for these tumours, but that each case must be approached according to its particular requirements.

Peri-tonsillar Abscess after Radical Removal of the Tonsils—Dr MENZEL.—A woman, aged 24, had for many years two peri-tonsillar abscesses annually on each side; tonsillectomy had been performed in July 1924.

In October 1925, the patient applied for treatment on account of an abscess, the size of a walnut, which was found above the site of the left tonsil; this was opened.

The exhibitor had seen a similar case three years previously. In the discussion which followed, it was suggested that such cases were due either to some septic inclusion between the pillars of the fauces, or more frequently to some remains of tonsillar tissue; and it was further suggested that the condition was also, in some way, comparable to similar occurrences which are occasionally found in wounds after operations on the mastoid.

ABSTRACTS

THE EAR

Cholesteatoma of the Middle Ear: its Etiology, Pathogenesis, Diagnosis, and Therapy. F. R. NAGER, M.D. *Annals of Otology, Rhinology, and Laryngology*, December 1925.)

From statistics founded on the entire material from the Munich and Bâle clinics for twenty years (83,000 patients), cholesteatoma was a complication in a third of all cases of chronic middle-ear suppuration. The mortality from ear disease associated with cholesteatoma points to its being the leading lethal ear affection.

With regard to its origin it would be difficult to prove that cholesteatoma is congenital. It is acquired, with its origin during life. The differences of opinion as to the cause of the squamous epithelium in the middle ear are discussed. No case arises where the perforation is central. The perforation must be marginal and through this the epidermis grows from the meatus into the middle ear. Special notice is taken of cholesteatoma in cases of isolated perforation of Shrapnell's membrane, and in cases of intact, unperforated but retracted pars flaccida. In such cases Bezold assigns an etiological rôle to Eustachian obstruction consequent on persisting adenoids.

The following percentages as to the cause of the suppuration in cases of cholesteatoma are given by Ulrick: In more than 30 per cent. the exanthemata; about 20 per cent. influenza and affections of the

upper air passages; in more than 40 per cent. tuberculosis. Emphasis is laid on the connection between cholesteatoma and tuberculosis.

In diagnosis no method can to any extent take the place of exact otoscopy, with probe, magnifying glass and intratympanic syringing.

Treatment: Cholesteatoma though a healing process involves great dangers because of accumulation and putrid decomposition. In treatment our aim must be to secure a dry cholesteatoma cavity broadly connected with meatus and tympanum. Nature does this in the spontaneous radical operation. Small cavities with large openings into the tympanum or meatus may be treated conservatively with attic tubes. In about two-thirds of cases this will be enough.

In the radical operation, the indications for which are detailed in the paper, Nager, following the method of Siebenmann, makes it a principle to be careful of the cholesteatoma matrix which is not removed by curetting.

Prognosis depends on the timeliness of the diagnosis. Since the introduction of the radical mastoid operation the percentage of deaths from fatal complications has been reduced from 3.5 per cent. (years 1881 to 1907) to 1.2 per cent. (1896 to 1917).

The care of ear disease especially in childhood will assist in the prophylaxis of cholesteatoma. NICOL M. RANKIN.

The Treatment of Chronic Middle-Ear Suppuration. Drs A. BLALOCK and S. J. CROWE, Baltimore. U.S.A. (*Archives of Oto-Laryngology*, 1925, Vol. i., No. 3, pp. 267 to 271.)

The authors report on 86 of the worst hospital cases over a period of thirteen years. Each patient had every indication for a radical mastoid operation, but was treated as follows: (1) Nasal obstructions, upper air passage and dental infections were treated before operation. (2) Infection in the mastoid was thoroughly removed by the modified radical operation; the passage from the antrum into the middle ear was enlarged as much as possible by removing the cells in the posterior part of the zygoma. This is kept opened and through-and-through irrigation of the middle-ear cavity is carried out with solution of chlorinated soda, the fluid entering the middle ear by way of the antrum and coming out into the external canal through the perforation of the tympanic membrane. If polypi obstruct the perforation, an opening is made into the external auditory canal proximal to the membrane and the obstruction to the drainage removed. Results: (1) The discharge was completely arrested in 33 per cent. of the cases, reduced to very slight or intermittent in 45 per cent., unchanged in 22 per cent. (2) The hearing was definitely improved in 60 per cent. of cases, no improvement in 38 per cent., worse in 2 per cent. (3) There has been no case of intracranial complication in the entire group. H. W. D. M'CART.

The Ear

Observations on the Diagnostic Value of the Cold Caloric and the Rotation Tests. Dr SAMUEL J. KOPETZKY and Dr RALPH ALMOUR. (*Laryngoscope*, Vol. xxxiv., No. 4, p. 243.)

Borreis removed the semicircular canals in pigeons and by douching the external auditory canal was able to produce normal nystagmus, while no reaction could be elicited by turning. The conclusion reached was that the caloric stimulus emanated from the otolith organs. The canals function primarily for the perception of angular movements of the body, as they include the three planes of space. The nystagmus from rotation is constant; it does not change its character nor its direction when the head is placed in a different position, but the caloric nystagmus is dependent on the position of the head in space. The rotation nystagmus is one of motion, while the caloric is one of temperature and the reaction is due to change in the density of the endolymph; the resulting nystagmus is analogous to that occurring during rotation in that it occurs while there is active stimulation of the labyrinth. If it is admitted that the angular reactions and the caloric reactions originate in different parts of the labyrinth we must alter our interpretation of those reactions, and, moreover, must also consider the system of tracts for individual canals as not definitely proved.

The writers do not agree with Ewald's hypothesis that the current away from the ampulla in the vertical canals is capable of producing a stronger reaction than the current towards it; in fact clinical observations show that the cristæ ampullarum in all canals react to endolymph movement in the same manner; namely, when the current is toward them, the reaction is stronger than when the current is away from them. There is apparently a direct relationship between the duration of the after-nystagmus elicited by rotation and the time required to produce a nystagmus by the caloric method. A case of frontal lobe tumour where there was no quick component to induced nystagmus is quoted.

The authors believe that while the labyrinth tests are of extreme value in determining the amount of function present in the end organ, their value in neurology is limited because of our present lack of definite histological evidence to verify and clarify our clinical observations and substantiate our theories.

There is an ample bibliography. ANDREW CAMPBELL.

Toxic Neuritis of the Eighth Cranial Nerve. Dr ARTHUR B. DUEL. (*Journal of the American Medical Association*, 11th October 1924, Vol. lxxxiii., pp. 1129-31.)

In the sciatic and trigeminal nerves poisoning from toxins produced in distant abscesses throughout the body produces pain, because these

are sensory nerves. In the optic nerves the same pathological process causes impairment or loss of vision. Since the eighth nerve is made up of two distinct bundles, a perineuritis causes vertigo (often with reflex nausea and vomiting), nystagmus, impairment, or complete loss of hearing, and tinnitus aurium. This syndrome may of course be produced temporarily by whirling, hot or cold water, a galvanic current, by the administration of alcohol and ether or chloroform, or by syphilis, malaria, and other diseases. The majority of cases of Ménière's syndrome are, however, due to toxic neuritis from focal infection.

Duel described six cases, three due to dental apical abscess, one to infected tonsils, and one apparently to a suppurating corn. The first case was as follows: Female, aged 38, had tinnitus in the left ear, slight impairment of hearing, marked dizziness on making sudden movements and a tendency to fall to the left. The upper tone limit on the left side was shortened. Weber, fork referred to the better ear. Vestibular reactions about half as active on left as on right side. Roentgen-ray of the teeth showed marked pyorrhœa and two apical abscesses. Removal of the teeth and treatment of the pyorrhœa resulted in cessation of the vertigo in a few weeks. The tinnitus entirely disappeared. J. S. FRASER.

NOSE AND ACCESSORY SINUSES.

Psychosis associated with Disease of the Nasal Accessory Sinuses. Operation. Recovery. Report of Cases. Dr A. M. ALDEN. (*Laryngoscope*, Vol. xxxiv., p. 126.)

CASE I. was a male, aged 30 (his half-brother was in an asylum at one time). Patient's trouble commenced in France, where he had a nasal cold for some time. He remembers everything till 1919, then he had periods of which he had no recollection, and does not remember arriving home. He manifested aural and visual hallucinations. A little Italian soldier frequently marched out from under his bed and menaced him with a pistol. The patient would not permit anything to be done for him except under restraint. A diagnosis of chronic antral suppuration and carious teeth was made. After operation, he improved rapidly and entirely recovered from his psychosis.

CASE II.—Female, aged 34, who had always been perfectly normal, developed a severe attack of influenza which left her with severe headaches, always frontal; in about two months the patient began to express queer ideas and to act strangely. She became irritable and unreasonable and believed that her cook was trying to poison her. Five months after the onset of mental symptoms, the writer diagnosed a left frontal sinus suppuration, and following operative cure of this

condition the patient entirely recovered her mental balance. Only two other cases were found by the author in the literature, a case by Cotton and another by Arbuckle.

Cotton's case was that of a healthy boy who became vicious in his habits. He, also, had an abscess of the frontal sinus, the cure of which was followed by his return to his former self.

Arbuckle's case was one of long-standing suppuration in the sphenoethmoid region and his disability was a very marked depression and difficulty in controlling himself. Operation resulted in the patient regaining a normal outlook. The author suggests that a careful examination of the noses of some of the patients suffering from functional psychosis would reveal pathology, the removal of which might be followed by results similar to those he has recorded.

ANDREW CAMPBELL.

Treatment of Frontal Sinusitis. R. BOTEY. (*Revista Espanola y Americana de Laringologia, Otologia y Rinologia*, July 1925, Vol. xvi., No. 4, p. 193.)

1. The treatment of acute frontal sinusitis should be only antiphlogistic and sedative. In extreme cases a frontal or orbital abscess may be evacuated and the frontal sinus catheterised.

2. No operation should be performed on the frontal sinus without previously taking a radiogram.

3. Chronic frontal sinusitis should always be treated surgically, beginning with the removal of the middle turbinal and all the ethmoidal cells.

4. Two or three weeks later if the sinus is of medium or small size the sinusitis may be treated by the endo-nasal route by enlarging the fronto-nasal duct after the method of Vacher and by irrigating the cavity of the sinus with various antiseptic solutions. This yields 90 per cent. of cures.

5. If the sinus is of large dimensions and has frontal and orbital prolongations and diverticula the same endo-nasal treatment may be followed for three to six months. If this does not cure, or at any rate lead to a considerable diminution in the suppuration, the sinus should be opened by the external route.

6. There is a multitude of procedures for opening the frontal sinus by the orbital and fronto-nasal routes. There is none which attains perfection, the majority producing deformities and unsightly scars, with risk of complications and relapses. Of all these one of the best is that of Mouret which obliterates completely the ethmoidal cells and is in proportion to the extent of the disease. The frontal sinus is opened at its origin allowing access to all the diseased parts and causing no deformity. Botey's own procedure, like that of Ogston-Luc, obliterates first of all the ethmoidal cells and opens the sinus at the infero-internal part of the anterior wall.

7. In multiple sinusitis the nasal route should be employed. The external route should not be used until several months have elapsed without attaining a cure.

8. Local anæsthesia is always used for treatment by the endo-nasal route, but general anæsthesia is preferable for external operations.

L. COLLEDGE.

Extradural Abscess Secondary to Frontal and Ethmoidal Sinusitis. H. A. COWAN. (*Lancet*, 1925, Vol. ii., p. 648.)

A man, aged 41, suffered from long-continued nasal obstruction and discharge for twenty years. This was relieved by removal of polypi and opening up the ethmoid cells, but six weeks later there was sudden development of signs of increased intracranial tension pointing to abscess of the frontal lobe. An external frontal sinus operation was performed and the cavity found full of pus. No track into the skull was made out, but on opening through the frontal bone, pus poured out. The patient died next morning. Post-mortem showed both frontal sinuses full of pus, with a large extradural abscess and pus at the base of the brain and in the left lateral ventricle.

MACLEOD YEARSLEY.

THE PHARYNX AND NASO-PHARYNX.

The Function of the Soft Palate in Singing (*Experimental Investigation*). L. D. RABOTNOFF (Moscow). (*Zeitschrift für Hals-, Nasen-, und Ohrenheilkunde*, Bd. xi., Part 4, September 1925.)

The writer finds that the more completely the palate shuts off the naso-pharynx and nose from the mouth the better is the resonance in the buccal cavity. He considers that the inclusion of the nasal cavities as a resonator is unfavourable to the sonorousness, the power and the timbre of the voice, and leads to straining and fatigue. He goes so far as to recommend the singer to undergo plugging of the naso-pharynx for a short time so as to recognise the character of tone produced without nasal resonance. The utterance of the nasal consonants is the only occasion for relaxation of the soft palate. Septal deflections and similar conditions exercise, therefore, no injurious effect on the voice unless they are accompanied by inflammatory changes.

JAMES DUNDAS-GRANT.

A Study of the Normal and Abnormal Human Stylo-hyoid Arch, from an Anatomical, Clinical and Radiological Standpoint. A. HARBURGER. (*Archives Internat. de Laryngol.*, September-November 1925.)

An account is given of the normal and abnormal forms of the stylo-hyoid arch in man. The presence of a complete arch is more common than is generally supposed. The anatomy and anatomical

relationships of the component parts of the arch, viz. styloid process, stylo-hyoid ligament, and hyoid bone are described in detail.

Thirty-two cases of complete and incomplete stylo-hyoid arches are described, of which eleven cases are the author's personal radiographic findings. The first section concludes with an analysis of the various causes which have been adduced to explain the presence of a stylo-hyoid arch. Of these causes, the author favours that of heteromorphism.

The section published in the November number deals with the clinical and radiographic aspects of the stylo-hyoid arch. In normal cases the styloid process is never accessible to palpation. By X-rays, the process is only faintly seen in an antero-posterior view. When visible, it is situated 1 cm. medial to the ramus of the lower jaw, and is seen through the shadow of the maxillary sinus. In a lateral view, the root of the styloid process is hidden by the mastoid; and if the head is flexed, it is hidden by the condyle and neck of the inferior maxilla. If the neck is in extension, the styloid process is fairly well seen.

The hyoid bone is visible in a lateral exposure when the head is in the upright position or in extension; but is obscured by the inferior maxilla when the head is in flexion. The hyoid bone cannot be seen in an antero-posterior exposure.

The author proceeds to give a clinical description of forty-nine collected cases of elongated styloid processes. He finds that a large number of cases of abnormally long styloid processes are devoid of symptoms. The commonest symptom is dysphagia. When present, the dysphagia slowly increases and may finally become unbearable. Resection of the bony process invariably effects a cure.

The author emphasises the diagnostic value of palpating the region and of radiology. The X-ray exposure should always be made in the lateral position with the head in full extension.

The operative removal of the abnormal styloid process should invariably be carried out from the tonsillar surface and not as some surgeons have advised by an external operation.

A full bibliography is appended. MICHAEL VLASTO.

Diphtheria Problems. Professor VERNIEUWE (Ghent). (*Revue de Laryngologie*, October 1925.)

Few diseases have been investigated more completely from all aspects than diphtheria, but a greater measure of agreement in matters of detail appear to be desirable. In the matter of dosage of anti-diphtheritic serum, for example, practice varies within very wide limits. The initial dose varies in different hands from 2000 to 50,000 units, and in Denmark up to 100,000 units. The writer of the article has heard of a case in which 340,000 units were given in a succession of doses to the same patient!

Abstracts

In giving antitoxin subcutaneously much valuable time is lost. It is stated that it requires three days for the antitoxin to reach its maximum concentration in the blood, when administered by the subcutaneous route. Intravenous injection should therefore always be had recourse to for the first injection, except in chronic cases, such as those of nasal diphtheria. As intravenous antitoxin is rapidly excreted, a large subcutaneous injection given at the same time will keep up a supply of the serum, after the effect of the intravenous injection is exhausted. Intramuscular injections are absorbed more quickly than subcutaneous, but even they require twenty-four hours to develop their full efficacy. The danger of serious allergic or anaphylactic symptoms supervening on these injections has been exaggerated.

With regard to the prophylaxis of diphtheria, Vernieuwe considers that a much more satisfactory immunity is conferred by a vaccine than by administration of the antiserum only. He states that the immunity following efficient vaccination is more rapid, more complete, and more permanent. The vaccines in general use consist of a mixture of toxin and antitoxin. He prefers the preparation of Ramon, which is a diphtheritic toxin attenuated by a combination of heat and the addition of formalin. The result is controlled by the Schick reaction. The first dose is 5 c.c. of the serum. The Schick reaction becomes positive after the injection of the toxin, but usually becomes negative again in the course of a few days. Should it persist positive for twenty days, a second dose of 1 c.c. is given.

Toxic paralytic symptoms are attributable to too late and too slow administration of antitoxin. The nerve cells have already been damaged by the toxin, before this has been neutralised. The method of preventing paralyses is to give antitoxin early, in sufficient doses, and intravenously, so that it acts promptly. G. WILKINSON.

A Case of Pharyngeal Rhinoscleroma. R. ARGAUD and LAVAL. (*Archives Internat. de Laryngol.*, December 1925.)

Amongst the few cases of rhinoscleroma which have been observed in France, the present case is believed by the authors to be the first one to occur in the region of Toulouse.

A male aged 68 years applied for treatment three years ago, complaining of discomfort in the throat, and obstruction during phonation and deglutition.

Anamnesis revealed the fact—to which, in view of the length of time which has elapsed, the authors tend to attach no importance—that forty years before, the patient had lived in the Philippines for four years.

Examination showed that the right tonsil was the seat of a deep ulceration, the surface of which was covered by a mass of debris which

could be picked away with ease. A tentative diagnosis of Vincent's angina was made.

At a later date, the right lingual prolongation was found to be hypertrophied, and this process soon involved the whole of the isthmus of the fauces.

Operative treatment consisted in punching away the ulcerated tissues, and when last seen a year ago, the patient had appeared cured.

The microscopical report of the tissue removed is described in detail, and photomicrographs show the presence of the cells of Russell and Mikulicz typical of a rhinoscleroma. MICHAEL VLASTO.

THE LARYNX.

The Actual Methods of Treatment of Dysphagia in Laryngeal Tuberculosis. C. B. STEINMAN, Russia. (*Annales des Maladies de l'Oreille, du Larynx, du Nez et du Pharynx*, December 1925.)

The conditions which give rise most often to dysphagia are malignant disease of the hypopharynx and tuberculous laryngitis. The various procedures indicated in this article would apply to either, but have been utilised more by the writer in the latter type.

Solids, or semisolids, are found to be swallowed more easily than fluids, and this should govern the selection of diet. Some patients suffer less by adopting the ventral decubitus when at meals, or by lying on one or other side. Fixation of the larynx by hand, the unoccupied hand holding the larynx in position, also seems in certain cases to afford ease.

Many medicaments have been utilised in turn, mostly with doubtful, or at the best, temporary relief. Passive congestion has been employed with some benefit, obtained by a temporary constriction round the root of the neck. No improvement has been recorded from sunlight or quartz-lamp administrations.

The writer states that surgical intervention gives the best results in dysphagia of tuberculous origin. Scarification of the congested and œdematous tissues has been accompanied by good results. In some cases tracheotomy has brought about improvement of the pain, but the writer has found the best results in either blocking the superior laryngeal nerve with alcohol, or in carrying out a resection of the nerve. To inject the nerve, 1 to 2 c.c. of 85 per cent. alcohol is introduced at a point 0.5 cm. internal to the superior cornu of the thyroid cartilage, to a depth of 1.5 cm. This gives anæsthesia for a period which varies in different cases from two to nine days.

The treatment of choice, according to the writer, is the resection of a portion of the nerve. The skin is incised for about 6 cm., between the hyoid and the thyroid, from about the incisura to the anterior

border of the sternomastoid. The three points to be looked for are, the cornu of the thyroid cartilage, the superior thyroid artery, and a branch of the latter, the superior laryngeal artery. The nerve is to be found below the latter artery, lying on the thyroid-hyoid membrane, and 1 to 6.5 cm. of the nerve should be resected.

The writer considers the last treatment indicated in cases where injections of alcohol have not proved of sufficient avail, and where there is not a very active condition in the lungs, and no serious pyrexia. GAVIN YOUNG.

Cancer of the Larynx in Women. GHERARDO FERRERI. (*Archives Internationales*, September-October 1925.)

The author prefaces his remarks by emphasising once again the rarity of cancer of the larynx in women. Statistics of former days on the sex incidence of cancer of the larynx are misleading, as they included a host of morbid conditions which were not subjected to histological proof.

The author reviews the various theoretical causes of cancer to see if any light can be thrown on the point at issue.

He agrees with British authorities, whose views are freely quoted, that intrinsic cancer of the larynx nearly always starts on a vocal cord and towards the anterior rather than the posterior part of the cord.

He insists on the importance of a microscopical examination of laryngeal tissue suspected of malignancy. He is not in favour of a hemilaryngectomy in cases of localised growth operable by laryngo-fissure because "the tissues are left in a state of permanent irritation fostered by the presence of a fistula."

In the case of extrinsic growths of the post-cricoid region associated with glandular metastases, the author recommends the local application of radium in preference to X-ray therapy.

The paper concludes with the quotation of three cases of extrinsic cancer of the larynx in women.

The first case typifies the evolution of an inoperable extrinsic laryngeal growth. Tracheotomy was followed by death one year later.

The second case is that of a complete laryngectomy perfectly well thirteen years after operation.

The last case is one of extensive laryngeal cancer treated by laryngo-fissure and radium therapy. MICHAEL VLASTO.

Cancer of the Larynx. A. A. CAMPBELL, M.D. (*Canadian Medical Association Journal*, September 1925, p. 939.)

This article is a review of cases of cancer of the larynx seen at the Toronto General Hospital during the past five years. These cases were thirty-one in number, and are fully classified according to age, sex, etc. Twenty-six were males and five females.

The Larynx

There was the usual experience of many cases coming very late when no hope of treatment remained. The outstanding feature was the history of prolonged hoarseness lasting for months before the patient came for examination.

Unfortunately only two were intrinsic and considered suitable for operation (thyrotomy). Both recovered well from operation, but one died of angina pectoris six months later, and the second had recurrence within six months.

The most satisfactory palliative results were obtained from deep X-ray therapy rather than from radium.

E. HAMILTON WHITE.

Three Cases of Laryngeal Spasm associated with Intracranial Hæmorrhage in the New-born. DONALD MUNRO, M.D., Boston. (*Annals of Otology, Rhinology, and Laryngology*, September 1925.)

Symptomatic laryngeal stenosis in the infant is ordinarily due to air-way obstruction. The commonest cause is intrathoracic pressure from the thymus. Other causes are infections as diphtheria, excess of mucous secretion, œdema, and foreign body.

Three cases are reported where there was no air-way obstruction, but where autopsy revealed hæmorrhage into the lateral cerebral ventricles with damage to the neighbouring cortex. In one case forceps were employed at delivery. Two cases were found to have prolonged bleeding and delay in coagulation-time. Symptoms appeared on the second, third, and seventh day of life in two of the cases with inspiratory "crows," in the third with sudden aphonia, spells of apnœa and cyanosis. Lumbar puncture in one gave normal fluid at first, but later on blood was found in the fluid. In the other two cases blood was detected in the fluid at the first lumbar puncture, one with normal pressure the other with high pressure. Two showed tense anterior fontanelles. All three were X-rayed in the belief that thymic pressure was the cause. Two had injections of whole blood subcutaneously and intramuscularly. All three died of respiratory paralysis.

NICOL M. RANKIN.

Contribution to the Study of Fibrosarcoma of the Epiglottis. G. LEALE, Rome. (*Archivii Italiani di Laringologia*, Anno 15, Fasc. 1-2, January 1926.)

The malignant tumours of the epiglottis are epithelioma, sarcoma, and lymphosarcoma. The present article deals with sarcoma. This is much more common on the epiglottis than on the vocal cords. It occurs in two forms, of which the first is an infiltrating growth with a smooth whitish surface. It spreads outwards under the surface and deeply into the tissue. Another form is that of a large polypoid

mass. Ulceration is rare and when present is usually due to some form of irritation. Microscopically the tumour is usually a typical fibrosarcoma but occasionally is round-celled. Sometimes both fusiform and round cells are present. The tumour is intensely vascular. It occurs in people of from thirty to forty-five years of age, rather earlier than an epithelioma. The symptoms complained of are a feeling of a foreign body in the throat and of pharyngeal catarrh. The tumour is usually situated on the dorsum or anterior surface of the epiglottis and in this position interferes with deglutition; but when, as it occasionally does, it appears on the posterior or laryngeal aspect it interferes with phonation (producing a raucous voice) and later with respiration. Salivation is a marked and constant sign. Though there is difficulty in swallowing there is rarely any amount of pain. The cases vary as to whether solids or liquids are swallowed more easily, but usually semi-solids are taken with greatest ease. In respiration it is found that inspiration is affected some time before expiration and the latter is accompanied by a rumbling sound especially when the tumour is pedunculated. Glandular enlargement is rare and late. Small tumours may be removed by the indirect method or may be attacked through a transhyoid or transverse pharyngotomy, but if the tumour has spread from the epiglottis on to surrounding structures, operative measures will be speedily followed by pulmonary complications or an early recurrence.

F. C. ORMEROD.

Lymphangioma of the Larynx. Drs R. KRAMER and S. YANKAUER. (*Laryngoscope*, Vol. xxxiv., p. 621.)

Only eight cases have been reported up to the time of writing and two new cases are presented. A short account is given of the eight cases previously reported.

Of the author's cases, the first was a man aged 38, with hoarseness of six weeks' duration. A pedunculated, deep red mass was seen at the junction of the middle and anterior third of the right vocal cord. The growth was removed by indirect laryngoscopy. Seven years later, the larynx was normal and the voice clear. Microscopically the growth was seen to be a cavernous lymphangioma.

The second patient was a man of 35 years of age, with a past history of lues and hæmoglobinuria. He had been hoarse for thirteen years and four or five times he had expectorated blood. A pink pedunculated mass was seen on the middle of the left vocal cord, with its surface traversed by three or four dilated vessels. On phonation, the growth became erect and firmer. The growth was removed by indirect laryngoscopy. The microscopic diagnosis was cavernous cystic lymphangioma. ANDREW CAMPBELL.

Reviews of Books

Hæmangioma of the Larynx. Drs R. KRAMER and S. YANKAUER. (*Laryngoscope*, Vol. xxxiv., p. 405.)

A report is made of fourteen cases of true hæmangioma of the larynx. All were adults between thirty and fifty years of age, and 85 per cent. were males. The appearance of angiomata in adult life in so high a percentage in males suggests the possibility of irritative stimuli of one form or another being the cause. A sign of great value in differential diagnosis, is one described by Menzel in a case of lymphangioma. The authors have observed it in their last five cases. On phonation, the growth becomes erect, smaller, firmer, and the colour takes on a deeper hue.

All the cases were treated surgically, twelve by indirect laryngoscopy and two by suspension laryngoscopy. In no case was there immediate or post-operative hæmorrhage. Radium should be reserved for use in diffuse lesions or for those cases in which recurrence follows after apparently satisfactory operative procedures.

There is an extensive bibliography.

ANDREW CAMPBELL.

REVIEWS OF BOOKS

Methoden zur Untersuchung des Vestibular Apparates beim Menschen. By Drs W. BRÜNINGS and H. FRENZEL; forming a part of No. 152 of the *Handbuch der Biologischen Arbeitsmethoden.* Edited by Professor Dr EMIL ABDERHALDEN. Urban & Schwarzenberg, Berlin. 1925.

This work constitutes a very successful effort to place in one article the various theories underlying the vestibular reactions, the methods of examination and their results, and the increasing value to be attached to the clinical application of the vestibular tests. This is based on the research and the developments which have taken place in this branch of our specialty during the last twenty years.

The article provides a very readable account of this subject and appears to traverse most of the detail which many of the writers have contributed. Only a brief reference, however, is made to the otolithic reactions. An excellent bibliography is added, which should prove of great assistance to the student anxious to read the original writings of those whose communications have led to our ever-growing knowledge of the intricacies of the vestibular apparatus.

There should be a great demand for some such work as this, which at once enables the beginner to obtain a grasp of the mysteries which surround this decadent sense organ in man, and also provides