Dr. MAX A. GOLDSTEIN (St. Louis) said there had been many references to atypical cases in which there was a dearth of symptoms, and in which destruction proved to be extensive. He presumed that if these cases had been examined bacteriologically they would have been found to be tuberculous. He had reported three cases in which tubercle bacilli were demonstrated in the pus and granulations. The *Bacillus tuberculosis*, the *Bacillus mucosus*, or some other slow-working bacillus, is undoubtedly present in that class of cases which are so atypical in variety.

Dr. STUCKY, in closing the discussion, said he had seen two cases of atypical mastoiditis in children under two years of age, in which there were absolutely no symptoms at all until the patient had convulsions. There was a little bulging behind the ear in one case which, when opened, proved to be an epidural abscess. He had reported one case of traumatic mastoiditis. He had also had tuberculous cases in which there were tuberculous glands behind the ear, with no history of middle-ear disease. The exploratory operation, which Dr. Allport did not understand, meant the same thing to the otologist who opens the mastoid as to the abdominal surgeon who opens the abdomen. He did not agree with Dr. Day with reference to absorption. If the abscess is walled off there may be no absorption, but a blood-count taken twice daily would give indication of trouble.

(*To be continued.*)

Abstracts.

NOSE.

Landolt, E. (Paris).—Treatment of Diplopia from Paralysis of the Superior Oblique after Frontal Sinus Operations. "Trans. Ophthal. Soc.," vol. xxxi, 1911.

In referring to operations on parts adjacent to the eyeball, the author states that those on the sinuses seldom come within the ophthalmologist's range. As an ophthalmologist he writes as follows: "The most common of them are those that are performed on the frontal sinus, and they are more in the province of the rhinologist—at least to begin with, for after the operation for sinusitis the patients sometimes come to us. The chisel has overstepped the mark and has entered our domain at the level of the pulley for the *obliquus superior*. Paralysis of this muscle gives rise to very troublesome diplopia. Fortunately, by advancing the *rectus inferior* that works in conjunction with the *superior oblique*, we possess an excellent method for re-establishing the harmonious working of the two eyes." He states that he has published several cases in which this operation gave such favourable results that the patients enjoyed binocular vision, as well for near as for distant objects, and, what is equally important, throughout the field of vision required by their work.

[In this interesting paragraph from his Bowman Lecture on Ophthalmic Surgery the well-known ophthalmologist, Dr. Landolt, of Paris, refers to the diplopia produced by paralysis of the *superior oblique* following interference with the trochlea during the operation for frontal sinus suppuration. When this has occurred he advocates, as an excellent method for re-establishing the harmonious work of the two eyes, the advancement of the *rectus inferior* which works in conjunction with the

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.

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

Möller 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 Möller 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