conditions could be created for the transmission of sound vibrations through the labyrinth to the organ of Corti. Therefore the aim of his operation was to restore anatomically as far as possible—and, consistently with the removal of disease—normal conditions to the tympanic cavity.

ABSTRACTS

EAR

Fractures of the Petrous Pyramid and Loss of Function. A. RAINER. (*Hals-, u.s.w. Arzt.*, 1938, xxix, 37-42.)

In the great majority of cases of transverse fractures of the petrous bone the fracture line goes across the bony labyrinth, more often through the cochlea than through the vestibule. It is generally assumed that the changes in the labyrinth following such fractures always result in total deafness and total loss of vestibular function. The author has reviewed all the cases treated at the Würzburg Clinic during the last four years, picking out those in which a transverse fracture of the petrous bone was definitely proved by X-ray photographs (see illustrations).

Altogether twenty cases were available for study. In seven of these (35 per cent.) the vestibular sense could still be stimulated by the caloric test, although the hearing function was completely lost. Ulrich had maintained that a fracture of the petrous bone which resulted in damage to the cochlea without loss of vestibular function was extremely rare. The author has proved that this view is no longer tenable.

J. A. KEEN.

Neuritis of the VIIIth Cranial Nerve in Food Poisoning. H. LEICHER. (*Hals-, u.s.w. Arzt.*, 1938, xxix, 104-7.)

In ptomaine poisoning, botulism, and in the groups of acute illnesses due to the paratyphoid and Gärtner bacilli, the chief symptoms are vomiting, diarrhœa and abdominal pain. But these patients frequently complain also of vertigo and deafness, and these symptoms must not be neglected. The author discusses five typical cases of gastroenteritis with disturbances of hearing and equilibrium, the symptoms occurring during the acute stage of the illness. The vestibular symptoms cleared up in all the five cases, but in two of them a unilateral deafness persisted.

J. A. KEEN.

Abstracts

Streptococcal Meningitis. T. CAWTHORNE. (*Lancet*, 1938, ii, 304.)

The author points out that streptococcal meningitis usually spreads from a primary focus in the ear or nose, in very acute cases by means of blood vessels, or from preformed or traumatic spaces. In less acute cases, diseased bone in contact with the meninges will be the cause. An appreciation of these routes of infection is important in deciding the line of treatment. The speed with which the clinical features follow one another depends largely on the route taken by the infection. The importance of early diagnosis by examination of the cerebrospinal fluid is stressed, and this far outweighs theoretical danger of dissemination by withdrawal of the fluid for examination. Treatment is discussed under neutralization of infection, drainage of excess cerebrospinal fluid, and eradication of the primary focus. Marked improvement in the recovery rate follows the use of sulphanilamide which, although the most potent agent in treating streptococcal meningitis, must not be used as a substitute for surgery in appropriate cases. Decision as to the necessity of eradicating the primary focus is made easier by a knowledge of the way of spread from that focus. At the same time, extensive surgical procedures in very acute fulminating cases may do more harm than good. In all cases, the chance of success in treatment depends on the speed with which it is instituted.

MACLEOD YEARSLEY.

Alcoholic Labyrinthine Injection through the Oval Window in the Treatment of Aural Vertigo. R. PEACOCK. (*Lancet*, 1938, i, 421.)

The author has carried out an investigation into the effects of injecting alcohol into the labyrinth through the oval window on the cadaver and finds that it results in total destruction of labyrinthine function. The incidence of the known possible complications of facial paralysis and otitis media is described as " thought to have been reduced to a minimum ", a sentence which does not altogether inspire confidence. The author has treated two women by this method and entirely relieved them of aural vertigo. One of these has, however (as stated in a footnote), recently reported some return of giddiness.

MACLEOD YEARSLEY.

NOSE

Remarks on a case of Neuroepithelioma of the Nasal Fossae (Esthésioneuroépithéliome Olfactif). ANDRÉ MASSIER and JACQUES DUGUET. (*Les Annales d'Oto-Laryngologie*, September, 1937.)

Tumours of nerve origin developed in the nasal fossae are very infrequent. Those which have been recorded have nearly all been

in young children, originating from a cranial nerve, olfactory bulb, or optic nerve, and invading the nasal fossae secondarily through some fissure in the cranial structure. The one recorded by the author occurred in an adult and the clinical history is given in great detail. A piece of the tumour was removed for biopsy and the microscopical reports with microphotographs accompany the text. The growth of the tumour was so extensive that surgical interference appeared impracticable. The growth was subjected to radiotherapy, and the manner in which the tumour responded to this form of treatment was truly remarkable. Clinically, one is struck by the rapidity of development of these tumours and by the fact that they assume a great size without causing any pain. Although, histologically, these tumours appear obviously malignant, their removal by surgery appears inadvisable, particularly in view of their marked radio-sensitivity.

M. VLASTO.

Orbital Fluxions of Nasal Sinus Origin. SARGNON and PAUFIQUE. (*Les Annales d'Oto-Laryngologie*, October, 1937.)

The word " fluxion " is used in France to denote an inflammation which has not reached the suppurative stage. This is a lengthy article which deals with most aspects of this subject. An historical review of the subject is followed by a brief reference to the anatomy of the region concerned. It is from the fronto-ethmoidal group of cells that infection usually spreads. The maxillary antrum and the posterior group of cells are seldom the starting point of infection. Although, clinically, we are accustomed to distinguish two types—the superficial palpebral and the deep orbital—the authors believe that the term " orbital fluxion " should be reserved for the latter type, in which there is inflammation of the adipose cellular tissue of the orbit around and behind the globe of the eye. The former is a very mild variety which is merely a superficial extension of any acute sinus infection. A detailed account of the symptoms and physical signs of deep orbital " fluxion " is given. Exophthalmos and relative fixation of the eyeball are the two most important diagnostic features. A negative characteristic of the greatest importance in determining whether or not suppuration has taken place, is the integrity of vision and the presence of a normal corneal reflex. Another sign of orbital phlegmon is a pupillary dilatation. From a description of the chief characteristics of orbital " fluxion ", the authors pass on to atypical forms such as bilateral fluxion, and the catamenial form which is recurrent during the periods until the nasal condition has been treated. Treatment is discussed at length. The majority of the cases clear up either with local treatment or with conservative intranasal

surgery. In the more severe cases, and particularly when suppuration is believed to be present, treatment by external operation is urgently indicated. All forms of treatment are described in some detail.

M. VLASTO.

LARYNX

Associated pathological Conditions of the Thyroid and Larynx: Laryngo-tracheal Stenosis caused by Goitres. Prof. VAN DEN WILDENBERG. (*Les Annales d'Oto-Laryngologie*, September, 1937.)

The medical profession should always be on their guard against the dangers associated with a latent tracheal stenosis due to a thyroid compression. Diagnosis is aided by investigating the presence of dyspnœa caused by effort. The author quotes the case of a young medical man whose first and only symptom was his inability to ride his bicycle owing to dyspnœa. The clinical history of four cases are accompanied by pathological and operative details. The author's contention is that these cases are often subjected to operation far too late. These large retrosternal thyroids can exert considerable compression on the trachea and larynx and, if their removal is too long deferred, not only is the difficulty of the operation much increased, but the success of the operation will be prejudiced. The author enters a plea that these growths should be operated upon only by those who are competent to deal with thyroid surgery. He quotes cases in which the adhesions secondary to an incomplete operation or one complicated by sepsis has enormously added to the difficulties of a subsequent total removal. Finally, he draws attention to effects of ill-advised radiotherapy which is also prejudicial to surgical interference.

M. VLASTO.

The Tomography or Planigraphy of the Normal and Pathological Larynx. CANUYT and GUNSETT. (*Les Annales d'Oto-Laryngologie*, November, 1937.)

These two articles are reports of speeches made by the authors in Paris and Brussels in July, 1937. The fact that they are dealing with an entirely new method of radiology in its application to the larynx, makes them of considerable importance. Hitherto, X-ray photographs of the larynx have not proved very helpful, owing particularly to the dense shadow cast by the superimposition of the vertebral column when X-rays are taken antero-posteriorly. We owe it to a Frenchman, Bocage, to have discovered a method by which an X-ray can be taken in a given plane so that other planes are visible only in blurred outline. This method fell into disuse until recently revived by German and Italian scientists. The first article deals

with tomographs (*tomos*, Gr.=a section) of a normal larynx through the neck of a cadaver in which the salient anatomical features were identified by an opaque substance. The text of the article follows the accompanying radiographs plane by plane so that the reader obtains a good appreciation of the normal anatomy of the larynx as seen radiographically, and prepares him for the second article which deals with pathological conditions. We are shown radiograms with explanatory text, of papilloma of the vocal cord, lupus and syphilis of the larynx, paralysis of a vocal cord and hæmorrhagic laryngitis. Although the reviewer cannot see that much is added to knowledge acquired by the more usual methods of examination, it must be remembered that this new method of examination is still in its infancy, and that its application in the determination of the presence or otherwise of a subglottic extension of a cancer may prove to be of considerable value. These two articles are worthy of careful study.

M. VLASTO.

ŒSOPHAGUS

Œsophagotomy and Mediastinotomy. P. GUNS (Louvain). (*Les Annales d'Oto-Laryngologie*, October, 1937.)

Œsophageal perforations appear to be treated as a routine—conservatively by some and radically by others. Von Eicken, for instance, reports eight cases treated without operation with no fatalities, and Orton reports six cases treated conservatively with five deaths. On the whole, however, the author has found that there are more fatalities among those who treat their cases conservatively than among those who operate. The author discusses the early signs of an œsophageal perforation. He believes that the shooting pains that occur in the back, the neck and in the ear during deglutition are a late symptom due to infection, and not an early symptom as has been described. Subcutaneous emphysema and radiological evidence of a bubble of air in the pre-vertebral region are likewise important diagnostic signs. The author believes that whenever a diagnosis of œsophageal perforation has been made, surgical intervention must be carried out. He quotes four cases of his own with recovery in three. The patient who died came under his notice only forty-eight hours after perforation had taken place. Short clinical histories of these cases are given. His surgical practice is to reach the œsophageal wound by a long incision from the angle of the jaw to the suprasternal notch. The œsophageal plane is reached chiefly by blunt dissection and the wound is left open with iodoform plugging, which is left in from forty-eight to seventy-two hours. The patient takes no food by mouth for ten days.

M. VLASTO.

Abstracts

MISCELLANEOUS

Diphtheria—a Preventable Disease. FITZGERALD, FRASER, MCKINNON and ROSS. (*Lancet*, 1938, i, 391.)

The authors point out that prior to the use of toxoid there was no effective control of diphtheria in Canada. Despite free distribution of preventive antitoxin, recorded diphtheria morbidity persisted at the same high level and the mortality was a most important health problem. Molony's reaction test practically obviated the hazard of reactions and facilitated the wide use of toxoid. They consider that the requirements for the Schick test are in need of revision and standardization. It is not infallible, and its limitations should be recognized. It may be of little value for determining the antigenicity of and differentiation between prophylactics. Antitoxin triturations give more complete and reliable information. Titrations of blood-serum of children who initially had no antitoxin and were then submitted to various immunization procedures show that three doses of unmodified toxoid induced a higher antitoxin response than any other procedures compared (two doses of unmodified diphtheria toxoid, one dose of alum-precipitated toxoid, and two doses of alum-precipitated toxoid). Titrations of blood-serum of vaccinated children indicate a loss in antitoxin as time passes. The reduction in diphtheria varies in direct ratio with the number of doses of toxoid, and three doses reduced it approximately by 90 per cent. Records show striking declines in diphtheria morbidity and mortality and the incidence of carriers following the wide use of toxoid. The abruptness of this decline leaves no doubt that it is due to immunization. Further, the extent of the decline in several of the large cities and in certain provinces of Canada shows indubitably that diphtheria is a preventable disease.

MACLEOD YEARSLEY.

Non-erupted Canine Teeth—Three Complications. P. DUFRECHE. (*Revue de Laryngologie, Otologie, Rhinologie*, December, 1937.)

The author, having become interested in the subject, found a number of short articles in the literature, but nothing in the nature of a complete survey which he now presents.

The condition is described in full detail, both pathologically and clinically, and a number of illustrative case reports are included.

Of rhinological interest is an occasional occurrence of acute osteomyelitis of the upper jaw due to infection of non-erupted canine teeth. Chronic osteitis with hyperostosis due to the same cause, may simulate a new growth. This condition may lead to maxillary sinusitis of various types, among which should be noted that associated with pain due to osteitis of the floor of the sinus and a latent sinusitis of the hyperplastic type. It should

also be borne in mind as a possible explanation of facial neuralgias—certain facial tics and of reflex disturbances of the nose.

C. GILL-CAREY.

X-ray Treatment of Facial Furuncles and in particular those of the Upper Lip. J. M. IRISARRI. (*Revue de Laryngologie, Otologie, Rhinologie*, December, 1937.)

The gravity of boils on the upper lip is stressed. In statistics quoted the mortality was 10·7 per cent. in one and 14·8 per cent. in the other. Surgical treatment, especially at an early stage, increases the risks, and abortive treatment of many kinds have not materially altered the course of the disease.

X-ray treatment of boils was first mentioned in 1903 by Morton, and since that time a number of articles on the subject have been published. All the authorities are agreed that after-treatment is followed by a latent period of a few hours, succeeded by a period of four or five hours when the symptoms are aggravated. Finally a third period of ameliorations of all symptoms. In cases treated early, all local signs may have disappeared on the day following treatment.

In cases receiving treatment at a later stage, the results of treatment are seen the following day in marked diminution of œdema and the early appearance of fluctuation.

In 197 cases of facial furunculosis treated by X-ray (reported by fourteen authors) there were only two deaths.

Thirty-two cases of boils on the face (mainly affecting the upper lip) treated by X-rays are reported in this article. Provided treatment was begun at the appearances of signs of thrombophlebitis, the results were all satisfactory.

The current theories of the action of X-rays on inflammatory lesions are reviewed, also the technical details of dosage and fibration.

C. GILL-CAREY.

Clinical Study of Headaches and Sympathetic Phenomena of Nasal Origin. A. LASKIEWICZ. (*Revue de Laryngologie, Otologie, Rhinologie*, December, 1937.)

Thirteen pages passing in review the views of many authors on headaches. One hundred and twenty-five references in the bibliography.

The author discusses the differential diagnosis between migrainous headaches (hemicrania) accompanied by photophobia, vomiting and vertigo, and by cardiac, ocular, and intestinal symptoms and neuralgia of the Vth nerve.

He calls attention to symptoms caused by irritation of the 1st and 2nd cervical by arthritis of the cervical vertebrae, which

must be distinguished from occipital pain due to sphenoiditis and myalgic headaches.

Of forty cases of headache of nasal origin without sinusitis seen in the author's clinic, ten were due to mucous cysts of the ethmoid ; the remaining thirty were true cases of nasal neuroses.

He goes on to discuss allergic rhinitis, laying stress on the rôle played by disturbances of the ductless glands.

There follows a very complete précis of the literature dealing with reflex disturbances of possible nasal origin causing symptoms in the eye, ear, larynx and alimentary tract.

Finally, he reports the results of personal animal experiments, showing that the cervical sympathetic plays a part in maintaining the tone of the laryngeal muscles.

C. GILL-CAREY.

REVIEW OF BOOK

Story of a Great Hospital. By A. LOGAN TURNER, M.D., LL.D., published by Oliver & Boyd, price 10s.

There is an introductory chapter, "The beginnings of Medicine" which forms " a fitting prelude to the story of the Royal Infirmary and of the Edinburgh School of Medicine ". Chapter II is headed " The Rise of the Voluntary Hospital Movement in Britain ". It is stated that Thomas Linacre, a classical student at Oxford, who later on studied medicine in Padua, returned to Oxford and was instrumental in obtaining the charter of foundation of the Royal College of Physicians of London.

The Medical School at Leiden is discussed in Chapter III and attention is drawn to the influence of anatomical teaching on Rembrandt's two celebrated pictures. One of the founders of the Royal College of Physicians in Edinburgh in 1681 was Sir Archibald Stevensone, who graduated at Leiden in 1659. He was one of many from Scotland and England who studied at Leiden.

From Chapter IV onwards the book is devoted to the Edinburgh Medical School and its ever growing Infirmary. Alexander Munro was appointed " Professor of Anatomy in the City and College " at the age of twenty-two. He began his lectures in 1720 with a class of fifty-seven students. In 1729 the embryo Infirmary of six beds was opened ; it was eventually to become a great institution capable of accommodating 1,025 patients. The entire domestic staff of this early institution consisted of the matron and a servant. Thirty-five patients were treated during the first year at the total cost of £97 19s. 7d. and " two-thirds parts of a penny sterling ". A building to accommodate 228 patients was completed in 1748. As a Royal