JOURNAL OF HYGIENE

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

EDITED BY

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

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, CALCUTTA, MADRAS: Macmillan TOKYO: Maruzen Company Ltd.

All rights reserved

Price Fifteen Shillings net

FRINTED IN GREAT BRITAIN

THE JOURNAL OF HYGIENE

https://doi.org/10.1017/S0022172400027807 Published online by Cambridge University Press

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

https://doi.org/10.1017/S0022172400027807 Published online by Cambridge University Press

THE

JOURNAL OF HYGIENE

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

EDITED BY

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

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 XL. 1940

CAMBRIDGE AT THE UNIVERSITY PRESS

1940

^ • • • · PRINTED IN GREAT BRITAIN

CONTENTS

No. 1 (JANUARY 1940)

	PAGE
NUTTALL, The late G. H. F. Notes on the preparation of papers for publication in the <i>Journal of Hygiene</i> and in <i>Parasitology</i> .	1
BARCLAY, R. S. and KERMACK, W. O. Scottish cancer mortality: a comparison of urban and rural rates for various tumour locations, 1931-7, and a survey of recent trends. (With	
4 figures in the text)	63
HENNINGSEN, E. JUEL and RASCH, G. The poliomyelitis epidemic of 1937 in Denmark. Epidemiology and clinical statistics. (With	
9 figures in the text)	84
MARTIN, A. E. A serological investigation into the epidemiology of	
influenza with particular reference to sporadic cases	104
THOMSON, S., GLAZEBROOK, A. J. and GREEN, C. A. Schick and Dick	
reactions in different classes of the community	115
SMITH, J. and KAUFFMANN, F. A new Salmonella type (S. rubislaw)	122

No. 2 (March 1940)

WARNER, C. G. Measurements of the ventilation of dwellings.	
(With 4 figures in the text)	125
HAINES, R. B. and SCOTT, W. J. An anaerobic organism associated	
with "Bone-taint" in beef. (With Plate I)	154
LEA, D. E. and HAINES, R. B. The bactericidal action of ultra-violet	
light. (With 4 figures in the text)	162
DE WAAL, H. L. The serological types of haemolytic streptococci in	
relation to the epidemiology of scarlet fever and its complica-	
tions. (With 1 figure in the text)	172
KLIENEBERGER, EMMY. The pleuropneumonia-like organisms:	
further comparative studies and a descriptive account of	
recently discovered types. (With Plates II-IV)	204
KLIENEBERGER, EMMY and STEABBEN, DOROTHY B. On the	
association of the pleuropneumonia-like organism L 3 with	
bronchiectatic lesions in rats. (With Plate V)	223
MYERS, G. NORMAN. The effects of morphine, diacetylmorphine and	
some related alkaloids upon the alimentary tract. Part IV.	
Rectum. (With 9 figures in the text)	228
F. KAUFFMANN and EBBA MØLLER. A new type of Salmonella	
(S. ballerup) with Vi-antigen	

Contents

vi

No. 3 (May 1940)

	PAGE
TWORT, C. C., BAKER, A. H., FINN, S. R. and POWELL, E. O. The disinfection of closed atmospheres with germicidal aerosols.	
(With Plates VI–VIII and 54 figures in the Text)	253
HENDERSON, D. W. and GORER, P. A. The treatment of certain	200
experimental anaerobic infections with sulphapyridine and	
with immune sera and the problem of synergic action	345
GRIFFITH, A. STANLEY. The proportional frequency of the human	
and bovine types of tubercle bacilli in human pulmonary	
tuberculosis in the middle and south of Scotland	365
No. 4 (July 1940)	
VAN DEN ENDE, M. Reversed passive anaphylaxis in the guinea-pig.	
(With 6 figures in the text)	377
MUSHATT, CECIL. Non-pulmonary tuberculosis caused by the	
bovine type of tubercle bacillus in children in Eire	396
DAVIS, L. J. The distribution and significance of typhoid Vi	
agglutinins in normal sera of African natives	406
TYAGARAJA, SAGA. A simple modification of Wilson and Blair's	
medium for the isolation of typhoid and paratyphoid bacilli.	
(Brilliant green, bismuth-ammonium-citrate and sodium sul- phite medium-B.B.S. medium)	414
BARCLAY, R. S., KERMACK, W. O. and MCKENDRICK, A. G. Com-	414
parison of the specific mortality rates in town and country	
districts of Scotland since 1871. (With 4 figures in the text).	423
TWORT, J. M. and LYTH, R. The reduction of the carcinogenic and	
dermatitic activity of shale oil recovered from the peritoneal	
cavities of injected mice	434
KELLETT, C. E. The diet of a group of Durham miners free from	
nystagmus	439
COLIN-RUSS, A. Human foot perspiration and upper leather	447
HAINES, R. B. and MORAN, T. Porosity of, and bacterial invasion	
through, the shell of the hen's egg. (With Plate IX and	450
4 figures in the text)	453
MUSGRAVE, A. J. Some experiments with certain liquid insecticides in houses infested with the bed-bug, <i>Cimex lectularius</i> L.	
(With 5 figures in the text)	462
MYERS, G. NORMAN. An experimental investigation on the action	. –
of Coramine. (With 14 figures in the text)	474

Contents

HENDERSON, D. W. The somatic antigens of the Cl. welchii group	
of organisms	501
MATHER, K. The design and significance of synergic action tests. (With 6 figures in the text)	513
WILSON, W. JAMES and REILLY, L. V. Bismuth sulphite media for the isolation of V. cholerae	532
HILL, A. BRADFORD, HATSWELL, J. M. and TOPLEY, W. W. C. The inheritance of resistance, demonstrated by the develop- ment of a strain of mice resistant to experimental inoculation with a bacterial endotoxin	538
ADAIR, G. S., ADAIR, MURIEL E. and GREAVES, R. I. N. The osmotic pressure, after re-solution, of serum dried from the	
frozen state (F.D. serum). (With 2 figures in the text)	548
WILKINSON, JOHN F. Poisoning by 2-methylbutyraldehyde (iso-valeraldehyde) valeraldehyde) .	555
BAKER, A. H., FINN, S. R. and TWORT, C. C. The use of hypo- chlorites for aerial disinfection. (With 5 figures in the text).	560
MYERS, NORMAN G. The effects of morphine, diacetylmorphine and some related alkaloids upon the alimentary tract. Part V. A discussion on the probable mechanism of the constipating action of morphine	583
BUCHANAN, R. M. Chemotherapy in cerebrospinal meningitis in the Sudan	605
No. 6 (December 1940)	
BUCHANAN, R. M. Chemotherapy in cerebrospinal meningitis in the	
Sudan	615
TAYLOR, C. B. Bacteriology of fresh water. I. Distribution of bacteria in English lakes. (With 1 map and 5 figures in the	
text)	616
MORTIMER, CLIFFORD H. An apparatus for obtaining water from different depths for bacteriological examination. (With	
3 figures in the text)	641
WRIGHT, JOYCE. Nosocomial infections in children's wards. (With 2 figures in the text)	647
GRIFFITH, A. STANLEY and DALLING, T. Inoculation and immunity experiments on calves with the vole strain of acid-fast bacillus.	
Histological observations by W. Pagel	673

PAGE

•

Contents

CLEMENTS, F. W. A family coefficient scal	e develo	ned f	rom	the	PAGE
Australian nutrition survey		-			681
GUGGENHEIM, KARL. Seasonal fluctuations of content of Palestinian milks. (With 3 fi				d C	690
CHAPPELL, GWENETH. The distribution of v					
on the open market. (With 6 figures in	the text)	•	•	•	699
Index of Authors		•	•	•	733
INDEX OF SUBJECTS			•	•	736