horse eight years before, and sustained some injury to the neck. Whether this accident had any causal relation to the laryngeal neoplasm is doubtful. A bluish tumour was seen on the anterior end of the left vocal cord, apparently growing from the ventricle. The tumour consisted of very loose connective tissue underlying the mucous membrane and containing many hæmorrhages.

Cases 2, 3 and 4, were cases of "singer's node." Case 5 was one of multiple papillomata in an adult. Case 1 the author considers probably unique, he can find no similar case recorded; Case 5 is rather rare. The main object of the article seems to be to describe his method of anæsthetising the parts preparatory for operation, a method he learned in Prof. H. Krause's klinik in Berlin. The method is as follows: The soft palate is rendered insensitive by the application of a pledget of cotton-wool dipped in a 10 per cent. solution of cocaine hydrochloride. Twenty minims of a 20 per cent solution of cocaine hydrochloride are then taken up in a very fine-pointed laryngeal syringe. Under guidance of the laryngeal mirror three or four drops of the solution are allowed to fall along the upper border of the epiglottis; a minute later the arytænoids are similarly treated. After a second pause the interior of the larynx is dealt with in the same way. After each instillation the patient should give a short cough, so that some of the cocaine may reach the posterior surface of the epiglottis and posterior wall of the pharynx. The operation may be begun a minute or two after the last instillation. The author thinks that this method is not known in this country.

Arthur J. Hutchison.

EAR.

Shambaugh, G. E. (Chicago).—*On the Significance of Certain Labyrinth Symptoms.* "Laryngoscope," September, 1909, p. 683.

Disease in the labyrinth induces symptoms either of irritation—tinnitus and vertigo, or of loss of function—deafness, etc. In acute conditions signs of irritation are the most conspicuous phenomena; in chronic conditions the predominant feature is a loss of function. A combination of both of these groups of symptoms forms the Ménière symptom-complex, and indicates involvement of both cochlear and vestibular systems. No particular disease, however, is thereby signified.

Acute processes may be definitely limited to either branch of the auditory nerve, and when the vestibular is the branch affected, the vertigo, nausea and other symptoms of disturbance are often referred by the practitioner to other organs, because, there being no deafness, the ear is not suspected.

Acute processes, whether they attack both or only one division of the auditory organ, manifest two types of onset. One is slow, taking several days or weeks to reach full development, and is characteristic of infective or toxic neuritis; the other is sudden and violent, and is due to embolism or hæmorrhage, save in the very rare event of a fulminating neuritis. Broadly speaking, a slow onset favours the diagnosis of a nerve lesion, and a rapid onset favours a lesion of the labyrinth.

Cases are related in which the sudden development of a partial localised defect in the auditory scale suggested the occurrence of an embolic occlusion of one of the small end-arteries of the cochlea.

Dan McKenzie.

Ross, George T. (Montreal).—*Case of Temporo-Sphenoidal Abscess of Otitic Origin, accompanied by Two Epidural Abscesses and One Subperiosteal Abscess.* "Montreal Med. Journ.," May, 1909.

The patient, Mrs. M——, aged twenty-seven, mother of eight children and pregnant. She was admitted to the hospital with severe mastoid symptoms, including great swelling and tenderness behind the right ear and perforation in the posterior inferior quadrant, from which pus was oozing.

In the first operation the subperiosteal abscess was opened, with discharge of pus. The mastoid cells were then opened, pus being found everywhere as far as the inner table of the skull. An area of necrotic bone was encountered in the mastoid, directly behind the external auditory canal, and in curetting this away a peri-sinus abscess was tapped, which contained two teaspoonfuls of creamy pus. The cavities were cleaned and drained and closed in the usual way. The hospital reported the case as one of staphylococcus infection. For two weeks after the operation patient's condition continued favourable, with practically a normal temperature. Then there was a rise of a degree and a half, followed by a fall again, introducing a low septic condition, with headaches, irritability, and occasional emesis. Four weeks after the first operation the patient was semi-stuporose, with external squint of right eye and enlarged pupil; left hemiplegia noticeable; deep reflexes active.

A second operation was now done, the former mastoid being re-opened. The granulations were found satisfactory, but the instrument passed through the tegmen centre into the floor of the middle cerebral fossa with hardly any resistance, a quantity of thick pus being released from an epidural abscess. A button of bone was then trephined through the squamous portion of the temporal and the dura exposed. This was opened and a trocar and cannula inserted into the temporo-sphenoidal lobe, directly inwards and downwards. On withdrawing the trocar an ounce of very fluid pus came out in a stream. The wounds were cleaned and dressed. The patient rallied well, and for forty-eight hours the result promised to be favourable. The patient replied more readily to questions, and voluntary movement of left arm and leg improved. But the third day she collapsed with a fatal issue. At the autopsy a large, empty abscess cavity was found in the right temporo-sphenoidal lobe. Its wall was very condensed and covered with detritus, while continuous with it, in the posterior portion of the island of Reil, there was red softening. *Price-Brown.*

Iglauer, S.—*Method of Opening the Mastoid Antrum through the External Auditory Meatus as the First Step in the Mastoid Operation.* "Laryngoscope," January, 1910, p. 76.

The antrum is opened by means of the electric drill applied to the postero-superior wall of the external meatus. The usual post-aural incision is employed and the operation is otherwise completed along familiar lines. The anatomy of each case is ascertained by X-ray examination before the operation. *Dan McKenzie.*