

To the best of our knowledge this is the first report of histological calcification of the lung associated with a primary viral pneumonia.

The authors wish to thank Dr White for permission to record clinical details of this case.

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- 9 Determination of Urea by AutoAnalyzer. November 1966. RUTH M. HASLAM. 2s. 6d.
- 15 A Guide to Automatic Pipettes (2nd edition). June 1968. P. M. G. BROUGHTON. 5s.

As assessed clinically and observed by peripheral circulatory studies, all 36 cases showed improvement, a few very dramatically. There have been no deaths, no major amputations, and six months after the last perfusion, all have remained well although one case required a minor foot amputation.

ADDENDUM

D. R. BANGHAM (*Division of Biological Standards, National Institute for Medical Research, London*) The biological activity of several of the substances mentioned in these discussions is estimated in terms of, *ie*, by direct

comparison with, a reference material. The use of a common reference preparation, or at least the unit defined by it, will do a lot to make valid the comparison of results from different laboratories and from time to time in the same laboratory.

Participants may be interested to know that an international reference preparation of urokinase was recently established. It will thus be possible to describe the potency of a preparation of urokinase in international units as it is done already for streptokinase in terms of the international standard for streptokinase. Unofficial research reference materials for other components of the fibrinolytic and clotting systems are under preparation.

The March 1969 Issue

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Detection of deficiencies in immunoelectrophoretic patterns P. IRONSIDE

Loading starch gels using filter paper wicks G. PARKER LEWIS, W. J. MACLENNAN, and S. MILLER

Use of dichloro-difluoromethane aerosols in preparing frozen sections M. F. CASLING and C. R. TRIBE

Letters to the Editor

Book reviews

Copies are still available and may be obtained from the PUBLISHING MANAGER,
BRITISH MEDICAL ASSOCIATION, TAVISTOCK SQUARE, W.C.1, price 21s.

CLINICAL BACTERIOLOGY 3rd edition By E. Joan Stokes.

(Pp. 345; 50s.) London: Edward Arnold Ltd. 1968.

Previous editions of Dr Joan Stokes' book were deservedly very popular with clinical bacteriologists. This one should be just as successful. It has been well revised, while preserving its virtues intact. There is the same emphasis on the academic approach and on the distinction between clinically important and irrelevant findings: the insistence on good records, and, above all, the clear descriptions of methods tested in the author's own laboratory. Alternative methods are not described and although the reader may sometimes prefer another procedure to the one in the book, everyone will benefit from a study of the methods chosen by a bacteriologist as experienced as Dr Stokes.

The new material in the book includes screening tests for bacteriuria, specific treponemal tests for the diagnosis of syphilis, and a thoroughly revised chapter on identification. The chapter on hospital infection, rewritten in the light of the author's extensive experience, is excellent. Nomenclature has been brought into line with that of Topley and Wilson's *Principles of bacteriology and immunology* (5th ed); but Dr Stokes does not follow Topley and Wilson in restricting the term 'coliform' to the lactose-fermenting enterobacteraceae. While it may be logical to include pseudomonas, salmonellae and shigellae among coliforms, to do so diminishes its value as a meaningful clinical term. This, however, is a comment on the inadequacies of bacteriological nomenclature in a clinical context rather than a criticism of the book.

This edition maintains the reputation of *Clinical bacteriology* as an excellent, inexpensive bench book for bacteriologists and technicians in hospital laboratories. It is strongly recommended.

W. A. GILLESPIE

PHYSIOLOGY AND PATHOLOGY OF MEMBRANE DIGESTION BY
A. M. Ugolev (Pp. xvi + 226. \$10.00) New York:
Plenum Press. 1968.

Professor Ugolev's work from the Pavlov Institute in Moscow is the first Russian book offered for review in the Journal. It has been clearly translated and the occasional idiomatic lapse tends to add to the interest rather than obscure the sense. Membrane digestion in man is defined as taking place on the surface of the cytoplasmic membranes of the microvilli, and constitutes an intermediate type of digestion between extracellular digestion within the cavity of the gastrointestinal canal and intracellular breakdown. In the course of discussing comparatively the evolution of membrane digestion, it is pointed out that surface membrane digestion is a feature of unicellular organisms, including bacteria, and should not be regarded as a feature of highly developed epithelia but as a fundamental process that also forms an enzymatic barrier, preventing the entry of foreign material into the intracellular medium. The distinctions between membrane digestion and intracellular breakdown begin to disappear if it is accepted that pinocytosis involves invagination of the cytoplasmic membrane, thus allowing membrane digestion to continue within the cell; this is recognized, and the phenomenon of reverse pinocytosis is

put forward as a mechanism for the transfer of enzymes to the cell surface. The general principles of membrane digestion are supported by descriptions and discussions of enzyme action in normal and abnormal epithelia, though the sites at which these changes take place are not always made clear. This is essentially a physiological book in which structural and functional changes found in radiation and gluten enteropathy are described, and the author admits that there are still many gaps to be filled in between the broad concept of membrane digestion and our detailed knowledge of chemical and enzyme mechanisms of digestive processes.

R. A. B. DRURY

EXPERIMENTAL THYMECTOMY By Max W. Hess. (Pp. vii + 105; 7 figures. \$9.50) Berlin: Springer-Verlag. 1968.

Research on the thymus has attained such proportions in the past decade, and reached into so many specialities that there is an obvious need for regular reviews, even though they will rapidly go out of date.

Dr Hess has provided a neat and readable summary of the subject (his title is misleading, since only 44 of his 78 pages deal with the effects of thymectomy) as it stood in 1966. Unfortunately it is now more than usually out of date, as it takes no account of the experiments on thymus-bone marrow cell cooperation in antibody synthesis which have opened a quite new window on thymus function. To his credit, Dr Hess is cautious about some fashionable trends, especially in relation to thymus hormones and the mammalian gut-avian bursa analogy. But the best recent review of this length remains that by Miller and Osoba (*Physiological Reviews*, 1967, 43, 437), with almost twice as many references, which Dr Hess's book does not really challenge at any point, particularly at the astonishing price of £4.

J. H. L. PLAYFAIR

FORTHCOMING CONFERENCE

TENTH CONFERENCE OF THE INTERNATIONAL SOCIETY OF GEOGRAPHICAL PATHOLOGY

The 10th Conference of the International Society of Geographical Pathology will take place in Jerusalem, Israel, from 1 to 4 September 1969. Two main topics, pulmonary emphysema and the cardiomyopathies, have been selected for discussion by pathologists, epidemiologists, and clinicians from various countries. Ample time will be available for short communications on these and other subjects which have a bearing on geographical pathology.

Further information may be obtained from the General Secretary, Dr I. S. Levij, Department of Pathology, Hebrew University, Hadassah Medical School, PO Box 1172, Jerusalem, Israel.