THE

JOURNAL OF HYGIENE

(Founded in 1901 by G. H. F. Nuttall, F.R.S.)

EDITED BY

C. C. OKELL, M.C., M.B., Sc.D., F.R.C.P.

LATE PROFESSOR OF BACTERIOLOGY IN THE UNIVERSITY OF LONDON

IN CONJUNCTION WITH

SIR JOHN 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.

M. GREENWOOD, D.Sc., F.R.C.P., 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.
W. W. C. TOPLEY, M.D., M.Sc., F.R.C.P., F.R.S.,
Professor of Bacteriology and Immunology in the University of London.

PUBLISHED BI-MONTHLY



CAMBRIDGE UNIVERSITY PRESS

LONDON: BENTLEY HOUSE

CHICAGO: The University of Chicago Press (Agents for the United States) BOMBAY, CALGUTTA, MADRAS: Macmillan

Tokyo: Maruzen Company Ltd.

All rights reserved

Price Fifteen Shillings net

PRINTED IN GREAT BRITAIN

CAMBRIDGE UNIVERSITY PRESS LIBRARY LOWDOW

THE JOURNAL OF HYGIENE

CAMBRIDGE UNIVERSITY PRESS

LONDON: BENTLEY HOUSE



CHICAGO: THE UNIVERSITY OF CHICAGO PRESS (Agents for the United States)

BOMBAY, CALCUTTA, MADRAS: MACMILLAN TOKYO: THE MARUZEN COMPANY, LTD.

All rights reserved

THE

OURNAL OF HYGIENE

(FOUNDED IN 1901 BY G. H. F. NUTTALL, F.R.S.)

EDITED BY

C. C. OKELL, M.C., M.B., Sc.D., F.R.C.P. LATE PROFESSOR OF BACTERIOLOGY IN THE UNIVERSITY OF LONDON

IN CONJUNCTION WITH

SIR 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

M. 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

W. W. C. TOPLEY, M.D., M.Sc., F.R.C.P., F.R.S. PROFESSOR OF BACTERIOLOGY AND IMMUNOLOGY IN THE UNIVERSITY OF LONDON

VOLUME XXXVIII. 1938

CAMBRIDGE
AT THE UNIVERSITY PRESS
1938





PRINTED IN GREAT BRITAIN

CONTENTS

No. 1 (January 1938)

	PAGE
Kon, P. M., Kon, S. K. and Mattick, A. T. R. An investigation of factors governing potato-starch refection in rats. (With Plate I and 9 Figures in the Text	1
DRUMMOND, J. C., SINGER, ELEANOR, WATSON, S. J., FERGUSON, W. S. and Bartlett, M. S. An experiment on the nutritive value of winter-produced "summer" milk	25
BROCKINGTON, FRASER. The influence of the growing family upon the diet in urban and rural districts. (With 11 Graphs in the Text) .	40
SWELLENGREBEL, N. H., BUCK, A. DE and KRAAN, H. Mechanism of malaria transmission in the province of North Holland. (With 3 Figures in the Text)	62
Khalil, A. M. The incidence of organisms of the Salmonella group in wild rats and mice in Liverpool	75
SPOONER, E. T. C. A disease resembling distemper epidemic among ferrets (With 1 Figure in the Text)	79
TURNER, H. MIDGLEY and GRACE, H. G. An investigation into cancer mortality among males in certain Sheffield trades	90
Thompson, A. R. The intradermal test in whooping cough. A review, with a study of 1300 cases. (With Graph I in the Text)	104
BUTLER, G. G. The keeping qualities of vaccine lymph. (With 8 Charts in the Text)	120
No. 2 (March 1938)	
GEORGE HENRY FALKINER NUTTALL. (5 July 1862—16 December 1937) (With Plates II-VII)	129
JENSEN, ELSA and JENSEN, VILH. Studies on the influence of various organic substances upon the phenol coefficient	141
UTTLEY, K. H. Studies in tuberculosis in Hong Kong. (With 2 Graphs in the Text)	150
LÉPINE, PIERRE. On the evolution of fixed strains of rabies virus	180
Anderson, C. S. and Dible, J. Henry. Silicosis and carcinoma of the lung. (With Plates VIII and IX)	185
CROSSLEY, E. L. The bacteriology of meat and fish pastes, including a new method of detection of certain anaerobic bacteria	205

vi Contents

Krogh-Lund, G. On diphtheria immunity in North Greenland, 1932–33	PAGE 217
Johnson, C. G. Thermograph records in rooms of some London dwelling-houses throughout the year 1935–36 and their comparison with temperatures recorded in out-door meteorological stations. (With Plates X and XI and 4 Figures in the Text)	222
HOPKINS, G. H. E. Cotton and plague in Uganda	233
GLASS, V. and WRIGHT, H. D. Cross infection in diphtheria wards	248
	440
TWORT, C. C. and TWORT, J. M. The fate of mineral oils injected into the peritoneal cavity of mice	255
BEATTIE, C. P. The incidence of brucellosis clinical and latent among	
various groups of the population	260
No. 3 (May 1938)	
LYTH, R. and TWORT, C. C. Commercial and molecular distillates of mineral oils in relation to their carcinogenicity. (With 2 Graphs) .	269
Scholtens, R. Th. The importance of receptor analysis for the study of physico-chemical properties of typhoid bacilli	273
DOWNIE, ALLAN W. Antigenic activity of extracts of pneumococci .	279
DOWNIE, ALLAN W. Antipneumococcal species immunity	292
ROBERTSON, R. C. and Yu, H. Leucopenia and the toxic substances of B. typhosus	299
Edwards, Philip R. A new Salmonella type: Salmonella kentucky .	306
Bardsley, Doris A. A comparison of two methods of assessing the number of different types of coliform organisms in water	309
DAVIS, HILDA M. Horse-serum skin tests	325
Savage, Sir William. An ice-cream food poisoning outbreak due to B. dysenteriae (Sonne)	331
Haines, R. B. Observations on the bacterial flora of the hen's egg, with a description of new species of <i>Proteus</i> and <i>Pseudomonas</i> causing rots in eggs	
DRUMMOND, J. C. and OTHERS. The effects of life-long subsistence on diets providing suboptimal amounts of the "Vitamin B complex". (With 4 Figures in the Text)	
Bendixen, H. C. and Minett, F. C. Excretion of Streptococcus pyogenes in the milk of naturally infected cows. (With Plate XII)	374
HENNINGSEN, E. JUEL and ERNST, J. Milk epidemic of angina, originating from a cow with mastitis and due to <i>Streptococcus pyogenes</i> (Lancefield group A). (With 1 Figure in the Text)	
LASNITZKI, A. Action of carcinogenic tar upon lymph-glands. (With	392

Contents vii

No. 4 (July 1938)

MALCOLM, JAMES F. The classification of coliform bacteria	395
Watson, Marion, Wilson, Joyce and Topley, W. W. C. The effect of diet on epidemics of mouse-typhoid. (With 1 Chart in the Text) .	424
Myers, G. Norman and Davidson, S. Whately. An investigation of the effects of certain substitutes for morphine and heroin upon the passage of food along the alimentary tract of the human subject. (With Plates XIV-XVI)	432
BARKWORTH, H. and IRWIN, J. O. Distribution of coliform organisms in milk and the accuracy of the presumptive coliform test. (With 1 Figure in the Text)	446
KLIENEBERGER, EMMY. Pleuropneumonia-like organisms of diverse provenance: some results of an enquiry into methods of differentiation. (With Plates XVIII and XVIII and 8 Text-figures)	458
Boyd, Major J. S. K. The antigenic structure of the mannitol-fermenting group of dysentery bacilli. (With 2 Figures in the Text)	477
Heiberg, Povl. Is general paresis dependent upon previous treatment with mercury? (With 4 Figures in the Text)	500
WILSON, W. JAMES. Isolation of <i>Bact. typhosum</i> by means of bismuth sulphite medium in water- and milk-borne epidemics	507
No. 5 (September 1938)	
SMITH, J. Leptospiral infections in rats. The presence of specific leptospiral immune bodies in the serum and their relationship to carrier conditions	521
BARDSLEY, DORIS A. The bacterial content of ice-cream in relation to manufacture, storage and standards of purity	527
BROCKINGTON, FRASER. Further observations upon the influence of the growing family upon the diet in rural districts in Sussex	547
THAYSEN, A. C. Some observations on the Rideal-Walker test	558
GREGORY, T. S. and ATKINSON, NANCY. An investigation of the normal agglutinins for typhoid and paratyphoid bacilli in human sera in Victoria, and the interpretation of the Widal test	566
Burtenshaw, J. M. L. The mortality of the haemolytic Streptococcus on the skin and on other surfaces	575
PULLINGER, E. J. and Kemp, Audrey E. Growth of Salmonella typhi and certain other members of the Salmonella group in milk and butter stored at atmospheric temperatures	587

viii Contents

McCance, R. A., Widdowson, E. M. and Verdon-Roe, C. M. A study of English diets by the individual method. III. Pregnant women at different economic levels
MINETT, F. C. Experiments on Staphylococcus food poisoning
CUMMINS, PROF. S. L. and WILLIAMS, DR ENID M. The adsorbent effects of various dusts on diluted "old tuberculin"
No. 6 (November 1938)
GORER, P. A. and Schütze, H. Genetical studies on immunity in mice. II. Correlation between antibody formation and resistance
Bhatnagar, S. S., Speechly, C. G. J. and Singh, M. A Vi variant of Salmonella typhi and its application to the serology of typhoid fever
Felix, A. and Petrie, G. F. The preparation of anti-typhoid serum in the horse for therapeutic use in man
Edington, J. W. Sulphuretted hydrogen production by bacteria in a lead mine
Kristensen, Martin. Studies on the type division of the typhoid and paratyphoid B bacilli by fermentation
HORGAN, E. S. The experimental transformation of variola to vaccinia.
EDWARDS, P. R. and BRUNER, D. W. Two new Salmonella types isolated from fowls
Bardsley, Doris A. A comparative study of coliform organisms found in chlorinated and in non-chlorinated swimming bath water
Miles, A. A. and Misra, S. S. The estimation of the bactericidal power of blood. With a Note by J. O. Irwin
Felix, A. The titration of therapeutic anti-typhoid serum
INDEX OF AUTHORS
INDEX OF SUBJECTS