of the Teachers' Training Association, and two more from individuals on matters of interest to them.

Nearly all the societies above-named claimed to be directly represented on a Registration Council. A few asked only that their faculties should be represented.

The Committee, after considering the White Paper and the report of the deputation and letters above described, resolved: "That the plan of

a Registration Council already recommended be further pressed upon the Board of Education." It was thought by some members that certain modifications of the plan submitted to the Board might be desirable, but it was agreed *nem. con.* that these modifications can only be made by the Board, which alone is in a position to arbitrate between rival claims.

The Committee appointed the undersigned a sub-committee for the purpose of making the representations to your Board and conducting such further negotiations as may be necessary, subject to the approval of the Committee and of the constituent societies.—We have the honour to be, Sir, your obedient servants,

SOPHIE BRYANT,	F. STORB,
R. F. CHOLMELEY,	R. D. SWALLOW,
J. GOW,	J. WERTHEIMER,
CHARLOTTE L. LAURIE,	J. WILSON,
J. D. McCLURE,	J. H. YOXALL.
G. SHARPLES,	

## CONFÉRENCES FRANÇAISES.

SOCIÉTÉ NATIONALE DES PROFESSEURS DE FRANÇAIS.

### LA FEMME POÈTE.

Par Mlle A. M. GACHET.

SAMEDI, 31 octobre, Mlle Gachet, dont la voix souple et bien modulée, la diction exacte, la figure avenante, donnaient un cachet tout spécial au sujet choisi, nous parlait de la "Femme Poète." M. Barlet occupait le fauteuil.

La femme d'aujourd'hui, nous dit la conférencière, est bien près de son apogée. Il lui a fallu des siècles pour comprendre ce que l'on attendait d'elle, mais si le travail s'est fait lentement, il est d'autant plus parfait. Avec son intelligence éveillée, elle a profité de toutes les erreurs commises; elle a compris que son rôle le plus enviable était, non de souffler des conseils et des pensées à l'homme, mais, par son seul contact, d'éveiller et de faire mûrir chez lui des idées et des résolutions. C'est au XVIII<sup>e</sup> siècle qu'elle est le plus près du but. Elle semble le flambeau qui éclaire, guide et conduit l'humanité chancelante, voilant les faiblesses, illuminant les actes héroïques. Avec le romantisme il y eut de nouveau une déchéance. Le joli geste de tenir le flambeau la fatigue; chercher le talent, avoir la suprême joie de le faire connaître, ne lui suffit pas. Elle veut sortir de l'ombre, passer sans transition du crépuscule à l'aurore. Le mouvement manque de grâce. Il nous fait voir des femmes qui regrettent d'appartenir à leur sexe, ajoutant aux pires défauts qu'on leur impute plusieurs défauts des hommes. Elles veulent créer. Mais la femme ne possède point pour cela les qualités nécessaires. Receptive, plastique, assimilatrice, elle est tout cela à merveille. Et de ce fait elle ne saurait être créatrice. C'est la gloire de notre contemporaine de l'avoir compris. Il lui faut un modèle, et c'est dans l'ancienne Grèce qu'elle va le chercher. Les Diotime, les Aspasia, qui donnèrent à l'idiome d'Ionie de si délicieuses cadences, étaient amoureuses du beau langage autant que des belles formes. Aujourd'hui nous aimons autant les belles formes que le beau langage; l'harmonie qui semblait n'exister que dans la patrie des Praxitèle et des Phidias pénètre chez nous, et nos muses modernes prêtent une forme somptueuse aux pensées des autres. Une lèvres rose suffit à ranimer une parole glacée; la beauté rend originales les plus anciennes théories; et, sans créer, la femme cesse, pour ainsi dire, d'imiter. Ces formes légères qui glissent discrètes, silencieuses, dans le brillant sillage de la gloire masculine n'accordent leur lyre que pour notre délassement. Par un rapprochement inconscient, la moderne Europe et l'ancienne Grèce ont formé cet être qui, plus que jamais, est le Phare ou la Vestale. Mais le geste est plus large, le bras se lève plus haut. Ce n'est plus une flambée, c'est un embrasement. Telles sont Mme Judith Gautier et la Comtesse de Noailles qui synthétisent en quelque sorte ces voix féminines et sans cesse renaissantes.

Mme Judith Gautier semble représenter dans la littérature contemporaine, avec Pierre Loti, le goût de l'exotisme. "Le Livre de Jade," qui est peut-être le chef-d'œuvre de Mme Gautier, est un recueil de poèmes chinois qui datent du XII<sup>e</sup> et du XIII<sup>e</sup> siècle. Elle les a traduits exquisement pour nous. Ce sont de courts poèmes faits de finesse d'âme. Toute la sobriété pittoresque, toute la noblesse sans emphase de cet art d'Extrême Orient a admirablement passé dans la plume assouplie de son traducteur féminin. L'émotion est profonde, l'expression souriante.

Et d'une voix vibrante d'émotion la conférencière nous lit "La Maison dans le Cœur":—

"Les flammes cruelles ont dévoré entièrement la maison où je suis né. Alors je me suis embarqué sur un vaisseau tout doré pour distraire mon chagrin. J'ai pris ma flûte sculptée et j'ai dit une chanson à la lune; mais j'ai attristé la lune qui s'est voilée d'un nuage. Je me suis retourné vers la montagne, mais elle ne m'a rien inspiré. Il me semblait que toutes les joies de mon enfance étaient brûlées dans ma maison. J'ai eu envie de mourir, et je me suis penché sur la mer. A ce moment une femme passait dans une barque. J'ai cru voir la lune se réfléchir dans l'eau. Si elle voulait, je me rebâtirais une maison dans son cœur!"

Magie étrange et séduction profonde dans cette simplicité. Mme Gautier ne décrit pas, elle évoque. Ce sont des émotions nouvelles qu'elle dépose en nous, et ce désir de l'ailleurs, des pays lointains appelle notre curiosité ou notre ardeur de vivre. Et tout le long du livre ce sont des scènes d'une beauté pareille, toutes frémissantes d'une volupté candide, celle de l'extrême jeunesse et du premier amour.

Les femmes poètes ont le don d'une sensibilité extraordinaire; ce sont des musiciennes et des plus pures.

Les vers de la Comtesse de Noailles charment par leur grâce ingénue. Elle reçoit ses impressions de l'air, des jardins, de la nature. Les mots qui lui viennent au cœur frissonnent sous le vent qui passe. En des tableaux clairs, ensoleillés, elle évoque la campagne qui apaise, calme et guérit. Ce poète n'est jamais rassasié de lumière; il prend une voluptueuse satisfaction à l'inépuisable longueur des jours d'été, à leur chaleur qui semble dissoudre les corps, les fondre avec l'éther palpitant. Il possède au plus haut degré la joie de vivre, et la communique en vers langoureux et beaux.

"Le temps, de ses pipeaux, tire de clairs accords;  
Bondissez au soleil, les âmes et les corps.

Par les chemins poudreux et la verdure épaisse,  
Epuisez les plaisirs, c'est la seule sagesse.

Prenez-vous, quittez-vous, cherchez-vous tour à tour,  
Il n'est rien de réel que le rêve et l'amour.

Sur la terre indigente où tant d'ombre s'éploie,  
Ayez souci d'un peu de justice et de joie.

Estimez du savoir ce qu'il faut au bonheur;  
On est assez profond pour le jour où l'on meurt.

Vivez, ayez l'amour, la colère et l'envie;  
Pauvres êtres vivants, il n'est rien que la vie!"

La beauté de ces vers est de qualité essentiellement aryenne sinon purement et strictement française. C'est dire qu'ils sont un chant, une caresse, un parfum autant qu'un éblouissement. Et l'on plaint la langue française qui manque de mots pour exprimer toutes ces voluptés réunies! Le rêve de Mme de Noailles va vers la Grèce qu'elle sent toute sienne. On l'imagine chantant à Lesbos ou à Mitylène au bord de la mer où naquit Aphrodite et où mourut Sapho. La Grèce dont elle parle est plus près de l'Orient que de l'Attique; elle est de l'Archipel, d'un de ces rivages qui se tourne vers Smyrne ou Constantinople. Son amour de la lumière, ce sens de la beauté des paysages et des êtres, cette volupté aux pieds de la nature flatte nos sens, mais ce paganisme cruel ne va pas sans inquiéter nos cœurs formés par des siècles de tendre mysticisme.

Le style de la conférencière a été en tous points digne de son sujet. Ça été, pour le nombreux et attentif auditoire qui se pressait dans la salle, une caressante mélodie pour l'oreille, un charme pour la pensée, un délice pour l'esprit, qualités d'autant plus appréciables par ces temps de turbulentes suffragettes et de féminisme échevelé. Aussi la satisfaction générale s'est-elle traduite en généreux applaudissements.

## THE COLLEGE OF PRECEPTORS.

### PRACTICAL EXAMINATION FOR CERTIFICATES OF ABILITY TO TEACH.

The following is a list of successful candidates at the Examination held in October, 1908:—

<i>Class I.</i>		
Harris, Miss J. D.	Harris, R.	Meyer-Griffith, H. W. G.
<i>Class II.</i>		
Hambly, W. D.	Moore, W. I.	

## THE COLLEGE OF PRECEPTORS.

### MEETING OF THE COUNCIL.

A MEETING of the Council was held at the College, Bloomsbury Square, on November 14. Present: Sir Philip Magnus, President, in the chair; Prof. Adams, Prof. Adamson, Dr. Armitage Smith, Mr. E. A. Butler, Mr. Bain, Mr. Baumann, Rev. J. O. Bevan, Rev. J. B. Blomfield, Mr. Brown, Mr. Charles, Mr. Eve, Rev. R. Lee, Dr. Maples, Mr. Millar-Inglis, Mr. Milne, Mr. Pendlebury, Mr. Pinches, Mr. Rule, Rev. Dr. Scott, Mr. Starbuck, Mr. Storr, Mr. Vincent, and Mr. White.

The minutes of the last meeting were read and confirmed.

The Secretary submitted a report of the Committee of the Joint Scholarship Agency, which showed a satisfactory record of the work of the Agency during the past year.

He reported the death of Mr. John Tidy, formerly Assistant Secretary of the College, and direction was given that a letter of condolence should be sent to Mrs. Tidy, expressing the deep regret of the Council at the death of her husband, who had served the College most faithfully and efficiently for forty years.

Mr. Millar-Inglis and Mr. Storr were appointed the representatives of the College on the Joint Scholarships Board for the coming year.

A report of the Examination Committee was adopted, and, in accordance with a recommendation in the report, the Council decided to add Irish to the list of alternative subjects for the Certificate Examinations.

The following persons were elected members of the College:—

Mr. H. J. Larcombe, B.Sc. Lond., L.C.P., The Laurels, Treaslaw, Rhondda.

Miss M. H. Shackleton, M.A. Dublin, L.C.P., 17 Denning Road, Hampstead, N.W.

The following were elected Honorary Members: Sir William Anson, M.P., S. H. Butcher, Esq., M.P., Sir William Bousfield, Arthur Sidgwick, Esq., and the Rev. Dr. E. Warre, late Head Master of Eton.

The following books had been presented to the Library since the last meeting of the Council:—

By the BOARD OF EDUCATION.—The Problem of Rural Schools and Teachers in North America.

By G. BELL & SONS.—Mallin's German Historical Reader.

By A. & C. BLACK.—Black's Senior Supplementary Readers (Rab and his Friends and Great Deeds on Land and Sea); Picture Lessons in English, Book IV.

By BLACKIE & SON.—Blackie's English Texts (Voyages and Plantations of the French in Canada, Letters on France, and The Spanish Armada); Simple Lessons on Household Management; Adaptable Arithmetics (Books III. and IV. and Teacher's Handbook to Book IV.); Stories to be Read (The Chimes, A Christmas Carol, The Cricket on the Hearth, Gulliver's Travels, Adventures of Ulysses, Robinson Crusoe, Rip van Winkle, Tales from the Arabian Nights); Clark's Labourer's Yvon et Finette; Leighton's Intermediate Geometry; Mort's Practical Geography; Scott and Wallis's The Call of the Homeland, Books I. and II.; Wake and Brechtel's Germany in Story and Song.

By LONGMANS & CO.—Saxely's Introduction to Practical Mathematics; Porter's School Hygiene and the Laws of Health.

By MACMILLAN & CO.—Carter's Topffer's Le Lac de Gers; Morrison's Essays from the *Spectator*; Scoones and Todd's Eton Algebra, Part I.

By E. MARLBOROUGH & CO.—Hébert's French Pronunciation made Easy; Mann's Esperanto Self-Taught.

By J. MURRAY.—Baily and Pollitt's Woodwork; Edmunds and Spooner's Story of English Literature (Vol. III.); Readings in English Literature (Junior, Intermediate, and Senior Courses, Vol. III.); Hartog's Souverey's Confessions d'un Ouvrier; Russell's Notes on Elementary Chemistry, and Notes on the Teaching of Elementary Chemistry; Walters and Conway's Linen—a First Latin Book.

By the OXFORD UNIVERSITY PRESS.—Delbos' Sand's La Petite Fadette; Lowe's Scenes from the Life of Hannibal; Manson's Béranger's Chansons Choies; Myers's Coverley Papers from the *Spectator*; Paterson's School Algebra, Part I.; Savory's Deutsches Reformlesebuch; Smith's Bouët-Willamez's Batailles de Terre et de Mer; Tanner's The Reformation and the Renaissance; Unstead's Practical Geography, Part I.

Calendars of Birmingham University; Victoria University of Manchester; City of London College; and King's College, London.

## REVIEWS.

### FRENCH LITERATURE.

*A Literary History of France.* By Emile Faguet. Translated by F. H. L. (12s. 6d. net. Fisher Unwin.)

This volume is one of the series entitled "The Library of Literary History." The author, M. Faguet, is a member of the Academy, and is best known by his "Etudes Littéraires" of the sixteenth, seventeenth, eighteenth, and nineteenth centuries, each volume containing monographs on famous writers of the period. To most readers such studies, to which an accomplished critic cannot fail to give a certain unity, are more interesting than a continuous literary history, which cannot help having some resemblance to a dictionary.

To the English edition M. Faguet has contributed an introduction on the action and reaction between English and French

literature, from Chaucer and Gower to the present time. He thinks that Shakespeare probably read Montaigne, but took nothing from him, in opposition to the received opinion that Gonzalo's ideal commonwealth in "The Tempest" is due to Florio's translation. In Waller, the friend of St. Evremond and La Fontaine, he finds the type of the alliance and intermixture of French wit and English character. Later, Congreve was "an exquisite pupil of Molière," and Sir William Temple transferred to England the quarrel of the Ancients and Moderns. In the eighteenth century Voltaire is a conspicuous example of English influence on French literature, while Montesquieu "owed everything, from first to last, to England."

Richardson, again, was extremely popular in France, and Diderot and Rousseau were under great obligations to his influence. In the case of Pope, the influence was reciprocal. He was "a disciple of Boileau and the inspiration of Voltaire." Horace Walpole was the friend of Mme. du Deffand; and Miss Burney, who eventually married a Frenchman, was intimate with Talleyrand and Mme. de Staël. Subsequently, the influence on France of "Ossian," Young of the "Night Thoughts," Byron, and Sir Walter Scott, were among the many complicated influences leading up to the Romantic movement. Nor is the philosophic influence of England on France wanting in the nineteenth century. Taine is reproached with being "English from head to foot." Apropos of Taine, there seems to be some misconception in the following: "Moreover, Taine was a disciple of Auguste Comte, who in his turn borrowed largely from Spencer and Stuart Mill." No doubt Comte and Mill were in correspondence before 1842, the date of the last volume of "Positive Philosophy," and Mill owes to considerable obligation to Comte, but it is scarcely likely that Comte owed an appreciable debt to Mill. Spencer's first work, "Social Statics," was published during the later years of Comte's life, when his great work was completed.

To turn to the "History" itself, it is impossible to do more than refer to a few details. The chapter on the "Chansons de Geste" is enlivened by brief sketches of some of the most famous poems to English readers it would have been interesting if reference had been made to Lord Tennyson's debt to Chrestien de Troyes in "The Idylls of the King." Of Charles d'Orléans, so long resident in captivity near Tunbridge Wells, a few charming specimens are given, and the same is done for the "Pléiade" and their precursors, Heroët and Maurice Sève.

In the chapters on the "Grand Siècle" there is a warm, but perhaps too brief, appreciation of Racine, alike as a dramatist and as a poet. Had the book been written specially for English readers, some details might have been added. The origin of the Romantic movement has often been discussed. On the whole, M. Faguet's view is epigrammatically expressed in the words: "Chateaubriand was the father of romanticism and Mme. de Staël its godmother." He summarizes Chateaubriand's message to the nineteenth century:

In spite of some men of great genius and some admirable books, which I am better able to appreciate than any one else, your fathers have been for nearly three hundred years in error on the subject of the art of writing. They have had an idea that it must be to a certain extent impersonal, and that the author should not appear in it, or pour into it his own individuality. . . . Although they were Christians and French, the fear, strengthened by habit, of bringing their personality into their work led them to say very little about Christian and national subjects, which they even consciously avoided; on the other hand, they sought most eagerly after subjects drawn from mythology and antiquity. This was a veritable aberration, which could neither deprive them of genius nor immediately weaken literature, but it did, in the end, for want of substantial nourishment, wither it. So much the better! An immense amount of material remains intact, and an immense path remains open for their successors. Consult your own heart: it is there that genius may be found; in any case it is the home of what is deepest and most fruitful in your nature; give expression to your religious feelings, and do not believe, first with Boileau and then with Voltaire, that Christianity is devoid of beauty: it is all beauty; give expression to your patriotism, and revive your national history; realized by yourself, it will be a matter for admiration; do not repress either your sensibility or your imagination, as your fathers did, because real sensibility consists in personal experience, and they only liked to express the sensibility of others; moreover, real imagination is so permeated with sensibility that it is impossible to separate one from the other. And, last of all, consider that even impersonal art, which should in no way be proscribed, receives new and higher beauty through the intervention of the author's personality; that we always describe the "non-ego" either with a sympathy of the "ego" for it, or with a reaction of the "ego" against it; that it is this very sympathy or reaction to which we give the best expression; so that if personal literature has still to be

created, impersonal literature itself must be verified, rejuvenated, and illumined with new splendour by the new art which I indicate to you.

The pages devoted to Victor Hugo are, thanks to the necessary condensation, little more than a catalogue, and make us regret the delightful *étude* in the author's "XIX<sup>me</sup> Siècle." Of Michelet M. Faguet says:

Michelet, in spite of the tricks which his ardent and too lively imagination often played him, remains, by his power of vision, an incomparable historian. He has made living before us, one by one, every age and every successive stage of French society, from the Middle Ages to the year 1815, and one may almost say every generation which has lived on French soil. It is marvellous to "see" a period, to have it materialized before our eyes, to contemplate its life, colour, and activity. It is a great achievement to make us see it as he sees it; he is the Saint-Simon of every age, and gives us impressions of every century which might be those of an eye-witness.

To Sainte-Beuve, "the master of those who know" in criticism, an enthusiastic tribute is paid:

As a critic he is quite of the first rank. He never separated criticism either from general history or moral biography. An author was for him a period to understand, a soul to study, an artist whose artistic processes were to be analysed, whose influence on later writers was to be appraised; hence it follows that any study by Sainte-Beuve, down to the smallest, is an historic inquiry, a portrait, a lesson in aesthetics, a second historical inquiry which concludes, generalizes, and completes the setting of the picture. On the other hand, inclining in his quality of moralist to trace a natural history of humanity, he liked not only to place an author in his proper surroundings, but to find out with what other authors of widely separated times and places he had points of similarity or analogy, so as to recognize, throughout the human race, "families of minds," and thus to contribute to a possible general classification of humanity.

A few lines are added on Sainte-Beuve's distrust of system and universal ideas.

The value of the book is enhanced by the excellent index, which, besides fulfilling the usual functions of an index, serves as a *catalogue raisonné* of French authors.

#### *The Practice of Instruction.* By Prof. J. W. Adamson.

(4s. 6d. National Society's Depository.)

The principle of the division of labour is now generally admitted in connexion with manuals of school method. It is no longer possible for one man to profess to deal with all the subjects in the curriculum. This is all to the good. But there is a corresponding danger. The specialist is very apt to over-estimate the importance of his subject, and to emphasize unduly the peculiarities of method that his particular needs originate. In the book before us we have an admirable correlation of the general and the special in method. Collaboration even between two authors is always a difficult business: but, when it comes to a collaboration of ten, it reflects unusual credit on the editor who brings it to such a successful issue as we find in this book. One wonders whether he first wrote his general part, covering 124 pages, and sent it round to the other contributors before they began their work. In any case, there is justification for his claim that there are no fundamental contradictions between the general principles of method set out in Part I. and the special application found in Part II. On the other hand, there is no lack of individuality of treatment in Part II. It is very interesting to note the process by which consistency may be attained in a symposium. All the common elements supplied by the different contributors coalesce with each other and form in the reader's mind a solid body of established principles, while the peculiarities of each contributor tend to react against the peculiarities of all the others, and, as a consequence, to stand out in bold relief.

The general part is exceedingly well done. The sense of proportion is well preserved throughout, as one would expect in the case of an editor who approaches his subject after giving proof in a previous work—"The Pioneers of Education"—of his competence as a historian. The various general methods are treated in their proper perspective, and not arranged in order of their temporary prominence in current educational discussions. The heuristic method, for example, is not treated as if it were of Victorian origin. A general description and critical account of the theory of instruction is followed by an illuminating study of the curriculum of Prussian schools and a discussion of questions suggested in reference to schools at home. Then follows one of the most characteristic sections of the book: that dealing with the newer experimental methods. To be sure, the treatment is somewhat sketchy, as was inevitable in a work of this kind. But it is a great thing that our students of method and

our practical teachers who retain an interest in the scientific side of their profession should learn that this experimental method is being more or less successfully worked. It is not very creditable to the profession that names like Meumann, Ebbinghaus, and Messmer are all but totally unknown to the practising teacher. In this particular Prof. Adamson has certainly deserved well of his readers and of the profession generally.

It goes almost without saying that the contributions to Part II. are of unequal merit. The editor's own contribution on the Mother Tongue is particularly clear and suggestive, and bears the mark of the skilled and experienced craftsman. The Language sections will give rise to more difference of opinion. In ancient as well as in modern languages the "Direct Method" is recommended, and its application to Greek is fully illustrated by the reproduction of actual school exercises, which have proved a snare to certain early reviewers who mistook them for pattern pieces of Greek and criticized them accordingly. The reader may not agree with Dr. Rouse's views, but cannot help admitting the skill with which he pleads his cause. The section on the Teaching of Natural Science, which is remarkably well done, is, in effect, an essay which aims at bringing about unity of purpose and consistency of method in the handling of the study throughout the school. As was to be expected from the author of "The Aims of Scientific Method," the treatment is eminently clear and logical, though it must be admitted that the result makes somewhat difficult reading for the ordinary student. But it is, perhaps, time that the ordinary student—and the ordinary member of the general public—should learn that a study of method is not child's play. The Mathematical section adheres to reformed lines. In the hands of Dr. Herbertson, Geography could not fail to be excellently treated. The subject is expounded on the "regional system," and full detail is supplied for the preparing of courses in all types of school. Another innovation in this book, though hardly a surprising one when we note the name of the publishers, is the inclusion of Religious Instruction. Principal Headlam urges a frank acceptance of the established results of Biblical criticism, argues for the value of Biblical instruction as such, but frankly demands denominational teaching. This section has less reference to actual method than have the others.

A characteristic of the whole book is the wide view it takes of the problems involved. Continental and American experience is utilized wherever possible. The German educational system is relegated to its proper place, and in the sections on the Mother Tongue and on History particular attention is drawn to French practice. A very important feature of the book is the presence of little bibliographies at the end of each of the sections. While remarkably complete within itself, the book leaves the student without excuse if he remains ignorant on any of the points referred to but not fully treated in the text. Even experienced teachers will learn much from this book, and for students in training it is invaluable.

## GENERAL NOTICES.

### MATHEMATICS.

*Practical Integration.* By A. S. Percival, M.A. (2s. 6d. net. Macmillan.)

Within the limits prescribed by the writer, the subject is carefully though rather briefly treated. Those portions alone are discussed which have a practical bearing. For a fruitful study of the principles of integration, a previous thorough knowledge of those of the differential calculus is universally acknowledged to be essential; hence this is assumed by the author on behalf of his readers and must be possessed by them, in order that they may derive full advantage from the present work. Teachers will feel additional confidence in adopting the new text-book from the fact that Mr. Percival, when consulting existing authorities, has availed himself of standard treatises occupying the first rank in the estimation of mathematical experts, as, for example, those by Lamb, Edwards, Williamson, and Greenhill.

*Ratio Co-ordinates and Carnot's Theorem.* (1s. Whittaker.)

By means of a special system of ratios, which he employs for the purpose of defining the positions of points and lines—in fact, conformably with his title, as a system of ratio co-ordinates—the author is enabled to give in this tiny pamphlet brief proofs of many leading propositions in modern geometry and in conics. The theorems for the discussion of which the system is perhaps most suitable are those concerned with projective properties. The volume will be valuable to students of the subjects considered, both on account of intrinsic usefulness and by reason of its compact form.

*A Simple Course of Weighing and Measuring.* By H. J. Ashton, F.R.G.S. (1s. net. Philip.)

The volume collects a number of rules connected with the arithmetic

of weights and measures, illustrating them by examples based on their application to practical purposes. The text is often wanting in fullness, many of the rules standing as unexplained statements merely followed by worked exercises embodying the methods considered. In many cases, however, the author indicates the principle involved. The derivation of all our units from one single fundamental unit of time is ingenious, if rather far-fetched. A short account of the metric system is included. A few misprints occur, but in general the little book is well brought out.

*The Metric System.* By F. Mollow Perkin, Ph.D. (Whittaker. 1s. 6d.)

A brief summary of the leading facts connected with the metric system, and compiled as a manual suitable to supplement the oral teaching of the subject. A series of tables and graphs gives in concise form British and metric equivalents. There are interesting sections on specific gravities, the measurement of temperatures, and equivalent values in British and foreign money. These, it is hoped, will enlarge the sphere of usefulness of the little volume. The specific gravities quoted for various substances have, in many cases, mean values lying between the limits of the densities given for them by Prof. J. D. Everett. The author lends his unqualified support to the familiar practical arguments in favour of the adoption by the United Kingdom of the metric system and decimal coinage.

### HISTORY.

(1) *A Smaller Social History of Ancient Ireland.* (3s. 6d. net.) (2) *The Story of Ancient Irish Civilisation.* (1s. 6d.) Both by P. W. Joyce, LL.D., M.R.I.A., One of the Commissioners for the Publication of the Ancient Laws of Ireland, and Honorary President of the Royal Society of Antiquaries, Ireland. (London: Longmans. Dublin; H. M. Gill & Co.)

The first of these volumes is abridged from Dr. Joyce's great work *A Social History of Ireland*, which contains a complete survey of the social life and institutions of ancient Ireland, with ample proofs and references; and the second is abridged from both. (1) is disposed in three Parts: (i.) government, military system, and law; (ii.) religion, learning, and art; (iii.) social and domestic life; and it has over 200 illustrations. (2) reproduces the essential features of the longer works in popular form. The series constitutes the only complete social picture of the people; and the lineaments are depicted throughout with the strictest regard to historical fact and with the most laborious care. Any one that peruses the narrative will at once see what a weight of meaning is contained in Dr. Joyce's remark that "the old Irish people have never in modern times received the full measure of credit due to them for their early and striking advance in the arts of civilized life, for their very comprehensive system of laws, and for their noble and successful efforts, both at home and abroad, in the cause of religion and learning." These volumes should be studied diligently by "the predominant partner."

*The Letters of Queen Victoria.* Selection from Her Majesty's Correspondence between the years 1837 and 1861. Published by authority of His Majesty the King. Edited by Arthur Christopher Benson, M.A., and Viscount Esher, G.C.V.O., K.C.B. In three volumes. (6s. net. Murray.)

A popular edition, nicely printed and tastefully got up, with sixteen illustrations distributed among the three volumes, at less than a tenth of the price of the original issue. The selections are judiciously made from some five or six hundred volumes of papers, the principle being to illustrate the development of the Queen's character and disposition and her methods of dealing with political and social matters. "That the inner working of the unwritten constitution of the country, that some of the unrealized checks and balances, that the delicate equipoise of the component parts of our executive machinery, should stand revealed, was inevitable." "Nothing comes out more strongly in these documents than the laborious patience with which the Queen kept herself informed of the minutest details of political and social movements both in her own and other countries." The notes are limited to such an amount of comment as may enable a reader without special knowledge of the period to apprehend intelligently the course of events.

### RELIGIOUS AND MORAL.

*The Cambridge Devotional Series.* (1s. 6d. net each volume. Cambridge University Press.)

A charming series, beautifully printed and chastely got up. (1) *St. Francis and his Friends*, rendered into English from Franciscan chronicles by Horatio Grimley, M.A.—very interesting and touching selections.—(2) *The Imitation of Christ; or, The Ecclesiastical Music*, by Thomas à Kempis, a translation edited by J. H. Srawley, D.D. The translation is based upon the English Version of 1620 by F.B., which has been revised throughout with the help of Hirsche's text of the original. The work is given complete, and without modifications or adaptations of language "to suit the needs of modern readers."—(3) *The Interlinear Psalms*—the Authorised Version and the Revised Version, together with the marginal notes of the Revised Version—showing at a glance the position, extent, and nature of the differences between the two Versions.—(4) *Agathos and the Rocky Island*, and other Sunday stories and parables, by Samuel Wilberforce, with introductory note by A. J. Mason, D.D., Master of Pembroke College, Cambridge. The short dialogues occasionally following the narratives have been omitted, as unnecessary to ex-

plain the meaning and application of the stories and as somewhat detracting from the artistic effect of the book.

*A New Self-Help.* By Ernest A. Bryant. (5s. Cassell.)

Mr. Bryant writes in frankly optimistic vein "a story of worthy success achieved in many paths of life by men and women of yesterday and to-day." The twenty chapters are assigned to separate groups—such as inventors, scientists, artists, founders of great businesses, and so forth; and the examples are taken from modern times freely enough to justify the title. Mr. Bryant does not seek to glorify the money-spinner or to worship success: "careers notable in their effects for the good of others have been chosen, without regard to the reward won by the authors of those efforts." The volume is fluently written and very readable; and, if there is now and again a lack of discrimination, still the general effect is no doubt stimulating and encouraging to youths that have any real grit in them.

#### HOW TO USE THE MICROSCOPE.

Mr. Robert Sutton (43 The Exchange, Southwark Street, S.E.) issues a third edition of *The Microscope and how to Use it*, by T. Charters White, M.R.C.S., L.D.S., F.R.M.S., late President of the Quekett Microscopical Club (3s. net)—a very serviceable handbook for beginners. The text has been revised, and fresh chapters on "The Marine Aquarium as a Field for Microscopical Research" and "Staining Bacteria" (the latter by Maurice Amsler, M.B., B.S. Lond.) have been added. The illustrations are from photomicrographs by the author.

#### MISCELLANEOUS.

The *Calendar* of University College, London, for the session 1908-9 contains the usual ample supply of information about the numerous courses and classes, together with some new features of interest. The outline of the history of the College, by Dr. Carey Foster, ex-Principal, has been revised and brought up to date, and there is a set of plans showing more completely than before the disposition of the extension buildings for the work of the College. The post-graduate work appears to be flourishing, both in lectures and in research: last session there were no fewer than 239 post-graduate workers. The intercollegiate system has also been developed with marked success, especially in the departments of Law and Modern Languages.

Messrs. Bowes & Bowes issue an interesting brochure, *Students' Life and Work in the University of Cambridge*, consisting of two lectures by Karl Breul, M.A., Litt.D., Ph.D., University Reader in Germanic (1s. net). The lectures were originally given by way of first information for the students, British and foreign, that attended the University Extension Summer Meeting in July and August last. We are glad to note that Dr. Breul suggests that he may go on to deal similarly with the origins and development of the University. A considerable bibliography is appended. The information is very fully and compactly presented, and it will be of much interest to parents and guardians as well as to the academic public generally.

The first (October) number of the fourth volume of *The Modern Language Review* (4s. net, Cambridge University Press) has a very thriving appearance. Special interest attaches to an article on Langland by Mr. Theophilus D. Hall, who says it was written previously to the publication of the second volume of the "Cambridge History of English Literature," and that "the conclusion arrived at by the writer of it with regard to the C-text is fully borne out by Prof. Manly." Mr. Hall, however, does not see eye to eye with Prof. Manly at all points.

Messrs. Jack have begun to issue a series of 100-colour reproductions of the finest paintings in the National Gallery. The pictures will be selected so as to represent the whole range of art of every country and school from the thirteenth to the nineteenth century in chronological order, and they will be accompanied by critical and explanatory notes. The work, which bears the title *The National Gallery*, will be completed in seventeen Parts (1s. net each). The joint editors are Paul G. Konody, Maurice W. Brockwell, and F. W. Lippmann. The first Part gives decided promise of a valuable and popular work.

Messrs. Cassell have begun to issue (1) "the King's Edition" of their ample and popular *History of England in Parts* (6d. net each). (2) Their elaborate and practical *Cyclopaedia of Mechanics*—"memoranda for workshop use, based on personal experience and expert knowledge"—which runs to five volumes and contains some 6,500 illustrations (Parts, 3d. net each). The editor is Paul N. Hasluok. (3) *Outlines of Electrical Engineering*, by Harold H. Simmons, A.M.I.E.E., Lecturer in Electrical Engineering at Finsbury Technical College and formerly Head of the Electrical Engineering Department of the Goldsmiths' Institute. This is an entirely new work, plainly written and liberally illustrated. It will be completed in fourteen fortnightly Parts (7d. net each).

*Jack's Reference Book* (3s. 6d. net) is "thirteen important reference books in one volume of 1,088 pages (9 x 6½)." The thirteen divisions are general, medical, legal, parliamentary, social, educational, commercial, and so forth. There is an enormous quantity of useful information, mainly such as a busy man wants. The price is amazing.

*Child Study for October* contains notable articles on "Child Study in relation to the Training of Teachers" (by Alex. Morgan, M.A., D.Sc.),

and "Play" (by Beresford Kingsford, M.D., D.P.H.), and very interesting suggestions for an annual "School Festival" (by Mrs. Laurence Gomme).

*The Navy League Annual*, edited by Alan K. Burgoyne, makes its second appearance in force (2s. 6d., The Navy League, 13 Victoria Street, S.W.). All the navies of the world are reviewed and a special chapter is devoted to a consideration of "comparative naval strength." "The superiority of this country appears almost brutal"; "unless attacked by some unthinkable combination, our position is unassailable." There are also a number of other articles of a pertinent character, covering the whole ground of naval affairs. A very useful assemblage of naval facts, though some of the arguments will scarcely escape question.

*The P.R.A. Annual*, 1909 (6d., Watts), contains thirteen articles of the usual advanced character. Among the contributors are Prof. Lombroso, Prof. Lester Ward, George Brandes, A. W. Benn, Dr. Callaway, and other well known writers. Mr. J. M. Robertson, M.P., expounds "The Philosophy of Bradlaugh."

*The Journal of the Municipal School of Technology, Manchester*, furnishes a very valuable record of investigations undertaken by members of the teaching staff of the several departments of the institution. Part II. of the first volume contains ten considerable articles showing results of laborious inquiry on a variety of technical subjects.

The S.P.C.K. publishes the story of *The Battle of Trafalgar*, written and illustrated by Irwin Bevan (6d.). There are thirty illustrations. The brochure will be popular.

Messrs. Collins & Irene publish *The "A.D. Infinitum" Calendar* (3d.) in card form folding to suit the pocket—"an accurate, simple, and instantaneous reference for any date of any year, past, present, or future, from the year 1 A.D. *ad infinitum*." Ingenious and convenient.

#### DIARIES.

*Letts's Diaries* (Cassell) appear in so many different forms and are so well devised and furnished for their various purposes that they no longer stand in need of commendation. We have several specimens: No. 10, Office Diary and Almanac, three days to a page, with much practically useful reference matter prefixed, in strong binding (4s. 6d.); No. 13, Pocket Diary and Almanac, a reduced form of the preceding, on similar lines, but convenient for the pocket (2s. 6d.); No. 21d, also a Pocket Diary and Almanac on a smaller scale (1s. net); No. 46, Rough Diary, giving half a page to a day (2s. 6d.); No. 34, Rough Diary and Almanac, with a week on a page, interleaved with blotting (1s.); No. 39, Scribbling Diary, with a week in an opening, interleaved with blotting, very serviceable on the desk (1s. 6d.); No. 78, Pocket Diary, six days in an opening, oblong form, convenient for the pocket, in limp morocco grain leather (1s. 6d. net); No. 111, Pocket Diary, a day to a page, limp cloth, gilt edges (2s. net). Insurance coupons are attached to each volume. These diaries have been published for over twenty years solely by Messrs. Cassell.

*Pitman's Shorthand and Typewriting Yearbook and Diary* (1s.) contains, as usual, a great deal of information about the subjects of its title. The Diary portion gives a page to a week.

#### CHRISTMAS BOOKS.

##### HISTORICAL AND DESCRIPTIVE.

*The Druidess*, by Florence Gay (2s. 6d., Ouseley), takes us back to the end of the sixth century and depicts the conflict of Celt (Pict, Scot, Bret) and Saxon and of Druidism and Christianity. There is plenty of battle and intrigue to satisfy the appetite for adventure; and, if there is some derangement of historical facts, there is a strong colouring of the rough life of the times, both in Ireland and in Western England and Wales. Between the Druidess and a Saxon lady a heroic young chieftain has a distracting time of it. The Druidess herself is strongly presented. St. Columba appears at the famous convention at Druimceta. By the way, the latest historian of Ireland calls the place Drumceata and fixes the date some twenty years earlier (575), but that does not matter much. One of the chapters sketches the first (or an early) Eisteddfod—an extraordinary scene, of which the modern assembly is a very limited and pale reflexion. The story is not very sharply outlined and the information about the period tends to be massed heavily here and there. But the freshness and interest of the materials would suggest that the story might be advantageously rewritten on a larger scale, with less disturbance of the history and more free display of the abundant embroidery.

*Sir Sleep-Awake and his Brother*, by Grace I. Whitham (2s. 6d., Blackie), is a story of the Crusades, a tale of adventure in the time of King John. The two brothers have a great estate and an immense treasure; and Sir Sleep-Awake is led to suppose that he has killed his brother, while the brother is led to believe that Sir Sleep-Awake thinks him guilty of stealing the treasure. Hence remorse and despair, which send one brother to the Holy Land on pilgrimage and the other to Spain to fight the Moors. There are plenty of difficulties by land and

sea, plenty of fighting, and no lack of trials of patience and courage. Boys will follow the developments with unflinching interest. Four illustrations by N. Tenison.

*In Empire's Cause*, by Ernest Protheroe (3s. 6d., Gay & Hancock), sketches the more picturesque scenes in the history of the country. First there is "the Making of the Homeland," which takes us down, by unequal steps, to the time of Elizabeth; next is "the procession of Empire Builders"; and, finally, "the Briton's Burden of Empire." Though the selection of the subjects and the mode of treatment ensure interest throughout, the historical grasp is not strongly marked, and the sense of proportion is not unfrequently perverted. If the author had put his finger on the decisive element elsewhere as surely as he does in his description of the battle of Omdurman, the volume would have been very valuable indeed. About a dozen full-page illustrations.

*The Silver Hand*, by Eliza F. Pollard (2s. 6d., Blackie), is a story of India in the eighteenth century. In the course of the Mahratta wars, a prosperous British merchant of Madras is shot dead during an attack on his house, and his eleven-year-old daughter Ursula, with her nurse, a Mahratta woman, disappears in the confusion. The child is found on the roadside by Scindia, and brought by him to Poona. Under peculiar circumstances her life is saved by a young Breton nobleman, who had come out to India as a soldier of fortune. By-and-by she goes in the train of Scindia to Agra, where the Breton also turns up, to get medical assistance, his right hand being grievously wounded. At a lake near Agra, she found in the right hand of a figure of Buddha carved in stone a silver hand, exactly similar to the Breton's, and "fashioned in such a way that evidently, when fastened securely on the arm, the hand and each finger would be responsive to the will of the wearer." This turned out to be "the fulfilment of an ancient prophecy," and designated the Breton as the man that should lead the Mahratta confederacy to the height of power. The story is well written, varied in interest, and full of action. Four illustrations by William Rainey, R.I.

*A Lad of Grit*, by Percy F. Westerman (2s. 6d., Blackie), is a story of adventure on land and sea in Restoration times. If Aubrey Wentworth is to take ample legacies under the will of his father, a loyal cavalier, who has met a tragic death, he must fulfil certain mysteriously expressed conditions. He finds stirring adventures amongst buccaneers of the West Indies, Algerine pirates, and English smugglers and wreckers; and during captivity in Holland he gets possession of a mysterious document affording a clue to the treasure of the cavalier. There are further adventures in the attempt to get the treasure. The reader will not have to complain of any lack of excitement in the story. Four illustrations by Edward S. Hodgson.

*Stories of the Flemish and Dutch Artists*, from the time of the Van Eycks to the end of the seventeenth century, selected and arranged by Victor Reynolds (7s. 6d. net, Chatto & Windus), is a very handsome as well as a very interesting volume. The stories are told as far as possible in the words of the original historians of the two schools. They are quaintly direct and charmingly racy, though some of them may be impeached by the severe historian; and they present very vivid pictures of certain aspects of the life of the period. Mr. Reynolds has added fuller information here and there from the researches of modern authorities. Some two dozen artists are commemorated, and there are eight coloured plates and twenty-three half-tone plates.

*Our Empire Story*, told primarily "to children," by H. E. Marshall (7s. 6d. net, Jack), but very well worth reading by elders, consists of stories of India and the greater colonies—Canada, Australia, New Zealand, and South Africa. The narrative is simple and picturesque, and, where there is popular difference of opinion, the author does not press the historical fact. It seems rather a pity to have left the siege of Delhi undescribed. But on a general view the volume is very satisfactory, and it is full of interest. The type and get-up are handsome, and there are twenty coloured full-page illustrations by J. R. Shelton, and six maps.

*How Canada was Won*, by F. S. Brereton (6s., Blackie), weaves a brisk story into the events that led up to the conquest of Canada. The subject is always interesting to the young, and it is especially opportune now in view of the recent tercentenary celebrations at Quebec. The hero proves his mettle in various tight places, and at length is placed by Washington in command of a band of scouts, who find plenty of fighting and adventure about Fort William-Henry. He falls into the hands of Indians and all but loses his life, being saved by a French colonel, whose life he had previously saved. He is taken to Quebec, whence he escapes down the steep cliffs by the aid of his former friends the scouts. He joins the British force in the attack on Louisbourg, and afterwards takes a prominent part in the capture of Quebec. An exciting story graphically told. Eight illustrations by William Rainey, R.I., and three maps.

*Under the Chilean Flag*, by Harry Collingwood (3s. 6d., Blackie), is a well devised and vigorously written story of adventure, mainly in the war between Chili and Peru in 1879-81. Jim Douglas and Terence O'Meara, second mate and third engineer of a cargo steamer, sick of the brutality of their captain, desert the ship at Valparaiso and join the Chilean navy as officers on the flag-ship of the squadron then at that port. The war breaks out, and the intelligence and spirit of the lads quickly bring them into prominence. The occupation of Antofagasta, the great battle between the "Esmeralda" and the famous "Huescar," the battle of Angamos, the bombardment of Callao, mines and countermines, alarms and excursions, capture and escape—there is

no lack of varied adventure. But what of the hidden treasure and the prophecy of Inca? The reader will discover all that in due time and be delighted with the luck of the finder. The story will rank with the best of the author's dozen (or more) volumes. Six illustrations by William Rainey, R.I.

*Mr. Midshipman Glover, R.N.*, by Staff-Surgeon T. T. Jeans, R.N. (5s., Blackie), is "a tale of the Royal Navy of to-day," and, while narrating numerous adventures both ashore and afloat, Dr. Jeans portrays the habits of thought and speech of various types of officers and men. It is rather early to write him down the modern Marryat, but he has a thorough grip of the facts, a keen eye to character, a strong sense of humour, and a graphic pen. He tells how a squadron of the British Navy, lent to the Chinese Government to destroy a rascally band of pirates, chase the enemy across the Indian ocean, capture a ship, lose a destroyer, drive a pirate cruiser ashore, exterminate a torpedo flotilla, establish a landing on the island, fight the great battle of One Gun Hill, and dismantle the pirate forts, &c. Mr. Midshipman Glover is to the fore when business is on hand; and Milly's wedding comes off all right, and "it was a jolly grand affair." Six illustrations by Edward S. Hodgson, and a map illustrating the operations against the pirates.

#### TALES OF ADVENTURE.

*Rough Riders of the Pampas*, by Captain F. S. Brereton (5s., Blackie), is a vigorous tale of ranch life in South America in the middle of last century. The hero gets into trouble at school, very unjustly, but he prefers ignominious dismissal to clearing himself at the expense of a comrade. So he is sent to South America to be out of the way. The voyage out is sufficiently eventful, and on the rancho and the pampas, between Indians and brigands, there is no lack of thrilling adventures. The story is written with the author's well known verve. Six illustrations by Stanley L. Wood.

*A Middy in Command*, by Harry Collingwood (6s., Blackie), is a stirring story of the sea, full of adventure, and admirably written. Richard Grenville, a midshipman in the slave squadron on the West African coast, is put in command of a captured slave ship, with a crew of fourteen men, and instructed to make for Sierra Leone. The ship is captured by a pirate, who scuttles her and leaves her to sink, crew and all. The crew, however, take to the boats, and there are "strange happenings" before they succeed in rejoining their own ship. Afterwards Grenville takes despatches to Port Royal, where the Admiral sets him to pursue and destroy a pirate vessel, an adventure that has unexpected developments. There is a treasure cave, of course, to be explored, and there is a young lady, too, though she is kept well in the background. The story involves excitement enough to satisfy a very exacting taste. Eight illustrations by Edward S. Hodgson.

*The Island Traders*, by Alexander Macdonald, F.R.G.S. (3s. 6d., Blackie), narrates the story of a secret Australian expedition to gain possession of a group of islands in the South Pacific already coveted by France and Germany, whose secret agents are treating to get different local chiefs to appeal to their Governments for protection. The hero carries off one chief and makes the other prisoner and impersonates him. The results are exciting enough. The author's personal experience of the South Seas stands him in good stead for incident and for local colour, and he writes with graphic force. Six illustrations by Charles M. Sheldon.

#### YARNS OF THE SCHOOL.

*The Wizard's Wand*, by Harold Avery (2s. 6d., Nelson), is "a tale of school life for girls and boys." It was Evangeline—"what a long name for such a little person!"—that discovered the wizard, an "imposing-looking gentleman," of course; and the hazel wand was a device of the wizard's for the recovery of the florin she lost on an errand. How that florin could have got into the ink-bottle was indeed a puzzle, but Evangeline had no doubt that wizard got it out. However, that is but a beginning of the mysteries, and the instructed reader does not need to be told that Mr. Avery knows how to charm girls and boys alike. Two coloured illustrations.

*The Third Class at Miss Kaye's*, by Angela Brazil (2s. 6d., Blackie), is the story of a clever self-regarding little girl, who, after some spoiling at home, has to fit herself into the life of a healthy modern private school. One of her closest friends is an older girl, whose parentage is wrapped in mystery and pathos, which evoke Sylvia's romantic interest, with practical results. The girl-life at school, the fun as well as the earnest, is admirably depicted in a lively style. Four illustrations by Arthur A. Dixon.

*Form III. B.*, by Ursula Temple (2s. 6d., Nutt), formally classes itself as a school story. It runs from entrance exam. to scholarship exam. at a girls' high school. Friendships and antagonisms, blunders and scrapes and accidents, together with fresh settings of the big school events, are very briskly and ingeniously described. Frontispiece.

*For the Sake of his Chum*, by Walter C. Rhoades (3s. 6d., Blackie), implies in its title a vicarious sacrifice. Lorden was the chum, and Lorden was thrashed by Mr. Webber, and, being a sensitive and passionate boy, he brooded over the trouble and took a dishonourable

revenge. Kerslake, who alone knew that Lorden was the culprit, and had passed his word to keep it dark, himself fell under suspicion, and dropped from the height of popularity into the abyss of contempt. The truth is partially unveiled in the course of some adventures on an island on the Scottish coast, and finally in a highly dramatic way. The story is written with much force and is varied in interest. Six illustrations by N. Tenison.

## STORIES FOR GIRLS.

*A Courageous Girl*, by Bessie Marchant (3s. 6d., Blackie), is a story of Uruguay. Anne Beauchamp's father was a sheep-farmer on the Banda Oriental and a widower. From fourteen to seventeen Anne underwent the discipline of school in England, intolerable to a "wild girl." On the voyage home she makes friends with Christine Moseley, the daughter of a railway contractor, who had saved her in "the High" at Oxford from a motor-car accident. Expecting a position of wealth and consideration, she finds her father reduced to poverty—a servant where he had been master, and lately taking to drink. Anne does his work for him in his absence, looking after the sheep, which introduces complications with the master when he comes on the scene. Incidentally, she comes to know of a plot to murder Mr. Moseley, who is building a railway in the neighbourhood, and rides through a furious storm to put him on his guard. On her return she finds her house in ruins, and other troubles follow. But we dare say she comes to her own at last. The story is brisk and well written. Six illustrations by W. Rainey, R.I.

*Daughters of the Dominion*, by Bessie Marchant (5s., Blackie), is a fine story of the Canadian frontier. Nell Hamblin works for her living as a nurse, as a telegraphist, and as keeper of a cooked food shop. In defeating a daring attempt to rob the depot she sustains an injury to an ear, so that she is compelled to give up her work as a telegraph-operator. As she is planning to lay out her compensation money in educating herself for a better sphere in life, she learns that a friend of her father's has died, leaving a sick wife and several children. Nell adopts the whole family, and starts a shop for supplying the miners at Camp's Gulch with cooked food. Wanderers from the outside world cross her path at different times and get mixed up in her story, and eventually one of them carries her off. The events are vividly conceived and effectively depicted, and the interest is easily maintained throughout. The lesson of work comes home to the Canadian. Six illustrations by William Rainey, R.I.

*"A Fish out of Water"*, by F. F. Montrésor (2s. 6d. net, John Murray), works out with remarkable discernment and in a natural and charming manner an exceedingly difficult situation. A second marriage brings an extremely literal and matter-of-fact girl into a family where the father and the two daughters of the first marriage are of a predominantly literary and artistic temperament. There is no understanding of each other's ways, and no sympathy, though the intentions are of the best and most kindly. If the contrast had been less decisively pronounced, the case would have been perhaps more natural and the problem more testing. However, the little girl, who is as "a fish out of water," at length finds her way to the water under circumstances that create not a little sensation in her circle. The story is admirably told and in strong and direct style, and with shrewd psychological penetration.

*Cousin Sara*, by Rosa Mulholland (Lady Gilbert), is "a story of arts and crafts" in a double sense (6s., Blackie). Colonel Stevenson lost his wife in India and then got his legs shot off in battle; afterwards he developed a talent for the invention of machinery. His one child, Sara, was sent home to Belfast, where she was looked after, in a distant way, by a far-off cousin of her father's, one of the Montgomeries of the Mills, in county Antrim. This flax spinner takes into his office two young fellows—Arno Warrender, a son of a dead friend, bought up in Italy, and Harvey Durrant, the protégé and supposed heir of Sir Jonas Cunyngham, wealthy banker and retired shipbuilder. Harvey is a general favourite; Arno, keener for art than for an office desk, gets into disgrace, flies to Italy, and attains the high road to distinction, not without multiplied troubles. An important invention of the Colonel's is stolen and patented by another, and it is round this fact that the action of the story turns, and Sara is prominent on the scene, whether in Belfast or in London or in Italy. The story is well constructed, cleverly worked out and admirably written, and it is excellent in tone. Eight illustrations by Frances Ewan.

*A Love Passage*, by Harriet, Lady Phillimore (2s. 6d., S.P.C.K.), is narrated with much spirit and in admirable tone. A girl of nineteen, presently to be left an orphan with no great worldly provision, accepts an offer of marriage from a good cousin John, some thirty-five years older—say fifty-three—who has made fortune and reputation in Jamaica. On the voyage out she meets a Captain of the Royal Engineers, and by the time she lands she discovers herself in a quandary between liking and gratitude on the one hand and love on the other. The Captain has to proceed at once elsewhere on service, the good cousin John has a bout of fever, and there is another Captain. Letters get into wrong envelopes and accidents happen. But Cousin John is a very fine character, and no doubt the tangle gets straightened out in the end. The interest is deftly and agreeably maintained. Three coloured illustrations by W. S. Stacey.

*Septima*, by Emily Pearson Finnemore (2s. 6d., S.P.C.K.), treats cleverly and agreeably a rather complicated tangle of incidents arising naturally enough from the attractions of the heroine. Septima, a skilful lacemaker, and granddaughter of the local tailor and postmaster, becomes engaged to the stalwart miller, scorning the attentions of the nephew

and successor of the local magnate, Lord Fairfield. A friend of the disappointed suitor, who is paying court to his sister, suggests the agency of the press-gang and the miller is duly carried off to the wars. Septima is pursued by woovers and other tribulations; and his lordship's suggestive friend is informed by his lordship's sister that she will have nothing to say to him till the miller is recovered. The story is quietly, but vigorously, evolved and written. Three coloured illustrations by Adolf Thiede.

*Heroine or ?* by Isabella B. Looker (2s., S.P.C.K.), is a simple and effective story, working out the momentous query of the title. Major Dackombe has to go away to fight in Egypt, and Winnie, a little maid of eight or nine, who "always runs away when she is frightened," is concerned about coming up to her father's standard of bravery, for he has not welcomed her requirement of a promise that "if the black men come after you, you'll run away!" When Dackombe returned (with glory) he found that his little girl had decided the question to his satisfaction. A very attractive and agreeably written story. Three coloured illustrations by Harold Pittard.

## OLD FAVOURITES IN NEW DRESS.

*Edinburgh*, "Picturesque Notes," by Robert Louis Stevenson (6s., Seeley), appears in a bright new edition, with more than sixty illustrations by T. Hamilton Crawford, of the Royal Scottish Water Colour Society. The "notes" touch the main points of interest in a singularly interesting city. They are pointed and light, impressing the characteristics of the place more effectively than a detailed and ponderous description. The volume is very liberally got up.

*The King's Signet*, the story of a Huguenot family, by Eliza F. Pollard (2s., Blackie), offers episodes of persecution following the revocation of the Edict of Nantes (1685)—a stirring story charmingly told. Four illustrations by G. Demain Hammond, R.I.

*Courage, True Hearts!* by Gordon Stables, M.D., C.M. (2s., Blackie), is "the story of three boys who sailed in search of fortune," and met with a variety of adventures, which will be read by other boys with as much zest as ever in this very agreeable new issue. Four illustrations by W. S. Stacey.

*Links in my Life on Land and Sea*, by Commander J. W. Gambier, R.N., appears in a second edition, revised throughout (5s., Fisher Unwin). It records the author's personal experiences during many years' service in all the waters of the world. The style is simple and agreeable, and the matter is instructive as well as interesting—more interesting than many a book of fiction.

*The Gods and Heroes of the North*, by Alice Zimmern (2s., Longmans), is issued in a new impression. The old stories are delightfully retold, and there are a dozen full-page illustrations. The notes at the end may, or may not, be meant for school use; but, at any rate, the volume will read as well at home, and it will make a very pleasant Christmas book for children that love to read in a quiet corner by themselves.

*The Little Duke, or Richard the Fearless*, by Charlotte M. Yonge (2s., Blackie), with four illustrations by W. M. Bowles, is a pleasant tale of the tenth century, depicting Norman life in faithful colours, and illustrating the civilizing influences of the Christian religion. This is a handsome edition.

*With Moore at Corunna*, by G. A. Henty, with eight illustrations by Wal Paget (3s. 6d., Blackie), is one of the author's most spirited stories. It will be as welcome as ever in this new edition.

*The Disputed V.C.*, a tale of the Indian Mutiny, by Frederick P. Gibbon (3s., Blackie), is also well worth the honours of a new edition. Six illustrations by Stanley L. Wood.

*In the Land of the Blue Gown*, by Mrs. Archibald Little (7s. 6d. net, Fisher Unwin), is in a second edition. The range of subjects is very wide, and the description is bright and clever. The book, in fact, furnishes a panorama of Chinese life, scenery, and architectural characteristics. The illustrations are numerous and excellent.

## VARIOUS.

*The Gorgeous Isle*, by Gertrude Atherton (2s. 6d. net, John Murray), is a story of Nevis, in the West Indies, in the heyday of its popularity (1842). Of course, it turns on an adventurous psycho-pathological problem. Byam Warner, a native of the island, but of good English descent, had made his fame ten years ago as a poet, and is shattered in health by drink. Anne Percy, a vigorous young girl from the North, "tanned by the winds of moor and sea," and possessing "a superb majestic figure," visits the island, with Warner's poetry all singing in her brain and nerves. They meet, and her influence steadies Warner, who becomes physically reinvigorated by suspending his potations. Shall Anne marry Warner, and, if she do, and if Warner have the impulse to write more poetry, which he cannot do without brandy, shall she, who married his poetical genius as much as his handsome person, place the bottle to his hand or keep it away? The working out of the problem involves a complexity of personages and social views. Even Miss Atherton's undoubted ability cannot make real tragedy out of the sordid and perverse elements.

*The Lowest Run*, and three other short stories, by Mary Cholmondeley (2s. 6d. net, John Murray), form together an unpretending volume that contains more incisive and dramatic work than a chance dozen of current novels. True, there is more vigour than polish; a certain defiant obtru-

sion of personality (perhaps explained by the preface), and even incidentally a practical advertisement of somebody's vendible goods, but then there is a substratum well worth polishing. The preface deals amusingly with some silly and malicious criticisms of the author's work—amusingly, yet not without a spice of natural, but wholly futile resentment. The author is strong enough to go her own way without looking over her shoulder to the miserable nagging of literary and society depreciators that condemn themselves out of their own mouths as unworthy to bear her train. But what can a lady do with a gentleman neighbour at a dinner-party when, on her shyly acknowledging the authorship of a book he has been praising, he tells her to her face: "I know that to be untrue"? It is not always easy for flesh and blood to suffer fools, gladly or otherwise.

*Back to Back*, by M. Bramston (2s., National Society), tells brightly and forcibly a story of a struggle against drink, with aid from religion. "You know as well as I do that we're bound to stand by one another and pull one another out of holes." Two full-page illustrations by Isabel Watkin.

*Rue*, by Mary H. Debenham (2s. 6d., National Society), carries in its name a suggestion of its motive, and its Sunday name, "Herb o' Grace," implies a strong religious colouring. The scene is in the Midlands, in connexion with a factory, and one group of the personages have the piquancy of a mixture of Italian with English blood. If a clerk carry a bag of money from Deneton to Stockport and stop on the way to drink with dubious acquaintances, there may well be occasion to rue the blunder. The characterization is good and the tone excellent, and Miss Debenham always writes with care and has something worth the writing. Four full-page illustrations by Isabel Watkin.

*Janie Christmas*, by M. Bramston (1s. 6d., National Society), is mainly of domestic interest, with incidents touching the course of true love. The lady's name comes from her being born on Christmas Eve, and left motherless with a good Samaritan of a woman that sheltered her mother, who had missed her train and her husband. From accidental circumstances she was not claimed, though probably she will find her father in the long run. There is a villain in the piece, but of course his villainy recoils on himself. The story is well written, and the characters are distinctive; but a Scotsman does not talk Cockney. Two full-page illustrations by Isabel Watkin.

*Barbara's Heroes, Ancient and Modern*, by H. Louisa Bedford (1s. 6d., S.P.C.K.), works out patiently and interestingly the ideals of a little girl up to the mature age of twenty. Her mother was dead; her father, a common soldier in India, was supposed to be dead; and Sergeant Brown, good fellow, brought her home to her grandfather, Canon Latham. Stanley Gordon, a playfellow, who is going to be another General Gordon, figures largely in the development of the story. Will she marry him? Will her father come home again? But the ideals are the real things. Three illustrations by Oscar Wilson.

*For his Father's Honour*, by John G. Rowe (2s. 6d., Nutt), describes the trials of a pit-boy. His drunken father all but causes an explosion, which is averted by the boy's presence of mind and courage, and presently the father falls under suspicion of having murdered the pit-owner. Thereby hang complications and villainies; and there are some doings also in the mine. Frank is a brave and good fellow, however, and he clears his father's honour, and eventually reaches a high position in the mining world. A vigorous and stirring story. Frontispiece.

*Martha Wren*, by M. B. Syngé (2s., S.P.C.K.), tells "a story of faithful service." Martha leaves her home at seventeen to serve in the nursery at Milborough Hall, and, between the incidents of her life there and the doings of a sister, to say nothing of the accident to the head nurse and the fire in the nursery in particular, she goes through many severe trials. Then there is Timmins, the third gardener, who enlists and becomes a hero. If the story is painful at times, it has many glints of humour and it is permeated with good feeling. Three coloured illustrations by W. S. Stacey.

*The Right Stuff*, by Ian Hay (Blackwood), is just as wayward and tantalizing as "Pip" was last year—in parts direct and vigorous, in parts laboured and trifling. The hero is developed with ability and interest, though the Under-Secretary, if a much weaker character, is a still more effective characterization. Among many other episodes of active interest there is a strenuous description of an election. Altogether the story carries the reader buoyantly on to the end. But then the author has it in him to do so much better, with patience and industry.

#### FOR THE CHILDREN.

*The Dwindleberry Zoo*, by G. E. Farrow (5s., Blackie), records the adventures of a small boy that is very fond of animals of all kinds and keeps a number of pets of his own. He has come up to London for the one purpose of visiting the Zoological Gardens, and while reading "a handsomely bound volume on natural history," which he had gained as a school prize, he is amazed by the appearance on the garden wall of a monkey, which tells him that he has come from the Dwindleberry Zoo, a place whose very existence is known only to such animals and birds as have escaped from the real Zoo, and where they can all talk and act just as they like, without any interference on the part of keepers. Roderick, of course, wants to get over the wall and see this wonderful Zoo. How he gained entrance, how the various animals received him, and what adventures he met with—all this is told in vivid and charming style by the experienced and veracious chronicler. This is one of the most delight-

ful of the books of the season. Sixty-two illustrations by Gordon Browne, R.I.

*The House of Arden*, by E. Nesbit (6s., Fisher Unwin), recounts the astonishing adventures of Edred and Elfrida Arden, who live with their aunt (who keeps seaside lodgings) and go to school. Seaside lodgings, for the children's father and his partner (who is going to wed Miss Arden) are reported to have been captured by brigands and to have lost all the money they had made in South America. The only other male of the family is Lord Arden, an old man, living (and dying) in an old Norman castle near by. The children stray to the castle and discover the spell that discovers the treasure. There is an amazing Mouldiwarp, Bonaparte and highwaymen, a secret panel, a smuggler's cave, white wings and a brownie, and other delightful and bewildering things. It may be that Mr. Arden and Uncle Jim are not dead, after all; and, at any rate, the quest of them involves further adventures. An interestingly fanciful book, with somewhere between thirty and forty illustrations by H. R. Millar.

*Peep-in-the-World*, by F. E. Crichton (3s. 6d., Edward Arnold), tells of a little girl that visits her uncle, the Baron Maximilian von Tollen, at his old castle in Germany, on the border of a forest. Here she is delighted with her new world. She strikes up an acquaintance with a dwarf cobbler, who is a lonely denizen in the forest and knows what the animals and birds say. Knut the cobbler is a misanthropical little man, but Peep-in-the-World gets round him and he eventually admits her into the League of Forest Friends, though he resists her desire to be instructed in the speech of the wild things of the wood. Still, her experiences taught her something. The story is delightfully told. Four illustrations.

*The Farm*, "shown to the children," by F. M. B. and A. H. Blaikie, in forty-eight coloured plates of farming operations and plant and animal life, and described in simple language by Foster Meadow (2s. 6d., Jack), is the fifth volume of a charming and instructive series. It is written and pictured in the hope of awakening in young readers an intelligent interest in farming. Both artists and writer have done their work most capably and attractively.

*Animals at Home*, by W. Percival Westell, F.L.S. (3s. 6d., Dent), is a collection of twenty-four essays in animal autobiography already published serially in a monthly magazine for young folk. The plan of setting each animal to tell its own life-history has the great advantage of vividness, and the reader will probably be stimulated to observation and research on his own account. Miss Marie Corelli furnishes a sympathetic and appreciative introduction. There is a coloured frontispiece (by Lucy Kemp-Welch) and numerous illustrations. An attractive and instructive volume.

*The Hill that Fell Down*, by Evelyn Sharp (3s. 6d., Blackie), is "a story of a large family." "A bit of the hill has given way, as that stuffy old Professor said it would": that is the mature version of the fact. But Penelope said: "The fairies have made the hill fall down because they were angry." Penelope has not a little to do with the fairies. She lives with Uncle Richard and Aunt Elizabeth at Cheselden Chase, and her great want, unintelligible to her kind friends, is for somebody that is not grown up to play with her. At last she forgoes with the lady of the wishing stone, whom she asks "to bring Daddy back from India, and to give her a magic carpet to take her everywhere, and a large family to play with." We leave the story there: little readers will soon find out the results for themselves. Six illustrations by Gordon Browne, R.I.

*Christabel*, by Mrs. A. G. Latham (3s. 6d., Blackie), gives a charming description of "the freaks and fancies of three little folk." Christabel herself, the oldest of the three, lives in the world of faerie, and relates weird tales to the other two; Teddie has a philosophic turn of mind; and Marybud, a child of three, has a famous soap-bubble birthday party. The earlier adventures, tragic and comic, take place at their seaside home; the later, not less exciting, are met with in "the beautiful country home of their 'fairy godmother.'" The last chapter tells "how Bell became a heroine"—a very proper ending. Four coloured plates and twenty-five text illustrations by Paul Hardy.

*Fairies—of Sorts*, by Mrs. Molesworth (3s. 6d., Macmillan), consists of four stories, the first of which fills half the volume. They are ingenious and quietly humorous, woven of fairy fancies, and are sure to delight young readers. Eight illustrations by Gertrude Demain Hammond, and handsome get-up.

*The Story of Napoleon*, by H. E. Marshall, with eight pictures by Allan Stewart and a map (of Central Europe), is a fresh addition to the delightful "Children's Heroes" series (1s. net, Jack). The writer is unable to decide whether Napoleon is "a true hero." The children will settle the point for themselves.

*The Book of Soldiers, The Book of Sailors, and The Book of Other People* (6d. net each, Blackie), are amusing little books for very little folk. They consist of rhymes by Walter Copeland and drawings by Charles Robinson.

*The Enchanted Egg*, by Harold Avery (1s. 6d., Nelson), is the story of what was supposed to be a penguin's egg, but turned out to be a very different sort of egg. The risks it underwent in the museum of its youthful proprietors give rise to amusing incidents. The spade guineas are also deceptive in a less lucrative fashion. The story is simply and interestingly developed. Coloured frontispiece and title-page illustration.



# OXFORD UNIVERSITY PRESS.

## THE OXFORD GEOGRAPHIES.

Edited by A. J. HERBERTSON, Reader in Geography in the University of Oxford.

### **PRACTICAL GEOGRAPHY.**—Part I.

By J. F. UNSTEAD, M.A., Lecturer in Geography, Goldsmiths' College, University of London. With 27 Illustrations. 1s. 6d.

In preparation, Part II, price 1s. 6d. The two Parts will be issued bound together, price 2s. 6d.

### **THE KING'S ENGLISH.**

Abridged for School use, 1s. 6d. Also the Unabridged Edition, 5s. net.

### **THE COVERLEY PAPERS FROM THE SPECTATOR.**

Edited, with Introduction and Notes, by O. M. MYERS. With a Facsimile. 2s.

### **SELECTIONS FROM ADDISON'S PAPERS IN THE SPECTATOR.**

By T. ARNOLD. 4s. 6d.

### **SELECTIONS FROM STEELE.**

Being Papers from the Tatler, Spectator, and Guardian. Edited by AUSTIN DOBSON. Second Edition. 7s. 6d.

### **SELECT ENGLISH CLASSICS.**

Edited, with Introductions, by A. T. QUILLER-COUCH. Paper covers, 3d. each; cloth, 4d. each.

*Preparatory Schools Review.*—"These little texts are a most valuable and welcome addition to the materials available for the teaching of English literature in schools. . . . The prose selections in many cases break new ground and are exactly what is most wanted. The extracts are wisely made."

#### *NEW VOLUMES.*

**EARLY ENGLISH LYRICS.** With Glossarial Notes. 48 pages.

**EVERYMAN.** Complete Text with Glossarial Notes. 32 pages.

**HORACE WALPOLE. Letters.** 48 pages.

**WORDSWORTH. Poems.** 32 pages.

**MILTON AND WORDSWORTH. Sonnets.** 32 pages.

**TENNYSON. Poems.** 48 pages.

**ROBERT BROWNING. Poems.** 48 pages.

**WALT WHITMAN. Poems.** 32 pages.

### **OXFORD PLAIN TEXTS.**

Paper covers, 3d. each; cloth, 4d. each.

**ARNOLD—SOHRAB AND RUSTUM.**

**BYRON—CHILDE HAROLD, Canto III.**

" Cantos IV.

**COLERIDGE—ANCIENT MARINER, AND CHRISTABEL.**

**GRAY—ELEGY, AND ODES.**

**KEATS—ISABELLA, AND EVE OF ST. AGNES.**

### **A BOOK OF VERSE FOR BOYS AND GIRLS.**

Compiled by J. C. SMITH. Part I, paper, 3d.; cloth, 4d. Part II, paper, 6d.; cloth, 8d. Part III, paper, 1s.; cloth, 1s. 3d. Parts I-III, cloth, 2s. Second Impression.

*Athenaeum.*—"An excellent feature is the inclusion of longer poems than are wont to find their way into such compilations. . . . The selections are made with excellent taste."

### **DEUTSCHES REFORMLESEBUCH.**

Enthaltend dreiszig Erzählungen aus der deutschen Geschichte, mit Fragen für Sprechübungen, mit grammatischen Übungen und einem deutschen Wörterverzeichnis. Herausgegeben von D. LL. SAVORY, Dozenten an der Universität, London, Goldsmiths' College, früher Oberlehrer am Marlborough College, und z. z. Lektor an der Universität Marburg. Mit Abbildungen. With 15 full-page and numerous other Illustrations. Price 2s. 6d.

### **THE RENAISSANCE AND THE REFORMATION.**

A Text-Book of European History, 1494-1610. By EMMELINE M. TANNER, History Mistress at Sherborne School for Girls. With Maps. 3s. 6d.

### **THE OXFORD STUDENT'S HISTORY OF INDIA.**

By VINCENT A. SMITH, M.A., I.C.S. (retired). With 7 Maps and 10 other Illustrations. 2s. 6d.

### **SCHOOL ALGEBRA.** By W. E. PATERSON.

Part I . . . Without Answers, 2s. 6d. With Answers, 3s.

Part II . . . " 2s. 6d. " 3s.

Parts I & II : " 4s. " 5s. [*Immediately.*]

Select List of Educational Works, List of Books set for various Examinations, and Complete Catalogue (144 pages) post free.

London: HENRY FROWDE, Oxford University Press, Amen Corner, E.C.

# Clough's Correspondence College.

## AT THE LAST A.C.P. EXAMINATION

(August, 1908),

Mr. ROBERT A. WRIGHT,  
A MEMBER OF CLOUGH'S A.C.P. CLASS FOR THE ABOVE  
EXAMINATION, WAS

# THE MOST DISTINGUISHED STUDENT

ON THE A.C.P. LIST, OBTAINING

## HONOURS IN THREE SUBJECTS.

35 Victoria Road, Runcorn.

November 10, 1908.

Dear Mr. Clough,

Enclosed please find formal receipt for your cheque of £10, kindly awarded as prize re A.C.P. Examination.

I was agreeably surprised to find myself so distinguished, and further surprised to find myself the recipient of your cheque, for I had not dreamt of such success. I received invaluable help from your Classes in the Scholarship Examination, and knew that I could rely on your Classes pulling me through first time in the A.C.P. Examination, and I have not been disappointed. In fact, I don't know who would be, providing that they work systematically through your Course.

Thanking you, and wishing your Classes every success,

Yours faithfully,

ROBERT A. WRIGHT.

# ALL THE HONOURS IN ENGLISH

AT THE ABOVE EXAMINATION

## WERE GAINED BY CLOUGH'S STUDENTS.

Classes now commencing for the  
August (1909) and December (1909)  
A.C.P. Examinations.

For full particulars of any of Clough's Classes—  
P.T., Preliminary Certificate, Certificate, A.O.P.,  
Oxford and Cambridge Locals, Matriculation,  
write at once to

THE SECRETARY, CLOUGH'S CORRESPONDENCE COLLEGE,  
TEMPLE CHAMBERS, LONDON, E.C.

**MATHEMATICS.**

**16499.** (A. M. NESBITT, M.A.)—Eliminate  $a, b, c, d$  from  $p = bc^2, q = ad^2, r = (ac + 2bd)c, s = (bd + 2ac)d$ .

*Solutions* (I.) by R. F. DAVIS, M.A., and L. ISSERLIS, B.A.; (II.) by C. M. ROSS; (III.) by EDITH J. D. MORRISON, and others; (IV.) by F. G. W. BROWN, B.Sc., L.C.P.

(I.) It will be found that this elimination is of the type

$$Ax^2 + 2B/x = M, \quad B/x^2 + 2Ax = N,$$

which results in  $(MN - 9AB)^2 = 4(M^2 - 3BN)(N^2 - 3AM)$ .

In fact  $rs - 9pq = cd(5abcd + 2b^2d^2 + 2a^2c^2) - 9abc^2d^2 = 2cd(ac \sim bd)^2;$   
 $r^2 - 3ps = c^2(a^2c^2 + 4abcd + 4b^2d^2) - 3b^2cd(bd + 2ac) = c^2(ac \sim bd)^2;$   
 $s^2 - 3qr = d^2(ac \sim bd)^2.$

Hence  $(rs - 9pq)^2 = 4(r^2 - 3ps)(s^2 - 3qr).$

(II.)  $p = bc^2, \quad q = ad^2 \dots\dots\dots(1, 2),$   
 $r = (ac + 2bd)c, \quad s = (bd + 2ac)d \dots\dots\dots(3, 4).$

From (1) and (2),  $a = q/d^2, \quad b = p/c^2.$

(3) and (4) become  $r = q\lambda^2 + 2p\lambda$  and  $s = p\lambda^2 + 2q\lambda$ , where  $\lambda = c/d$ .

Again,  $\lambda s = p\lambda + 2q\lambda^2$  and  $2r = 4p\lambda + 2q\lambda^2,$

and  $2\lambda s = 2p\lambda + 4q\lambda^2, \quad r = 2p\lambda + q\lambda^2;$

then  $\lambda^2 s - 2\lambda r + 3p = 0 \dots\dots\dots(5),$

and  $3q\lambda^2 - 2s\lambda + r = 0 \dots\dots\dots(6).$

From (5) and (6) by cross multiplication

$$\lambda^2(r^2 - 3ps) = -2\lambda(9pq - rs) = 1/(s^2 - 3qr);$$

therefore  $4(r^2 - 3ps)(s^2 - 3qr) = (9pq - rs)^2,$

or  $27p^2q^2 - 18pqr s - r^2s^2 + 4qr^3 + 4ps^3 = 0,$

which is the required eliminant.

(III.) We have at once  $s/q = b/a + 2c/d,$

$$r/p = a/b + 2d/c, \quad r/q = c^2/d^2 + 2b/a c/d, \quad s/p = d^2/c^2 + 2a/b d/c.$$

Equating the two values of  $a/b$ , and the two values of  $b/a$ ,

$$r/p - 2d/c = (s/p - d^2/c^2)c/2d \quad \text{or} \quad r/p - \frac{2}{3}d/c - s/2p c/d = 0,$$

$$s/q - 2c/d = (r/q - c^2/d^2)d/2c \quad \text{or} \quad s/p - \frac{2}{3}c/d - r/2q d/c = 0.$$

Solving for variables  $c/d, d/c,$

$$d/c = (6rq - 2s^2)/(9pq - rs), \quad c/d = (6ps - 2r^2)/(9pq - rs);$$

therefore  $(6rq - 2s^2)(6ps - 2r^2) = (9pq - rs)^2;$

therefore  $18pqr s - 4(p s^3 + q r^3) - 27p^2q^2 + r^2s^2 = 0.$

(IV.) Since  $p = bc^2, q = ad^2, r = (ac + 2bd)c, s = (bd + 2ac)d;$

therefore  $rs - 5pq = 2(b^2cd^3 + a^2c^3d);$

therefore  $\frac{1}{4}(rs - 5pq)^2 = b^4c^2d^6 + a^4c^6d^2 + 2a^2b^2c^4d^4 \dots\dots\dots(1).$   
 $= b^4c^2d^6 + a^4c^6d^2 + 2p^2q^2$

Again,  $(r^2 - 2ps)(s^2 - 2qr) = (a^2c^4 + 2b^2c^2d^2)(b^2d^4 + 2a^2c^2d^2)$   
 $= a^2b^2c^4d^4 + 2a^4c^6d^2 + 2b^4c^2d^6 + 4a^2b^2c^4d^4$   
 $= 5p^2q^2 + \frac{1}{2}(rs - 5pq)^2 - 4p^2q^2, \text{ from (1),}$

giving as the eliminant

$$\frac{1}{2}r^2s^2 - 2qr^2 - 2ps^2 + 9pqr s - \frac{3}{2}p^2q^2 = 0,$$

or  $r^2s^2 - 4qr^2 - 4ps^2 + 18pqr s - 27p^2q^2 = 0.$

**16482.** (V. RAMASWAMI AYYAR, M.A.)—P, P' are corresponding points of a curve and its  $n$ -th pedal with respect to an origin O; C, C' the centres of curvature at P, P'; and M, M' the projections of C, C' on OP, OP'. Show that  $OP'/OM' = n + OP/OM$ .

[NOTE.—If through P', P parallels be drawn to the join of M' and M meeting OP, OP' respectively in Q, Q', then  $PQ = n \cdot OM$  and  $Q'P' = n \cdot OM'$ ; whence a construction for the centre of curvature at any point of the  $n$ -th pedal, or the  $-n$ -th pedal of any curve, knowing, &c.]

*Solution* by R. F. DAVIS, M.A.

In the *Reprint*, Vol. LXX., p. 91, I have given the following construction for the centre of curvature C' at the point P' on the first positive pedal corresponding to the point P on the original curve (origin O).

Bisect OP in p; join P'p and produce it to C', so that

$$pC' : P'C' = 2PM : 4OP.$$

Let p' be the middle point of OP'. Then

$$PM : OP = 2p'M' : P'M',$$

or  $OP : OM = P'M' : P'M' - 2p'M' = P'M' : OM',$

$$1 + OP/OM = 1 + P'M'/OM' = OP'/OM'.$$

Repeated applications give the formula for the  $n$ -th pedal.

**16449.** (H. L. TRACHTENBERG, B.A.)—A straight line meets the sides of a triangle in L, M, N. Through L, M, N straight lines are

drawn to meet the sides of the triangle again in  $L_1L_2, M_1M_2, N_1N_2$ . Prove that  $L_1, L_2, M_1, M_2, N_1, N_2$  lie on a conic.

*Solutions* (I.) by HENRY RIDDELL, M.E.; (II.) by Prof. SANJANA, M.A.; (III.) by Professor NANSON; (IV.) by A. M. NESBITT, M.A.

(I.) By transversals we have, neglecting signs,

$$\frac{LA}{LB} \cdot \frac{NC}{NA} \cdot \frac{MB}{MC} = 1 \dots(a),$$

$$\frac{LA}{LB} \cdot \frac{L_1C}{L_1A} \cdot \frac{L_2B}{L_2C} = 1 \dots(b),$$

$$\frac{MB}{MC} \cdot \frac{M_1C}{M_1A} \cdot \frac{M_2A}{M_2B} = 1 \dots(c),$$

$$\frac{NC}{NA} \cdot \frac{N_1B}{N_1C} \cdot \frac{N_2A}{N_2B} = 1 \dots(d).$$

Then  $(b \cdot c \cdot d)/a$  gives us

$$L_1C \cdot L_2B \cdot M_1C$$

$$L_1A \cdot L_1C \cdot M_1A$$

$$M_2A \cdot N_1B \cdot N_2A = 1,$$

$$M_2B \cdot N_1C \cdot N_2B$$

or in the form

$$\frac{AM_2 \cdot AN_2 \cdot CM_1 \cdot CL_1 \cdot BL_2 \cdot BN_1}{AL_1 \cdot AM_1 \cdot CN_1 \cdot CL_2 \cdot BM_2 \cdot BN_2} = 1,$$

and applying Carnot's theorem, &c.

(II.) In the hexagon  $L_1L_2M_1M_2N_1N_2$  ( $L_1$ ) the opposite connectors  $L_1L$  and  $M_2N_1, L_2M_1$  and  $N_1N_2, M_1M_2$  and  $N_2L_1$  meet in L, N, M, which are situated on a straight line. Hence, by the converse of Pascal's theorem, the vertices of the hexagon lie on a conic. [Rest in *Reprint*.]

*A simple method for Division of Decimals which may prove useful to the readers of the "Educational Times," who are engaged in teaching Elementary Mathematics.*

By A. H. BELL, B.Sc.

The method is so easily grasped by even young pupils whose only knowledge is simple division that I am urged to publish it. Two examples will clearly illustrate the method.

(1) To divide 2.89905 by 38.5,

$$\begin{array}{r} \text{u.} \quad \quad \quad \cdot 0753 \quad \text{Ans.} \\ 38 \cdot 5 \ ) \ 2 \cdot 89905 \\ \underline{2 \ 695} \\ \quad 2040 \\ \underline{1925} \\ \quad \quad 1155 \\ \underline{1155} \end{array}$$

(2) To divide 4.0875 by 0.075,

$$\begin{array}{r} \text{u.} \quad \quad \quad 54 \cdot 5 \quad \text{Ans.} \\ 0 \cdot 075 \ ) \ 4 \cdot 0875 \\ \underline{03 \ 75} \\ \quad \quad 337 \\ \underline{300} \\ \quad \quad \quad 375 \\ \underline{375} \end{array}$$

Note that (1) the decimal point of the quotient is directly above that of the dividend. (2) The division is proceeded with as in simple division, but the first figure of the answer is not placed until the product is arranged under the dividend; the figure is then placed vertically above the position of the first figure obtained on multiplying the units of the divisor. (3) The remaining figures follow in order.

*On a Relation between a Modification of Section in Extreme and Mean Ratio, and some of the Properties of Numbers; and showing how, by means of this relation, to divide a straight line AB in C, so that  $AC^2 = 2rAB \cdot BC$ , r being any whole number.*

By THEODORE W. HAY.

In the following preliminary theorems the natural series of numbers 1, 2, 3, ... is conceived of as divided into groups of numbers, the members of any particular group having the same number for the integral

part of their square roots, and each group being divided from the one immediately preceding or following by a square number, these segregating square numbers not being themselves considered as members of any group. Thus the first group will consist of the numbers 2 and 3, these numbers having 1 for the integral part of their square roots, and being divided from the group having 2 for the integral part of the square roots of its members by the square number 4; and so with the group having, say, 7 for its integral part of its square roots, the group consisting in this case of the numbers 50 to 63 both inclusive, and being divided from the groups immediately preceding and following by the square numbers 49 and 64 respectively.

*Lemmas.*

(1) If  $x$  be the surd part of the square root of  $m$ , the first number in the group having  $r$  for the integral part of the square roots of its members, then  $x^2 + 2rx = 1$ . For  $m = (r+x)^2 = r^2 + 2rx + x^2$ ; also  $r^2$  must be the number immediately preceding  $(r+x)^2$ . Hence

$$r^2 + 1 = r^2 + 2rx + x^2;$$

therefore

$$x^2 + 2rx = 1.$$

(2) If  $z$  be the surd part of the square root of  $p$ , the last number in the group having  $r$  for the integral part of the square roots of its members, then  $z^2 + 2rz = 2r$ . For the number  $p$  may be expressed as  $r^2 + 2rz + z^2$ , and also as  $r^2 + 2r$ . The first form =  $(r+z)^2$ ; and with regard to the second form  $r^2 + 2r$ , it is obvious that if 1 be added to it, it becomes =  $(r+1)^2$ , i.e., the square number dividing the group having  $r$  for the integral part of the square roots from the group having  $r+1$  for the integral part. Hence  $r^2 + 2r$  must be the last member of the group having  $r$  for the integral part of the square roots. Therefore  $r^2 + 2rz + z^2 = r^2 + 2r$ , and therefore  $z^2 + 2rz = 2r$ .

(3) Taking  $x$  and  $z$  as being the surd parts of the square roots of the first and last numbers in the group having  $r$  for the integral part, then  $1-z : z = z : 2r$ . For  $x^2 + 2rx = 1$ , by (1); therefore

$$2rx = 1 - x^2 \dots\dots\dots(a);$$

also, by (2),  $z^2 + 2rz = 2r$ ; therefore

$$2rz = 2r - z^2 \dots\dots\dots(b);$$

therefore, combining (a) and (b),

$$2rx/2rz = (1-x^2)/(2r-z^2) = 2rx/(2r-x^2) \text{ (for } 1 = x^2 + 2rx);$$

therefore  $1/2rz = 1/(2r-z^2)$ ; therefore  $2r(1-z) = z^2$ , i.e.,

$$1-z : z = z : 2r.$$

*Theorem.*—If a straight line AB be taken to represent unity and be divided in C so that AC equals the surd part of the square root of  $p$ , the highest number in the group of numbers having the same whole number  $r$  for the integral part of the square roots, then  $AC^2 = 2rAB \cdot BC$ .

Divide AB in C so that  $AC = \sqrt{p} - r$ , i.e.,  $AC = z$ , the surd part of  $\sqrt{p}$ . Then  $BC = 1 - z$ , for, by hypothesis,  $AB = 1$ . Also, by Lemma (3),  $1-z : z = z : 2r$ , i.e.,

$$BC : AC = AC : 2rAB, \text{ or } AC^2 = 2r \cdot AB \cdot BC.$$

**16473.** (Rev. F. H. JACKSON, M.A.)—Show that

$$\frac{\mathfrak{J}_n(abc) \mathfrak{J}_n(a/bc) \mathfrak{J}_m(ab/c) \mathfrak{J}_m(ac/b)}{J_n(abc) J_n(a/bc) J_m(ab/c) J_m(ac/b)} = \frac{q_0^2}{\Theta^2(0)} \left\{ \left( \frac{\mathfrak{J}_n(ab) \mathfrak{J}_n(a/b) \mathfrak{J}_m(ac) \mathfrak{J}_m(a/c)}{J_n(ab) J_n(a/b) J_m(ac) J_m(a/c)} \right)^2 - 16q \sin^2(-i \log b) \sin^2(-i \log c) \times \left( \frac{\mathfrak{J}_n(q^i ab) \mathfrak{J}_n(q^i a/b) \mathfrak{J}_m(q^i ac) \mathfrak{J}_m(q^i a/c)}{J_n(q^i ab) J_n(q^i a/b) J_m(q^i ac) J_m(q^i a/c)} \right)^2 \right\} \dots (A),$$

where  $J_n(x)$  denotes the  $q$  analogue of Bessel's Function

$$J_n(x) = \frac{x^n}{[2][4] \dots [2n]} \left\{ 1 - \frac{x^2}{[2][2n+2]} + \frac{x^4}{[2][4][2n+2][2n+4]} - \dots \right\}$$

in which

$$[n] = (q^n - 1)/(q - 1),$$

$\mathfrak{J}_n(x) =$

$$\frac{x^n}{[2][4] \dots [2n]} \times \left\{ 1 - \frac{x^2}{[2][2n+2]} q^{2n+2} + \frac{x^4}{[2][4][2n+2][2n+4]} q^{4n+4} - \dots \right\}$$

being derived from  $J$  by inversion of  $q$ ; thus

$$J(1/q, x) = q^{n^2} \mathfrak{J}(q, x),$$

$\Theta^2(0)$  denotes the square of Jacobi's  $\Theta$  Function, and

$$q_0^2 = \prod_{m=1}^{\infty} (1 - q^{2m})^2, \quad a = \frac{i\sqrt{q}}{q-1},$$

while  $b$  and  $c$  are arbitrary, as also are  $m$  and  $n$ .

*Solution by the PROPOSER.*

It is well known that

$$\prod_{m=1}^{\infty} (1 + xq^{-m}) = 1 + \frac{x}{q-1} + \frac{x^2}{(q^2-1)(q-1)} + \dots;$$

we form  $\prod_{m=1}^{\infty} \{1 + xq^{-m}(q-1)\} = 1 + \frac{x}{[1]} + \frac{x^2}{[2]} + \dots = E_q(x),$

$$\prod_{m=1}^{\infty} \left\{ 1 + xq^m \left( \frac{1}{q} - 1 \right) \right\} = 1 + \frac{x}{[1]} + q \frac{x^2}{[2]} + \dots = E_{1/q}(x);$$

both these series and products have a common but restricted region of convergence.

In analogy with the well known equations

$$e^{-x} I_n(x) = \frac{x^n}{2^n \Gamma(n+1)} \left\{ 1 - x + \frac{2n+3}{2(2n+2)} x^2 - \dots \right\},$$

$$I_n(x) = i^{-n} J_n(ix),$$

it is easy to establish

$$E_q(-x) I_n(x) = E_{1/q}(-x) I_n(x)$$

$$= \frac{x^n}{[2][4] \dots [2n]} \left\{ 1 - x + \frac{[2n+3]x^2}{[2][2n+2]} - \frac{[2n+5]x^3}{[2][3][2n+2]} + \dots \right\},$$

where

$$I_n(x) = i^{-n} J_{[n]}(ix), \quad I_n(x) = i^{-n} \mathfrak{J}_n(ix).$$

Also

$$E_q(-x) E_{1/q}(x) = 1.$$

We write then

$$\frac{\mathfrak{J}_n(xt) \mathfrak{J}_n(xt^{-1})}{J_n(xt) J_n(xt^{-1})} = E_{1/q}(ixt) E_{1/q}(-ixt) F_{1/q}(ixt^{-1}) E_{1/q}(-ixt^{-1}),$$

from which, putting  $a = i\sqrt{q}(q-1)$ ,

$$\frac{\mathfrak{J}_n(axt) \mathfrak{J}_n(axt^{-1})}{J_n(axt) J_n(axt^{-1})} = \prod_1^{\infty} \{ 1 - x^2 q^{2m-1} (t^2 + t^{-2}) + x^4 q^{4m-2} \},$$

so that, in Jacobi's notation, by putting  $x = 0$ ,  $t = e^{i\pi u/2K}$ ,

$$\Theta(u) = q_0 \frac{\mathfrak{J}_n(ae^{i\pi u/2K}) \mathfrak{J}_n(ae^{-i\pi u/2K})}{J_n(ae^{i\pi u/2K}) J_n(ae^{-i\pi u/2K})},$$

$$H(u) = 2q_0 q^{\frac{1}{2}} \sin u \frac{\mathfrak{J}_m(aq^{\frac{1}{2}} e^{i\pi u/2K}) \mathfrak{J}_m(aq^{\frac{1}{2}} e^{-i\pi u/2K})}{J_m(aq^{\frac{1}{2}} e^{i\pi u/2K}) J_m(aq^{\frac{1}{2}} e^{-i\pi u/2K})}.$$

The addition theorem for Jacobi's functions is

$$\Theta^2(0) \{ \Theta(u+v) \Theta(u-v) \} = \Theta^2(u) \Theta^2(v) - H^2(u) H^2(v).$$

On substituting  $J$  functions for  $\Theta$  and  $H$  functions, and replacing  $e^{i\pi u/2K}$  by  $b$ ,  $e^{i\pi v/2K}$  by  $c$ , the theorem follows at once.

**16495.** (Professor SANJANA, M.A.)—Resolve into factors

$$(a) 28^{21} + 1, \quad (b) 44^{11} + 1, \quad (c) 6^{30} + 1.$$

*Solution by Lt.-Col. ALLAN CUNNINGHAM, R.E.*

The chief step in the factorization of these three large numbers depends on the "Aurifeuillien" resolution, whereby

$N_7 = (x^7 + y^7)/(x+y)$ ,  $N_{11} = (x^{11} + y^{11})/(x+y)$ ,  $N_6 = (x^6 + y^6)/(x^2 + y^2)$  can be expressed in form  $(P^2 - Q^2)$ , when  $7xy$ ,  $11xy$ ,  $6xy = \square$  respectively. The formulae for  $P, Q$  (used below) will be found in Ed. Lucas's memoir *Sur la Série récurrente de Fermat*, Rome, 1879, p. 6. The further resolution of the co-factors  $L, M$  can be effected (when  $> 9$  million) by the aid of Tables of solutions of the congruences  $N_7 \equiv 0$ ,  $N_{11} \equiv 0$ ,  $N_6 \equiv 0 \pmod{p}$  and  $p'$  compiled by the writer (to be published shortly). The resolutions of the smaller algebraic factors may be taken from Bickmore's papers "On the Factors of  $(a^n - 1)$ " given in the *Messenger of Mathematics*.

(a)  $(N) = 28^{21} + 1$ . Let

$$N_{21} = (28^{21} + 1)/(28^3 + 1), \quad N_7 = (28^7 + 1)/(28 + 1), \quad N_3 = (28^3 + 1)/(28 + 1),$$

$$N_1 = (28 + 1).$$

Then

$$(N) = (N_{21}/N_7) N_7 N_3 N_1.$$

Here  $N_1 = 29$ ,  $N_3 = 757$ ,  $N_7 = 13007 \cdot 35771 = L_7 M_7$  (suppose). Also every septiman  $N = (x^7 + y^7)/(x+y)$  may be written

$$N = [(x+y)^2]^2 - 7xy(x^2 + xy + y^2)^2$$

$$= P^2 - Q^2 \text{ (when } 7xy = \square) = L \cdot M, \text{ suppose;}$$

so that  $L = P - Q$ ,  $M = P + Q$ . Now (for  $N_{21}$ ) take  $x = 1$ ,  $y = 28^3$ ; then  $7xy = 392^2$ ; whence

$$P_{21} = 21953^3, \quad Q_{21} = 392 \cdot 481912257;$$

$$L_{21} = 10390992085438, \quad M_{21} = 10768811294921.$$

Now  $N_{21} = L_{21} M_{21}$  is divisible by  $N_7 = L_7 M_7$ ; in fact (on trial)

$$L_{21}/L_7 = 798876919, \quad M_{21}/M_7 = 301048651.$$

Here the author's congruence solution Tables give 43, 631, 2269 as divisors of  $N_{21}$ , and no more  $< 10000$ . And, on trial,

$$L_{21}/L_7 = 43 \cdot 631 \cdot 29443, \quad M_{21}/M_7 = 2269 \cdot 132679,$$

and, finally,

$$(N) = (L_{21}/L_7)(M_{21}/M_7) N_7 N_3 N_1.$$

[Rest in Reprint.]

**11696.** (Professor LUCAS.)—Dans un jeu de dominos jusqu'au double  $n$ , on remplace le domino  $(a, b)$  par  $(a^n, b^n)$ . Quelle est la somme de tous les points ainsi obtenus?

*Solution by A. M. NESBITT, M.A.*

If we introduce a second set of dominoes, we may arrange the double series thus:—  
 $(0^n, 0^n), (0^n, 1^n), (0^n, 2^n), \dots, (0^n, n^n),$   
 $(1^p, 0^p), (1^p, 1^p), (1^p, 2^p), \dots, (1^p, n^p)$   
 $\dots \dots \dots \dots \dots \dots \dots$   
 $(n^p, 0^p), (n^p, 1^p), (n^p, 2^p), \dots, (n^p, n^p),$   
 $(0^n, 0^n), (1^n, 1^n), (2^n, 2^n), \dots, (n^n, n^n),$

yielding on vertical summation  $(n+1)S_p + (n+1)S_p$  (from all the rows but the last)  $+ 2S_p$ ;  $S_p$  as usual being  $1^p + 2^p + \dots + n^p$ . Thus the sum of the "points" on one set is  $(n+2)S_p$ .

**9886.** Every square number is divisible into two sequences from  $m$  (any integer).

*Solution by Professor SANJANA, M.A.*

Let the square number be  $n^2$ , and the two sequences from  $m$  be of  $p$  and  $q$  terms. Then we want  $\frac{1}{2}p(p+2m-1) + \frac{1}{2}q(q+2m-1) = n^2$ , i.e.,  $p^2 + (2m-1)p + q^2 + (2m-1)q = 2n^2$ . This may be written

$$[p + \frac{1}{2}(2m-1)]^2 + [q + \frac{1}{2}(2m-1)]^2 = 2 \{n^2 + [\frac{1}{2}(2m-1)]^2\},$$

and can always be satisfied by putting

$$p + \frac{1}{2}(2m-1) = n + \frac{1}{2}(2m-1) \quad \text{and} \quad q + \frac{1}{2}(2m-1) = n - \frac{1}{2}(2m-1),$$

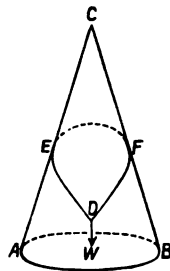
or  $p = n$  and  $q = n - (2m-1)$ .

*Example.*—Let  $n = 9$ ; then  $81 = S(1-9) + S(1-8)$ , putting  $m = 1$ ; and giving  $m$  other possible integral values, we also obtain

$S(2-10) + S(2-7), S(3-11) + S(3-6), S(4-12) + S(4-5), S(5-13)$ , as values of  $n^2$ .

**QUESTIONS FOR SOLUTION.**

**16547.** (Colonel R. L. HIPPLISLEY.)—ABC is a right cone firmly fixed upright upon its base. A weight W is supported by a loop of string DEF thrown over the cone. Neglecting friction, show that the suspension is safe if the apical angle of the cone is less than  $60^\circ$ , and unsafe if the angle is greater than  $60^\circ$ .



**16548.** (SARADAKANTA GANGULI, M.A.)—The tangent plane at any point P of the surface  $xyz = k$  meets the axes of co-ordinates at A, B, C. Show that P is the centre of inertia of the triangle ABC. Generally, the tangent plane at any point P of the surface  $x^l y^m z^n = k$  meets the axes of co-ordinates at A, B, C. Show that P is the centre of mean position of the points A, B, C for the multiples  $l, m, n$  respectively. Prove also the converse of the general proposition.

**16549.** (Professor E. B. ESCOTT.)—In the recurring series

$$P_n; 1, x, x^2 - x - 1, x^3 - 2x^2 - x + 1, \dots$$

where the scale of relation is

$$P_{n+2} = (x-1)P_{n+1} - P_n,$$

prove that  $P_{1/p-1} \equiv \pm 1 \pmod{p}$  according as  $x-3$  is a quadratic residue or a non-residue of  $p$ ,  $p$  being an odd prime.

**16550.** (R. F. DAVIS, M.A.)—Factorize (i.)  $4x^6 + 2a^2x + a^6$  and (ii.)  $x^7 - 2a^2x^3 + a^7$ ; applying the results to factorize the numbers 4,000,021 and 9,800,001.

**16551.** (Hon. G. R. DICK, M.A.)—Solve by simple quadratic methods and exhibit the roots of the biquadratic  $x^4 + 4x^2 = 1$ .

**16552.** (C. M. ROSS.)—If  $x$  be a root of the equation  $x^2 - \mu x = q$ , where  $p = a + \beta$ ,  $q = -a\beta$ , prove that

$$x^n = \frac{[(a^n - \beta^n)/(a - \beta)]x + q(a^{n-1} - \beta^{n-1})}{(a - \beta)}.$$

**16553.** (Professor COCHEZ.)—Quelle valeur faut-il donner à  $x$  pour que  $x^2 + 3x + 24$  soit un carré parfait?

**16554.** (Professor SANJANA, M.A.)—Prove that the indefinite integral of  $\sin \theta / \sin n\theta$  is

$$\sum_1^{n-1} \sin^{-1} \frac{n+1}{n} \log \frac{\sin(\theta - r\pi/n)}{\sin(\theta + r\pi/n)} \quad \text{or} \quad \sum_1^{n-1} \sin^{-1} \frac{n+1}{n} \log \frac{\sin(\theta - r\pi/2n)}{\sin(\theta + r\pi/2n)}$$

according as  $n$  is an odd or even integer.

**16555.** (Professor NEUBERG.)—On donne trois axes rectangulaires  $Ox, Oy, Oz$  et un plan quelconque  $\alpha$ . D'un point quelconque  $M$  de  $\alpha$  on abaisse une perpendiculaire  $MN$  sur le plan  $xOy$  et de  $N$  on abaisse

une perpendiculaire  $NP$  sur la droite  $OM$ . Trouver (1) le lieu du point  $P$ , (2) la surface engendrée par la droite  $NP$ .

**16556.** (S. NARAYANA AIYAR.)—The inverse of the lemniscate  $r^2 = a^2 \cos 2\theta$  with respect to the point  $(a/\sqrt{2}, 0)$  is a limaçon.

**16557.** (W. J. GREENSTREET, M.A., F.R.A.S.)—On the tangent at any point  $P$  on a circle a length  $PT$  is measured so that  $\angle PST = 90^\circ$ , where  $S$  is a fixed point within the circle. Prove by pure geometry that the locus of  $T$  is the polar reciprocal of the envelope of normals to a conic.

**16558.** (W. F. BEARD, M.A. Suggested by Question 16250.)—In a parabola, focus  $S$ , vertex  $A$ , a circle is described on a radius  $SP$  as diameter. Show that the circle will cut the parabola again in only one real point, unless the angle  $ASP$  is greater than  $154^\circ 24' 44''$ .

**16559.** (C. E. YOUNGMAN, M.A. Extension of Question 16034.)—Three tangents to a parabola form a triangle with orthocentre  $H$ , and the corresponding normals make a triangle with orthocentre  $H'$ ; then (1)  $H$  and  $H'$  lie on the same diameter of the curve, (2) ditto for central conics only when the normals meet at  $H'$ , (3) in the parabola  $H$  and  $H'$  coincide if the feet of the normals are concyclic with the focus.

**16560.** (J. P. GABBATT.)—Show that the two pairs of points (other than the circular points at infinity), at once isogonally and isotomically conjugate with respect to a triangle, define a family of rectangular hyperbolas concentric with the circum-circle of that triangle.

**16561.** (W. GALLATLY, M.A.)—Show geometrically that the Simson line of a point  $(a', b', \gamma')$  on the circle  $a/a + \dots = 0$  may be written in any one of the following forms:—

- (1)  $(a^2/a^2) a'(\beta' \cos C - \gamma' \cos B) + \dots = 0,$
- (2)  $(a'/a)(\beta' + \gamma' \cos A)(\gamma' + \beta' \cos A) a + \dots = 0,$
- (3)  $a \cot \theta_1 \cdot a + b \cot \theta_2 \cdot \beta + c \cot \theta_3 \cdot \gamma = 0,$

where  $\theta_1, \theta_2, \theta_3$  are the angles made by the line with the sides of  $ABC$ . Show that each of these is equivalent to Ferrers' form

$$[(c\beta' + b\gamma')/(\beta' \cos C - \gamma' \cos B)] aa + \dots = 0.$$

**16562.** (HENRY B. WOODALL.)—Find the locus of the point such that, if lines are drawn through it parallel to two sides of a triangle, the triangle shall make equal intercepts on those lines.

**16563.** (A. DAKIN, M.A.)—Find, by the methods of pure geometry, a point  $P$  in a given straight line  $c$ , such that the ratio  $AP : BP$  shall be a maximum;  $A$  and  $B$  are fixed points in a plane through  $c$ .

**16564.** (Communicated by E. P. SERGEANT.)— $A$  and  $B$  are two given points,  $XY$  a given indefinite straight line. Find a point  $C$  on  $XY$ , such that angle  $ACX$  equals twice angle  $BCY$ . [From Harper's *Euclid*.]

**16565.** (M. T. NARANIENGAR, M.A.)—In a spherical triangle  $ABC$ , whose circum-centre is  $O$ , the internal and external bisectors of the angle  $C$  meet the arc through  $O$  perpendicular to  $AB$  at  $D$  and  $E$ . Prove (i.) that  $\angle EAD = \angle EBD = \angle ECD$ , (ii.) that  $\angle EAC = \angle EBC$ , (iii.)  $\tan CD = \tan \frac{1}{2}(a+b) \sec \frac{1}{2}C$ , (iv.)  $\tan CE = \tan \frac{1}{2}(a-b) \operatorname{cosec} \frac{1}{2}C$ , (v.) the projections of  $OD, OE$  on the sides  $CA, CB$  are equal.

**OLD QUESTIONS AS YET UNSOLVED (IN OUR COLUMNS).**

**8058.** (Rev. T. P. KIRKMAN, M.A., F.R.S.)—Draw with fewer than twelve all 4-gonal faces, Nine solids, and give their symmetrical traces.

**8064.** (J. P. JOHNSTON, B.A.)—If a cone of the second degree whose vertex lies on a fixed plane ( $M$ ) intersects a quadric ( $U$ ) in a pair of planes, one of which ( $L$ ) is fixed, the envelope of the other is a cubic of the form  $L(U + kM^2) = 0$ .

**8175.** (W. J. C. SHARP, M.A.)—Dr. Boole notices a remarkable duality which exists in partial differential equations (*Differential Equations*, p. 366, Ed. I.), and gives formulæ for the transformation of equations of the first and second order with two independent variables. Give the corresponding formulæ for any number of variables, and show that, if a partial differential equation be linear in the first minors of the Hessian of the dependent variable, except a term involving the Hessian, it can be transformed into a linear form.

**8239.** (H. L. ORCHARD, B.Sc., M.A.)—An elastic body slides twenty feet down an inclined plane, and then strikes against a small peg in the plane. If the index of elasticity =  $\frac{1}{2}$ , and the angle of the plane =  $30^\circ$ , find the initial angular velocity of the body about its centre of gravity.

**9056.** (SAMUEL ROBERTS, F.R.S.)—Show that, if  $a, b, c$  are integers, prime to one another, and  $n$  being an odd prime  $c^n - b^n - a^n = 0$ , then  $c^n - c = 2ln^2, b^n - b = 2ln^2, a^n - a = 2ln^2$ .

**9274.** (D. BIDDLE.)—A sheet of paper of rectangular form has each of its four corners folded over in any way, provided none of the corners

overlap each other. Find the mean distance of the centre of gravity from the original centroid of the paper.

#### NOTICE TO CORRESPONDENTS.

It is requested that all Mathematical communications should be sent to the Mathematical Editor,  
Miss CONSTANCE I. MARKS, B.A., 10 Matheson Road, West Kensington, W.

*Vol. XIV. (New Series) of the "Mathematical Reprint" is now ready, and may be had of the Publisher, FRANCIS HODGSON, 89 Farringdon Street, E.O. Price to Subscribers, 5s.; to Non-Subscribers, 6s. 6d.*

#### THE LONDON MATHEMATICAL SOCIETY.

Thursday, November 12th, 1908 (Annual General Meeting).—Prof. W. Burnside, President, and, subsequently, Prof. H. M. Macdonald, Vice-President, in the Chair.

Lieut.-Col. J. M. Wade was elected a member.

The President referred to the loss sustained by the Society through the death of the late Master of St. John's College, Cambridge, Dr. Charles Taylor, who was a member of the Society for thirty-six years.

The President presented the De Morgan Medal to Dr. J. W. L. Glaisher.

The Officers and Council for the ensuing Session were elected as follows:—President, Sir W. Niven, K.C.B.; Vice-Presidents, Mr. A. Berry, Prof. W. Burnside, Prof. H. M. Macdonald; Treasurer, Prof. J. Larmor; Secretaries, Mr. J. H. Grace, Prof. A. E. H. Love; other members of the Council, Dr. H. F. Baker, Mr. G. T. Bennett, Mr. A. L. Dixon, Prof. E. B. Elliott, Dr. L. N. G. Filon, Dr. E. W. Hobson, Major P. A. MacMahon, Mr. H. W. Richmond, Mr. A. E. Western.

Prof. Burnside delivered his Presidential Address on the "Theory of Groups of a Finite Order."

The following papers were communicated:—

"On the Second Mean-Value Theorem of Integral Calculus" and "On the Representation of a Function by a Series of Legendre's Functions," Dr. E. W. Hobson.

"The Eliminant of Three Quantics in Two Independent Variables," Mr. A. L. Dixon.

"On the Dirichlet Series and the Asymptotic Expansion of Integral Functions of Zero Order," Mr. J. E. Littlewood.

"The Norm Curves on a given Base," Prof. F. Morley.

"On the Arithmetical Nature of the Coefficients in a Group of Linear Substitutions" (Third Paper), Prof. W. Burnside.

"The Conformal Transformations of a Space of Four Dimensions and their applications to Geometrical Optics," Mr. H. Bateman.

"Periodic Properties of Partitions," Mr. D. M. Y. Sommerville.

"The Solution of Integral Equations," Prof. A. C. Dixon.

"Note on the Continuity or Discontinuity of a Function defined by an Infinite Product," Mr. G. H. Hardy.

"The Energy and Momentum of an Ellipsoidal Electron," Mr. F. B. Pidduck.

"On  $q$ -Integration" and "On  $q$ -Transformations of Power Series," Rev. F. H. Jackson.

"The Complete Solution in Integers of the Eulerian Equation  $X^4 + Y^4 = U^4 + V^4$ ," Dr. T. Stuart.

"On Waves of Finite Amplitude," Mr. W. J. Harrison.

"An Asymptotic Formula for the Generalized Hypergeometric Series," Mr. T. J. I'A. Bromwich.

"Satellite Curves on a Plane Cubic," Mr. A. C. O'Sullivan.

#### LATEST SELF-FILLING FOUNTAIN PEN.

UNUSUAL OFFER AS AN ADVERTISEMENT FOR A SHORT PERIOD ONLY

The Self-Filling and Self-Cleaning Perfection Fountain Pen (worth 15/-) to Teachers for 4/- only, or 3 Pens for 10/6.

This is an advertisement offer, & will be withdrawn at the end of this year.

ORDER NOW BEFORE IT IS TOO LATE.

Money returned if not fully satisfied. Guaranteed for 2 years.



Description:—Non-leakable, fills and cleans itself in a moment—a press, a fill—fitted with large 14-carat gold nib, iridium tipped, guaranteed to last for years. No other Pen like it for reliability, steady flow and smooth writing. Every Pen a pleasure.

Makers—

THE RED LION MANUFACTURING CO., Ltd., 71 High Holborn, London, W.C.

No need to buy any other Pen while this offer lasts.

To obtain this advantage, mention "The Educational Times."

## SEELEY & CO.'S NEW BOOKS.

\* \* A Miniature Illustrated Catalogue will be sent on application.

JUST PUBLISHED.

**THE CHILDHOOD OF MAN.** A Popular Account of the Lives and Thoughts of the Primitive Races. By Dr. LEO FROBENIUS. Translated by Professor KEANE, LL.D., F.R.G.S. With 416 Illustrations, from Authentic Sources. Demy 8vo, 16s. net.  
"Light and readable and copiously illustrated—sums up in picturesque fashion all that is known on the subject."—*Evening Standard*.

**ASTRONOMY OF TO-DAY.** By CECIL G. DOLMAGE, LL.D., F.R.A.S. With 45 Illustrations. Extra crown 8vo, 5s. net.  
"Most lucid and interesting. This singularly remarkable and popular work."—*Outlook*.

**SCIENTIFIC IDEAS OF TO-DAY.** By CHARLES R. GIBSON, A.I.E.E. With 25 Illustrations. Extra crown 8vo, 5s. net.  
"Admirably simple and lucid."—*Globe*.

**EDINBURGH.** By ROBERT LOUIS STEVENSON. With 60 Illustrations in Black-and-White, and a Coloured Frontispiece. Extra crown 8vo, 6s.

**THINGS SEEN IN CHINA.** By J. R. CHITTY. With 50 beautiful Illustrations of Chinese Life in town and country. Cloth, 2s. net; leather, 3s. net; velvet leather, in a box, 5s. net.  
"By a writer who adds grace and style to entire familiarity with the country and people."—*The Birmingham Post*.

#### THE MINIATURE PORTFOLIO MONOGRAPHS.

With many Illustrations. 16mo, cloth, 2s. net; leather, 3s. net.

"The fairest of little books."—*Evening Standard*.

NEW VOLUMES.

**PETER PAUL RUBENS.** By R. A. M. STEVENSON.

**JAPANESE WOOD ENGRAVINGS.** By W. ANDERSON.

PROFESSOR CHURCH'S NEW BOOK.

**THE CHILDREN'S AENEID.** By the Rev. A. J. CHURCH, Author of "Stories from Homer," &c. With 12 Coloured Illustrations. Extra crown 8vo, 5s.  
"Will fascinate young readers. . . The illustrations enhance the charm."—*Schoolmaster*.

#### THE LIBRARY OF ROMANCE.—NEW VOLUMES.

With many Illustrations. Extra crown 8vo, 5s. each.

**THE ROMANCE OF EARLY BRITISH LIFE FROM THE EARLIEST TIMES TO THE COMING OF THE DANES.** By Professor G. F. SCOTT ELLIOT.

"A masterpiece of clearly arranged scientific knowledge, brilliant and realistic descriptive invention, and genuine humor."—*Liverpool Courier*.

**THE ROMANCE OF BIRD LIFE.** By JOHN LEA, M.A.

"Certainly one of the most fascinating, suggestive, and readable of the season's gift books."—*Spectator*.

**THE ROMANCE OF MODERN GEOLOGY.** By E. S. GREW, M.A.

"A popular introduction to Modern Geology which anyone can read with pleasure."—*Daily Graphic*.

#### THE LIBRARY OF ADVENTURE.—NEW VOLUMES.

"There could be no more attractive books for boys."—*Scotsman*.

With 16 Illustrations. Extra crown 8vo, each 5s.

**ADVENTURES AMONG WILD BEASTS.** By G. F. W. HYBET.

"A most admirable book."—*Spectator*.

**ADVENTURES ON THE HIGH SEAS.** By RICHARD STEAD, B.A.

"A wondrous haul of sea adventures, new and old."—*Journal of Education*.

#### HEROES OF THE WORLD LIBRARY.

With many Illustrations. Extra crown 8vo, 5s.

NEW VOLUMES.

**HEROES OF MODERN CRUSADES.** By the Rev. E. GILLIAT, M.A.

"Vivid and inspiring studies."—*Literary World*.

**HEROINES OF MISSIONARY ADVENTURE.** By the Rev. Canon DAWSON, M.A.

"A fascinating record . . . there is not a dry page in it."—*Record*.

#### THE PRINCE'S LIBRARY.

With Coloured Frontispiece and 8 other Illustrations. Extra crown 8vo, 3s. 6d.

NEW VOLUMES.

**CAEDWALLA: or, The Saxons in the Isle of Wight.** By FRANK COWPER.

**HANS ANDERSEN'S FAIRY TALES.** With 4 Coloured and 8 other Illustrations by H. M. BROCK.

"Delightfully bound, printed, and illustrated. . . We strongly recommend it as a prize for either boy or girl."—*Schoolmaster*.

#### PROFESSOR CHURCH'S HISTORICAL STORIES.

The Crusaders. 5s.	The Children's Iliad. 5s.
Greek Story and Song. 5s.	The Children's Odyssey. 5s.
Helmet and Spear. 5s.	Heroes of Chivalry and Romance. 5s.
Stories from Homer. 5s.	The Count of the Saxon Shore. 5s.
Stories from Virgil. 5s.	With the King at Oxford. 5s.
Stories from the Greek Tragedians. 5s.	The Hammer. 5s.
Stories from the Greek Comedians. 5s.	Last Days of Jerusalem. 3s. 6d.
Stories of the East. 5s.	Three Greek Children. 3s. 6d.
Story of the Persian War. 5s.	The Chantry Priest. 2s. 6d.
Stories from Livy. 5s.	A Young Macedonian. 2s. 6d.
Roman Life in the Days of Closero. 5s.	Heroes of Eastern Romance. 2s. 6d.
The Story of the Iliad. 5s.	To the Lions. 1s. 6d. and 2s. 6d.
The Story of the Odyssey. 5s.	The Burning of Rome. 3s. 6d.
	Stories from English History. 3s. 6d.

LONDON: SEELEY & CO., LTD., 38 GREAT RUSSELL STREET.

# BLACKIE & SON'S LIST

## GEOGRAPHY.

STRUCTURAL—PHYSICAL—COMPARATIVE.

A TEXT-BOOK FOR SENIOR STUDENTS.

By J. W. GREGORY, D.Sc., F.R.S., Professor of Geology in the Glasgow University.

With Series of specially constructed Coloured Maps and Sketch Maps and Plans in Black and White. Large 8vo, 6s. net.

The main purpose of this book is to put before the student the most important facts concerning the Structural Geography of the Earth, and the evolution of our present continents from older lands. It marks a new departure both in aims and in method. It furnishes the student with such knowledge of the entire surface of the Earth as will ensure his acquisition of geographical perspective.

## A FIRST GEOGRAPHY.

By O. A. E. RODGERS, M.A., F.R.G.S.,

Assistant Master, Bradford Grammar School; and an Examiner in Geography to the College of Preceptors.

With Coloured Pictures and Diagrams on every page. Small 4to, cloth, 1s.

## A GENERAL GEOGRAPHY OF THE WORLD.

By HENRY E. EVANS, B.A., L.C.P.

A Text-book for Students preparing for University and other Public Examinations. 416 pages, crown 8vo, cloth boards, 3s. 6d.

## A Brief Survey of British History.

By G. TOWNSEND WARNER, M.A. With Tables, Summaries, Maps, Notes, &c. 1s. 6d.

"The best English History for younger pupils. Used in all leading Preparatory Schools, and the Royal Naval College, Osborne."

## A Brief Survey of European History.

By ARTHUR HASSALL, M.A. An excellent general sketch of European History from Charlemagne to the Present time. Crown 8vo, cloth, 4s. 6d.

## Landmarks of European History.

By E. H. M'DOUGALL, M.A. Oxon.; late Assistant in the Tewitkiah School and Training College, Cairo. With many Coloured and Sketch Maps, Index, &c. 3s. 6d.

## Heroes of the European Nations.

From Early Greece to Waterloo. By A. R. HOPE MONCRIEFF. 1s. 6d.

## Readings in English History.

From Original Sources. Edited by R. B. MORGAN, B.Litt., and E. J. BALLEBY, B.A. Illustrated. Vol. I., B.C. 54 to A.D. 1154, 2s. Vol. II., 1154 to 1485, 2s. 6d. Vol. III., 1485 to 1688, 2s. 6d. (just ready).

## A Latin Course.

By E. H. SCOTT, B.A., and FRANK JONES, B.A. First Course, cloth, 1s. 6d. Second Course, cloth, Illustrated, 2s. 6d.

## A First Latin Grammar.

By E. H. SCOTT, B.A., late Head Master of Boys' Secondary School, Barberton, Transvaal; and FRANK JONES, B.A., Assistant Master, King Edward's School, Aston, Birmingham. Crown 8vo, cloth, 2s.

## Advanced Book-keeping.

For Commercial and Accountancy Classes. By WALTER GRIERSON, Author of "Practical Book-keeping for Commercial Classes." Crown 8vo, cloth, 2s. 6d. net. [Just published.]

## The Longer French Texts.

Printed in large type. Cloth limp, 8d. each. Brief Notes, Questionnaire, Memory List of Useful Phrases, and a Vocabulary.

## The Little French Classics.

Price 4d. each Book. All French authors in prose and verse, from the *Chansons de Geste* to Daudet and Paul Bourget.

## Récits tirés des Classiques français.

6d. each. Edited by Mme. C. BAGNALL, of Clapham High School, and Mlle. VIVIER.

The Stories of the great Dramatists told in simple French, suitable for Lower and Middle Forms.

JUST PUBLISHED.

## INTRODUCTION to the NATURAL HISTORY OF LANGUAGE.

By T. G. TUCKER, Litt.D. (Camb.), Hon. Litt.D. (Dublin), Professor of Classical Philology in the University of Melbourne. Demy 8vo, cloth, 10s. 6d. net.

A new Treatise which gathers together the results of the great amount of philological work that the last quarter of a century has produced. It is intended to fulfil to-day the purpose which was served in its time by Max Müller's "Science of Language."

A NEW ANTHOLOGY FOR SCHOOLS.

## THE CALL OF THE HOMELAND.

A COLLECTION OF ENGLISH VERSE.

Selected and Arranged by

B. P. SCOTT, LL.D., and K. T. WALLAS.

In Two Books. Each, 1s. 6d. net. Crown 8vo, cloth boards.

A Collection of English Verse, much of it contemporary, designed to illustrate the extended conception of patriotism that is developing in the national literature, both in the mother country and in her scattered family of young nations.

The Poems have been grouped according to their subject—

Book I.—Echoes from History—Britain Overseas—The Sea—The Changing Year  
Book II.—The English Countryside—Home—Exile—Compatriots—The Call to Serve—The Call to Happiness.

## The Teaching of English.

By A. E. ROBERTS, M.A., Principal Lecturer in English at the Islington Day Training College, and A. BARTER, L.L.A., late Head Mistress of the Braintree Pupil-Teacher School. 2s. net.

Much pioneer work lies before the English teacher, and the present book is an attempt to suggest some of the lines along which he may proceed. No space has been devoted to the teaching of reading and writing as mechanical processes, since these subjects have been frequently treated of in books in school method. The emphasis has been laid on the teaching of literature and of composition.

## Combined Course of Literary Reading and Composition.

Illustrated from Famous Pictures. Edited by LEWIS MARSH, M.A. 2s.

## English Poetry for the Young.

Selected by S. E. WINBOLT, M.A. A chronological selection of English poetry, clearly printed and well bound in cloth. 1s.

## BLACKIE'S ENGLISH TEXTS.

6d. each. Blue limp cloth covers. Nearly 80 volumes. To be used in correlation with the study of English Literature and History.

Among the leading Authors are:—

Malory.	Gibbon.	Drake.	Thucydides.	Dickens.
Froissart.	Macaulay.	Raleigh.	Plutarch.	Charles Lamb.
Bacon.	Carlyle.	Anson.	Livy.	Kingsey.
Burke.	Prescott.	Hawkins.	Marcellinus.	Swift.
Ruskin.	Josephus.	Cook.	Lucretius.	Borrow.

## Magnetism and Electricity and The Principles of Electrical Measurement.

By S. S. RICHARDSON, B.Sc., Associate of the Royal College of Science, London; Lecturer in Physics, Municipal Technical School, Liverpool. Crown 8vo, cloth boards, 5s. net.

## Systematic Inorganic Chemistry from the Standpoint of the Periodic Law.

A Text-Book for Advanced Students. By R. M. CAVEN, D.Sc., and G. D. LANDEB, D.Sc. Crown 8vo, cloth, 6s. net.

## A Text-book of Organic Chemistry.

English Translation from the German of A. BRUNTHSEN, Ph.D. Edited by J. J. SUDBOROUGH, Ph.D., D.Sc., F.I.C. New Edition. Revised to date. 674 pp., crown 8vo, cloth, 7s. 6d. net.

Messrs. BLACKIE & SON will be pleased to send full lists of Books suitable for Oxford and Cambridge Local Examinations, 1909, post free on application.

**BLACKIE & SON, Ltd., 50 Old Bailey, E.C.**

L

D.







