

## Book reviews

**Recent Research on the Retina.** Edited by E. S. PERKINS. 1970. *Brit. med. Bull.*, 26, May, Pp. 99-184.

The May issue of the *British Medical Bulletin*, entirely devoted to recent research on the retina, is of great interest to ophthalmologists, pathologists, and physiologists; Professor Perkins acted as Scientific Editor. The comprehensive introduction is by Norman Ashton, who also contributed the first article on retinal angiogenesis in the human embryo, and a later article on the pathology and physiology of cotton-wool spots. There are papers on the ultrastructure of the retina (Pedler and Young), receptor potentials (Arden), the metabolism of the retina (Graymore), the optical properties of the photoreceptors (Weale), recent work on visual pigments (Dartnall), and their anomalies in colour-defective subjects (Rushton). Fluorescence angiography is described in general terms (Hill) and particularly in diabetic retinopathy (Kohner and Dollery). The pathology of diabetic retinopathy is discussed by Garner, its experimental production by Heath, and the management of oxygen therapy to premature infants to prevent the development of retrolental fibroplasia by Baum and Tizard. The lesions produced by laser irradiation are described by Marshall and Mellerio. Comparative studies are also included, of deep-sea fishes (Locket) and of the avian retina (Cowan).

The subjects are well chosen, for in each there has been much fundamental research in the last decade, producing results of unusual interest and importance. All the contributors are acknowledged authorities on their various subjects and, as would be expected, the articles are unusually good. This issue of the *Bulletin* is beautifully illustrated and is well worth reading.

**Occupational and Medicative Hazards in Ophthalmology** (III Congress of the European Society of Ophthalmology, Amsterdam. 1968). Edited by J. FRANÇOIS. 1969. Pp. 722, 211 figs, bibl. Karger, Basel. (£15)

This volume contains reports of the proceedings of the 3rd Congress of the European Society of Ophthalmology, which was held in Amsterdam in 1968. The majority of the papers are concerned with ocular injuries resulting from industrial processes or from environmental conditions such as high altitude, ultra-violet light, and even space travel. Electrical injuries, chemical burns, the problems of visual fatigue, and methods of prevention of industrial injuries are described. Numerous papers describe the ocular changes resulting from treatment with drugs such as chloroquine.

It is difficult to single out papers for individual mention from the 83 presented, particularly as many of them are reviews or summaries of previous work. Most ophthalmologists will find articles of interest in this volume and it should certainly be consulted by those who are concerned with industrial ophthalmology.

The book is well produced and there are English summaries of the papers.

**The Eye. Vol. 1. Vegetative Physiology and Biochemistry.** Edited by H. DAVSON. 2nd ed., 1969. Pp. 679, figs, bibl. Academic Press, New York and London. (\$26)

We are all indebted to Dr. Davson and his collaborators for the second edition of this volume, which originally appeared in 1962. One chapter which was contained in the first edition (on comparative anatomy of the vascular supply) has been omitted, but the remainder have all been revised and largely re-written, and there is an entirely new chapter on "General Aspects of Retinal Metabolism" by C. N. Graymore. The other major addition is a chapter on "The Lens: Function and Macromolecular Composition" (S. G. Waley), "Lenticular Metabolism and Cataract", as before, being

dealt with by R. van Heyningen. The remaining chapters are "Gross Anatomy and Embryology" (P. C. Kronfeld); "Intraocular Fluids" and "Intraocular Pressure" (H. Davson); "Vitreous Body" (A. Pirie); and "Cornea and Sclera" (D. M. Maurice).

Like Mr. Weller's knowledge of London, Davson's contributions to the physiology of the eye are "extensive and peculiar". Their extent is obvious; their peculiarity is perhaps only appreciated by considering who else would undertake such an integrated account (in the first place), be able to collect such a team of authoritative contributors, and persuade them all to revise and update their texts to produce this excellent volume.

**Atlas of Diagnostic Techniques and Treatment of Intraocular Foreign Bodies.**

By W. H. HAVENER and S. L. GLOECKNER. 1969. Pp. 197, 90 plates. Mosby, St. Louis; Kimpton, London. (£8 15s.)

This excellent book is similar in format to that produced in 1967 by the same authors dealing with the diagnosis and treatment of retinal detachment. The text has been clearly written and is profusely illustrated with line drawings, the number of which no doubt contributes to the high cost of this book.

The first part deals with diagnostic techniques, including slit-lamp microscopy, gonioscopy, use of the three-mirror lens, the electric locator, ultrasonic techniques, and radiological localisation by the method of Sweet, but there is no mention of the prognostic and medico-legal importance of recording the visual acuity. The main emphasis in this section is on the use of the indirect ophthalmoscope, with scleral depression, with a detailed account of the principles and techniques of this procedure. In the second part there is a comprehensive description of the surgical techniques available for removal of foreign bodies from different sites within the globe and the importance of prophylactic measures (particularly cryotherapy) to prevent subsequent retinal detachment is stressed. This section is liberally illustrated and contains many useful surgical tips.

This atlas can be highly recommended and should certainly be available for the use of ophthalmic residents; those who are faced only occasionally with an intra-ocular foreign body might well find it helpful.

**Fundamentals of Visual Science.** By M. L. RUBIN and G. L. WALLS. 1969. Pp. 435, 71 figs, 90 refs. Thomas, Springfield, Ill. (\$17.50)

This interesting book deals with the perception of light and space. It is written in a conversational style which may be initially irritating (but this soon passes), and the format suggests that it is derived from a series of physiology tutorials, the whole approach being physiological rather than clinical. The contents cover the nature of light, entoptic phenomena, photochemistry, electrophysiology, assessment of visual acuity, colour vision, and spatial vision. Several features make the book particularly attractive. The experiments are described critically where necessary and the reader is given a feeling of involvement. The references are well selected and it is evident that in many cases the authors know the workers, and their laboratories, which also adds to the personal interest.

For a clinician it may not be an easy book to read and, in view of the way it is written, it is difficult to go back to re-read certain parts as required. The discussion of spatial vision is prefaced by a glossary of terms to be used to avoid ambiguity. This book can be recommended to every ophthalmologist, and particularly to the candidate for the fellowship or other higher examination.

**Structure of the Uveo-Trabecular System** (Über die Strukturen Uvea-Trabekel-Systems.) By L. VALU. 1970. Pp. 69, 54 figs, refs. Thieme, Leipzig (Abhandl. Augenheilk., vol. 38). (DM 18.50)

The author gives a detailed description of the structure of the trabecular system of the anterior chamber angle as ascertained by histology, histochemistry, polarization, and electron microscopy.