the Eye Hospital where short papers were read on operations, new instruments, and ophthalmic apparatus, as follows:

Lt. Col. H. Herbert on "The Indications of Glaucoma Operations," four illustrative cases being shown.

Dr. S. Holth described a new punch-forceps for sclerectomy in glaucoma.

Mr. N. C. Ridley showed a patient whose orbit he had successfully restored by a plastic operation and who was consequently able to wear an artificial eye.

Dr. Rayner D. Batten demonstrated the Hydrophthalmoscope on a patient and indicated its value clinically.

Mr. A. S. Percival showed some simple devices for estimating the light sense.

All the contributions were freely discussed.

In the Scientific Museum, which was open during the Congress, Mr. E. H. E. Stack (Bristol) showed a simple and ingenious motor trephine which should prove of considerable aid in the operation of trephining. The author is to be congratulated on the device.

Mr. R. T. E. Hanson, O.B.E. (London), showed a well-designed ophthalmic bureau and equipment for R.N. oculists serving at either a Royal Naval Hospital or a Détôt, a Naval Base, or a Fleet at sea, and also drawings and models of improvements in gun-sighting telescopes, theodolites, and microscopes.

Mr. E. E. Maddox (Bournemouth) showed (1) an artificial epistaxis knife, (2) illuminated forceps, and (3) the "V" test for astigmatism.

Mr. N. C. Ridley showed a new cataract knife.

In a separate room Professor Barr's optophone, which has recently attracted so much attention, was demonstrated to members.

In the Commercial Museum instruments, apparatus, lenses, and books were on view during the meeting.

At the close of the proceedings on the first day a General Meeting was held, after which members with their friends met at Queen's College for tea, the Rev. S. B. Cronshaw acting as host.

The Official Dinner of the Congress took place on Thursday evening, the 15th, in the Hall of Keble College.

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**ABSTRACTS**

**I.—REMEDIES**

(1) It is astonishing with what enthusiasm new methods of treatment of intractable diseases are advocated by their authors. How seldom are the hopes held out of an absolute method of cure justified by after-results. What will be the verdict of others upon Abadie's new method of treating the more severe forms of trachoma?

Premising that the disease is microbial and that the intractable cases are due to the invasion of deeply-seated submucous tissue extending back towards the orbital tissue, Abadie has devised and used on a large scale in France, Spain, and Morocco, a method of cauterization of the deep cellular tissue extending from the superior cul-de-sac towards the orbit. A strong galvanocautery with a sharp and rigid point is employed. The upper lid and cul-de-sac is completely everted by means of a special forceps; the globe is protected with a thin metal plate and then, at about three millimetres from the external commissure, the cautery at a "red-white" heat is plunged into the conjunctival mucosa and the subjacent tissue, keeping as close to the globe as possible. At about .3 to 4 millimetres of depth the cautery becomes cooled and is withdrawn. It is heated up again and once more plunged into the same spot. This is done a third time and the pit which has been formed is then about a centimetre deep. Three or four millimetres from the first pit a second is made in the same way, and so on till there are four or five pits of about a centimetre in depth extending between the two ends of the everted lid. The surface is then simply bathed with a solution of perchloride of mercury, 1 to 500. The author states that there is no reaction and that no dressing is necessary. Bathing with boiled water is all that is required. The patient often obtains immediate relief of symptoms. As the reviewer understands the author, the upper lid is forcibly everted every two days, and the region of the perforations bathed with sublimate, 1 to 500 as above. At the expiry of two or three weeks the conjunctival surface has become normal, and pains, pannus, corneal ulcerations, etc., have disappeared as if by magic, and the disease is rapidly becoming cured. "I have operated," says Abadie, "by this new method on numerous patients who have dragged out a weary existence from hospital to hospital for years past, and have undergone the most varied forms of treatment without any definite success; and they have been completely cured."

Ernest Thomson.


(2) This long paper (55 pages) by Key, accepted as a candidate's thesis for membership of the American Ophthalmological Society,
deals with paraspecific therapy. Both sides of this vexed question are set forth with impartiality, an account of thirty cases (of which twenty-three were instances of hypopyon keratitis) treated by antidiphtheritic serum is given, and the author presents the following conclusions:

"1. Literature on paraspecific therapy is an interesting study and research, and clinical reports of wide experience point towards a field worthy of being explored.

2. Favourable results with paraspecific therapy are by far in the majority over unfavourable reports.

3. Antidiphtheritic serum seems to have an advantage over the other paraspecific agents, because it is readily obtained, its dosage is more certain, and the preparation more dependable.

4. It has the advantage over specific serums and vaccines in that it can be utilized during the time when a bacterial diagnosis is being made and the special vaccine or serum is being prepared.

5. Indications are: in all severe infections due to pneumococcus and staphylococcus, especially hypopyon keratitis, phlyctenular pustule, penetrating wound with infection, critical ulcer of cornea, post-operative infection, and panophthalmitis.

6. It should be administered early in the course of the infection, though its effect upon the late stages is even more striking than in earlier involvement.

7. Administration by hypodermic seems theoretically more practical, though its use by mouth has been strongly advocated with results equally as good.

8. Dosage is 5,000 to 2,000 units, the former infrequently repeated, the latter every day for three or four doses.

9. Adverse effects seem to have been of no importance.

10. Its principal effect is probably systemic, and to some extent reduces the virulence of the invading organism, through the production of antibodies.

11. Its curative properties are demonstrated by prompt effect upon hypopyon, reduction in conjunctival and iritic reaction, clearing away of ulcer débris, and relief of pain.

12. Its effect is limited by the presence of syphilis, untreated, and probably also by other systemic conditions.

13. It cannot be depended upon solely to combat an infection, though it may be the principal means of effecting a cure. Local measures, as indicated, are essential.

14. The time of injection in relation to the stage of involvement and the time of employment of other treatment may become a matter of special consideration and value when more is learned about paraspecific therapy.

15. The prophylactic use of antidiphtheritic serum at this time is only problematic."  

S. S.

Luedde presents a kind of general review of that curious affection vernal conjunctivitis, in the course of which he brings out nothing very new. As regards treatment, Luedde admits he has not personally tried radium or X rays, but his experience with a simpler remedy, fibrolysin and weak solutions of silver or zinc, has yielded results of a satisfactory nature. Before the fibrolysin is applied, a 1 per cent. solution of holocain is put into the eye. Two or three applications a week of fibrolysin are sufficient to produce a freedom from discomfort even in severe cases and during the hottest weather. In some cases it seems that treatment at intervals of one month throughout the year can prevent relapses and bring about a cure. It is unfortunate that throughout Luedde's communication no clear statement can be found as to the exact strength of the fibrolysin employed or the way the application is made to the eyes.

S. S.


Weekers sets himself to answer the question, is it possible to influence glaucomatous hypertension by means of medicaments given internally or injected under the skin or into the veins? In 1912 he published an account of the favourable results obtained by means of calcium chloride, results confirmed by Gowland (1917) and by Alt (1919). Weekers has tried the method on 21 cases of glaucoma, and checked the results by tonometric observations recorded at regular intervals. Among most of the patients the treatment failed to influence the intra-ocular pressure, although in a few it had a favourable influence in that direction. He administered three grammes of calcium chloride a day, and continued the treatment for twenty or thirty days. He now details five successful cases, all of them instances of chronic glaucoma, but we note that in two of them sclerectomy was performed eventually. In three of the cases pilocarpin was used at the same time that calcium was being given. The calcium chloride acts especially in cases of chronic glaucoma. In acute glaucoma, on the other hand, the digestive tract bears the calcium salt badly or not at all, so that one is driven to give it by intramuscular injection and consequently in inadequate doses.

S. S.
II.—ORBITAL INFLAMMATIONS


Wissmann gives a description and analysis of a series of cases of inflammation of the orbit, classifying them according to two main types, (a) those connected with processes arising in the walls of the cavity (subperiosteal, periosteal and osteal inflammation and suppuration), and (b) those arising in the retrobulbar tissue itself (diffuse infiltration, retrobulbar abscess, phlegmon, thrombophlebitis) which differ from the point of view of diagnosis, prognosis, and treatment; it may not always be possible to draw a sharp line between the two and one type may pass into the other, but there is frequently sufficient evidence to guide one to a correct diagnosis in any particular case.

Of the first group the author gives details of eight cases, the majority of which arose from suppuration of one or more of the nasal accessory sinuses: one case was due to erysipelas, and another to bacterial infection of the bone leading to subdural abscess.

The clinical symptoms—exophthalmos, displacement of the globe with limitation of movement, localized tenderness of the orbital margin and the position of the swelling in the lids—are sometimes so characteristic as to indicate the site of the abscess and the sinus affected, and the appropriate treatment of the case. It is, however, not always easy to determine the sinus that is affected: the course of two of the author’s cases convinced him of the advisability of opening up the posterior ethmoidal cells where they are suspected, in cases in which the symptoms are very urgent, even when the rhinological examination is negative. Treatment was successful in all but one case.

The second type is illustrated by seven cases. In these the clinical signs are intense doughy swelling and infiltration of the lids extending over the cheek (resembling erysipelas), great chemosis of the conjunctiva, limitation of movement of the globe (not always very marked) and, more especially, grave general disturbance with high temperature, the rapid development of the disease and marked protrusion of the eye in the line of the orbital axis.

The majority of his cases were due to an infection of the skin (furuncle of the face or trauma) setting up phlebitis and thrombosis of the orbital veins. The accessory sinuses were examined in every case, but in all but one were found to be free from disease.

The absence of any definite localizing sign in the orbit makes the treatment of these cases more difficult. Conservative measures or
merely superficial incisions are futile. In his cases deep incisions were made along the orbital margin so as to allow of a search for subperiosteal abscess, but while an abscess was never found, small foci of pus, both in the lids and orbital tissues, were encountered so regularly as to become a sign of some importance for differential diagnosis. Exenteration of the orbit, as suggested by Hertel, was also done in some of the cases, and, where it was carried out sufficiently early, gave successful results—in two cases. The circumstances of each individual case must decide the time for adopting this method of treatment.

THOS. SNOWBALL.

III.—THE ABILITY TO READ WITHOUT ACCOMMODATION IN THE APHAKIC EYE


Fürster, Woinow, von Graefe, Silex, Jaeger, Living, Davis, Collins, and others maintained that accommodation power, in exceptional cases, was present in the lensless eye, whereas Donders, Helmholtz, and Manhardt opposed this contention. Davis now reports the case of a woman, aged 73 years, who had a cataract removed from one eye by the combined extraction. Six weeks after operation L.V. with +16.00 D. sph. and +1.5 D. cyl. axis 150° = 15/30. The patient read J1 at from 7 to 13 inches with the same correction without tilting or changing the position of the glass. The pupil was closed by a membrane, except for a clear space at the centre, vertically oval in shape, 2.5 mm. by 3.5 mm. in diameter. Many tests, both of a subjective and an objective character, were made whereby the possible influence of lid pressure and other fallacies appear to have been eliminated. After atropin had been used for three days it was found that the near point had receded one inch from the eye, which would indicate that in Davis's patient the ciliary muscle had some influence (0.71 D.) on the accommodation even after the lens was removed. Davis concludes that the accommodation apparently present in the lensless eye is due chiefly to the ability of the patient to interpret dispersion circles, and this he traces to the following causes (a) to the great increase in size of the retinal images by removal of the crystalline lens and replacing it by a lens in front of the eye, (b) to the narrowing of the pupil, (c) to the patient not looking directly through the centre of the glass, but slightly outside the centre, as by tilting the glass, tilting the head,
or not holding the reading matter directly in front of him, \((d)\) to the extraordinary acuteness of vision sometimes present after cataract extractions. In Davis's opinion, the last factor but one of those named \((c)\) assists the patient in interpreting dispersion circles chiefly by neutralizing the monochromatic aberration present in such cases.

The discussion that followed the reading of Davis's paper brought out the fact that these cases are not so uncommon as might be thought. Several speakers laid stress upon the influence of a pinhole pupil in producing a condition such as that described. Lambert (New York) thought that the explanation lay in the action of the extrinsic ocular muscles in producing a change in the antero-posterior axis of the globe and possibly a change in the curvature of the cornea. The theory of a stenopaic opening did not explain any of the numerous cases he had seen in young subjects. Zentmayer (Philadelphia) defended Donders's contention, that loss of the lens implied loss of accommodation. Jackson (Denver) made the point that accommodation had acquired a definite meaning, and that the cases discussed were not of vision with accommodation in the ordinary sense and acceptance of the word, but without accommodation by means of compensatory devices and tricks.

S. S.

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IV.—MISCELLANEOUS


(1) Clapp has weighed a number of cataractous lenses after extraction, and estimated the amount of solids each contained. The lenses showed all manner of variations met with in ordinary practice. Unfortunately, so far as the purpose of the investigation was concerned, the lenses were not in all cases extracted in capsule. The heaviest lens weighed 0·2418 grm. and the lightest 0·0988 grm. In the latter case the nucleus only was obtained and the cortical substance was lost. The average weight was 0·1640 grm. The lenses of persons over 80 years of age showed an average weight of 0·1968 grm. and also a slight increase in percentage of solid, 29·31 per cent. Those of patients under 60 years of age showed an average weight of 0·1335 grm. Their average percentage of solids (one exceptional case being left out) was apparently 27 per cent. or rather less: the exact figure is not quite clear. The percentage of solids in infant lenses was 27·57 as compared with 27·02 for all senile cataracts. The findings of previous workers are alluded to.

R. H. Elliot.

(2) In view of the probable importance of infection by the bacilli of bovine tuberculosis in such affections of the eye as Parinaud's conjunctivitis and phlyctenular disease, we may profitably glance at this communication by *Wang,* which deals with the incidence of bovine infection in children, especially in Edinburgh.

In Edinburgh it has been shown by several workers that bovine infection accounts for an unusually high percentage of the cases of tuberculosis of the bones, joints, and cervical glands in children of the hospital class. Wang examined the bodies of twenty children dying under 16 years of age at the Hospital for Sick Children, and found that eleven (or 55 per cent.) were infected with the bacilli of bovine tuberculosis. Taking all the Edinburgh cases (281) so far reported by different writers, bovine infections at different ages come out as follows:

- Under 5 years ... ... ... 78·4 per cent.
- Between 5 and 16 years ... ... 70·3
- 16 years and over ... ... 7·8

By means of tables, Wang contrasts the incidence of bovine infection in children under 5 years of age in Edinburgh and in England and other countries. The figures are as follows: in Edinburgh, 78·4 per cent.; in England, 31 per cent.; and in other countries, 18·1 per cent. The corresponding figures for children from 5 to 16 years of age are:—70·3 per cent.; 21·3 per cent.; and 24·5 per cent. For adults 16 years of age and over, the figures are 7·8 per cent.; 7·4 per cent.; and 0·7 per cent. Wang makes the generalization that human tubercle bacilli enter the body by the respiratory tract, while bovine bacilli are introduced through the alimentary canal. He traces the somewhat remarkable frequency of the infection in Edinburgh, first, to the cow's milk having been infected with living tubercle bacilli; and, secondly, to the fact that the feeding of the child must have consisted of, or have been supplemented by, tuberculous milk consumed raw.

Wang concludes.—(1) That a bacteriological investigation into 281 cases of various clinical forms of tuberculosis in Edinburgh has resulted in the isolation of bovine tubercle bacilli in 80 out of 102 cases (78·4 per cent.) under the age of 5 years. (2) That the most common tuberculous affections are abdominal tuberculosis and tuberculosis meningitis, being together responsible for about 90 per cent. of the summed mortality from tuberculosis in children under 1 year, and for about 75 per cent. in children between 1 and 5 years. The material isolated from nine children dead from those two diseases was examined, and from six the bovine type of tubercle bacillus was isolated. (3) That a large percentage of children in
Edinburgh is fed wholly or partly on cow's milk, and that in a great number of instances the milk is consumed raw. These two facts, together with the high percentage of tuberculous cow's milk, give an explanation of the prevalence of abdominal tuberculosis in Edinburgh. (4) Children fed on raw cow's milk and those fed on boiled cow's milk, were tested with tuberculin, and it was found that 37.5 per cent. of the former reacted, as against 15.4 per cent. of the latter. (5) The remedy is to be found in an adequate supervision of the milk supply, or, failing that, in sterilization of all cow's milk.

S. S.


(3) Molinie draws attention to the following ocular reflexes of auditory origin:

1. In a subject whose hearing is normal, a short and unexpected sound, even of feeble intensity, near the ear produces slight or complete and sudden contraction of the orbicularis palpebrarum (blinking).

2. This phenomenon is sometimes associated with a slight contraction of the pupil, followed by dilatation. The constancy of this reflex is difficult to estimate owing to its short duration and feeble amplitude and the concomitant contraction of the eyelids.

3. If instead of a short sound a continuous and increasing sound is employed, repeated alternations of miosis and mydriasis may be observed.

4. If the sound is short and very loud, the blinking is more energetic and is accompanied by contractions of the frontalis and the whole of the facial muscles.

5. If the noise is very violent (e.g., gunfire, blast of a trumpet) there are added to the above phenomena, movements of the eyeballs, of the head and neck, and sometimes a turning of the whole body towards the source of the sound.

6. In deaf subjects these phenomena are enfeebled or even entirely absent.

These reflexes are set up by a disturbance of the accommodative function of the ear—the muscles concerned being the tensor tympani and the stapedius. The stapedius is the muscle which restricts the effect of loud sounds, and it is this muscle, supplied by the seventh nerve, which is concerned in these ocular reflexes. The centres for auditory accommodation as well as those for ocular accommodation are situated in the anterior corpora quadrigemina to which the cochlear stimulus is conveyed. From this centre the stimulus passes along the posterior longitudinal bundles to the nucleus of the facial, which transmits the impulse to the stapedius. If this motor...
impulse is ever so little intense, it will radiate to the other branches of the facial and give rise to the palpebral reflex or contraction of other facial muscles. When the noise is very loud, the stimulus spreads from the seventh to neighbouring nuclei, and through association fibres even further afield. The proximity of auditory and ocular centres of accommodation in the corpora quadrigemina explains the production of the pupillary reflex. The reflex movements are calculated to ensure the protection of the organ and the individual, but they also indicate the anatomical and functional integrity of the labyrinth and the cochlear nerve, and as such are a valuable means of testing the auditory nerve. For precision it is necessary to take the reflex due to a minimal stimulation. This would naturally be the contraction of the stapedius, but as this is impossible to observe, we are compelled to observe the associated reflex. Possibly the pupillary reflex is the next most sensitive, but this again is difficult to observe, and so for practical purposes the palpebral reflex is found most convenient, and is also reliable and sensitive. This reflex the author has named the "auditory-palpebral reflex."

As an excitant the author at the present time uses his *acoumêtre*, which is a tuning fork, which can be made to produce a short note whose intensity can be varied at will.

The practical applications of the test are numerous, but the author confines himself to its use in military cases, and especially in labyrinthine disturbances, in which it has been assumed that there has been a haemorrhage into the labyrinth or laceration of the fibres of the auditory nerve. These lesions have not been demonstrated anatomically, and the author is inclined to believe they are of extreme rarity. The diagnosis of labyrinthine disturbance is almost exclusively made in cases of intense deafness in subjects who have received little or no direct injury, but have been near violent explosions or have witnessed tragic or distressing sights. On the contrary, this form of deafness does not occur in those who have been severely wounded and exposed to every form of disturbing effects from projectiles—auditory concussion, displacement of air, blowing up, burial, multiple wounds, etc. A selective effect on the labyrinth of the uninjured, and immunity in the case of the severely wounded, is in itself a suspicious anomaly, but such an hypothesis is definitely disproved by the application of auditory-palpebral reflex test. In all these cases of labyrinthine disturbance, the palpebral reflex is positive even with stimuli of feeble intensity, which shows that the auditory apparatus and reflex centres are intact. The lesion, therefore, must be one of the cortical auditory centre, or when an organic lesion of that centre can be excluded, it must be regarded as a failure of the conscious representation of auditory impressions—a suppression in the higher psychic centre. This
differential diagnosis is important, since an organic lesion of the labyrinth indicates more or less permanent deafness, whereas psychic deafness is harmless and curable by encouragement, suggestion, and such means.

The auditory palpebral reflex furnishes a valuable means for the diagnosis of simulated deafness when psychic deafness can be eliminated. Its absence will at once indicate an organic lesion; its presence, especially with a feeble stimulus, indicates a hearing capacity which it will be useless for the patient to deny. This test also supplies us with an objective sign of the hearing capacity of the patient at varying distances.

J. JAMESON EVANS.


(4) Landolt gives in this paper an account of the principles underlying the use of skiascopy which should be intelligible to those whose knowledge of mathematics is neither extensive nor peculiar.

As he points out, it is not the shadow that we really observe, but the light in the pupil, and suggests that the correct name should be not "skiascopy" but "korelampsiscopy," or, if that word is too long, "korescopy." The usual term retinoscopy has nothing to recommend it, since whatever we are observing, it is certainly not the retina.

The explanation is made quite clear by means of coloured diagrams, and should be of use to those who have to instruct students in refraction work. E. E. H.


(6) In this paper Ferree and Rand continue the record of their researches described in a previous paper. The experiments dealt with the comparative results of the three types of illumination: direct, semi-indirect, and indirect, and the conclusions are represented by charts. The paper does not lend itself to abstract, but two points may be referred to. Discussing the relative value of eyeshades and lampshades in preventing loss of efficiency of the eyes in prolonged work, the authors come to the conclusion that eyeshades have no value when indirect lighting is employed, but in the case of both direct and semi-indirect lighting the use of an eyeshade is advantageous. While, therefore, improvement in the
form of the illumination is the better procedure, there are difficulties in the way; for instance, in the case of employées who have no control over the lighting arrangements, and the use of an eyeshade may be useful as a provisional and immediate aid in solving the problem of bad lighting. The experiments showed that an opaque eyeshade with a white lining was better than an opaque shade with dark lining or a semi-transparent shade.

Some experiments dealt with the effects of moving picture shows. So far as they went, they tended to show that after two hours of the pictures, in a first-class house, there was no greater loss of visual efficiency than would have resulted from two hours' reading under the conditions provided by any of the lighting systems in general use.

A. J. BALLANTYNE.


(7) Rönne gives details of two cases of this disease, which he considers so common as to be present in about 1 per cent. of all eye-patients. He agrees with van der Hoeve, that the condition may be localized in the macular area; that the nerve-fibre defects may be only relative; that the affection may be easily mistaken for optic neuritis; and that, although the choroid is the primary seat of the disease, choroidal atrophy need not result. At the same time, he cannot support van der Hoeve's view that the upper temporal quadrant of the field always escapes. This form of choroiditis is common in its late stages, and no great rarity in the acute stage. Rönne believes that all cases of acute choroiditis belong to this group. The chief symptom which differentiates this condition from disseminated choroiditis is the nerve-fibre bundle defect in the visual field. If this were more frequently looked for, the frequency of the disease would be recognized, and the diagnosis of tubercle would be made less often. He believes that in this connection tuberculin therapy has obtained an easily acquired success, since spontaneous healing is a constant feature, and is personally convinced that this affection is certainly not tuberculous.

In conclusion, Rönne urges the collection of a large number of clinical records, with a view to the study of this form of choroiditis, and the differential diagnosis between it and optic neuritis, choroidal tuberculosis, and disseminated choroiditis.

H. M. TRAQUAIR.


(8) Maxey's patient, a dentist of 23 years, gave an anaesthetic for a medical associate for a tonsillectomy in a young woman of
easy virtue. About three weeks later, one eye became inflamed. On examination, a shallow ulcer, 4 mm. by 8 mm., was found to occupy the outer part of the conjunctiva of the lower lid. It was covered with a dark greyish membrane. Fully one-half of the cornea was hidden by oedematous conjunctiva. The lids were swollen. The corresponding preauricular and submaxillary and subauricular glands were swollen and tender. Spirochaetes were not specially searched for at this time, and later, when the ulcer had been cauterized, the laboratory report in that respect was negative. The Wassermann reaction was also negative when estimated thirty-seven days after exposure, "doubtful" after forty-four days, and strongly positive after fifty-eight days. The conjunctival and other lesions soon cleared up after the patient was treated by salvarsan, mercurial inunctions, and other anti-luetic measures.

Maxey tabulates 82 cases of chancre of the lids and conjunctiva reported since January, 1900. Of this number, 49 may be classed as conjunctival chancres.

S. S.


(9) Edridge-Green holds that the near work theory is not proved, which may be freely admitted. He proceeds to develop a theory of myopia causation based upon obstruction to the outflow of fluid from the eye through the posterior lymph channels. Increased intra-ocular pressure distends the sclerotic and causes myopia by elongation of the eyeball. The posterior portion of the sclerotic is a weak spot just like the inguinal ring which will give way on undue pressure. This is particularly likely to occur whilst the eye is soft and growing, but under great stress appears to occur at almost any age. Edridge-Green reproduces the conventional diagram to show the rise of pressure in a series of vertical tubes fed from a cistern, when the outflow is obstructed. The theory is interesting. But the reviewer believes that there are many flaws in the argument. It is stated that "in convergence excess, as in convergent strabismus or internal squint, myopia is not produced and convergent strabismus is almost exclusively found in hypermetropic eyes." Surely, this statement is much too sweeping. Again, we have this remark, "All are educated alike." Surely not, for apart from differences of education in various countries there are wide differences in schools as regards lighting, and individual differences of method. "It is very doubtful whether the use of the eyes for near work has anything to do with the production of myopia, and certainly nothing of the sort has been proved." It is, of course, easy to find faults with the usually current theory, but what has the author to say in support of his own? Essentially, that he has come across a great many
cases in which myopia appears to have come on as the result of physical strain in cycling, rowing, digging, boxing, wrestling, and so on, and a number of cases in which, he says, the ordinarily given causes of myopia cannot apply. But is there a single one of these cases, a number of which are detailed, in which the author is relying on anything but the evidence of a statement of the patient or of those who know him? In any case, supposing all these to be instances of myopia really caused by severe strain and nothing else, are they sufficient to prove a direct negative such as Edridge-Green suggests? It seems much more probable that both factors are at work. Heredity, perhaps the most certain factor of all, is only very casually mentioned by Edridge-Green. The author deserves thanks for his contribution towards the solution of a perennial problem, even though he has by no means disproved the theory which upholds the influence of near work.

Ernest Thomson.

BOOK NOTICES


In the last number of this journal a notice was published concerning the Ophthalmic Year Book, of Denver, Colorado. The retention of this title for what had become a three-monthly publication was noted, and now, in order to meet the suggestion of the Post Office Department that Year Book is not a proper title for a quarterly publication, the name of Year Book has been changed to Ophthalmic Literature. It will contain the same class of matter as before, similarly arranged. The present number deals with the anterior chamber and pupil, the uveal tract, sympathetic disease, glaucoma, crystalline lens, vitreous humour, and retina.

S. S.


Duverger, professor of clinical ophthalmology in the University of Strasbourg, has written a most useful work dealing with anaesthesia (and its history) in all branches of eye work. We