

THE COUNCIL OF BRITISH OPHTHALMOLOGISTS

The activities of this Council have unfortunately been restricted during the past year.

A Committee was set up to deal with the question of the standardisation of Snellen's test types but owing to the war this Committee was unable to hold any meetings.

The Council continue to supervise the affairs of the Orthoptic Board.

Beyond this there is nothing to report; but at the same time the Council particularly wish it to be understood that it is always ready to deal with any urgent matters brought to its notice about which an expression of opinion from the Council is desirable.

ANNUAL CONGRESS OF THE OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM

The Annual Congress of the Society was held at the Royal Society of Medicine on April 25 and 26, 1940, under the presidency of Mr. Harrison Butler.

The Nettleship Medal was presented by the President to Dr. Dorothy Campbell, who returned thanks.

The following is the abstract of the papers read.

THE PRESIDENT,

"Anomalies of the Posterior Layers of the Lens."

Drawings shown of cases of Lenticonus Posticus, and the anomaly described, together with some remarks upon puddlers' and glass-blowers' cataract, with illustrative drawings, and changes in the posterior capsule seen after perforations of the globe, with drawings.

MR. M. L. HINE,

"Six Months at an Emergency Ophthalmic Hospital."

This was not a scientific contribution, but put on record, as a matter of possible interest, how one emergency base did its work during the unexpected initial waiting period of the war.

MR. H. M. TRAQUAIR,

"Observations on the Causation and Treatment of Dacryocystitis."

Present views as to causation unsatisfactory. Necessity to take the sex incidence into consideration. The importance of heredity. Bacteriology. The infantile form. Treatment by Toti's operation.

SIR RICHARD CRUISE,

“Preventable Blindness in War.”

The necessity for the protection of eyes in War was advocated before the Annual Ophthalmic Congress in 1917.

For details see Volume XXXVII of the *Transactions*, 1917.

An entirely new type of visor has been designed.

The subject is discussed under the following headings:—

1. The type of injury that is the most frequent cause of blindness. By G. S. W.
2. The definition of “Preventable.”
3. The method advocated to effect this purpose.

Tests on the stopping power of the visor.

MR. EUGENE WOLFF,

**“The External Limiting Membrane of the Retina
and its Relation to “Verhoeff’s Membrane.”**

The purpose of this paper is in great part to confirm Verhoeff’s description of the membrane he discovered in the pigment layer of the retina. This was thought necessary as the very existence of this structure has often been denied, and it is not even mentioned by Salzmann, and other well-known works on the Histology of the eye.

The present contribution adds some microphotographs which Verhoeff said were difficult or impossible to obtain, and others which are but rarely seen.

MR. EUGENE WOLFF,

“The Blood Supply to the Lamina Cribrosa.”

A short contribution intended to correct certain previous statements by the author on this subject.

MR. L. H. SAVIN,

“Tarsectomy for Trachoma.”

An apparent increase in the incidence of trachoma is noted in South London. A review of out-patient records shows the inadequacy of ordinary conservative methods of treatment. Many patients with active trachoma only attend hospital on a few occasions. Instances are given of trachoma acquired in London by patients who have never left the country. No system of compulsory notification is in

force. In these circumstances drastic methods of treating the disease seem justified. A series of tarsiectomies on 25 trachomatous patients is described.

MR. T. W. LETCHWORTH,

**“A Case of Cyclitis of twenty-four years’ standing
Cured by Tonsillectomy.”**

MR. G. F. ALEXANDER,

“Ocular Myology.”

The law of the primary and secondary actions of the rotator muscles of the eye as generally stated. The error in this law indicated. The traction-line and traction-plane of the above muscles.

The primary and secondary actions of these muscles, and the movements of the anterior pole and vertex of the eye effected by them.

The “effectivity” of the muscles defined. The above law shown to be applicable to the superior and inferior recti; but not to the obliqui. The above law amended so as to be applicable to the obliqui as well as to the superior and inferior recti.

MR. G. F. ALEXANDER,

“Spasm of the Accommodation.”

Little consideration given to this subject by oculists.

Cases in which it tends to be present.

Clonic and tonic spasm, with a typical case of each variety.

Factors of causation.

A cycloplegic acting with the efficiency of atropine, and permitting of as rapid recovery from its effects as homatropine.

Sectional spasm of the ciliary muscle, and the conditions inducing it.

DISCUSSION

MR. A. J. BALLANTYNE,

“The Choice of Operation in Glaucoma.”

Operative treatment rests on the view that the central fact in all forms of glaucoma is elevation of the intra-ocular pressure, which, if unrelieved, causes destruction of vision through injury to the optic nerve and other intra-ocular structures.

Operation justifies itself in so far as it gives both an immediate and a lasting reduction in pressure, by the simplest procedure, and

with the least risk of complications and dangerous sequelae. As we cannot influence the rate of formation of the intra-ocular fluid, operation can only adjust the fluid balance by opening up intra- or extra-ocular channels for the escape of the aqueous.

This paper will be concerned chiefly with the five representative operations which have been most widely practised—the classical iridectomy of von Graefe which aimed at the opening up of the normal intra-ocular channels (the spaces of Fontana and the canal of Schlemm), the cyclodialysis of Heine, which creates a new intra-ocular passage from the anterior chamber to the suprachoroidal space, and the three procedures which aim at the establishment of sub-conjunctival drainage of the anterior chamber through a filtering scar—sclerectomy according to the methods of Lagrange and Elliot, and the iris-inclusion operation of Holth and others.

Judgment regarding the relative merits of, and indications for, these operations, is difficult for many reasons which will be discussed. Most of the operations have been condemned on account of their shortcomings or dangers in the hands of certain operators, but, while the publication of unsatisfactory results points to the difficulties which may be encountered, and the need for certain precautions, a fair estimate of the merits of the different operations can only be gained from the experience of those who have employed them extensively, and can show *satisfactory* results. Unfortunately, few clinics with sufficient material have been able to try out the different types of operation on a strictly comparable basis.

Iridectomy (von Graefe, 1858) is almost universally accepted as the operation of choice in acute congestive glaucoma. It can be performed with the keratome or the Graefe knife. It is equally applicable to the chronic or sub-acute congestive form, and here there is much to be said for a purely peripheral iridectomy, which opens up the angle, gives a better cosmetic and optical result, and allows the effective use of miotics if necessary. The percentage of good results in simple glaucoma is low (about 10 per cent.) contrasting with the 80-100 per cent. success obtained in primary acute congestive cases.

Among other operations, designed with the object of opening up the angle to provide free access from the anterior chamber to Schlemm's canal, is the Goniotomy of Barkan, 1936 (division of the trabeculae of the pectinate ligament)—a feature of which is that it is carried out under direct observation with the gonioscope. Barkan limits the use of this operation to cases of chronic simple glaucoma of the obstructive type with an open angle.

Iridencleisis (Holth, 1906). The reduction of pressure resulting from iridectomy with accidental inclusion of the iris in the wound, led to attempts to establish a filtering scar by deliberate inclusion of the iris. Herbert's pioneer work (1903) was closely followed

up by that of Holth, whose operation is the form of iris-inclusion most widely practised and most carefully studied.

The pigment epithelium of the iris lining the wound favours the formation of a true filtering scar, while a substantial covering of conjunctiva protects against infection. Holth himself employed the operation in every type of glaucoma. The latest figures (Gjessing, 1939) apply to 198 cases of simple and chronic glaucoma, followed up for from 6 to 280 months. In 73·2 per cent. of the cases a good result was obtained in respect of vision, field of vision and tension.

Sclerectomy. Lagrange (1905) introduced the principle of establishing a scleral fistula from the anterior chamber to the sub-conjunctival lymph spaces. His operation has been practised extensively in all types of glaucoma; but Lagrange limits its use to cases of chronic congestive and simple glaucoma, in which he obtains 85 per cent. of "success."

Sclero Corneal Trephining (Elliot, 1909), has probably been tried out on a larger scale than any of the other modern operations. The wide gap between the most successful and the least successful results, and the multitude of modifications introduced by individual operators, suggest certain technical difficulties in the operation; but in the hands of competent operators it yields an average of 70 to 85 per cent. of favourable results. It is generally admitted that no other operation gives such a satisfactory immediate and lasting reduction of tension. It may be employed in all varieties of glaucoma; but it is principally applicable, like Lagrange's sclerectomy, to simple and chronic congestive glaucoma. In congenital hydrophthalmia it has given better results than any other procedure (65 per cent. favourable).

Cyclodialysis (Heine, 1905) has been widely used, and its results thoroughly investigated. The consensus of opinion is that it is easy, safe and comparatively free from risks of complications. The primary result is not always maintained; but the operation can be repeated. Permanent good results are obtained in about 50 per cent. The principal indications for its use are simple glaucoma, chronic congestive glaucoma, secondary glaucoma after cataract extraction, etc., and as a second operation where some other procedure has failed.

Complications. All operations involving the angle of the anterior chamber carry the risk of complications, such as intra-ocular haemorrhage, injury to the ciliary body and lens, prolapse of iris or vitreous, infection and sympathetic ophthalmia. From the literature it would appear that these are least frequent in cyclodialysis, and most frequent in sclero-corneal trephining; but each of the five operations referred to has been carried out in large series free from serious complications.

MAJOR I. C. MICHAELSON and DR. A. C. P. CAMPBELL.

**“The Anatomy of the Finer Retinal Vessels with
some Observations on its Significance
in Certain Retinal Diseases.”**

A new technique for demonstrating the finer vessels of the retina was described. Detailed mention was made of the disposition of the capillary system. Certain of the features thus elucidated seem to throw light on the pathogenesis of the retinal changes found in hypertension, arteriosclerosis, diabetes, venous thrombosis and papilloedema.

MR. W. J. B. RIDDELL,

“Two Clinical Tests for Night Blindness.”

A woman observed that her small son was night blind like her father. On investigation seven affected male relatives were found. The family was one which would not co-operate in any elaborate tests and a simple clinical method of assessing the disability was required. The visual acuity was recorded by means of Snellen's type in the diminished illumination provided by a standard candle shielded from the patient. Similar observations were made in chronic glaucoma, optic atrophy, retinitis pigmentosa and normal subjects. Gross differences were found which made it possible to identify the affected patients.

As the night blindness was sex-linked it was of importance to investigate the colour vision. With Ishihara's isochromatic plates no abnormality was found but the final group of Stilling's plates (nineteenth edition) was read in a manner indicative of defective perception of blue by those affected with night blindness. There is other evidence which makes this result not unexpected. In cases of night blindness with no objective abnormality a supplementary test which must be carried out in good daylight has certain advantages.

MR. A. RUGG-GUNN,

“A New Binocular Ophthalmoscope.”

Advantages of stereoscopic ophthalmoscopy, *e.g.*, in determining presence of papilloedema at an early stage, and especially in demonstrating whether lesions at the macula are raised or not.

Optical principles employed in construction of binocular ophthalmoscopes: path of rays in large Gullstrand ophthalmoscope when adjusted for binocular observation.

Path of rays in new binocular ophthalmoscope. Principle of indirect ophthalmoscopy. Description of the instrument.

Advantages of moderate amounts and disadvantages of high amounts of magnification, *e.g.*, in telescopic systems. Effects on brightness on observer's interpupillary distance, constriction of light pencils, and disturbances by vitreous and other opacities.

Technique of use. Table of corrections for ametropia.

MR. LINDSAY REA,

"The Use of Heparin in Thrombosis."

Heparin. Its discovery—its composition—its anti-coagulating activity—its use in blood transfusion—its use in surgery—leading to its use in ophthalmology.

Cases cited.

Suggested dosage and urgency.

During the Congress the usual trade exhibition was held and Messrs. Hamblin were so good as to organize a large exhibit of topical appliances for war-time measures.

ABSTRACTS

MISCELLANEOUS

- (1) **Yudkin, Arthur M., and Geer, Harriet A. (New Haven, Conn.)—An investigation of experimental cataracts in the albino rat. Clinical implications. *Arch. of Ophthal.*, January, 1940.**

(1) **Yudkin and Geer's** albino rats consistently developed cataract when fed on a diet containing 35 per cent. of galactose. At the end of the fourth to seventh day slight engorgement of the ciliary vessels was present, then vacuoles, filled with fluid, developed beneath the lens capsule and at the end of 24–30 days fully developed cataract could be observed. During this period the animals maintained normal growth and health. When the amount of galactose was reduced to 25 per cent. lens opacities developed in only two-thirds of the rats, when reduced to 15 per cent., no definite ocular change was found. Raising the proportion of protein (casein) in the diet from 15 per cent. up to 35 per cent. delayed the onset of ocular changes by about two days. Decreasing the proportion of protein in the diet to 5 per cent., made the rats more susceptible to galactose and it was found that cataract developed when only 15 per cent. of this sugar was incorporated in the diet. Even when the proportion was reduced to 10 per cent. on a low protein diet,