some considerable time suffered from occipital headache, and that on the day of the operation he could not use his right arm as he ought. Had these symptoms been known sooner the diagnosis might have been expedited. A fistula between the cerebellum and the posterior surface of the petrosal bone persisted for a year, and was continually drained. The fistula closed, but as discharge from the ear continued the labyrinth was operated on on three occasions.

# Abstracts.

## PHARYNX.

**Levy, Max (Charlottenburg).—Complications after Adenoid Operation.** "Zeitschr. f. Laryngol.," Bd. v, Heft 2.

Levy compares the small number of bad results recorded in literature with the large number of mishaps which surgeons acknowledge in private conversation. Further, these cases soon pass out of the specialist's hands, and the child's own doctor may not recognise the connection between the recent operation and the present illness. Of the complications hæmorrhage is the most common. This may only be recognised when the stomach becomes full and the blood is vomited. Levy is strongly against packing the naso-pharynx, and holds that the best practice is to again scrape the naso-pharynx, as the hæmorrhage is usually due to a semi-detached piece. Levy advocates the use of the Schütz-Passow instrument, as the Gottstein curette may remove a piece of the mucous membrane of the posterior pharyngeal wall. Injury to the Eustachian cushions and the soft palate are also referred to—the latter may cause nasal tone of voice. With regard to sepsis, Levy remarks that fever occurs after operation in 40 per cent. of cases. Healing occurs under a blood-crust. Infection of neighbouring lymph-glands is rare. Stiffness of the neck and torticollis are due to myositis of the prevertebral muscles. Acute otitis media occurs as a rule in cases in which the ear was already the seat of chronic inflammation before the operation. Levy says that, if we regard scarlet fever merely as a special form of sepsis, it is not remarkable that it should occur after operation on tonsils and adenoids. It is very difficult to diagnose scarlatina from the septic rash which sometimes follows operation—if there really is any difference!

Levy records a case in which otitis media and fatal meningitis followed the removal of adenoids; the otitis had healed before the meningitis occurred. Pyæmia and septicæmia with exophthalmos may follow the removal of adenoids, the infection passing from the pharyngeal plexus to the lateral nasal, facial, ophthalmic and central vein of the retina. Levy holds that cases which suffer from rheumatism after operation occur in patients who have had an angina a short time before. The surgeon should make sure that there has been no illness in the house for some time before operation. *J. S. Fraser.*

## NOSE.

**Thomson, Sir StClair.—Two Cases to Illustrate the Advantages of Lateral Rhinotomy (Moure's Operation) in dealing with Malignant Growths of the Nose and Accessory Sinuses.** "Proc. Roy. Soc. Med.," vol. vi, No. 5, March, 1913, Clinical Sect., p. 156.

One case was operated on two and a half years ago, the other six months; in neither is there any trace of recurrence.

After a description of the operation and its scope, the author points out that it has the following advantages: A large opening is obtained. Any neoplasm is well seen, particularly those of the ethmoid area and antro-nasal wall. Extensions to the infundibulum and sphenoid can be directly inspected. Hæmorrhage is less and more easily controlled. The incision is closed with a few horsehair stitches, no dressing is required, and the wound heals like a shaving cut. Malignant disease of the antrum rarely starts from the floor, and excision of the alveolus is unscientific. There is little or no disfigurement. *Raymond Verel.*

**Alles, Emmanuel C.—Mucocele of the Anterior Ethmoidal Cells.** "Lancet," December 14, 1912, p. 1645.

A case reported at the suggestion of Prof. Fuchs, of Vienna. A deaf and dumb man, aged twenty-five, presented himself at the eye clinic with right exophthalmos, persistent since scarlet fever at three years. A hard mass was felt at the junction of the upper and inner wall of the right orbit; firm and nodular, a small area at the upper part was softer and seemed to fluctuate. The swelling was fixed immovably to the bone. No pulsation. 2 cm. wide and 2 cm. long. Pressure at a certain spot caused shooting pain along right supra-orbital nerve. Eye-movements good. No diplopia. Eyeball completely covered on closing lids. Eye protruded 11 mm. Pupil normal and reacting to light and accommodation. Vision: R. $\frac{6}{36}$, L. $\frac{6}{9}$ ⊱, + 0·5 Hm. = $\frac{6}{9}$. Fundi normal. No epiphora. Right nasal blocking. Right middle turbinal hypertrophic and pressed to septum by large bulla of anterior ethmoidal cells. Pus in middle meatus. Left, old otitis media Right ear, chronic adhesive otitis.

Diagnosis (Dr. Neumann): Chronic empyema of anterior ethmoidal cells secondary to tumour, probably cholesteatoma. *X-ray:* Tumour seemed to originate from right ethmoid and protrudes into upper part of maxillary sinus. Operation by Prof. Fuchs by external incision; brownish, semi-gelatinous fluid poured out of anterior ethmoidal cells. Anterior, middle and posterior cells curetted, also frontal sinus. Cavity plugged with gauze and wound partly closed. Patient died two days later. *Post-mortem:* Suppurative meningitis. Status thymo-lymphaticus. Thymus, 25 grm. The case is interesting from (1) rarity; (2) difficulty of diagnosis; (3) the disclosures made by the *post-mortem* examination. *Macleod Yearsley.*

**Iwanoff, A. (Moscow).—Fronto-ethmoidal Trepanation.** "Zeitschr. f. Laryngol," Band v, heft 2.

Iwanoff holds that the frontal sinus is almost never diseased alone—that the ethmoidal cells or antrum (or both) are practically always affected. On the other hand the ethmoid may be diseased, while the frontal contains no pus. In only one of the 23 cases he has operated on was the frontal healthy, in the others it was diseased along with the ethmoid. All the cases had had intra-nasal treatment without effect. Iwanoff finds that he has less post-operative œdema if he injects cocaine along the line of incision. He removes the bone to which the trochlea is attached, and does not make a flap from the nasal mucosa. He opens the floor of the sinus first of all, and, if the cavity be small, he leaves the anterior wall *in sitû* (four cases), but removes the mucous membrane. The author records one case in which the suppuration was confined to the posterior part of the sinus, and has

collected eight similar cases. After the radical operation on the antrum Iwanoff holds that the cavity again becomes lined with epithelium—partly from the mucosa which is left and partly from the flap turned down from the nose. After the radical frontal operation, on the other hand, the cavity fills with blood-clot, which organises into granulation-tissue and finally becomes a solid mass of bone. For this reason Riedel's operation is the ideal one, but is only suitable for cases in which the sinus is small. Iwanoff has operated on a case on which another surgeon had already performed the radical operation The sinus was full of pus and granulation-tissue and was quite shut off from the nose. It is interesting to note that Iwanoff had to operate a third time in this case. This last operation was followed by hæmorrhage, which necessitated post-nasal plugging. This again was followed by suppurative otitis and mastoiditis. *Seven* of the 23 cases had to be operated on *three times*. Iwanoff tends to minimise the number and importance of the complications following operation, and suggests that in many cases these were present beforehand. The dangers of the operation are: (1) venous infection and osteomyelitis, and (2) meningitis from lymphatic injection. Iwanoff is against curetting the mucosa from the roof of the ethmoid, and favours the use of a drainage-tube instead of gauze packing. Iwanoff records one case in which operation was followed by erysipelas and pneumonia, and later by suppuration in the sterno-clavicular joint. With regard to the indications for operation the question has been asked: Is not the operation more dangerous than the disease? Hajek states that radical operation is indicated (1) in all cases of orbital and intracranial complication and those in which the bony walls are affected; (2) in chronic uncomplicated cases only when intra-nasal treatment fails to relieve profuse discharge and severe pain which prevent the patient working. Iwanoff agrees with Killian that long-continued conservative treatment has a bad effect on the mental outlook of the patient. Even in spite of removal of the middle turbinal and ethmoidal cells it is by no means always possible to pass the frontal cannula. Iwanoff wants to bring the indications for external operation on the frontal sinus into line with those for the radical mastoid, and would therefore include: (1) failure of conservative treatment to lessen purulent discharge, (2) recurrence of polypi in middle meatus. Of Iwanoff's 23 cases, 18 were cured: of the 5 others 3 were only a short time under treatment. *J. S. Fraser.*

**Luc (Paris).—My Present Technique in the Radical Treatment of Chronic Frontal Sinus Suppuration.** "Zeits. f. Laryngol.," Bd. iv, Heft 3.

Luc did his first external operation on the frontal sinus in 1893. After curetting he put in a rubber drainage-tube and subsequently washed out the sinus; a cure, however, was not obtained, and further operation was necessary. The author gives the history of his first four or five cases, in one or two of which he closed the external wound completely. In his first twenty cases he had, as a rule, trouble with drainage, the communication between the sinus and the nose being too narrow. In two cases brain abscess formed, in one osteomyelitis occurred, and in one case the patient died from meningitis. Since the communications of Taptas (1900) and of Killian (1902), Luc has completely altered his technique, and for five years he has never had any deaths from intra-cranial complication following operation. Since 1907 he has modified Killian's operation on the lines recommended by Jaques, of Nancy. He compares this new

operation to that recommended by himself upon the maxillary antrum; in other words, free removal of one wall of the sinus and curettage of the cavity through the opening so made. He removes the floor of the frontal sinus and thoroughly clears out the ethmoidal region, and so provides free drainage into the nose. He performs the operation, as a rule, under local anæsthesia, first introducing cocaine into the nose on mops in the usual way; he injects the line of incision with 1 per cent. novocaine and then passes the needle deeper down to the periosteum and region of the nasal nerve. Following Sieur, he opens the frontal sinus at the upper and inner angle of the orbit and investigates it with a probe. He does not remove the anterior wall nor does he follow up a large orbital extension if such exists, but removes freely the frontal processes of the superior maxilla. Before curetting the sinus he places a pledget of cotton-wool soaked in cocaine in the cavity and leaves it for five minutes; the curetting of the cavity is of course performed "blind." If the sinus is small the incision is entirely closed, but if it extends out to the external angle of the orbit Luc may put in a drain here for a short time. If the frontal extension of the sinus be high Luc performs Killian's operation, as we know it, making a vertical section incision if necessary in addition to the usual curved one. He cleans out the cavity with peroxide and then paints it with tincture of iodine, and finally insufflates iodoform powder, but puts in no packing. If all goes well the nose is not dressed for nine or ten days. If, however, pus appears in the nose he passes a curved cotton-tipped probe into the sinus and mops out the cavity with peroxide, and if the pus persists he washes out the sinus with saline. In this way he has operated upon ten cases since 1907. In all of these cases the antrum on the same side was affected. He operated on the antrum first, and then, at the same sitting, on the frontal. In three of the ten cases the frontal wound had to be reopened on account of retention of pus. In one of these the second operation took place three years after the first, and the cavity was found to be filled with connective tissue; the suppuration had only recurred in the infundibulum. In cases in which the bony wall of the cavity is definitely diseased the external wound should not be closed at the time of the operation. Luc confesses that, in omitting in many cases the removal of the anterior wall, he is thinking of the æsthetic result, especially in the case of young women. *J. S. Fraser.*

## LARYNX AND TRACHEA.

**Legillon.—Abscess of the Larynx.** "Arch. Internat. de Laryng.," etc., September–October, 1911.

This may occur as a sequela to traumatism of the larynx of staphylococcic, streptococcic or pneumococcic origin, or it may occur secondarily to pre-existing laryngeal infections, tubercle, cancer, etc. At other times it arises from a direct spread of infection from the neighbouring parts, for example, in quinsy. Zymotic diseases are less frequently causes of this condition, if one excepts influenza, which is often accompanied by laryngeal involvement. The condition frequently goes on to abscess-formation, and is more common in adults. A predisposing cause is cold. The whole of the larynx may be affected, but particularly the lateral aspects. The disease is sometimes localised to the ventricular bands, the vocal cords and the sub-glottic region, but the ventricular bands are most frequently affected. Septic infiltration is more prominent in the laryngeal cellular tissue, the ary-epiglottic folds, epiglottis and