

# THE CAMBRIDGE PUBLIC HEALTH SERIES

Under the Editorship of

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

The books included in this series present in a useful and handy form the knowledge now available in many branches of the subject. They are written by experts, and the authors are occupied, or have been occupied, either in investigations connected with the various themes or in their application and administration. It is hoped that the volumes will be useful to the medical profession at home and abroad, to bacteriologists and laboratory students, to municipal engineers and architects, to medical officers of health and sanitary inspectors and to teachers and administrators. Details of the four volumes already published will be found below, and a list of volumes in preparation will be sent on application.

**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*.

This book is intended for the use of students who are attending courses of instruction for diplomas and degrees in Public Health, and for those who are studying the chemistry of water, sewage, sewage effluents, foods, disinfectants, etc. during their ordinary laboratory practice. It will probably be also useful to those who are engaged as public analysts or in public health matters generally. It does not give an exhaustive account of all the available methods of examination, but it describes those which have been used and tested by the authors both in laboratory instruction and in the daily work of a public analyst.

**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*.

"A hearty welcome will be accorded this compact guide, not only because it is eminently practical in its methods and directions, but also because it has been written by a man who has been accustomed to do the work himself and to depend upon it as a basis for administrative action....To all engaged in the administration of the public health...the book may be cordially commended."—*Birmingham Daily Post*

**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*.

"The fact that the book is published at the Cambridge University Press is sufficient guarantee of the excellence of the printing and binding....We can only say that if the other volumes of this series...are as good as this one, a very high standard of excellence will have to be maintained. We consider that no one in the Public Health Service should be without this book."—*Medical Times* on the first edition

**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*.

"Eminently practical in character, it is at the same time complete in its information, so that the medical officer may rely with confidence on finding accurate and impartial facts on matters connected with the isolation of infectious cases....The volume should appeal very strongly to all medical officers of health, tuberculosis officers, and sanitary authorities, to whom it can be recommended with all heartiness."—*Aberdeen Free Press*

CAMBRIDGE UNIVERSITY PRESS, FETTER LANE, LONDON

C. F. CLAY, Manager

# 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 Manual Series. Cloth, 1s. 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*

## OBSERVATIONS UPON THE NATURAL HISTORY OF EPIDEMIC DIARRHOEA

By

O. H. PETERS, M.D., D.P.H.

Large Royal 8vo. With 38 tables and 9 charts. 7s. net

"Dr Peters has done his work in a thoroughly scientific manner...It is a valuable addition to the literature of a subject which yearly demands a toll of many thousand lives."—*Athenaeum*

"This monograph is a thoughtful and valuable contribution to the literature of a devastating disease, and deserves careful consideration by all who are concerned in its study."—*Lancet*

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

# 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.  
Vols. I-VII (Nos. 1-28). 35s. net per volume.

- The Anatomy of the Human Eye;** 67 stereoscopic photographs, in a box, with letterpress and key-plates. By ARTHUR THOMSON. £2. 2s. 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.
- First Principles of Hygiene.** By W. D. STURROCK. Crown 8vo. 2s. 6d.
- Healthy Dwellings.** By Sir D. GALTON. Second edition. 8vo. 10s. 6d.
- Healthy Hospitals.** By the same, with illustrations. 8vo. 10s. 6d.
- An Account of the Morisonian Herbarium** in the possession of the University of Oxford, together with Biographical and Critical Sketches of Morison and the two Bobarts and their Works, and the early history of the Physic Garden, 1617-1720. By S. H. VINES and G. CLARIDGE DRUCE. Crown 8vo, with 5 plates. 15s. net.
- Plague and Pestilence in Literature and Art.** By R. CRAWFURD. With 32 plates. 8vo. 12s. 6d. net.

*Times*:—"Dr Crawford's new book is admirable."

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

**H. K. LEWIS,**  
136, Gower Street,  
London, W.C.

Close to Euston Square Station,  
Warren Street (Tube Railways),  
and University College.

Telephone: Museum, 1072.  
Telegrams: "Publicavit, Eusroad,  
London."

### MEDICAL AND SCIENTIFIC CIRCULATING LIBRARY.

ANNUAL SUBSCRIPTION from ONE GUINEA.

The Library includes the widest range of subjects connected  
with Medicine, Surgery, Hygiene, and General Science.

Subscriptions may commence at any date, and books  
can be had AT ONCE.

LEWIS'S Quarterly List of New Books and New Editions added  
to the Library, and Detailed Prospectus, Post Free.

### PUBLISHER AND BOOKSELLER.

Completest Stock of Text-Books and Recent Literature in all  
Branches of Medicine and General Science.

SEND FOR PRICE LISTS.

## Parasitology

Edited by Professor G. H. F. NUTTALL, F.R.S., and A. E. SHIPLEY, F.R.S.,  
assisted by EDWARD HINDLE, Ph.D.

Published about four times a year. The current volume is Volume VII.

The subscription price is £1. 10s. net (\$7.50) per volume (post-free), payable in advance; single numbers 10s. net (\$2.50), double numbers 20s. net (\$5.00). Subscribers to *The Journal of Hygiene* may become subscribers to *Parasitology* at the reduced rate of £1. 1s. net (\$5.25) per volume.

LONDON: Cambridge University Press, Fetter Lane, C. F. CLAY, Manager

CHICAGO: The University of Chicago Press

# CONTENTS

(All rights reserved)

	PAGE
EASTWOOD, A. and GRIFFITH, F. Report to the Local Government Board on an Enquiry into Rat Plague in East Anglia during the period July—October, 1911. (With Map) . . . . .	285
MACALISTER, G. H. and BROOKS, R. ST JOHN. Report upon the Post-Mortem Examination of Rats at Ipswich . . . . .	316
BRADDON, W. L. and COOPER, E. A. The Influence of Metabolic Factors in Beri-Beri. Part I. The Effect of increasing the Carbohydrate Ration on the Development of Polyneuritis in Birds fed on Polished Rice . . . . .	331
GÓZONY, LAJOS, HINDLE, EDWARD and ROSS, PHILIP H. Serological Tests . . . . .	354
WARNER, CHARLOTTE E. The Thermoprecipitin Method in the Diagnosis of Bubonic Plague in Cadavers . . . . .	360
GLENNY, A. T. On Suggested Formulae connecting Dosage and Death Time. (With Four Charts) . . . . .	371
RITCHIE, JOHN. Note on the Non-Lactose Fermenters in Fresh Milk . . . . .	393
MCCRAE, J. The Phosphoric Oxide Content of Maize Flour . . . . .	395
SCHMIDT, HANS. Studies on the Effect exerted by Shaking on Serum . . . . .	399

*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—XIII (1904–13) 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 net per volume; single numbers, \$1.75 net 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. These five numbers can also be supplied bound in buckram, in two parts, for 20s. net.

A new series of Plague Supplements is now being issued; the first three of these, which are now ready, contain the Sixth, Seventh and Eighth Reports 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 of Plague Supplements, i. and ii. 7s. net each; iii. 10s. net. These three Supplements can also be supplied bound in buckram, price 20s. net.