Vol. 30, No. 4

November, 1930

THE

JOURNAL OF HYGIENE

EDITED BY

GEORGE H. F. NUTTALL, M.D., PH.D., Sc.D., LL.D., F.R.S.

QUICK PROFESSOR OF BIOLOGY, DIRECTOR OF THE MOLTENO INSTITUTE FOR BESEARCH IN PARASITOLOGY IN THE UNIVERSITY OF CAMBRIDGE

IN CONJUNCTION WITH

JOHN S. HALDANE, C.H., M.D., D.Sc., LL.D., F.R.S., Late Reader in Physiology in the University of Oxford. SIR CHARLES J. MARTIN, C.M.G., M.D., D.Sc., F.R.S., Professor of Experimental Pathology in the University of London

Director of the Lister Institute, London.

J. C. G. LEDINGHAM, C.M.G., M.B., D.Sc., F.R.S., Professor of Bacteriology in the University of London, Bacteriologist-in-Chief, Lister Institute, London.

G. S. GRAHAM-SMITH, M.D., F.R.S., Reader in Preventive Medicine, Cambridge. MAJOR GREENWOOD, D.Sc., F.R.C.P. (LOND.), F.R.S.,

Professor of Epidemiology and Vital Statistics in the University of London.

PUBLISHED QUARTERLY



CAMBRIDGE UNIVERSITY PRESS LONDON: FETTER LANE, E.C. 4

ALSO

H. K. LEWIS AND CO. LTD., 136, GOWER STREET, LONDON, W.C. CHICAGO: THE UNIVERSITY OF CHICAGO PRESS (AGENTS FOR THE UNITED STATES) BOMBAY, CALCUTTA, MADRAS: MACMILLAN & CO., LTD. TOKYO: MARUZEN COMPANY, LTB.

Price Twelve Shillings and Sixpence net

14 November, 1930

PRINTED IN GREAT BRITAIN

https://doi.org/10.1017/S0022172400010524 Published online by Cambridge University Press

The University of Chicago Press

CHILDBIRTH

13s. 6d. net

By WILLIAM G. LEE, M.D.

A comprehensive study of childbirth containing reliable and practical information for the mother. Practising physicians, nurses, and beginning students in obstetrics will find the book informative and useful.

NUTRITION WORK WITH CHILDREN 16s. net

By Lydia J. Roberts

A splendid survey of the subject of malnutrition,—of its causes, effects, prevention, and treatment.

THE NEWER KNOWLEDGE OF BACTERIOLOGY AND IMMUNOLOGY 45s. net

Edited by E. O. JORDAN and I. S. FALK

A collection of late researches in the field of bacteriology prepared by the leading eighty research men in the field.

LABORATORY OUTLINES IN BACTERIOLOGY AND IMMUNOLOGY 8s. net

By JOHN F. NORTON and I. S. FALK

Consists of exercises which are designed to acquaint the reader with a variety of the best methods, to give him practice in working with different groups of bacteria, and to illustrate types of immunologic phenomena.

FOOD POISONING

By EDWIN O. JORDAN

A clear summary of our present knowledge of poisoning through foods.

THE CONTROL OF HUNGER IN HEALTH AND DISEASE 11s. 6d. net

By A. J. CARLSON

THE ANTIQUITY OF DISEASE

By R. L. MOODIE

A picture of prehistoric pathological conditions.

PRESCRIPTION NOTES

By A. L. TATUM

A well-made handbook in flexible covers, it contains, in addition to the text, blank pages for noting selected prescriptions.

AGENTS IN GREAT BRITAIN AND THE BRITISH EMPIRE (EXCEPT CANADA) Cambridge University Press, Fetter Lane, London, E.C. 4

0010524 Published online by Cambridge University Press

6s. net

7s. net

4s. 6d. net

THE JOURNAL OF HYGIENE

CAMBRIDGE UNIVERSITY PRESS LONDON: FETTER LANE, E.C. 4



H. K. LEWIS & CO., LTD., I 36, GOWER STREET, LONDON, W.C. I CHICAGO: THE UNIVERSITY OF CHICAGO PRESS (Agents for the United States)
BOMBAY, CALCUTTA, MADRAS: MACMILLAN & CO., LTD. TOKYO: MARUZEN COMPANY, LTD.

All rights reserved

THE

JOURNAL OF HYGIENE

EDITED BY

GEORGE H. F. NUTTALL, M.D., Ph.D., Sc.D., LL.D., F.R.S.

QUICK PROFESSOR OF BIOLOGY, DIRECTOR OF THE MOLTENO INSTITUTE FOR RESEARCH IN PARASITOLOGY IN THE UNIVERSITY OF CAMBRIDGE

IN CONJUNCTION WITH

JOHN S. HALDANE, C.H., M.D., D.Sc., LL.D., F.R.S. LATE READER IN PHYSIOLOGY IN THE UNIVERSITY OF OXFORD

SIR CHARLES J. MARTIN, C.M.G., M.D., D.Sc., F.R.S. professor of experimental pathology in the university of london, director of the lister institute, london

J. C. G. LEDINGHAM, C.M.G., M.B., D.Sc., F.R.S. PROFESSOR OF BACTERIOLOGY IN THE UNIVERSITY OF LONDON, BACTERIOLOGIST-IN-CHIEF, LISTER INSTITUTE, LONDON

G. S. GRAHAM-SMITH, M.D., F.R.S. READER IN PREVENTIVE MEDICINE, CAMBRIDGE

MAJOR GREENWOOD, F.R.C.P. (LOND.), F.R.S. professor of epidemiology and vital statistics in the university of london

VOLUME XXX. 1930

CAMBRIDGE AT THE UNIVERSITY PRESS 1930

UARBEIDER UBIVERSITY FRESS LIBEARY FETTER LANT

YHSHEVINE YEAREL

PRINTED IN GREAT BRITAIN

https://doi.org/10.1017/S0022172400010524 Published online by Cambridge University Press

CONTENTS

No. 1 (April 1930)

	PAGE
MACKIE, T. J. and FINKELSTEIN, M. H. Complement-fixation by	
the Interaction of Normal Serum and Bacterial Suspensions-	
a Contribution to the Study of Natural Immunity Phenomena.	
(With 1 Chart)	1
HAY, HILDA R. Fatal Epidemic Enteritis due to B. dysenteriae	
Sonne	25
SMITH, J. and SCOTT, W. M. Continued Fever due to a Gärtner-	
like Salmonella of the Type "Dublin." (With 2 Charts)	32
WILSON, G. S. The Relationship between Morphology, Colonial	
Appearance, Agglutinability, and Virulence to Mice of Certain	40
Variants of Bacterium aertrycke. (With Plates I–III)	40
SMITH, M. M., MACVIE, M. H. and NEWBOLD, E. M. An Investiga-	
tion into the Agglutinating Power of Human Sera for Bacillus	
typhosus and Various Allied Organisms	55
GRIERSON, A. M. M. Observations on the Hygienic Condition of	
Public Swimming Baths	66
COBBETT, L. The Decline of Tuberculosis and the Increase in its	
Mortality during the War. (With 11 Figures)	79
NICOLL, AGNES HILL. An Inquiry into the Health of School En-	
trants in a Suburban Area	104

No. 2 (JUNE 1930)

LEWIS-FANING, E. A Survey of the Mortality in Dr Farr's 63	
Healthy Districts of England and Wales during the Period	
1851–1925. (With 1 Diagram)	121
PETRIE, G. F. An Analysis of the Influence of Irradiation by means	
of a Mercury Vapour Lamp upon the Health and Fertility of	
a Breeding Stock of Guinea-pigs and upon the Health of their	
Offspring during the First Six Weeks of Life. (With 3 Text-	
figures)	154
BURGESS, A. S. Virulence, Immunity and Bacteriological Varia-	
tion in Relation to Plague. (With Plates IV and V)	165

Contents

	PAGE
DUDGEON, LEONARD S. and GOADBY, H. K. Further Observations on the Staphylococci, with Special Reference to their Haemo-	190
lysins and Variability. (With Plate VI and 1 Chart) .	180
WILSON, G. S. Transient Fluctuations in the Resistance of Mice	100
to Infection with <i>B. aertrycke</i> . (With 6 Text-figures)	196
GRAHAM-SMITH, G. S. The Longevity of Dry Spores of B. anthracis	213
SMITH, J. and FRASER, A. M. Agglutination Reactions in Relation	
to Sonne Dysentery	216
PHILIP, SIR ROBERT, MCKENDRICK, A. G., AND OTHERS. The	
Standardisation of Tuberculin. (With Plates VII–XII)	221
GREENWOOD, M., NEWBOLD, E. M., TOPLEY, W. W. C., and WIL-	
son, J. A Further Study of Herd Mortality under Epidemic	
Conditions	240

No. 3 (August 1930)

EASTWOOD, ARTHUR. Systemic Influences in Immunity and	
Cancer	267
LASSEN, H. C. A. Vitamin A Deficiency and Resistance against a	
Specific Infection, Preliminary Report.	300
DUNKIN, G. W., HARTLEY, P., LEWIS-FANING, E. and RUSSELL,W. T. A Comparative Biometric Study of Albino and Coloured Guinea-pigs from the point of view of their Suitability	
for Experimental Use. (With 3 Diagrams)	311
WYLIE, MARGARET E. Serum Treatment of Scarlatina. (With 1	
Chart)	331
GIBSON, H. J. Observations on the Occurrence, Characteristics	
and Specificity of Natural Agglutinins	337
AYKROYD, W. R. Beriberi and other Food-deficiency Diseases in	
Newfoundland and Labrador. (With 4 Charts) .	357
RIDING, D. Acute Bacillary Dysentery in Khartoum Province,	
Sudan, with Special Reference to Bacteriophage Treatment:	
Bacteriological Investigation. (With 4 Charts)	387

No. 4 (November 1930)

GREENWOOD, MAJOR.	Α	further	Note	on	"Stat	us T	hymio	20-Ly	m-	
phaticus".								•	•	403
HALL, MURIEL BARTO	DN.	Investig	gatior	ı of	the Ba	cter	ial Co	ntent	; of	
the Urine in Nor										409

Contents

vii

WILLIAMS, R. STENHOUSE and HOY, W. A. The Viability of B.	PAGE
tuberculosis (bovinus) on Pasture Land, in Stored Faeces and in Liquid Manure	413
PETERS, R. J. and GUNN, W. C. Cerebro-spinal Fever in Glasgow, 1929. (With 1 Chart)	420
WILSON, G. S. The Effect on the Virulence of <i>Bact. aertrycke</i> of Cultivation in Atmospheres containing Varying Proportions	49.9
of Oxygen. (With 12 Text-figures)	433
Danish Family Budget Enquiries	468
FAWCETT, HUGH A. Preliminary Rat-flea Survey and some Notes	482
on its Relation to Local Plague, Hongkong	402
Special Aptitudes and Capacities. (With 2 Charts)	490
INDEX OF AUTHORS	505
Index of Subjects	507