

HOUSE-FLIES AND HOW THEY SPREAD DISEASE

By C. G. HEWITT, D.Sc., Dominion Entomologist, Ottawa, Canada.

Cambridge Manuals Series. Cloth, 1s. net; leather 2s. 6d. net.

"This little book gives an excellent description of the anatomical structure, the life history, and the breeding habits of the common house-fly. There is also a good account of the parasites and natural enemies of the fly, which enables us to realise what becomes of the hordes of flies, incidental to a hot summer, when cold weather commences. . . . The measures necessary to control the propagation of flies form the subject of a final chapter."—*Journal of the Royal Sanitary Institute*

"The little book here under notice . . . is of really fascinating interest. It deals with a subject which is daily being regarded as of increasing importance in the prevention of disease. . . . The arrangement and descriptions are scientific and exact."—*Medical Officer*

THE PSYCHOLOGY OF INSANITY

By BERNARD HART, M.D. (LOND.), Lecturer in Psychiatry, University College Hospital Medical School; Medical Superintendent, Northumberland House Asylum.

Cambridge Manuals Series. Cloth, 1s. net; leather 2s. 6d. net.

"In this little work . . . the author has briefly presented in lucid readable form the more important recent developments in abnormal psychology which have yielded results of fundamental importance or which have acquired a satisfactory claim to recognition. In this book the author, after briefly reviewing the history of insanity, goes on to explain what is meant by the psychological conception, and then arranges the subject-matter of the book in such a way that the three successive steps of the method of science appear in logical order. . . . An earnest attempt has been made to lay the essential features of this interesting section of science concisely before the reader, and an excellent groundwork has been prepared upon which to build a more extensive knowledge of the subject."—*Asylum News*

CAMBRIDGE UNIVERSITY PRESS, FETTER LANE, LONDON
C. F. CLAY, Manager

OXFORD UNIVERSITY PRESS

Quarterly Journal of Medicine

Edited by

WILLIAM OSLER, J. ROSE BRADFORD, R. HUTCHISON, A. E. GARROD, H. D. BOLLESTON
AND W. HALE WHITE.

8s. 6d. net per number. Annual Subscription, 25s. Vol. I, 1907–8 (I–IV). Vol. II, 1908–9 (V–VIII), Vol. III, 1909–10 (IX–XII). Vol. IV, 1910–11 (XIII–XVI), 35s. net each.

The King's Evil. By R. CRAWFURD. Medium 8vo, with nine plates. 8s. 6d. net.

The Last Days of Charles II. By the same. With a drawing from the Effigy in Westminster Abbey reproduced in collotype, and four other illustrations. Medium 8vo. 5s. net.

English Medicine in Anglo-Saxon Times: the Fitz-Patrick Lectures for 1903. By J. F. PAYNE. 8vo, with 23 illustrations. 8s. 6d. net.

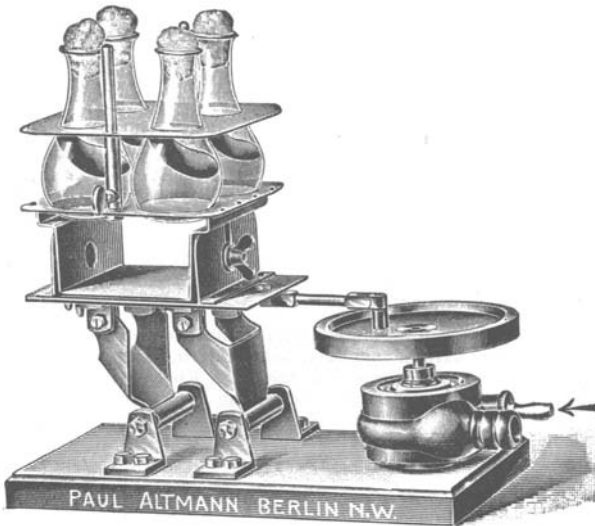
The Study of Medicine in the British Isles: the Fitz-Patrick Lectures for 1905–6. By NORMAN MOORE. 8vo, with 13 Collotype plates. 10s. 6d. net.

The Treatment of Disease. By W. OSLER. 1s. net.

A Handbook of Anatomy for Art Students: fully illustrated. By ARTHUR THOMSON. Third edition, 1906. 8vo, buckram. 16s. net.

London: HENRY FROWDE, Oxford University Press, Amen Corner, E.C.

PAUL ALTMANN,
 47, LUISEN-STRASSE,
 ECKE SCHUMANN-STRASSE,
 BERLIN, N.W., GERMANY,



New SHAKING APPARATUS with
 Water Motor. Mk. 45.00.

Full Illustrated Price Lists on Application.

Manufacturer of all kinds
 of apparatus and appliances
 for Chemistry, Bacteriology,
 Microscopy and Hygiene.

All Goods manufactured in
 our own workshops.

COMPLETE OUTFITS
 of Bacteriological-Microscopical
 and Hygieno-Chemical
 Laboratories.

SPECIALITY :

Disinfecting and Sterilising
 Apparatus.
 Thermostats, adjustable for
 a Constant Temperature.
 Autoclaves, Centrifugals.
 Apparatus for Clinical
 Laboratories, etc., etc.

New apparatus for
WATER RESEARCHES.

New apparatus for
SERODIAGNOSE.

GRIFFIN'S

KEMBLE STREET
 KINGSWAY, LONDON, W.C.

General Laboratory Apparatus
 Bacteriological Equipment
 Microscopes
 Clinical Apparatus
 Centrifugals (Hand and
 Electrical)
 Kahlbaum's Pure Chemicals



TICKS A Monograph of the Ixodoidea

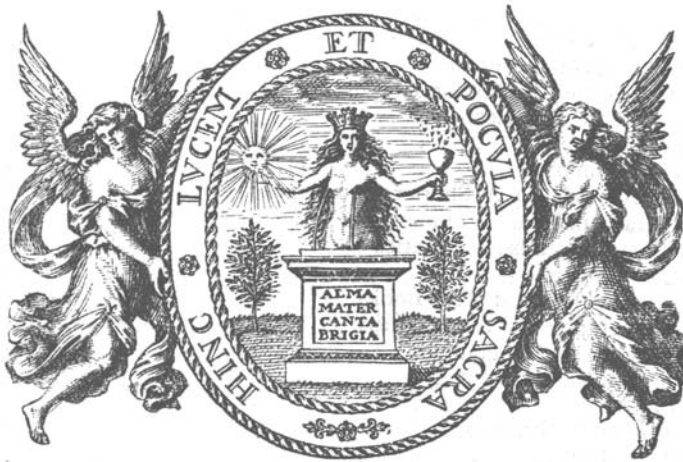
By GEORGE H. F. NUTTALL, M.D., Ph.D., Sc.D., F.R.S., CECIL
 WARBURTON, M.A., F.Z.S., W. F. COOPER, B.A., F.Z.S., F.L.S.
 and L. E. ROBINSON, A.R.C.Sc. (London)

Now ready { PART I. THE ARGASIDAE. 5s. net
 PART II. THE IXODIDAE. 12s. net
 BIBLIOGRAPHY OF THE IXODOIDEA. 6s. net

CAMBRIDGE UNIVERSITY PRESS, FETTER LANE, LONDON

THE
CAMBRIDGE UNIVERSITY PRESS
BULLETIN

No. XXVI April XXIX, MCMXII



Notes on books published at the
Cambridge University Press
Fetter Lane, London, E.C.
C. F. Clay, Manager

NOTE

THE BULLETIN is published early in each term and will be regularly sent, post free, to any address on receipt of a card addressed to Mr C. F. Clay, Cambridge University Press, Fetter Lane, E.C., where books mentioned in this *Bulletin*, as well as other publications of the Press, may be inspected.

CONTENTS
OF
BULLETIN. No. XXVII

	PAGE
CAMBRIDGE MODERN HISTORY	
The Cambridge Modern History Atlas	3
The Cambridge Modern History	4
THE FINE ARTS	
Medieval Figure-Sculpture	5
THEOLOGY	
Evolution and the Need of Atonement	6
Light on the Gospel from an Ancient Poet	6
The Odes of Solomon	6
Ecclesiasticus	7
EDUCATION	
Scripture Teaching in Secondary Schools	7
Greek Education	8
LATIN	
Livy, Book I	8
Silva Latina	8
ENGLISH LITERATURE	
Studies and Essays	9
Essais de Littérature Anglaise	9
Beaumont and Fletcher: Complete Plays and Poems	10
PHILOSOPHY	
The Philosophical Works of Descartes	11
HISTORY	
Burke's Reflections on the French Revolution	12
John Stuart, Earl of Bute	12
The Australasian Colonies	12
Joint-Stock Companies to 1720	13
MATHEMATICS AND PHYSICS	
Electromagnetic Radiation	14
Statics	15
Sylvester: Collected Mathematical Papers	16
Rayleigh: Scientific Papers, Vol. V	16
James Thomson: Collected Papers	17
Higher Algebra	17
Algebra for Beginners	18
Numerical Trigonometry	18
Examples in Numerical Trigonometry	19
Analytical Geometry	19

CONTENTS—CONTINUED

CHEMISTRY

Experimental Science, Part II: Chemistry	20
The Structure of the Atmosphere	21

NATURE STUDY

The Gateways of Knowledge	22
-------------------------------------	----

GEOGRAPHY

Cambridge County Geographies	23
----------------------------------------	----

CAMBRIDGE MANUALS

24

BIBLIOGRAPHY

Catalogue of the Clark Bequest	26
Catalogue of the McClean Bequest	26
Catalogue of the McClean MSS	26
List of Romano-British Architectural Remains	26

SCIENTIFIC AND LITERARY JOURNALS

The Journal of Agricultural Science	26
The Journal of Genetics	26
The Journal of Hygiene	26
Parasitology	26
The British Journal of Psychology	27
The Modern Language Review	27

VARIOUS PUBLICATIONS AND RE-ISSUES

The Epistle to the Hebrews	27
Parerga Coptica	27
History of Scotland to the Present Time (Illustrated edition)	27
Burke: Speech on Conciliation with America	27
Stories from Chaucer	27
George Eliot: Silas Marner	27
Erckmann-Chatrrian: Waterloo	28
Saintine: Picciola	28
Hauff: Die Karavane	28
The Method of Archimedes	28
Examples in Applied Electricity	28
Examples from a Geometry for Schools	28
Exercises from the Calculus for Beginners	28
The Student's Handbook	28
The Cambridge Pocket Diary	28

The Cambridge Modern History Atlas. Edited by
A. W. Ward, Litt.D., P.B.A.; G. W. Prothero, Litt.D.,
F.B.A.; and Stanley Leathes, M.A., C.B. Assisted by
E. A. Benians, M.A.

Royal 8vo. Cloth. Containing 141 maps, with an Introduction (pp. 118)
and Index. Price 25s. net.

The general idea of the Atlas is to illustrate...the course of events by which the Europe of the fifteenth century has been transformed into the Europe of the present day. Some of the maps are designed to illustrate political divisions, others territorial changes, wars by land or sea, the growth of particular states, the course of religious changes, and the history of colonial expansion....Nearly all the maps are coloured, and mountain ranges are inserted wherever the configuration of the country seems to have affected the course of events illustrated by the particular map.

The arrangement of the maps follows, so far as possible, the order of the narrative in *The Cambridge Modern History*, and an endeavour has been made to insert all the place names that occur in it. At the same time, the entire series is designed to stand by itself as an Atlas of Modern History. ...A historical introduction traces the course of the territorial changes and explains the purpose of each map; and an index of the names inserted in the maps is added to increase the usefulness of the Atlas as a work of reference. The Introduction has been written by Mr E. A. Benians, Fellow and Lecturer of St John's College, who was entrusted by the Editors with the general work of constructing the maps and revising them during reproduction, and who has carried out this work under their supervision. The maps are of the size of either a single page of the *History* or of an opening of two pages; and they are mounted on guards. The Atlas forms a bound volume uniform in size and style with the volumes of the *History* itself. (See next page.)

Standard. The ever-changing political divisions of the world during the last 500 years are so graphically portrayed in the coloured maps that the reader sees, as it were, a mechanical panorama showing how a given piece of territory was conquered by one nation, reconquered by another, and finally broken up into separate independent political entities, or 'distributed' as spoils of war....The maps are all designed according to scale, latitude and longitude; for clear-cut detail and execution they are equal to the finest maps published on the Continent, which is saying a good deal.

The Cambridge Modern History. *Planned by the late Lord Acton, LL.D. Edited by A. W. Ward, Litt.D., P.B.A.; G. W. Prothero, Litt.D., F.B.A.; and Stanley Leathes, M.A., C.B.*

Complete in fourteen volumes. Royal 8vo. Prices:—Bound in Buckram, £8. 15s. *od.* net; in Roxburghe £11. 0s. *od.* net; in Three-Quarter Morocco, £14. 5s. *od.* net; in Full Morocco, £20. 0s. *od.* net. The volumes are sold separately in the Buckram binding, price: 16s. net each Text Volumes; General Tables and Index 16s. net; Atlas 25s. net.

The aim of *The History* is to unfold the general history of Europe and her Colonies, and of America, from the Middle Ages to the present day and the principles on which the work is based are epitomised in the following extract from Lord Acton's original report :

‘The essential elements of the plan I propose for consideration are these :—

Division of subjects among many specially qualified writers ;

Highest pitch of knowledge without the display ;

Distinction between the organic unity of general history and the sum of national histories, as the principle for selecting and distributing matter ;

Proportion between historic thought and historic fact ;

Chart and compass for the coming century.’

The text is contained in twelve volumes, for each of which some historical fact of signal importance is chosen as the central idea round which individual volumes are grouped, not accidentally, but of reasoned purpose.

Daily Telegraph. It is as a work of scientific accuracy and profundity that *The Cambridge Modern History* stands unrivalled. So far as truth can be ascertained by mortal men, so far as learned, impartial criticism can be final, we have them there.

A booklet giving a full description of the *History* will be sent post free on receipt of a postcard addressed to The Cambridge University Press, Fetter Lane, London. Until further notice orders will be accepted on the instalment plan, full particulars of which will be sent on application.

An Account of Medieval Figure-Sculpture in England. By Edward S. Prior, M.A., F.S.A., Slade Professor of Fine Art in the University of Cambridge, and Arthur Gardner, M.A., F.S.A.

Demy 4to. pp. xii+734. With 855 photographs. Price £3. 3. *od.* net.

Extract from the Preface

We are very much in the position of pioneers in an untrodden country; the main big features attract our attention and our steps travel along the broadest roads to them... Classification has been our point, and for the rest we must ask our readers to look at our illustrations: in them at any rate they can enjoy the charm that romance and sentiment have wrought in English medieval sculpture.

CONTENTS

BOOK I

INTRODUCTORY

CHAP.

- I. The Materials and Present Aspect of Medieval Sculpture.
- II. The Subjects of Medieval Sculpture.
- III. The Medieval Sculptor.
Appendix to Book I. Bibliography of Medieval Sculpture.

BOOK II

CHAP.

- I. Pre-Conquest Figure Sculpture, 650-1050.
- II. Anglo-Norman Sculpture.
- III. The Later Romanesque Figure-Sculpture.
- IV. The Architectural Carving of the First Gothic Period, 1200-1280.
- V. The Relief-Sculpture of the First Gothic Period, 1200-1280.
- VI. The First Gothic Statues, 1200-1280.
- VII. The Statues of the Fourteenth Century.
- VIII. The Lesser Figure-Work of the Fourteenth Century.
- IX. The Statue-Imagery of the Third Period, 1360-1530.
- X. The City-Trade Furniture of the Last Medieval Period, Fonts, and Tombs.
- XI. The City-Trade Furniture of the Last Medieval Period (*continued*).
- XII. The Architectural Sculpture of the Third Period, 1360-1520.

BOOK III

CHAP.

- I. Introduction and Tables.
- II. The Marble Effigies of the Thirteenth Century.
- III. The Stone Effigies up to 1300.
- IV. The Freestone Effigies, c. 1300-1360.
- V. The London Effigies in Bronze, Oak, Alabaster and Clunch.
- VI. The Recumbent Effigies of the Third, or Last Medieval Sculpture.
- VII. The Stone and Wooden Effigies of the Last Gothic Sculpture.

Evolution and the Need of Atonement. By Stewart A. McDowall, M.A., Trinity College, Cambridge, Assistant Master at Winchester College. With an Introductory Note by the Rt. Rev. Bishop Ryle, Dean of Westminster.

Crown 8vo. pp. xiv+155. Price 3s. net.

Extract from the Introductory Note

I cannot help thinking that this treatment of Evolutionary Science will be to many readers strikingly original and suggestive; while the theory, which he [the author] advances in connexion with his general scheme of thought, upon the Origin and Nature of Sin, and upon the subject of the Atonement, is, I am sure, entitled to the thoughtful consideration of the theologian, as well as of the scientist.

Light on the Gospel from an Ancient Poet. By Edwin A. Abbott, Honorary Fellow of St John's College, Cambridge.

Demy 8vo. pp. lxiv+602. Price 12s. 6d. net.

Extract from the Preliminary Statement

These Odes of Solomon...appear to me to constitute a series of...“Songs of Degrees, or Ascents,” in which the thought ascends...from that first and imperfect son of David, who failed to deserve his prophet-given name of Jedidiah, “the beloved,” to that second and perfect Son of David who was hailed from heaven as the Beloved indeed.

The Odes of Solomon. Edited, with introduction and notes, by J. H. Bernard, D.D., Hon. D.C.L. Durham, Hon. D.D. Aberdeen, Bishop of Ossory.

Text and Studies. Vol. VIII. No. 3. Demy 8vo. pp. viii+134.
Price 6s. net.

Extract from the Preface

My task has been to examine the *Odes* with the view of discovering the habits of religious life and thought which they presuppose. In order to explain their phraseology, I have quoted freely from the early theological writers of the Eastern Church; and I believe that the parallelisms in thought and language...make it certain that the *Odes* are built up on a substructure of baptismal ritual and doctrine.

Ecclesiasticus, or The Wisdom of the Son of Sirach.
In the Revised Version. With introduction and notes by
W. O. E. Oesterley, D.D., Jesus College, Cambridge.

The Cambridge Bible for Schools and Colleges Series. Extra fcap. 8vo.
pp. civ+368. Price 6s. net.

Extract from the Introduction

The mass of information which the book contains regarding Jewish religion, thought, and ethics, during a period for which we do not otherwise possess much information, marks it out as a work of high importance. The writer evidently intended to offer to his people a kind of text-book to which men and women might have recourse for guidance in almost every conceivable circumstance of life. He does this, however, with the primary object of setting in clear light the superior excellence of Judaism over Hellenism. In a sense, therefore, *Ecclesiasticus* may be regarded as an apologetic work, inasmuch as it aims at combating the rising influence of Greek thought and culture among the Jews.

Scripture Teaching in Secondary Schools. *Papers read at a Conference held in Cambridge 10—13 April, 1912. Edited by N. P. Wood, M.A., B.D., Assistant Master at Bishop's Startford College, and Secretary to the Conference. With a Foreword by F. C. Burkitt, M.A., F.B.A., Norrisian Professor of Divinity in the University of Cambridge.*

Crown 8vo. pp. xiv+74. Price 1s. 6d. net.

Educational Times. It was a good thought for these masters to meet together in conference and to give to their colleagues the result of their deliberations....In his opening address Mr Watson emphasized the importance of making the Bible an interesting book, of dwelling upon its spiritual unity, and of teaching it with sincerity and earnestness. Professor Swete contributed a paper on the New Testament....Dr Foakes Jackson made an earnest plea for teaching the Old Testament, notwithstanding its difficulties. The papers of the Headmaster of Bradfield and of Professor Kennett are full of sound practical advice, while Bishop Kempthorne spoke of "The Schoolmaster's Opportunity." Other papers give suggestions for courses and syllabuses. Professor Burkitt contributes a valuable and interesting preface....Our advice to every secondary-school teacher is to get this little book and read it.

Greek Education: Its Practice and Principles.

By James Drever, M.A. (Edin.), B.Sc. (Lond.), Lecturer on the Principles and History of Education under the Edinburgh Provincial Committee for the Training of Teachers, and Assistant to the Professor of Education, University of Edinburgh.

Crown 8vo. pp. viii+108. Price 2s. net.

• *Extract from the Preface*

The main purpose of the author in publishing this little work is to indicate what seem to him the essential lines upon which any discussion of Greek education, that is to be of value to the student of Education, must proceed. At the same time he has tried to throw out the suggestion that the whole history of educational practice and educational thought may be treated from the same point of view, and as a whole by taking our departure from the education of Greece.

Livy, Book I. Edited by H. J. Edwards, C.B., M.A., Fellow and Tutor of Peterhouse: formerly Scholar of Trinity College.

The Pitt Press Series. Extra fcap. 8vo. With 2 maps. pp. lviii+232.
Price 3s. 6d.

Athenaeum. A thorough and satisfactory piece of editing, worthy of an accomplished scholar. The Introduction is abreast of modern research, and occupies more than forty pages. The notes and indexes are carefully done, and there are two maps.

Silva Latina: A Latin Reading Book, chosen and arranged by J. D. Duff, M.A., Fellow of Trinity College, Cambridge.

The Pitt Press Series. Extra fcap. 8vo. pp. viii+84. Price 2s.

Extract from the Preface

In preparing this book I have had chiefly in view the requirements of those schools where Greek is not taught and where the Latin course does not generally last more than four years...The passages have been selected mainly from four of the chief masters of the language at its best periods—Cicero, Livy, Virgil, and Ovid....No passage has been included that is not, of its kind, excellent; no passage has been included that presents any difficulty in language or matter.

*Keats, Shelley and Shakespeare Studies and Essays
in English Literature.* By S. J. Mary Suddard,
L.L.A., Fellow Univ. Gall.

Crown 8vo. pp. vi+308. Price 6s. net.

CONTENTS

Keats, Shelley and Shakespeare Studies.

1. The Evolution of Keats's Mind. 2. Keats's "Prelude," a Study of the Poems of Keats up to *Endymion*. 3. Keats's Style as exemplified in *The Eve of St Agnes*. 4. The *Hymn to Intellectual Beauty*. 5. Shelley's Transcendentalism. 6. Shelley's Idealism. 7. The Images in Shelley's *Hellas*. 8. The Blending of Prose, Blank Verse and Rhymed Verse in *Romeo and Juliet*. 9. *Measure for Measure* as a clue to Shakespeare's attitude towards Puritanism.

Essays in English Literature.

1. Chaucer's Art of Portraiture. 2. *Astrophel and Stella*. 3. Three of Shakespeare's *Sonnets* (59, 60, 61). 4. A Parallel between Ben Jonson and Shakespeare. 5. Addison's Humour: its matter and its form. 6. Swift's Poetry. 7. Wordsworth's "Imagination." 8. *The House of Life*. 9. The Character of John Inglesant.

Westminster Gazette. Mary Suddard was born in May 1888 and died in May 1909....To prove oneself an articulate critic of any general or essential consequence at all, at such an age, is a very unusual achievement....The most striking thing in Mary Suddard's work is...that without any question it can take such a place in contemporary criticism as to leave its precociousness only as it were another lovely flower in the garland of youth....The essays are not a series of flashes, fireworks of intuition, nor anything in the way of mere *tours de force*, but they one and all and each in its own reveal a mind of a very beautiful gravity, a personality perfectly happy in its sanity, and a serene and intense delight in the best things life has given to literature.

Essais de Littérature Anglaise. Par S. J. Mary
Suddard, L.L.A., Agrégée d'Anglais.

Crown 8vo. pp. iv+150. Price 5s. net.

The Essays in English Literature, translations of which appear in *Studies and Essays*, are here given, as they were originally written, in French.

Francis Beaumont and John Fletcher: Complete Plays and Poems. Text, in ten volumes, edited by Arnold Glover, M.A., and A. R. Waller, M.A.

Large Crown 8vo. Price for the set £2. os. od. net; single volumes 4s. 6d. net each.

- Vol. I. pp. lxii + 456.
Contents:—The Maids Tragedy; Philaster; A King, and No King; The Scornful Lady; The Custom of the Country.
- Vol. II. pp. viii + 528.
Contents:—The Elder Brother; The Spanish Curate; Wit without Money; Beggars Bush; The Humorous Lieutenant; The Faithful Shepherdess.
- Vol. III. pp. iv + 464.
Contents:—The Mad Lover; The Loyal Subject; Rule a Wife, and Have a Wife; The Laws of Candy; The False One; The Little French Lawyer.
- Vol. IV. pp. iv + 412.
Contents:—The Tragedy of Valentian; Monsieur Thomas; The Chances; The Bloody Brother; The Wild-Goose Chase.
- Vol. V. pp. vi + 398.
Contents:—A Wife for a Month; The Lovers Progress; The Pilgrim; The Captain; The Prophetess.
- Vol. VI. pp. vi + 420.
Contents:—The Queen of Corinth; Bonduca; The Knight of the Burning Pestle; Loves Pilgrimage; The Double Marriage.
- Vol. VII. pp. vi + 396.
Contents:—The Maid in the Mill; The Knight of Malta; Loves Cure, or the Martial Maid; Women Pleas'd; The Night-Walker, or the Little Thief; Notes.
- Vol. VIII. pp. vi + 388.
Contents:—The Womans Prize; The Island Princess; The Noble Gentleman; The Coronation; The Coxcomb.
- Vol. IX. pp. vi + 388.
Contents:—The Sea Voyage; Wit at Several Weapons; The Fair Maid of the Inn; Cupid's Revenge; The Two Noble Kinsmen.
- Vol. X. pp. viii + 390.
Contents:—Thierry and Theodoret; The Woman-Hater; Nice Valour; The Honest Man's Fortune; The Masque of the Gentlemen of Grays-Inne and the Inner-Temple; Four Plays or Moral Representations in One.

Scotsman. This edition, when completed, will be an ideal *Beaumont and Fletcher* for the library of the man of letters, the general book-lover, or the special student of the Elizabethan and post-Elizabethan Drama.

Standard. With this volume [Vol. X.] is concluded a work of great value to the student of Elizabethan drama. It is by far the most complete and satisfactory edition of *Beaumont and Fletcher* accessible at a reasonable price, and should tempt all who are interested in one of the most remarkable phases of English literature.

The Philosophical Works of Descartes. Rendered into English by Elizabeth S. Haldane, LL.D., and G. R. T. Ross, M.A., D.Phil.

Completed in two volumes. Demy 8vo. Vol. I, pp. x+452.
Vol. II, pp. viii+380. Price 10s. 6d. net each.

Extract from the Preface

The aim of this edition is to present to English readers all the philosophical works of Descartes which were originally intended for publication....It is most important to mark the result of Descartes' speculations on contemporary thought; and the complete translation now presented of the "Objections" directed against the "Meditations," published together with Descartes' replies thereto, in the second volume, will enable the English reader to realize the novelty of the Cartesian doctrine, and the enormous effect it had upon European thought at the time. He will further be able to judge better of the success of Descartes' attempts to extricate himself from the difficulties which his philosophy undoubtedly contains.

The works translated here are the "Rules," the "Method," the "Meditations," with the "Objections and Replies," part of the "Principles," the "Search after Truth," the "Passions," and the "Notes." Unfortunately it has been found impossible to include Descartes' philosophical correspondence and his more specially physiological treatises, but perhaps in the not too distant future the work of the present translators will be supplemented in this direction.

Glasgow Herald. The influence of Descartes on European thought can hardly be exaggerated....Till now no complete edition of his works has been accessible to English readers. The authors of the present edition are therefore to be congratulated upon giving us a work which is likely to remain for some time the standard translations of his writings....The translation is accurate and skilfully done, and lacks the stiffness and archaic diction familiar in other versions.

Aberdeen Free Press. As to the translation itself, it is a model of what a rendering from one language into another ought to be. It is not a mere translation of one language into another, it is a rendering of the thought and meaning of the author into the language which reads as if it were the work of the author himself. Descartes is made to speak our English tongue as if he had written his argument in it. Not only is it a true rendering of the meaning of the author, it is rendered into perfect English, in which there is allowed to remain no trace of a foreign idiom.

Burke: Reflections on the French Revolution.
*Edited by W. Alison Phillips, M.A., Merton College,
Oxford, Senior Scholar of St John's College, Oxford, and
Catherine Beatrice Phillips.*

The Pitt Press Series. Extra fcap. 8vo. pp. lvii+312. Price 4s.

Extract from the Preface

The text of the present edition of Burke's *Reflections* is based on a comparison of Rivington's editions of 1803 and 1827, the present editors adding an introduction and notes....It seemed better in the main to confine the notes to an explanation of events, ideas, and persons alluded to by Burke, who assumes an encyclopaedic knowledge in his readers which, it is to be feared, but few possess.

John Stuart, Earl of Bute. *By J. A. Lovat-Fraser,
M.A., of Trinity College, Cambridge, and the Inner
Temple, Barrister-at-Law.*

Crown 8vo. pp. x+108. With a frontispiece. Price 2s. 6d. net.

Author's Note

A life of the first Scotsman who was Prime Minister of the United Kingdom. He was perhaps the most unpopular premier ever in power, and his tenure of office was marked by a great outburst of hostility against the Scots, which is fully described in the book. As the "Jack Boot" of the London mob and the *bête noire* of Wilkes and Junius he acquired an unenviable but quite undeserved notoriety.

***A History of the Australasian Colonies (From their
Foundation to the Year 1911).*** *By Edward Jenks, M.A.,
formerly Fellow of King's College, Cambridge.*

The Cambridge Historical Series. Third edition, revised. Crown 8vo.
pp. xx+376. With 2 maps. Price 4s. 6d. net.

Extract from the Preface to the Third Edition

In preparing a new edition for the Press, the author has been mainly concerned to give some account of the successful realization of the movement towards federation in Australia, the earlier history of which was sketched in the former editions....But he has also attempted to give a brief account of some of the more important of the many interesting experiments in politics and social organization which have been made by Australasian statesmen in recent years.

The Constitution and Finance of English, Scottish and Irish Joint-Stock Companies to 1720. By William Robert Scott, M.A., D.Phil., Litt.D., Lecturer in Political Economy in the University of St Andrews. Complete in three volumes. Vol. I, *The General Development of the Joint-Stock System to 1720.* Vol. II, *Companies for Foreign Trade, Colonization, Fishing and Mining.* Vol. III, *Water Supply, Postal, Street-Lighting, Manufacturing, Banking, Finance, and Insurance Companies; also Statements relating to the Crown Finances.*

Royal 8vo. Vol. I, pp. lvi+488. With a plate. Price 17s. net.
Vol. II, pp. x+504. With a map. Price 15s. net.
Vol. III, pp. xvi+564. With facsimile and chart. Price 18s. net.

Extract from the Preface

In the study of economic progress, more especially in relation to capital, the development of the joint-stock system occupies an important place. This method of organization became prominent at an early period in England, and the investigation of it has all the fascination arising out of the small beginnings of a type of association which eventually attained great magnitude....At the present time joint-stock management has been standardized. In the sixteenth and seventeenth centuries methods were still to be discovered, and the conflict between different practices is suggestive and instructive. Not only were the methods new, but the system itself was applied to enterprises which were then novel. Thus early companies were concerned in voyages of discovery, privateering, foreign trade, the exploiting of new inventions and the financing of the government....After much consideration, I decided to place the comparative portion in the first volume, assigning to the second and the third the accounts of the individual companies. Accordingly, the first part of the work consists of an attempt to record the beginning and the development of the joint-stock system during the first important stage of its history, namely till the year 1720.

Economist. The author has done so much to elucidate a most interesting, but most neglected period of our economic history...He deserves all praise for the careful and penetrating research which has given us the history of early joint-stock enterprise in a concise and accessible form. The work is full of scholarly research.

Electromagnetic Radiation, and the Mechanical Reactions arising from it. Being an Adams Prize Essay in the University of Cambridge. By G. A. Schott, B.A., D.Sc., Professor of Applied Mechanics in the University College of Wales, Aberystwyth; formerly Scholar of Trinity College, Cambridge.

Large Royal 8vo. pp. xxii+330. Price 18s. net.

Extract from the Preface

In consequence of the discoveries of the last few years in the fields of radioactivity, vacuum-tube phenomena, magnetism and radiation, a great need has arisen for a comprehensive Electron Theory of Matter, which shall systematize the results already achieved as well as serve as a guide in future researches....It is desirable, before attempting to frame any comprehensive Electron Theory of Matter, to develop the theory of moving electric charges with as few restrictions respecting their structure and motion as possible. When expressions for the electromagnetic field due to them have been obtained, the radiation from them and the mechanical reaction on them can be calculated; the former depends on the field at a great distance, the latter on that inside them. The object of this essay is to carry out these preliminary investigations, to provide, as it were, prolegomena to any future Electron Theory of Matter.

CONTENTS

Fundamental Equations of the Electron Theory—Transformation of the Potentials—Other Types of Solution—Physical Interpretation of the Solutions Obtained—Illustrative Examples—Remarks on the Solutions Obtained and on the Methods of Calculating the Potentials in General—Periodic Motions—On the Distant Field Due to a Moving Charge—Pseudo-Periodic and Aperiodic Motions—On the Field near the Orbit of a Moving Charge or Group—The Mechanical Forces acting on Electric Charges in Motion—The Motion of Groups in Electric Charges.

Appendices :—On the Doppler Effect—On the Disturbed Motion of a Ring of Electrons—On the Field Close to a Point Charge in Motion—The Mechanical Force Exerted by an Electron on Itself—The Mechanical Explanation of the Electron—The Mechanics of the Lorentz Electron—Problems Illustrative of the Motion of the Lorentz Electron.

Index.

Statics : including Hydrostatics and the Elements of the Theory of Elasticity. By Horace Lamb, Sc.D., LL.D., F.R.S., formerly Fellow of Trinity College, Cambridge; Professor of Mathematics in the Victoria University of Manchester.

Demy 8vo. pp. xii + 342. Price 10s. 6d. net.

Extract from the Preface

This book contains, with some modifications, the substance of lectures which have been given here [the University of Manchester] for some years. It is intended for students who have already some knowledge of elementary Mechanics, and who have arrived at the stage at which they may usefully begin to apply the methods of the Calculus. It deals mainly with two-dimensional problems, but occasionally, where the extension to three dimensions is easy, theorems are stated and proved in their more general form.

The present volume differs from many academical manuals in the prominence given to geometrical methods and in particular to those of Graphical Statics. These methods, especially in relation to the theory of frames, have imported a new interest into a subject which was in danger of becoming fossilized. I have not attempted, however, to enter into details which are best learned from technical treatises, or in engineering practice....

The examples for practice have been selected (or devised) with some care, and it is hoped that most of them will serve as genuine illustrations of statical principles rather than as exercises in Algebra or Trigonometry.

CONTENTS

Theory of Vectors—Statics of a Particle—Plane Kinematics of a Rigid Body—Plane Statics—Graphical Statics—Theory of Frames—Work and Energy—Analytical Statics—Theory of Mass-Systems—Flexible Chains—Laws of Fluid Pressure—Equilibrium of Floating Bodies—General Conditions of Equilibrium of a Fluid—Equilibrium of Gaseous Fluids—Capillarity—Strains and Stresses—Extension of Bars—Flexure and Torsion of Bars—Stresses in Cylindrical and Spherical Shells.

The Collected Mathematical Papers of James Joseph Sylvester, F.R.S., D.C.L., LL.D., Sc.D., sometime Hon. Fellow of St John's College, Cambridge; Professor at University College, London; at the University of Virginia; at the Royal Military Academy, Woolwich; at the Johns Hopkins University, Baltimore, and Savilian Professor in the University of Oxford. Volume IV (1882–1894). Edited by H. F. Baker, Sc.D., F.R.S., Fellow of St John's College, Cambridge.

Royal 8vo. pp. xxviii+756. With a photogravure portrait and medallion. Price 18s. net

Extract from the Prefatory Note

The present volume contains Sylvester's Constructive Theory of Partitions, papers on Binary Matrices, and the Lectures on the Theory of Reciprocants. There is added an Index to the four volumes, and a Biographical Notice of Sylvester. The Mathematical Questions in the *Educational Times* are as yet unedited, but an Index to them is appended.

Scientific Papers. By John William Strutt, Baron Rayleigh, O.M., Sc.D., F.R.S., Chancellor of the University of Cambridge, Professor of Natural Philosophy in the Royal Institution. Vol. V, 1902–1910.

Royal 8vo. pp. xiv+624. Price 15s. net.

With the publication of Volume V, which completes the work, the *Scientific Papers* of Lord Rayleigh down to the year 1910 are made available in a convenient form.

Extract from the Prefatory Note to Volume I

The papers of the present Collection are reprinted very nearly as they originally appeared, and with a few partial exceptions in order of date. Obvious misprints have been corrected, in several cases with the aid of the original manuscript. Other alterations of the slightest significance are indicated by the use of square brackets [], while additional matter is introduced with the proper date in the form of footnotes or at the end of a memoir. In a few cases, where it has not been thought worth while to reproduce a paper in full, a brief statement of the principal results is given.

Some short papers of a rather slender character have been included. These may serve to mitigate the general severity.

Collected Papers in Physics and Engineering. By James Thomson, D.Sc., LL.D., F.R.S., Professor of Engineering in Queen's College, Belfast, and afterwards in the University of Glasgow. Selected and arranged with unpublished material and brief annotations by Sir Joseph Larmor, D.Sc., LL.D., Sec. R.S., M.P., and James Thomson, M.A. With an obituary notice by Dr J. T. Bottomley, F.R.S., and a biographical sketch.

Demy 8vo. pp. civ+484. With a portrait.

Extract from the Preface

It is well known that the scientific activity of James Thomson has left permanent marks on the history of several branches of physical science....The main characteristic of James Thomson's mind was the marked originality of his way of looking at scientific problems, arising in part perhaps from a combination...of the abstract physical with the practical engineering interest, but also fostered by the independent and unconventional character of his scientific education. This quality was united with singular persistence in brooding over a train of thought, and following it out into all relevant details and ramifications.

Higher Algebra for Colleges and Secondary Schools.

By Charles Davison, Sc.D., Mathematical Master at King Edward's High School, Birmingham.

Demy 8vo. pp. viii+320. Price 6s.

Extract from the Preface

The present volume is a continuation of my *Algebra for Secondary Schools*, published four years ago. It includes, I hope, all the subjects from the binomial theorem onwards which are usually read in the ordinary course of a university college and in the upper classes of secondary schools.

In the introductory part, I have re-traversed, though more fully, some of the ground occupied by the earlier volume. The theory of partial fractions and of complex quantity is treated at somewhat greater length than usual.... The second part deals with finite and infinite series; the third with inequalities, approximations and limits in what seems their natural order....The fourth part gives as much of the theory of equations as will be required by most readers.

Algebra for Beginners. By C. Godfrey, M.V.O., M.A.,
Head Master of the Royal Naval College, Osborne, and
A. W. Siddons, M.A., Assistant Master at Harrow School.

Crown 8vo. pp. xii+236. Price, with answers, 2s. 6d.; without answers, 2s.

Extract from the Preface

In *Algebra for Beginners* the authors have followed the lines laid down in the Report of the Mathematical Association Committee on the teaching of Elementary Algebra and Numerical Trigonometry (1911); they are also indebted for valuable ideas to the Board of Education Circular on the teaching of Geometry and Graphic Algebra (Circular 711, March 1909). The book will also be found to fit in with the Algebra Syllabus suggested by the Head Masters' Conference.

The beginner is not, as a rule, interested in the notation and processes of algebra unless he sees that they are useful to him.... The plan on which the earlier chapters are based, is as follows: the various notations are introduced gradually, each new item being introduced by a problem designed to show the usefulness of the notation in question; the notation is then mastered and exercises are given to ensure its correct application; finally in each case there is a short set of problems the solution of which involves the notation just learnt.

Numerical Trigonometry. By J. W. Mercer, M.A.,
Head of the Mathematical Department, Royal Naval
College, Dartmouth.

Crown 8vo. With answers. pp. x+158. Price 2s. 6d.

Extract from the Preface

It seems to be generally agreed that it is desirable to cut out a considerable amount of heavy manipulation from the elementary Arithmetic and Algebra Course and to use the time thus saved in giving the boy some acquaintance with numerical Trigonometry. [See Report on Teaching of Elementary Algebra and Numerical Trigonometry issued by the Mathematical Association Committee, 1911.]... Young boys with no particular mathematical bent are found to take very kindly to this numerical Trigonometry, more kindly indeed than to other parts of their elementary mathematics.... This book is an attempt to indicate the kind of work that can profitably be done, and the contents are well within the powers of boys from 13 to 15 years of age.

Examples in Numerical Trigonometry. By E. A. Price, B.A., Assistant Master, R.N. College, Osborne.

Crown 8vo. With answers. pp. viii+90. Price 2s.

Extract from the Preface

This book is primarily a collection of graduated examples in Arithmetical Trigonometry and is intended to supply those pupils who do not devote much time to Mathematics with materials for applying Trigonometrical Ratios and their tabulated values in practical computation.

In most text-books the subject is treated as a formal branch of mathematics with a mass of definition, discussion and deductive proof, but for the purpose indicated above most of this matter is either superfluous or can easily be obtained by the pupil himself in working examples under supervision. In the experience of the writer such matter generally remains unread by the pupil, and it has therefore been omitted from this book as far as possible.

Analytical Geometry: A First Course. By C. O. Tuckey and W. A. Naylor, late Scholars of Trinity College, Cambridge, Assistant Masters at Charterhouse.

Crown 8vo. With answers. pp. xiv+368. Price 5s. net.

Extract from the Preface

This book is designed primarily to provide an interesting course of Analytical Geometry for those who are unable to devote a great deal of time to the subject, and especially to meet the requirements of Engineering, Science, and Army students. At the same time it is hoped that the arrangement adopted will not make the book less useful as a first course for Mathematical Specialists....In the large collection of over 1000 miscellaneous examples many (by the kind permission of the Controller of His Majesty's Stationery Office) are taken from Army papers, and many others are of a similar type, among which attention may perhaps be drawn to the examples on solid geometry: it is hoped that these will prove especially useful to Engineering and Army students. The examples are arranged so that those in the body of the chapters, those at the end, and the general miscellaneous examples form, if required, three independent courses of increasing difficulty.

Experimental Science, Part II: Chemistry. By
S. E. Brown, M.A. (Cantab.), B.A., B.Sc. (Lond.),
Headmaster of Liverpool Collegiate School, formerly
Senior Science Master at Uppingham.

Crown 8vo. pp. viii+140. Price 2s.

Extract from the Preface

The author claims to have been one of the first to put to a complete test in the laboratory the suggestions of that "inspiring tract"—the Report presented at the Newcastle-upon-Tyne meeting of the British Association by the Committee formed to investigate the methods of teaching chemistry. He wishes to record his indebtedness to that Committee, whose efforts set teachers of subjects other than Science thinking and experimenting. The path of adventure and discovery was opened to many a boy and girl who would otherwise have trodden the damp and muddy ways of test-tube analysis.

The short time available and the ever-changing classes render strict adherence to the "heuristic" method impracticable, while many recent discoveries give us direct paths which make it tedious and unnecessary to follow the "historic" method. The course given in this book is the result of experience. It should be completed in two years by a class (aged from 12 to 16 years) working for two hours per week. There is constant reiteration of fundamental facts and very little revision should be necessary if the examples are systematically set and exacted for home-work...

The Junior Chemistry papers of the Oxford and Cambridge Examinations (especially those in Experimental Science), and of the College of Preceptors, the Board of Education and the Army Qualifying Examinations may be successfully taken after completing this course.

Educational News. This is a well-printed and excellently designed little book, which holds a middle course between the purely 'heuristic' and the older 'historic' methods. The experiments given are interesting and up-to-date, while the questions set are searching and stimulating. The illustrations are simple, and on the very lines by which pupils are trained to draw their own.

Athenaeum. The distinguishing feature of this book is that it teems with clearly expressed accounts of well-chosen experiments that must be made by the student in order that the principles of the science may be intelligently grasped.

[Part I, *Physics*, will be ready shortly.]

The Structure of the Atmosphere in Clear Weather.
A Study of Soundings with pilot balloons. By C. J. P.
Cave, M.A.

Demy 4to. pp. xii+144. With 80 figures and diagrams. Price 10s. 6d. net.

Extract from the Introduction

The investigation of the wind currents of the air above the surface layers is one of the greatest importance in the study of meteorology; one reason for the slow advance made by this science in the last fifty years is to be found in the fact that until quite recently meteorologists only took note of the part of the atmosphere that was close to the surface of the earth, and beyond some cloud observations and a few isolated records, such as those obtained by Glaisher, nothing was known of the conditions existing in the free air. The recent rise of aviation and its probable extension in the near future make it more than ever necessary to investigate the nature of the currents in the free air above the surface of the earth.

During the last few years the conditions of temperature, humidity, and wind have been investigated by means of kites carrying self-recording instruments to very considerable heights. Free balloons carrying lighter instruments have continued these records to still higher regions, heights of 25 kilometres and more having been reached. The motion of such a balloon if accurately observed gives a record of the wind currents traversed by it in its ascent through the atmosphere. Such records may also be obtained by small balloons that carry no instrument when they are followed by means of a theodolite during their ascent. The following pages give some account of the investigation of the upper air by means of such observations, some of the records having been obtained from balloons carrying instruments and others from small free balloons carrying nothing beyond a stamped label to be posted if the burst balloon should be found after it reaches the earth.

Manchester Guardian. The author places in our hands a new machinery for examining the causes of observed surface variation of air currents, and supplies a working hypothesis that may be of the greatest service in advancing meteorological science.

The Gateways of Knowledge. An Introduction to the Study of the Senses. By J. A. Dell, M.Sc. (Vict.).

The Cambridge Nature Study Series. Large Crown 8vo. pp. xii + 172.
With 51 illustrations. Price 2s. 6d. net.

Extract from the General Editor's Preface

Mr Dell has written on the Study of the Senses, on simple experimental psychology. Nature Study has been praised as a training in observation, and as, in the use of the telescope, the astronomer must study the error of the instrument, so, where that instrument is the naked eye, the naturalist must learn what tricks it may play him...

That part of Nature which is most accessible for exploration in a school classroom is human nature—boy nature—“The proper study of mankind is man.” Here, Mr Dell has shown us a proper way—the scientific way—of studying the mind of boy.

Hitherto, the laboratory psychologist has often regarded the schoolmaster as too untrained and too ignorant to be a competent ally as an experimenter in mental fields. Nor has the schoolmaster been altogether willing to regard his classroom as chiefly an exploration ground for the rambling psychological explorer. But now these studies are beginning to interest the rising generation of schoolmasters....

In the last sixty years methods of education have become increasingly practical, hence abundant and varied practical exercises are suggested. Complete instructions are given for these exercises so that the book shall be intelligible in the absence of a teacher. The proposed practical work is not only what might be done by eager boys and girls on half holidays, but what can be done by every pupil in the course of ordinary school work. The pictorial illustrations chosen are aids to observation, not substitutes. Sufficient directions are given for the supply of necessary material.

Nature. As for the book itself, it is deserving of the highest praise. The text is most clearly written. The experiments demand the simplest apparatus conceivable. Exercises and problems upon the experiments are scattered through the book. There are chapters on the brain and sense organs, on touch, heat, cold, and pain, on the machinery and experience of movement, on taste, smell, hearing, on light and the eye, on how the eye is used in seeing, on the experience of sight, on action, and on memory.

CAMBRIDGE COUNTY GEOGRAPHIES

General Editor: F. H. H. GUILLEMARD, M.A., M.D.

A series of County Geographies, price 1s. 6d. each, suitable for general use as hand-books to the various counties and also intended for use in schools. Each volume gives an account of the history, antiquities, architecture, natural history, industries, and physical, geological, and general characteristics of the county, and each has two coloured maps (one physical and the other geological) and a large number of photographic illustrations.

The latest additions to the series are:—

- Dumfriesshire.* By the Rev. J. K. Hewison, D.D.
Forfarshire. By E. S. Valentine, M.A.
North Lancashire. By J. E. Marr, Sc.D., F.R.S.
Perthshire. By Peter Macnair, F.R.S.E., F.G.S.
Radnorshire. By Lewis Davies.
Renfrewshire. By F. Mort, M.A., B.Sc., F.G.S.

The following volumes have already been published, viz. :—

- | | |
|-----------------------------------------------------------------------|-------------------------------------------------|
| <i>Aberdeenshire.</i> By A. Mackie. | <i>Huntingdonshire.</i> By W. M. Noble. |
| <i>Ayrshire.</i> By J. Foster. | <i>Kent.</i> By G. F. Bosworth. |
| <i>Berkshire.</i> By H. W. Monckton. | <i>Lanarkshire.</i> By F. Mort. |
| <i>Breconshire.</i> By C. J. Evans. | <i>East London.</i> By G. F. Bosworth. |
| <i>Buckinghamshire.</i>
By A. Morley Davies. | <i>West London.</i> By G. F. Bosworth. |
| <i>Cambridgeshire.</i> By Prof. T. McK.
Hughes and Mary C. Hughes. | <i>The Isle of Man.</i> By J. Quine. |
| <i>Carnarvonshire.</i> By J. E. Lloyd. | <i>Midlothian.</i> By A. McCallum. |
| <i>Cheshire.</i> By T. A. Coward. | <i>Monmouthshire.</i> By H. A. Evans. |
| <i>Cornwall.</i> By S. Baring-Gould. | <i>Norfolk.</i> By W. A. Dutt. |
| <i>Cumberland.</i> By J. E. Marr. | <i>Northamptonshire.</i> By M. W. Brown. |
| <i>Derbyshire.</i> By H. H. A. Bemrose. | <i>Nottinghamshire.</i>
By H. H. Swinnerton. |
| <i>Devonshire.</i> By F. A. Knight and
Louie M. Dutton. | <i>Oxfordshire.</i> By P. H. Ditchfield. |
| <i>Dorset.</i> By A. L. Salmon. | <i>Somerset.</i> By F. A. Knight. |
| <i>Essex.</i> By G. F. Bosworth. | <i>Suffolk.</i> By W. A. Dutt. |
| <i>Fifehire.</i> By E. S. Valentine. | <i>Surrey.</i> By G. F. Bosworth. |
| <i>Gloucestershire.</i> By H. A. Evans. | <i>Sussex.</i> By G. F. Bosworth. |
| <i>Hertfordshire.</i> By R. Lydekker. | <i>Westmorland.</i> By J. E. Marr. |
| | <i>Wiltshire.</i> By A. G. Bradley. |
| | <i>Worcestershire.</i> By L. J. Wills. |

Volumes on the remaining counties of England, Scotland, and Wales are in an active state of preparation; arrangements for a series of Irish geographies have also been made.

CAMBRIDGE MANUALS OF SCIENCE AND
LITERATURE

Editors: P. GILES, Litt.D., Master of Emmanuel College
A. C. SEWARD, M.A., F.R.S., Professor of Botany
in the University of Cambridge

FIFTY VOLUMES NOW READY.

Price: 1s. net in cloth;
2s. 6d. net in lambskin.

The latest additions to the series are:—

- China and the Manchus.* By Prof. H. A. Giles, LL.D.
The Civilisation of Ancient Mexico. By Lewis Spence.
Brasses. By J. S. M. Ward, B.A., F.R.Hist.S.
The Individual in the Animal Kingdom. By Julian
S. Huxley, B.A.
House Flies and how they spread Disease. By
C. G. Hewitt, D.Sc.
The Work of Rain and Rivers. By T. G. Bonney,
Sc.D., LL.D., F.R.S.
The Psychology of Insanity. By Bernard Hart, M.D.
Brewing. By A. Chaston Chapman, F.I.C.

The following volumes have already been published:—

History and Archaeology.

- Ancient Assyria.* By Rev. C. H. W. Johns, Litt.D.
A History of Civilisation in Palestine.
By Prof. R. A. S. Macalister, M.A.,
F.S.A.
New Zealand. By the Hon. Sir
Robert Stout, K.C.M.G., LL.D.,
and J. Logan Stout, LL.B. (N.Z.).
*The Ground Plan of the English
Parish Church.* By A. Hamilton
Thompson, M.A., F.S.A.
*The Historical Growth of the English
Parish Church.* By A. Hamilton
Thompson, M.A., F.S.A.

Literary History.

- Early Religious Poetry of the Hebrews.*
By the Rev. E. G. King, D.D.
Early Religious Poetry of Persia.
By the Rev. Prof. J. Hope Moulton,
D.D., D.Theol. (Berlin).
The History of the English Bible.
By the Rev. John Brown, D.D.
*English Dialects from the Eighth
Century to the Present Day.* By
the Rev. Prof. W. W. Skeat,
Litt.D., D.C.L., F.B.A.
King Arthur in History and Legend.
By Prof. W. Lewis Jones, M.A.

CAMBRIDGE MANUALS—CONTINUED

Literary History (*continued*)

- Greek Tragedy.* By J. T. Sheppard, M.A.
The Ballad in Literature. By T. F. Henderson.
Goethe and the Twentieth Century. By Prof. J. G. Robertson, M.A., Ph.D.
The Troubadours. By the Rev. H. J. Chaytor, M.A.

Philosophy and Religion.

- The Idea of God in Early Religions.* By Dr F. B. Jevons.
The Moral Life and Moral Worth. By Prof. Sorley, Litt.D., F.B.A.
The English Puritans. By the Rev. John Brown, D.D.
An Historical Account of the Rise and Development of Presbyterianism in Scotland. By the Rt Hon. the Lord Balfour of Burleigh, K.T., G.C.M.G.
Methodism. By Rev. H. B. Workman, D.Lit.

Education.

- Life in the Medieval University.* By R. S. Rait, M.A.

Economics.

- Cash and Credit.* By D. A. Barker, I.C.S.

Law.

- The Administration of Justice in Criminal Matters (in England and Wales).* By G. Glover Alexander, M.A., LL.M.

Biology.

- The Coming of Evolution.* By Prof. J. W. Judd, C.B., F.R.S.
Heredity in the Light of Recent Research. By L. Doncaster, M.A.
Primitive Animals. By Geoffrey Smith, M.A.

Biology (*continued*)

- Life in the Sea.* By James Johnstone, B.Sc.
The Migration of Birds. By T. A. Coward.
Spiders. By Cecil Warburton, M.A.
Earthworms and their Allies. By F. E. Beddard, M.A., F.R.S.

Anthropology.

- The Wanderings of Peoples.* By Dr A. C. Haddon, F.R.S.
Prehistoric Man. By Dr W. L. H. Duckworth.

Geology.

- Rocks and their Origins.* By Prof. Grenville A. J. Cole.
The Natural History of Coal. By Dr E. A. Newell Arber.
The Natural History of Clay. By Alfred B. Searle.
The Origin of Earthquakes. By Charles Davison, Sc.D., F.G.S.

Botany.

- Plant-Animals: a Study in Symbiosis.* By Prof. F. W. Keeble, Sc.D.
Plant-Life on Land. By Prof. F. O. Bower, Sc.D., F.R.S.
Links with the Past in the Plant-World. By Prof. A. C. Seward, F.R.S.

Psychology.

- An Introduction to Experimental Psychology.* By Dr C. S. Myers.

Industrial and Mechanical Science.

- The Modern Locomotive.* By C. Edgar Allen, A.M.I.Mech.E.
Aerial Locomotion. By E. H. Harper, M.A., and Allan E. Ferguson, B.Sc.
Electricity in Locomotion. By A. G. Whyte, B.Sc.

A LIST OF FURTHER PUBLICATIONS

- Catalogue of the Books and Papers for the most part relating to the University, Town and County of Cambridge, bequeathed to the University by John Willis Clark, M.A., Registrar of the University and formerly Fellow of Trinity College. By A. T. Bartholomew, M.A., of Peterhouse, Cambridge. Demy 8vo. with frontispiece. 7s. 6d. net.*
- Fitzwilliam Museum, McClean Bequest: Catalogue of the Mediaeval Ivories, Enamels, Jewellery, Gems and Miscellaneous Objects bequeathed to the Museum by Frank McClean, M.A., F.R.S. By O. M. Dalton, M.A. Large Royal 8vo. With 27 plates. 7s. 6d. net.*
- A Descriptive Catalogue of the McClean Collection of Manuscripts in the Fitzwilliam Museum. By Montague Rhodes James, Litt.D., F.B.A., F.S.A., Hon. Litt.D. Dublin, Hon. LL.D. St Andrews, Provost of King's College, late Director of the Fitzwilliam Museum. Royal 8vo. With 108 plates. 25s. net.*
- A Bibliographical List Descriptive of Romano-British Architectural Remains in Great Britain. By Arthur H. Lyell, M.A., F.S.A. Demy 8vo. 7s. 6d. net.*
- The Journal of Agricultural Science. Edited by Professor R. H. Biffen, M.A., A. D. Hall, M.A., F.R.S., and R. C. Punnett, M.A. Royal 8vo. Vol. IV, Part 4. 5s. net.*
- The Journal of Genetics. Edited by W. Bateson, M.A., F.R.S., and R. C. Punnett, M.A. Royal 8vo. Vol. II, Part 2. 10s. net.*
- The Journal of Hygiene. Edited by G. H. F. Nuttall, M.D., F.R.S. Royal 8vo. Vol. XII, Parts 1 and 2. 7s. net each.*
- Parasitology. Edited by G. H. F. Nuttall, F.R.S., and A. E. Shipley, F.R.S. Royal 8vo. Vol. V, Parts 2 and 3. 10s. net each.*

FURTHER PUBLICATIONS—CONTINUED

The British Journal of Psychology. Edited by W. H. R. Rivers and C. S. Myers. Royal 8vo. Vol. V, Part 2. 6s. net.

The Modern Language Review. Edited by J. G. Robertson, G. C. Macaulay, and H. Oelsner. Vol. VII, Part 3. 4s. net.

The Epistle to the Hebrews. An Experiment in Conservative Revision. By Two Clerks. Super Royal 8vo. In limp buckram. 2s. 6d. net.

Parerga Coptica. Conscriptit Stephanus Gaselee, A.M., Collégii sanctae Mariae Magdalenae apud Cantabrigienses socius et bibliothecarius.

I. De XXIV Senioribus Apocalypticis et Nominibus Eorum. Large Royal 8vo. 2s. 6d. net.

History of Scotland to the Present Time. New Illustrated Library Edition. By P. Hume Brown, M.A., LL.D., F.B.A., Historiographer-Royal for Scotland, and Fraser Professor of Ancient (Scottish) History in the University of Edinburgh. In three volumes. Royal 8vo. With 132 full-page plates and 11 maps. Now issued in half morocco binding, gilt top. Price 50s. net.

Edmund Burke: Speech on Conciliation with America. Edited by Arthur D. Innes, M.A. Extra fcap. 8vo. 1s. 6d.

Stories from Chaucer. Retold from The Canterbury Tales, with Introduction and Notes, by Margaret C. Macaulay. Crown 8vo. With 29 illustrations from old MSS. 1s. 6d. Also published without Introduction and Notes. 1s.

George Eliot: Silas Marner, The Weaver of Raveloe. Edited with Introduction and Notes by F. E. Bevan, Classical Tripos, Newnham College, Cambridge, Headmistress of the County High School, Carlisle. Extra fcap. 8vo. 1s.

FURTHER PUBLICATIONS—CONTINUED

Erkmann-Chatrian: Waterloo. Edited with Introduction and Notes by A. R. Ropes, M.A., late Fellow of King's College, Cambridge. Extra fcap. 8vo. Re-issue with vocabulary at the reduced price of 2s.

Saintine: Picciola. A new edition edited with Introduction and Notes by A. R. Ropes, M.A., late Fellow of King's College, Cambridge. Extra fcap. 8vo. Re-issue with vocabulary at 2s.

William Hauff: Die Karavane. Edited by A. Schlottmann, Ph.D. Re-issue with vocabulary at 3s.

The Method of Archimedes recently discovered by Heiberg. A supplement to the Works of Archimedes 1897. Edited by Sir Thomas L. Heath, K.C.B., Sc.D., F.R.S., sometime Fellow of Trinity College, Cambridge. Crown 8vo. Paper covers. 2s. 6d. net.

Examples in Applied Electricity. By C. G. Lamb, M.A., B.Sc., A.M.I.E.E., Clare College, Cambridge. Crown 8vo. Paper covers. 2s. 6d. net.

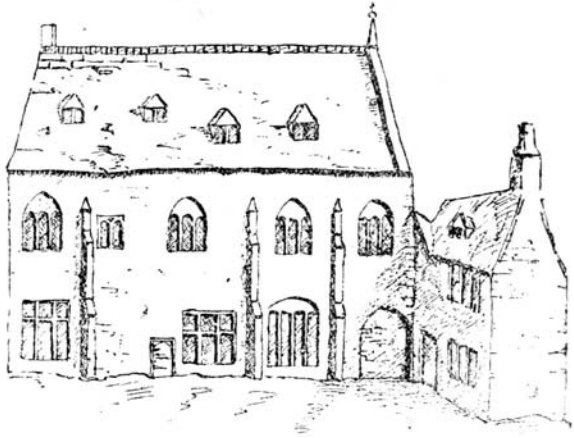
Examples from a Geometry for Schools. By F. W. Sanderson, M.A., Headmaster of Oundle School, and G. W. Brewster, M.A., Assistant Master in Oundle School. Extra fcap. 8vo. With or without answers. 1s. 6d.

Exercises from the Calculus for Beginners. By J. W. Mercer, M.A., Head of the Mathematical Department, Royal Naval College, Osborne, Author of Trigonometry for Beginners. Crown 8vo. 3s.

The Student's Handbook to the University of Cambridge. Eleventh edition. Revised to 30 June, 1912. 3s. net.

The Cambridge Pocket Diary for the Academical Year, 1912-13. Bound in roan, gilt edges, 1s. net; in Persian Calf with pocket and pencil, 2s. net; in Russia extra with pocket and pencil, 2s. 6d. net.

Cambridge: Printed at the University Press.



**House occupied by Thomas Buck, M.A.,
University Printer 1627 (?)—1653.**

LONDON SCHOOL OF TROPICAL MEDICINE

(UNIVERSITY OF LONDON)

Under the Auspices of His Majesty's Government

CONNAUGHT ROAD, ALBERT DOCKS, E.

In connection with the Albert Dock Hospital of the SEAMEN'S HOSPITAL SOCIETY

THE SEAMEN'S HOSPITAL SOCIETY was established in the year 1821 and incorporated in 1883, and from time to time has been enlarged and extended. It now consists of the Dreadnought Hospital, Greenwich, to which is attached the London School of Clinical Medicine; the Royal Victoria and Albert Docks Hospital; the East and West India Docks Dispensary; and the Gravesend Dispensary.

Over 30,000 Patients treated annually. Of this number many are cases of Tropical Diseases.

The School buildings are situated within the grounds of the Royal Victoria and Albert Docks Hospital.

MEDICAL STAFF OF THE HOSPITAL AND LECTURERS IN THE TROPICAL SCHOOL

JAS. CANTLIE, Esq., M.B. F.R.C.S.,
D.P.H.

L. VERNON CARGILL, Esq., F.R.C.S.

E. TREACHER COLLINS, Esq., F.R.C.S.

C. W. DANIELS, Esq., M.B., M.R.C.P.,
M.R.C.S.

KENNETH W. GOADBY, Esq.,
D.P.H. (CAMB.), M.R.C.S., L.R.C.P.,
L.D.S.R.C.S.

PROF. R. TANNER HEWLETT, M.D.,
F.R.C.P.

G. C. LOW, Esq., M.A., M.D., C.M.

J. M. H. MACLEOD, Esq., M.D., M.R.C.P.

SIR PATRICK MANSON, G.C.M.G.,
F.R.S., LL.D., M.D., F.R.C.P.

L. W. SAMBON, Esq., M.D.

FLEMING MANT SANDWITH, Esq.,
M.D., F.R.C.P.

PROF. W. J. SIMPSON, C.M.G., M.D.,
F.R.C.P.

H. WILLIAMS, Esq., M.D., M.R.C.P.,
D.P.H. (CAMB.)

Dean—SIR F. LOVELL, C.M.G., LL.D.

Entomologist—COLONEL A. ALCOCK, I.M.S., C.I.E., F.R.S.

Helminthologist—R. T. LEIPER, Esq., D.Sc., M.B., Ch.B., F.Z.S.

Protozoologist—C. M. WENYON, Esq., M.B., B.S., B.Sc.

Director—H. B. NEWHAM, Esq., M.R.C.S., L.R.C.P., D.P.H., D.T.M. & H. (CAMB.)

Secretary—P. J. MICHELLI, Esq., C.M.G.

Lectures and Demonstrations daily by Members of the Staff

There are three Sessions yearly of three months each, viz., from October 1st to December 31st, from January 15th to April 14th, and from May 1st to July 31st inclusive. Women Graduates are received as Students.

Certificates are granted after Examination at the end of each Session, and the course is accepted by Cambridge University as Qualifying for admission to their Examination for the Diploma in Tropical Medicine and Hygiene, and by London University as Study for the M.D. in Branch VI (Tropical Medicine).

Fee for course £16. 16s.; shorter periods by arrangement

Additional Special Courses are held in Entomology and in Veterinary Helminthology. There are also Advanced Courses each Session in Medical Zoology, Protozoology, Entomology and Helminthology.

Students can be provided with Board and Residence, or partial Board, at the School.

Medical men requiring posts in the Tropics may apply to the Secretary at the School, where a Register is kept.

A syllabus, with the various courses of study, can be had on application to the Secretary, from whom further information may be obtained.

Students of the London School of Tropical Medicine who join the London School of Clinical Medicine will be allowed an abatement on their fees and *vice versa*.

Chief Office—SEAMEN'S HOSPITAL, GREENWICH, S.E.

CONTENTS

(All rights reserved)

	PAGE
ARKWRIGHT, JOSEPH A. An Epidemic Disease affecting Salmon and Trout in England during the Summer of 1911	391
CHICK, HARRIETTE. The Bactericidal Properties of Blood Serum. I. The Reaction-Velocity of the Germicidal Action of Normal Rabbit-Serum on <i>B. coli commune</i> and the Influence of Temperature thereon. (With 4 Charts)	414
COOPER, E. A. On the Protective and Curative Properties of Certain Foodstuffs against Polyneuritis induced in Birds by a Diet of Polished Rice	436
CLEMESHA, W. WESLEY. A Criticism of Dr A. C. Houston's Report on the Biological Characters of <i>B. coli</i> isolated from (1) Raw, (2) Stored River Water, and (3) Stored and Filtered Water	463
HUNT, E. H. The Regulation of Body Temperature in Extremes of Dry Heat	479
MASSE, G. On the Discoloured Spots sometimes present on Chilled Beef, with Special Reference to "Black Spot." (With Plates VI and VII)	489
BASSETT-SMITH, P. W. The Diagnosis and Treatment of Undulant or Mediterranean Fever. (With 2 Charts and Plate VIII)	497
MACCONKEY, ALFRED. On the Toxin Production of the Diphtheria Bacillus. (With 4 Charts)	507
MACCONKEY, ALFRED. On the Loss in Potency of Diphtheria Antitoxin when kept at 36° C. (With 3 Charts)	511
TEBBUTT, HAMILTON. On the Influence of the Metamorphosis of <i>Musca domestica</i> upon Bacteria administered in the Larval Stage	516
PENFOLD, W. J. and NORRIS, DOROTHY. The Relation of Concentration of Food Supply to the Generation-time of Bacteria. (With 3 Charts)	527
INDEX OF AUTHORS	532
INDEX OF SUBJECTS	534

The Journal of Hygiene is issued as material accumulates. A volume containing about 500 pages, with plates and figures, is issued annually.

Volumes I, II, and III (1901-3) complete. In Four Parts, paper covers, 15s. net per volume. Bound in buckram, 18s. 6d. net per volume.

Volumes IV, V, VI, VII, VIII, IX, X, XI and XII (1904-12) complete. In Parts, paper covers, 21s. net per volume. Bound in buckram, 25s. net per volume.

Papers for publication may be sent to Prof. GEO. H. F. NUTTALL, F.R.S., 3 Cranmer Road, Cambridge, or to the associate Editors. Other communications should be addressed to the University Press, Cambridge.

Papers forwarded to the Editors for publication are understood to be offered to the *Journal of Hygiene* alone, unless the contrary is stated.

Contributors receive seventy-five copies of their papers free. Additional copies may be had at cost price: these should be ordered when the final proof is returned.

The subscription price is £1. 1s. per volume (post-free), payable in advance; single numbers 7s. net. Subscriptions may be sent to any Bookseller, or to MR C. F. CLAY, MANAGER, Cambridge University Press, Fetter Lane, London, E.C.

Plague Numbers, Vol. VI. no. 4 (not sold separately), Vol. VII. nos. 3 and 6, and Vol. VIII. no. 2, Vol. X. no. 3, Price 6s. net each. Bound volumes containing all five numbers, with Index, are also issued, price 20s. net.

A new series of Plague Supplements is now being issued; the first of these, which is now ready, contains the Sixth Report on Plague Investigations in India. They will be, in pagination, completely independent of the Journal although subscribers to the latter will receive copies without extra cost. Price to non-subscribers 7s. net.