

invariably shows an increased albumen-content (0.213 per cent. to 0.457 per cent.); in the secondary aqueous it may amount from 0.474 per cent. to 0.767 per cent.

8. In congenital hydrophthalmos in man the increase of albumen in the primary aqueous is even higher (0.782 per cent. to 2.37 per cent.). The quantity of albumen in the secondary aqueous (2.86 per cent. to 3.2 per cent.) corresponds to what otherwise is found only in the secondary aqueous of the rabbit.

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BOOK NOTICES

Oftalmologický Sborník. Collection of Papers read before the Fourth Congress of the Czechoslovak Ophthalmological Society, 1929. Published by the Society, Prague, 1929.

The Report of the 3rd Congress of the Czechoslovak Ophthalmological Society, held in 1928, appeared in 1929, and was noticed in this journal, December, 1929. That of the 4th Congress of this Society, held in 1929, has now reached us. It is a much smaller volume: 187 pages as against 578. With kindly consideration for the foreigner résumés in French, English and German are given of 26 of the 30 papers contained in the volume, and occupy the first 30 pages thereof.

A considerable proportion of the papers are statistical, pertaining to observations on various ocular diseases over a period of ten years or so, in ophthalmic clinics of the country. Zahor (from the Workmen's Accident Insurance point of view) discusses the problem of detachment of the retina in accidental injuries to the eye and emphasises the difficulty of excluding detachment due to disease in such cases, of which he cites examples.

In 112 cases of detachment of the retina, Würz found a history of previous injury in 34 (excluding 4 as uncertain). In 8 the traumatic origin was doubtful though possible: in 11 the detachment was clearly due to injury: in one it followed concussion from a fall on the back of the head. The results of treatment were unsatisfactory; cure in two cases, improvement in two.

Mrazova and Vejdovsky both report cases of injury to the eyeball and lids by ink-pencils, followed in two instances by necrosis of corneal and conjunctival tissue and in one by severe iritis.

Ptelen, investigating 50 cases of rupture of the sclerotic, observed during ten years, reports a "good result" in only 2 per cent. Würz, at the Brno Ophthalmic Clinic, reports 6 cases of "juvenile haemorrhage in the vitreous": 5 males, 1 female, the ages between 14 and 32 years. While under observation retinitis proliferans developed in one patient and Coats's type of retinitis in another.

Aetiologically 2 cases were considered as undoubtedly, and 4 cases as probably, tuberculous.

Kadlicky constructed curves showing the seasonal frequency of diseases of the eye, over a period of 9 years. The total frequency is greatest in the spring, 30 per cent.; in summer 25 per cent.; in autumn 23 per cent.; in winter 22 per cent. The fluctuations of individual disease are generally analogous; glaucoma shows its maximum in February. Gala writes concerning 6 cases of "cancer of the lids and conjunctiva" treated by "electro-coagulation," with which method he has obtained satisfactory results.

Mrazova treated 12 cases of interstitial keratitis by malarial inoculation combined with antisyphilitic medication. In only two instances was there notable improvement.

The remaining papers are mainly clinical records of rare disorders, *e.g.*, plexiform neuroma, disciform keratitis, melanotic myo-sarcoma of the orbit, congenital anomalies, etc.

Pathology of the Eye. By JONAS S. FRIEDENWALD. Pp. 314. Illustrated with 253 figures. London: Henry Kimpton. 1930. Price, 21/-.

This is a comparatively short book and the general plan of it is "to group together the reactions of the various parts of the eye to similar injuries and disease processes . . . whenever possible aetiology and pathogenesis have been emphasised."

The author is an entertaining writer who takes a wide view of his subject with the result that his work is eminently readable. It is delightful for instance in a description of focal lesions to read how an uninitiated student of the literature "might easily be led to suppose that in Germany and elsewhere on the continent, tuberculosis is quite a different sort of disease from that which we find in this country, while on the other hand, the teeth and tonsils of the British and American people were in some obscure way stimulated to most malicious behaviour." There are no fewer than 253 illustrations many of which are admirable and of great interest. They all appear to be microphotographs, and while "the camera cannot lie" it cannot always tell the whole truth and in some cases a drawing, even though partly diagrammatic, would have served the purpose better. A notable example of this is Fig. 71 on page 92, which represents a section of the cornea in interstitial keratitis, showing nothing which could be construed as characteristic of the disease. As a contrast to this, nothing could be clearer than the illustrations on page 11 of colloid excrescences on Descemet's and Bruch's membrane and on the lens capsule.

As would be expected there is much in this book on the subject of focal infections, which are described as causing subacute endophthalmitis, and an interesting description is given of how large mononuclear cells agglutinate in the sheaths of the retinal

vessels, become epithelioid in appearance and lead to an erroneous diagnosis of tuberculosis from their resemblance to giant cells. Again the type of cell responsible for the formation of keratic precipitates is shown to have a relation with the clinical appearance of the cornea; polymorphs, having no tendency to agglutinate, form very fine precipitates, lymphocytes, with more tendency to agglutinate, form a coarser precipitate, while the "mutton fat" precipitates are those in which large mononuclear phagocytes predominate. An interesting suggestion is made in the section devoted to cataract, namely that the senile variety of this disease may in some cases at least result from an exaggeration of the normal senile decrease in capsular permeability. In the description of glaucoma, it is suggested that the primary cause of an acute attack is a local vasomotor crisis, manifesting itself especially in an increased permeability of the capillaries of the ciliary processes.

These quotations will show that there is much to interest the ophthalmologist in the pages of this book, but on the other hand there are notable omissions and we trust the author will not take it amiss if some of these are mentioned. In dealing with sympathetic ophthalmitis, no mention is made of large mononuclear leucocytosis. Vossius' ring is not mentioned as a sequel to concussion injuries, and the association of horizontal ridges on the teeth, convulsive fits and probable parathyroid insufficiency is not referred to in the description of lamellar cataract. In the discussion of the mechanism of production of choked disc, increased venous pressure is dismissed on the grounds that choked disc is very rare in thrombosis of the cavernous sinus and there is no reference to the opening up of other anastomotic channels in this condition. Also there is no mention of the theory of Paton and Gordon Holmes as to how in cases of raised intracranial pressure, the central retinal vein is exposed to pressure from without while it is crossing the subdural space of the optic nerve and thus oedema of the nerve head is brought about.

Omissions, however, are always easy to detect, and no one who reads this book can help feeling that the author has made a notable addition to ophthalmic literature. Moreover many will also feel that he has helped to clarify our ideas about various points in the pathology of eye diseases.

Studies in the Psychology of Reading. By M. D. VERNON and R. W. PICKFORD. Pp. 59. 13 tables. London: His Majesty's Stationery Office. April, 1929.

This publication follows on one published in 1926 on the legibility of type, since the committee had recommended a series of studies on the mental processes involved in reading whole sentences and words rather than isolated letters. In both Vernon's and Pickford's work, the reading material was exposed for a short period of

time in a tachistoscope. The former observer classifies the mistakes into three categories, typographical, meaningful and mixed. The typographical errors were at a maximum when reading groups of three disconnected words while the meaningful errors were at a maximum in reading the long sentences, the mixed errors being at a maximum in reading connected prose. The substitution or omission of the letters occurred in the middle of words rather than at the beginning or end, and the contour of the words, as shown by the relative heights of the letters was more important for their apperception than their horizontal extension. When the meaning of the material read was fully comprehended, typographical errors were few. When it was not understood unfamiliar words were replaced by far more familiar ones of a somewhat similar form or by very much shortened words or by nonsense combinations. With regard to individual differences it was found that those who had a wide and accurate perceptual span in the reading of meaningless material did not have more than an average span in reading the meaningful material. The best readers relied more upon interpretation in accordance with meaning than upon wide perceptual span and objective accuracy.

Pickford's work, which forms the second part of this publication, was an attempt "to investigate the relationship between the flow of perceptual processes and the flow of meaning in reading." In a given passage a certain "set" of meaning was formed in the subject's mind and in a subsequent similar passage, complications were introduced into the reading matter which would be out of accordance with that meaning. An attempt was then made to observe in what way the effect of the first passage altered the nature of the reactions to the subsequent ones. The results obtained were not very conclusive and the author would prefer to dispense with the tachistoscope and use another method for further investigations.

Fifteenth and Sixteenth Annual Reports of the Ophthalmic Section of the Department of Public Health, Egypt. Government Press, Cairo.

These publications have now been brought up to date by the printing of the Reports for the years 1927 and 1928. The number of ophthalmic hospital units in the country at the end of 1928 was 41, of which 27 are permanent built hospitals, and 14 are travelling hospitals under canvas.

Photographs of two new hospitals which have been built at Asswan, in Upper Egypt, and at Rod-el-Farag, in the suburbs of Cairo, are shown.

A colossal amount of clinical work was done at this unique system of hospitals during 1928. More than 171,000 operations were performed; these included about 2,000 cataract operations, more than 1,000 decompression operations for glaucoma, and 60,000 operations for entropion.

Tafeln zur Binokularen Untersuchung des Gesichtfeldzentrums mit dem Stereoskop. By ERNST HAITZ (Mainz). Seven charts with explanatory pamphlet. Fourth edition. München: J. F. Bergmann. 1929. Price, M.6.60.

Haitz's charts for mapping out small para-central scotomata (within a range of 10° from the fixation spot) make possible one of the simplest stereoscopic methods in use, the only other apparatus necessary being a stereoscope of the Holmes type and, of course, coloured test objects. The advantages of the stereoscopic method are best seen in cases of monocular scotomata. Accurate fixation may be difficult in such cases as soon as the good eye is occluded and small scotomata may easily be overlooked in examining an unsteady eye.

A German text of ten pages accompanies the charts and gives a full explanation of the principles and application of this method, which is widely used in Germany.

The present edition differs in no way from the last.

Sammlung Stereoskopischen Bilder von Augenheilkrankheiten (First Series.) By A. VON RÖTTH (Budapest). Pp. XVIII + 30, $6\frac{1}{2}$ in. \times $4\frac{3}{4}$ in. Fifty stereophotographs, 13 cm. \times 6 cm., with explanatory text in German, English and Magyar. Budapest: "Studium." 1929. Price, R.M.20.

Stereoscopic photographs as illustrations of pathological lesions are of necessity of greater value in ophthalmology than in most other clinical subjects, for to the oculist, the level of a lesion is even more important than its shape and size. In an ordinary photograph it may be difficult to determine whether a particular lesion is an opacity of the cornea or of the lens; in a successful stereoscopic photograph such difficulties do not arise, and von Rötth's collection is a convincing plea for the value of such pictures. The present series of fifty represents a first instalment: they are everything such photographs could possibly be, and except for the fact that they do not show natural colouration, give an extremely life-like appearance.

The author's aim has been to supply illustrations of the more common conditions and to provide photographic records of rare and interesting cases, though most of the illustrations are essentially for teaching purposes. In this country lantern slides and coloured drawings have been used largely for this object and also for the representations of rare conditions. von Rötth's collection shows that stereoscopic photography has some advantages well worth considering. One of the photographs is an illustration of a congenital tarsal fold which could hardly have been brought out as effectively by a non-stereoscopic illustration.

The photographs were taken with the Drüver camera (Carl Zeiss). (An article on the subject of stereophotography of the eye appeared in this journal, Vol. IX, p. 512.)