the writer when he was asked to see a patient with a hazy cornea in whom the tonometer had registered the truly majestic figure of 212 mm. Hg. and immediate operation had been recommended. On examination, the case turned out to be one of old mustard gas keratitis, and the tonometer must have been applied to the surface of a protective contact lens which the patient was wearing at the time of examination, the corneal haze being due to the presence of Sattler's veil.

ABSTRACTS

MISCELLANEOUS

- (1) Estrada, A. T. (Mexico, D.F.)—Ophthalmoscopic observation of microfilarias in the vitreous of patients infected with onchocerciasis. *Amer. Jl. Ophthalm.*, Vol. XXV, p. 1445, 1942.

(1) Estrada describes the appearance of microfilarias in the vitreous as examined by the ophthalmoscope with a +20 to +40 dioptre lens and by biomicroscopy and the slit-lamp. He discusses the apparent differences in refringency by these methods of examination.

Of 11 cases entoptic phenomena were noted in 7. Microfilarias were found in the anterior chamber in 7 and in the vitreous in 11 cases. Conjunctival hyperaemia and photophobia were symptoms common to all cases. Punctate keratitis was present in 5 cases, perikeratitic growth in 2, iris atrophy in 1 and cataract in 1 case. The author comments that microfilarias are found in the vitreous early in the disease.

H. B. STALLARD.

- (2) Gallardo, E. and Hardy, L. H. (New York).—Virus isolated from pemphigus-like kerato-conjunctivitis. *Amer. Jl. Ophthalm.*, Vol. XXVI, p. 343, 1943.

(2) Gallardo and Hardy describe a case of severe chronic cicatrizing kerato-conjunctivitis with pannus similar in clinical appearance and course to ocular pemphigus.

They isolated from conjunctival scrapings during three different periods of exacerbation of the disease, a virus, close to if not identical with vaccinia virus. This was shown by neutralization tests in which vaccinia-immune serum neutralized the virus and the anti-virus serum neutralized vaccinia virus.

H. B. STALLARD.

- (3) **Bellows, John G. (Chicago).—Local toxic effects of sulfanilamide and some of its derivatives.** *Amer. Arch. of Ophthalm.*, Vol. XXX, No. 1, p. 65, July, 1943.

(3) This work was undertaken by **Bellows** because the topical application of these drugs is gaining widespread use in many branches of surgery, and because the observations on the local tissue reaction to them are both meagre and controversial. The corneae of young adult rabbits were used for the experiments, and after instillation of 4 per cent. cocaine they were rubbed with dry gauze so as to remove the epithelium—the effect being controlled by the use of fluorescein. Sulphanilamide, sulphathiazole, sulphapyridine and sulphadiazine were used in the form of a powder, a 5 per cent. ointment and a 20 per cent. suspension. The drug to be tested was applied three times daily to one eye, while the other was used as a control. There was no notable difference between the reactions produced by the four drugs, whether in the form of a powder, ointment or suspension; they all caused, not only a more than two-fold increase in the time required for epithelial regeneration, but also scarring, which was found in all the treated corneae. The scars were vascularised maculae or leucomata, and ranged in size from a few millimetres to involvement of almost the whole cornea. Noteworthy changes in the deeper layers of the cornea were absent.

Particular caution is therefore necessary in the use of the sulphonamides where the corneal epithelium has been denuded by physical or chemical injury.

F. A. W-N.

- (4) **Sagher, F. and Sagher, E. (Jerusalem, Palestine).—Absorption of infra-roentgen (Bucky) rays of various qualities by the anterior portions of the eyeball.** *Arch of Ophthalm.*, Vol. XXX, No. 1, p. 43, July, 1943.

(4) Beneficial results in various ocular diseases have been reported as a result of the use of these rays. The diseases are essentially those affecting the surfaces of the eyeball and lids, and include herpetic, superficial punctate, dendritic and filamentary keratitides, also superficial infiltrations and ulcers and episcleritis. This being so, it is important to determine whether Bucky rays penetrate the eyeball in sufficient amount to produce intra-ocular complications, especially cataract, since it is well known that X-rays are apt to do this unless special precautions are taken. The **Saghers** experimented with the corneae of rabbits and of human beings, using a special instrument known as the conognom to measure the amount of rays transmitted. Their general conclusions were that with a dose of 750 r only a few roentgens would reach the lens, an amount which should easily be borne without causing pathological changes. With higher doses, e.g., 5,000 r, the limit of what can be

applied to the lens is being approached, and this is also true of the ciliary body. With the softest variety of rays (half value layers of 0.02 mm. of aluminium), higher doses can be used because the penetration is only about one third of that described above.

F. A. W-N.

- (5) **Hicks, Avery M. (San Francisco).—Congenital paralysis of lateral rotators of eyes with paralysis of muscles of face.**
Arch. of Ophthalm., Vol. XXX, No. 1, p. 38, July, 1943.

(5) This condition, although first observed by von Graefe in 1875, is generally known as Möbius's syndrome, because of his exact and detailed description of the disease in 1888 and 1892. Both eyes are affected and the principal symptoms are total paralysis of all four lateral rotator muscles or total paralysis of the abductors, with paresis of the adductors, the latter acting better in convergence than in associated lateral movements. Both facial nerves are also paralysed, either completely or partially, one side being frequently more affected than its fellow. Other congenital defects often accompany this anomaly.

The condition is probably not so uncommon as supposed, **Hicks** having seen no fewer than four cases of it. The first showed total paralysis of all the muscles of the face, total absence of associated lateral movements of the eyes and a weakness of convergence. The second case differed from the first in that the eyes were convergent and more or less fixed at the internal canthi; also the patient was deaf and had a supernumerary thumb and web fingers. In the third case, the facial nerve retained a few active fibres, while in the fourth, in addition to marked limitation of lateral movements, the vertical movements of the eyes also showed some restriction.

Up-to-date there appears to have been only one autopsy on a case of Möbius's syndrome, which disclosed marked defects in the motor ganglia and nerve fibres of the medulla and pons. There were no signs of degeneration or of inflammation, and the changes were therefore ascribed to hypoplasia.

F. A. W-N.

CORRESPONDENCE

SILENT SINUSITIS

To the Editors of THE BRITISH JOURNAL OF OPHTHALMOLOGY.

DEAR SIRS,—I feel that the article by Miss Rosa Ford (Vol. XXVII, p. 469) on "Iridocyclitis and Choroiditis due to silent sinusitis" should not be allowed to pass without comment.