CAMBRIDG

UNIVERSI

REFERENCE A

日前限入限室

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, D.Sc., F.R.C.P., 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. LID., 136, GOWER STREET, LONDON, W.C. CHICAGO: THE UNIVERSITY OF CHICAGO PRESS (AGENTS FOR THE UNITED STATES)
 BOMBAY, CALCUTTA, MADRAS: MACMILLAN & CO., LTD. TOEYO: MABUZEN COMPANY, LTD.

Price Twelve Shillings and Sixpence net

20 January 1930

https://doi.org/10.1017/50022172400009931 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

5s. 9d. net

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

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

ALL PLATING 1

https://doi.org/10.1017/S0022172400009931 Published online by Cambridge University Press

6s. 9d. net

4s. 6d. net

THE JOURNAL OF HYGIENE

https://doi.org/10.1017/S0022172400009931 Published online by Cambridge University Press

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

https://doi.org/10.1017/S0022172400009931 Published online by Cambridge University Press

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 XXIX. 1929-30

CAMBRIDGE AT THE UNIVERSITY PRESS 1930

- MARIBELDON 1 MAIVERSITY | PRESS | LIBRARY | FETTER LABR

CAMERICAN DESERT DESERT DESERT DESERT

PRINTED IN GREAT BRITAIN

CONTENTS

No. 1 (April 1929)

	PAGE
STUART, G. and KRIKORIAN, K. S. Studies in Anti-rabies Immuni- sation. (With 1 Chart)	1
JOHNS, C. K. and LOCHHEAD, A. G. Bacteriological Studies of Milking Machines. (With 1 Chart)	35
MORGAN, M. T. Report on an Outbreak of Alleged Ergot Poisoning by Rye Bread in Manchester	51
BIGGER, J. W. The Bacteriological Control of Shellfish	62
WATCHORN, ELSIE. The Shaw-Mackenzie Test for Cancer	71
ARNOLD, LLOYD. Alterations in the Endogenous Enteric Bacterial Flora and Microbic Permeability of the Intestinal Wall in Relation to the Nutritional and Meteorological Changes. (With 18 Charts)	82

No. 2 (JULY 1929)

EASTWOOD, ARTHUR. Chemico-physical Stability and Cancer	117
GRAHAM-SMITH, G. S. The Relation of the Decline in the Number of Horse-drawn Vehicles, and consequently of the Urban Breeding-Grounds of Flies, to the Fall in the Summer Diarrhoea Death-rate. (With 1 Chart)	132
BROMBERG, I. M. and COMAROFF, R. Epidemiology of Typhoid Fever. Incidence of Typhoid Carriers in a General Population Group	139
KLIGLER, I. J. Epidemiology of Typhoid Fever. Observations on the Spontaneous Seasonal Recurrence of Paratyphoid Epi- demics among Guinea-pigs. (With 2 Charts)	146
KLIGLER, I. J. Typhoid Fever in Palestine	157
MCKINLAY, PETER L. The Influence of the Age of the Mother and Associated Factors on the Mortality Rates in Childbearing. (With 4 Diagrams)	160
CLAYTON, F. H. A. and WARREN, S. H. A Further Study of an Unusual Bacillus recovered from Cases presenting Symptoms	101
of Dysentery	191

Contents

	PAGE
SMIDT, F. P. G. DE. Laboratory Notes on Plague in Kenya .	. 201
MIDDLETON, A. D. Leptospira icterohaemorrhagiae in Oxford Rats	•
(With 3 Graphs)	219

No. 3 (DECEMBER 1929)

GREENWOOD, MAJOR. The Periodicity of Influenza	227
FREMLIN, H. S. Further Notes on the Culture of the Nitroso-bac- terium	236
HERCUS, C. E., SHORE, R. A., BARRETT, H. E. and NORTH, J. H. An Epidemiological Study of Diphtheria in a remote New Zea- land Community. (With 1 Figure)	243
OLIVER, JOHN O. The Complement Fixation Test in Relation to the Gonococcus and Allied Organisms	259
GIGLIOLI, GEORGE. Paratyphoid C, an Endemic Disease in British Guiana	273
CLEMMESEN, SVEND. Investigations on Sterilisation by Steam. A New Principle for the Sterilisation by Vaporable Disinfectants. (With 5 Figures)	282
PULVERTAFT, R. J. V. The Growth of Streptococci in a Flowing Medium with Special Reference to Haemolysin Production. (With Plate I and 2 Text-figures)	301
OKELL, C. C. The Relationship of Virulent to Avirulent Diphtheria Bacilli	309
FRY, H. J. B. Syphilis and Malignant Disease. A Serological Study. (With 3 Diagrams)	313
BAKER, JOHN R. The Spermicidal Powers of Chemical Contra- ceptives. I. Introduction, and Experiments on Guinea-pig Sperms. (With Plate II)	323
HARVEY, W. F., KERMACK, W. O., LYON, D. M. and MCKENDRICK, A. G. A Statistical Analysis of Age Distribution of Asthmatics. (With 5 Figures)	330
JAMES, G. R., JOE, A. and SWYER, R. Observations on the Standard- isation of Scarlet Fever Reagents	347

No. 4 (FEBRUARY 1930)

O'BRIEN, R. A. The Titration of Scarlet Fever Toxin	•	357
FAULDS, JOHN STEVEN. Cancer and Other Causes of Death	in	
Glasgow Royal Infirmary. (With 1 Graph)	•	362

Contents

vii

	PAGE
TWORT, C. C. and TWORT, J. M. The Relative Potency of Carcino-	
genic Tars and Oils. (With 3 Graphs)	373
PIJPER, ADRIANUS. Serological Diagnosis of the Enterica. (With 1 Figure).	380
MITCHELL, J. A. Epizootic among Veld Rodents in De Aar and Neighbouring Districts of the Northern Cape Province	394
WARREN, S. H. and Scott, W. M. A New Serological Type of Sal- monella	415
 KELLY, FRANCIS CHARLES and HENDERSON, JOHN MCASKILL. The Influence of Certain Dietary Supplements on the Nutrition of the African Native. I. (With 3 Figures) HENDERSON, JOHN MCASKILL and KELLY, FRANCIS CHARLES. The 	418
Influence of Certain Dietary Supplements in Relation to the Calcium Requirements of Growing African Natives. II. (With 2 Figures)	429
HENDERSON, JOHN MCASKILL and KELLY, FRANCIS CHARLES. A Note of the Influence of the Addition of Certain Supplements to the Diets of African Natives. III. (With 1 Figure)	439
WHITE, P. BRUCE. Notes on Organisms Serologically Related to S. enteritidis Gärtner. I. The Dublin and Tokyo Types of Salmonella	443
HICKS, E. P. Notes on Organisms Serologically Related to S. en- teritidis Gärtner. II. Observations on S. paratyphus N 2 (Salmonella, Type Moscow): an Organism complicating Re-	
lapsing Fever	446
Index of Authors	451
INDEX OF SUBJECTS	453

.