lower bronchoscopy; just above the bifurcation of the trachea (upper edge 15·5 cm. from the pomum Adami) a broad sessile growth springs from the posterior wall, projecting forward to reduce lumen to semilunar slit; surface ulcerated. Rubber tube inserted past growth (probably into right bronchus). Œsophagoscopy: at 26 cm. from upper gum, lumen almost obliterated by firm mass beneath anterior mucosa; no ulceration. The patient later developed pneumonia and died.

Report on biopsy: "Rapidly growing carcinoma." The specimen shows a large growth invading the trachea and right bronchus, and compressing the œsophagus.

ABSTRACTS

EAR

Questions on Localization within the Central Vestibular System. 1. *Inflammatory, Non-suppurative Diseases of the Brain Stem (Encephalitis).* RUDOLF LEIDLER. (*Monatsschrift für Ohrenheilkunde*, lxx., 1936, 801.)

This paper describes fifteen cases of non-suppurative encephalitis in which the central vestibular system was affected.

1. In all cases only the vestibular apparatus was concerned, the cochlea remaining intact.

2. In no case was the caloric reaction normal. Several cases showed total lack of response. Experiments on reptiles suggest that the caloric reaction is a much younger and therefore more vulnerable reflex than the response to rotation.

3. All patients, with the exception of two, gave abnormal (nystagmus) response to the caloric and rotation tests. Analogous abnormal reactions occurred in experimental animals, in human anencephaly, after birth injuries and in disturbance of consciousness. The author believes that rhythmic nystagmus is a phylogenetically young mechanism which, when disturbed, tends to revert to an older suppressed mechanism of single phase deviation.

4. Spontaneous horizontal nystagmus was present in seven cases.

5. Vertigo played an important rôle in the history. The frequent dissociation of the vertigo and other vestibular symptoms was striking.

Discussion on the cause of giddiness, the problem of the thalamus, etc.

6. An attempt to correlate the symptoms with a more accurate localization in the central vestibular system.

DEREK BROWN KELLY.

Ear

Effect of Blood from Otosclerotics on the Life of Plants and Animals. K. A. DRENNOWA. (*Monatsschrift für Ohrenheilkunde*, lxx., 1936, 826.)

In a series of experiments on various plants and animals, the author has sought to discover whether blood from otosclerotics contains a toxic substance analogous to the choline in menstrual blood. His work resulted in the undernoted conclusions.

1. Blood from otosclerotics is less toxic than normal blood.

2. Menstrual blood is especially toxic (dilution 1.100 fatal to plants in one hour).

3. The menstrual blood of healthy women is three times as toxic as that of women suffering from otosclerosis.

4. The diminished toxicity of blood from otosclerotics can be explained by a lower choline content or by a raised adrenalin content.

5. Disfunction of the adrenals can disturb the nervous and vasomotor systems, and can upset metabolism and the endocrine organs. This is an indirect confirmation of the theory that otosclerosis depends on a general trophic disturbance of the organism.

DEREK BROWN KELLY.

Cavernous Sinus Thrombosis: a Study of the Cases of Recovery. J. B. CAVENAGH. (*B.M.J.*, June 13th, 1936.)

A review of the cases of recovery from cavernous sinus thrombosis shows no more than seven which might be described as the acute infective type. Of this number three were treated by direct operation on the sinus itself and four by general blood stream therapy. A combination of these two methods, together with ligature of the common or internal carotid artery, is indicated if better results are to be obtained in the future.

Approximately thirty cases have been reported of the chronic compensatory type, and of these two have been treated by operation on the sinus itself, one by blood stream therapy, and the majority of the remainder, including a case of the author's, by expectant treatment and by accessory surgical measures for the eradication and drainage of the primary focus, channels of invasion, and formed abscesses. A very few cases have recovered spontaneously.

R. R. SIMPSON.

Thrombosis of the Carotid Venous Plexus and Fulminating Septicæmia complicating an acute infection of the Petrous Pyramid. A. TOBEK. (*Arch. Ohr- u.s.w., Heilk.*, 1936, cxli., 177-84.)

In a woman, aged 48, an acute left-sided otitis media was followed by rigors two days after the onset. There were no clinical

signs of mastoiditis or meningitis. At operation a little pus was found in the mastoid cells, but the lateral sinus was quite normal. The mastoid process, as a whole, had few air cells and was poorly pneumatized. Septic lung infarcts developed and death followed ten days after the onset of the otitis.

The *post mortem* examination did not reveal the cause of this rapidly fatal blood infection. It was only after a histological study of the petrous bone that the true cause was discovered. In the petrous pyramid the author found well-marked peritubal cells around the carotid canal containing pus. The Eustachian tube also showed signs of marked inflammation and the appearances suggested a direct spread to the peritubal cells from the Eustachian tube rather than from the middle-ear and mastoid region. Near the extreme tip of the pyramid was a cell filled with pus which had broken through into the carotid canal with resulting thrombosis of the venous plexus surrounding the internal carotid artery (see microphotographs in text). This thrombosis was undoubtedly the cause of the fatal septicæmia.

The case appears to be unique in many respects, but the following points may be emphasized: (1) Absence of the usual signs and symptoms of petrositis; this condition was not even suspected and after the negative operation findings a tentative diagnosis of "otogenous sepsis without sinus thrombosis" was made. (2) In rare cases pyramidal cells may be well marked, even when the air cells in the mastoid process are poorly developed. (3) Pyramidal air cells may be developed from the bony Eustachian tube and an infection may reach them by that route.

J. A. KEEN.

On Changes in the Brain in Lateral Sinus Thrombosis. M. KRATZER. (*Arch. Ohr- u.s.w., Heilk.*, 1936, cxli., 195-211.)

The classical symptoms and signs of an otogenous sinus thrombosis are those of a septico-pyæmia, and one does not usually find any cerebral symptoms. The author describes an exceptional case. Boy, aged 16, with right-sided chronic middle-ear suppuration, who was admitted to hospital on account of a swelling behind the ear and rigors. A radical mastoid operation was performed and a septic thrombus was removed from the lateral sinus. As the rigors continued the internal jugular vein was resected at a second operation. Death took place five days later from generalized sepsis.

Unusual features in the case were meningeal signs shortly before death, neck stiffness, and a positive Kernig. *Post mortem* examination showed no meningitis, but in the right cerebellar hemisphere there was a fairly large blood clot surrounded by an hæmorrhagic area. Thrombosis had apparently reached the inferior cerebellar veins from the lateral sinus and the blood effusion was

due to back pressure in the smaller cerebellar veins. The author points out that neck stiffness is found not only in meningitis but also in cerebellar tumours (see references). In other rare cases collected from the literature cerebral symptoms have been attributed to spreading thrombosis of small veins in the brain substance.

There follows a lengthy anatomical discussion on the venous drainage of the brain and on the important communications between the various sinuses. When a sinus becomes occluded by thrombosis the cerebral veins have no difficulty in finding other *superficial* channels, especially as the cerebral and cerebellar veins possess no valves. Therefore cerebral disturbances can occur only under exceptional circumstances, e.g. when an important sinus on the healthy side is congenitally small. The *deeper* veins, however, have fewer anastomoses and hæmorrhages in the brain substance from obstructed venous outflow may occur.

J. A. KEEN.

The Glands of the Eustachian Tube. T. SZÁSZ. (*Acta Oto-laryngologica*, xxiv., 1.)

This study of the glands of the Eustachian tube was carried out on dogs and was designed to show the histological appearances of the tube in various conditions, namely: (1) normal; (2) under the influence of (*a*) Pilocarpine, (*b*) Atropine, and (3) after death from distemper. As the activity of the glands might have been affected by a general anæsthetic, the dogs were killed by section of the carotid artery under local anæsthesia.

The following conclusions were reached: (1) The glands of the tube are mucous glands; (2) the lumen of the tube of a normal dog contains no free mucus, apart from a few small globules which come from the beaker cells; (3) pilocarpine and atropin affect the glands of the tube as they do the salivary glands; (4) pilocarpine causes extrusion of the mucus from the glands into the lumen of the tube, but mucus does not re-accumulate in the glands; (5) the production of mucus by the beaker cells of the mucous membrane is not influenced by either pilocarpine or atropine; (6) the inflammatory reaction of a tubal catarrh produces a condition resembling a combination of the effect of pilocarpine with that of atropine, that is, a quantity of mucus in the lumen of the tube, and glands distended with mucus; (7) although the nasopharynx and the Eustachian tubes of the dog which died of distemper showed a high degree of catarrh, the tympanic cavities were completely normal. This supports the Author's suggestion that the mucus-producing apparatus of the tube serves to protect the tympanic cavity, which itself becomes affected only when the defence mechanism of the tube has broken down.

THOMAS GUTHRIE.

Abstracts

NOSE AND ACCESSORY SINUSES

Treatment of Recurrent Nasal Polypi with Radium. W. G. SCOTT-BROWN. (*Lancet*, 1936, ii., 619.)

The cases presented demonstrate the successful treatment of certain types of polypi, hitherto rapidly recurrent after removal, by the application of radium to the ethmoid capsule. Nasal polypi are discussed as infective, allergic, and allergic with secondary infection. The first type does not recur if sepsis is cured ; it is the allergic kind with which the paper is concerned. Such cases present a family history of asthma, hay-fever, and similar allergic phenomena, with previous allergic manifestations, and morning sneezing. A short description is given of the " allergic nose ". Details are furnished of fourteen cases in which " dramatic " results occurred under radium treatment. Some cases had undergone recurrent removals of polypi for years, in two patients the operations numbering one hundred. The technique of the method of application of the radium needles is explained. MACLEOD YEARSLEY.

The Drainage of the Maxillary Antrum. ARTHUR MILLER. (*B.M.J.*, July 27th, 1936.)

To ensure a permanent opening into the antrum it is not sufficient to make an adequate opening in the bone. Tags of antral and nasal muco-periosteum which are left behind have a tendency to diminish materially the opening into the antrum. It is necessary, therefore, to make adequate openings in the other layers of the antro-nasal partition—the muco-periosteum lining the bone on either side. The author describes his technique for accomplishing this by means of specially designed flat and bent galvano-cautery burners. It is claimed that the operation is a simpler procedure, with less hæmorrhage, less post-operative pain, and a shorter convalescence than the usual antrostomy. R. R. SIMPSON.

Nasal Obstruction in the New-born. ALAN MONCRIEFF. (*B.M.J.*, July 27th, 1936.)

The urge to breathe through the nose is so strong in the new-born infant that not infrequently, when nasal obstruction is present, the baby will die rather than develop mouth-breathing in the early days of life.

Examples of nasal obstruction, bony and permanent, inflammatory and temporary, are described. It is pointed out that mouth-breathing is not acquired until the age of ten to fourteen days. It is suggested that in all instances where there is difficulty in breathing in the new-born baby the state of the nasal airways should be carefully examined, and any narrowing be dealt with, if possible by the passage of a soft rubber catheter.

R. R. SIMPSON.

Larynx

Five Cases of Ethmoidal Osteotomata. E. ESCAT (Toulouse). (*Les Annales d'Oto-Laryngologie,* April, 1936.)

The only method of improving one's understanding of a rare condition—from a clinical and therapeutical point of view, is to collect and study all the cases published. The paper reviews the author's cases and after description of these cases, the author gives his conclusions. He found that the bony tumours in all these cases could be excised with surprising ease, a fact which contrasts very forcibly with the treatment of bony tumours in other parts of the skeleton. He thinks that it is reasonable to assume that these tumours arise from the cellular part of the bone. Without denying that some of these osteotomata arise entirely from the frontal bone, he feels that many of them arise from the ethmoid bone. In nearly all the cases he quotes, there was a definite traumatic factor.

M. VLASTO.

LARYNX

Contact Ulcer of the Larynx. GEORGE H. WOODRUFF. Joliet, Ill. (*Journ. A.M.A.*, cvi., 18, May 2nd, 1936.)

According to Jackson's definition " Contact ulcer of the larynx is a superficial ulceration occurring on one or both sides of the larynx posteriorly, the ulcerated surface coming in contact on phonation with the same region on the opposite cord, the latter being ulcerated or not, according to whether the ulceration is unilateral or bilateral." The writer reports the case of a man, aged 42, who complained of sore throat and pain in the left ear travelling down the throat, and following a severe cold of five months' duration. At times there was nocturnal choking and a sense of constriction in the throat. He had varying degrees of hoarseness and at times lost his voice entirely. Little or no improvement followed four weeks of treatment.

No acid-fast bacilli were found in the sputum and the blood Wassermann was negative.

Direct laryngoscopy revealed a small, slightly elevated, dull, reddish area in the posterior part of the larynx in the region of the left vocal process. Exactly opposite on the right side was a smaller irregular elevation of similar appearance. The elevated mass was removed from the left side with cupped forceps and microscopic examination showed " chronic granulation tissue beneath thickened epithelium ". Some weeks later the symptoms recurred and a more extensive removal of the tumour mass was performed. The patient improved rapidly and the larynx was practically normal in appearance at the end of four weeks.

ANGUS A. CAMPBELL.

Abstracts

On Thymus- and Thyroid-remains in the Larynx. P. FALK. (*Arch. Ohr- u.s.w., Heilk.*, 1936, cxli., 118-32.)

The author's research is based on the histological findings in the larynx of an infant, aged eight weeks, who had suffered from severe dyspnœa since birth. The autoscope had shown a subglottic tumour on the right side. Death followed soon after an emergency tracheotomy. The right-sided subglottic tumour consisted of typical thymus tissue in direct communication with a similar small mass outside the larynx; the bridge connecting the two was found between the cricoid cartilage and the first ring of the trachea. It is well recognized that small accessory lobes of thymus gland are found occasionally along the sides of the trachea and may occur as high as the level of the thyroid cartilage.

On the left side of the same specimen of larynx Dr. Falk found small islands of thyroid tissue communicating with the thyroid gland on the outside, also by a stalk between the cricoid and the first tracheal ring. Aberrant thyroid remains have been described previously, but apparently this is the only published case of an aberrant thymus tumour. In a previously published example of thyroid remains, the bridge of communication filled up the space between the cricoid and the uppermost ring of the trachea very completely (see illustrations in text).

Such case reports demonstrate the development of both thyroid and thymus glands. The buds arise as outgrowths from the trachea invariably from one particular region, viz. just below the cricoid cartilage. The connecting stalks may remain active tissue and lead to the development of a benign subglottic tumour. These usually consist of thyroid tissue, occasionally thymus, as in this particular instance. The anatomical and embryological conditions in the lower part of larynx cause such tumours to expand in the posterior wall of the subglottic space.

J. A. KEEN.

The Treatment of Idiopathic Perichondritis of the Larynx, based on Clinical and Pathological Observations. O. MAYER. (*Acta Oto-laryngologica*, xxiv., 1.)

The so-called idiopathic perichondritis of the larynx, such as occurs in influenza, is of metastatic origin and is localized not only in the perichondrium, but also in the cancellous bone. It is, therefore, not merely a perichondritis, but also an osteomyelitis. The cartilage dies only when pus separates it from its perichondrium on all sides. In the ossified parts of the larynx, however, which are richly supplied with blood vessels, the inflammation spreads rapidly not only in the periosteum, but also in the interior of the bone. The latter may indeed be destroyed in part, while the cortical portion may be still living and adherent to its periosteum.

It is therefore necessary, in some cases, particularly when the lamina cricoidea is affected, to open up the medulla of the bone, which must be reached by laryngo-fissure. Seven cases treated by the Author in this way recovered, with a free air-way.

THOMAS GUTHRIE.

Case of Central Laryngeal Paralysis. DR. MASANORI HIGUCHI (Shimabara). (*Oto-Rhino-Laryngologia*, ix., 5, 433.)

The patient was a man, aged 37, who had suffered from syphilis twelve years previously. He complained of faintness, nausea, loss of appetite of about two weeks' duration and was put under treatment with a suspicion of tabes dorsalis. After a few days' difficulty in swallowing and a nasal tone in the voice with hoarseness occurred. Romberg was positive; patellar reflex lowered; Achilles reflex absent. There was distinct muscular paralysis and hyperæsthesia of the left half of the tongue, the palate and also the shoulder and left eyelid, and paralysis of the left recurrent laryngeal nerve. Examination of the cerebrospinal fluid gave a negative result as did an X-ray examination of the head and chest. The writer attributed the symptoms to a syphilitic change in the fourth ventricle. The voice was distinctly improved after the intra-laryngeal injection of paraffin into the cord.

JAMES DUNDAS-GRANT.

TONSIL AND PHARYNX

Removal of Tonsils by Electrical Currents of High Frequency. ALBERT EIDINOW. (*B.M.J.*, January 25th, 1936.)

The application of high-frequency electrical currents may be employed successfully to remove and destroy the diseased tonsil. The technique of progressive destruction by coagulation has advantages since this operation can be performed while the patient continues his routine duties. The procedure is slow, involving treatment at weekly sessions for six to eight weeks. The discomfort and disturbance incurred by the patient is not really great, especially in suitable types of cases, but in the highly strung and nervous patient it causes apprehension and fear. The author describes his technique in detail.

R. R. SIMPSON.

ŒSOPHAGUS AND ENDOSCOPY

Lactic Acid Stricture of the Œsophagus. CARLOS E. PITKIN. (*Annals of O.R.L.*, 1935, xliv., 842.)

The patient, a female, eleven weeks old, was being fed on a diet acidified by lactic acid and was also taking cod liver oil. In

mistake for cod liver oil a teaspoonful of lactic acid 85 per cent. was given to the patient, who gagged and cried. Immediate gastric lavage was performed. No excoriation of the oral mucosa was noted at the time.

During the following three weeks there was marked dysphagia with regurgitation, and an X-ray showed a stricture about the middle of the œsophagus. This was confirmed by œsophagoscopy. A gastrostomy was performed and seventeen days later a ureteral catheter passed into the stomach. This was followed by a silk thread and retrograde dilatation was carried out on this up to 26 (French). The gastrostomy was closed at the end of six weeks.

The child is now twenty-six months old and appears to be in perfect health and without dysphagia.

E. J. GILROY GLASS.

A method of Röntgen Diagnosis of Non-opaque Foreign Bodies in the Œsophagus. WENDELL G. SCOTT and SHERWOOD MOORE (St. Louis). (*Journ. A.M.A.*, cvi., 11, March 14th, 1936.)

Among the common radio-lucent foreign bodies are noted fragments of chicken bone, splinters of rib, and buttons. A firm bolus of food, especially meat, may be halted in its passage by mediastinal tumours, aneurysms, and strictures. The customary site of lodgment of these foreign bodies is at the level of the suprasternal notch. The routine examination consists of taking antero-posterior and lateral " scout " films of the neck in the hope of visualizing the object. If these are negative the patient is observed by the fluoroscope while swallowing a very thick barium mixture and any delay, filling defect, deviation or division of the column is noted. Antero-posterior and oblique Röntgenograms are made during the rapid swallowing of a very thin barium sulphate solution. Rapid exposure, from one-fifteenth to one-twentieth of a second, and technically perfect films are necessary. Œsophagoscopy is indicated even with a negative radiographic examination if the patient's symptoms are those of a foreign body. A warning should be given of the danger of complete perforation of the œsophagus by forcefully swallowing a large bolus of food in an effort to dislodge a sharp foreign body.

The article is illustrated and has a bibliography.

ANGUS A. CAMPBELL.

Œsophagitis. PORTER P. VINSON and HUGH R. BUTT. (*Journ. A.M.A.*, cvi., 12, March 21st, 1936.)

Very little has been written about the most common disease of the œsophagus, œsophagitis, and the writers base this article on a study of 213 cases. Œsophagitis most frequently accompanies

diseases in which there is repeated vomiting and in which the passage of a stomach tube is employed in their treatment. It often follows some form of operative procedure.

The most common symptoms in order of frequency are, substernal burning and pain, hæmatemesis and dysphagia. The most important treatment is prophylactic, that is prevention of trauma in the passage of stomach tubes and taking suitable measures to prevent continued vomiting. An ice bag over the sternum, soft cool diet, and small doses of belladonna are useful. It is considered advisable to perform an œsophagoscopy in every case in which there are unyielding gastric symptoms, and if œsophageal ulceration and spasm are present, gentle bouginage is employed.

ANGUS A. CAMPBELL.

A Case of Intubation of the Œsophagus. HARRIS P. MOSHER. (*Annals of O.R.L.*, 1935, xliv., 847.)

A woman, aged 47, first came under medical supervision for X-ray treatment of a uterine fibroid. Four months later, when eating meat, she suddenly choked and thereafter her swallowing became gradually worse and a gastrostomy was performed.

She was a hunchback from tuberculosis of the spine in childhood. Barium by mouth and retrograde barium showed the œsophagus to be much deviated to the right, with a narrowing some two or three inches long in the middle third and apparently complete stenosis for about 2 cm.

Attempts to swallow a thread were unsuccessful but a bougie was passed under fluoroscopic control and a thread was thus carried into the stomach.

Retrograde bouginage was carried out but there was no improvement in the patient's ability to swallow. Intubation of the stricture was tried, a No. 22 and later a No. 26 catheter being passed. After the intubation, she developed a severe paroxysmal cough and had a temperature of 100°-101° F. The tube was removed, but two days later the patient died. The autopsy showed an erosion some 2 to 3 cm. long in the middle of the stricture with a fistula into the trachea.

Commenting on the case, the Author suggests the possibility of the stricture having been caused by the X-ray treatment or being due to the tuberculosis of the spine. The bend in the œsophagus due to the kyphosis probably explains why the intubation catheter did not rest evenly and caused erosion.

The case is reported to illustrate the danger of such a treatment in similar cases.

E. J. GILROY GLASS.

Abstracts

TRACHEA

A Perforating Foreign Body of the Trachea (The Scientific Papers of the American Bronchoscopic Society). GORDON BERRY. (*Annals of O.R.L.*, 1935, xliv., 838.)

The Author was called in to see a patient, aged 50, who had been suffering from laryngitis for a few days. During the previous four hours his breathing had been laboured and on inspiration had a croupy sound. On examination with a laryngoscopic mirror the larynx was congested and the tracheal wall injected. Some distance down there appeared to be a swelling of the wall which almost occluded the lumen but posteriorly and to the right there was apparently an opening. Half an hour before bronchoscopy could be performed, the patient coughed up a foreign body which proved to be a large piece of cotton.

Further investigation of the history disclosed that he had had a thyroid operation eleven months before; four days after the operation there had been some swelling of the left side with pain but this subsided uneventfully. Nine months after the operation there had been a feeling of constriction of the trachea for a week but this passed off and he had no trouble until the attack which necessitated his coming under the observation of the recorder.

His convalescence was uneventful. There was slight expectoration of pus for nine days but he had no further trouble.

E. J. GILROY GLASS.

BRONCHUS

Removal of Molar Tooth from Left Main Stem Bronchus. WM. B. CHAMBERLAIN. (*Annals of O.R.L.*, 1935, xliv., 844.)

The patient, a 45-year-old man, had a persistent cough with profuse expectoration following a dental extraction. One month later, X-ray examination showed a tooth in the left main bronchus.

The first attempt at removing the foreign body failed at the end of one hour. At the second attempt, a hook was slipped round one prong and firm traction was made. The hook slipped, but in so doing moved the tooth slightly, and subsequent removal with forceps was successful. E. J. GILROY GLASS.

Foreign Body (Soya bean) in the Right Bronchus. Recovery. PROF. DR. HITOSHI FURUKAWA (Kamisuwa). (*Oto-Rhino-Laryngologia*, ix., 6, 540.)

A little girl, aged 3 years, accidentally inhaled a Soya bean, and dyspnœa and rise of temperature followed. The Röntgen rays revealed a movable shadow of a bean in the right bronchus. The foreign body was removed by low bronchoscopy through a low tracheotomy without complication.

JAMES DUNDAS-GRANT.

Miscellaneous

MISCELLANEOUS

Torula Mycosis in Man with Special Reference to involvement of the Upper Respiratory Tract, with Case Reports. WM. D. GILL. (*Annals of O.R.L.*, 1935, xliv., 702.)

Infections of the upper respiratory tract by the yeast organisms have received some attention as the possible source of the better known torula infections of the central nervous system. Local infections respond well to treatment in contra-distinction to the meningo-encephalitic type which is invariably fatal.

The lesions begin with an area of induration only mildly inflammatory in character—the centre rapidly undergoing softening and, in from ten days to two weeks, there is a central necrotic plug, more or less firmly attached at its base. The ulceration invades the underlying tissues; and bone, if present, is often exposed but not invaded. The central necrotic mass is cast off within a week to ten days leaving an excavated area which is very little injected. A characteristic of these lesions is the intense pain that they cause. Diagnosis is made from the presence of the torulae in exudate scrapings. Biopsy is contra-indicated.

Potassium iodide by mouth (up to 120 grains) daily, seems to be effective in the treatment, particularly if combined with sodium iodide intravenously. Iodine solution locally, preferably Lugol's iodine solution, or 3 per cent. collosol iodine, are invaluable. Tincture of iodine is too escharotic for repeated application.

X-rays combined with other therapeutic measures are of great value.

A point of some importance in treatment is that the cultures are liable to remain positive for many months after the local lesions have healed and, during that period, general treatment should be continued.

Four cases are reported in two of which the lesions were in the pharynx. One of the others had a lesion of the antrum and the fourth had the typical ulcers on the palate. The result of treatment in all four cases was satisfactory.

E. J. GILROY GLASS.

Asthma: Immunological Mechanism, Diagnosis, and Treatment: with Special Reference to Vaccine Therapy. DAVID HARLEY. (*Lancet*, 1936, ii., 367.)

David Harley deals with this subject in a wide sense. After enumerating the factors and immunological mechanism, he divides asthma into the following types:—(1) Hypersensitivity to non-bacterial substances. (2) Ditto, plus secondary infections or toxæmias. (3) Bacterial asthma. (4) Ditto, plus secondary non-bacterial sensitizations. Having dealt with the immunological

investigation of asthma patients, he gives a summary of their treatment (with illustrative cases) and adds his conclusions. He considers that the tendency of the " advanced allergist " to consider all asthmatics in terms of skin reactions to non-bacterial substances, and to institute treatment accordingly, produces brilliant cures in certain cases (Type 1), but leads to disappointing results where the primary cause is bacterial. This he believes to be due partly to the use of the intradermal method of skin testing which frequently produces " false positive " reactions, liable to be misinterpreted by the enthusiast, in the absence of the corresponding *clinical* sensitivities, and to the failure to make a routine bacteriological examination of all patients in whom the skin reactions are multiple and indistinct.

MACLEOD YEARSLEY.

Prosthetic Treatment of Cleft Palate. R. SEGRE. (*Monatsschrift für Ohrenheilkunde*, lxx., 1936, 865.)

In a long paper the author describes the history, development, and present-day practical application of prosthesis for cleft palate.

Its employment in sucklings; advantages and disadvantages; its uses in combination with surgery and with phonetic treatment are all fully discussed.

The article is illustrated with fifteen interesting engravings of historical and modern prostheses.

DEREK BROWN KELLY.

Agranulocytosis after Salvarsan Injection. DR. HITOSHI FURUKAWA (Nagano). (*Oto-Rhino-Laryngologia*, ix., 3, 239.)

In a woman, aged 18, on the fourth day after the fourth injection there was a rise of temperature to 38·5° C., with rigors, pain in the throat, etc. Both tonsils were swollen, reddened and covered with a yellowish-white membrane in which no diphtheria bacilli were found. The blood examination showed: Red corpuscles 4,350,000; leucocytes 5,250 (macromonocytes 16·5%, lymphocytes 12·5%, neutrophile polynuclear leucocytes 3·5%, eosinophiles 4%, basophile cells none). Blood-cultures: sterile. No further injections were given and recovery took place in three months.

JAMES DUNDAS-GRANT.

A Case of Salvarsan Agranulocytosis. DR. SHÛJI MATSUMOTO and DR. NORIAKI SANUI (Wakamatsu-Fukuokaken). (*Oto-Rhino-Laryngologia*, ix., 3, 245.)

A man, aged 53, after the sixth injection of salvarsan, suffered from rigors and high fever. The right tonsil was necrotic and covered with a dirty mass; there was a high grade of cachexia,

anæmia and oral fœtor. Blood examination showed leukopenia (900), relative lymphocytosis (78%), monocytosis (12%), neutropenia (10%). After the repetition of the salvarsan injection necrosis of the left tonsil and of the gingival membrane followed. Recovery took place after a month with blood-transfusion, lodinon [*sic*] injection, etc.

JAMES DUNDAS-GRANT.

Agranulocytosis during the injection of Salvarsan. DR. SHUGO YAMAMOTO and DR. KEIJI ISHIMARU (Kushiro). (*Oto-Rhino-Laryngologia*, ix., 7, 648.)

A female patient, aged 26, suffering from syphilis, had after seven injections of salvarsan (Neoneoarsamin: 4 amp. of No. 3 and 3 amp. of No. 4), sweating, high fever with rigors, pain on swallowing and a dull red swelling of the gum of the lower jaw; the right tonsil and the area around it were red and swollen, and on the tonsil and the neighbouring gum there developed hæmorrhagic necrotic and gangrenous processes, while there was punctate hæmorrhage on the larynx. There was no swelling of the spleen or liver. The blood picture showed an extreme lowering of the leucocytes in general and of the granular leucocytes in particular. The general condition got worse, increase of the bleeding, deepening of the somnolence with heart weakness, ending in death. The author thought the case was one of agranulocytosis following salvarsan injection.

JAMES DUNDAS-GRANT.

Hoarseness from Beri-beri in an Infant. DR. SHÛJI MATSUMOTO (Wakamatsu-Fukuokaken). (*Oto-Rhino-Laryngologia*, ix., 6, 537.)

An infant, aged 8 months, suffered from hoarseness. Direct laryngoscopy revealed a paralysis of the left vocal cord. Recovery took place after two weeks under treatment for Beri-beri. It was interesting that the paralysis of the vocal cord in this disease came on before the gastro-intestinal disturbance, as already observed by Professor Kubo.

JAMES DUNDAS-GRANT.

Beri-beri of Pregnancy with Extreme Œdema of the Upper Air Passages. DR. SHINICHIRO MASUDA (Ôtsu). (*Oto-Rhino-Laryngologia*, ix., 7, 635.)

A multipara, aged 40, suffered from beri-beri from the eighth month of pregnancy; she complained of œdematous swelling of the whole body, and inspiratory dyspnœa which increased after a still-birth at the ninth month. The œdema was most marked in the front of the neck and the face. In addition the author discovered

œdema of the nasal turbinate and the septum, of the buccal cavity and larynx. There was no evidence of œdema of the lung and the dyspnœa apparently supervened at the same time as the swelling of the mucous membrane. Recovery took place after four months.

JAMES DUNDAS-GRANT.

Congenital Bony Temporo-mandibular Ankylosis and Facial Hæmiatrophy. LESTER W. BURKET (New Haven, Conn.). (*Journ. A.M.A.*, cvi., 20, May 16th, 1936.)

The writer reports the case of a full term, spontaneously delivered male infant which showed true congenital bony ankylosis in the region of the left temporo-mandibular joint, associated with maxillary and mandibular hæmiatrophy. Lysis of the fibrous and bony fixations was performed twenty-four hours after birth which permitted fairly normal mandibular movements. Bony ankylosis recurred in two months but an aperture remained sufficient to permit adequate feeding. Provided this aperture can be maintained further operative procedures are not contemplated until the patient is five or six years old, when an arthro-plastic operation will be performed. Orthodontic treatment will then be practical and will aid in stimulating further development of the affected side of the face.

ANGUS A. CAMPBELL.

Glossodynia. SHERMAN F. GILPIN (Rochester, Minn.). (*Journ. A.M.A.* cvi., 20, May 16th, 1936.)

Glossodynia is rather infrequently seen but the author has been privileged to search the records of 48 such cases. Three-quarters of the sufferers were over 50 years of age and were women. There appears to be a neuropathic predisposition and it occurs in people whose threshold for pain is relatively low. There is a high incidence of other psychoneurotic symptoms accompanying this manifestation. A fair proportion of patients suffer from arteriosclerosis of the central nervous system and a small number suffer from depression coincident with this burning. Cancerophobia is present in a few cases and the teeth have been removed in about half of the sufferers.

The discomfort included a burning feeling of the tongue, mouth, cheeks, lips, pharynx, palate and even the nose. Many complained of an acid, bitter, or metallic taste in the mouth.

In none of these cases was there found any local or general positive or physical manifestations except for occasional achlorhydria or a bad tooth.

Complete relief may be expected in about one-third of such cases and partial relief in another third. This relief may result from various forms of psychotherapy as local treatment is of no avail.

ANGUS A. CAMPBELL.

Miscellaneous

On Tropical Frambœsia. Prof. Dr. Seigo Minami (Fukuoka). (*Oto-Rhino-Laryngologia*, ix., 8, 701.)

The writer recognizes three stages in this disease. In the first, the patients treat themselves and refuse to see a doctor; crusting ulcers occur on the foot, leg and in the genital parts; they are isolated and vary in size from that of a pea to that of a walnut and are flat and very slightly painful. In the second stage, the disease shows itself on the face, especially in the neighbourhood of the mouth, but also on the head, the back, the upper arm, the leg, the chest, etc. Yellowish-green crust formations of the size of peas are distributed here and there; the differentiation from syphilis is often difficult. In the third stage, nodule formation proceeds over the ulcer and extends in an irregular creeping form or leads to the development of fistulae breaking through from the deeper part. Cicatrization and crusting ulceration occur simultaneously. There is often much crateriform ulceration on the face with sinking of the point or alae of the nose. The differential diagnosis from gumma is often very difficult. The one certain point in favour of frambœsia is the formation of cicatrices round the mouth.

James Dundas-Grant.

Acute Œdema of the Tongue. G. Worms. (*Les Annales d'Oto-Laryngologie*, April, 1936.)

Two cases of this rare condition are quoted in detail. The one involved the whole tongue in a congenital syphilitic and the other was a hemi-glossitis. Both these cases occurred after exposure to bad weather. The symptoms and physical signs were similar in both cases except that in one the swelling was confined to one-half of the tongue. There was a very rapid onset with high fever. Mastication and speech were almost impossible and examination of the tongue and adjacent parts was very difficult. In both cases treatment consisted in hot fomentations to the neck and " bleeding ". Recovery was rapid. After discussing reports of the few similar cases which have been published, the author discusses the differential diagnosis. Ludwig's angina, abscess of the lingual tonsil and retro-lingual abscess may all resemble this condition, but in these cases, examination with the mirror is relatively easy and the origin of the trouble can be seen. Pathologically, these cases must be regarded as acute inflammatory œdema but why do they sometimes affect the whole and sometimes only half the tongue? Some observers regard these cases as angio-neurotic œdemata particularly because they come and go so rapidly. Although many views have been advanced to explain why the condition is occasionally unilateral, according to the author it is due to the septum linguae which without forming an impassable barrier to inflammatory

œdema may prevent the inflammatory œdema from extending to the opposite side. The treatment of this condition is discussed and stress is laid on the fact that owing to the tongue filling up the whole mouth, very little topical therapy is possible. Local bleeding is regarded as dangerous but general bleeding, as was carried out in these two cases, is recommended.

M. VLASTO.

REVIEW OF BOOK

Les Maladies des Fosses Nasales. By J. TERRACOL. Published by Masson. Paper cover 110 fr., cardboard 130 fr.

This textbook is the result of the collaboration of a number of distinguished French oto-laryngologists. It is a successful attempt to bring into focus all our knowledge up to the year 1936 of the diseases of the nasal fossae. There is no attempt to overstep the limitations of the title, and no reference is, therefore, made to affections of the accessory sinuses.

The work is divided into two parts: General and special pathology. The former deals with such matters as olfaction and its disorders, nasal respiration, vasomotor and secretory disturbances and nasal polyposis. The subject matter is stimulating and attractively presented to the reader. The chapter on spasmodic vasomotor rhinitis deals in great detail with the treatment of this condition without, however, adding very much to our knowledge. It may be noted that no reference is made to treatment of "hay fever" by nasal ionization. The second part of the book deals with every pathological condition of the nasal fossa and its contents. Numerous photographs, schematic drawings and photomicrographs accompany the text and an adequate bibliography is appended to each chapter. The chapters on the granulomatous infections of the nasal fossae and atrophic rhinitis are particularly instructive. Although the surgical treatment of ozæna is explained in considerable detail, the opening paragraph reveals that the author feels that the very diversity of the operative technique suggests that none of these operations are really of much value.

Whoever may decide to add the present volume to their library, will possess a useful book of reference, thoroughly up to date and of well balanced judgment as regards pathology and treatment.

M. VLASTO.