

THE CAMBRIDGE PUBLIC HEALTH SERIES

Under the Editorship of

G. S. GRAHAM-SMITH, M.D., AND J. E. PURVIS, M.A.

Occupations from the Social, Hygienic, and Medical Points of View.
By Sir THOMAS OLIVER, M.A., M.D., LL.D., D.Sc., F.R.C.P., Professor
of the Principles and Practice of Medicine, University of Durham.
Demy 8vo. 6s. net.

**The Chemical Examination of Water, Sewage, Foods and
other Substances.** By J. E. PURVIS, M.A., University Lecturer in
Chemistry and Physics as applied to Hygiene and Public Health,
Cambridge, and T. R. HODGSON, M.A., Public Analyst for the County
Boroughs of Blackpool and Wallasey. Demy 8vo. 9s. net.

The Bacteriological Examination of Food and Water. By
WILLIAM G. SAVAGE, B.Sc., M.D., D.P.H., County Medical Officer of
Health, Somerset. Demy 8vo. With 16 illustrations. 7s. 6d. net.

Sewage Purification and Disposal. By G. BERTRAM KERSHAW,
M.Inst.C.E., Consulting Engineer, Engineer to the Royal Commission
on Sewage Disposal. Demy 8vo. With 4 tables and 56 text-figures
and plans. 12s. net.

Post-mortem Methods. By J. MARTIN BEATTIE, M.A., M.D., Professor
of Bacteriology, University of Liverpool. Demy 8vo. With 8 plates
and 3 text-figures. 10s. 6d. net.

Isolation Hospitals. By H. FRANKLIN PARSONS, M.D., D.P.H., formerly
First Assistant Medical Officer of the Local Government Board. Demy
8vo. With 55 text-figures. 12s. 6d. net.

Infant Mortality. By HUGH T. ASHBY, B.A., M.D., B.C. (Camb).,
M.R.C.P. (London). Demy 8vo. With 9 illustrations. 10s. 6d. net.

Flies in Relation to Disease. Bloodsucking Flies. By EDWARD
HINDLE, B.A., Ph.D., Assistant to the Professor of Biology, Cambridge.
Demy 8vo. With 88 text-figures. 12s. 6d. net.

Flies in Relation to Disease. Non-Bloodsucking Flies. By
G. S. GRAHAM-SMITH, M.D., Lecturer in Hygiene in the University of
Cambridge. Demy 8vo. Second edition, revised and enlarged. With
27 plates, 32 text-figures and 20 charts. 12s. 6d. net.

A list of volumes in preparation will be sent on application

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

TYPICAL FLIES

A PHOTOGRAPHIC ATLAS OF DIPTERA, INCLUDING APHANIPTERA

By

E. K. PEARCE

With 155 photographs. Royal 8vo. Paper boards. 5s. net

"The work is exact'y what it professes to be. a collection of carefully-reproduced photographs of the flies which have their home in this country, and which, with few exceptions, are pests to human beings, animals and vegetable growth. It is a most illuminating collection, admirably arranged, and of interest alike to the naturalist and 'the Man in the Street.' The latter may be forgiven if he stands appalled at the variety of the flies depicted and the unpleasant and dangerous characteristics which distinguish the majority of them, and if he is not brought to realise the necessity for prompt and effectual methods of destruction he is indeed past praying for....These are only a few of the species 'fly' culled at random from Miss Pearce's exceedingly interesting book, but they are sufficient to make clear the fact that in the fly we have a subtle and real danger, and that it is the duty of everyone to combat it by the most effective means possible."—*Sanitary Record*

THE HOUSE-FLY

Musca domestica Linn.

ITS STRUCTURE, HABITS, DEVELOPMENT, RELATION TO
DISEASE AND CONTROL

By

C. GORDON HEWITT, D.Sc., F.R.S.C.

Dominion Entomologist of Canada, formerly Lecturer in Economic Zoology in the
University of Manchester

Cambridge Zoological Series. Demy 8vo. Pp. xvi + 382
With 104 illustrations and a map. Price 15s. net

The world-wide interest which has been created during the last few years in the relation which the house-fly bears to the hygienic state of the individual and of the community, as a product of insanitary conditions and as a potential and not infrequent disseminator of certain common and preventable infectious diseases, has rendered the presentation of our knowledge of this insect, its habits and relation to disease most desirable and, indeed, necessary as a means of appreciating its significance from the entomological and medical standpoint and as a basis for further investigation.

Although the present volume contains the whole of the original matter published in the *Quarterly Journal of Microscopical Science*, the extent of subsequent work by investigators in all the continents has necessitated the preparation of a completely new work.

HOUSE-FLIES AND HOW THEY SPREAD DISEASE

By

C. GORDON HEWITT, D.Sc., F.R.S.C.

Cambridge Manuals Series. Cloth, 1s. 3d. net; leather, 2s. 6d. net

"Dr Hewitt's little volume is especially comprehensive and well arranged. The book contains a bibliography and is sufficiently indexed and illustrated, making altogether, perhaps, as good a manual on the subject as could at the present state of our knowledge be produced in similar compass."—*Times*

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

CEREBRO-SPINAL FEVER

by MICHAEL FOSTER, M.A., M.D.

Captain Royal Army Medical Corps, Territorial Force

and J. F. GASKELL, M.A., M.D.

Captain Royal Army Medical Corps, Territorial Force

Large royal 8vo. pp. x + 222. With 11 plates, 5 charts,
and 3 text-figures. Price 12s 6d net

"As a result of their experience with cerebro-spinal fever during 1915 at the 1st Eastern General Hospital, Captains Michael Foster and J. F. Gaskell have written an excellent practical account of the disease, its pathology, bacteriology, and management....

The book is excellently arranged, well written, and full of practical details that make it invaluable for the medical man and laboratory workers who have to deal with cases of cerebro-spinal fever. It may be most warmly recommended to their attention."—*British Medical Journal*

"The book is far from being a mere compilation; it contains the record of much original and valuable work and thought, and must be referred to by other investigators upon cerebro-spinal fever.

The illustrations are excellent, and, what is more, fill a distinct want. To our knowledge no such full series of reproductions of the rashes of 'spotted fever' has hitherto been published."—*The Cambridge Review*

Cambridge University Press

OXFORD UNIVERSITY PRESS.

Quarterly Journal of Medicine. Edited by Sir WILLIAM OSLER, J. ROSE-BRADFORD, R. HUTCHISON, A. E. GARROD, H. D. ROLLESTON, and W. HALE WHITE. 8s 6d net per number. Annual Subscription, 25s.

Vol. X, Numbers 37 and 38, October 1916 and January 1917.

CONTENTS:—Septicaemia due to *Micrococcus tetragenus* as a Cause of Pyrexia at the Front, by A. H. BIRKS, R. T. THORNLEY, and R. A. FAWCUS.—A Study of the Metabolism in a Case of Amyotonia congenita, by F. POWIS and H. S. RAPER.—Records of Speech in General Paralysis, by E. W. SCRIPTURE. With Plate 1.—The Retinitis of Arterio-sclerosis, and its Relation to Renal Retinitis and to Cerebral Vascular disease, by R. FOSTER MOORE. With Plates 2-9.—On the Early Stages of wounds of the Chest, by W. P. HERRINGHAM.—Jaundice of Infective Origin, by BERTRAND DAWSON and WILLIAM E. HUME. With Plates 10-16.—Lipodystrophia progressiva, by F. PARKES WEBER.

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

The Study of Medicine in the British Isles: (The Fitz-Patrick Lectures). By NORMAN MOORE. 8vo, with 12 Collotype plates. 10s.6d net.

Plague and Pestilence in Literature and Art. By RAYMOND CRAWFURD. 8vo. 12s 6d net.

Science and The Great War, being the Romanes Lecture, 1915, delivered by E. B. POULTON in the University Museum. 8vo. 2s net.

A Critique of the Theory of Evolution. By T. H. MORGAN. (Vanuxem Lectures, 1915-16.) Demy 8vo, with 96 illustrations. 6s 6d net. (Princeton University Press.)

Heredity and Environment in the Development of Men. By E. G. CONKLIN. Second edition, revised. Demy 8vo, with 96 illustrations. 8s 6d net. (Princeton University Press.)

Complete Catalogue on application.

London: HUMPHREY MILFORD,
Oxford University Press, Amen Corner, E.C.

CONTENTS

(All rights reserved)

	PAGE
PRIESTLEY, H. The Mechanism of the Agglutination Reaction .	485
NICOLL, W. Flies and Typhoid	505
PHILIP, W. M. and HIRST, L. F. A Report on the Outbreak of the Plague in Colombo. 1914—1916. (With five Maps and one Chart)	527
PIRIE, J. H. HARVEY. Observations on East African Bacillary Dysentery	565
HOMER, A. On Factors Limiting the Extent of the Concentration of Antitoxic Sera by the Fractional Precipitation Methods at present employed	580
INDEX OF AUTHORS	591
INDEX OF SUBJECTS	593

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

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

Volumes IV—XIV (1904–14) 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., Longfield, Madingley 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.

The Cambridge University Press has appointed the University of Chicago Press agents for the sale of *The Journal of Hygiene* in the United States of America and has authorised them to charge the following prices: Subscription \$5.25 per volume; single numbers, \$1.75 each.

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 series of Plague Supplements has been issued; the first four of these contain Reports VI—IX on Plague Investigations in India. They are, in pagination, completely independent of the Journal although subscribers to the latter receive copies without extra cost. Price of Plague Supplements, i. and ii. 7s. net each; iii. 10s. net; iv. 7s. net. Plague Supplements i, ii, iii can also be supplied bound in buckram, price 20s. net. Further reports are in preparation.