for guidance in the repair of such larger defects. Total reconstruction of an eyelid receives no mention at all, and the large and beautifully executed drawings, which occupy much of the space in this chapter, merely depict the meticulous repair of relatively trivial defects. Incredibly there is no mention anywhere in the book of burn injuries of the eyelids, which seems a curious omission from a work of this sort.

One should add that, in spite of this critical review, the book contains much practical information and should be a useful addition to the textbook literature in this field.

ROBIN BEARE

Optometry Handbook. By LEROY RUBIN. 1976. Pp. 198, figs, tables. Butterworth Group: London (£8.90)

The *Optometry Handbook* has chapters on visual acuity, ophthalmic optics, prescription design, ophthalmic lenses, refraction and analysis, contact lenses, low vision, and pharmacology. Each chapter is a compilation of statistical data drawn from various sources which will be particularly useful to manufacturers and opticians but of little value to ophthalmologists unless they specialise in ophthalmic optics. Of some interest to ophthalmologists would be the section on pharmacology, which lists and cross-references many drug preparations used locally and systemically that have an effect on vision. The other statistics given still keep to the obsolete American foot measurements with regard to acuity, and therefore will be of less value to British and Continental readers.

M. RUBEN

Advances in Ophthalmology. Vol. 34. Edited by E. B. STREIFF, H. SAUTTER, and M. J. ROPER-HALL. 1976. Pp. 226+8, 65 figs., refs. Karger: Basel (DM 129)

The subjects covered in this volume are the ageing of the lens, persistence and hyperplasia of the primary vitreous, the mechanisms of amblyopia, the use of laser interferometry to measure retinal visual acuity, and finally the papers presented at a symposium on lasers and the anterior segment of the eye.

Professor Jean Nordmann's publications on the biochemistry of the lens span an astonishing 50 years from his thesis in 1926 to the present very welcome review of the ageing process in the human lens and the pathology of senile cataract. The normal lens continues to grow throughout life, though the rate of growth slows down with age. In all types of senile cataract the axial cortex is thinner than in a normal lens of the same age, and there is a deficiency of fibrogenesis and protein synthesis before opacities occur. All attempts to involve extralenticular factors in the genesis of cataract have failed except perhaps for hyperglycaemia, and it seems that cataract is a local condition resulting from changes in the lens alone. Protein synthesis is slowed down, particularly with regard to glutathione, but the importance of this factor is unknown. Attempts to substitute the deficient glutathione have not given satisfactory results, and the most hopeful therapeutic possibilities are to find substances

which can penetrate the lens to activate protein synthesis. The requirements for substantiating claims for any method of treatment are clearly outlined. Drs M. Gonvers, R. Faggioni, L. Zografos, and C. Gailloud from Lausanne review the literature and present a case of persistence of the primary vitreous, concluding that this is a condition comprising a number of entities previously considered as separate. The possibility of an aetiological connection with retrolental fibroplasia cannot be excluded.

Dr G. K. von Noorden reviews the mechanisms of amblyopia as revealed by animal experiments which have shown that amblyopia is accompanied by alteration in the response of neurones in the striate cortex and by structural changes in the lateral geniculate body. It is likely that the bilateral amblyopia in such conditions as congenital cataract results from deprivation of form vision, whereas in unilateral amblyopia from squint there is an additional factor resulting from abnormal binocular functions.

Retinal function can be tested by forming interference fringes on the retina with a low-power laser. This subjective test is independent of refraction and can be used to assess function in patients with cataracts. The instrument used by Drs Rassow and Wolf is described, and a comparison of the results with the final visual acuity after cataract extraction was encouraging.

The symposium on lasers and the anterior segment was held in Hamburg in April 1976 and was concerned with experimental and clinical studies on the use of lasers for iridotomy and trabeculotomy. The experimental studies dealt with the biochemical reactions in the eye after laser irradiation, including metabolic changes and the liberation of prostaglandins, threshold damage levels for the structures of the anterior segment, and experimental results with a dye laser.

The clinical discussions confirmed that laser iridotomy is now well established as a satisfactory procedure, and although it is possible to burn a hole with the argon laser alone it is probably better to use the argon laser to produce initial stromal damage and to complete the iridotomy with a pulsed laser. The clinical value of laser trabeculotomy for chronic simple glaucoma is still controversial, although good results were claimed from using a Q-switched ruby laser. But the fall in intraocular pressure in successful cases is limited, suggesting some degree of obstruction in outflow channels beyond the trabeculum.

As is usual with this series the volume is well produced and illustrated and provides an excellent review of current work in the fields represented.

E. S. PERKINS

Grundlagen und Methodik der Ophthalmodynamometrie, Ophthalmodynamographie, Temporalisdynamographie. By D. ULRICH. 1976. Pp. 152, 58 figs., 21 diagrams, 33 tables. Georg Thieme: Leipzig (no price)

In comparison with other blood vessels in the body the retinal vessels have two advantages for measurement of blood pressure; they can be easily seen and they are enclosed in the corneo-scleral envelope. This means that it is relatively easy to increase the external pressure acting