THE

JOURNAL OF HYGIENE

EDITED BY

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

EMERITUS PROFESSOR OF BIOLOGY 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.
J. C. G. LEDINGHAM, C.M.G., M.B., D.Sc., F.R.S., Professor of Bacteriology in the University of London, Director of the 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. SIR DAVID MUNRO, K.C.B., C.I.E., M.B., Secretary, Industrial Health Research Board, Medical Research Council.

PUBLISHED QUARTERLY



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

Снісадо: The University of Chicago Press (Agents for the United States) Вомвах, Салситта, Madras: Macmillan Токуо: Maruzen Company Ltd.

All rights reserved

Price Fourteen Shillings net

4 March 1935

PRINTED IN GREAT BRITAIN https://doi.org/10.1017/5002217240001891X Published online by Cambridge University Press CANERUDGE UNIVERSITY PRESS LIERARY FETTER LANE

The University of Chicago Press

ULTRAVIOLET LIGHT AND VITAMIN D IN NUTRITION 11s. 6d. net

By KATHARINE BLUNT and RUTH COWAN. A survey of all vitamin D discoveries, including creation of its effects by ultraviolet light.

DIET AND EFFICIENCY. A Five-Year Controlled Experiment on Man. 4s. 6d. net

By HARALD G. O. HOLCK. Objective evidence of the effects of certain eating habits.

THE EPIDEMIOLOGY AND CONTROL OF MALARIA IN PALESTINE 22s. 6d. net

By I. J. KLIGLER. A complete account of successful control measures.

CHILDBIRTH

13s. 6d. net

By WILLIAM G. LEE, M.D.

NUTRITION WORK WITH CHILDREN (Revised edition) 13s. 6d. 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 7s. 6d. net

By JOHN F. NORTON and I. S. FALK

FOOD POISONING (Revised edition) 11s. 6d. net By EDWIN O. JORDAN

THE CONTROL OF HUNGER IN HEALTH AND DISEASE 13s. 6d. net

By A. J. CARLSON

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

THE JOURNAL OF HYGIENE

https://doi.org/10.1017/S002217240001891X Published online by Cambridge University Press

LONDON: CAMBRIDGE UNIVERSITY PRESS

FETTER LANE, E.C. 4



CHICAGO: THE UNIVERSITY OF CHICAGO PRESS (Agents for the United States) BOMBAY, CALCUTTA, MADRAS: MACMILLAN TOKYO: THE MARUZEN COMPANY, LTD.

All rights reserved

https://doi.org/10.1017/S002217240001891X Published online by Cambridge University Press

JOURNAL OF HYGIENE

EDITED BY

GEORGE H. F. NUTTALL, M.D., PH.D., Sc.D., LL.D., F.R.S. EMERITUS PROFESSOR OF BIOLOGY 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

J. C. G. LEDINGHAM, C.M.G., M.B., D.Sc., F.R.S. PROFESSOR OF BACTERIOLOGY IN THE UNIVERSITY OF LONDON, DIRECTOR OF THE 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

> SIR DAVID MUNRO, K.C.B., C.I.E., M.B. secretary, industrial health research board, medical research council

VOLUME XXXV. 1935

CAMBRIDGE AT THE UNIVERSITY PRESS

1935

PRINTED IN GREAT BRITAIN

CONTENTS

No. 1 (February 1935)

ROBERTS, J. ISGAER. The Ticks of Rodents and their Nests, and the Discovery that <i>Rhipicephalus sanguineus</i> Latr. is the Vector of Tropical Typhus in Kenya	PAGE 1
GRIFFITH, F. The Aronson Streptococcus	23
HORGAN, E. S. The Failure of Brilliant Green and Telluric Acid as Selective Agents for the Isolation of <i>Bacillus typhosus</i> from Faeces	38
STOCKS, PERCY. The Frequency of Cancer Deaths in the Same House and in Neighbouring Houses	46
COLLINS, DOUGLAS H. and DIBLE, J. HENRY. The Method of Expressing the Silica Content of the Lung	64
DEAN, H. R., TAYLOR, G. L. and ADAIR, MURIEL E. The Precipita- tion Reaction. Experiments with an Antiserum containing Two Antibodies	69
HILL, Sir LEONARD. "Nose-Opening" Rays. (With 1 Text-figure)	75
GLOCK, GERTRUDE E. An Investigation of the Effects of Adverse Atmospheric Conditions such as are Encountered in Various Industries on Mental and Muscular Efficiency. (With 1 Graph)	78
GREEN, C. A. Observations on the Toxic Fractions of Scarlatinal Streptococci	93
PIJPER, ADRIANUS and DAU, HELEN. South African Typhus. (With 2 Text-figures)	116
TWORT, C. C. and LYTH, R. A New Method for Measuring Carcino- genicity	125
TWORT, C. C. and TWORT, J. M. The Utility of Lanolin as a Protective Measure against Mineral-Oil and Tar Dermatitis and Cancer .	130
NEWMAN, J. L. Impetigo Contagiosa, its Epidemiology and Control. (With 1 Chart and 1 Map)	150
Corrections	160

Contents

No. 2 (May 1935)

	PAGE
DAVIS, L. J., GUZDAR, J. S. and FERNANDO, F. S. Scarlatina Immu- nity in Hong Kong	161
TAYLOR, G. L. and ADAIR, MURIEL E. The Precipitation Reaction	169
TAYLOR, G. L. The Demonstration of the Increase of Globulin in Diphtheria Antitoxins by the Precipitation Reaction	174
BROWNING, C. H. and GULBRANSEN, R. Variation in Chemothera- peutic Susceptibility associated with Change in Virulence of a Strain of <i>Trypanosoma brucei</i> .	180
van DISHOECK, Dr H. A. E. Infra-red Radiation and Nasal Ob- struction. (With 3 Figures in the Text).	185
COLIN-RUSS, A. Human Foot Perspiration, its Nature and Inter- actions with Footwear	199
COOKE, W. E. Modern Views on Silicosis. (With Plates I–IV)	207
GARROD, LAWRENCE P. The Testing of Disinfectants in the Presence of Organic Matter. (With 1 Figure in the Text)	219
GIBSON, H. J. and MUIR, R. O. A Study of the Streptococci from Fifty Cases of Bovine Mastitis	238
COCKERELL, O. J. On the Errors Involved in the Determination of Cooling Powers and Air Velocities with a Kata-Thermometer. (With 5 Figures in the Text)	255
GARDNER, A. D. and K. V. VENKATRAMAN. The Antigens of the Cholera Group of Vibrios	262
BROWN, W. A. and ALLISON, V. D. Carriers and Return Cases in Scarlet Fever	283
DAVIS, L. J. and GUZDAR, J. S. Tuberculin Reactions on the Hong Kong Chinese, with special reference to the use of Tuberculo- protein	300
No. 3 (August 1935)	
BEDFORD, T. The Effective Radiating Surface of the Human Body	303
BEDFORD, T. Skin Temperature in Relation to the Warmth of the Environment. (With 2 Figures in the Text)	307
BOYCOTT, G. W. M. Prevention of Compressed Air Illness. Obsolete Statutory Regulations as an Obstacle to Progress	318

Contents							
ELLMAN, P. and TAYLOR, H. J. The Effect of Oxygen and Carbon Dioxide Baths on the Subcutaneous Tissue Gas Tensions							
WOLFF, GEORGE. Is Cancer Mortality Increasing or Decreasing? .	327						
GALLOWAY, I. A. and PERDRAU, J. R. Louping-ill in Monkeys. In- fection by the Nose. (With Plate V)	339						
WHITE, P. BRUCE. The Serological Grouping of Rough Vibrios .	347						
CRUICKSHANK, J. C. A Study of the So-called Bacterium typhi flavum	354						
GORDON, J. and ROBSON, J. M. Some Immunity Experiments on Hypophysectomised Animals	372						
MARTIN, W. J. The Decrease in Mortality During Early Adult Male Life in England and Wales. (With 5 Graphs in the Text) .	375						
ROBERTS, J. ISGAER. The Relationship of the Cotton Crop to Plague, and its Role as a Vehicle for Rats and Fleas in East Africa. (With 1 Graph in the Text)	388						
TWORT, C. C. and LYTH, R. The Violence of Reaction of the Animal in Relation to the Etiology of Cancer and Inflammation. (With 1 Figure in the Text)	404						
BURNET, F. M. Enzootic Psittacosis Amongst Wild Australian Parrots	412						
FELIX, A., KRIKORIAN, K. S. and REITLER, R. The Occurrence of Typhoid Bacilli Containing Vi Antigen in Cases of Typhoid Fever and of Vi Antibody in their Sera	421						
FELIX, A. and PITT, R. M. Virulence and Immunogenic Activities of B. typhosus in Relation to its Antigenic Constituents	428						
PLATT, A. E. The Viability of <i>Bact. coli</i> and <i>Bact. aerogenes</i> in Water. A Method for the Rapid Enumeration of these Organisms	437						
No. 4 (December 1935)							
UNDERWOOD, E. ASHWORTH. The Diphtheria Toxoid-Reaction (Moloney) Test: its Applications and Significance. (With 4 Figures in the Text)	449						
ORR, JOHN BOYD, THOMSON, WILLIAM and GARRY, R. C. A Long Term Experiment with Rats on a Human Dietary. (With Plate VI and 7 Graphs)	476						
WHITE, P. BRUCE. The Q Proteins and Non-Specific O-Antigens of the Cholera Vibrio	498						

Contents

viii

									-	_
MINETT, F. C. The Bacte	riolo	gy of	Bovi	ne St	repto	coccu	ıs Ma	stitis	PAGI . 504	
MITMAN, MAURICE. The dermol Toxoid Test ficance. (With 2 Fig	of M	lolone	y: th	eir R	elatio	onshij	o and	Sign	i-	2
BAUMGARTNER, JOHN G A Note on the Influe Medium in Germicio	ence c	of the	Prote	ein Co		t of tl	ie Re			4
NAVASQUEZ, S. de. Expo accompanied by Liv 3 Graphs) .	er Ch	anges	s due	to Die	oxan	Poiso	ning.	(Wit	h	0
WALSTON, H. D. The Clo their Products. (Wi	0				0					9
INDEX OF AUTHORS							•		. 55	9
INDEX OF SUBJECTS	•					•			. 562	2