Mention of some of the regulations may prove of interest. A candidate before commencing training must be 17 years of age, and have passed the school certificate, or an equivalent examination.

Students wishing to be trained will be required to agree to a list of regulations controlling the principles and practice of orthoptics which contain, *inter alia,* statements that:

1. They shall only work with, and under the direction of, fully qualified medical practitioners engaged in ophthalmology.
2. They shall not prescribe glasses or medicaments.
3. They shall not advertise.
4. They shall abide by the decision of the Orthoptic Council.
5. They shall employ no secret treatment.
6. They shall not train students who will not enter under the engagements required of all squints trainees by the Council.

As regards examinations—to quote two of the rules:

A candidate must be 18 years of age, and a proper period of training must have been undergone at a centre recognized by the Council.

An attempt has been made to limit the number of students in order that, after paying fees and spending valuable time on training, qualified trainers will have a reasonable prospect of employment.

By these means the Council has endeavoured to regularize the profession of squint training and to give it a status worthy of its aims and objects.

ABSTRACTS

I.—MEDICAL OPHTHALMOLOGY

(1) **Rohrschneider, W. (Berlin).—The frequency and type of eye lesions in active tuberculosis in other organs. (Häufigkeit und Formen des Augenerkrankungen bei aktiver Tuberkulose anderer Organe).** *Zeitschr. f. Augenheilk.*, Vol. LXXXI, p. 197, 1933.

(1) **Rohrschneider** reviews the statistical literature on the incidence of eye lesions in pulmonary tuberculosis and finds only 38 eye cases in 42,191 general cases—an incidence of about 1 in 1,000. If, however, cases of tuberculosis spread by the blood stream are considered (bone, joint and genito-urinary system), the incidence is much higher—17 in 181 (consisting of four cases of

old scrophulous kerato-conjunctivitis, one episcleritis, two healed iritis, 10 recent or old choroiditis). Most of the eye lesions are mild, so that they may be regarded as "abortive metastases," in that they are incapable of independent development, being of haematogenous origin. One case of choroiditis ran a severe course; it developed four years after the healing of a tuberculous hip-joint. Presumably the general immunity failed. The author also holds that the right eye is the more frequently affected in these abortive metastases, perhaps because of some arrangement in the blood supply.

ARNOLD SORSBY.

(2) **Székely, J. (Graz).—The tuberculous nature of heterochromia iridis (Fuchs). (Tuberkulose als Aetiologie der Fuchsschen Heterochromie).** *Zeitschr. f. Augenheilk.*, Vol. LXXIX, p. 272, 1932.

(2) **Székely** recalls that the Vienna school are satisfied as to the tuberculous nature of a lesion if a positive intra-cutaneous reaction with tebeprotein is obtained, in cases in which other aetiological factors are excluded. Negative chest findings do not invalidate the conclusion. The author reports four cases of heterochromia in which the general findings were inconclusive, but tebeprotein reaction positive. In one case the patient previously had pulmonary tuberculosis; in another case typical disseminate choroiditis had been present. He concludes that heterochromia is tuberculous in nature, the result of a chronic inflammation first affecting the ciliary body.

ARNOLD SORSBY.

(3) **Sallmann, L. (Vienna).—The eye changes in human chrysosis after treatment with sanocrysin. (Ueber Augenveränderungen bei menschlicher Chrysosis nach Sanocrysinbehandlung).** *Zeitschr. f. Augenheilk.*, Vol. LXXIX, p. 208, 1932.

(3) Hansborg (Acta Tuberc. Scand. XXXI, 255) has shown that protracted use of gold induced discolouration of the skin (chrysosis) not unlike that seen in argyrosis. Only that part of the skin which is normally exposed to light is affected. **Sallmann** records the case of a patient who had 26 sanocrysin injections in the course of a year. He notes that the typical pigmentation affected the lids and the interpalpebral conjunctiva. In the conjunctiva the fine pigment dots were deeply situated and had no definite relationship to the vessels. In a piece of excised skin the particles were found in the superficial layers of the cutis, generally in or near the connective tissue cells, but also free in the stroma—again without any relationship to the lymphatics or blood vessels.

A considerable deposit was seen in the interstitial tissue of the cornea without any preference for the marginal areas. Descemet's membrane was unaffected. The author holds that the corneal corpuscles have the same absorptive power for gold as have the cells of the reticulo-endothelial system.

ARNOLD SORSBY.

(4) **Morelli. (Florence).—The late effects of arsenobenzol in ophthalmic medicine, with notes on iontophoresis and tropism. (Effetti tardivi, jonoforesi e tropismo nella terapia arsenobenzolic a oculare).** *Boll. d'Ocul.*, June, 1934.

(4) The use of arsenobenzol derivatives at first was followed not infrequently by accidents which in some cases caused blindness. **Morelli** has established that the cause of these mishaps is to be sought sometimes in the injudicious choice of the drug, sometimes in an insufficient regard to the patient's general condition. Ehrlich's desideratum, toxicity towards the parasite, harmlessness to the patient, is not attainable. The author holds that the drug acts rather by improving the parasiticidal power of the tissues than as a direct parasiticide. He does not think that ionization has any special effect in the administration of arsenobenzol. He has noted that in eyes having posterior synechiae, the use of N.A.B. is often followed by the development of cataract and thinks it should be avoided in all such cases. Of the two classes of arsenical compounds, he notes that the trivalent are liable to give rise to vasomotor accidents, while the pentavalent tend to affect the nerves. It is wise, in every case, to make the patient less sensitive to the drug before its administration, by giving a course of bismuth or mercurials, and to prefer the trivalent forms to the pentavalent, since the latter are more dangerous to the optic nerve.

HAROLD GRIMSDALE.

(5) **Pressburger, E. (Vienna).—Eye changes in leukosarcomatosis (Paltauf-Sternberg). (Ueber Augenveränderungen bei der Leukosarkomatose [Paltauf-Sternberg]).** *Zeitschr. f. Augenheilk.*, Vol. LXXXI, p. 308, 1933.

(5) Under the name leukosarcomatosis, Paltauf and Sternberg have isolated a group of cases differing in their features from both leukaemic lymphadenosis and from lymphosarcomatosis. In contrast to the latter there are distinct blood changes suggestive of leukaemia, whilst the behaviour of the lymphatic glands is more like that seen in sarcomatosis rather than in leukaemia. **Pressburger** reports the case of a man, aged 36 years, who came under observation for exophthalmos and diplopia. Swellings

developed at the root of the nose, in the lid, maxillary fossa and cheek. Bioscopy of the latter revealed lymphosarcoma, whilst blood examination showed leukaemia. Post-mortem examination established the diagnosis of leukosarcomatosis and sections of the eye showed massive, but non-specific lymphocytic infiltration of the choroid.

ARNOLD SORSBY.

(6) **Rosenstein, Maria. — Blepharochalasis with goitre and duplication of lip. (Blepharochalasis mit Struma und Doppellippen).**
Hartmann, K. (Emden). — Blepharochalasis with goitre and duplication of lip. (Blepharochalasis mit Struma und Doppellippen).
Wien. Klin. Wochenschr., Vol. II, p. 1017, 1932, and *Klin. Monatsbl. f. Augenheilk.*, Vol. LXXXIX, p. 376, 1932.

(6) Ascher (*Klin. Monatsbl. f. Augenheilk.*, 1920, Vol. 65, p. 86) described the syndrome of which Rosenstein and Hartmann report two further cases. The blepharochalasis consists of atrophy and folding of the skin of the upper lid; the duplication of the lip is indicated by hypertrophy of the mucosa of the upper lip, giving rise to a fold suggestive of a second lip and apparent on talking. Ascher held the condition to be due to an endocrine disturbance involving the thyroid gland, though no evidence of hyperthyroidism could be established.

Rosenstein's case is of a girl, aged 16 years. At the age of 11 years she had influenza with marked swelling of the lids; the lips and neck became thicker at that time. The influenza lasted 10 days, but the swellings did not altogether disappear. Three months after the onset of menstruation these signs became marked consequent on a period of malaise. Now she exhibits the complete syndrome.

Hartmann reports another typical case occurring in a girl, aged 12 years, with a history of two years' duration. There is no evidence of hyperthyroidism or of any other general disturbance.

ARNOLD SORSBY.

(7) **Kunz, E. (Königsberg).—Iritis in spondylitis ankylopoietica. [Ueber des Vorkommen von Iritis bei chronisch-entzündlicher Wirbelsaulenverschleifung (Spondylitis ankylopoietica)]** *Klin. Monatsbl. f. Augenheilk.*, Vol. XCI, p. 153, 1933.

(7) Drawing on the distinction between spondylitis ankylopoietica and spondylitis deformans (in the one the new bone formation is intervertebral, in the other on the bodies of the vertebrae), **Kunz** reports seven cases of iritis in which spondylitis

ankylopoietica was found radiographically. Arguing that the bone disease is of rheumatic origin, he holds the iritis has the same aetiology. The more frequent use of radiography in iritis for the early diagnosis of spondylitis is advocated.

ARNOLD SORSBY.

(8) **Goldenburg**. (Chicago).—**Progressive exophthalmos in thyroid disease.** *Amer. Jl. of Ophthal.*, August, 1934.

(8) **Goldenburg** describes the case of a male, aged 68 years, with progressive exophthalmos after thyroidectomy. Six months after this operation the exophthalmos of the right eye was 28 mm. and the left 25 mm. The cornea of the right eye had ulcerated and the fate of the eye was becoming desperate.

A number of surgical procedures were tried in vain. These included external canthotomy; withdrawal of some of the subconjunctival oedema fluid with a hypodermic syringe; incision of the chemosed conjunctiva and the insertion of drainage tubes parallel to the lid margins; and, finally, an attempt to decompress the left orbit by making a large conjunctival incision near the outer canthus and deepening this through the orbital fascia, removing some of the orbital fat and inserting a drainage tube deep into the orbit. During the following days the swelling increased and the drainage tube was found to be plugged with coagulated fibrinous exudate. The tube was removed and another inserted with the same result.

Later the exophthalmos became less following the administration of hypertonic salines; 500 c.c. of 25 per cent. magnesium sulphate per rectum alternating with 25 c.c. of 25 per cent. glucose given intravenously, and later 50 c.c. of 50 per cent. glucose. There are no definite details of this treatment given in the text. Five months after this therapeutic course was begun the visual acuity was 10/200 but atrophic changes were noted in both optic discs.

The author comments on the fact that the left orbit, which was used as a "control," recovered more satisfactorily than the right orbit against which the more extensive surgical attacks were directed.

Analysis of the orbital fat showed that it softened at a lower temperature than normal fat and had a lower iodine number.

He stresses the importance of replaceability of the eye as a clinical sign of prognostic value. In cases where this is limited the exophthalmos does not improve as a result of thyroidectomy, but may do so eventually.

Some of the literature concerning the aetiology of exophthalmos in Graves' disease and the pathological changes in the orbital tissues is reviewed.

H. B. STALLARD.

II.—TRACHOMA

(1) **Tschirkowsky, W. W. and Dymschitz, L. A. (Leningrad.)—Biomicroscopical researches on trachoma verum corneae. (Biomikroskopische Untersuchungen ueber Trachoma verum corneae).** *Arch. f. Ophthal.*, Vol. CXXXII, p. 239.

(1) In this contribution to the study of the problem of true trachoma of the cornea, the existence of which has been doubted or denied by various writers, **Tschirkowsky and Dymschitz** examined nine cases with the slit-lamp, and in four of these were able to obtain histological proof of their clinical findings. Their cases (eight female and one male) were all in the regressive stage, four in stage II and five in III, the duration of the disease according to the anamnesis varying from 2 to 25 years; in six of the nine there was no sign of follicles in the conjunctiva of the sclera.

The results of this research are summed up as follows:—

True trachomatous granules with typical histological structure are found not only in the conjunctiva of the sclera and in the region of the limbus, but also in the cornea itself in some cases of trachomatous pannus, which presents a typical clinical picture of trachoma verum corneae.

The follicles in the cornea present on biomicroscopy an absolutely characteristic appearance. They are found at all ages and in the various stages of trachoma, but more especially in its later stages.

The authors reject Pascheff's views on trachoma that the disease is a non-infectious, non-inflammatory, endogenous, constitutional lymphadenoid hypertrophy of the conjunctiva, but they agree with him as regards the clinical features, the biomicroscopy and histology of trachoma verum corneae.

Their findings offer proof of the contention that in certain cases pannus may represent trachoma of the cornea in its typical follicular form.

THOS. SNOWBALL.

(2) **Motais (Saigon).—Tarsectomy by the cutaneous route. (Tarsectomie par voie cutannée).** *Rev. Internat. du Trach.*, April, 1934.

(2) **Motais** describes an operation of partial tarsectomy, carried out from the skin surface, in which the subjacent conjunctiva is left intact. This operation is of great value in cases where the tarsus is considerably thickened.

After the usual local anaesthesia has been obtained the metallic shoe-horn spatula is inserted under the eyelid and pushed up to the limits of the fornix.

An incision is made through the skin of the lid 4 mm. from the lashes. A dissection is made down to the free border of the lid, and also up to the superior limit of the tarsus.

An incision is made in the tarsus throughout its width 1 mm. above the hair follicles, this should be carried out without injury to the subjacent conjunctiva.

With a very sharp scalpel held parallel to the lid margin an incision is made at the upper margin of the tarsus, and carried down to meet the former tarsal incision, without incising the conjunctiva, and leaving a thin film of tarsus adhering to the conjunctiva. That is to say, a slice is taken from the superficial aspect of the tarsus. Sutures are now inserted. It is well to include with the needle at the upper part of the area of operation a fold of the deeper tissues.

A daily dressing may be carried out and the sutures removed on the fourth day, or, as is customary at the Egyptian Ophthalmic Hospitals, the first dressing may be done on the fourth day.

The combined excision of tarsus and conjunctiva first described by Saunders, and later by Kuhnt and Heisrath, requires much more operative experience and is more useful when the conjunctiva is still uncicatrized.

A. F. MACCALLAN.

III.—MISCELLANEOUS

(1) **Shimkin, (Haifa).—Pantocain, a new anaesthetic in eye practice.** *Folia Ophthal. Orientalia*, February, 1933.

(1) **Shimkin** has made a very thorough clinical study of the advantages of pantocain as a local anaesthetic for the eyes. His paper deals with the results of his investigations in the depth of anaesthesia produced in certain tissues, its effect on the blood vessels and the corneal epithelium, and the duration of anaesthesia.

Pantocain produces a burning sensation and a temporary blepharospasm for 8 to 15 seconds after instillation into the conjunctival sac. This is followed by slight conjunctival hyperaemia which disappears in three to five minutes. There is an absence of the sense of pressure, the patient does not feel the fall of another drop on to the eye and in many cases remarked on this. This feature is of particular value in operations where much instrumental manipulation is necessary. The palpebral fissure is not widened, and there is no dry sensation of the eyes. The corneal lustre is not lost and the corneal epithelium was found to regenerate quicker after the use of pantocain in cases of corneal

abrasion, ulceration and tattooing of the cornea than when cocaine was employed. In tattooing of the cornea rapid regeneration of the epithelium is essential to the success of the operation.

One drop of 1 per cent. pantocain renders the application of silver nitrate and copper sulphate painless, the anaesthesia lasting 20 minutes. It is non-habit forming. The author states that it is less satisfactory than cocaine for major ophthalmic procedures such as intra-ocular and muscle operations on account of the more excessive vascular oozing and hence the prolongation of the operation. Subcutaneous infiltration gives complete anaesthesia in one to three minutes, and in the case of lid operations has the advantage that no instrumental manipulations are felt. For mucous membrane grafts from the lip anaesthesia is produced by dabbing the graft with a tampon soaked in 1 per cent. pantocain.

The author states that cocaine has been excluded from his clinic and that several University clinics, including that of Jess in Giessen, have done the same.

H. B. STALLARD.

(2) **Lyle, T. J. and Fenton, F. G.—The advantages of intravenous (Evipan) anaesthesia in ophthalmic surgery.** *Brit. Med. Jl.*, September 29, 1934.

(2) As the result of using intravenous anaesthesia with evipan in 86 ophthalmic operations, **Lyle and Fenton** set out their experiences and impressions. This form of anaesthesia has now become the routine for use in excision of the eyeball at the Royal Westminster Ophthalmic Hospital, and many other operations requiring a general anaesthetic were done under evipan anaesthesia to the comfort of the operating surgeon, and without worry on the part of the anaesthetist.

In addition to its rapid action and safety, the method enables the whole face area to be free for the surgeon, and there is an especial value in its use in glaucoma cases, for under evipan anaesthesia a definite lowering of the intra-ocular tension can be demonstrated.

A summary is given of the variety of cases from the Hospital's work in which the method was used.

R. C. DAVENPORT.

(3) **Panico. (Rome).—Slit-lamp examination of steatosis of the conjunctiva, cornea and anterior chamber. (Biomicroscopia della steatosi della congiuntiva cornea e camera anteriore).** *Boll. d'Ocul.*, April, 1934.

(3) Though steatosis of the conjunctiva has been described by various writers, who have examined fragments removed from the body, no observations on the living subject have been recorded.

It has been supposed that when it occurs, it is the result of the absorption of fat from long-continued application of ointments. In one case which **Panico** has described elsewhere, the patient had never used any ointment; this, therefore, cannot be the only explanation.

Steatosis of the palpebral conjunctiva is seen as rounded yellow masses covering the whole surface, having no vessels except those running in from the margins of the mass.

On the bulbar conjunctiva the masses are small and approximately equal in size; they are most frequent in the loops formed by the anterior ciliary vessels.

In the cornea steatosis takes several forms. There may be primary or secondary degeneration; the second occurs mostly in old scars. It may occur as a yellow ring similar in position to the arcus senilis, but differing from it in colour.

Steatosis of the anterior chamber is rare, but the author has observed a case in whom the cornea showed a yellow colour in its deeper layers, while the anterior chamber was filled by a yellow mass which proved to be made up of fat globules held in a network of organized fibrin.

HAROLD GRIMSDALE.

BOOK NOTICES

Biological or Artery Flaps of the Face. By J. F. S. ESSER. Published by the "Institut Esser de Chirurgie Structive," Monaco.

In this volume, sumptuously illustrated by 420 plates of collotype reproductions, Professor Esser has collected the results of a wide field of work in plastic surgery of the face. The author is eminently qualified to write with authority on the subject, having had a vast experience in Holland, Austria, Hungary and Germany. His unbounded enthusiasm has led him to establish the "Institut Esser de Chirurgie structive," to which the proceeds of the sale of this work will be given. The book contains many examples of restoration of eyelids, etc., and will be of great value to ophthalmic surgeons.

A Pathology of the Eye. By EUGENE WOLFF, M.B., B.S.(Lond.), F.R.C.S.(Eng.). Illustrations, 124. Pp. 283. London: H. K. Lewis. 1934. Price, 28/-

There has been for some time a great need for a manual on the pathology of the eye, written in English, which steers a course between the larger compilations full of topics of academic interest