Also by means of the œsophagoscope the anatomical-pathological conditions of stricture are easier recognized than by means of bougies. Stricture can be dilated by laminaria tents which are introduced through the œsophagoscope. *Guild.*

Einhorn, Max.—*The Inspection of the Œsophagus and Cardia.* "New York Med. Journ.," Dec. 11, 1897.

THE author briefly reviews the various attempts made in this direction. He considers the stiff œsophagoscope as generally more serviceable than the flexible instrument. He believes that it is only in exceptional cases that chloroform narcosis is necessary for the examination, and he gives a high place to the method from the point of view of diagnosis and therapeutics.

THYROID, &c.

Jonnesco.—*Surgical Treatment of Exophthalmic Goitre.* "Presse Méd.," Oct. 23, 1897.

THIS paper is a critical essay on the various surgical procedures hitherto employed, and contains a detailed description (and plate) of the operation for removing the entire cervical sympathetic. The conclusions arrived at are:—

1. In true exophthalmic goitre, surgical interference with the gland is both dangerous and ineffectual.

2. Simple section of the cervical sympathetic is useless, though partial resection, including the two first ganglia, may give lasting results.

3. The operation *de choix* is total and bilateral resection of the cervical sympathetic. *Ernest Waggett.*

EAR.

Alt, F. (Vienna).—*On the Pathology of the Cortical Auditory Centre.*

THE posterior part of the left temporo-sphenoidal convolution is usually described as the auditory centre. Clinical observations point to a connection between the cortical centre on the one side and the auditory organ on the other, *i.e.*, observations on crossed cortical dumbness. Diagnosis of disease in the right temporo-sphenoidal convolution is nearly impossible; localization in the left temporo-sphenoidal lobe is assisted by sensory aphasia as a sign of a lesion in the sensory speech centre, with paraphasia, agraphia, alexia, and central dumbness. Tone deafness frequently occurs in this disease. The author describes a case where a patient, thirty-three years of age, during the night was affected with paralysis of the right side as well as speech. The latter improved, but left sensory aphasia. Softening in consequence of endarteritis syphilitica was diagnosed, which had led to destruction of the fibres of the corona radiata of the left temporal lobe.

Guild.

Biehl, C. (Wien).—*Closure of Perforations in the Tympanic Membrane.* "Centralblatt für innere Medicin," 1891, No. 11. "Wiener Klin. Woch.," 1898, No. 12.

OKUNEFF, in Petersburg, introduced the closure of perforations, which were covered with epithelium, by means of trichloracetic acid and the formation of granulations. Biehl reports twelve cases, where ten to fifty per cent. of trichlor-

acetic acid was applied to the perforations. The application was made without cocaine every four to eight days. In seven cases closure was effected of smaller and larger perforations. In the latter, if situated amongst cicatricial tissue, or if the edges have chalk deposit, not much is to be expected from this treatment. Treatment causes no pain. In one case suppuration occurred; in another, hæmorrhage of the tympanic mucous membrane. *Cuild.*

Carette.—*Contribution to the Study of Foreign Bodies in the Meatus.* "Annal. des Malad. de l'Oreille," Feb., 1898.

THE report of a case in which, owing to the accidental discharge of a revolver, the bullet entered and was impacted in the external auditory meatus. So firmly was the projectile wedged in the bony canal that after reflection of the auricle and section of the membranous meatus, its extraction *en masse* was impossible, and it became necessary to remove the lead piecemeal with the gouge and burr. The membrana tympani was uninjured. *Ernest Waggett.*

Hopmann (Cologne).—Society of West German Laryngologists and Otologists. "Vereinigung Westdeutscher Hals und Ohrenärzte," Nov., 1897.

THE author showed a girl three years old with objectively perceptible noise in the left ear, which has been noticed since an attack of whooping cough seven months before. The noise is heard by day at a distance of ten centimètres, also by night. The noise is synchronous with the heart systole, but is not heard by the other ear or over the heart or large vessels. Compression of the carotid does not affect the noise. Apart from cases of noises in the ear caused by aneurysm there is a second kind of objectively perceptible sounds, which are due to clonic spasm of the tensor veli palati (Politzer), or of the dælator tubi muscles, and which the will can prevent. These noises cease in sleep; the first not. Most cases of objectively perceptible noises have been preceded by an injury, fall, or blow. Therapeutically the only thing which has an effect is tampons in the meatus. Lenzmann thought the noise was arterial, as it was synchronous with the pulse. Lowenstein considered it an open question whether it was not due to conduction from the cervical veins. Ropke saw a case due to aneurysm of the internal carotid which disappeared on pressure on the artery. *Guild.*

Keller.—*On Testing with the Tuning-Fork.* Prompted by Masini, "Bolletino delle Malattie dell' Orecchio," 1881.

THE author has made many investigations in testing with the tuning-fork over the lower jaw, and has obtained the following results. (1) If one places a sounding tuning-fork anywhere on the lower jaw except the middle, the tone appears exclusively in the ear of the opposite side; on closing the ear on the same side the tone springs across to this side; by closure of both sides the perception is again crossed. (2) By closing the opposite ear the tone is longer heard than in the closed ear on the same side. (3) The strength and duration of bone conduction for a tuning-fork is greater on the lower jaw than anywhere else. From this one can, *à priori*, understand that certain connections of Weber and Rinné tests can be explained, but which partly seem to be contradictory, which only longer and varied trials can render plain. In any case application of a tuning-fork to the lower jaw is of importance in Rinné test. *Guild.*

Lederman.—*Mastoidcocentesis.* "The Laryngoscope," Jan., 1898.

IN a short editorial note upon this subject Lederman remarks that Leiter's coil is a valuable agent in allaying inflammatory symptoms about the mastoid process, but that its use should not be prolonged for more than forty-eight hours, provided no relief is given, or if the symptoms increase in intensity. After this period, if

the parts are still tender to pressure, and swelling of the upper and posterior meatal wall near the attachment of the membrane is observed, accompanied by bulging of the membrana tympani, no further time should be lost in palliative measures.

Temperature is not a reliable index, for, although it may rise if inflammation increases in acute cases, in chronic cases the disease may be actively spreading without any such indication.

In opening the mastoid process we should not rest satisfied with merely opening the antrum, but should carry our investigations towards the mastoid apex, as frequently the cells there are affected, and if not cleared out the disease may extend into the deeper structures of the neck and cause fatal complications.

W. Milligan.

Lester, J. C., and **Gomez, V.** (New York).—*Observations made in the Caisson of the New East River Bridge as to the Effects of Compressed Air upon the Human Ear.* "Arch. of Otol.," Feb., 1898.

THIS is a record of observations made on trustworthy intelligent individuals exposed to the effects of compressed air in the caisson used for the construction of a bridge. The hearing was tested both before and after the entrance into the caisson, by means of the watch, the whisper, the acoumeter, Galton's whistle, the lower tone limit, Weber's test, Rinné's test, and the test of absolute duration of bone conduction known as Schwabach's. The observations are fully detailed, and from these the authors have deduced the following conclusions:—That for aerial and bone conduction, the reaction of the tuning-forks is markedly diminished, this being especially true of the higher notes. That bone conduction is affected to a greater degree than aerial conduction. That this is probably due to hyperæsthesia of the labyrinth or some analogous disturbance, the effects of which are more pronounced on the lower portion of the cochlea. That the hearing power, both for aerial and bone conduction, is reduced directly in proportion to the atmospheric pressure. That the lower tone limit is unaffected, being 16 D. V. in all the cases before and after entering the caisson. That the hearing distance for both whisper and speech is markedly decreased in the caisson. That certain vowel and consonant sounds are heard with difficulty, or not at all. For example: in one case the letters P and G were not heard at all; in another, C and G were not heard; another case failed to hear G and L, and still another failed to hear A and B.

That the hearing distance for the watch decreased in all cases in the ratio of nearly one to twenty. That the effects of the aforesaid labyrinthine disturbances persist for varying intervals—from twenty-four to forty-eight hours—in persons not accustomed to the action of compressed air. That a pressure of one-half an atmosphere is sufficient to cause depression of the drum membrane. That a pressure of two atmospheres causes marked disturbance of the drum membrane, accompanied with congestion of the malleal plexus and of the membrana flaccida. That in some cases this depression is sufficient to cause displacement of the ossicular chain and persistent tinnitus. That, in descending into the caisson—while in the "lock"—there is great danger of the drum membrane being ruptured, if care is not taken to perform Valsalva's experiment. That persons suffering from coryza, a slight cold, or congestion of the naso-pharyngeal mucous membrane from any cause, must not attempt to enter the caisson. That this has been found to be equally true of persons who have been accustomed to entering and re-entering the caisson for years. That persons affected with chronic ear disease, especially the sclerosing types, must likewise avoid entering the caisson. That those affected with labyrinthine disease, especially if the semicircular canals are involved, should be cautioned not to enter the caisson, owing to the great danger of vertiginous symptoms occurring while in the "lock." *Dundas Grant.*

Marage.—*On the Utility of Physiological Massage of the Ear in Certain Forms of Deafness.* "Archiv. Internat. de Laryngol., Rhinol., and Otol.," Jan. and Feb., 1898.

THE usual methods of applying massage to the ear are in a sense unscientific, as they in no way reproduce the kind of vibration which the organ is naturally adapted to receive, and the unsuitable nature of these methods often shows itself in congestion of the tympanum and tinnitus. As massage is no doubt useful in many cases the author has devised a masseur based on physiological principles, inasmuch as it retains as a constant one of the qualities of sound, the timbre, while permitting of variation in the intensity and pitch. The instrument consists of a small cylindrical box of ebonite, containing a membrane vibrating under the influence of speech. It is so arranged as to give out no harmonic, so that the timbre does not alter. The intensity is varied by the employment of conducting tubes made of rubber of various degrees of elasticity. With a rigid conducting tube the sound reaches the ear without loss, while with a soft-walled tube much of the intensity of the vibrations is absorbed *en route*. The pitch of the vibrations is varied by the pronunciation of the different vowel sounds, each of which (as detailed in the authors paper mentioned in the last number of this journal, and which appears in full in "Archiv. Internat. de Laryngol., Rhinol., and Otol.," January and February, 1898) has its characteristic note.

The author has made use of this masseur for sixteen months. In deafness from sclerosis, where hearing for the watch remains, the disease seems to have been checked, and in many instances a notable and lasting improvement has occurred. In cases of profound deafness the instrument has proved very serviceable as an ear trumpet. The method has rendered service in cases of deafness from sequelæ of purulent otitis. *Ernest Waggett.*

Ménière, E.—*The Use of Gum-elastic Bougies in Chronic Catarrhal Affections of the Eustachian Tube and Tympanum.* "Arch. Intern. de. L., O., R.," Jan., Feb., 1898.

THE author is of opinion that the air douche, even when medicated vapours are added, can seldom be of much service where the Eustachian tube is narrowed by hypertrophic changes in the mucosa, and he has lately been reviving in his practice the old method with the bougie, and is much pleased with the results.

He considers the celluloid bougie highly dangerous on account of the possibility of its breaking in the Eustachian tube, and recommends as the only perfect instrument, a gum-elastic bougie, varying from half to two millimètres in diameter, slightly conical at the extremity, and without an olivary enlargement. Bénas has provided him with an excellent instrument. The bougie should be steeped in an iodine solution (iodine 1, potass. iodide 1, water 13, or twice this strength), a drug which has almost a specific effect in catarrhal affections, and after introduction should be feft *in situ* for from half to sixty minutes. The author has met with no complications when the instrument has been introduced with care, and in many instances, where repeated catheterization has failed, he has obtained very satisfactory results. In any case the method enables the aurist to be certain as to whether treatment by the tube is or is not likely to be of service. *Ernest Waggett.*

Muller, Richard.—*The Indications for Operative Treatment of Middle Ear Suppuration.* "Deutsche Med. Woch.," Mar. 31, 1898.

THE author divides the operations into opening the mastoid antrum and cells, and the radical operations.

The mastoid antrum should be opened in every case of acute suppuration (although there are no urgent symptoms) that does not yield to treatment in fourteen

days. Other indications are retention of pus in the mastoid process, continued fever without other cause, subperiosteal abscess (which is usually retro-auricular), occurrence of cerebral complications. He also points out how rapidly the mastoid process may be affected by cario-necrosis.

The radical operation consisting in making a common cavity out of the tympanic cavity, recessus epitympanicus and hypotympanicus, the aditus antri, the antrum mastoideum, and normal or pathologically communicating cells, is recommended in all cases of chronic suppuration which are not improved under treatment for two months.

Indications for the radical operation are subjective symptoms, as headache, tinnitus and vertigo, slight fever, also caries of the temporal bone or tympanic ossicles as it is difficult to diagnose caries limited to these, cholesteatoma and cerebral complications.

He also recommends trephining the mastoid in neuralgia of that process.

Guild.

Pringle, G. L. K.—*Trephining of the Mastoid for Mastoid Disease. No Relief. Subsequent Treatment with Antistreptococcic Serum.* "Brit. Med. Journ.," Jan. 15, 1898.

THE patient, a male aged twenty-two, came under the author's notice complaining of great pain in the occiput, with retraction of the head, and with a temperature of 103·8° F. The patient was admitted to hospital, and upon the following day the morning temperature was 100° F., and the evening temperature 103·2° F. The pulse was 86, and not markedly irregular. No history of discharge from the ear could be obtained. During the next ten days his temperature varied from 101° F. to 103° F. Shortly after this he had a copious discharge of pus from his right ear. The mastoid antrum was accordingly trephined, but no marked collection of pus was found. Two days afterwards the temperature was 98° F., and slight facial paralysis was noticed. The head remained still very much retracted, and the patient was very restless and noisy in bed. The variations in the temperature indicated so clearly the presence of pus that it was determined to try antistreptococcic serum. Ten c. cm. of serum were injected, followed the next day by 5 c. cm., and three days afterwards by 5 c. cm. again. During the following week the temperature remained fairly normal, but the wound was extremely foul. Slow recovery took place, and the optic neuritis which had been present gradually cleared up. The author remarks that the interesting points of the case are (1) the optic neuritis and its subsequent total disappearance; (2) the treatment by the antistreptococcic serum. *W. Milligan.*

Rimini, E. (Trieste).—*On the Indications for trephining the Mastoid.*

THE author first described the causes of abscess in the mastoid. Periostitis of the mastoid process from otitis externa, with œdema of the skin over the mastoid and displacement of the auricle, when accompanied by headache and fever, simulates mastoid abscess. The diagnosis of abcess is difficult in those cases where, in spite of abscess formation, the skin is unchanged. When the discharge lasts four to five weeks in otitis media acuta without any dyscrasia, an abscess must be suspected. Cholesteatoma usually demand trephining. It is difficult to decide when to operate in double otorrhœa with sudden pyæmic or cerebral symptoms developed. An indication for trephining is often given in unilateral ear disease, where headache persists in spite of other treatment. *Guild.*

Sizenes.—*Application of Acid Trichloracetic in Perforations of the Membrana Tympani.* "Wien. Klin. Rundsch.," No. 50, 1897.

(*a*) THE acid trichloracetic advances the regenerative faculty of the tissue of the membrana tympani; (*b*) cicatrization without any synechy between membrana

tympani and tympanic cavity; (*c*) in most cases considerable improvement of the hearing. *R. Sachs.*

Sizenes.—*Diagnostic Worth of the Percussion and Auscultation of the Processus Mastoideus.* "Wien. Klin. Rundsch.," No. 50, 1897.

AFTER numerous examinations the author concludes that the positive results are of importance for the diagnosis, but the negative results do not let us exclude the bone being intact. *R. Sachs.*

Somers, Lewis E.—*Fracture of the Cartilages of the External Ear.* "New York Med. Journ.," Jan. 22, 1898.

THE case recorded presented two interesting features—fracture without perceptible injury to the other tissues, and complete healing in a short period without any complications whatever.

Stacke, Ludwig.—*The Operative Opening of the Middle-Ear Spaces after Separation of the Auricle as a Radical Operation for the Cure of Old-standing Middle-Ear Suppuration, Caries, Necrosis, and Cholesteatoma of the Temporal Bone.* "Deutsche Med. Woch.," Apr. 7, 1898.

THIS work is founded on observations of one hundred operated cases. The author only recommends operative treatment in old-standing and protracted cases, when other means have failed. He describes the pathological anatomical conditions met with in the operation, and lays stress on the processes of cholesteatoma, which grow into the Haversian canals and often prevent a favourable result. Ninety-four cases out of the hundred were cured. There were no deaths. Relapses occurred in twenty cases, twelve of which were cured by antiseptic treatment. In four cases there was recurrence of cholesteatoma or caries. In four cases recurrence was due to bad nutrition. Hearing remained in forty-nine cases the same; it was improved in thirty-one, and made worse in six cases. The result in the others was not known. *Guild.*

Weiss.—*Paralysis of the Nervus Facialis through Trauma.* "Petersburg Med. Woch.," No. 39, 1897.

DEMONSTRATION of a patient with paralysis of the *nervus facialis* after perforation of the membrana tympani with a knitting needle. *R. Sachs.*

Woods, R. H.—*A Case of Chronic Suppurative Middle-Ear Disease, with Intracranial Complications.* "Brit. Med. Journ.," Jan. 22, 1898.

IN this case the patient, a male aged twenty-eight, had had an intermittent discharge from his left middle ear for seven years. The discharge ceased somewhat suddenly, and he was attacked by severe occipital pain. Other symptoms from which he suffered made the diagnosis between typhoid fever and intracranial suppuration somewhat doubtful at first. When seen by the author cerebration was slow, and he was found to be quite unable to name familiar objects, although he could at once tell their function. He complained of a bad taste in the mouth, and of severe frontal and occipital headache. Double optic neuritis was also present. The temperature was extremely variable, varying as much as 8·5° Fahr. in a day. It was decided to open the antrum and to explore subsequently the sigmoid sinus. This was accordingly done, and a clot scraped out by means of a sharp spoon. An abscess was also found upon the cerebellar aspect of the petrous bone, and was evacuated. For a time the symptoms improved, although the amnesia remained much as before. A second operation was accordingly undertaken and the cerebellum was explored, but without result. The temporo-sphenoidal lobe was then explored, and an abscess containing over four drachms of very fœtid pus was found. A gradual and uninterrupted recovery took place. *W. Milligan.*