

touched. Posterior rhinoscopy gave similar results. Examination by transillumination was negative. There was no glandular enlargement. On microscopic examination the granulations were found to be epitheliomatous.

Moure's operation was carried out (resection of the ascending process of the superior maxilla, the nasal bone and the nasal spine of the frontal and the tumour removed piecemeal. The middle and superior turbinates were removed and the affected anterior ethmoidal cells cleared out down to the cribriform plate. The posterior portion of the septum was also resected and every suspicious area carefully curetted. Hæmorrhage was profuse, and called for repeated plugging throughout the operation.

The patient made a satisfactory recovery. Fifteen months afterwards there was no recurrence.

Dr. Audibert considers that in these cases the disease is best attacked by this route, giving as it does very free access, and diminishing therefore the chances of recurrence. The operation is, further, a safe one. There is no subsequent deformity of the nose if care is taken to leave a portion of the ascending process of the superior maxilla. The cicatrix is scarcely visible if the incision is made in the fold of skin between the nose and the cheek and if the sutures are inserted with a very small grip of skin and are removed early.

John M. Darling.

EAR.

Roure (Valence).—Some Considerations upon Zünd-Burguet's Method of Treatment in certain Cases of Deafness. "Arch. Internat. de Laryngol., d'Otol. et de Rhinol.," September-October, 1911.

The electrophonic method consists in the stimulation of the auditory apparatus by sounds of various degrees of intensity and pitch, with the expectation of thereby re-educating the ear for various sounds, and in particular for the human voice. It is then a sort of kinetic therapy, but differs from that of Delstanche in being a sonorous massage. Zünd-Burguet's method consists in the application to the ear of sonorous waves produced by metal plates put into vibration by electricity. The instrument has a low, middle and high register, five octaves in all. Each of these registers is constituted by a vibrating reed, the vibrating length of which is regulated by a platinum curseur, which regulates the height of the sound after the manner of the finger on the violin string. The current required to work the apparatus is one of six volts maximum. It would appear that the effect of the instrument is not merely one of mechanical massage, but is one which produces an actual trophic action. The author has seen the return of the cerumenous secretion and habitual diminution of tinnitus and improvement of hearing in cases of otosclerosis upon which massage alone seemed to have had no direct influence. If one concedes that an adhesive catarrh can be influenced by this method one can hardly refuse to allow for some modification due to vascular trophic changes, of true sclerosis. The class of cases benefited thereby are adhesive otitis of nasal origin, post-suppurative adhesive catarrh and primary sclerosis. The author gives clinical notes of such cases where previous treatment along the ordinary lines has been unavailing, but where marked improvement at an earlier or later stage of the treatment has followed as a result of this method. Of these cases some have been completely cured and others greatly benefited.

Apropos of the last case mentioned Roure says: "I do not think by any other treatment than this that it would be possible to improve to such an extent a 'sclerosis' aged forty-five years." Examination of the hearing is controlled in the following manner. Before the beginning of the treatment, and then once a fortnight, the hearing of each ear is noted for the watch, the pendulum; following that some words are read as the observer withdraws from the patient, the distance being carefully noted when the patient fails to repeat exactly three consecutive words, using the ordinary voice of conversation; or the electrophone itself may even be used for this purpose. Roure concludes with the following remarks: "The method of Zünd-Burguet is not infallible; not all the cases are successful, some are partially so, while others are entirely unsuccessful, but this need not discourage its further trial or discount its value." The abstractor has been informed by M. Zünd-Burguet that the best results are got with his method in specially selected cases, and that its general application outside those limits is bound to be disappointing, but that there is a particular group of conditions of deafness up to a certain duration in which it produces results that have hitherto been unattainable by other methods. Any intercurrent nasal or tubal conditions should certainly be treated. It is also desirable that the successful and unsuccessful cases should be published, and thus one can establish the indications and contra-indications of the method. "The electrophonic method is infinitely superior to the active treatment of adhesive catarrh, and constitutes above all a *veritable conquest of sclerosis*."

J. D. Lithgow.

Hall, Gaylord C.—Report of Cases operated on by the Yankauer Method. "Laryngoscope," October, 1911.

McCullagh, Samuel. A Report of Eleven Cases operated on by the Yankauer Method for Closure of the Eustachian Tube. *Ibid.*, October, 1911.

In the first article the author lays down that cases in which otorrhoea is the only symptom are the most suitable for this operation. As a result of the operation on seven ears in six patients he has obtained a complete cure in five; in one it was found to be impossible to enter the tube, and in one intra-cranial complications were present. In none of the successful cases has the tube reopened or the suppuration recurred, but the period since the operation is not mentioned. In the second article two of the cases had a persistent discharge after the performance of a radical mastoid operation, and of these one was cured and the other improved. Of the other nine cases three were cured, five improved, and one was unaltered. The factors in the selection of cases were the long duration of the discharge and the absence of any labyrinth symptoms. The author concludes that the operation is of considerable value, and should be tried before resorting to the radical mastoid operation unless some contra-indication is present.

A. J. Wright.

Hays, Harold, M.D.—The Yankauer Operation in the Treatment of Chronic Middle-ear Suppuration. "Laryngoscope," May, 1911.

An operation for closing the isthmus of the Eustachian tube in cases of chronic suppurative otitis media, thereby preventing re-infection from the naso-pharynx, was described by Dr. Sidney Yankauer in the *Laryngoscope* of July, 1910. In this original paper the result of the

operation in twenty-one cases was given. In thirteen cases a cure of the discharge was obtained, while in the other eight it was diminished. Dr. Hays has operated by this method on five cases with improvement in all, but without complete cessation of the discharge. After a preliminary irrigation of the tube and middle ear through a Eustachian catheter, anæsthesia is induced by the application of a solution of cocaine and adrenalin both into the middle ear and also directly to the Eustachian tube by a special applicator passed through the catheter. The tube is then explored with a special probe through the perforation in the membrane, and its calibre having been estimated the mucous membrane is removed from the walls of the isthmus of the tube down to the bone. The curettes consist of a fine curved shaft with a small hemispherical "mushroom" head, and three sizes are provided, the curette being passed, as was the probe, through the perforated drum and middle ear. The after-treatment consists of insufflations of iodoform powder. The inflammatory reaction is slight; it disappears in a few days. The author concludes (a) that a complete cure may be brought about by this operation in cases in which conditions such as bone disease or polypi are not present to keep up the suppuration; and (b) that it will complete the cure in cases in which carious bone, ossicles or polypi have been removed, and thus often prevent the necessity of recourse to the radical mastoid operation.

A. J. Wright.

PHARYNX.

Gerber, Prof. (Königsberg).—Our Knowledge and Ignorance of Plaut-Vincent Angina. "Zeitschr. f. Laryngol." Bd. iv, Heft 3.

Ultero-membranous anginas may resemble diphtheritic and syphilitic affections of the fauces and pharynx. With regard to the bacteriology of Plaut-Vincent angina it has been supposed that we have to do with two causal organisms for one disease—(a bacillus and a protozoon, symbiotic or synergistic). Others hold that the two are really only different forms or stages of the same organism, but (1) Gerber himself has never seen intermediate forms; (2) the staining reactions of the two are different—the bacilli always being darker than the spirochætes; (3) dark field preparations show more spirochætes, while stained films show more bacilli. Another important question is, Do both cause the disease or is one alone guilty? Experiments on animals seem to show that the spirochætes are the more active agents, but that the most severe changes are produced when both are present. Salvarsan is an active remedy not only against the *Spirochaeta pallida*, but against all spirochætes: it therefore acts in Plaut-Vincent angina. From an experience of three cases Gerber concludes that, when an ultero-membranous angina reacts to a specific remedy for spirochætes such as salvarsan, the angina must be a "spirochæte disease." The fusiform bacilli, however, also disappeared after "606," and Gerber says that this may have been due to the salvarsan or to the fact that the bacilli had lost their colleagues. Spirochætes and fusiform bacilli exist in the normal mouth, especially beneath the gums, in the tonsillar crypts and between the lingual papillæ; they are, however, scanty as compared with the numbers present in Plaut-Vincent angina. Further, the microscopical appearances in scorbutic ulceration are exactly the same as those in Plaut-Vincent angina. Gerber concludes that a