

superior oblique. The knowledge of this resource will be very comforting both to patients and operators, and when necessary we shall gratefully appeal for aid to the ophthalmic surgeon. It is, of course, only in a very small minority of cases that this will be so, and it must be surprising to those who have witnessed the performance of radical operations on the frontal sinus that diplopia is not a more constant and persistent result. When it does occur it is usually quite transitory, the reason for this no doubt being that the degree of contraction of the muscles is regulated by the amount of movement required to harmonise the direction of the optic axis with that of the other eye. It must also be a matter of surprise that in many cases, even of considerable displacement of the trochlea, no diplopia is experienced at all. Exceptionally, however, this happy course of events does not ensue. The most serious and lasting cases of diplopia are undoubtedly those in which the cause is not simply a defect in the action of the superior oblique muscle, but a mechanical interference with the movement of the eyeball induced by inflammatory products which infiltrate the tissues around the eyeball and hamper it in its movements. In these cases we can scarcely hope for any benefit from operations, however skilful; but with proper skill in operation and adequate care in regard to the accomplishment of asepsis, this unhappy residuum of cases, in which the only resource is the covering up of the eye, may be eliminated.

Dundas Grant.

LARYNX.

Møller, Gørgen (Copenhagen).—Epiglottis Amputation in Laryngeal Tuberculosis. "Zeitschr. f. Laryngol.," Bd. iv, Heft. 4.

Møller has operated on twenty-five cases, ten of which he has reported previously. The results in his last fifteen cases have not been so good as in the first series, and Møller thinks this is due to his not being so particular in the selection of his cases. In six of the last series the lung condition was very bad, and in only one case did he obtain a cure. In seven of the fifteen cases, however, the dysphagia was at once relieved. In all but two of the cases he removed the epiglottis with one application of Alexander's instrument. [It is presumed that he means the projecting part of the epiglottis.—*ABS.*] He gives the following indications for the operation: (1) Tuberculosis entirely, or almost entirely, confined to the epiglottis in cases in which the patient is able to stand operation. (2) Cases of very severe dysphagia apart from the condition of the lung if the epiglottis appears to be the cause of the difficulty on swallowing. (3) Tuberculosis of the epiglottis in cases of extensive laryngeal tubercle even if there is no dysphagia. The lung affection, however, must be absent or so slight that the prognosis is good.

J. S. Fraser.

Blumenfeld, Prof.—Tuberculin Treatment in Tuberculosis of the Upper Air-passages in Adults. "Zeitschr. f. Laryngol.," Bd. iv, Heft 4.

Blumenfeld remarks that every change in the larynx of a tubercular patient is not necessarily of a tubercular nature, and therefore may be uninfluenced by tuberculin treatment. He further calls attention to the fact that tuberculin immunity, *i. e.* tolerance to large doses of tuberculin, is not the same thing as tuberculosis immunity. The reaction after an injection of tuberculin occurs in the middle layer of the tubercular

deposit, and not in the central zone of caseation nor in the peripheral zone of small-cell infiltration. This intermediate layer is not always present and, in these cases, the reaction does not occur. Blumenfeld remarks that *many cases of tuberculosis of the larynx are very difficult to diagnose, and that in them a tuberculin reaction is of very great importance*; on account of the inflammatory reaction the patient may become hoarse for a day or two. Cases with fever and anæmia are not suited for tuberculin, and those with tubercular deposits and tumours are not so successful as those with ulceration; cases with elongated ulcers on the vocal cords react specially well. Perichondritis and infiltration of the epiglottis do not do well. Blumenfeld considers it advisable to combine open-air methods with tuberculin. *Dosage.*—In the first tuberculin era—the period of too large doses—acute destruction often followed the injection of tuberculin. The tendency now is to begin with minute doses and only gradually to increase them. Blumenfeld records a case treated for a period of four months. The initial dose was 0·0001 c.cm. and the final dose 1 c.cm. Thirty-four doses in all were given; the patient recovered. Blumenfeld states that if a marked reaction occurs the dose should be diminished. He now thinks it better to stop after reaching ·5 c.cm. and then, after an interval, to begin a fresh period of tuberculin treatment. The reports of various writers differ markedly with regard to the results obtained from tuberculin treatment. Von Ruck, Zander and Springthorpe record good results, but the majority of writers are against the use of tuberculin in laryngeal cases. Blumenfeld himself only uses it in obstinate cases. He has observed four in which curettage, cautery and lactic acid failed, do well after tuberculin injections. Like Heryng, he does not believe in the 50 per cent or 60 per cent of cures recorded by some writers, and thinks 5 per cent. or 6 per cent. is much nearer the mark. Blumenfeld is of opinion that tuberculin alone can do very little. It may, however, in favourable cases be an aid to local treatment.

J. S. Fraser.

REVIEWS.

The Accessory Sinuses of the Nose in Children. By A. ONÓDI. (Translated by CARL PREAUSNITZ.) 102 plates. London: John Bale, Sons and Danielsson, Ltd., 1911. 21s. net.

Prof. Onódi's former works on the clinical anatomy of the nose and nasal accessory sinuses have so greatly enriched our knowledge of these important regions that one turns to this, his latest contribution, with every expectation that valuable fresh light will be thrown on the subject with which it deals, and that the matter will be presented in the most attractive form. We cordially congratulate our distinguished colleague, and also the translator, on the result of their labours. One hundred and two specimens are reproduced in natural size from photographs, each specimen being described so as to enable the reader to grasp the points of interest and importance attaching to the corresponding plate. The main object of the work is the study of the development of the sinuses from their first appearance until after the beginning of puberty, and it is