extending to the perichondrium, and leading to a perichondritis with frequently an exfoliation of the cartilage. The writer is of the opinion that typhoid perichondritis, if it occurs apart from an affection of the mucous membrane over it, is extremely rare. With the occurrence of the necrosis in the epiglottis there is sometimes a very considerable degree of œdema. Professor Fränkel has formerly had opportunities of observing the conditions arising in the course of the "week" of the disease with the formation of false membranes, and has been able to convince himself that they are diphtheritic in nature and due to the genuine Loeffler bacillus. He considers those cases in which the vocal processes or arytænoid cartilages undergo exfoliation as particularly dangerous. The continuous wearing of a tracheal cannula is often necessary in these cases, but in a large number of them death ensues from the extreme severity of the typhoid fever. *Dundas Grant.*

EAR.

F. R. Packard.—*The Importance of the Thorough Study of the Naso-pharynx in the Treatment of Diseases of the Ear.* "Laryngoscope," xix, 576.

A good practical paper. The conditions found are classified thus:—1. Adenoids. 2 "Catarrhal affections" (mostly due to nasal conditions). 3. Atrophic, with crusts. 4. Tumours. 5, Adhesions. The treatment advocated for adhesions is—cleansing the naso-pharynx, breaking down with the finger, and the application of solutions of silver nitrate, or of albuminate of silver, to the torn surfaces. *Macleod Yearsley.*

Fallas, A. (Brussels).—*Mastoiditis and Retro-pharyngeal Abscess.* "La Presse Oto-laryngologique Belge," February, 1909.

Besides narrating a case of his own, the author gives abstracts of twenty-six other cases collected from medical literature. In discussing the anatomy of the post-pharyngeal region, attention is directed to the lymphatic glands of the part, which form a chain on either side of the median raphé (Most).

The possible channels of infection are various. In a case noted by Kessel the pus from the ear passed through the tegmen tympani, into the middle cranial fossa, and thence through the foramen ovale, and the foramen rotundum to the back of the pharynx. In a case recorded by Knapp the pus travelled down the canal of the tensor tympani into the cellular tissue round the Eustachian tube, and so on.

A lateral pharyngeal abscess may break through the natural barriers and so reach the retro-pharyngeal space.

Another mode of infection is by extension of caries to the basilar process or the cervical vertebræ, either from abnormally developed mastoid cells or by extension from the apex of the petrous bone. Lastly, there is a possibility, the author thinks, of a metastatic retro-pharyngeal abscess in the course of otitic pyæmia.

Retro-pharyngeal infection may follow chronic, as well as acute, otitis media. Other etiological factors are retention of pus, exacerbation of the virulence of the microbes, a debilitated state of the patient, and particularly tubercular infection.

In discussing treatment, the author prefers to incise the abscess

through the pharynx, except when there are special indications demanding an external incision. A full bibliography concludes the article.

Chichele Nourse.

Fournié, Jacques (Peau Hospital).—*Mastoiditis with Multiple Lesions during Otitis Media Acuta.* "Annales des Mal. de l'Oreille, du Larynx, du Nez, et du Pharynx," September, 1909.

On February 16, 1909, the author saw a male, aged sixteen, suffering from a dischage of the left ear and mastoid pain. There had been a discharge from the same ear eight days previously, which, with the attendant pain, ceased after forty-eight hours. Examination: Membrana tympani hyperæmic, slightly bulged behind; small perforation in the antero-inferior quadrant. Mastoid region appeared slightly swollen. No pain on pressure at the base; the apex was very tender; posterior border of mastoid slightly painful. No torticollis. No rise of temperature. Provisional treatment, free paracentesis and moist dressings.

February 22.—Mastoid operation. On denuding the bone a blackish, plate-like sequestrum was seen at the apex, and on turning aside the tendinous fibres of the sterno-mastoid a purulent cervical fistula was exposed. In front of the necrotic area the apex was markedly incurved beneath the meatal orifice. On removing the apical cortex a large quantity of pus, necrosed bone, and blackish granulations were seen and removed. Attention was next directed to the antrum. At about the centre of the mastoid process, a little behind the meatus, the gouge came upon a depressible bluish-white tissue, which made the operator think of the lateral sinus. After clearing away this doubtful area the sinus was seen covered with a smooth, thin osseous plate, having the suppleness of dura mater. After free exposure of the sinus granulations were observed on its wall, but no pus. The antrum, deeply situated and difficult to find, contained granulations and pus without tension. The dura mater at the tegmen antri had been pathologically exposed and was covered with granulations. Full details as to the operative technique and treatment are given. The patient recovered by the end of March. The author remarks on the rapidity and latency with which these lesions were characterised. Only fifteen days after the onset of the auricular infection there were granulations on the dura and lateral sinus, with an extensive necrotic focus at the apex; the latent character of the lesions had not, however, been general, for the apical lesion formed rapidly, and was rendered evident by sharp pains seven days after the first appearance of the meatal discharge. Absence of torticollis is worthy of note. In discussing the pathogenesis of the mastoiditis, the author mentions that in a recent article he tried to show that default of paracentesis in otitis media acuta is not such an important factor in favouring mastoiditis as it is frequently held to be. In this particular instance the absence of auricular pains after cessation of the first otorrhœa showed that during the succeeding days there had been no retro-tympanic tension. Moreover, the very small antrum was incapable of serving as a reservoir for the overflow of the tympanum. The writer concludes that there had been a violent but ephemeral reaction on the part of the tympanic mucosa against the septic agents. The infection, to use the phraseology of Lermoyez, had "licked the tympanum" certainly rather severely, and almost simultaneously "bitten the mastoid," where it took root. The remoteness of the three lesions observed and the formation of granulations, dural and peri-sinusal, in less than fifteen days, seem to indicate the serpiginous

course (probably lymphatic) of the microbic agent, which would have invaded the mastoid notwithstanding early paracentesis.

H. Clayton Fox.

Sewell, Lindley.—*A Case of Chronic Suppurative Otitis Media with Labyrinthine Fistula and Spontaneous Nystagmus.* "Lancet," January 1, 1910.

Girl, aged six. Right discharge four years after measles. Headache, vomiting, and dizziness eight days before admission. Foul pus and epithelial *débris*, posterior superior perforation, small granulations. No mastoid swelling or tenderness. Gait unsteady, tumbling to right, sometimes to left (over-correction). Romberg, fell to right. Spontaneous horizontal nystagmus to left, less marked on extreme deviation to right; increased by caloric test. Nystagmus to right on air-pressure. Voice heard at four feet. No apparent impairment in auditory perceptive apparatus. No strabismus, no optic neuritis. Pulse 84, temperature 97° to 98·6° F. Radical mastoid; temporal bone hollowed by foul cholesteatoma; tiny fistula in external canal; stapes present. Recovery uninterrupted; gait steady in three weeks. Nystagmus diminished slowly; present slightly on deviation of eyes to left three months later.

Macleod Yearsley.

MISCELLANEOUS.

Simpson, W. K.—*Clinical Experiences with Calcium Lactate in Hæmorrhages of Upper Respiratory Tract.* "Boston Med. and Surg. Journ.," November 25th, 1909.

A description of the uses of calcium lactate in hæmorrhages, and to less dangers of bleeding in operations. The cases treated were mostly severe forms of epistaxis, and seventy-five cases of removal of tonsils and adenoids. The dose in an adult may be sixty grains as an initial dose, repeated in twenty-four hours, or thirty grains three times a day, taken when the stomach is free from food. In children, thirty to twenty grains as a first dose, then twenty or ten grains thrice daily. The salt should be given three days before and three days after operation.

Macleod Yearsley.

REVIEWS.

The Frontal Sinus: Contributions to the Topographical-Surgical Anatomy and to the Study of the Diseases of the Frontal Sinus [Die Stirnhöhle: Beiträge zur Topographisch-Chirurgischen Anatomie und zur Lehre von den Erkrankungen der Stirnhöhle]. By Prof. A. Onodi. With 107 illustrations taken from life-sized photographs. Vienna and Leipzig: Alfred Hölder, 1909.

Professor Onodi has in this work, as in the others which we have previously had the advantage of studying, appealed to Nature to supply us with facts, and it is with facts that his book is filled. In the eighty-