eye sufficient in degree to prevent the use of the Bren gun was present in 32 cases, a percentage of 11. There was one case of trachoma which may possibly have been infected in barracks. Among the rest occurred two cases of nystagmus and a single case of total colour blindness and myopic choroiditis respectively. Of these the most important items are the first and second. The Bren gun cannot be used from the left shoulder and it demands fair vision in the right eye. The case of trachoma may possibly be the needle in the haystack. The diagnosis of an early case of trachoma is never plain sailing. It demands the use of the slit-lamp and the microscopical examination of epithelial scrapings as well as considerable experience of the disease. It would not be fair to the members of the recruiting boards to make too much of a single case, but if other cases are admitted or if cases become infected after joining up, the results may well prove disastrous.

It cannot be too strongly emphasized that, though trachoma fortunately is not very common among the general population of Great Britain, there exists in "pockets" here and there quite enough to make possible the passing of an infected recruit. Every case with reddened eye lids and signs of conjunctival infection should be specially examined in order to exclude the possibility of trachoma; while doubtful cases should be referred to an ophthalmic surgeon of experience in the diagnosis and treatment of early cases and the military decision postponed until the candidate has received a clean bill.

ABSTRACTS

I.—CONJUNCTIVA


(1) The case recorded in this paper is that of a boy, aged 16 years, who, while bicycling, was struck in the eye by a fly, which he removed by means of his handkerchief. All immediate discomfort ceased but four or five days after, the boy had an acute attack of fever with headache, pain in the throat and general disturbance of health. Later while the fever diminished, the left eye became swollen and red, and there was photophobia and slight discharge. Since the symptoms did not lessen the boy was brought to the clinic. There was noted intense oedema of the lids, so that
the eye appeared closed; on evoting the upper lid the upper part presented a number of large nodules specially on the outer side. The bulbar conjunctiva was red and chemicotic. Just above the limbus, at 12 o'clock, there was a greyish nodule with a small central ulcer; the cornea in the neighbourhood of the ulcer showed slight diffuse opacity and the presence of many vessels. The submaxillary and preauricular glands were enlarged and slightly tender to touch. The appearances were characteristic of Parinaud's conjunctivitis, and the search for the cause was begun. After a good deal of difficulty, a bacillus was isolated from the excised preauricular gland, which showed the characters of the bacillus pseudotuberculosis rodentium. All cultivations from the conjunctiva were negative. There seems no doubt that the condition of Parinaud's conjunctivitis may be caused by a number of bacilli and the difference in severity depends less on the nature of the infection than on the receptivity of the subject attacked; it would be more scientific, therefore, to drop the personal name, and to call the disease by the name of the infecting agent.

HAROLD GRIMSDALE.

(2) Scardaccione (Rome).—Primary epithelioma of the Meibomian glands with epithelioma of the cornea from contact. (Epitelioma primitivo delle ghiandole di Meibomio con manifestazioni blastomatose della congiuntiva tarsale ed epitelioma da contatto della cornea). Boll. d'Ocul., April, 1939.

(2) Primary carcinoma of the Meibomian glands is not a common condition, and extension of the disease by contact is very rare. In the case described here, there had been swelling and discomfort of the lower lid for about two years; for six months the patient had noted some loss of sight in that eye. Examination showed a tumour of the lower lid not adherent to the skin except near the palpebral margin. The conjunctiva of the fornix was normal but near the cornea there was some thickening which extended into the cornea; this mass seemed made up of a grey stroma with many new vessels. It projected some 2 mm. from the plane of the cornea. The diagnosis of primary epithelioma of the Meibomian glands with probable epithelioma of the cornea was made. Treatment was removal of the corneal mass with accurate use of the galvanocautery afterwards; a few days later the mass in the lid was excised; the normal skin was retained but all the affected tissue was removed down to the lower fornix. Then the upper lid was split and the lower border of the tarsal plate secured to the lower conjunctiva. The skin of the lower lid was stitched to the anterior layer of the upper.

After three months the lids were separated by an incision along the line of the lashes of the upper lid. Microscopical examination
showed the presence of a primary epithelioma of the Meibomian glands, and epitheliomatous metamorphosis of the tarsal conjunctiva corresponding. Further an epithelioma of the cornea. This last was thought to have been caused by contact with the diseased conjunctiva.

HAROLD GRIMSDALE.

II.—CORNEA


(1) In the first paper Dalsgaard-Nielsen, on the strength of re-examination of 173 patients with previous interstitial keratitis, holds that there is no evidence for recurrence of this affection. What has been regarded as a recurrence of the corneal lesion is only a flare up of iridocyclitis.

In the second paper a review is given of the varying estimates of permanent visual damage in cases of interstitial keratitis, the incidence of blindness being given as from 3 to 19 per cent. by different authorities. Considerably varying incidences of full recovery has also been given. Her own investigations show blindness in 2 per cent. and vision ranging from 6/18 to 6/6 in 87 per cent., if the better eye is considered. She also discusses the incidence of various complications, such as corneal opacities, myopia and astigmatism and such a late sequel as secondary glaucoma. Statistical information is given on the incidence of fundus lesions; in her series 16 per cent. showed choroiditis. Disseminated choroiditis is more common than anterior choroiditis; the salt and pepper type and the bone-corpse type of reactions are rare.

ARNOLD SORSBY.


(2) Dalsgaard-Nielsen and Osterberg describe two cases of rodent ulcer of the cornea with a histological study of one of them. The significant finding was the considerable alteration in the vessels in the whole of the corneo-scleral junction, and not merely at the site of the ulcer. They hold that this supports the view that Mooren's ulcer is of vascular origin, though they consider it possible that there are several clinical and pathological types.

ARNOLD SORSBY.

(3) **Rosengren** reports five cases of serpigenous ulcer of the cornea treated by M. and B. 693. Admitting some uncertainty of judgment in some cases, he holds that the effect of the preparation was undoubted.

**Arnold Sorsby.**


(4) The patient, a man aged 43 years, was struck in the left eye by a fragment of stone. The eye was very photophobic and watered much; it was painful; there was a small ulcer on the lower outer side of the cornea. Within a short time the ulcer was seen to be surrounded by small vesicles; the iris was congested and the pupil small. Later the corneal epithelium showed dendritic losses; there were signs of affection of the sympathetic; enophthalmos, miosis, the opening of the lids was reduced; the sensibility of the cornea lessened; intra-ocular pressure lowered. The iris after a time became partially atrophic. This is the typical appearance of Claud Bernard's syndrome. The author thinks that the virus of herpes must have been introduced into the eye by the foreign body which caused the original injury.

**Harold Grimsdale.**


(5) **Cardello** has had occasion to observe a small epidemic of corneal herpes; all the patients came from the same area; in some it was associated with a severe form of influenza: in two cases the corneal condition changed into keratitis disciformis; he notes also that treatment with "neurovaccine" (a polyvalent vaccine) gave unusually good results. The author thinks that herpes corneae is a disease on its own: though often associated with other diseases. Carmi has noticed that there is an increase in number of eosinophils in the blood in cases of corneal herpes; this suggests that it is a general toxic-infective disease. Inoculation of animals was followed by encephalitis in many cases.

**Harold Grimsdale.**


(6) It has been shown that disciform keratitis may be due to many causes; while herpes is the most common, vaccinia is not very
infrequent; it has been supposed that this keratitis may arise from
an endogenous infection; Aliquo-Mazzei's cases go to show that
there must be a lesion of the corneal epithelium preceding. Where
there is no lesion, infection of vaccinia near the eye is not compli-
cated by this keratitis and even a corneal lesion is not necessarily
followed by disciform keratitis. In the four cases recorded here,
the cornea was definitely hypoaesthetic.

HAROLD GRIMSDALE.

(7) Grandi (Padua).—Disciform keratitis treated by Vitamin B.
(Un caso di cheratite disciforme favorelmente trattato con

(7) Grandi records a case of disciform keratitis in which injec-
tions of vitamin B were used with a good result.

HAROLD GRIMSDALE.

III.—LENS

(1) Salit, P. W. (Iowa).—Nitrogen content of cataractous and
sclerosed human lenses. Acta Ophthal., Vol. XVII, p. 81,
1939.

(1) Salit reports on 167 cataractous and sclerosed human lenses
which were removed by the intracapsular method and analysed
separately for their nitrogen content.

He shows that the nitrogen values in terms of per cent. dry
weight are practically the same for all types of cataractous and
sclerosed lenses, and average 15.35 per cent. of the whole lens
substance, or 16.56 per cent. by calculation, of the pure lens
protein. On the basis of wet weight, however, the different types
of cataractous and sclerosed lenses differ considerably with respect
to their nitrogen content. Lenses with incipient cataracts have an
average of 5.32 per cent. of nitrogen. It decreased to 3.98 and 4.11
per cent. in intumescent and mature stages, i.e., by 25.2 and 22.7
per cent. respectively as compared with incipient cataracts. When
the results are arranged according to stages of sclerosis, the average
nitrogen content for practically normal lenses is 5.36 per cent. It
decreases then to 4.83 per cent. during the stages of slight sclerosis
and pronounced sclerosis, and to 4.43 per cent. during the stages of
very pronounced and highly advanced sclerosis, i.e., by 9.9 and 17.5
per cent. respectively as compared with practically normal lenses.
In terms of absolute amounts the respective values are: 10.9, 10.2
and 8.8 mg. of nitrogen per lens.

The decrease in the nitrogen content due to sclerosis alone
within the group of incipient cataracts amounts to 7.3 per cent.
during the last stages of sclerosis as compared with practically normal lenses.

There is, therefore, a considerable loss in protein in the senile pathological lens as a result of cataract and pathological sclerosis, and the loss, on the whole, is proportionate to the degree of damage of the lens. Since the loss consists chiefly of the soluble proteins, or crystallins, the insoluble albuminoids are left behind and impart to the nucleus, in which they predominate, an increased rigidity and hardness.

Age, within the limits of 48 and 84 years, has practically no influence on the percentage of nitrogen in the lens. In terms of absolute amounts, however, there is a tendency for the nitrogen content to increase with advancing age, this being due to increase in the lens mass.

ARNOLD SORSBY.


(2) Orzalesi points out that few examinations have been made of the metabolism of the lens in senile cataract. He has found in all cases a weak respiratory activity; he thinks that the completely degenerated lens fibres probably have none, but that in all cataracts, even in those clinically mature, there are some fibres which have not become completely degenerate. This small remnant of the lens is enough to account for the consumption of oxygen which he finds. He notes that glycolysis is even more disturbed than the consumption of oxygen, for he has found it impossible to measure the production of lactic acid. He discusses the modern views on the production of lactic acid from glucose; it seems that phosphoric acid and certain ferment must be present. The author holds that the necessary ferment are not present in the cataractous lens, and that, therefore, glycolysis cannot go on.

HAROLD GRIMSDALE.


(3) The fact of the occurrence of cataract when the eyes have been exposed for a time to the action of X-rays, is well known. Taliercio has made this series of experiments in the hope of making certain the method of production. The animals were rabbits, and one eye was protected by a lead shield, to serve as control. All animals with any previous change in the lens were thrown out. The pH of the aqueous, the calcium content of the lens and its weight were noted and compared with the details of the control eye. The amount of oxygen consumed by the dry lens matter and the CO₂ given out or estimated from the lactic acid produced by
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Miscellaneous

glycolysis were estimated also. As a result of these experiments the author finds that the weight of the lens and the calcium content are increased; that the pH of the aqueous is moved towards alkalinity and that the production of CO₂ is diminished. All these changes vary in amount with the anatomical state of the lens.

Harold Grimsdale.


(4) The occurrence of a cataract in those persons who have taken α-dinitrophenol to reduce weight for any period, is comparatively common; the mechanism of its production is unknown. Basile has tried to produce cataract in animals which have taken this drug for considerable periods, in the hope of finding what brings on the changes in the lens; none of the animals showed any opacities in the lenses, though some remained alive under treatment for six months. The question therefore remains unanswered. It is possible that since it is estimated that in men, only one in a thousand develops cataract, the number of animals tested is insufficient.

Harold Grimsdale.

IV.—Miscellaneous


(1) Dejean and Ferrié have some interesting remarks to make about hallucinations which occur during binocular occlusion after operation. They contend that they are caused by the stimulation of the brain by the abnormal retinal sensation and irritation due to the suppression of light and images, and this conclusion is based on the fact that the retina is the creative centre. They cite three cases where it is emphasised that there was no question of such conditions as senility or cerebral sclerosis. This is in direct contrast to Turc's cases, where hallucinations occurred in patients suffering from senility or cerebral sclerosis, but with good vision, that is, the retina receiving the normal stimulus of light.

1. An N.C.O., aged 70 years, after cataract operation, saw in a corner of the room piles of unironed washing, later replaced by small pieces of wood ready to be made into toys, rain falling on an unploughed field, several people playing a card game, which he was
unable to follow, though an inveterate card player himself, and which was a veritable nightmare.

Of all these things, only the card game can be correlated to his own life.

2. Lady, aged 76 years, after cataract operation, had hallucinations and was delirious. She got out of bed and fell. During the night she wanted to rise and put on her shoes because it was cold, but refused a hot water bottle saying that there would not be room for it in the bed. That is, she had disorders of speech or delirium. In addition to this she suffered from hallucinations. Although aware that she was in hospital, she saw her son, who was a waiter, working in his usual place in the café. On removal of the bandage, delirium and hallucinations disappeared.

In this case the disorders were correlated to things in her own life.

3. Patient with immature cataract, suddenly lost the sight of her eye from retinal detachment, but as she thought the symptoms were due to the cataract, she did not seek advice for six months, during which time she had hallucinations. These included balls of all colours, human heads, dog’s heads and pig’s heads. Later she saw men and women conversing, but realising they were not real, she drove them off with her hand, whenever they approached. Sometimes she saw cakes and sweets etc. covered with flies and ants, and these flies returned again and again. Then she saw dwarfs who moved about in a Lilliputian land, and amongst them were women even smaller, about 15 cms. in height. An extraordinary thing was that all the people who appeared in these hallucinations wore the clothes of the Napoleon III period. After operation for re-attachment of the retina, which was successful, the hallucinations gradually diminished, and could be dismissed whenever the patient removed the pinhole glasses she was wearing.

The hallucinations could not be correlated to her real life.

In general the hallucinations in these cases were of two species:

1. Without reference to the patient’s normal life.

2. With reference to the patient’s normal life.

But in contrast to Turc’s cases the patients were mentally normal, and had no verbal, auditory or other hallucinations.

The only causal factor was the deprivation of light, and therefore, the cause of the post-operative hallucinations during binocular occlusion, is the lack of light and vision. This abnormal retinal stimulus, the deprivation of light, transmits abnormal impulses to the brain, thus producing abnormal cerebral reactions, the creation of abnormal images, called hallucinations.

W. R. Mathewson.

(2) There are many reasons for believing that the active principle of trachoma is a corpuscular virus of the same type as that of psittacosis and lymphogranuloma inguinale. After the important pioneer work of Halberstaedter and Prowaczek the inclusions in epithelial cells in early trachoma were called by them chlamyzydzoa. It is suggested that these corpuscles be called Prowaczekia trachomatis.

Weigl, who is the authority on typhus fever, a Rickettsial disease, has announced that the Rickettsiae of type Rocha-Lima have nothing to do with trachoma; Durand and Sparrow have shown that these organisms have no effect on the conjunctiva of man.

The only addition to the observations of Halberstaedter and Prowaczek of an experimental nature are those of Cuénod and Nataf, which consist in the transmission of trachomatous virus (trituated trachomatous conjunctiva) from louse to louse in series, by Weigl's technique of anal inoculation, after which it can produce trachoma in man and apes.

In the intestinal contents of virulent lice which have transmitted trachoma experimentally Cuénod and Nataf have observed Rickettsia-like bodies (which are not typical Rickettsia). They have observed often, but not constantly, Rickettsia of the type Rocha-Lima. They have obtained positive results (experimental trachoma) with lice from which Rickettsia-like bodies were absent. The ability of the lice to conserve the virus of trachoma, therefore does not depend on the presence of these Rickettsia-like bodies, which is another reason for believing that they have nothing to do with trachoma.

We have no absolute proof that the virus consists in the Halberstaedter-Prowaczek corpuscles; it is still possible that they are only a cellular epiphomenon, and that the virus exists outside them and without them. However there is a very great probability that the hypothesis of this corpuscular virus is correct.

It is true that the brood of lice used by Cuénod and Nataf was found at one time to be infected with Rickettsiae of the type Rocha-Lima, but there is nothing to prove that they have been produced in the lice by trachomatous virus; besides it was not they which produced the experimental trachoma.

The matter may be summed up as follows:—Rickettsiae of the type Rocha-Lima may be dismissed. There is a very great probability that the Halberstaedter-Prowaczek Körperchen are the agents of trachoma; these are not typical Rickettsiae; if they are Rickettsiae at all they are a new type. According to Cuénod and Nataf the trachomatous virus lies in corpuscles which they call
Rickettsia-like, but **Burnet** and most of us think that it lies in Halberstaedter-Prowaczek Körperchen; anyhow it is conserved and transmitted from louse to louse in series by anal injection, and after a series of passages it can produce a typical trachoma in a susceptible animal.

A. F. MacCallan.


(3) **Kirwan** states that keratoplasty is a comparatively common operation at the Eye Infirmary at Calcutta. Blindness is common and suitable grafting material easy to obtain. In his experience the eyes of donors blind from glaucoma furnish good grafts, and it is unnecessary to choose a donor of the correct blood group. The conjunctival sac must be rendered bacteriologically clean by treatment before operation and if anterior synechiae are present the anterior chamber must be reconditioned.

The case here reported was a Hindu woman, aged 26 years, with one eye practically blind from interstitial keratitis: (vision 1/60). The Wassermann reaction was positive in the blood and preliminary anti-syphilitic treatment rendered this negative. The donor was a Hindu woman, aged 60 years; the eye blind from irido-cyclitis with secondary glaucoma, the result of a couching operation for cataract. There was no keratitis punctata. The diameter of the graft was 4.5 mm., that of the trephine hole in the recipient’s cornea, 4.75 mm. The graft was kept in position by two fine silk sutures, one arranged in the form of a cross, the other as an “X.” These were passed into, but did not perforate, the cornea adjacent to the site of the graft. They were removed on the fifth day. Two months after leaving hospital vision was 6/18, and at the end of another two months was 6/6. The graft was completely clear and the surrounding cornea had cleared very considerably. The author has noticed this improvement frequently in the past. Later the patient was re-admitted with an acute conjunctivitis in this eye. This cleared up readily and the cornea was unaffected. Vision, 10 months after operation was still 6/6.

In Calcutta syphilis is common and interstitial keratitis frequently occurs in patients of much older age than in Britain. Kirwan thinks that the fellow eye in this patient is almost certain to be affected by interstitial keratitis later on. There is a good illustration of the eye before operation in the text, and a colour plate showing the corneal condition seen with the slit-lamp, before and after the operation.

R. R. J.

The subject of Sir James Barrett’s Presidential address at the first meeting of the Ophthalmological Society of Australia is sufficiently indicated in the title. He refers shortly to practical attempts at grading soldiers, damaged in the Great War, while he was serving in Egypt and Palestine, to see how the best use of a damaged soldier could be accomplished. At the Royal Victoria Institute for the Blind the British standard has been adopted in the classification of blindness. There is an interesting summary of the causes of blindness in Victoria drawn from the records of the Royal Victorian Institute. The first place is occupied by myopia with 13·5 per cent.; optic atrophy, 13 per cent.; nystagmus, 7·5 per cent.; trachoma and interstitial keratitis, 6 per cent.; ophthalmia neonatorum, retinitis pigmentosa and choroiditis, 5·5 per cent.; sympathetic ophthalmitis, 3 per cent.; injury, 2 per cent. Only two cases were due to glaucoma. The cases of trachoma are old ones, recent trachoma is rare in Victoria to-day.

The education of the partially sighted is admittedly a problem, but it can be done, and Sir James Barrett holds very strongly that no single woman in Australia should be on the dole. The demand for domestic service is never satisfied. Partially sighted women should be trained mainly for domestic service and boys of the same class, wherever possible, in the country.

The final part of the address is an interesting account of the history of Braille.

The prevention of blindness and provision for the education of the partially sighted are among the most important ophthalmic problems. The President of the newly founded Ophthalmological Society of Australia has done a public service to his Dominion by emphasizing their importance thus at the outset of the career of a young Ophthalmological Society, and we feel sure that his address will be a worthy ancestor of fine children in subsequent volumes.

R. R. J.


Stokes’ operation has been performed by him forty-two times with only three complete failures, and in two of them, the patients did not comply with his request for preliminary nasal treatment. This step is important and the following conditions should be corrected if found—high deviation of the septum, polypoid growths, enlargement of tip of middle turbinate, sinus disease. The operation is carried out under infiltration anaesthesia,
the nose being packed with cocainised gauze. The incision, practically vertical, is 1·5 to 2 cm. long, starts on a level with the summit of the globe and is placed at least 12 mm. from the inner canthus. It is carried down to the bone, which is exposed over the ascending process of the maxilla towards the anterior lacrimal crest. The edge of this is defined, the ligament divided and the peristeum lining the fossa, together with the sac is pushed outward, it is also dissected downward as far as possible into the opening of the naso-lacrimal canal. The sac is freed in its entire circumference and is cut across as far down as possible. Two or three silk sutures are inserted through the mucosa and wall of the sac 1—2 mm. from its cut edge and the sac lifted up and protected with a flat retractor. A trephine 8—10 mm. in diameter is applied to the bone forming the lower part of the ascending process of the maxilla. It should be directed slightly downwards and as nearly as possible at right angles to the plane of the intranasal surface. The trephine should have a centre pin to prevent its slipping. After removal of the bone, the nasal mucous membrane is trimmed flush with the edges of the opening and the old naso-lacrimal duct is curetted to remove its epithelial lining. The silk sutures holding the lower end of the sac are now passed through the new opening in the bone, picked up with a pair of nasal forceps, drawn out of the nostril and secured to the side of the cheek with strapping. The skin wound is sutured in the usual way. The sac sutures are withdrawn on the sixth day, at which time the canaliculus is irrigated with saline.

F. A. W.-N.


(6) The "Black-out" has imposed visual conditions which are new. It must be realized that several factors are at work in determining ability to walk in dark streets on a moonless night. In dim lights vision differs from that in daylight. In daylight the macular cones function and acuity of vision is determined by the condition of the macula and the sharpness of the image formed on it by the refracting mechanism, the periphery of the retina being mainly used to register movement and to assist orientation by stimulating the fixation reflex whereby the macula is turned on the most important object in the field. The cones also perceive colour. In dim lights, however, the peripheral field is at a premium, the macula practically ceases to function and the fixation reflex is in abeyance. Orientation is now entirely by stimuli from the peripheral field and para-macular region, small objects, such as distant stars, being much better seen when not fixed directly. In very dim lights the actual amount of light which enters the eye is of importance and a dilated pupil is an advantage, while in vision in daylight it is a disadvantage. Thus
it follows that for good vision at night the integrity of the field and the freedom of the pupil to dilate are of much greater importance than the condition of the macula and the state of the refraction and accommodation. Spectacle lenses and frames cut out part of the light and part of the peripheral field, so high myopes, wearing their glasses, do not get a large enough field or sufficient illumination, while if they take them off the image formed is dim.

In cases of low myopia and astigmatism it is often better to discard glasses.

A. F. MacCallan.

(7) Busacca, A. (Brazil).—Preliminary note on the presence of trachoma nodules in the pretarsal connective tissue and in the fascia of the orbicularis. (Nota preliminare sulla presenza di noduli tracomatici nel connettivo pretarsale e nei fasci del muscolo orbicolare). Folia Clinica et Biologica, S. Paulo, Vol. XI, N. 6, 1939.

(7) In many cases of trachoma in which the operation is suitable Busacca performs a combined excision of tarsus and conjunctiva, or tarsectomy. In one of these cases examined histologically he found trachoma nodules or follicles in the tissues which separate the tarsus from the skin, that is in both connective tissue and orbicularis muscle.

Trachomatous infiltration of the tarsus is well-known, but this is the first time that it has been detected in the tissue superficial to the tarsus. This tissue is called by the author “pretarsal” quite rightly; this term is employed by Birch-Hirschfeld and Wilson for tissue which lies between subconjunctival tissue and tarsus however.

A. F. MacCallan.


(8) Weve holds that every transition is to be found between simple arteria hyaloidea persistens and so-called pseudo-glioma caused by congenital detachment. He supports this view by a case report of a patient in whom a persistent hyaloid artery was present with a partial retinal fold. An illustration showing the findings is given.

Arnold Sorsby.


(9) Kravkov gives detailed experimental observations from which he concludes that caffeine heightens the colour sensitivity of the eye, particularly to reddish-orange and to green rays. The
effect of caffeine in doses of 0·1 grm. sets in within twenty minutes and lasts for forty minutes. The maximum increase observed in colour sensitivity was 40 per cent.

ARNOLD SORSBY.


(10) Suurkula stresses the fact that neither film preparations nor the examination of epithelial scrapings show clearly whether organisms found in the conjunctival sac are responsible for a given conjunctivitis. He stresses the value of culturing the organisms found and indicates that many types of conjunctivitis regarded as inflammatory are really allergic in origin.

ARNOLD SORSBY.


(11) Doherty suggests that vitallium, a casting alloy composed of 90 per cent. cobalt and chromium and a small percentage of endybdenum would make a useful orbital implant on account of its physical properties. It is strong, hard, very light, completely inert, most compatible with living tissue and produces no tissue nor electrolytic reaction. Its specific gravity is 8·29.

It has already received a trial in dentistry and in the treatment of fractures by plates and pins.

H. B. STALLARD.

BOOK NOTICES


Modern Trends in Ophthalmology is arranged in seven sections and has chapters by 55 authors. These have been drawn from three continents. Each chapter is by an acknowledged expert in its subject matter. Here is discussed "the as yet unsystematized knowledge that is emerging from clinics, laboratories and the periodical literature." The editors have decided not to "emphasize what is already established or that which is as yet unformed, but to indicate emergent tendencies and formative influences." They