

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 PRAUSNITZ.) 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

in the selection and presentment of the series of specimens that Onódi's work will prove so useful and acceptable. This is well expressed by Prof. Waldeyer in his introduction, when he states that "from the practical point of view, the illustrations and measurements given in this book appear to me to have considerable importance, particularly for the diagnosis and operative treatment of the accessory sinuses in children, since they enable the surgeon to select and to follow up the best route of access to such cavities." The material from which the illustrations have been prepared was obtained from fœtuses of six and a half months, newborn children, and children ranging from one to nineteen years of age, and it is a most complete series.

While the author is to be congratulated, a word of praise is due to the publishers, for the printing is well done and every plate is beautifully reproduced.

P. Watson-Williams.

The Brain and Voice in Speech and Song. By F. W. MOTT, F.R.S., M.D., F.R.C.P. Pp. 112. London & New York: Harper Bros., 1910.

A work on this subject must necessarily appeal to all voice specialists and laryngologists as a special aspect of their speciality and as a study of it from a point of view somewhat different from their habitual one. The fact of its having issued from the pen of Dr. Mott gives it the cachet of absolute authoritativeness. Its central portion consists of a consideration of the vocal instrument and its three parts. This is familiar ground, but it is quite worth traversing again under the guidance of Dr. Mott. He has brought its description quite up date and has drawn from all the available sources of information so as to make it acceptable and instructive to the practitioner, while he has couched it in such clear terms that it is intelligible to any educated reader.

To us the most interesting portions are those which deal with the psychological and neurological relations of the organs of voice. We may cite the short discussion as to the origin of speech, whether arising from the elemental cry or from an imitation of the movements of the mouth, or whether, again, it is an instinct not evolved, but breaking forth spontaneously. A tribute is paid to the memory of Goll, who, in spite of his error in considering the bumps of the skull as indicative of the development of the various faculties, was the pioneer of cerebral localisation (p. 69). Dr. Mott is a convinced supporter of right-handedness as against ambidexterity (p. 72). The doubts cast of late by M. Marie on the significance of the fundamental observations of Broca are fully considered.

Dr. Mott discusses the question as to whether words are received as the recollections of movements of the speech organs (Stricker) or as auditory images in favour of the latter. As one very strong argument he narrates at length a case in which disease confined to the auditory centres on the two sides caused not merely complete deafness, but also loss of speech, the mental faculties, so far as could be made out under the circumstances, remaining unimpaired.

Voice in relation to song is sympathetically analysed, and the necessity of a psychic as well as a physiological mechanism is feelingly insisted upon. "Dramatic song," the writer concludes, "therefore, that does not evoke an emotional response is *vox et præterea nihil*."

The physical, the anatomical, the physiological and the psychical factors receive the fullest exposition and illustration in this exceptional work.

Dundas Grant.