ABSTRACTS

EAR

The Two-place Theory of Hearing. GORAN DE MARE. *Acta Otolaryngologica*, 5, xxxiv, 1/9, October 31st, 1946.

The author is discussing a paper of Ruedi and Furrer, *Acta Otolaryng.*, xxxiii, 460. He considers that the two-place theory of hearing supersedes the resonance theory of Helmholtz as a working hypothesis and gives reasons for this. A considerable amount of experimental work done by the author is mentioned to support this contention. This paper is of considerable help for those attempting to understand the physiology of hearing.

G. H. BATEMAN.

Studies on the effect upon the hearing through Air Conduction brought about by Variations of the Pressure in the Auditory Meatus. HELMER RASMUSSEN. *Acta Otolaryngologica*, 5, xxxiv, 1/9, October 31st, 1946.

Using a modification of the pneumophone of Dishoeck, the author has examined the variation in hearing caused by raising and lowering the pressure in the external auditory meatus. As was expected the hearing for most frequencies was reduced by both increase and decrease of the pressure. However, with certain frequencies around 8,000 cycles the loudness of the tone was increased by a high over pressure about 30 to 50 centimetres of water. He discusses the possible explanations of this unexpected phenomenon.

G. H. BATEMAN.

The Inter Attico–Tympanic diaphragm in the newly-born. CHATELLIER, H. P. and LEMOINE J. *Les Annales D'Oto-Laryngologie*, 1946, xiii, 11-12, 434-466.

A detailed account of the anatomy of the middle ear of the infant is given. This description is based on the study of three-dimensional models of the middle ear, built from superimposed photomicrographs on glass plates produced from a series of tissue sections.

The authors conclude that the infantile tympanic cavity is incompletely subdivided into an upper and a lower cavity by a transverse horizontal septum, which they call the inter attico-tympanic diaphragm.

The upper cavity, which consists of the attic and aditus, communicates with the lower cavity—the tympanic cavity proper—by means of a small aperture in the transverse horizontal diaphragm. This aperture measures 2 mm. in diameter and is situated between the stapes and processus cochleariformis.

In otitis media the upper cavity may be cut off by œdematous occlusion of this aperture, and although the lower cavity may drain and clinical resolution

may appear complete, yet after an interval mastoiditis may develop due to backward extension from the undrained upper cavity.

The article is well illustrated by photomicrographs and diagrams, and clinical cases are quoted in support of the applied anatomy.

I. A. M. MACLEOD.

A better surgical approach for Neoplasms of the Eustachian Tube. JACOB MAURICE. *Les Annales D'Oto-Laryngologie*, 1946, xiii, 7-8, 322-332.

A detailed description of an oblique approach for tumours of the eustachian tube and lateral nasopharyngeal wall is given. Briefly the method is as follows :

Using an external paranasal incision on the side opposite to the lesion, the maxillary antrum is freely opened. The medial wall of the antrum is removed, exposing the nasal cavity and the septum. By resecting the posterior portion of the septum a good exposure of the lateral naso-pharyngeal wall is obtained. The advantages claimed for this approach are :—

1. Ease of access,
2. Clear field of vision,
3. Avoidance of mutilation.

The importance of combining radiotherapy with surgery in such cases is stressed. The author is in the habit of operating 4-5 weeks after the cessation of a course of radiation by lateral fields.

I. A. M. MACLEOD.

LARYNX

Surgical Treatment of Intractable Laryngeal Stenosis. AUBRY, M. *Les Annales D'Oto-Laryngologie*, 1946, xiii, 11-12, 567-572.

The author describes his operative technique for the relief of old standing laryngeal stenosis due to partial loss of the cartilaginous framework, where other methods have failed and a trachetomy tube is worn.

The operation is conducted in two stages. The first aims at establishing the lumen of the glottic and subglottic areas. The second is designed to increase the lateral and antero-posterior diameters of the supra-glottic region.

Stage 1.—The larynx is opened through a vertical mid-line incision and the lumen in the glottic and subglottic regions is re-established by excising any scar tissue, at the same time conserving healthy mucous membrane. The raw surface is then covered by a skin graft obtained from the neck. The lumen of the cavity is maintained by a stent mould and the larynx is closed.

Stage 2.—Three weeks after completion of Stage 1 the larynx is again opened by a fresh vertical incision. Scar tissue obstructing the lumen in the supra-glottic region is excised. A transverse incision is then made at the level of the hyoid. Dissection frees the body and one greater cornu of the hyoid bone, leaving the other cornu undisturbed. The mobilized hyoid is then swung obliquely downwards and the free greater cornu is sutured to the inner surface of the corresponding ala of the thyroid cartilage.

The epiglottis is drawn forwards and anchored to the pre-hyoid tissues by two deep chromic catgut sutures passed round its base. A stent mould is placed in the cavity and the transverse and vertical incisions closed.

The mould is removed at the end of six weeks and the tracheotomy opening is closed.

By tending to return to its original horizontal position, the hyoid keeps the ala of the thyroid prised laterally, and thus maintains the lateral diameter of the laryngeal lumen.

For details of technique the reader is advised to consult the author's original article.

I. A. M. MACLEOD.

ŒSOPHAGUS

Two Cases of Œsophageal Paralysis. ESCHBACH H. and BONHOMME L. *Les Annales D'Oto Laryngologie,* 1946, xiii, 9 and 10, 458-461.

Two interesting cases of œsophageal paralysis are noted.

I. Œsophageal paralysis was the first manifestation of post diphtheritic paralysis, drop foot subsequently developing. There was no palatal paralysis.

II. The œsophageal paralysis was due to botulism and was associated with paralysis of the soft palate and the occular muscles of accommodation.

In both cases dysphagia was complained of. Barium swallow showed a very rapid descent of the barium, and œsophagoscopy was remarkably easily performed due to the gaping patulous œsophagus.

I. A. M. MACLEOD.

MISCELLANEOUS

Bullous Eruptions of the Upper Respiratory Tract. BOUELET and LABAYLE. *Les Annales D'Oto Laryngologie,* 1946, xiii, 7-8, 289-302.

A discussion is given on the classification and differential diagnosis of bullous eruptions occurring in the upper respiratory tract. Particular reference is made to a type of lesion seen during the German occupation. This consisted of a painless bulla or group of 3-4 discrete bullae situated on the base of the uvula, the pillars of the fauces or the posterior pharyngeal wall. Those bullae were often hæmorrhagic, but there was no inflammatory change in the surrounding mucosa.

No systemic upset accompanied the lesions which persisted for 2-3 weeks and healed without scarring.

Vitamin deficiency was thought to be a causal factor.

I. A. M. MACLEOD.