rigor. Temperature 100° F., pulse 100. Right meatus blocked by polypi, tenderness at tip of mastoid; no tenderness in neck. The middle ear was curetted under chloroform. February 9: Patient vomited twice. Temperature 100°, pulse 90; intermittent headache; no optic neuritis. February 10: Temperature 104°; rigor; vomited; February 11: Radical mastoid operation; sequestrum of tegmen tympani; extra-dural abscess. Lateral sinus not examined Pyæmic temperature followed. Injections of anti-pneumococcus and anti-staphylococcus sera. Later, further operation. Lateral sinus found thrombosed and full of pus, Cultures found only *Staphylococcus pyogenes albus* and Hoffmann's bacillus. Vaccine prepared and administered on fifth day, and subsequently. Later, abscess over left squama; sequestrum removed. Multiple abscesses of scalp: twenty operations. Final complete recovery. *C. E. West.*

Meyer, J.—Further Studies on the Question of Sound-Localisation, Investigations on Infants and Animals. "Monats. f. Ohrenheilk.," No. 4, Year 46.

After extensive research on these points the author concludes that the sense of hearing cannot be regarded as in any way established till some weeks after birth in the case of the human being and that its development is gradual and in part dependent on the education of other senses. At first the infant reacts to no sound, then there is a stage when very loud sounds are noticed, as is evidenced by the movement of the eyes, which may be possibly the result of stimulation of some other sense, then sounds associated with events begin to be noted, and lastly, commencement of sound-localisation can be witnessed in the directing of the head and eyes towards the source of sound.

In adult life so many other factors must, of course, always enter into the question of hearing—such as attention, use, custom, interest, etc.—that the subject becomes extremely complex. The author discusses the results of his various experiments at length which, although affording a certain amount of academic interest, do not appear to be of much clinical value with the exception that he considers he is able to state that sound-localisation is a function dependent on the auditory sense and is not attributable to the semi-circular canals, that it is represented in the cerebrum and is quite independent of the small brain.

Alex. R. Tweedie.

ŒSOPHAGUS.

Lerche (St. Paul., Minn.)—Remarks on Cardio-spasm, with Special Reference to Treatment and the Use of the Œsophagoscope for Examination, Based on a Study of Seventeen Cases. "Amer. Journ. Med. Sci.," March, 1912.

The physiological closure of the œsophagus toward the stomach is effected, not at the cardia (the anatomical line of junction of the œsophagus and stomach), but at the "epicardia," by which name the author denotes a portion of the œsophagus, about 4 to 5 cm. in length, extending from the cardia to about the hiatus œsophagus. The term "cardio-spasm" is therefore inadequate. Cases of diffuse dilatation of the

œsophagus without anatomical obstruction can be divided into two groups. In one, spasm of the epicardia is primary and dilatation of the œsophagus secondary. The cause of the spasm may be disturbance in some neighbouring organ or irritation along the pneumogastric nerve. In the other group, atony of the œsophageal wall is primary and cardio-spasm is secondary. The author has devised a special œsophagometer for measuring the capacity of the dilated organ. The most important step in the examination is, however, by means of the œsophagoscope; without this the diagnosis of cardio-spasm *intra vitam* cannot be accepted. In some cases, on œsophagoscopic examination, the epicardia remains firmly closed until induced to open by the application of a 10 per cent. cocaine solution. In no case of cardio-spasm is the "epicardia-cardia" impermeable. The routine treatment of cardio-spasm is stretching of the lower end of the œsophagus. For this purpose the author has devised a special silk-rubber bag, by means of which he exerts a measured pressure of 10 lb., dilating up to a diameter of 30 mm. The stretching, which is rather painful, may need to be repeated on one or two occasions, and treatment must also be employed to overcome the catarrhal condition of the mucous membrane of the œsophagus. With this object the writer injects a solution of nitrate of silver by means of a special cannula. He has also devised an electrode for application of the galvanic current in cases of atony. Details are given of four of the seventeen cases which have come under the author's observation. Of these four cases the first represented the typical form of chronic cardio-spasm, while each of the other three differed somewhat from the ordinary. *Thomas Guthrie.*

MISCELLANEOUS.

Cook, A. H.—The Diagnostic Value of the Reaction following Intravenous Injection of Salvarsan. "New Orleans Med. and Surg. Journ.," June, 1912.

The object of the article is to combat the theory that the degree of reaction after injection of salvarsan depends on the virulence of the syphilitic infection. Several cases are given in some of which a severe reaction followed a mild infection or *vice versa*; in others a second injection was followed by a more severe reaction. The conclusion arrived at is that the reaction is useless as a gauge upon which to base treatment, and that it possibly arises from contamination of the distilled water used in the solution. *Knowles Renshaw.*

Seifert, Dr. Otto (Wurzburg).—Pemphigus. "Zeitschr. f. Laryngol.," Bd. iv, Heft 3.

Seifert speaks from twenty-two years experience as a dermatologist and laryngologist. He has collected from the literature twenty cases of pemphigus published since 1903, in which the disease was confined to the mucous membranes or, at least, began in them and only later affected the skin. Siefert gives an account of four cases of his own. Case 1 was very mild and apparently recovered. Case 2 was severe; the cheeks, lips, nasal cavities, pharynx, larynx, tongue and gums were all affected. The nose was treated with a saline wash and bismuth ointment, while the mouth was sprayed with peroxide and thereafter "scarlet red" was used. Later on methylene blue and methyl violet lotion was used and quinine was given internally, but no treatment had any effect and blebs appeared all