The cornea and sclera were the subject of a chapter by Maurice in “The Eye”, volume 1, “Vegetative Physiology and Biochemistry”, 2nd edition, published in 1969, also by the Academic Press. In this publication, Maurice fully reviewed the structure and function of the cornea, and Maurice and Riley have therefore concentrated chiefly on the biochemistry of the tissue.

Metabolism of the retina was also the subject of an article, also by Graymore, in “The Eye”, vol. 1, there is considerable overlap between the two chapters, although the “Biochemistry of the Eye” contains a longer and more detailed account.

The lens was dealt with by two different authors in “The Eye”, vol. 1. Kuck, whose contribution is divided into three chapters “Chemical constituents of the lens”, “Metabolism of the lens”, and “Cataract formation”, is less informative about recent work on lens proteins, and gives more space to other chemical constituents, such as nucleotides and lipids.

The ciliary body and aqueous humour (D. F. Cole) and the vitreous body (E. R. Berman and M. Voaden) both have their counterparts by different authors in “The Eye”, vol. 1. Dr. Coles’ contribution is an interesting review of the composition of the aqueous humour and the processes by which it is formed and leaves the eye. Surprisingly little research has been done on the ciliary body itself, probably because it is difficult to isolate and to dissect with pigmented and non-pigmented layers. This important tissue deserves more attention from the biochemist. The chapter in the vitreous body is a full account of the structural aspects of and the movement of fluids and solutes through the structure.

Biochemistry of vision (C. D. B. Bridges) is a detailed review of present knowledge of all aspects of the visual pigments, in solution and in the eye, their nature, distribution, photo products, and changes associated with bleaching.

Unlike the others, the last two chapters are not concerned with one part of the eye, but with the effect upon the whole organ of inborn errors of metabolism in man (C. N. Graymore and D. Y. Hsia) and of malnutrition, chiefly vitamin deficiency, in man and animals (D. S. McClaren). Neither chapter has much to say about the biochemistry of the eye, but this is not a criticism; very little is known about this aspect of the subject. Inborn errors are a fashionable topic and research on the subject is abundant. Nutritional research is not so fashionable, being frequently tedious and difficult. It may be in this field that the most important advances, in terms of benefit to mankind, are to be made; this chapter serves to emphasize how sketchy is our knowledge of the subject at the present time.

This book, which reaches a consistently high standard, will be valuable to research workers with an interest in any part of the eye, and essential for newcomers to the field. Apart from the important matter of expense to libraries or individuals, such comprehensive articles are time-consuming to write, and Academic Press are to be criticized for commissioning two similar volumes at almost the same time.

As the Editor points out, this is the third book to be entitled “Biochemistry of the Eye”. The first (264 pages) was written by one author in the thirties, the second (323 pages) by two authors in the fifties, and this one (793 pages in 1970) is by ten authors. It will surely be the last attempt to cover the whole subject in one volume.


France has a reputation for producing men who have made valuable contributions to our knowledge of strabismus and its treatment, among whom in the past have been Javal Remy, Onfray, and Cantonnet and Filoziat. It is therefore most appropriate that another Frenchman has continued this tradition by writing a good textbook on the subject of strabismus. He is assisted in this work by his wife, who is a distinguished orthoptist.
That a third edition of this book has been necessary so soon (the second edition was published in 1965) speaks for itself. There is no doubt that in the majority of European countries it is the most popular book on the subject.

The text has the great merit of being comprehensive. It covers a brief history of the subject and a short discourse on terminology before the main text begins, which is tidily divided into six parts.

The first part consists of a clear and well-illustrated exposition on relevant anatomy and physiology.

The second part deals with generalities about concomitant squint and heterophoria including the mechanism of abnormal retinal correspondence and amblyopia.

In the third part oculomotor paralysis is studied in depth, including the acquired as well as the congenital forms of this anomaly. Retraction syndromes and pseudostrabismus are also dealt with.

The fourth part is devoted to methods of examination and is extremely well written.

The fifth part is devoted to treatment and deals with general medical treatment, optical treatment including the use of prisms, the treatment of amblyopia, and orthoptic treatment.

The sixth part deals with surgical treatment and is well illustrated by drawings which in the majority of cases are so much easier for the student to understand than photographs. There is much useful information on the indications for operation in the various forms of strabismus including the indications for surgical treatment in cases of nystagmus associated with a compensatory head posture.

An unusual feature of the book is the appearance of the list and details of the contents at the end instead of at the beginning, which would be more usual and perhaps preferable. However, this arrangement means that the first thing to catch the eye of the reader on opening the book is a delightful article entitled "some aphorisms" which comprises many well-known statements and others less well-known but none the less true, such as that of Chavasse, who said "An orthoptic department must be diagnostic before it can pretend to be therapeutic".

There is no list of references, but in many ways this is a good idea since the book is based on broad general principles and any list of references might tend to be incomplete or else so long that it would take up too much room.

The authors are to be warmly congratulated on the third edition of their book and we look forward to its English edition shortly.


The author has devised a test of muscle balance very similar to the Hess test. He has added a pattern of dots visible to each eye despite the red and green goggles, so that some stimulus to fusion exists. The test can be used without the dots (forme libre) or with the dots (forme à choix multiple) and the result is plotted on a chart similar to that used for the Hess test. The results of the two tests in phorias, tropias, nystagmus, refractive errors, and a few miscellaneous conditions are presented. In some cases the results are similar, in others dissimilar. The authors explain the disparity by the intervention of fusion or accommodative mechanisms. The significance of this is not explained and the advantages of this new technique are not made apparent.


This is a beautifully illustrated book showing typical clinical examples of the various types of strabismus and oculomotor anomaly, outlining the clinical facts, the treatment carried out, the progress of each patient, the final result, and comments on management.