which we should certainly have missed had not the local Aesculāpius, in a covering letter, said that on one of his visits he thought that the eye was harder than it should have been. The patient had undergone cataract extraction, and had been subsequently needled at least three times. He was really suffering from secondary glaucoma. When we saw him he had very little field left. It is not easy to be wise at all times and in all places. How often when patients make an appointment does one hear them say, "I won't keep you a moment"? If one takes their momentary statement at its face value one may find when he arrives that one is in for at least half-an-hour's work before he can be got rid of. With the need for keeping other appointments there is a real danger that some part of the routine examination may be scamped. Such a thing happened once to a surgeon of our acquaintance. The patient was in a hurry and was fitted in at the last moment. He said his sight had "gone funny" in the train and wanted to be assured that there was nothing wrong. The surgeon found nothing amiss, though the examination of the fundus was not easy, as the patient was very intolerant of bright light. A week or two later he had a recurrence of his symptoms. When asked how his sight had gone funny, he answered, "I saw a coloured ring round a light in the carriage on my way home." Had our friend only persisted in enquiries as to what the patient had observed he would never have missed the chronic glaucoma present.

ABSTRACTS

I.—THERAPEUTICS AND OPERATIONS

- (1) **McKee, S. Hanford (Montreal).** — Gonorrhoeal ophthalmia neonatorum treated with sulphanilamide. *Canadian Med. Assoc. J.*, August, 1939.

(1) **McKee** reports a case of ophthalmia neonatorum in an infant two weeks old. The disease had started on the second or third day following birth. Each eye was affected with profuse discharge and films made from it showed the Gram-negative coffee-bean shaped diplococci. The child was admitted to hospital and in addition to the usual local treatment was given daily 2 gr. of sulphanilamide every four hours in 5 doses. The weight of the infant was 8lb. Rapid improvement took place; on the fourth day the discharge had practically ceased and the infant was discharged

at the end of a week. Films made on the third day showed no micro-organisms.

The author also refers to a case of adult gonorrhoeal ophthalmia which did very well on this treatment and was published in the *Arch. of Ophthalm.*, 1939, Vol. XXI, p. 1035.

R. R. J.

- (2) **Ballantyne, A. J. (Glasgow)—Problems of vision in aviation.** *Glasgow Med. Jl.*, March, 1940.

(2) A very interesting post-graduate lecture on problems of vision in aviation was delivered in the Tennent Memorial Institute by **Ballantyne** on September 5, 1939, and is reprinted here.

The author deals with visual standards for both civilian and military air pilots, emphasises the paramount importance of a full field of vision, goes into the questions of depth perception, and the one-eyed flyer. He discusses in some detail the physiological disturbances to which a pilot is exposed both with regard to the ocular apparatus and the disturbances of circulation of the blood. The paper is too technical to yield readily to a short abstract and should be read in the original. Two diagrams by Wing-Commander Livingston are reproduced to show the "black out" produced by turning sharply at the bottom of a dive and that effected by a "tight loop."

R. R. J.

- (3) **Abramson, A. W. and Flacks, B. (Leicester).—Staphylococcal septicaemia complicating carbuncle of the face. Recoveries after treatment with M. and B. 693.** *Lancet*, Vol. CXXXVII, p. 1065, 1939.

(3) **Abramson and Flack's** paper will interest ophthalmic surgeons for its account of the treatment which prevented cavernous sinus thrombosis in 2 out of 6 patients, in 5 of whom staphylococcal septicaemia was proved.

Two patients recovered from staphylococcal septicaemia following in one case a boil on the right side of the upper lip and in the other on the right cheek. The early use of M. and B. 693 in large doses, ligature of the angular vein under local anaesthesia and the intravenous administration of 2,500 units of anti-staphylococcal serum were of value. In one case where the patient was vomiting M. and B. 693 was given intra-venously 3 c.c. diluted with 10 c.c. of distilled water for 4 injections and then continued 4 hourly intramuscularly for a night and a day until vomiting had ceased and it was possible to continue with oral administration of 1.0 grm. 4 hourly.

H. B. STALLARD.

II.—CONJUNCTIVA

Turtz, C. A. (New York).—Verruca as a cause of unilateral conjunctivitis. *Amer. Jl. Ophthal.*, Vol. XXV, p. 452, 1942.

Turtz describes two cases of unilateral conjunctivitis of long duration which resisted all forms of local treatment but were eventually cured by the removal of minute warts near the lid margin, hidden by the eyelashes. He discusses the infectious nature of warts, their production by a filterable virus and their auto-inoculable property.

H. B. STALLARD.

III.—LENS

(1) **Clapp, C. A. (Baltimore, Maryland).—Alterations in the capsular epithelium in immature cataracts.** *Amer. Jl. Ophthal.*, Vol. XXV, p. 437, 1942.

(1) Clapp has made a histological study of 70 cases of immature cataract removed in the capsule. Atrophy of the capsular epithelium was found in practically all the cases. The epithelial cells were flattened, in some instances absent over wide areas, and in many cases the nuclei had migrated. Proliferation of these cells was evident in a few cases. This paper is illustrated by 14 microphotographs, 3 of which show normal capsular epithelium at 25, 59 and 74 years respectively. The remainder are from pathological material. The author discusses the rôle of the capsular epithelium in relation to the biochemistry of the lens, its permeability and its part in pathological processes. He suggests that alterations in and death of the capsular epithelium are a cause rather than a result of lens changes.

H. B. STALLARD.

(2) **McLean, J. M. (New York).—Cataract extraction after glaucoma operation.** *Amer. Jl. Ophthal.*, Vol. XXV, p. 192, 1942.

(2) McLean describes a modified technique for cataract extraction in a glaucomatous eye which has been trephined or treated by iridencleisis. About 2 or 3 mm. from the limbus in the 11 and 2 o'clock meridia he makes incisions concentric with the limbus and through half the thickness of the cornea. Through the lips of these he then inserts a corneal suture. A corneal section is then made with a Graefe knife, which is brought out through the corneal incisions. The cataract is removed, preferably by the intra-capsular

technique. The author's diagrams show that on tying the corneal sutures the fistula made by the previous trephine or iridencleisis operation is kept open. He has operated on four patients using this technique. There were no complications and in each the glaucoma continued to be controlled. Two figures illustrate well the technique of this operation.

H. B. STALLARD.

IV.—MEDICAL OPHTHALMOLOGY

- (1) **Simons, L. T. (Saint Paul, Minnesota).—Methyl-Alcohol amblyopia.** *Amer. Jl. Ophthal.*, Vol. XXV, p. 446, 1942.

(1) **Simons** gives a historical survey of methyl alcohol blindness. He states that 10 c.c. is a toxic dose which will produce blindness and 100 c.c. will cause death. Methyl alcohol has a cumulative effect and may cause blindness in "tipplers" who at no time may have reached the toxic dose. Inhalation of methyl alcohol may cause poisoning, 0.2 per cent. in the air is sufficient for this. The prognosis is always bad and the incidence of visual recovery small. Formic acid, a product of oxidation of methyl alcohol is responsible for the visual disturbances, a toxic neuritis of the retro-bulbar part of the optic nerve is produced.

The author treated a case 17 days after the onset of methyl alcohol poisoning by a saturated solution of potassium iodide 30 minims daily and thiamin chloride (vitamin B₁) 2,400 international units a day by mouth. He does not claim a cure for this therapy as there was some visual improvement before it was started and he comments that the good result might have been the same regardless of treatment.

H. B. STALLARD.

- (2) **Dvorak-Theobald, G. (Oak Park, Illinois).—Histologic eye findings in arachnodactyly.** *Amer. Jl. Ophthal.*, Vol. XXIV, p. 1132, 1941.

(2) **Dvorak—Theobald** describes the case of a coloured child, aged 27 months, suffering from arachnodactyly. One eye was excised after death from an acute exanthema. The eye measured 33 mm. antero-posterior by 26.5 mm. horizontally and 26 mm. vertically. The surface distance between the cornea and optic nerve on the nasal side was 29 mm. and on the temporal side 45 mm. Structural defects were present at the filtration angle, incomplete separation between the iris and trabeculum; the iris was bowed backward; the dilator pupillae was absent and replaced by a homogeneous pink-staining substance; and the pigmentation of the posterior layer of the pars iridica retinae ceased half-way between

the pupillary margin of the iris and the base of the ciliary processes. In the ciliary body there was a great scarcity of circular fibres. The lens was ectopic.

The authors comment that structural disorders of the eye are present in more than 50 per cent. of cases of arachnodactyly. Arachnodactyly is hereditary and familial. The theories of origin of this disorder are discussed under the headings (1) congenital mesodermal dystrophy (2) hypophyseal (3) mixed theory of François. Six microphotographs illustrate this paper.

H. B. STALLARD.

V.—MISCELLANEOUS

- (1) Nordmann, J. (Strasbourg).—Tumour of the pars ciliaris retinae. (Les tumeurs de la rétine ciliaire). *Ophthalmologica*, Vol. CII, p. 257, November, 1941.

(1) Nordmann gives a useful summary of the literature on the tumours of the pars ciliaris retinae and concludes that all such tumours consist of rows of cells and tubes of cells. Benign growths are either inflamed pseudo-tumours or Fuchs's epithelial tumours. These latter develop into cysts in the senile ciliary body. The malignant tumours also fall into two groups, depending upon whether embryonal or adult cells are the starting point. The embryonal type of tumours are neuro-epitheliomata or medullo-epitheliomata similar to those so frequently found in the central nervous system.

ARNOLD SORSBY.

- (2) Brückner, R. (Basle).—Cicatricial contraction of the conjunctiva following tissue damage in dyers. (Narbige Schrumpfung der Conjunctiva als Folge einer Gewerbeschädigung im Färbereiberuf). *Ophthalmologica*, Vol. CII, p. 221, October, 1941.

(2) Brückner reports two cases of bilateral shrinkage of the conjunctiva in elderly dyers. He holds this to be an occupational disease induced by chemical vapours possibly aided by physiological changes in senescent tissues.

ARNOLD SORSBY.

- (3) Fischer, F. P. and Huysmans, J. H. B. M. (Utrecht).—The gas metabolism of the lens and vitreous. (Ueber den Gassstoffwechsel der Linse und des Glaskörpers). *Ophthalmologica*, Vol. CII, p. 275, November, 1941.

(3) Huysmans and Fischer describe an apparatus for the measurement of the metabolism of explanted tissue and organs both

continuously and discontinuously. They show that the surviving explanted lens uses up oxygen and produces carbonic acid and has a respiration quotient of 1. The lens requires carbohydrates, which are partly oxydised, partly glycolised, and in part used for the production of vitamin C. The quantitative analysis of respiration, aerobic glycolysis and vitamin C formation showed that a carbohydrate residue remains, the use of which is still unknown.

The vitreous has no gas metabolism.

ARNOLD SORSBY.

- (4) Fischer, F. P. (Utrecht).—Senescent changes in the eye. (Ueber Altersveränderungen des Auges). *Ophthalmologica*, Vol. CII, p. 226, October, 1941.

(4) Fischer classifies findings in over 2,200 patients aged 1 to 80 years and establishes frequency curves for arcus senilis, depigmentation of the iris stroma, pigmentation of the posterior surface of the cornea, depigmentation of the edge of the pupil and the pigment sheath of the iris and of lens opacities. All these senile changes increase directly with age in a regular curve, possessing all the characteristics of a saturation curve. The formula and importance of such conformity are discussed.

ARNOLD SORSBY.

- (5) Francois, J. (Charleroi).—Homonymous hemianopia in acute carbon monoxide poisoning. (Hémianopsie homonyme par intoxication oxycarbonée aiguë). *Ophthalmologica*, Vol. CIII, p. 143, March, 1942.

(5) Francois reports a case of acute carbon monoxide poisoning in a woman aged 49 years. There was blindness with intact light reaction of the pupils. Vision slowly improved leaving right homonymous hemianopia. He holds that the underlying mechanism was asphyxia of the optic radiation with recovery on one side. A review of the literature is given from which it appears that two cases of homonymous hemianopia, one of binasal hemianopia and four of cortical blindness have been reported in carbon monoxide poisoning.

ARNOLD SORSBY.

- (6) McAlpine, P. T. and Berens, C. (New York).—Allergic dermatitis and blepharo-conjunctivitis caused by pantocaine. *Amer. Jl. Ophthal.*, Vol. XXV, p. 206, 1942.

(6) McAlpine and Berens describe 3 cases of allergic blepharo-conjunctivitis, and occupational dermatitis occurring in 4 ophthalmologists whose thumbs and fingers came into contact with swabs moistened in pantocaine after the instillation of this local anaesthetic into a patient's eye.

H. B. STALLARD.

- (7) **Thomas, Maxwell (Dallas, Texas).—Knife injury.** *Amer. Jl. Ophthal.*, Vol. XXV, p. 210, 1942.

(7) **Thomas** describes the case of a white boy, aged 16 years, who was stabbed in the left eye by a jack-knife. A photograph shows very graphically the knife entering the orbit through the plica semilunaris and a radiograph demonstrates it traversing both nares. Strong force was required to remove it under general anaesthesia. The eye and extra-ocular muscles were quite undamaged. Healing was uneventful.

H. B. STALLARD.

- (8) **Curdy, R. J. (Kansas City, Missouri).—The influence of gravity on intra-ocular foreign bodies.** *Amer. Jl. Ophthal.*, Vol. XXV, p. 208, 1942.

(8) **Curdy** stresses the importance of careful localization of intra-ocular foreign bodies in the lying position immediately before operation for extraction. In some cases it may be necessary to operate on the patient in the prone position so that gravity may make the foreign body more accessible. In such, radiographs taken with the patient's head in some other position will not be helpful when the foreign body has moved by gravity in the vitreous. He quotes a case of spontaneous extrusion of a foreign body through the lower part of the sclera several years after the eye injury.

H. B. STALLARD.

- (9) **Lehrfeld, L. (Philadelphia).—Is enucleation indicated in early cases of intra-ocular malignant melanoma?** *Amer. Jl. Ophthal.*, Vol. XXV, p. 199, 1942.

(9) **Lehrfeld** comments on the doubtful value of excision of an eye for malignant melanoma of the uveal tract as regards longevity. He describes the clinical features of two males each aged 49 years. One patient had his eye removed when the vision was 5/12 in 1933 and died of metastases in March, 1941. The other had in 1930 a sightless eye containing a malignant melanoma and was suffering pain from the secondary glaucoma which this caused. He refused excision until November, 1940, when fungation of the growth into the orbit necessitated this operation. He died after an automobile accident in February, 1941. A supra-sellar metastasis was found at post mortem.

The author remarks that the spindle-celled types of malignant melanoma are slowly growing, that necrosis occurs in many cases (Terry and Johns, *Amer. Jl. Ophthal.*, Vol. XVIII, p. 903, 1935, found necrosis in 67 out of 94 tumours) and that early enucleation and exenteration does not prevent metastasis or death.

On the grounds that the tumour cells arise from neuro-ectodermal

cells and that these cells are destroyed by alcohol he puts forward a theory, at present unsubstantiated by clinical trial, that cases of early intra-ocular malignant melanoma should be treated by alcohol injections into the ciliary nerves.

[The author does not mention that some of these neoplasms are radio-sensitive but less so than glioma retinae and have been reduced in size and apparently checked in growth for several years. Diathermy has also been effective in destroying small growths either directly affecting the cells or by so damaging their blood supply that they are unable to live.—H. B. S.]

H. B. STALLARD.

- (10) Davis, W. T. and Neisenbach, A. E. (Washington, D.C.).—**Ophthalmoscopic findings in draftees from the Washington D.C. Military Area.** *Amer. Jl. Ophthal.*, Vol. XXV, p. 181, 1942.

(10) Davis and Neisenbach classify in their paper the ocular findings in 223 draftees referred to them from an intake of 13,280 men between November 1, 1940 and May 1, 1941. They comment on the low incidence of malingering in this group. Only 3 attempted to feign poor vision. Of the 223 men examined 39.9 per cent. were classified as 1A, a minimum vision of 20/400 without glasses corrected to 20/40 in either eye with glasses. 41.2 per cent. were placed in 1B, available for limited military service, and 18.3 per cent. were rejected for military service.

26 per cent. of the 223 were myopes and 43.5 had myopic astigmatism. The authors suggest that such an investigation of the eyes of the male youth of the nation will be of statistical value and may serve some useful purpose in arresting certain ocular diseases and preventing complications of these.

H. B. STALLARD.

- (11) Julianelle, L. A., Boots, R. H. and Harrison, G. H. (Saint Louis).—**The treatment of staphylococcal infections of the eye by immunization with toxoid.** *Amer. Jl. Ophthal.*, Vol. XXV, p. 431, 1942.

(11) Julianelle, Boots and Harrison studied the effects of immunization with toxoid on 30 patients suffering from chronic conjunctivitis. Pathogenic staphylococci were isolated from each patient's conjunctiva and tested by fermentation of mannite and extraction of type A carbohydrate. No other treatment was given these cases. Seventeen in addition showed superficial punctate keratitis, 3 had styes and 2 chalazia. By the end of immunization the serum showed a rise in antitoxin. At the end of the period of observation 10 had varying degrees of improvement and 20 gave no evidence of any change.

Of 22 patients examined 5 to 6 months after immunization 9 were about the same, 1 was improved and 12 were completely symptomless. The authors conclude that immunization with toxoid does not appear to be an effective method of treatment in staphylococcal eye infections.

H. B. STALLARD.

- (12) Doherty, W. B. (New York).—Some of the most important ocular and orbital wounds in war. *Amer. Jl. Ophthalm.*, Vol. XXV, p. 135, 1942.

(12) Doherty quotes freely from Félix Lagrange's publication of war injuries of the orbit. He describes a routine method of examining these cases and gives a clinical report of nine patients, but not all of these were battle casualties. The paper is illustrated by radiographs and a fundus painting in colour.

H. B. STALLARD.

- (13) Haldimann, C. (Berne).—Corneal and conjunctival changes in Schaumann's disease. (*Hornhaut- und bindehautveränderungen bei Boeckscher Krankheit*). *Ophthalmologica*, Vol. CII, p. 138, September, 1941.

(13) Haldimann describes two characteristic cases of Schaumann's disease (Boeck-Besnier Disease; benign Lymphogranulomatosis), showing calcareous depositions on both the cornea and conjunctiva. The blood calcium in both cases was raised and the author believes that this is not an uncommon occurrence in this affection.

ARNOLD SORSBY.

- (14) François, J. (Charleroi).—Rhabdomyosarcoma of the orbit. (*Rhabdomyosarcom de l'Orbite*). *Ophthalmologica*, Vol. CHI, p. 129, September, 1941.

(14) In addition to the 13 cases of rhabdomyosarcoma in ophthalmological literature, the author describes a case observed by himself, in a woman, aged 61 years. After initial paresis of the abducens the complete features of orbital tumour developed within a month. Histological examination after exenteration of the orbit showed cells with thick, definitely enlarged nucleus and eosinophile plasma with distinct long and cross striping. Four weeks later death occurred from lung metastasis. The interest in this case lies in the fact that it shows the extremely malignant character of this affection, which is generally present at birth, but which may develop later in life, as in this patient.

ARNOLD SORSBY.

(15) De Ruyter, J. (The Hague).—Aetiology of senile cataract. (*Ursachen des Altersstaes*). *Ophthalmologica*, Vol. CII, pp. 93-103; and 146-163, August and September, 1941.

(15) De Ruyter's article, whilst not containing any personal observations, is a useful survey of the recent literature on the pathogenesis of cataract. The article contains 81 references.

ARNOLD SORSBY.

CORRESPONDENCE

PRESCRIBING OF SPECTACLE LENSES

To the Editors of THE BRITISH JOURNAL OF OPHTHALMOLOGY.

SIRS,—The attention of the Council of British Ophthalmologists has been drawn to the difficulty which the Services and the Ministry of Health are experiencing in obtaining spectacle lenses to supply their urgent needs, and it has been suggested that the situation could be helped by a simplification of the prescriptions supplied by civilian ophthalmic surgeons.

The Council has considered the question and makes the following recommendations:—

1. That the prescribing of lens powers in steps less than 0.25 D. (which is to say, lens powers commonly referred to as "eighth sights," e.g., 0.87 D.) be discontinued.
2. That the prescribing of prisms be reduced to a minimum.
3. That in the higher ranges, say above 4 dioptries, the prescribing of lens power in steps less than 0.5 D. be reduced to a minimum.

The above recommendations were adopted by the Army some time ago, and the Council is assured that their wide adoption in civilian practice would materially aid the situation.

I have the honour to be, Sirs,

Your obedient servant,

FRANK W. LAW.

*Honorary Secretary, Council of
British Ophthalmologists.*

36, DEVONSHIRE PLACE,
LONDON, W.1

March 23, 1943