BLUMENFELD, in opposing it, stated that Leichsenring's results in Breslau were not encouraging.

In response to Körner's advocacy of tracheotomy, BLUMENFELD said the results of tracheotomy in laryngeal tuberculosis were in the majority of cases catastrophic.

In regard to tuberculin, MÜHLENKAMP advised its use in the diagnosis between simple catarrhal and tuberculous laryngitis by Ponndorf's method. If at the next consultation after the injection the patient said he felt better the case was tuberculous, otherwise it was catarrhal.

CEMACH considered tuberculin treatment more efficacious than was generally supposed, but it must depend on the condition of the lungs rather than of the larynx. He preferred tuberculo-mucin (which with a satisfactory general action produced only a moderate focal reaction) to the "partigens" of Deyke and Much recommended by Blumenfeld.

Cemach considered the results of local light-treatment quite convincing.

ABSTRACTS

THE EAR.

A Contribution to the Pathology of Otosclerosis. Professor Karl Grünberg, Bonn. (*Zeitschrift für Laryngologie, Rhinologie, etc.* Bd. 15, November 1926, pp. 78-80.)

Quite accidentally the author discovered a small focus of otosclerosis in the bone of the promontory near the round window; this was in a temporal bone which was being sectioned to investigate a chronic tuberculous middle-ear suppuration. Apart from a slight erosion over the facial canal, the bony and membranous labyrinth showed no inflammatory changes.

One peculiar feature was noted in addition to the focus of otosclerosis; in the bony semicircular canals, particularly the posterior one, there were certain bulgings which tended to narrow their lumen. The author looks upon these thickenings as a congenital abnormality. Other writers (O. Mayer) have pointed out their occurrence and their association with otosclerosis. This might lend support to the theory that otosclerosis also has a congenital origin, and that it arises from the development of certain embryonic remnants in the labyrinth capsule. J. KEEN.

Unilateral Deafness following Radiotherapy. J. MOELLER. (*Archives Internationales de Laryngologie*, November 1926.)

The possible deleterious effect of radium emanations on healthy tissues is well known. The interest of the present case lies in the fact that radio-active treatment was applied to the left side of the

nose for an epitheliomatous ulcer, and that this was followed a few days later by a complete right nerve deafness.

The author cites this case as a warning not to underestimate the danger lurking in this form of treatment. MICHAEL VLASTO.

Disturbances of the Trigeminus originating in the Ear. W. UFFENORDE. (*Münch. Med. Wochenschrift*, Nr. 49, Jahr. 73, S. 2064.)

The writer details two cases of chronic middle-ear suppuration which were accompanied by trismus and severe neuralgic symptoms in the regions supplied by the second and third branches of the trigeminus. In both cases the ear contained a foreign body (pledget of cotton wool and a bullet) and the irritative symptoms were apparently due to granulation stenosis and pressure on the tympanic nerve, which, owing to its sheath, is immune from toxic irritation in ordinary cases of suppuration. The reflex arc is established through the tympanic plexus and various motor and sensory ganglionic connections. In each instance the trismus rapidly subsided after the performance of the radical mastoid operation, but the pain was slower in disappearing, though it finally did so.

In the literature, cases are often described of the converse variety in which an irritative focus in the teeth, pharynx or larynx, etc., gives rise to otalgia.

The author thinks that these cases of reflex sensory disturbance, originating in the tympanum, may be differentiated from similar cases resulting from perilabyrinthine foci, in that the latter only occur after operation.

As regards the motor reflex; Uffenorde is unable to say whether the whole musculature supplied by the motor division of the third branch of the trigeminus was implicated, or whether the internal pterygoid, through its nerve supply from the otic ganglion was alone involved. One must conclude that in these cases the sensory limb of the reflex arc was the nervus tympanicus.

In acute suppurative middle-ear inflammation violent neuralgia may occur, not only as a result of common retention of pus in the retro-tympanic spaces, but also in the perilabyrinthine cells, and not only in the upper angle of the pyramidal bone, but also on the posterior pyramidal wall between the sigmoid sinus and the internal auditory meatus.

The labyrinth may even be infected by this retrograde route, as the author illustrates by a further very interesting case of acute (streptococcus mucosus) infection.

An intradural collection of pus was exposed at the site mentioned, and the whole course of the case leaves no room for doubt that the

subsequent (induced) labyrinthitis was through the aquæductus vestibuli as a result of infection of the saccus and ductus endolymphaticus. The patient survived with a functionating labyrinth.

A caution is given against the precipitate extraction of teeth in cases of trigeminus neuralgia.

An illustrative anatomical diagram accompanies this article.

J. B. HORGAN.

Some Clinical Remarks on Modified Radical Mastoidectomy for Chronic Purulent Otitis Media. H. B. BLACKWELL. (*Laryngoscope*, Vol. xxxv., No. 10, p. 791.)

It is stated that the radical operation has three drawbacks; subsequent loss of hearing, danger of facial palsy, and sometimes continuance of discharge. The author believes that curetting the Eustachian tube during a radical operation frequently leads to continuance of discharge because of the mucous membrane growing from the enlarged orifice.

An operation which takes the place of the radical mastoid to a large extent was first practised by the author about fourteen years ago. It is indicated in cases of chronic mastoiditis with good hearing if they do not clear up under conservative treatment.

The usual postaural incision is made as in the Stacke operation, the soft parts retracted forward, the cortex is removed and the antrum opened. Next the posterior wall is lowered and the antrum widened to its fullest extent. When the short process of the incus becomes visible, the external wall of the attic is removed from within outward by the aid of a curette. The posterior wall is lowered till the facial ridge is reached, while only the epitympanic ring with one-sixteenth of an inch of bone arching above the drum from the posterior to the anterior wall is left. Latterly, even this ring of bone has been removed, leaving the drum without any bony rim superiorly. As a result of this further refinement, better drainage and æration is provided. The ossicles are preserved.

A meatal flap is cut and after packing, the posterior wound is sutured. The article is well illustrated.

ANDREW CAMPBELL.

The Opening of the Round Window. BIEHL, Vienna. (*Acta Oto-Laryngologica*, Vol. viii., fasc. 1-2.)

In May 1923 Holmgren reported an operation on the labyrinth capsule. He works under local anæsthesia, using a binocular microscope and operates on every kind of acute labyrinthitis in which there is complete loss of labyrinth function. His material comprises 94 cases with 50 of meningitis, of which 18 recovered,

corresponding to a mortality of 30 per cent. Four cases of otosclerosis were operated upon without perforating the labyrinthine endosteum. The opening of the labyrinth by the method of removal of a part or a whole of the wall of the promontory will always be a valuable operation to be carried out when there is complete functional loss and an exit must be found for increased pressure, particularly when sepsis is the cause of it. If life is to be saved prompt and sufficient action is necessary.

It is different, however, in those cases where in the presence of the phenomena of increased pressure from or in the inner ear, the latter retains its functions, and where relief of pressure must be brought about slowly and without danger. Biehl has already recommended the opening of the round window and has since had repeated opportunity to carry out and prove the success of the operation. He describes two cases of rapidly progressing increased intracranial tension where a cerebral glioma was suspected which was relieved by this method. When this urgent operation has been performed successfully, one may proceed to treat the cause, for example, by deep X-ray therapy.

He quotes Wittmaack's experiments which showed how quickly disturbance of nerve elements may be produced by rapidly increased pressure, and how permanent injury may result even though tension is afterwards relieved. H. V. FORSTER.

The Caloric Labyrinthine Reaction in Animals. RUDOLPH LEIDLER. (*Monats. f. Ohren.*, No. 11, 1926.)

As investigations in this direction have been very limited, the author for this purpose examined three kinds of tortoise and the common chameleon, summarising his results as follows:—

None of these animals showed with the cold water test (as from 5 to 10° C.) any nystagmus or deviation of the head or eyes.

Two of them (both inhabitants of the water) showed a definite horizontal nystagmus directed towards the stimulated side, with water at 70° C. This nystagmus was more marked in the eye on the same side as the stimulated labyrinth.

In one of them (a land tortoise) no nystagmus was usually induced with hot water, but occasionally a few flickers occurred, directed towards the stimulated side.

In the chameleon, after stimulation with hot water, nystagmus usually appeared more evident in the eye on the stimulated side.

After cocainisation of the tympanum of the water tortoise, no nystagmus could be elicited with the caloric test, although the reaction on rotation remained unaffected.

The author merely relates these observations but hopes in the future to be able to offer some theoretical commentary thereon.

ALEX. R. TWEEDIE.

Abstracts

Bárány's Pointing Test: Its Physiological Basis and Clinical Application. Dr WODAK, Prague. (*Monats. f. Ohren.*, No. 11, 1926.)

In an exhaustive article of 77 pages, the author discusses the various influences which are concerned in, and which control the by-pointing reaction either as it appears spontaneously, or can be induced by various forms of stimuli.

Opening with a warning as to the necessity of recognising the extremely complicated nature of this phenomenon—since psychology plays an important part as well as physiology—he stresses to begin with, as indeed he does throughout the whole article, the great necessity of recognising the different factors in the reactions obtained.

He next deals with the extralabyrinthine influences which can affect these phenomena, such as the application of cold, heat, pain, etc., to the skin—the movement of the head and movement of the eyes, either alone or combined together—the factor of normal individual variation, the individual idea as to the location of the middle line of the body. This latter point is particularly emphasised, and the writer urges that it is most necessary to determine this factor first; for this purpose he describes his special methods of ascertaining the "normal" unconscious variations in each subject before attempting to regard as pathological any deviation which the patient may show.

The results of the caloric test, rotation, etc., on the pointing reaction are then described, that is, the labyrinthine influences.

With due regard to all the elements which preside over these phenomena, Wodak apparently does not agree with the usual way of making this test clinically, that is, by utilising the finger of the observer as an objective.

He prefers to test normal variation first of all. His ordinary clinical procedure being to seat the patient in front of him, and with the eyes closed, tell him to stretch both hands out in front, horizontal with the shoulder. The observer sits in a corresponding attitude with his hands opposite to, but *without touching*, the hands of the patient. He then directs the patient to move his hands down and up again, and with this is able to estimate what error normally occurs.

Using his own hands still as the basis of observation, the patient's error in pointing is again tested under the influence of such experimental stimulus as may be required. With this method, Wodak considers that the optical factor is eliminated, whereas, if the patient is in any way shown what is required of him before, with the eyes open, some optical influence must affect his movements in subsequently making the test even with the eyes shut. For a similar reason also he criticises adversely the usual method of making this test by holding the patient's finger, asking him to make a vertical movement and then touching the finger of the observer again, as, every time this is done, he argues, a disturbing element of previous suggestion is introduced into the test.

These would appear to be the essential points in this long paper on this particular test, which the author considers should still be regarded as unsuitable for any dogmatic description or of definite diagnostic value, without bearing in mind the various factors and fallacies which may tend to influence the reactions. ALEX. R. TWEEDIE.

Air-Embolism through the Lateral Sinus. W. ANTHON. (*Zeitschr. für Laryngologie, Rhinologie, etc.*, September 1926, pp. 427-29.)

Fortunately air embolism through the lateral sinus and internal jugular vein is a comparatively rare occurrence, and it is said to be fatal in 22 per cent. of the cases. The accident frequently happens when the dressing is changed with the patient in a *sitting* position; in other cases it occurs during the operation. The characteristic sucking noise should enable one without delay to stop further entrance of air.

In the author's case there existed a duplication of the lateral sinus, a rare anatomical abnormality. The superficial half of the sinus was found empty and collapsed at first, although it became distended later; it was injured during the latter stages of the operation. When the packing was removed two days later, typical sucking in of air occurred, although the patient was lying down. The sinus was repacked at once, the patient collapsing rather seriously and only recovering after two hours with the help of camphor injections. Five minutes after the onset a gurgling sound could be heard on auscultating the heart. At a second dressing, two days later, a little air again entered the sinus. When the tampons had to be changed after this, the foot of the bed was raised and the patient was instructed to hold her breath until the new dressing was in position. Further course was uneventful and the patient recovered satisfactorily.

The author believes that the peculiar anatomical features may explain the occurrence of air-embolism in this case. The walls of the *outer half* of the sinus probably remained stuck together distal to the injury. The operation wound and proximal part were open, and, with the venous blood freely flowing in the *inner half* of the sinus, conditions for sucking-in of air were particularly favourable, presumably on the principle of the suction pumps which are worked from a tap. J. KEEN.

NOSE AND ACCESSORY SINUSES.

Fronto-Ethmoidal Mucocele. F. CHAVANNE and F. ARCELIN. (*L'Oto-Rhino-Laryngologie Internationale*, January 1926, p. 5.)

This case of an unusually large mucocele occurring in a woman, aged 20, is of interest from the point of view of the enormous size of the cavity which involved both frontal sinuses and the whole of the

left ethmoidal labyrinth. Absorption of bone had produced deficiencies in the anterior frontal sinus wall and in the inner orbital wall. Another point of interest was that the condition apparently followed a somewhat severe injury to the frontal region on falling from a bicycle. External operation, with subsequent intranasal drainage, was successful.

A. J. WRIGHT.

The Surgical Treatment of Acute Suppurative Paranasal Sinusitis. JOHN M. SHEA, M.D., Memphis, Tenn. (*Journ. Amer. Med. Assoc.*, 17th July 1926, Vol. lxxxvii., Part 3, p. 162.)

In his opening remarks the author states that no radical surgical intervention should be instituted, but only such measures attempted as will produce sufficient drainage and ventilation. For drainage he uses rubber tubing only. The paper, which includes five illustrations showing various types of operations, presumes that routine medical and local procedures have failed to arrest the condition. In dealing with maxillary sinusitis the writer recommends puncture with a straight sterile trocar for purposes of making cultures and washing. If washing is indicated, drainage is accomplished by passing a trocar knife under the inferior turbinate and piercing the nasal wall of the antrum. The window is resected as far posteriorly as possible. With a rasp the anterior end of the window is enlarged to allow insertion of a rubber catheter. This tube allows the ready use of suction or irrigation.

Frontal sinusitis with severe pain is due to a partial vacuum, and this is treated by alternating suction with gentle pressure. In severe cases in which internal drainage has failed, external operation under local anæsthesia is advisable. The Lynch frontal sinus incision is made, and a small catheter-drain inserted through the window. When the acute symptoms subside radical operation should be performed.

In sphenoidal sinusitis a roentgenogram is valuable. In cases of children the sphenoidal sinus should be punctured and irrigated with a long needle of the Dean antral irrigating set. It can be entered by using the posterior attachment of the middle turbinate as a landmark. The ostium may be enlarged with a Sluder sphenoid knife. In adults the anterior wall of the sphenoid may be resected.

Acute empyema of ethmoidal cells is rare in children, but sometimes there is a rupture into the orbit, and this will require external drainage. In adults if the anterior or posterior group of cells suppurate and resist all attempts at drainage by suction or irrigation, the offending cells should be punctured. The middle turbinate should not be amputated in the face of acute infection, for fear of intra-cranial complications. In like manner resection of the nasal septum should not be undertaken. For after treatment, in operative cases the channels should be kept open by suction or irrigation with alkaline washes and protein silver.

In conclusion the author states that the surgical treatment of acute suppurative paranasal sinusitis is emergency surgery. External drainage of severe frontal infection is safer than risking inadequate internal drainage. Rubber tubing as catheters is more efficient than gauze wicks. ANGUS A. CAMPBELL.

Two Cases of Acute Diffuse Osteomyelitis of the Superior Maxilla. GARNET HALLORAN. (*Medical Journal of Australia*, Vol. i., 28th August 1926, p. 284.)

CASE 1.—A man, aged 60 years, developed the disease as an accompaniment of untreated antral suppuration. Drainage and lavage through an opening in the canine fossa were used. Notwithstanding extensive disease of the cranial structures and some of the cranial nerves the patient appears to be recovering.

CASE 2.—A child, aged 22 months, developed acute osteomyelitis of the superior maxilla. The antrum was not involved but necrosis affected the whole alveolar process and alveolar fossa extending to the malar bone. Operation to secure drainage was followed by improvement, but broncho-pneumonia caused death.

A. J. BRADY.

THE PHARYNX.

End-Results of Tonsillectomy, with Especial Reference to the Legal Responsibility. THOS. J. HARRIS, M.D. (*Journ. Amer. Med. Assoc.*, Vol. lxxxvi., No. 12, 20th March 1926, p. 830.)

In a nine column article the author states that in order to get information, a questionnaire was sent to 1000 leading laryngologists and to the secretaries of State Societies. There were 300 replies describing 124 cases of malpractice following tonsillectomy. Of these 55 cases were not pressed; 24 were settled privately; 12 were dismissed; and 20 came to trial. The chief grounds for the suits were as follows: negligence or carelessness during or subsequent to operation, 25; lung abscess, 5; anæsthesia, 13; hæmorrhage, 9; breaking of needle, 1; operating without permission, 5; use of radium causing death, 1; operation during or too soon after diphtheria, 4; removal and sloughing of palate, 12; removal of uvula, 16; removal or contraction of pillars, 8; teeth knocked out, 5; death due to operation, 31; loss of eyesight, 1; loss of singing voice and speaking voice, 4; pleurisy following operation, 1; paralysis, 1.

Of the 20 cases coming to trial in the entire United States, 5 were decided in favour of the plaintiff. Case 1. mutilation of tonsil pillars and adhesions shutting off nasopharynx. Case 2. operation performed without patient's consent. Case 3. lung abscess following tonsillectomy with accidental removal of uvula. Case 4. negligence from cutting and injuring the tongue. Case 5. breaking of teeth.

Abstracts

Commenting on the results the author states that the outstanding principle of malpractice suits is one of ordinary and reasonable care. The number of suits is comparatively few, but undoubtedly they are on the increase. Suits were dependent in most instances on injudicious criticisms by other practitioners and efforts of commercial lawyers. The surgeon must constantly recognise his potential liability, and never perform operations in his office. Rhinologists throughout the country should constitute themselves a body to educate the public to the importance and gravity of tonsil operations, and the author commends the American Board of Otolaryngology for having taken steps to improve and standardise the specialty. ANGUS A. CAMPBELL.

Occurrence of Throat Infections with Streptococcus Scarlatina without a Rash. FRANKLIN A. STEVENS, M.D., and A. R. DOCHEZ, M.D. (*Journ. Amer. Med. Assoc.*, Vol. lxxxvi., 10th April 1926, p. 1110.)

In a four column article the authors report observations made at the Presbyterian Hospital, New York, of an epidemic of hæmolytic streptococcus infection. The report is confined to the study of the streptococci obtained from the throats of the nurses with scarlet fever and acute streptococcus throat infections. A detailed report of the methods of study is given in a table showing the skin reactions of patients and toxin production and agglutination reactions of strains of hæmolytic streptococci from throat cultures. In summarising, the authors state that care should be taken not to draw a strict analogy between scarlet fever and diphtheria. Large amounts of scarlet fever antitoxin prevent infection from scarlatina. Among seventy-six contacts who were immunised with serum, scarlet fever occurred only once. When complications are established in scarlet fever with the scarlatinal streptococcus, this serum has no therapeutic effect. Toxin production and agglutination with scarlatinal immune serums are closely parallel. Scarlatinal infection of the throat may occur without a rash. The type of infection may occur in individuals showing negative reactions to scarlatinal toxin. Dick test is not always a reliable index of immunity to throat infections with streptococcus scarlatinæ. There is no antigenic relationship between strains of hæmolytic streptococci from acute streptococcal pharyngitis.

ANGUS A. CAMPBELL.

The Radical Cure of Peritonsillar Abscess. HARRY L. BAUM, M.D., Denver. (*Annals of Otology, Rhinology, and Laryngology*, June 1926.)

The treatment of early cases of peritonsillar abscess is disappointing. Incision is often without avail and we have to wait sometimes till the fifth day before attempting drainage. Dr Baum meets those conditions

by removal of the tonsils as soon as he is convinced of the diagnosis of second stage quinsy. The first stage is reached when infection has penetrated through the tonsillar capsule (viâ a crypt) and become active between the tonsil and the aponeurotic lining of the fossa. In the second stage the formation of pus has taken place; the patient first feels definite signs, the tonsil is dusky and pushed toward the middle line but with no bulging in the palate. In the third stage the abscess expands in this limited space around the upper pole of the tonsil in the areolar tissue of the palate. At this stage the usual bulging of the palate is seen and the evacuation of the pus is simple. Dr Baum states that the procedure of tonsillectomy in the second stage of quinsy is not a new one but it has not yet received the recognition it deserves. It evacuates the pus and secures massive drainage. It is safer than futile drainage and waiting. It gives immediate relief and removes the offending tonsil.

Certain anatomical relations of the tonsil are well described in the paper and in the March number of the *Annals* Dr Baum has a paper on the mucous glands of the palate which is worth noting in this connection.

NICOL RANKIN.

The Simulation of Retropharyngeal Abscess by Retropharyngeal Lymphadenitis. S. CITELLI. (*L'Oto-Rhino-Laryngologie Internationale*, August 1926.)

This article draws attention to the fact that, in babies, all the signs and symptoms of retropharyngeal abscess may be present, yet no pus may be found on incision of the swelling. In such cases, one is dealing with retropharyngeal adenitis and peri-adenitis which has not progressed to the stage of suppuration, but, owing to the difficulty in diagnosis, the swelling should always be incised or aspirated.

C. GILL CAREY.

Pharyngeal and Œsophageal Diverticula. WILLIAM HILL, M.D. (*Brit. Med. Journ.*, 18th December 1926.)

A detailed classification is given of the various forms and sites of origin of these diverticula. It is pointed out that most of the text-books and isolated contributions to the literature of the subject fail to emphasise the fact that the most common type, the pulsion-pouch, has its origin in the deep pharynx and not in the œsophagus. The mouth of these pouches is invariably situated posteriorly and mesially at the line of junction of the upper oblique and lower transverse sphincteric fibres of the inferior constrictor muscle. No post-mortem confirmation is obtainable of the occurrence of such pouches at the pharyngo-œsophageal junction or at the Lannier-Hackerman area at the upper end of the gullet.

Abstracts

Detailed historical notes of recorded cases are given, with a criticism of their classification. The symptoms and signs of the condition are dealt with, as well as the treatment. The author's own operation "diverticulopexy" consists in exposing the pouch as in the Goldmann operation, freeing it from its bed by dissection and turning it upside down. The fundus is then stitched as high as possible to the upper angle of the operation field by sutures to the side of the pharynx and to the deep cervical fascia under the sterno-mastoid. A catgut ligature is passed round the neck of the sac not tightly enough to produce strangulation, its object being to prevent the passage of food into the sac during the first week or so after operation. The cause of dysphagia is not, as is usually held, a pressure on the œsophagus from behind by food in the pouch, but prolapse or downward displacement of Killian's lip which forms the lower border of the mouth of the pouch; this prolapse displaces the plane of the pharyngo-œsophageal junction from a horizontal into a more or less vertical plane. The suspension and fixation upwards of the pouch correct this displacement.

True diverticula of the œsophagus are rare, but do occur. They have generally been discovered post-mortem, and are as a rule traction diverticula due to the previous breaking down of a suppurating lymph gland which forms an inflammatory adhesion to the outside of the wall of the gullet. They are usually situated in the middle third of the gullet behind the area of the glands in relation to the bronchi and trachea. Jackson has recorded a traction diverticulum of the supraclavicular gullet, and a similar condition has been observed low down near the diaphragm. T. RITCHIE RODGER.

THE LARYNX.

A Case of Cutaneous Pemphigus of the Mucous Membranes with Web Formation within the Larynx. E. LIPSHÜTZ, Upsala. (*Acta Oto-Laryngologica*, Vol. ix., Fasc. 1-2, March 1926.)

The author begins with a brief résumé of present ideas upon cutaneous pemphigus of the mucous membranes. Two varieties are distinguished—an acute type malignant in nature, passing to a fatal termination in a short space of time, and a chronic type affecting especially the mucous membranes of the upper air passages and conjunctivæ, with a tendency to contractions and adhesions. Pemphigus of the mucous membranes may exist alone or along with cutaneous manifestations.

The author's observations concern a man aged 59, admitted to the Serafimer Hospital in March 1924, with a diagnosis of leprosy. Since 1921 the patient had been periodically troubled by bullæ on the

skin, and at the same time had suffered from epistaxis and headaches. Since the autumn of 1922 bullæ had appeared on the eyes. On admission the patient was *pale* and thin. Cicatrices were noted on the palpebral and ocular conjunctivæ on both sides, bullæ and scars on the face and other skin areas.

In the nose were blood-stained crusts and the appearance of atrophic rhinitis, with adhesions between septum and middle turbinate. A microscopical examination excluded rhinoscleroma. There were scars in the oropharynx. He had the respiration of obstruction. In the larynx there was some diaphragm formation between the ventricular bands, and also, but more marked, between the two cords. His respiration became worse, but he refused any intervention and went out on his own request.

During the last thirty-five years the author has not been able to find in the medical literature any record of such a double diaphragm formation in the larynx in pemphigus, and similar formation is rare in other affections. Single stenosis of the kind is more common.

The author discusses the differential diagnoses between leprosy, tuberculosis, syphilis, and rhinoscleroma. Three photographs of cutaneous lesions are shown and a drawing representing diaphragmatic formations in the larynx. H. V. FORSTER.

The Laryngo-Diaphragmatic Syndrome of Paralysis of the Recurrent and the Phrenic Nerves. FEDERICO BRUNETTI. (*Archivii Italiani di Laringologia*, Anno xlv., Fasc. 3rd May 1926.)

A case is described where, following an attack of pleurisy, a patient noticed that his voice had become raucous and bitonal and that his attempt to cough or take deep breaths caused him considerable discomfort. Examination showed that the left cord was fixed in the cadaveric position and that there was very little if any movement of the lower ribs on that side. X-ray examination showed that the left cupola of the diaphragm was immobile. The author discusses the anatomical arrangement of the phrenic, the vagus, and the recurrent nerves and points out that a thoracic lesion must be high up on the left side to implicate only the recurrent and the phrenic. If the vagus trunk was also involved there would be associated symptoms of tachycardia, instability of pulse, extra-systole, and so on.

The paralysis of the diaphragm is a serious condition interfering with the mechanism of breathing, coughing, expectoration, and defecation. The author suggests that a lesion of the cortical nervous system might cause paralysis of the left vocal cord and diaphragm, but in the case he has described he is sure that the pleuritic changes were the responsible factors. F. C. ORMEROD.

Abstracts

A Rare Injury of the Larynx. E. WICHERT, Tübingen. (*Archiv. für Ohren-, Nasen-, und Kehlkopfheilkunde.* Band 115, Heft. 3, August 1926.)

Following compression of the larynx by the wheel of a cart the left arytenoid cartilage was stripped of its mucous membrane and extruded into the larynx, from which it was subsequently coughed up. The patient survived. The appearances are illustrated by three diagrams.

WM. OLIVER LODGE.

Injury to Larynx from the Use of X-ray. Privatdocent Dr v. D. HUTTEN. With two illustrations. (*Archiv fur Ohren-, Nasen-, und Kehlkopf-heilkunde*, Band 115, Heft 4, September 1926.)

Hutten gives full particulars of two cases of destructive perichondritis of the larynx which ensued after X-ray treatment of benign affections of the neck. In one case, which terminated, after a lingering and painful course, in abscess formation and suffocation, the symptoms did not appear until five years after the last exposure to X-rays.

In cervical affections Hutten urges that irradiation should be reserved for cases inoperable by other means, and that it be applied to this region only under the closest personal supervision of an expert, with the co-operation of a laryngologist when possible.

WM. OLIVER LODGE.

The Diagnosis of Pyriform Sinus Carcinoma. JOSEF BUMBA (Prague). (*Zeitschrift für Hals-, Nasen- und Ohren- Heilke.* Band xiv., Heft 1 and 2, p. 49.)

In the early stages two symptoms present themselves, hoarseness and difficulty in swallowing (Fehlschlucken), the patient having to swallow two or three times before he can get the bolus of food to go down. These may be present before glandular enlargements, pain or cachexia occur, and should call for the systematic examination of the laryngeal and hypopharyngeal parts. JAMES DUNDAS-GRANT.

BRONCHOSCOPY.

The Diagnosis of Bronchial Carcinoma. Dr SILBIGER, Prag. (*Zeitschrift für Laryngologie, Rhinologie, etc.*, July 1926, pp. 356-61.)

This admittedly rare condition is diagnosed even less frequently than it occurs, and any case where a complete clinical picture can be presented deserves publication.

The first step in the diagnosis is the lipiodol method of bronchography. The lipiodol can be injected directly through the glottis after

applying cocain; this method sometimes fails because the patient coughs up the solution. A second method is injection by piercing the cricothyroid membrane; the author thinks this is not justifiable for a purely diagnostic procedure. He himself prefers direct laryngoscopy and the introduction of a long rubber catheter through the glottis. If the trachea and the carina are thoroughly anæsthetised, the lipiodol can be very slowly injected while the patient is screened. In the author's case a very definite stricture could be seen in the left bronchus just below the bifurcation. A stricture of a bronchus does not in itself justify the above diagnosis. A gummatous lesion or a lung abscess might give a similar picture and the Wassermann reaction cannot always be relied on to exclude tertiary syphilis.

The second step in the diagnosis is *bronchoscopy*, which in this case clearly showed the upper edge of a tumour; a small portion could be removed and its carcinomatous nature could be shown under the microscope. Two months later the diagnosis was confirmed post-mortem.

Dr Silbiger believes that physicians generally overestimate the severity of these diagnostic methods and are unwilling to allow thorough investigation of these cases. No progress can ever be made in the treatment of lung carcinoma, *e.g.* by deep X-ray therapy, unless accurate diagnosis precedes any attempts at treatment. Both the X-ray photograph and the bronchoscopic picture are included in the article, also numerous references. J. KEEN.

Chronic Nonspecific Infections of the Lungs—Their Bronchoscopic and Œsophageal Phases. CHEVALIER JACKSON, M.D., Sc.D., Philadelphia. (*Journ. Amer. Med. Assoc.*, Vol. lxxxvii., No. 10, 4th September 1926, p. 729.)

In an illustrated article the author advises team-work between the internist, the roentgenologist, and the bronchoscopist in establishing diagnosis and suggesting treatment. Chronic lung suppuration is frequently caused by foreign body, and two cases are cited, one of a staple in the left bronchus, and the other of a coin which ulcerated from the œsophagus into the trachea. Ten acute cases are cited of the inspiration of foreign body into the lung after tonsil operation. The foreign bodies included a small lamp, a piece of tonsil-grasping forceps, a dental brace, teeth, snare wire, gauze tonsil sponge, and a piece of applicator. All cases recovered after bronchoscopic removal. "No treatment other than bronchoscopic removal is worthy of a moment's consideration." The author cautions surgeons to prevent inspiration of clots and secretions. Lung complications frequently follow œsophageal stenosis. Bronchoscopy is useful in the diagnosis between chronic bronchitis, abscess, bronchiectasis, spirochætosis, neoplasms, and bronchial stenosis; in obtaining sputum

or aspiration of pseudo-membrane in young children; pneumography after insufflation of bismuth subcarbonate or lipiodol. Diagnosis of pulmonary abscess and asthma in young children should not be made without excluding the possibility of foreign body. Great gentleness must be observed in handling babies. Bronchoscopy is contra-indicated in moribund patients, in cases of lung abscess likely to perforate into the pleura, and in diffuse pneumonitis. A bibliography is added. ANGUS A. CAMPBELL.

MISCELLANEOUS.

Stovain in Oto-Rhino-Laryngology. FRANCIS MUECKE, C.B.E., F.R.C.S. (*Brit. Med. Journ.*, 25th September 1926.)

After extensive use of stovain for a year the author came to the conclusion that "it deserves as big a place in the world of local anæsthetics as cocain and novocain." It was used for cauterisations, turbinectomies, submucous resections and tonsil dissections with very good results. There was less vasoconstriction than cocain produces, and in some operations, the stimulant effect of cocain was missed. The removal of bone in the septum operation was more painful than when cocain is used, and in tonsillectomy there was more bleeding than with novocain. As a laryngeal spray he found stovain excellent. For purely mucous membrane work it is probably better than cocain.

T. RITCHIE RODGER.

TWO NEW INSTRUMENTS.

By H. ROSS SOUPER, Aberdeen.

1. *Septum Needle.*—In suturing the septal flaps after a submucous resection or any similar operation where an intranasal suture is required, I have found that the use of a hollow needle, as suggested by Mr Frank Wilson, is the simplest method. Finding, however, that the use of a *straight* hypodermic or serum syringe needle is often rather difficult, and that other available types of curved needle are unsatisfactory, I have had made for me the curved hollow needle here illustrated.

In presence of the illustration no long description is necessary. I need only say that the needle is of stainless steel and of a calibre sufficient to take horsehair, ophthalmic silkworm gut, or No. 000 catgut. The proximal end of the needle is smoothly funnel-shaped so that the passage of the suture is in no way impeded; and the needle itself, while having a certain degree of "spring," is firmly held in its handle, which is 3 inches in length. The radius and arc of the curve were adopted as the most suitable only after a considerable number of trials.