ABSTRACTS

EAR

The Low-Hilger Audiometer.

The two most pressing needs of the present day to workers in problems of sound, are probably an accurate and convenient method of measuring the intensity of sound in standard units, and a ready method of recording graphically the wave forms of different sounds. It is probable that many advances in acoustical science would take place as the direct outcome of the production of reliable instruments for these purposes. Fortunately, scientific instrument makers are occupying themselves with the problem of constructing such instruments.

In September 1922, the Low-Hilger audiometer was shown at the British Association meeting at Hull. In principle, it consists of an extraordinarily delicate disc, of which a small portion is platinised to form a mirror. Light reflected from the mirror is focussed accurately on to a rotating cylinder, round which a photographic film is wrapped.

A wave of sound striking the disc causes a deformation of it, so that the beam of light is deflected upwards or downwards, and the deflections of the beam are recorded as a curve on the moving photographic film.

Several patterns of discs are used, according to the loudness of the sound to be tested. These discs are interchangeable. They are of celluloid, rubber, or other material according to the sensitivity required. The makers state that the thinnest discs which they supply are made of a thickness down to a fraction of wave length of light ($1\ \mu$ or less). In such a diaphragm the inertia would be extremely small and the air damping extremely great. They would give a near approximation to a "dead-beat" oscillation. In the case of the heavier discs for less delicate experiments, the natural period of the disc has to be reckoned with. By varying the diaphragm and the focal distance of the lenses, the instrument can be adapted for recording sounds whose amplitudes differ by more than 100 to 1.

A series of curves representing vowel sounds recorded by the instrument are given as illustration of what it is capable of. These curves show the various components of the compound wave with great regularity and distinctness.

The instrument can also be adapted for demonstrating sound curves on a screen to lecture audiences.

GEORGE WILKINSON.

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Nose and Accessory Sinuses

NOSE AND ACCESSORY SINUSES

Syphilitic Chancre of the Pituitary Mucosa. JACOD and PITRE. (*Annales des Maladies de l'Oreille, du Larynx, du Nez et du Pharynx*, February 1923.)

In cases previously reported, distinction has not always been made between chancres affecting the skin of the nostril and those of the nasal mucosa. The authors describe 4 cases, 2 of the septum, 1 of the inferior and 1 of the middle turbinal. Only 58 other cases are found of indisputably intranasal chancre, 52 on the septum, 5 on the inferior and 1 on the middle turbinal.

The etiology is often obscure. The fingers, or a handkerchief, are the usual mode of infection. Histologically, the growth resembles a subacute inflammation, with numerous spirochætes present. The condition is insidious in its onset, sometimes adenitis being the first sign. Later, complaint is made of unilateral discharge and obstruction, with pain. The last may be very severe, resembling trigeminal tic. General malaise is usually present. In the affected nares the mucosa is much swollen, and covered with muco-pus. Application of cocaine and adrenalin may be necessary to disclose the tumour. The glands are, as in other syphilitic lesions, separate, shotty, multiple and callous, though the presence of nasal sepsis may mask this. The condition may simulate malignant disease.

Discovery of the spirochæte is the only diagnostic help at the beginning, the Wassermann reaction being often negative at that stage.

GAVIN YOUNG.

Endo-Nasal Drainage of the Lachrymal Sac. H. HERZOG. (*Münch. Med. Wochenschrift*, No. 16, Jahr. 70.)

Although the author has but lately performed this operation and the material at his disposal has been limited, Herzog is an enthusiastic advocate of the method in preference to all others in the treatment of chronic dacryocystitis.

The operation must be considered conservative rather than radical; it is immediate in its effects and establishes a normal drain for the lachrymal secretion without any resultant disfigurement. Herzog has successfully carried out the operation in cases complicated by acute inflammation of the surrounding soft parts. Absolute local anæsthesia and ischæmia are obtained by infiltration of the whole wound area.

Herzog follows the operative technique of Halle, that is, he raises a flap of mucous membrane from the atrium nasi and subsequently makes use of this flap to cover the edges of the bone wound and so inhibit the formation of granulation tissue. Only the medial wall of the sac is removed. The first dressing which is removed

after two days is succeeded by the application on alternate days of small bits of gauze covered with ointment. The after-treatment is kept up for two to three weeks. JAMES B. HORGAN.

A Case of Recurrent Suppurative Frontal Sinus Disease. E. WATSON-WILLIAMS. (*Lancet*, Vol. ii., p. 1056, 1923.)

The author describes the case of a man, aged 26, whose left frontal sinus had been operated upon by the external method. An attack of influenza resulted in serious recurrence. A complete operation was performed with excellent result. The point of special interest in the case was the prolongation backwards of the sinuses at the outer angles to the extent of one inch. MACLEOD YEARSLEY.

Acute Pan-Sinusitis: A Severe Case. Sir ST CLAIR THOMSON. (*British Medical Journal*, 2nd June 1923.)

It is quite uncommon for an acute sinusitis to run a course of any length without some secondary infection becoming the predominant disease. This article records a case of fever in which the temperature was raised for five weeks owing to acute pan-sinusitis, of which the only complication was the unusual one of suppuration in the thyroid gland. The only active treatment was repeated lavage of both maxillary sinuses, the author pointing out the risks of active surgical interference on the other accessory cavities during an acute sinusitis. AUTHOR'S ABSTRACT.

Optic Neuritis of Sphenoidal Sinus Origin. Sir ST CLAIR THOMSON. (*Brit. Med. Jour.*, 2nd June, 1923.)

In this case of left optic neuritis pus was seen on the floor of both sides of the nose and upon the roof of each choana. The depreciation of vision had lasted eight days. A few days of conservative treatment—radiant heat, inhalations, and aspirin having produced no improvement, and the ostium of the left sphenoidal sinus being inaccessible for catheterisation owing to enlargement of the middle turbinal, it was decided to operate. The turbinal on each side was prised from the septum, but not removed, and both sphenoidal ostia were enlarged. After four days, lavage was carried out and repeated regularly until the discharge ceased. The vision began to improve from the time lavage was instituted. The ophthalmic surgeon's report of progress is included in the case report.

The author discusses, in the light of recent papers on the subject, the question of the advisability of operating on the sphenoidal sinus for retro-bulbar neuritis in cases where no pus is found in the nose. This part of the paper cannot be summarised—it must be read in full. T. RITCHIE RODGER.

Peroral Endoscopy

PERORAL ENDOSCOPY.

The Question of the most Advantageous Position of the Patient for Œsophagoscopy and Bronchoscopy. GEORG SHUKOFF, Petrograde. (*Zeitschrift für Hals-, Nasen- und Ohrenheilkunde*, Bd. II., S. 344, 1922.)

By means of vertical sections of the cadaver, the writer studies the position of head and neck most favourable for the introduction of the rigid instrument. The illustrations given in the paper are very striking and convincing in confirmation of his opinion that the prone position is the most convenient. The patient is placed on a table of such a height that its edge is on a line with the examiner's chin. The assistant stands on the left side of the patient, puts his arm round the patient's head and raises it so that the mouth is on a level with that of the physician. The patient holds out the tongue with his right hand, while his left one lies along the side of his body. The bending of the head is effected entirely through the movement of the upper cervical vertebræ, the lower ones being fixed by the weight of the head and the hand of the assistant; in a word, in the prone position the floor of the mouth and of the pharynx form a straight line which facilitates the introduction of the instrument and is of great practical value, especially when we think of such complications as coughing and vomiting. JAMES DUNDAS-GRANT.

The Mechanism of Physical Signs, with Special Reference to Foreign Bodies in the Bronchi. CHEVALIER JACKSON. (*Amer. Journ. of Med. Sc.*, March 1923.)

In all cases of suspected foreign body in the lung, the physical signs should be carefully studied. Owing to the constant movement of the bronchi, the shifting of secretions and the movement of the foreign body, the physical signs, like the endobronchial pictures, are liable to incessant changes. The signs of diagnostic value are those of complete or partial bronchial obstruction. They are (1) limited expansion; (2) decreased vocal fremitus; (3) impaired percussion note; (4) diminution of breath sounds distal to the foreign body. The diminished expansion, with dullness, may suggest pneumonia, but the decreased vocal fremitus and resonance, and the absence of tubular breathing soon correct the impression. The paper is illustrated by a coloured plate representing the bronchoscopic view in various foreign body cases; in each case the physical signs are described in the text. DOUGLAS GUTHRIE.

Abstracts

Cicatricial Stenosis of the Œsophagus caused by Commercial Lye Preparations. Louis H. Clerf, M.D. (*Journ. Amer. Med. Assoc.*, 2nd June 1923.)

The writer reports twenty cases of this condition, treated during the previous sixteen months in the Bronchoscopic Clinic at the Jefferson Hospital. The ages of the patients varied from 22 months to 58 years. In thirteen, gastrostomy was necessary owing to malnutrition and to the condition of water hunger experienced by some of them. One patient was admitted in a moribund state, and one who had had gastrostomy performed, died shortly afterwards. Dilatation of the stricture was carried out in the majority of the cases by the retrograde method.

The swallowing of lye was almost invariably an accidental occurrence, the solution or powder being left carelessly within the reach of the children. The author attributes this to the lack of knowledge of the highly poisonous nature of the preparation, the labels conveying no information as to its dangerous qualities. He finds it difficult to understand why the necessary legislation has not been provided to prevent these pathetic occurrences. A. Logan Turner.

REVIEWS OF BOOKS

La Voix.—Anatomie, Physiologie, Conseils, Soins Médicaux. Dr Mounier. 21 illustrations, 86 pages. Paris: Vigot Frères, 23 Rue de l'École de Medecine, 1923.

In the eighty-six pages of what the author calls "*ce modeste traité*," there is contained a large amount of useful information very clearly and interestingly set forth. Much of it is, of course, of a very elementary character, but many valuable points are brought out in few words. In reference to the "attack," the writer dwells on the importance of the cords being in contact at the moment, so that the sound may be pure and free from breathiness. He considers the lower costo-diaphragmatic method of breathing to be the only reliable one. He discusses the different kinds of voice and utters the caution that voice trainers would make fewer mistakes in the classification of voices if they called in the opinion of a laryngologist, as he believes that one can almost certainly affirm the nature of the voice after laryngoscopic examination.

The author lays down certain rules which we think will receive fairly universal acceptance: (1) Not to start a course of instruction without complete examination of the nose, pharynx and larynx, and the rectification of any defects; (2) before the voice is "placed" to teach the pupil how to breathe; (3) to confine the teaching to