Book reviews

**A System of Ophthalmology. Vol. V. Ophthalmic Optics and Refraction.**

As is so rightly pointed out in the preface to this volume, most ophthalmologists of more mature years, even those younger ones who have overcome the hurdle of their specialist examinations, tend to regard “optics” with a feeling of revulsion, associating the subject with page upon page of abstruse mathematical formulae difficult to understand and almost impossible to memorize. Let no one be deterred by memories of past headaches from perusing and enjoying this volume. Some formulation is inevitable for a complete study of the fundamentals of refraction and the provision of comfortable spectacles, but this is largely confined to chapters 2 and 3, 125 out of 862 pages. The remainder of the work, written in the eminently, indeed seductively, readable style which characterizes the nine volumes of the System already published, comprises sections on anomalies of refraction and accommodation, both physiological and pathological, binocular factors, eye-strain and the influence of illumination, environment, and other factors on ocular comfort. These are followed by most interesting and useful chapters on spectacles, by the value and comfort of which so much of our work is judged and of the technology of which so many of us are so ignorant, on contact lenses and on low visual aids. The final chapter gives a valuable analysis of the optics of those ophthalmic instruments commonly used in clinical examination.

Readers who are familiar with Duke-Elder’s Text-book of Ophthalmology will realize that the present work represents in large degree the sections on theoretical and clinical optics appearing in its first and fourth volumes. These, however, have been much expanded and extensive new subject matter has been incorporated. The grouping together of all aspects of refraction and accommodation and their anomalies makes the subject much more interesting. It may be that there are some who are contemplating omitting this volume from their collection because they think the subject is dull. They are profoundly mistaken. As here presented it is not, and the authors are warmly to be congratulated—and thanked. Their lucid and interesting exposition of that facet of our work which, for the majority of us, is the main source of our bread and butter, is invaluable. It is a pleasure, but probably unnecessary since it will be taken for granted, to add that the production and format of the volume are well up to the high standards we have come to expect from its publishers.


This second volume follows broadly the pattern of Vol. 1 (1967) in embracing a wide range of up-to-date topics, each dealt with by an authority in the specific field. Biomicroscopy, fluorescence angio-graphy, and gonioscopy are discussed, and there are also chapters on keratoplasty, keratitis, and the ophthalmopathies of thyroid disease. Cryotherapy in retinal and cataract surgery and various aspects of strabismus and amblyopia are included, and the final chapter comprises a survey of dyslexia.


In 130 adult white rats the optic nerve was subjected to circumscribed traumatic lesions of different kinds and extent, and the near and distant effects so produced on the myelinated fibres, glia, and
vascular mesenchyma were studied under the electron microscope. The comparison between traumatic and ischaemic changes in the axons, astrocytes, and oligodendrocytes with toxic, inflammatory, and metabolically-induced events leads to the conclusion of common morphogenetic mechanisms, despite the variable pathogenesis. The monograph is illustrated with numerous very impressive photomicrographs.


The 1970 Year Book of Ophthalmology comes up to its usual standard. A specially distinguished feature in this edition is the quality of the introductory essays to the various chapters, which are written by authorities on their subjects. The detailed abstracts of important papers maintain their usual quality but some of the comments are perhaps becoming a little puerile. Nevertheless this book remains essential reading for all ophthalmologists, particularly those with special interests, so that they may read about the latest advances in fields other than their own.


This is an interesting and unusual book emanating from the school of Lyons and therefore introduced by Louis Paufique. The first and main part consists of descriptions of the hundreds of syndromes associated with ophthalmology, including not only those limited to the eye itself but also systemic syndromes in which the eye is incidentally involved. In each case the clinical characteristics are briefly but clearly defined, particularly as they affect the eye. Until these are listed together, the average person does not realize how numerous they are. In this part of the book the syndromes are arranged as in a dictionary according to the names of the authors who first described them, starting with Abderhalden and ending with Wyburn-Mason. In the second chapter, which serves as a diagnostic guide, the syndromes are listed topographically as they affect the various tissues of the eye or its adnexa. In the last chapter they are arranged under general systemic headings, such as those associated with the cranio-facial disostoses, metabolic diseases, diseases of the nervous and muscular systems, and so on. In each of the last two chapters a reference is made to the description in the first chapter. The book is very useful as a guide to the many eponymous syndromes; in future editions its interest would be greatly enhanced by the inclusion of a short note on the individual authors themselves and a reference to the papers in which the original description first appeared.


Many interesting facts emerge from the papers included in this volume. Alcohol is a factor in about half of the fatal crashes in the United States, and the blood level of alcohol is often 150 mg./100 ml. A consideration of traffic-crash patterns shows that visual acuity plays an important part in the etiology of traffic accidents, especially after middle age. Motor cyclists are particularly prone to injury but the various influencing factors have not been fully investigated. Physical examination of drivers is of the greatest importance.