complications, including infections and their treatment with antibiotics, and (5) treatment.

The book is written largely from the standpoint of the user of the artificial kidney, and an enormous amount of information is collected which is invaluable in this context and is of very considerable interest to anyone concerned with renal disease in any way.

The majority of hospitals, however, do not possess an artificial kidney, and one of the great difficulties is the decision when to refer a patient with anuria or oliguria to a special centre: if cases are referred too soon, any centre will quickly become jammed but if referral is postponed, some treatable patients may die before dialysis can be performed. I have not been able to find the criteria the authors accept as necessitating transfer, and to the general physician this would be of the greatest value.

The section on treatment is very short, comprising only some seven pages, and tabulates the various factors which may need attention during the treatment of uraemia; but neither there, nor in the rest of the text, is sufficient detail given for the practical handling of some of the therapeutic measures suggested.

Notwithstanding these criticisms, the book would be of wide interest, if it were not for the price, £6 8s., which puts it out of the reach of most.

E. N. ALLOTT

FUNGI AND FUNGUS DISEASES A symposium of the Section of Microbiology, the New York Academy of Medicine. Edited by Gilbert Dalldorf. (Pp. x + 335; illustrated. 96s.) Springfield, Illinois: Charles C. Thomas; Oxford: Blackwell Scientific Publications. 1962.

The symposium of which this book is the permanent record ranged widely and comprehensively over the whole field of medical mycology. The contributors include most of the leading American workers, with one from each of five countries outside the United States, including Britain; a notable absentee is a representative of the flourishing and important school of Japanese mycologists.

Problems of mycological taxonomy, differentiation, classification, and physiology are among those dealt with, as are the aetiology, immunology, and treatment of fungous diseases; there are also chapters on genetic recombination, and on the structure and constitution of pathogenic fungi. Segretain, of the Institut Pasteur, contributes a valuable chapter on relatively infrequent fungus pathogens. Lavalley gives a comprehensive account of *Mycetozoa*. Seeliger contributes a long and helpful review of the serology of fungous infections and gives good, albeit cautious, advice on the use of serological techniques as diagnostic aids. The chapter by Gordon, on the application of the Coons fluorescent technique to the differentiation and classification of yeasts, will interest all those working in this expanding field. The possibility of immunization against superficial infections is dealt with by Huppert, and vaccination against systemic infections by Levine; both of these chapters give an excellent review of the literature. In the chapter on therapy, cryptococcosis is authoritatively dealt with by Littman and coccidioidomycosis by Winn.

The book is well produced and illustrated in black and white. It can be strongly recommended to the increasing

number of morbid anatomists and microbiologists who are interested in medical mycology, and who are more and more likely to be faced with knotty problems of mycological diagnoses.

H. I. WINNER

PROCEEDINGS OF THE 7TH INTERNATIONAL CONGRESS OF MICROBIOLOGICAL STANDARDIZATION (Pp. vii + 556; illustrated. 130s.) Edinburgh and London: E. & S. Livingstone. 1962.

The general microbiologist will be relieved, on studying this volume of 556 pages of Proceedings of the 7th International Congress for Microbiological Standardization, to find that very little of it is about standardization. It comprises, in fact, a large number of short papers on various aspects of the devising, production, testing, and control of immunizing agents used as prophylactics for man and animals; and of diagnostic serological products.

There are a number of papers dealing with the philosophy and methods of standardization, including a stimulating presidential address by A. A. Miles endeavouring to restrict the use of the word 'standardization' to its proper sense. There are also a number of papers on the methods used by the international laboratories for preparing and maintaining the standard preparations.

The remaining papers are grouped under various topics and include: adventitious agents in virus vaccines, sterility testing (with a broadside from H. Proom on the ill-conceived requirements of some authorities), staphylococcal antigens and antibodies, B.C.G. vaccine, field investigations of new and old vaccines, and antiviral agents.

Among the papers noted as being of special interest were the following: a discussion of differential rate methods for selective inactivation of viruses (C. W. Hiatt); a useful bacteriological test method for sterilization equipment (C. G. Hedén and H. Markkula); assay of leucocidin (G. P. Gladstone *et al.*); assessment of immunizing agents in man (T. M. Pollock); and field investigations of typhoid vaccine (W. C. Cockburn). And certainly any other reader would find a different selection also of interest.

But, this said, one must doubt whether this form of publication is to be encouraged; and one must inquire whether the good papers could not better be published in one or other of the standard journals (as many certainly have been or will be in any case). Papers in the present volume will usually be found only by the persistent seeker for there is no contents list giving their titles, no subject index, and even the running headings on the text pages refer to the topic rather than the particular paper (and the two are commonly only tenuously related). But perhaps it may be assumed that those who will pay £6 10s. must be persistent seekers.

R. E. O. WILLIAMS

MENTAL ILLNESS AND THE AGEING BRAIN By J. A. N. Corsellis. (Maudsley Monographs 9.) (Pp. 76; figures. 30s.) London: Oxford University Press. 1962.

There has been extremely little reliable work on the relationship of cerebral abnormality with the ageing brain and with mental disorders of any sort. It is therefore of great value that an author of experience such as

Dr. Corsellis should devote so much time and study to this problem. His book on this topic is of very great value to all those interested in this field. He has been able to collect 300 unselected cases from a mental hospital which have been studied and reviewed from the clinical, morbid anatomical, and histological aspects. This has entailed a very considerable detailed classification which he has tried successfully to keep to a minimum. Even so there are a very large number of carefully prepared tables of statistics from which it is possible to obtain practically all the necessary facts relating to his subject.

Clinically the mental hospital case material covers the organic brain conditions and the functional disorders while particular pathological features recorded consist of blood vessel changes, senile plaques, ventricular dilatation, and neurofibrillary changes, as well as including the causes of death.

Pathologists and clinicians, especially those concerned with geriatrics and with mental disorder, will be indebted to the author and this volume should remain as a permanent record which will be referred to in the future by all those concerned.

The volume is most excellently produced and such errors as were found are not worthy of recording.

J. N. CUMINGS

ELEVENTH ANNUAL COLLOQUIUM

The eleventh annual colloquium of the Sint Jans Hospital at Bruges (Belgium) on 'Protides of the biological fluids' will be held from 3 to 5 May 1963. For all information please apply to the Laboratory St. Jans Hospital, Bruges, Belgium.

Ninth International Congress of Haematology

NOMENCLATURE OF ABNORMAL HAEMOGLOBINS

At the Eighth International Congress of Haematology held in 1960 in Tokyo 12 recommendations on the nomenclature of abnormal haemoglobins were made. Because of the extremely rapid development in this field these recommendations were reviewed at the Ninth Congress in Mexico City in 1962. The present recommendations are to be further reviewed at the Tenth International Congress in Stockholm, 1964.

1 As published in this journal in 1960 the letters A through Q (except B) and S are recognized as naming the haemoglobins to which they were allotted. For the time being, the remaining letters of the alphabet should not be used for describing new haemoglobins which should now be named after localities. It should be left to the individual workers to choose the most meaningful name from the origin of the propositus, or the laboratory, hospital, town, or district where the haemoglobin was found. In the future the name of a locality or hospital should not be used twice, as for example it has been used for Hopkins I and Hopkins II, because this might confuse the naming of abnormal haemoglobin A₂ variants (see paragraph 5).

2 If a haemoglobin has been identified by the usual methods of electrophoresis, chromatography, spectroscopy, alkali denaturation, cold denaturation, and solubility tests, it should be described by the accepted capital letter. When comparison has been made on the same lines and with equal thoroughness with a haemoglobin carrying the name of a locality that name should be applied. If the abnormal polypeptide chain is identified this should be indicated by a subscript (for example, D_α, D_β); and until complete identification of the amino-acid sequence has been established this subscript should be followed by a declaration of origin (D_β^{Los Angeles}, G_α^{Philadelphia}).

3 Analysis of amino-acid sequences of the globin molecule has now led to a precise chemical nomenclature elaborated by the 'Haemoglobin Structure Workshop,' Boston, December 1960.¹ This nomenclature is recommended to members of the International Society of Haematology, with the exception that the names of the known polypeptide chains of normal human haemoglobin should be α, β, γ, and δ, and not α^A, β^A, γ^F, and δA₂. However, in order to clarify a particular situation such as a hybridization experiment, the superscripts may be used.

4 In the nomenclature of haemoglobin M it has been customary to abbreviate descriptions such as M_{Saskatoon} to M_S or M_{Boston} to M_B. This practice is now discouraged since with the rapidly increasing number of haemoglobins M any general abbreviation to initials becomes impracticable.

5 Of the different haemoglobins A₂ the δ-chain variants should not be named B₂, C₂, D₂, etc., as this would confuse the naming of haemoglobin A₂ variants with abnormal α- and normal δ chains. The designation