circumstances. With regard to pressure on the medulla, he had always understood that to be the cause, though it was difficult to make it out. As Dr. Permewan suggested, there might be something else in addition. He had not seen any resulting indentation of the medulla, but was much impressed by Dr. Turner's remark. With regard to the remarks made by Mr. Marriage, he thought one should proceed with the operation, otherwise the patient would die, whereas, if the operation were carried through rapidly, possibly the patient would recover. He believed that Sir William MacEwen, in his book, refers to a case in which artificial respiration was carried on for fourteen hours.

(*To be continued.*)

Abstracts.

FAUCES.

Logan, J. A. (Kansas City).—*Endothelioma of the Throat.* "Boston Med. and Surg. Journ.," January 10, 1907.

The growth affected one tonsil and appeared to be ameliorating under X-rays. The nature of the growth was proved by microscopic examination. *Macleod Yearsley.*

PHARYNX.

Holmes, E. M. (Boston).—*Middle-ear Suppuration as an Etiological Factor in Retropharyngeal Abscess.* "Boston Med. and Surg. Journ.," January 10, 1907.

The author considers retropharyngeal abscess from middle-ear disease is rare. He advises a free incision in the pharyngeal wall, the index finger acting as a guide in curetting. *Macleod Yearsley.*

NOSE AND ACCESSORY SINUSES.

Kubo, I. (Fukuoka, Japan).—*Contribution to the Histology of the Inferior Turbinate.* "Archiv für Laryngol.," vol. xix, Part I.

The microscopical specimens on which this paper is based were prepared from the body of a man aged about forty-five, after a species of "natural" injection of the nasal blood-vessels. A few hours after death the body was suspended in the inverted position, until the face had become deeply cyanosed. The internal jugular veins were then ligatured, and the head injected by way of the carotids with a 10 per cent. solution of formalin. Lastly, the entire head was placed for several days in 10 per cent. formalin, frequently changed. A piece of the middle portion of the left inferior turbinate was employed for the examination.

The specimens show externally the ciliated, cylindrical-celled epithelium, bounded internally by the membrana limitans. This is followed by the so-called "adenoid" or subepithelial layer. More internally is the

glandular layer, and then the true cavernous tissue, which is much better developed at the free margin of the turbinate than at its point of attachment.

Three capillary systems can be distinguished, namely, the sub-epithelial system, the glandular system, and the periosteal system. The first of these is bounded externally by the membrana limitans, but it appears that under conditions of high venous pressure some capillaries pass through the "canaliculi perforantes membranæ basilaris," and come into actual contact with the epithelial cells.

In regard to the amount of muscle and elastic tissue in their walls the cavernous channels are intermediate between the arteries and the veins. In the stroma between the vessels are found a few muscle bundles, which appear to act as vaso-dilators.

Elastic fibres are present in all the layers deep to the limiting membrane. In the outer layer of the periosteum they form a definite sheet of varying thickness. They assist in the support of the cavernous channels. In the glandular layer they are very few in number, and are in relation to the blood-vessels alone. In the subepithelial or "adenoid" layer they appear to be very variable. In some cases they form a rich network, but are not disposed in a continuous sheet. In cases of lobular hypertrophy both elastic fibres and gland ducts are found in considerable numbers in the depressions, while the prominences are almost free from them, and seem to be due mainly to hypertrophy of the "adenoid layer."

Thomas Guthrie.

Kubo, I (Fukuoka, Japan).—*On the Question of the Normal Condition of the Human Inferior Turbinate.* "Archiv für Laryngol.," vol. xix, Part II.

In order to determine the normal condition of the inferior turbinates, the author, as a sequel to his "Beiträge zur Histologie der unteren Nasenmuscheln," investigated the inferior turbinates of new-born infants, in whom alone, he considers, can the possibility of the pre-existence of inflammatory diseases be excluded. Microscopic sections in these cases showed the following more important points of distinction from similar preparations of adult turbinates:

(1) The cylindrical epithelium is not yet fully developed, the cells being more elongated in some spots than in others, with the result that the free surface is undulating.

(2) The basement membrane is but little developed. As time goes on it gradually increases in distinctness, and especially so after inflammations. Excessive thickening is, therefore, to be regarded as a sign of past inflammation.

(3) The glands are very numerous. They are at first placed more superficially than in the adult, and only later extend deeply. Irregularity of distribution points to previous inflammation.

(4) The so-called "sub-epithelial" or "adenoid" layer of the adult is almost totally unrepresented, and the lymph-follicles do not appear until the age of about two and a half years. This layer varies greatly in the adult. Marked development of it always indicates a condition of hypertrophy, and is usually associated with a thick basement membrane.

(5) The bone is very irregular and displays many branching processes. Signs of active growth and absorption are everywhere present.

(6) The cavernous tissue is simpler than in the adult, but both it and the elastic fibres are already well formed at birth.

Thomas Guthrie.

Sprenger (Stettin).—*A Case of Mucous Cyst of the Frontal Sinus.* "Archiv für Laryngol.," vol. xix, part 1, 1906.

Dr. Sprenger relates the case of a man whose illness began with headache of increasing severity at first in the right frontal, but later in the right temporal region. The discovery of an empyema of the right antrum led to the performance of the so-called radical operation, which, although at first apparently successful, was followed by a recurrence of the pain, first in the left temporal region and then on the right side, especially in the eye and at the root of the nose. The appearance of a firm, fluctuating swelling about the size of half a cherry in the region of the right eyebrow, together with tenderness of the anterior and inferior walls of the right frontal sinus, induced the author to operate. The first incision laid bare a small cyst containing about a drachm of greenish-yellow serous fluid. Examination of the posterior wall of this cyst disclosed a circular defect in the bone about the size of a small cherry. This hole was closed by a firm membrane, by means of which the interior of the cyst was separated from that of the frontal sinus. The latter, when opened, was found to be empty, but increased in all its diameters, and its lining membrane was markedly atrophic and adherent to the bone. The upper wall presented an exactly similar defect to that of the anterior, so that the dura mater was laid bare. The ostium of the sinus could not be found. The author lays stress on the following points: (1) the diagnosis was much obscured by the co-existence of an empyema of the antrum; (2) the pain repeatedly altered its situation, and was even localised for three weeks in the *left* temporal region (this was probably due to pressure on the very thin septum which divided the right frontal sinus from the left); (3) the pain differed from that usually noticed in frontal sinus disease, in that it was severe during the day and absent at night; (4) the situation of the pain at the root of the nose, and radiating thence to the tip of the nose and also to the ear and neck, is regarded as somewhat characteristic; (5) the markedly atrophic condition of the mucosa of the frontal sinus indicated that the cyst was a late result of chronic inflammation.

Some space is devoted to a discussion of the various views as to "mucocele" of the frontal sinus. *Thomas Guthrie.*

Storck, J. A. (New Orleans),—*Gastric Disturbance due to Disease of the Frontal Sinus.* "New Orleans Med. and Surg. Journ.," February, 1907.

The author reports two cases, one suffering from dyspepsia, the other from nausea, in which the connection between the frontal sinus disease and the gastric disturbance was well established.

Macleod Yearsley.

LARYNX.

Wertheim, E. (Breslau).—*On Contusion of the Larynx.* "Archiv für Laryngol.," vol. xix, Part I.

The author describes a case in which a man, aged forty-six, while riding a bicycle, collided with a hand-cart and received a blow on the left side of his neck. Examination two hours later showed, externally, no trace of injury. Crepitation was likewise absent, and tenderness present only on deep pressure over a sharply-defined area about ½ cm. to the