under general anæsthesia, the body could be gripped with Brünings' hook forceps, but could not be withdrawn. At a second sitting, after tracheotomy, the attempt again failed, the location of the body being more difficult on account of the great local reaction, and a further attempt was postponed until a suitable instrument had been constructed.

In order to expand the bronchus a conical tube had to be employed, which was provided with longitudinal slits to assist respiration: forceps with tempered steel points were employed. At the third attempt, in spite of the great swelling, the body was seized and removed.

A Case of Primary Actinomycosis of the Ear.—Döderlein demonstrated microscopic sections of the ear made from a child, about five years of age, who was admitted to hospital with acute otitis media and meningitis. At the operation the middle ear was found to contain granulation tissue. Autopsy revealed a simple, purulent meningitis, the origin of which could not be exactly determined.

Microscopic examination of the petrous bone, however, made the diagnosis clear. The whole middle ear was destroyed and replaced by granulations. The semicircular canals were almost completely destroyed and a purulent otitis interna was found. In the pus, especially in that lying in the cochlear region, there were numerous fungoid areas which were diagnosed as actinomycosis. The primary infection had probably taken place through the Eustachian tube.

A. Logan Turner.

ABSTRACTS

THE EAR

Paralysis of the Oculo-Motor Nerve and Middle-Ear Suppuration. Drs Gaillard and Pitre. (*L'Oto- Rhino- Laryngologie Internationale*, September 1924.)

This combination was observed in a child of nine years with a chronic middle-ear suppuration but with no evidence of congenital syphilis. The paralysis of the third nerve occurred during exacerbation of the suppuration; the aural discharge was diminished and frontal and temporal headache was present. The paralysis cleared up with improvement in the condition of the ear.

The connection between the otitis media and the paralysis in this case is undoubted, syphilis and latent sinusitis being excluded. The

third nerve is not sufficiently close in its relation to the petrous bone to permit of an explanation of the paralysis similar to that in cases of sixth nerve paralysis, as given by Gradenigo. The most probable cause is meningitis, localised to the region of the trunk of the nerve and of low virulence but causing some degree of increased intracranial tension. A. J. WRIGHT.

On the Technique of Chiselling Bone. LIESEL HIRSCH. (*Archiv für Ohren-, Nasen-, und Kehlkopfheilkunde*, Bd. 113, Heft. 2 and 3, June 1925.)

Hirsch has collected from standard authors a number of opinions as to the design, construction, and proper use of those almost universally employed, effective, and in proper hands safe instruments, the mastoid hammer and chisel. The extended use of local anæsthesia of late years has brought the subject into fresh prominence. Hirsch describes an investigation into the physics of the subject, illustrating his apparatus, which resembles a miniature pile-driver; he tabulates the results. The superiority of the lead-faced hammer is apparent, but Hirsch reserves his conclusions for a future publication. The author, in conducting this research, has availed himself of the resources of the Physical Institute under the directorship of Professor Dr Regener of Stuttgart. WM. OLIVER LODGE.

Collective Investigation on Otosclerosis. Drs GUSTAV ALEXANDER, H. NEUMANN, and CONRAD STEIN. Vienna.

The authors urge their colleagues to forward notes on their cases of otosclerosis, so as to enable them to compile a general survey of the disease, requesting that the reports should take the form of answers to the following *pro forma* inquiry:—

(A) *Family History.*

1. Name, sex, occupation, and social condition of the patient.

2. Age, condition of health (with especial reference to any disease of the ears, eyes, nerves, or psychical ailments), cause of death, or blood relationship in the parents.

3. Number, sex, age, general condition of the living, and number, sex, age, and cause of death in the dead brothers or sisters.

4. Any disease of the ears, eyes, nerves, or psychical condition in the above connection.

(B) *Personal History.*

5. Past ailments.

6. Commencement of symptoms, cause and course of the ear disease and variation of the conditions of the same.

7. Cause and influence on the ear disease of:—
   (*a*) Puberty. (*c*) Pregnancy.
   (*b*) Menstruation. (*d*) Puerperium.
   (*e*) Climacteric.
8. Sexual function.
9. Number and health of the children.

(C) *Examination.*

10. Condition of ears.
11. Condition of nose, mouth, pharynx, and throat.
12. Condition of eyes.
13. General external condition.
14. General internal condition:—
   (*a*) Heart and circulatory system.
   (*b*) Urinary and sexual apparatus.
   (*c*) Gastro-intestinal tract.
   (*d*) Endocrine glands.
15. Condition of nervous system.

(D) *Treatment adopted, and its Result.*

ALEX. R. TWEEDIE.

An Elaboration of Helmholtz's Resonance Theory of Hearing. Professor P. LASAREFF, Director of the Institute of Physics, Moscow. (*Revue de Laryngologie, etc.*, 15th August 1925.)

Professor Lasareff holds that the resonance theory, as propounded by Helmholtz, is firmly established so far as the soundness of its main contentions is concerned. It is the only theory which explains satisfactorily the analysis of compound into simple tones. In the long drawn controversy between the resonance theory and the simple reproduction of wave form theory of König, the views of Helmholtz have justified themselves. In support of this statement the writer refers to his own experiments conducted with the original apparatus of König, which proved conclusively that, at ordinary intensities, alteration of phase of the various harmonic components of a compound tone does not affect the quality of the sensation aroused. He adds that when the components have great intensity this statement does not entirely hold good.

A puzzling feature of tone perception, which is not accounted for by the resonance theory, is the startling difference between the amount of sound wave energy required for minimum audibility at different pitch levels. According to Wien this ranges from 3.10^{-4} ergs at 50 d.v. per sec. to 5.10^{-12} ergs per sec. in the region of the scale from 1000 to 4000 per sec. (The difference found by Wien is about 100 times greater than that deduced from the careful measurements of the

Western Electric Research Workers.) To meet this difficulty Lasareff propounds a theory of chemical resonance, according to which we are to conceive of the receptor organs, *i.e.*, the hair cells of Corti's organ, in the region of maximum sensibility, as being excited through the intermediary of a chemical substance or substances whose selective absorption is at frequencies equivalent to those of the waves of sound, and which are therefore decomposed by impulses within this range of frequency. These hypothetical chemical substances act as sensitisers, and their decomposition sets free a discharge of nerve energy within the hair cells which travels as a nerve impulse to the centres for pitch perception in the brain. The mechanical resonance of the fibres of the basilar membrane is thus supplemented by a chemical resonance in the sense elements. He even goes so far as to suggest that the sensitising chemical substances may be elaborated by the cells of Deiters, which are usually regarded merely as supporting structures. The physico-chemical hypothesis of Lasareff is avowedly based on analogy between tone perception and colour vision, but the considerable assumption is made that the characteristic molecular frequencies of chemical substances can range as low as 500 to 4000 vibrations per second, and that selective absorption in the chemical sense can take place at those frequencies.

The only experimental evidence adduced in support of the chemical sensitiser theory is of rather indirect application. It is based on the observation of the time required for the individual tone receptors of the cochlea to recover their full sensitivity after prolonged stimulation. As this is comparable to (though distinctly less than) the recovery period of the sense elements in the eye, it is suggested that both cases are examples of the slow process of elaboration of a sufficient quantity of chemical sensitiser, after the original reserve of these substances has been exhausted. GEORGE WILKINSON.

The Horizontal Vestibular Line and its Projection on the Profile of the Head. Dr GIRARD. (*L'Oto- Rhino- Laryngologie Internationale*, May 1924.)

The plane of the lateral semicircular canal is the most useful in the orientation of the vestibular apparatus and is obtained by joining the centres of the ampullary and non-ampullary orifices of the canal. To trace this, the horizontal vestibular line, on the profile of the head, join two points, one at the intersection of the inferior margin of the ante-helix with the margin of the anterior portion of the helix, and the other at the middle of the supraorbital crest, as seen in profile. As a result of extensive observations, these marks show only a few millimetres variation from the actual. The zygomatic line forms an angle of 20 degrees with the horizontal vestibular line.

If the head be placed in such a position that the vestibular line coincides with the plane of the horizon, the head is found to be slightly flexed, so that the line of vision strikes the ground at about 2 metres in front, *i.e.*, the normal attitude of walking. It is suggested that this is the natural position rather than one in which the line of vision is directed horizontally. This view is supported by observations on the skulls of animals in which, if the skull is placed with the vestibular line horizontally, it is found to be in the natural position. Apart from its scientific interest, the tracing of the horizontal vestibular plane in the living is useful clinically in the accurate carrying out of vestibular tests and in labyrinthine surgery. A. J. WRIGHT.

The Influence of Turning on the Pointing Test of Bárány. P. ROORDA, Utrecht. (*Archiv. für Ohren-, Nasen-, und Kehlkopfheilkunde*, Band cxiii., Heft. 2-3, June 1925.)

After turning in the rotating chair, an attempt with closed eyes to duplicate a vertical line results in a V-shaped tracing, owing to past-pointing. Roorda describes a method based on this phenomenon by which he has recorded past-pointing in accordance with Bárány's rule, *i.e.*, past-pointing to the right after turning to the right, and to the left after turning to the left, in 36 out of 52 cases. Benjamin using a target similar to that employed by Malan obtained the same result in only 16 out of 55 cases, and classified the exceptions into three groups. Roorda illustrates his paper by charts which furnish material for various observations, and appends brief references to the literature.

WM. OLIVER LODGE.

Beiträge sur Pharmakologie der Körperstellung und der Labyrinth-reflexe. Mitteilung: Asphyxie. Drs N. KLEITMAN and R. MAGNUS. (*Pflüger's Archiv. f. d. ges. Physiologie*, Vol. ccv., Nos. 1 and 2, Julius Springer, Berlin.)

These communications form a series of reports, as their title suggests, on the effect of various drugs on the reflexes of body-position and the labyrinth.

The present research was undertaken with a view to eliminate the effects of convulsions due to suffocation, from the spastic conditions associated with the various poisoning effects of the different drugs tested in this connection. For this purpose rabbits and cats were used; in order to avoid pain in these experiments, and so as not to introduce possible concomitant effects of a general anæsthetic, the investigations were undertaken after "Thalamus decerebration," according to the method introduced by Professor Magnus.

The animals were anæsthetised with ether for the preliminary operation, and then, after the decerebration, the ether was discontinued, and artificial respiration employed. With the latter apparatus in use, it could be demonstrated that, although the normal body-position

and labyrinth reflexes were still present, almost all spontaneous movements were absent. The results are summarised as follows:—

During suffocation, the motor apparatus of the spinal cord and the caudal portion of the brain stem are excited. The convulsions vary in conformity with the paralysis of the body-position reflexes; the normal and springing movements are first affected, and then, after stretching and struggling, the convulsions end in a condition of opisthotonos with the animal lying on one side. One of the earliest symptoms is the disappearance of the progressive reactions and position reflexes; this is followed by the loss of the vertical and horizontal nystagmus in response to rotation, while the neck reflexes, the compensatory head and eye movements, the corneal and patellar reflexes are among the last to disappear. These phenomena, therefore, as the result of suffocation alone, must be recognised when determining the effects of any poisonous drugs; during experiments they may be incidentally produced before one can accurately determine the effects of the drugs themselves.

ALEX. R. TWEEDIE.

The Influence of Asphyxia on Vestibular Nystagmus and an Attempt to localise the Seat of this Influence in the Reflex Arc. Drs N. KLEITMAN and A. DE KLEIN. (Extract from *The American Journal of Physiology*, Vol. lxix., No. 1, June 1924.)

Based on preliminary preparations, similar to those described in the foregoing abstract, the effect of suffocation on the caloric nystagmus in rabbits was investigated by the authors, who report their results in the following conclusions:—

(1) Asphyxia produced a deviation of both eyes in the same direction, either both to the right or both to the left. If the contractions of the isolated internal and external recti muscles are recorded, it is seen that one muscle contracts strongly whilst its antagonist relaxes.

(2) If asphyxia is produced during vestibular nystagmus, of whatever origin, the nystagmus is first stimulated until a deviation without the quick component is obtained, and then there is a reversal of the deviation.

(3) By a method which is applicable, in a general way, to the analysis of the action of any agent that affects vestibular nystagmus, it was shown that the motor eye phenomena resulting from asphyxia are probably of medullary origin.

ALEX. R. TWEEDIE.

The Effects of the Semicircular Canal Reflexes on the Extremities in Rabbits. KARL GRAHE. (*Pflüger's Archiv. f. d. ges. Physiologie*, Vol. cciv., No. 4, Julius Springer, Berlin.)

Prefacing his article with the remark that our knowledge of the semicircular canals in animals is still extremely meagre, the author, having

given a brief historical note of investigation in this direction, describes the results of experiments which he has undertaken for our further knowledge on these points, concluding with the following summary:—

The caloric stimulation of one labyrinth in the rabbit affects the tonus of the two fore limbs in different ways. If an ampullopetal current be caused in one horizontal semicircular canal, the fore limb on the same side becomes extended and abducted, whilst the limb on the opposite side is flexed and adducted. An ampullofugal current causes reversed results. The reactions at once disappear after labyrinth extirpation. They remain unchanged after decerebration, after destruction of the mucous membrane of the middle ear, and after unilateral extirpation of the Gasserian ganglion.

Rotation produces reaction movements on the limbs which are indefinite and at present not clear. ALEX. R. TWEEDIE.

Further Communications on Scoliosis following Unilateral Labyrinth Extirpation. Professor MAGNUS. (*Ergebnisse der Physiologie*, Vol. xxiv., Bergmann, München.)

If a young rabbit, subjected to unilateral extirpation of the labyrinth is allowed to live, a typical scoliosis results, affecting skull, vertical column, thorax, and pelvis. This condition has been recognised and investigated previously by Dr de Kleyn, and the author here describes the effect of such lesion, and gives X-ray pictures of an animal thus treated. These, he emphasises, indicate the very important effect on the body-skeleton, produced by a very localised operative interference, without any lesion of the body musculature. ALEX. R. TWEEDIE.

Theory of Caloric Nystagmus. Dr G. V. TH. BORRIES. (*Archiv. für Ohren-, Nasen-, und Kehlkopfheilkunde*, Band cxiii., Heft 2-3, June 1925.)

Borries recapitulates the data upon which his theory is based, referring to the experiments which have been made on pigeons after ablation of the semicircular canals. He can neither reconcile the facts with mere thermal alteration in the specific weight of the endolymph nor accept other more recent hypotheses which he reviews critically. Borries considers that the semicircular canals are not concerned in the production of caloric nystagmus, which he regards as a general labyrinthine reaction, liberated from the cristæ and especially from the maculæ, the influence of the position of the head arising from the otolith apparatus. He postulates a specific sensibility for thermal stimuli, analogous to that for galvanic or pressure stimuli, affecting the homo- or contra-lateral nystagmus tone of the labyrinth, but he does not entirely exclude from his calculations vasomotor effects and alterations in endolabyrinthine pressure. WM. OLIVER LODGE.

Abstracts

The Technique of Operations for Abscess of the Brain. Dr Elsberg. (*Archives of Oto-laryngology*, January 1925.)

The author divides brain abscess into two groups, and recommends the drainage of otitic brain abscesses through a separate opening in an aseptic field.

Group A.—Those with a thick lining membrane, forming the largest percentage of recoveries. Technique is as follows: (1) Local anæsthesia, if possible; (2) small opening in bone 3 to 4 cm.; (3) liberal opening in the dura mater; (4) aspiration with blunt needle so that limiting membrane can be felt; (5) withdrawal of small amount of pus, so as to keep the cavity distended for further manipulations; (6) packing off dura mater on all sides; (7) drainage with rigid rubber tube fixed by suture to scalp, removal of tube when drainage ceases and gradual withdrawal, so that the wall collapses about the tube.

Group B.—Those without a limiting membrane; these give the highest mortality. The operative technique is as follows; (1) bony opening large, 5 to 6 cm.; (2) dura mater widely opened; (3) incision 3 to 5 cm. in length in cortex, and deepened until abscess cavity has been exposed; (4) drainage by a Mickulicz tampon, thus keeping abscess cavity wide open. T. W. McCart.

Contribution to the Treatment of Otogenic Pyogenic Meningitis. Th. Nühsmann. (*Archiv. für Ohren-, Nasen-, und Kehlkopfheilkunde*, Band cxiii., Heft 1, 1925.)

This lengthy article contains clinical and pathological notes in tabular form of 40 consecutive cases of meningitis treated during the past four years at the Halle Clinic. Series 1 to 17, containing 8 streptococcal cases, treated by intralumbar injections of vuzin, yielded a survival rate of 11.8 per cent. Series 18 to 40, which included 3 streptococcal cases, and in which the treatment was by lumbar puncture, yielded a survival rate of 52.2 per cent.

Repeated examinations of the cerebro-spinal fluid were made in every case. A progressive increase in the total cell count, with a relative increase of polymorphonuclear cells, proved of grave prognostic import, even when the meningitic symptoms abated; on the other hand, a steady diminution in the cell count with relative lymphocytosis proved to be of the most favourable significance, even when the clinical picture seemed at its worst. Streptococcal infection was invariably fatal.

In the later cases large quantities of cerebro-spinal fluid were withdrawn and the theca was irrigated at intervals with normal saline. In Case XL., though almost pure pus was withdrawn, a dramatic improvement resulted and the patient ultimately recovered.

Nühsmann confines his comments mainly to the prognostic and therapeutic value of lumbar puncture and briefly describes his technique. A bibliography is appended. WM. OLIVER LODGE.

THE NOSE AND ACCESSORY SINUSES

On a Modification of Submucous Resection of the Septum. E. WODAK, Prague. (*Archiv. für Ohren-, Nasen-, und Kehlkopfheilkunde*, Band cxiii., Heft 2-3, June 1925.)

Wodak refrains from dividing the superior attachment of the deviated portion of septal cartilage with the swivel knife, being content, after cutting away spurs or projections and correcting lateral displacement, to leave the greater part of the cartilage *in situ*. By this conservative mode of operating, discomfort on deep respiration from lack of proper resilience of the septum and tendency towards sinking of the bridge of the nose are avoided. The author illustrates by a diagram his account of the modification, which he reserves for suitable cases. WM. OLIVER LODGE.

Adrenalin in the Treatment of Ozaena. G. LIÉBAULT and P. MOERS. (*Revue de laryngologie, d'otologie, etc.*, 15th June 1925.)

On the supposition that ozaena is connected with the disturbance of the sympathetic and endocrine systems, the authors have employed a solution of adrenalin, one in a thousand, given by the mouth in daily doses of 40 drops increased to 60. Seven cases have been treated in this way, their ages ranging from 15 to 31 years.

On commencing the daily dose of adrenalin, all other treatment such as massage, etc., with the exception of lavage, was discontinued. In all cases except one, after one month the patients volunteered statements that the pain had become less, and that the discharge was less offensive and more liquid; after another month and increased dosage, actual diminution of discharge was reported.

It cannot be claimed that there is any objective improvement or regeneration in the mucous membrane of the turbinals, etc. In no case were there any ill effects caused by the adrenalin.

In conclusion it is claimed that the administration of adrenalin by the mouth constitutes a very useful adjunct to the treatment by lavage, massage, and other means. J. B. CAVENAGH.

Pathological Anatomy of Carcinomata and Papillomata arising in Nasal and Maxillary Cavities. ARNO SAXEN. (*Acta Oto-laryngologica*, Vol. vii., fasc. 1.)

As yet, no agreement has been arrived at concerning the histological classification of endonasal carcinomata and papillomata, and

those growths arising in the accessory nasal sinuses, because, in the first place, in general pathology different points of view have been taken concerning the basis of classification of epithelial tumours; and secondly, because the special tumours in this region have not been subjected to exhaustive anatomical study because of the difficulty of obtaining a sufficient uniform supply of hospital material.

The following morphological classification is suggested:—

1. Carcinoma-Kerakinosum.
2. Carcinoma-Basocellulare.
3. Carcinoma-Cylindrocellulare.
4. Carcinoma-Medullare.
5. Papilloma.

A histological or etiological classification is not applicable, since only in exceptional cases can we form an idea of the conditions in which the tumour arose. H. V. FORSTER.

Reflections on the Subject of the Alleged Surgical Cure of Retro-Bulbar Neuritis by the Opening of the Posterior Sinuses without Pus. Dr BOURGET. (*L'Oto- Rhino- Laryngologie Internationale*, April 1924.)

On the one hand, many cases are published of apparent cure of retro-bulbar neuritis by the opening of apparently healthy posterior sinuses, while, on the other hand, the occurrence of retro-bulbar neuritis, with a manifest suppuration in these sinuses, is seldom seen. In addition, the spontaneous recovery of retro-bulbar neuritis is frequently seen. These three considerations would seem to throw doubt on the view that the operation is responsible for the improvement. In regard to acute retro-bulbar neuritis, some cases are here presented in which spontaneous cure occurs, and others in which the disease follows a similar course but in which the posterior nasal sinuses have been opened and found apparently healthy. In addition, in some other cases, the vision continues to depreciate for a period after operation, suggesting that the operation has not influenced the course of the complaint. A. J. WRIGHT.

THE PHARYNX AND NASO-PHARYNX

Two Cases of Co-existing Epithelioma of Uvula and Epiglottis. E. ESCAT. (*L'Oto- Rhino- Laryngologie Internationale*, November 1924.)

In the first case, an epithelioma confirmed histologically was removed from the soft palate of a man of 48. Two years later, an extensive epithelioma was found involving the epiglottis and

ventricular bands. No recurrence was present in the palate. In the second case, a male aged 70, the two tumours of uvula and epiglottis were present when the patient was first seen. Microscopical examination showed the two to be epitheliomata identical in type. It is suggested that possibly the laryngeal growth was due to a direct implantation from the palatal. In the normal position of parts during nasal respiration, the soft palate rests on the back of the tongue and the uvula lies in the region of the epiglottis. A. J. WRIGHT.

Respiratory Re-Education in Children after the Removal of Adenoids. Dr CANUYT. (*L'Oto- Rhino- Laryngologie Internationale*, June 1924.)

Although, in some cases, mouth-breathing after operation is due to inefficient removal or to recurrence of the growths, in the great majority of cases it is due to habit. The use of breathing exercises after operation, although very important, is largely neglected. To obviate this difficulty a regular course of education and respiratory gymnastics has been established:—

1. *Respiratory Education.*—Teaching the child to breathe through the nose requires much patience and perseverance. Commencement is made by instructing the child to inspire through the nose with the mouth shut, and then to expire while blowing out through the mouth. These exercises must be carried out slowly and gently, and all fatigue should be avoided.

2. *Respiratory Gymnastics.* — This form of education must be followed by exercises to combat the respiratory insufficiency which is present in these children. A. J. WRIGHT.

Colloidal Iodine as a Disinfectant for the Naso-Pharynx. Dr PUGNAT. (*L'Oto- Rhino- Laryngologie Internationale*, June 1924.)

1. In cases of naso-pharyngitis with or without laryngo-tracheitis the inflammation subsides and the secretions dry up after five or six paintings or sprayings.

2. Some cases of purulent rhinitis which are resistant to nasal treatment are cured in a few days by applications of this drug to the naso-pharynx.

3. The infective complications of adenoids, such as otitis media, rhinitis, etc., rapidly clear up.

4. In the convalescence of influenza, the general condition improves much more rapidly if the naso-pharynx is disinfected, and this drug is probably the most useful in the treatment of diphtheria and meningococcus carriers. A. J. WRIGHT.

Abstracts

Anterior Pharyngo-Œsophageal Pouch as a Cause of Dysphagia. ARTHUR F. HURST, M.D., and P. J. BRIGGS, M.A. (*Guy's Hospital Reports*, July 1925.)

The authors think that the cause of dysphagia eventually found in the following case, may explain the reason of difficulty in swallowing in other cases in which no abnormality is detected.

A female, aged 57, was seen in April 1925. In September 1923, she first experienced an aching sensation behind the upper end of the sternum. A month later, she suddenly had difficulty in swallowing water, and this has recurred two or three times weekly. Sometimes food temporarily sticks and then passes on; at other times it regurgitates. Liquids cause as much trouble as solids. Since the onset of the affection, she has lost 10 lbs. in weight.

Previous examinations by a laryngologist and radiologist had revealed no contributory cause. Central nerve disease and tumour were excluded. Observation, on the screen, of the act of swallowing showed that the opaque meal was arrested in a small pouch, in the middle line, immediately in front of the entrance to the œsophagus and behind the larynx. As the pouch filled, it enlarged backwards, apparently because the larynx prevented it from going forwards. After this observation had been made, the œsophagoscope was passed by Mr Gill-Carey. It entered the gullet without difficulty, but, on withdrawal, a transverse slit was seen immediately behind the arytenoids and in front of the mouth of the œsophagus. A fine bougie passed through the slit entered a pouch $\frac{3}{4}$ inch in depth.

The anatomical explanation of an anterior pouch is given as follows:—Two longitudinal bands, which pass from the front of the œsophagus to end in a tendinous prolongation which is attached to the back of the cricoid cartilage, emerge above the uppermost circular fibres of the œsophagus and are slightly separated from each other, thus leaving a weak spot. Through this a pouch of mucous membrane may be forced.

The paper is illustrated.

A. LOGAN TURNER.

THE LARYNX

Observations on Cysts of the Ventricle of Morgagni. Dr OTTORINI BARTOLI. (*Archivii Italiani di Laringologia*, fasc. 2/3, 15th March 1925.)

A cyst forming in the ventricle of Morgagni has a rarity comparable with that of the prolapse of the saccule. The author describes the case of a cyst as large as a hen's egg which had given rise to symptoms for seven years. The first and most persistent sign was hoarseness and lowering of tone of the voice, but later dyspnœa was evident. The

cyst was removed piecemeal after tracheotomy with complete relief of symptoms. Several months afterwards a small nodule showed where the cyst had sprung from in the cleft between the vocal cord and the ventricular band. Microscopical examination showed that the cyst was a retention cyst of a mucous gland with signs of inflammation round the duct and with a covering of the lining mucosa of the ventricle.

The author points out that the differentiation of tumours appearing from the ventricle is often a matter of some difficulty. Tuberculous tumours are of a more fleshy and solid nature and have a preference for the ventricular band. The syphilitic type is also more hyperæmic and infiltrated. The question of prolapse and eversion of the mucosa must be borne in mind though they are rare conditions. When they become œdematous they may be easily mistaken for a cyst or other tumour. The characters of other tumours which have been reported are discussed, and include myxofibroma, carcinoma, angio-myxoma, fibroma and fibro-lipoma. The angiomata and the myxomata are the most difficult to diagnose, but cysts are more difficult than solid tumours. Moure has collected 8 cases of cysts in the ventricle, 50 of the epiglottis, and 45 of the vocal cord; Ulrich's figures of the same are 8, 60, and 50 respectively. The cysts in these regions are due to inflammatory closure of the ducts and consequent retention of secretion. The symptoms can be temporarily relieved by puncturing and aspirating the cysts, but for permanent cure a large portion of the wall must be removed. F. C. ORMEROD.

A Case of Cyst-Adenoma of the Trachea. Prof. K. STAUNIG. (*Wiener Klinische Wochenschrift*, 30th April 1925.)

The author reports the case of a woman, aged 58, who was sent to the X-ray department of the University of Innsbruck, with a history of dyspnœa for many years. The condition had got much worse during the last year or two and was now very marked. X-ray examination showed that the lumen of the trachea appeared normal when viewed antero-posteriorly, but, when a lateral view was inspected, it was seen that a rounded tumour at the level of the 6th and 7th tracheal rings was obstructing the lumen. There was also marked spondylo-arthritis of the 4th, 5th, and 6th cervical vertebræ.

The tumour had a smooth surface, and measured vertically 1.4 cm., while the diameter of the base was 4 cm. The tumour narrowed the lumen of the trachea at the point of its greatest width to a chink of 3 mm. The patient was operated upon by Dr O. Maier. A hard tumour was removed from a broad base and there was a considerable amount of hæmorrhage. After the operation the symptoms of dyspnœa entirely disappeared and the patient made an uneventful recovery.

A portion of the thyroid gland removed was quite normal, and a section of the tumour showed that it contained no follicles or colloid

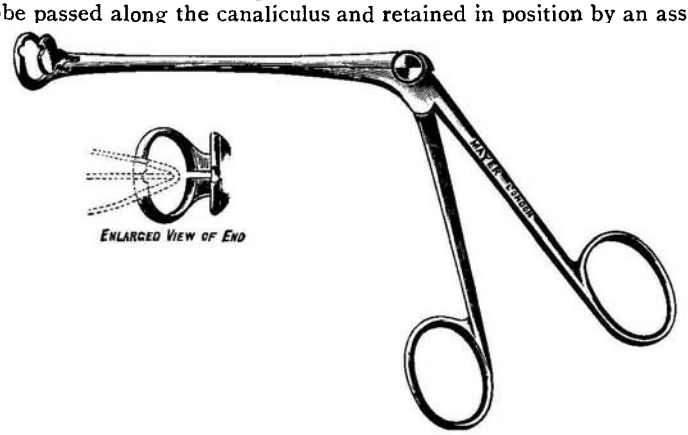
material, but there were cystic spaces with columns of cells lying between them; the tumour was definitely a cyst-adenoma of the tracheal wall. It was suggested that the tumour was of a type allied to the mixed tumours of the salivary glands, and that there was a danger of carcinomatous change. In support of this theory was the fact that the rings of the trachea were notably eroded.

This case shows the value of radiography of the upper air passages without opaque substances, and demonstrates that an intratracheal growth can be diagnosed from an extratracheal one by the fact that the margins of the former are much more sharply delimited and the growth is mushroom-shaped, instead of having the fusiform swelling of the extratracheal growth. The spondylo-arthritis in this case is explained by changes in the balance of electro-chemical and colloido-chemical reaction of the tissues which are brought into play by the presence of such a tumour. F. C. ORMEROD.

DACRYOCYSTOSTOMY FORCEPS.

Dr J. B. HORGAN.

The instrument, which is made by Messrs Meyer & Phelps to the design of Mr J. B. Horgan, of Cork, is intended to simplify the difficulties experienced in making a clean window resection of the inner wall of the lacrymal sac with toothed forceps and knife in the performance of West's operation. The sac wall is presented to the forceps by means of a lacrymal probe passed along the canaliculus and retained in position by an assistant.



A notch in the male and female blades of the forceps permits of the withdrawal of the probe after the blades have been closed over the tented sac. The inner wall of the sac will still be attached by two small bridges corresponding to the notch in the instrument, but these may readily be torn through after it has been grasped by West's or other suitable forceps. A separate instrument is necessary for each side, that illustrated being used for the left.