for four or five inches down over the vertebral column. Although he states that the central nervous system in fishes is powerfully disturbed by bright light he unfortunately gives no account of any pathological examination. It is also known that fish kept in aquaria may suffer in the same way, and it is of importance to provide them with plenty of shade. The editor adds in a footnote that Professor Hofer in his work on "Diseases of Fish" does not mention light as a cause of blindness, but draws attention to the curious fact that a healthy fish placed on its side does not turn its eyes with its body, but that the eye sockets turn round the eye so that the pupil is hidden by the orbital margin. An examination of the brain and eyes of some of these fishes would be of considerable interest in comparative pathology.

ABSTRACTS

I—ACUTE CEREBRAL AMAUROSIS OF INFANCY

(GAY)


A remarkable series of cases was described by Nettleship in 1884 (Trans. Ophthal. Soc., Vol. IV, p. 243), where in young children cerebral symptoms associated with blindness were followed by recovery of the usual bodily health and of sight. In 1893 Dr. William Gay (Roy. Lond. Ophthal. Hosp. Reports, Vol XIII, p. 404) described six cases of this peculiar condition, to which he gave the name of "acute cerebral amaurosis of infancy." In 1902 the reviewer (Reports Soc. for the Study of Dis. in Children) described six instances of the disease under the title of "fleeting amaurosis," adopted by Sir James W. Barrett in the communication under abstract. His case in a female child of 7 years is unusual, since the disease commonly occurs in children of a much tenderer age. A month after an attack of so-called influenza, on her return to school, the patient found that she could not see the blackboard, and that her sight was better in a dim than in a bright light. The pupils were widely dilated and fixed, and the fundi and media were normal. R.V., with ametropia corrected, 6/36; L.V., corrected, 6/60. Complete recovery took place within eight days after the first examination.

S. S.

Edward Jackson, in an editorial note, goes into the symptoms and treatment of methyl alcohol poisoning, a subject which has exercised the public mind in America of late. He refers to a paper by Casey A. Wood and Frank Buller (published in the *Trans. Sect. on Ophthal. Amer. Med. Assoc.*, 1904, p. 412) in which attention was drawn to the fact that blindness occurred in 153 cases, and death in 122 cases, as a result of indulgence in "illegitimate" liquor. Measures were suggested for prevention of the condition. The salient symptom is blindness resulting from optic nerve atrophy. As a cause of toxic amblyopia methyl alcohol is said to occur more frequently than all other factors put together.

**Clinical symptoms.**—The earlier period of intoxication may show no visual disturbances. Transient insensitivity may be followed by recovery without impairment of vision; or the symptoms may be delayed in type, and in a few days after apparent recovery severe gastro-intestinal irritation may set in, with rapid loss of sight. Complete blindness may last a few days, vision gradually becoming restored. A secondary attack of blindness may follow in a few weeks, and this is usually permanent and incurable.

Optic nerve atrophy appears late, and there is generally blurring of the disc edges; ophthalmoscopically there is little to be seen in the early stages beyond slight congestion of the discs. The fields of vision may show large central scotoma early; later there is great irregularity and concentric narrowing.

**Treatment eliminants.**—Hot pack; Turkish bath; pilocarpin sweats; free ingestion of water; venesection, and spinal puncture. Potassium iodide may be tried, but it is doubtfully effective. *Intra-venous injections of sodium bicarbonate for acidosis, and stimulation of respiratory excretion should be employed.* Efficient emesis in the very early stages of intoxication may prevent death or blindness, but circumstances seldom allow of putting it into practice. In cases of food adulteration with the now palatable methyl alcohol instead of the ordinary variety, the patient is not aware of the deception until the onset of toxaemic symptoms; where indulgence in the drug is deliberate he is anxious to conceal the fact and does not readily seek medical advice. In many cases poisoning takes place through inhalation or contact with the drug in the course of employment connected with its manufacture, and the symptoms are somewhat insidious in their onset. All
cases of sudden amblyopia with gastro-intestinal symptoms should be regarded as suspicious.

Prognosis should always be guarded, and unless in the earliest stages is almost always grave. Idiosyncrasy plays a large part in the condition, and what might be an innocuous dose for one person might be fatal for another. Violent gastro-intestinal symptoms may develop late in the condition as a result of toxic affection of the nerve-centres.

J. Hamilton MCILROY.

III.—ANNULAR OPACITY OF ANTERIOR SURFACE OF THE LENS

Colombo, G. L. (Parma).—On annular opacity (Vossius) and an undescribed form of opacity (coin shaped) of the anterior surface of the lens. (Dell' intorbidamento anulare (Vossius) e di una forma non descritta di intorbidamento (a moneta) della superficie anteriore del cristallino.) Arch. di Ottal., Oct.-Nov., 1920.

Colombo's case was that of a soldier injured in a bomb accident two years previously. When seen by the author he had a small coloboma at the edge of the left upper lid about one centimetre from the internal angle. About 2.5 mm. from the limbus up and in there was seen a small pigmented scar. The pupil reacted to light and dilated fully with atropin except at the upper internal quadrant. On the surface of the lens a ring shaped, milky, opalescent opacity was present with a regular margin shading evenly off and about 2.5 mm. in diameter. An opacity of similar appearance and about 1.5 mm. in diameter occupied the centre of the ring. Between the internal margin of the ring and the external margin of the coin-shaped opacity the lens was not quite clear, but very nearly so. On dilating the pupil the external margin of the ring was radiated towards the periphery somewhat irregularly. The opacity did not interfere with the red reflex in ophthalmoscopic examination and the vision was normal. Six months later the opacity was even more obvious, but still did not interfere with vision.

Colombo discusses the literature of the subject and the mechanism of the production of these opacities. He points out that in previously recorded cases of Vossius' ring the opacity has tended to disappear in contrast with the case here recorded. These lesions are presumably due to alterations in the lens epithelium. The ring opacity is probably caused by the impression of the sphincter of the iris, while the coin-shaped opacity probably follows the direct blow of the cornea without the intervention of the iris.
A photograph which accompanies the paper shows the Vossius ring very clearly, but the coin-shaped opacity does not appear. A useful bibliography is appended.

E. E. H.

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IV.—TUBERCULOSIS OF THE SCLERA


"Tuberculosis of the sclerotic occurring as a localised neoplasm, tuberculoma as it has been aptly called, must certainly count as one of the rarest localisations of ocular tuberculosis." The great question to decide is whether this tuberculoma is primary or secondary. If it could be proved primary then enucleation of the eye is justifiable. If secondary to some other focus in the body such operation is useless. Collomb relates one case of his own and refers to the work of his pupil Pierre Fietta (Thèse de Genève, 1919), who was able to collect from the literature—after subjecting each case to critical examination—only thirteen cases which satisfied the diagnostic requirements as pure tuberculosis of the sclera. Of these thirteen cases, ten occurred in the anterior vascular zone of the sclera (ciliary) and three in the posterior vascular zone immediately around the optic nerve. The author's arguments are too long to note in detail, but he concludes that this rare lesion, tuberculoma of the sclerotic, is a secondary tuberculosis, a metastatic localisation in the scleral vascular bundles surrounding the cornea, on the one hand, and the optic nerve on the other. He also concludes that these vascular communications are, more frequently than has been supposed, the seat of various infective localisations, and that, especially as regards the peripapillary region, certain ophthalmoscopic diagnoses must be revised.

This last point is an interesting one, regarding which the author's words may be transcribed. "There is one point in particular, regarded in the light of this new interpretation (i.e., localisation in the vascular bundles), in which some diagnoses appear to require revision. It has long been known, since the time of Demours, Cruveilhier, etc., that the optic nerve may be affected by tuberculosis in different portions of its path, and in particular at its papillary end. There are many works on this papillary tuberculosis (names given). These authors state that
such tuberculoses are often marginal, and on reading some of their remarks, examining their plates and following the evolution of their cases, the question immediately arises in one's mind whether a portion of these marginal tuberculoses of the optic nerve are not rather peripapillary scleral tuberculoses in the posterior ciliary vessels which end by compressing, strangling and invading the optic nerve.”

Collomb’s article is one which it is well worth while to read.

Ernest Thomson.

V.—HYDATID EXPERIMENTS IN THE EYE OF THE RABBIT

Demaria, Enrique B.—Hydatid experiments in the eye of the rabbit. (Hydatidosis experimental in el ojo del conejo.) Arch. de Oftal. Hisb-Americanos, August, 1919.

Demaria published a case of endocular hydatid cyst in 1916 (B.J.O., Vol. I, p. 567), with clinical and pathological details; this condition is very rare, the author’s case being the second, duly proved, in the world’s ophthalmic literature.

As hydatid disease in the Argentine is an affair of everyday occurrence, and as it is hardly ever found in the eye, in contrast to the cysticercus which is by no means rare there, Demaria has undertaken experimental work on the subject using the eyes of rabbits, and the result is the interesting and valuable paper to hand. It is profusely illustrated with microphotographs which show the various points very well.

The author devotes a couple of pages to the life history of the hydatid cyst, and we are pleased to see a reference to John Hunter (1793).

Records of twelve rabbits are given; the material for injection was obtained for the most part from hydatids of the liver in cows and sheep, and consisted of germinal membrane, liquid from the cyst, and dried powdered hydatid.

Case 1 (germinal membrane inserted into vitreous). This case quickly came to an untimely end, the eye being lost through panophthalmitis.

Case 2 (germinal membrane into vitreous). After a few days turbidity of the media was observed by ophthalmoscopic examination, this continued in statu quo for a month, after which time the animal was killed. The eye showed the chitinous membrane which had been inserted, still in the posterior pole of the eye, the characteristic lamination was well shown, there was
considerable inflammatory reaction in the neighbouring retina and choroid.

Case 3 and 4 (liquid and powdered hydatid injected into the anterior chamber). In this case there were no results, either clinically or histologically at the end of four months.

Cases 5 and 6. These cases were similar to the two previous ones, and there were no results.

Case 7 (injection of liquid and dried hydatid into the anterior chamber). Three months later a small hydatid developed in the cornea and one in the iris, the former being well shown in the accompanying microphotograph, with the embryo in situ.

Case 8 (vitreous inoculation with liquid and dried hydatid). After three months the eye was excised; there had been a great deal of iritis in this case, the pupil was secluded and the eye was buphthalmic, there was a cyst in the sclerotic at the site of injection, which had burrowed between the layers of the sclera, and another cyst had formed in the ciliary process. Scolices were also apparent in an oedematous fold of retina in this eye.

Case 9. Injection of liquid and dried hydatid into vitreous, with no results.

Case 10. Similar injection to that in the last case, a cataract developed. After four months the eye was excised, and the vitreous was found to be full of small cysts.

Case 11. Similar injection to last, a cataract developed and the eye was excised four months later, it showed signs of iridocyclitis, seclusio pupillae, and a subretinal cyst which had caused a detachment.

Case 12. A similar injection to that used in Case 10, and the results were very similar.

Demaria argues with justification that the rabbit’s eye is admirably adapted for the study of the development of endocular hydatid cysts; in his cases cysts developed in the cornea, iris, ciliary body, sclerotic, vitreous, and in front of and behind the retina; as they increase in size the cysts compress the neighbouring structures and lead to atrophy of the iris, choroid, etc. In the cornea and sclerotic the cysts burrow out between the layer and form very narrow, almost linear sacs, in the iris the cysts look like nodules.

Though in his cases the cysts were all young ones, Demaria has no doubt that they were fertile, and that new scolices would have been formed. The cataracts met with in the later cases might have been due to unintentional injury from the point of the needle used for the injection, or more likely from the toxic properties of the liquid injected.

R. R. James.
Night Blindness as a Symptom of Fatigue

VI.—Night Blindness as a Symptom of Fatigue

Weekers, L. — Night blindness, a symptom of fatigue. (L'héméralopie, symptôme de surmenage.) Arch. d'Ophtal., July-August, 1918.

In a long and clearly-written paper, Weekers gives his views concerning the aetiology of the night blindness which has been so common an ailment among the troops in the recent war. He believes that this complaint is a result of surmenage, by which term he designates excessive fatigue, muscular or nervous, or both, induced by the conditions of active service in this war, more especially in its earlier stages. His article is one of considerable interest, and is worthy of careful perusal. It is not an easy paper to condense and would lose much of its attractiveness in an abstract.

In 1916 the author published some observations on night blindness in the Belgian Army, and since then he has had abundant opportunity for further investigation. He adduces much evidence in favour of his views, and his arguments go far to convince the reader of their soundness.

J. B. Lawford.

VII.—A Test of Binocular Vision

Cantonnet, A.—A test of binocular vision based upon the experiment of the “hole in the hand.” (Un test de vision binoculaire basé sur l'expérience du “trou dans la main.”) Arch. d'Ophtal., Nov.-Dec., 1919.

In a former paper (Arch. d'Ophtal., June, 1918) Cantonnet recorded some experiments he had made with the “hole in the hand” visual illusion, as a test of binocular vision. In the present communication he describes and illustrates an apparatus by which greater precision is possible. This, which is readily comprehended on reference to his diagrams, consists of a rectangular strip of wood 32 cm. in length by 8 cm. in width, pierced at its midpoint by a tube 20 cm. long and 35 mm. in diameter. In this tube a fine metal wire is fixed vertically, which serves as an index. When one eye is applied to and looks through the tube the fellow eye sees a hole in the wooden strip precisely as it does in the hand in the crude experiment. The wire is also seen crossing the apparent hole.

In normal individuals the false aperture (when the accommodation is relaxed) is 6 cm. from the tube. At this point on the
wooden strip, zero is marked and by a plus and minus scale, one on each side of zero, the position in which the index wire is projected can be exactly defined and the degree of deviation of the eye, convergent or divergent, can be read off. By means of horizontal markings on the scale vertical deviations can be measured.

In principle this method is very similar to the Maddox rod-test; it is not as simple and easy to use, especially with patients of limited intelligence, and its advantages as a diagnostic measure are not obvious, Cantonnet believes that it has a real therapeutic value in cases of ill-developed and unstable fusion power, and that it provides an easy method of carrying out orthoptic exercises.

J. B. LAWFORD.

VIII.—TRAUMATIC OPHTHALMOPLEGIA EXTERNA

Velter, E. (Paris).—Traumatic bilateral ophthalmoplegia externa. (Ophtalmoplegie externe bilatérale traumatique.)

Arch. d’Ophtal., July-Aug., 1919.

Velter publishes clinical notes of one of the small group of cases in which ophthalmoplegia follows a blow on the head, without evidence of fracture of the skull. The patient, seen in the Ophthalmic Clinique of L’Hôtel Dieu, was shown at a meeting of the Neurological Society of Paris, where there was some discussion as to the causal lesions in this and kindred cases. The author favours the suggestion of multiple minute haemorrhages in the grey substance of the nuclei and immediately adjoining tissue. Velter’s patient was a healthy man, with no pathological inheritance, free from evidence of syphilis, tubercle and lead poisoning, an abstainer and a non-smoker. He was engaged at the front, two years before, when while carrying timber for a dug-out he fell, striking his forehead violently. He was not stunned, and was able to continue his work. During the next few days he felt fatigued, suffered from headache, and noticed some swelling and ecchymosis of his right upper eyelid. Seven or eight days after the injury (the man is very definite on this point) he noticed almost complete drooping of the left upper lid and partial drooping of the right. The condition has remained unchanged since; he has never noticed diplopia. On examination there is bilateral ptosis much greater on the left than on the right side, and partially relieved by the action of the frontal muscle. Upward rotation of the globes is almost abolished. Lateral movements are much limited, and equally so on the two sides.
Rotation downwards is very restricted. Pupils are equal and circular, reacting well to light and with accommodation; the intraocular musculature is quite normal. Vision and fields normal, fundi healthy.

The man's nervous system shows no signs or symptoms of disease, except those enumerated above. Lumbar puncture reveals a normal fluid, under normal pressure. Wassermann test is negative, both for blood and cerebro-spinal fluid. Urine is free from albumen and sugar.

J. B. Lawford.

IX—NOSE AND THROAT INFECTIONS AS AFFECTING THE OCULAR FUNCTIONS OF AVIATORS


Berens and Uren base their observations upon the reports made on 38 cases seen at the Third Aviation Instruction Centre, American Expeditionary Force. These were cases which required simultaneous treatment in the Otological and Ophthalmological Departments. Of these 38 cases 19 showed ocular trouble which possibly had infection of the nose and throat as the underlying cause. The diagnoses were retro-bulbar neuritis 6 cases, convergence weakness 9, divergence excess with convergence insufficiency 1 case, acute catarrhal conjunctivitis 1, marginal blepharitis 1, and photophobia with lacrimation 1.

Attention was directed to the condition of the blind spot and vision in these cases, before and after treatment of the throat affection; also upon the state of the extrinsic and intrinsic ocular muscles. Six of the 38 cases showed definite enlargement of one or both blind spots (tested by a rapid clinical method, and compared with findings on the Bjerrum screen).

The conclusions arrived at from examination of the 38 cases went to show that enlargement of the blind spot is a frequent accompaniment of nose and throat trouble, and may be the earliest ocular symptom.

Repeated examination of the blind spot in nose and throat conditions serves as an indicator in regard to the progress of the disease, and efficacy of treatment.

The writers recommend that all aviators who are receiving treatment for focal infection should undergo routine examination of their blind spots.
Visual acuity was shown to be affected in two cases, and it is urged that aviators suffering from throat and nose infection should not be permitted to fly whilst the blind spot shows enlargement. Weakness of the extrinsic ocular muscles occurred in 10 cases, and of the intrinsic muscles in 3 cases—a proportion which should stimulate to further research. Weakness in converging power was found to be associated in many cases with a history of bad "landings."

The writers conclude by calling for intelligent research and constructive criticism on a subject which should be handled by medical men trained in aviation medicine.

J. Hamilton McIlroy.

X.—TOURNAY'S REACTION


In May, 1917, and again in December, 1918, Dr. A. Tournay presented to l'Académie de Médecine some observations on a pupillary reaction not previously recorded, viz., inequality of the pupils in lateral fixation. His papers were entitled, "The law of normal isocoria and anisocoria"; "Remarks on pupillary inequality in cases of unilateral miosis from paralysis of the sympathetic," and were published in the *Bulletin de l'Académie de Médecine*, May, 1917, and December, 1918. Little or no notice was taken of these communications until March, 1921, when a paper was read before the Ophthalmological Society of Paris by Dr. Caillaud on "Anisocoria in lateral fixation; observations on a thousand patients." This paper was supported by Drs. Coutela and Marc Landolt, who deplored the fact that "the remarkable facts observed by Dr. Tournay have not attracted more keenly the attention of oculists."

Chenet and Noyer have made a prolonged and detailed study of this reaction, in several thousands of individuals, of varying ages, healthy and unhealthy. As an introduction they quote from Tournay's writings, "When a man, whose ocular apparatus is normal, whose pupils are equal, reacting normally to light, contracting normally and equally with movements of convergence and accommodation, looks strongly to his right and maintains this position, the right pupil becomes larger than the left. The converse obtains when he looks to his left. Thus, isocoria being the rule in anterior fixation, anisocoria becomes the rule in lateral fixation." The "conclusions" of the writers are as follows:
Without seeking a physiological explanation of the phenomenon noted by Tournay, and limiting ourselves strictly to facts, we consider we are able to state, as a result of our numerous examinations, that:

1. In healthy subjects, even those with ametropia, dilatation of the pupil in the abducted eye is the rule. It is not equally noticeable in all individuals, but we have never found it absent. Narrowing of the pupil of the abducted eye is infinitely less clear, and we are doubtful as to its occurrence. The pupillary inequality seems to be due to dilatation of the pupil of the eye in abduction.

2. Tournay’s reaction is not found in the rabbit or the horse, but is present in the cat and the dog. It would appear, therefore, to occur in animals possessing eyes which are not in a completely lateral position, and which are endowed with free mobility.

3. Mydriatics suppress (atropin) or lessen (cocain) the reaction. Miotics (pilocarpin) abolish it.

4. In pathological cases, Tournay’s reaction shows variation:
   (a) The iris being mobile, the reaction is found in all ocular affections, superficial or deep, even in those which reduce vision to perception of light (cataract), and those which destroy sight (optic atrophy). This suggests that the reaction is not a reflex, but an associated movement independent of vision;
   (b) in cases of paralysis of the sympathetic the reaction persists normally;
   (c) this is true also of the following general diseases, syphilis, malaria, exophthalmic goitre, chronic rheumatism, pneumonia;
   (d) in lesions of the central nervous system the reaction was absent in 15 cases; they were all instances of old standing disease and include general paralysis, tabes and anterior poliomyelitis.

   Particulars of the methods of examining and recording, with notes of a number of cases and some photographs, are given by the authors.

   J. B. Lawford.

XI.—MISCELLANEOUS


(1) In a case of rodent ulcer, Epalza noted that healing followed an intercurrent attack of diplobacillary conjunctivitis associated with a corneal perforation. This occurrence suggests that either the bacterial infection or the perforation brought about the cessation of the disease. In another case cauterization, followed by covering
with a conjunctival flap, failed and the eye was excised owing to the extreme pain. Scrapings of the surface of the ulcer yielded negative results both by culture and by inoculation. A careful account is given of the microscopical appearances. The ulcer appears to progress by a cellular infiltration of areas which subsequently break down. These infiltrated areas have not the structure of tuberculous foci, but rather that of small abscesses. Epalza believes that the condition is not a primary necrosis of the cornea, but that the cornea is destroyed by the penetration of this peculiar granulation tissue. All the appearances indicate the presence of an infection, the exact nature of which is still undetermined. The article is illustrated by two figures in the text and three plates, one of which is a fine example of colour printing.

H. M. Traquair.


(2) The history in the case reported by Hilbert, is that a man, aged 63 years, got some of the acrid milky juice of Chelidonium majus into his right eye. The result was a severe iritis with hypopyon, in addition to acute conjunctivitis. The iritis took six weeks to be cured under the usual remedies. The adhesions which had formed were broken down, but pigment remained on the lens capsule. In order to account for the uveal inflammation, the author suggests that a cauterization of the cornea took place (the juice of this plant is commonly used as a homé remedy for warts), and that an entrance of the incitors of the inflammation took place through the corneal lymph channels.

Ernest Thomson.


(3) Rochester reviews the recorded cases of spontaneous explosion of Snellen improved artificial eyes. It would appear that quite a number of these eyes explode in the manufacturer's stores before they are sent out. The cause of the collapse of the thin walls is due to the fact that the glass is imperfectly annealed and encloses a partial vacuum of rather high degree and any sudden change of temperature is apt to produce unequal expansion or contraction of the glass which is unequal in thickness and which is then less able to withstand the continuous atmospheric pressure. He has found that most of the explosions have happened during either very hot or very cold weather.

Another factor is the destructive effect of the orbital discharge of...
certain patients. It is recognized that some patients find their artificial eyes deteriorate from discoloration and erosion much more quickly than others, and Rochester has discovered that out of eighteen explosions reported, four patients had experienced the accident on two separate occasions, i.e., 28 per cent. had experienced a repetition of the phenomenon.

J. Jameson Evans.

(4) Smith, E. Temple (Sydney).—Notes on some cases of metastatic meningococcal infection of the eye. Medical Journ. of Australia, February 3, 1917.

(4) Some few years ago (1911) it was pointed out by the late George Coats and J. Graham Forbes that in children the meningococcus may cause uveitis (pseudo-glioma) without associated symptoms of meningitis. In four such cases they recovered an organism believed to be the meningococcus from the inflamed eye.

During the course of a few months Smith has met with five cases of metastatic uveitis in children under two years of age. In four of these cases there were symptoms of cerebro-spinal meningitis, but in the fifth such were absent. This case was believed to belong to the Coats-Forbes's group. A few details may be given. Child admitted on the seventh day of an illness characterised by feverishness and pains in the stomach. On the fourth day one eye was inflamed and the lids were oedematous. The eye had a mucopurulent discharge, the conjunctiva was injected, the aqueous was cloudy, and there was hypopyon. Pneumococci were obtained from a conjunctival smear. The child recovered, and the affected eye had so much the appearance of glioma that it was enucleated by another ophthalmic surgeon. Pathological examination of the excised eye, however, showed that there was no evidence of a neoplasm, and that the appearances were such as would follow an inflammatory condition of the uvea, accompanied by detachment of the retina.

S. S.


(5) Hirsch records a case of an implantation tumour of the iris in a girl of 18. She said that the eye had been red for some weeks and that two days before consulting him something had got into it. On examination, there was seen in the upper and inner quadrant of the iris a yellowish-white sausage-shaped tumour whose base seemed to lie in one of the lacunae of the ciliary portion of that structure. It was small, but, on account of its contrast in colour with the dark brown iris, very conspicuous. The eye was injected, specially in
the neighbourhood of the growth. The pupil dilated only to a slight extent with atropin. The growth was removed by an iridectomy. The specimen was sent to the Zoological Institute on the supposition that it was a cysticercus. The microscopical examination showed that this was not the case. The tumour consisted of an unpigmented solid mass of epithelial cells. Since the tumour had broken through from the posterior to the anterior layers of the iris it seemed reasonable to assume that it was of a malignant nature, but, in opposition to this, the cells were not of a malignant type, nor were they accompanied by any vessels or interstitial stroma. It is true that no wound of entrance could be made out, but this may well have been microscopic. Hirsch concludes that it must have been an implantation tumour. There was no recurrence and the eye remained free from inflammation.

E. E. H.


(6) Gifford states that in old trachoma with much atrophy, occlusion of the inner ends of the canaliculi is so frequent as to be almost constant. It should be searched for systematically as a source of recurrent keratitis or of possible infection where a cataract operation is proposed. The canicular suppurition ceases when the canaliculi have been slit up and kept open so as to unite the upper and lower ones, and a zinc collyrium used together with any other treatment which the trachoma or suppuration of the Meibomian glands may require.

J. Jameson Evans.


(7) Scherzer's case was that of a child aged 14 whose right eye was penetrated by a shot 1.25 mm. in diameter. The shot was fired from a distance of about 15 metres, and there were 40 to 50 pellets under the skin of the face. The wound of entry in the eye was about 2 mm. from the limbus at the nasal end of the horizontal meridian. Large membranous vitreous opacities were seen, and to the nasal side of the disc, at about the same distance as the macula, a triangular glistening patch surrounded by blood clot was to be made out. 40° to the temporal side of the fovea there was a second oval white spot limited by blood clot. Still further to the temporal side from this second patch, at the extreme limit of the ophthalmoscopic
field, there was a round grey, glistening foreign body. V. was 0·6. There was a scotoma in the upper temporal field which reached to the blind spot.

The shot was removed by Salzmann through the sclerotic, after temporary separation of the external rectus. The removal was done with iris forceps with the aid of transillumination from a Sachs lamp at the inner canthus. Much vitreous was lost. A month later vision was practically normal.

The ophthalmoscopic picture seen above is explained as being caused by the shot rebounding twice before reaching its final position.

The rest of the paper is taken up with the discussion of previously recorded cases and the various opinions of German authorities as to the prognosis of lead particles in the eye.

E. E. H.


(8) Cousin records his experience, at the Ninth Ophthalmic Centre of the French Army, of the various materials in use for making casts of the cavity of the orbit after removal of the eyeball, especially in cases in which cicatricial bands have led to diminution in size or to deformity of the cavity. He strongly recommends the employment of a material known in commerce as “pastelline,” and used in the studio by sculptors. It is a paste with a fatty base, and the heat of the hands, after a few minutes’ manipulation, gives it the consistence of putty. It is easily inserted into the cocainised conjunctiva, and trimmed off with a small metal or wooden spatula until the lids can be easily opened and closed over it. The mass should be left in situ for about half an hour, and then removed and allowed to harden, which it does in a few moments. The cast is then ready for use as a model for the prothesis.

J. B. Lawford.


(9) That ophthalmia neonatorum is commoner in illegitimate than legitimate births is no new observation. The figures of Timgren, Widmark, Hein, and others are conclusive on that point. Dundas looks into the question from a statistical point of view. Ophthalmia neonatorum, she reminds us, has been notifiable since April, 1914, and she quotes the figures for the six
years inclusive, 1914 to 1919, of four large boroughs—one in Scotland, one in the north of England, and two in the south of England; the averages of the first three years and of the second three years are given. In all four boroughs there was an increase in the number of illegitimate births. In the first and second boroughs the increase in cases of notified ophthalmia neonatorum was very marked, while in the third and fourth boroughs, although there was an actual increase in the number of cases, the proportion of cases to the number of illegitimate births was not raised in comparison with the first three years.

S. S.

COUNCIL OF BRITISH OPHTHALMOLOGISTS

A Report on some Public Authorities who are in the habit of referring Ophthalmic Cases to Hospitals for Examination, Treatment, and (or) Report.—Continued from page 468.

Police Force of Great Britain

The Police Forces of Great Britain, though to some extent regulated by the Home Office, are, in fact, controlled by the local authorities of the several districts and have no uniform standard of medical service.

With reference to ophthalmic treatment the Council found examples of the following different methods of procedure:

1. In addition to a police surgeon there is a salaried ophthalmic surgeon to whom eye cases can be referred. This is the method in Leeds.

2. The police surgeon can, if necessary, refer any particular case for a special opinion to an ophthalmic surgeon, but there is no official ophthalmic surgeon. This is the method adopted in the following places:—City of London, Manchester, Wolverhampton, Oxford, Nottingham, and Exeter. In some instances the authority of the Watch Committee has to be obtained before a case can be referred to an ophthalmic surgeon.

3. The police contributes to a hospital directly as in the case of Edinburgh (1d. a week to the Royal Infirmary); or the Watch Committee, as in the case of Birmingham, gives an annual subscription to the hospital at which the cases are treated.

4. Cases are sent to hospitals, but no contributions are made towards the hospital funds. Such conditions obtain at Bristol and in some parts of the metropolitan area.