ABSTRACTS.

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Authors of Original Communications on Oto-laryngology in other Journals are invited to send a copy, or two reprints, to the JOURNAL OF LARYNGOLOGY. *If they are willing, at the same time, to submit their own abstract (in English, French, Italian or German) it will be welcomed.*

PHARYNX.

The Clinical Value of the Sign of Garel.—A. Pugnat. "Journal de Médecine," March 25, 1919.

Dr. Garel of Lyons in 1892 called attention to prolonged painful dysphagia in syphilis and showed its value as a diagnostic sign. "Every patient complaining of dysphagia at the level of the tonsils and the posterior part of the throat lasting at least three weeks should be regarded as syphilitic." The author's experience has confirmed the dictum of Garel. Several illustrative case-histories are quoted. The dysphagia is pharyngeal and felt at the level of the tonsils. It is not felt in the larynx, a fact which may distinguish it from tubercular laryngitis. It may last from three weeks to four months and is only of diagnostic significance when it has lasted over three weeks. This symptom is found in all three stages of syphilis. If a patient should complain of prolonged dysphagia in the upper part of the throat the possibility of syphilis should always arise in the surgeon's mind. According to the author, syphilis is a much commoner cause of dysphagia than tuberculosis or cancer of the pharynx. *J. K. Milne Dickie.*

Tonsillectomy with the La Force Hemostat Tonsillectomes.—La Force. "The Laryngoscope," May, 1919, p. 280.

In the paper La Force makes no reference to the work and instruments of William Hill and G. J. F. Elphick. The methods of using La Force's instrument appears to be very similar to that advised by the British laryngologists. *J. S. Fraser.*

Surgical Treatment of Cancer of the Tonsil.—John McCoy. "The Laryngoscope," July, 1919, p. 422.

McCoy reports five cases of cancer of the tonsil. The operative technique is as follows: A Wassermann is taken, also a section from the growth for microscopic examination. The patient is then referred to a dentist. Later an incision about $2\frac{1}{2}$ to 3 in. long is made at the anterior border of the sterno-mastoid muscle and the glands overlying the jugular are dissected out. The facial vein is ligated in two places and cut. The external carotid artery is then tied off. The dissection is continued until the posterior belly of the digastric comes into view. The muscle is pushed aside, as are also the stylo-hyoid and the stylo-glossus, when the superior pharyngeal constrictor comes into view. The field o operation is then changed to the throat. Through the mouth the tonsil and infiltrated areas are thoroughly dissected out. An incision is then made through the superior constrictor in the neck, and a strong light is thrown into the wound through the opening in the mouth and

also through the opening in the neck, enabling the surgeon to remove thoroughly any portion of infiltrated tissue that may be seen. This is especially looked for at the base of the tonsils, where it connects with the tongue. In the later operations McCoy resected two or three inches of the sterno-mastoid muscle and the tissues about it for the purpose of preventing recurrence in the neck. The wound in the neck is then partly closed, after packing with gauze, and allowed to heal by granulation. Radium was applied during the process of healing in all cases. At least two of the five cases appear to have done well. *J. S. Fraser.*

NOSE.

Some Experiences of Maxillary Sinusitis.—Fr. Pontoppidan (Randers). "Acta Oto-laryngologica," vol. i, fasc. 1, 1918.

An account of the symptoms, physical signs, and treatment of 175 cases met with in the last ten years. The ages of the patients ranged from ten to seventy-nine years, the largest percentage belonging to the third and fourth decade. In 25 per cent. both sides were affected. In only four cases was the disease certainly of dental origin. Headache was complained of in 40 per cent. of the cases, and in one of them it possessed all the characters of a migraine, which completely disappeared after operation. In some cases the pain spread to the arm and chest of the corresponding side. In 20 per cent. of the patients there was evidence of interference with the general health and nervous symptoms, such as aversion from work, rapid fatigue following mental exertion, disturbed sleep and bad dreams, with more or less pronounced mental depression.

In 152 cases the result of transillumination was noted, and was positive in 142 of these; in the remaining 10 there was no opacity although purulent secretion was present in the sinus. Exploratory puncture through the inferior meatal wall failed in 2 of the 145 cases owing to excessive thickness of the bony wall. In 3 cases aspiration failed on account of the viscidity of the secretion, while lavage was successful. In 19 per cent. of the cases the disease was complicated by trouble in other accessory sinuses.

For the treatment of this condition the author has now abandoned all methods with the exception of aspiration, puncture and lavage, and radical (Luc-Caldwell) operation. Sondermann's method of aspiration is of use only in the acute and early cases. Puncture and lavage, repeated from one to fifteen times, was successful in 25 per cent. of the writer's cases, but if no appreciable improvement follows four lavages he usually proceeds to the radical operation, which he now performs under local anæsthesia. The latter he considers a great advantage, mainly on account of the bloodless field. *Thomas Guthrie.*

Cerebral Abscesses of the Frontal Lobe Originating from the Frontal Sinus and other Intracranial Complications Resulting from Inflammatory Processes of the Nasal Accessory Sinuses.—F. Leegaard. "Annals of Otology," xxviii, p. 95.

A long paper, describing three cases of cerebral abscess dependent upon frontal sinusitis occurring in one clinic in two years. One other case occurred in the previous twenty-three years. The author discusses exhaustively the frequency, symptoms, diagnosis and treatment, and then

proceeds to discuss other intracranial complications of sinusitis in connection with the maxillary (six cases) and sphenoidal (one case) sinuses. An exhaustive bibliography is given. *Macleod Yearsley.*

Subluxation of Inferior Turbinal in the Treatment of Nasal Obstruction.—Amédée Pugnat. "Rev. de Laryngol., d'Otol., et de Rhinol.," May 31, 1919.

The results of the treatment of nasal obstruction when due to a hypertrophied inferior turbinal compare unfavourably with the results of submucous septal resection when the septum is the offender. Partial turbinectomy does not relieve the obstruction. Total turbinectomy involves a risk of rhinitis sicca or atrophica. Galvano-cautery gives no permanent cure. The reporter, struck with the German idea of narrowing a patulous nasal vestibule in atrophic cases by inward subluxation of the inferior turbinal, adopts the converse plan when he wishes to increase the air-way, and by a bloodless submucous fracture presses the bone towards the naso-antral wall. He is enthusiastic as to the results.

H. Lawson Whale.

Idiopathic Epilepsy due to Empyema of the Antrum of Highmore; Operation; Recovery.—J. Clarence Keeler. "The Laryngoscope," August, 1919, p. 484.

Male, aged thirty-four, diagnosed as "idiopathic epilepsy." His hearing was impaired; his gait was staggering; he had attacks of dizziness. After a convulsion there was a thick, light-coloured, offensive discharge from the nose. Examination revealed pus over the left inferior turbinate. Proof puncture positive. Irrigation was continued daily. Hearing and general health improved greatly. Irrigation was discontinued four days, when he again became dizzy; his hearing again became impaired and he was apprehensive of another convulsion. Caldwell-Luc operation was performed. Recovery was rapid. *J. S. Fraser.*

LARYNX.

Stammering and Voice Defects.—Mabel V. O. Oswald. "Lancet," vol. ii, 1919, p. 355.

The author, who acted as speech specialist to the 1st Southern General Hospital, Neurological Section, Birmingham, is introduced in a note by Dr. J. N. Robins. In this note he suggests that there are two schools of thought on the treatment of stammering: (1) Dealing with the psychic cause and leaving the symptoms (stammering, aphonia, etc.) alone; and (2) dealing with the symptoms and leaving the psychic cause alone. Both are probably wrong, and a middle course should be taken. The authoress introduces her subject by saying that treatment has hitherto been experimental, mostly directed to the correction of physical disabilities. Such experimental treatment is to be deprecated. She considers that it has now been established that stammering is dependent on a psychic cause, which requires to be dealt with adequately, the physical disabilities being secondarily engendered. In her experience, however, the removal of the psychic cause in cases of stammering does not necessarily mean that the symptom disappears automatically, probably because "an incorrect habit of breathing and speech production has been

acquired." Treatment is therefore best on a combined system, viz. respiratory and voice exercises, plus strong suggestion ("speech relief"), whilst the psychic cause is dealt with by "mental exploration." In the case of young children, where the stammer is imitative, breathing and voice exercises with strong suggestion are sufficient, "probing into their subconsciousness being unnecessary." Stress is laid on the importance of at once treating a stammer in young children. *Macleod Yearsley.*

Two Unusual Cases of Foreign Body lodged in the Upper Respiratory Tract.—Jno. F. Culp. "The Laryngoscope," May, 1919, p. 292.

Case 1.—Female, aged sixty-two, complained of a pricking sensation in the throat and difficulty in swallowing. These symptoms came on three or four days after eating some pineapple. On careful examination a black line, about one-eighth of an inch long, was seen at the bottom of the glosso-epiglottic fossa. When grasped by a pair of forceps the body proved to be a metallic substance. After some manipulation it was removed, and proved to be a sewing-needle with a large part of the head missing. On seeing the needle the patient remarked, "That is the needle that stuck in my left knee eleven years ago." In endeavouring to extract the needle she broke off the greater portion of the head, and the rest of the needle disappeared. About three weeks before Culp saw the case she had a distinct pain and soreness, with some swelling in the posterior border of the left sterno-mastoid muscle. Culp thinks these symptoms were due to the presence of this migratory needle, which finally lodged itself in the tissues at the base of the epiglottis.

Case 2.—Girl, aged three, was eating while playing in the kitchen, when she suddenly was seized with a fit of choking and was almost suffocated. A couple of hours later the child was breathing very well. Within twenty-four hours, however, the breathing again became laboured. Culp found the child very cyanotic, pulse uncountable, extremities cold, and breathing most laboured. A low tracheotomy was immediately performed, and after separation of the edges of the trachea a substance was seen moving rapidly to and fro, with a vast quantity of mucus. With considerable difficulty this substance was caught, and proved to be a grain of corn, swollen to about three times its normal size. The subsequent history was comparatively uneventful. *J. S. Fraser.*

Malignant Tumour of the Larynx: Operation by Direct Laryngoscopy.—J. W. Jervey. "The Laryngoscope," July, 1919, p. 428.

Jervey records the case of a male, aged fifty, who for eight or ten years had been troubled with an obstruction in his throat which interfered with free breathing. In the past few years he had had some soreness and difficulty in deglutition. Indirect laryngoscopy showed a deep red, slightly lobular tumour of dense formation, the size of the distal joint of the thumb, attached to the left posterior border and ventricular surface of the epiglottis. Jervey concluded that the growth was benign and advised removal under local anæsthesia with forceps and snare, using a Jackson direct laryngoscope, with the patient in the Johnston position. Recovery was prompt and there has been no recurrence, eight months having elapsed. Lynch, Chief of the Pathological Department of the Medical College of South Carolina, reported that the tumour was "apparently endotheliomatous and therefore malignant and likely to recur." *J. S. Fraser.*

Stereoscopic Photography of the Larynx.—J. Garel. "Rev. de Laryngol., d'Otol., et de Rhinol.," June 15, 1919.

The earliest attempts were those of Czermak in 1860, and even at this early date he used stereoscopic twin-lenses. The author published some details in 1899, and has since then greatly developed his technique. As regards illumination, he has after thorough trial discarded the Voltaire arc-lamp, and on the whole prefers an incandescent bulb to sunlight.

A series of faithful reproductions of the author's later efforts and a detailed account of technicalities in developing and exposing comprise the greater part of this monograph, which cannot be briefly abstracted with any justice to the author. *H. Lawson Whale.*

Bilateral Paralysis of the Recurrent Laryngeal Nerve.—R. Maupetit. "Rev. de Laryngol., d'Otol., et de Rhinol.," June 30, 1919.

In the interesting case here recorded, apart from cough and the laryngoscopic image, the only definite objective evidence was that of a shadow in the upper thoracic region, suggesting a mediastinal tumour.

Eventually, and before any diagnosis had crystallised out of a most confusing symptom-complex, tracheotomy was performed for urgent dyspnœa. At the depth of 2 cm. the passage of the tube was resisted. On slight extra pressure the resistance suddenly gave way, with the outflow of a tumblerful of fœtid chocolate-coloured pus. Despite temporary relief, the patient died.

No autopsy was obtainable nor was the pus examined. The author concludes that a mediastinal abscess, involving both inferior laryngeal nerves, had been pierced by the tracheotomy-cannula when the abscess was on the point of perforating the trachea. *H. Lawson Whale.*

EAR.

Studies of the Ear as a Motion-Sensing Organ.—Lieut. Col. E. R. Lewis. "Annals of Otology," xxviii, p. 10.

An exhaustive paper which requires reading *in extenso* for its full appreciation. So far as it can be abstracted, the following are the author's conclusions: The general condition of the aviator's ears, nose and throat must be good; the ground soldier can stand still, the aviator cannot; motion-sensing therefore assumes great additional importance to the aviator. Of the senses concerned in motion-sensing, the vestibular sense is the only one whose utility remains constant; hence the necessity of determining the aviator's possession of requisite vestibular sense.

Vestibular tests not only determine functional condition of this portion of the internal ear but give definite information concerning the integrity of parts of the bulb, pons, cerebrum, and particularly the cerebellum.

Observations made in an extensive series of blindfold experiments on normal persons, persons with nonfunctionating vestibular apparatus, persons lacking hearing only, and persons with impaired deep sensibilities, indicate that perception of motion in a linear direction (*a*) during acceleration and (*b*) during retardation, is sensed most accurately by those with functionating vestibular apparatus; (*c*) at a sustained rate of speed is sensed accurately by each group except those lacking

deep sensibility; (*d*) arrest of motion ensuing upon motion in a linear direction is most accurately detected by the group lacking vestibular function but in possession of unimpaired sensibilities.

Macleod Yearsley.

Ear Diseases and Lumbar Puncture.—G. Holmgren (Stockholm). "Acta Oto-laryngologica," vol. i, fasc. 2 and 3, 1918.

Following Babinski the author has made a systematic study of the effects of lumbar puncture upon different varieties of diminished hearing of nervous and combined types. The present article deals with three cases of nerve deafness due to detonation. Two of them were typical cases of diminished hearing following exposure to gun-fire; in both of them the hearing remained quite unchanged for fourteen days after lumbar puncture, but later underwent considerable improvement. In one of them it had improved in six weeks from 4 to 8 metres for the whisper, and in nine months to 9 metres; in the other from 3 to 8 metres in a fortnight, and was slightly better four months later. The third case, although belonging to a decidedly neurotic family, did not himself show evidence of neurosis. Before lumbar puncture repeated examinations of the hearing showed some variations within moderate limits, and the results of Bárány's pointing test were also always abnormal, the degree of abnormality being very variable. There was outward deviation of one or both wrists and shoulder-joints, which was very little affected by rotation or caloric stimulation. A few days after lumbar puncture the hearing had improved distinctly and the deviation had greatly diminished. A month later the improvement was still more marked.

Thomas Guthrie.

Primary Fibro-myxo-angio-endothelioma of the Middle Ear.—A. Calabresi. "L'Ospedale Maggiore," February 28, 1919.

A child, aged three, was admitted to hospital November 11, 1917, with history of bleeding from the left ear some weeks before. Was taken to a doctor, who told parents the child had otitis media with granulations. There was no pain. The child became rapidly worse, and a left facial paralysis and a large swelling over the mastoid became evident. There had never been any fever, but headaches, insomnia and pain over the mastoid had come on shortly before admission. On examination a little pus was seen in the left meatus along with red granulations. Complete left facial paralysis. Left mastoid tumid, but not reddened. October 15, 1917: Radical mastoid operation. Whole mastoid full of granulations and pus. All granulations removed and wound closed. Temperature rose in the next two days to a maximum of 38° C., and later returned to normal. Dressed daily with iodoform gauze. After a few days the granulations reappeared and formed a compact reddish mass. Histological examination revealed cell-elements of various types, and a diagnosis of fibro-myxo-angio-endothelioma was made. The mass was repeatedly removed, but continually grew and spread. Cachexia showed after about a month, and the child was taken home by the parents, and died on December 21, 1917. No autopsy was possible. The point of origin of the growth appears to have been in the middle ear itself. The author suggests, in view of the numerous myxomatous elements, that it had arisen from the embryonic myxomatous tissue which fills the middle ear and does not completely disappear till after birth.

J. K. Milne-Dickie.

Otitic Meningitis, with Recovery.—Henri Aboulker (Algiers). "Rev. de Laryngol., d'Otol., et de Rhinol.," May 31, 1919.

The reporter's deductions as to the best line of treatment, from an instructive series of sixteen cases, may be thus summarised:

(1) *Septic Meningitis.*—(*a*) Confirmed after the mastoid operation: Incision of meninges by the mastoid route. Counter-openings in the temporal and suboccipital regions with incision of meninges. Intrathecal injections of electrargol.

(*b*) Confirmed before the mastoid operation: Procedure as in (1) (*a*), except that the radical mastoid operation is performed as the first stage of the intervention.

(2) *Aseptic Meningitis.*—(*c*) Confirmed after the mastoid operation: Exposure of the dura; repeated lumbar puncture with examination of the cerebro-spinal fluid. If confirmed before the mastoid operation, this should precede the other stages of the intervention.

(*d*) Meningitis without [illegible]: If benign and transient—exposure of dura, lumbar puncture. If persistent—exposure of dura by transmastoid route without incision. Temporal or suboccipital trephining, incision of meninges, exploratory punctures. *H. Lawson Whale.*

Primary Diphtheria of the Middle Ear.—Amédée Pugnat (Geneva). "Rev. de Laryngol., d'Otol., et de Rhinol.," August 15, 1919.

The primary localisation of the Klebs-Loeffler bacillus has received insufficient attention because as yet it has not become routine to make a systematic examination of the bacteriology of otorrhœa.

There is no suggestion of a hæmatogenous infection. As in other middle-ear infections, so here, it is usually the Eustachian tube which provides the portal. But—in the absence of faucial diphtheria—whence comes this infection? Presumably from the nasal fossæ. Amongst physical signs it has been noted that a bulging in one quadrant of the drum exists, but that paracentesis yields no fluid whatever. A dry tympanum is found, or (in at last one recorded case) a dry tympanum with a false membrane entirely covering the promontory.

The earache is intractable; no local or general treatment is of any avail until the pain disappears almost magically on the injection of serum.

As complications, facial paralysis and mastoiditis may occur. The prognosis rests absolutely on early diagnosis, because an early injection of serum usually ensures the subsequent integrity of hearing.

H. Lawson Whale.

Obliteration of the Lateral Sinus in Trauma of the Basis Cranii.—Lannois and Sargnon (Lyons). "Rev. de Laryngol, d'Otol., et de Rhinol.," July 31, 1919.

The technique adopted is that commonly practised by otologists in dealing with an otitic thombosis: exposure of the sinus where the lateral passes into the sigmoid, and occlusion by a plug of ribbon gauze between dura and skull-cap. But there are two points described and argued at length which make this article worthy of perusal.

Firstly, the authors use the method as a *temporary* measure while exploring the deep regions of the neck [analogous to the use of Crile's clamps for the carotids.—Abs.]. Secondly, an alternative route is discussed, namely, exposing the sinus an inch further back without

opening the antrum. It is justly argued that this point of attack robs the operator of all control of the superior petrosal sinus, which is effectively shut off by the more ordinary exposure and technique.

H. Lawson Whale.

Aural Suppuration in Early Childhood: its Prevention and Treatment.—D. Guthrie. "Lancet," vol. ii, 1919, p. 429.

A useful little paper and specially to be commended from its preventive aspect. Anatomy, symptoms and ætiology are briefly discussed. Measles and adenoids are, he considers, the two principal causes of aural suppuration in young children. His scheme of treatment embraces (1) cleansing and antisepsis, which will cure the majority of cases; (2) removal of adenoids; (3) the conservative operation (modified radical), in order to conserve the hearing; (4) the radical operation, which is very seldom indicated in childhood and should only be performed in carefully selected cases. *Macleod Yearsley.*

An Original Test for the Pathologic Great-toe Sign.—Leo. M. Crafts. "Journ. Amer. Med. Assoc.," July 26, vol. lxiii, no. 4.

The test consists in making an upward stroke on the front of the ankle with a blunt point. To be clearly positive a dorsal extension of the great toe is essential. The behaviour of the other toes is variable. The author has found this test very constantly present in cases of definite organic damage to the motor tracts. He considers it second only to Babinski's in importance and more reliable than the Gordon or Oppenheim tests. *J. K. Milne Dickie.*

Our Experience at Fort Oglethorpe, Ga., with Acute Affections of the Middle Ear following Measles.—Lieut.-Col. T. J. Harris. "Annals of Otology," xxviii, p. 50.

Based on 607 cases. The author notes that otological complications of measles and other infectious diseases are so unusual in their symptomatology that aural examination is the only certain means of their recognition. Also that, far outweighing all measures addressed to relieving infection of the ear, is prophylaxis to prevent such infections from developing. The means to this end are: improved sanitary measures and local treatment of the upper respiratory tract.

Macleod Yearsley.

MISCELLANEOUS.

Some Clinical Manifestations of Influenza in Children.—L. E. La Fetra (New York). "Journ. Amer. Med Sci.," June, 1919.

During the months October, November and December, 1918, over 900 children suffering from the influenza epidemic were treated at the Bellevue Hospital. Five types of the disease were recognised as follows: (1) Those with high fever and prostration but without physical signs of any localisation. (2) Cases with rhinitis or pharyngitis, or both. This type included the largest number of cases. The pharynx was red and glazed, often with the lymph follicles on the posterior pharyngeal wall red and swollen. Acute follicular tonsillitis was very seldom seen, but it was remarkable how slight an amount of pharyngitis could apparently be the cause of high temperatures in young children and infants, even without

swelling of the tonsils. When present, swelling of the tonsils was apt to be accompanied by enlargement of the cervical glands, and in such cases the fever usually persisted until after the swelling not only of the tonsils but of the glands had entirely disappeared. (3) Cases with tracheitis and laryngitis. Tracheitis was far more frequent than laryngitis and was often combined either with rhinitis or bronchitis. A characteristic symptom was the loud, barking, almost incessant cough, in young children frequently so severe as to be accompanied or followed by spasm of the larynx. The crowing inspiration together with the cough was suggestive of whooping cough, and was certainly due to the same mechanical condition that produces the cough in that disease, a mass of tenacious mucus at the lower part of the trachea. (4) Cases with bronchitis, the more severe of which tended to develop into broncho-pneumonia. (5) Cases with pneumonia. These constituted about 10 per cent. of all cases, and about half of them were fatal. In about four-fifths of them the lung involvement took the form of broncho-pneumonia.

Very noteworthy in this epidemic was the infrequency of otitis media and of influenza meningitis.

For the catarrhal inflammations of the upper respiratory tract, and especially for the cough of the severe tracheitis, for the laryngitis and spasm, steam inhalations with the addition of creosote were of the greatest help. Patients with broncho-pneumonia who had nasal obstruction fared much better in an atmosphere of moist warm air than by cold air treatment. The latter, however, was of advantage from the outset in cases of lobar-pneumonia without nasal obstruction.

Thomas Guthrie.

Contributions to the Pathology of Tuberculosis of the Bronchial Glands.—**E. Schmiegelow.** "Acta Oto-laryngologica," vol. i, fasc. 1, 1918.

This paper is concerned mainly with disease of the bronchial glands, especially tuberculosis, leading to rupture into a bronchus. Tracheo-bronchial stenosis due to enlargement of the bronchial glands is not very uncommon in children and may cause death by asphyxia, either as a result of the narrowing of the air-passages alone or in consequence of their blocking by rupture of an abscess. The disease is usually, but not invariably, tuberculous. In one of the cases mentioned, an infant of eight months died from respiratory obstruction, due to pressure on the lower part of the trachea by simple inflammatory enlargement of the glands, consequent upon a non-tuberculous catarrhal infection.

The diagnosis may be strongly supported by the history of the case, the physical signs in the chest and by X-ray examination, but a certain knowledge of the nature and position of the stenosis is obtained only in those cases in which it is possible to make a direct tracheo-bronchoscopic examination. Although the literature presents instances of the recovery of several patients after the spontaneous coughing up of glandular contents through the air-passages, the author has no doubt but that direct tracheo-bronchoscopic treatment is the method that promises the best result. The bronchoscope is passed either through a tracheotomy wound (in infants and young children) or per *vias naturales* (in older children and adults), and an endeavour made, as rapidly as possible, to clear the air passages of the purulent secretion and necrotic tissue by the use of forceps and suction apparatus. Two or three cases are described in which this procedure proved of great value. *Thomas Guthrie.*

Some Eye and Neck Muscle Reflexes in the New-born.—R. Bárány. "Acta Oto-laryngologica," vol. i, fasc. 1, 1918.

(*a*) Changes in the position of the eyes produced by changes in the body position.

Experimenting in the year 1906 on rabbits, the author found that if the head of the animal be held firmly and the body twisted round its long axis, for example, to the left, the eyes at the same time turn to the left. As the head remains fixed it is clear that this change in the eye position is due to stretching of some of the neck muscles and not to reflexes from the vestibular apparatus. The rabbit is an animal in which there occur no eye movements of optical origin. In man, in whom the principal eye movements are of optical origin, movements analogous to those in the rabbit were not to be anticipated, excepting possibly before the development of the visual apparatus, that is in new-born infants. In the latter the author found that, as he expected, these movements do in fact occur. On fixing the head of a new-born infant and turning its body round its long axis 90° to the left, both eyes moved to the left and remained in that position so long as the corresponding body-position was maintained. This reflex can only be obtained during the first two days after birth, that is, before eye movements of optical origin begin to take place.

The writer mentions also certain other movements of eyes and head observed in the new-born as a result of both optical and muscle reflexes.

(*b*) Examination of hearing capacity in the new-born.

The question whether the new-born hear or not has at last been settled in the affirmative by the work of Poli and Canestrini. The author has employed a simple method for demonstrating the presence of hearing in any particular case. His noise apparatus is inserted in the ear, and at the moment when the button is pressed a well-marked twitching of the evelids is observed. This reaction was present when first looked for in about thirty new-born infants examined. As an addition to examination of the vestibular apparatus, it might be of much practical value in determining the ear condition in the offspring of deaf mute parents. *Thomas Guthrie.*

Investigations Concerning Ulcus Neuroticum Mucosæ Oris. — J. Strandberg. "Acta Oto-laryngologica," vol. i, fasc. 1, 1918.

This paper contains details of nine cases of the disease observed by the author, and reference to twenty-four others found by him in the literature. The disease begins as a red papule the size of a pin's head on the mucous membrane of the mouth, pharynx or larynx. After a day or two the centre is covered by a yellowish-white slough, and later there is found an ulcer $\frac{3}{5}$ cm. in diameter and sometimes $\frac{1}{2}$ cm. in depth, with sharply defined red infiltrated margin. The ulcers heal spontaneously, but the disease is characterised by repeated relapses, crops of ulcers in mild cases appearing two or three times a year, while severe cases may scarcely ever be free from them. The ulcers are very painful and are accompanied by much salivation. Excepting as a result of secondary infection there is no disturbance of the general health, nor are there any obvious changes in the internal organs or blood. The patients have usually been of markedly nervous temperament and the disease has been regarded as a trophoneurosis, an angioneurosis, or as due to some disturbance of the endocrine glands. The author is inclined to regard it

as an angioneurosis, comparable to neurotic gangrene of the skin. Histological examination of the lesions shows primary vaso-dilatation with œdema in the stratum papillare, followed by œdema and necrosis of the epithelium, with reactive inflammation of the cells of the corium. Micro-organisms are present only as a result of secondary infection.

Thomas Guthrie.

Pathology of (Mustard?) Gas Inhalation.—**G. W. Covey** (Lincoln, Nebraska) **and M. Barron** (St. Paul, Minnesota). "Journ. Amer. Med. Sci.," June, 1919.

Of the thirty-seven cases included in this study the action of the gas on the respiratory tract was the main factor in causing death in thirty-four. The air passages were attacked from the tip of the epiglottis to the terminal bronchioles and air vesicles. The effects seen were due (1) to the intense irritation and escharotic action of the gas, and (2) to the secondary infection which promptly occurs. As seen in the autopsy room, more or less of the mucosa was covered by a fibropurulent exudate or false membrane, which in many cases covered the entire area from the tip of the epiglottis downward. The appearance of this membrane, both grossly and microscopically, was very similar to that usually seen in diphtheria. In addition, the clinical features were not unlike those met with in the laryngeal type of that disease. Also throat cultures often showed the presence of Klebs-Lœffler bacilli, so that perplexity sometimes arose as to the differential diagnosis. In cases of longer standing the membranous exudate was less in evidence, and ulceration of the tracheal and bronchial walls was the prominent feature. A still later stage was characterised by further ulceration, necrosis and abscess formation with massive broncho-pneumonia, while attempts at healing were revealed by organisation and fibrosis. *Thomas Guthrie.*

The Klebs-Löffler Bacillus.—**H. Bergstrand.** "Acta Oto-laryngologica," vol. i, fasc. 1, 1918.

The writer's investigation of the morphology of the Klebs-Löffler bacillus leads him to the following conclusions:

(1) The organism is not a bacterium, but a mould belonging to the group of Fungi imperfecti. It appears to be a member of the Mucedinaceæ and of the sub-division Micronemeæ.

(2) A mycelium is met with, and the hyphæ show true branching and break up into Oidia.

(3) The diphtheria bacilli are found in two forms, namely, short and thick and long and slender; both are normal and always present together, although one or other may predominate in any particular preparation. Pseudo-diphtheria bacilli show similar forms.

(4) The diphtheria bacillus cannot be distinguished by its morphological features, but only by its power to produce a specific toxin.

(5) "Involution and degeneration forms" in reality represent perfectly normal phases and are found in all cultures, whatever their age.

(6) In old cultures large, thick-walled, acid-fast forms are found, which are to be regarded as resting forms.

(7) The banded appearance of the diphtheria bacillus depends partly on division into several cells and partly on irregular concentrations of protoplasm in the cells.

(8) The idea of the so-called "variability" of the diphtheria bacillus

arises from the mistaken view of its bacterial nature. The variants are really normal members of the life-cycle of the organism.

Thomas Guthrie.

Some Unusual Cases met with in Ear, Nose and Throat Service in a Base Hospital.—S. S. Burns. "Annals of Otology," xxviii, p. 73.

These cases were: (1) Complete bilateral bony occlusion of the posterior nares. Man, aged twenty-four. Obstruction removed with chisel and heavy sphenoid punch. (2) Patent lower extremity of thyroglossal duct. Male, aged nineteen. Tract injected with methylene blue and dissected out. (3) Dermoid cyst in left post-auricular fold. Sinus injected with methylene blue and cyst dissected out. Contained hair and cartilage. *Macleod Yearsley.*

The Importance of More Intimate Co-operation between the Various Specialists who see Neurosurgical Cases.—E. Sachs. "Annals of Otology," xxviii, p. 78.

The author suggests: (1) That the surgeon must have a thorough training in neurology, otology, and ophthalmology to enable him to make the diagnosis himself and outline the treatment. (2) That the neurologist conceive of the surgeon as his partner in diagnosis and call upon him whenever there is the slightest possibility that the case in point may have a surgical aspect. (3) That the rhinologist, ophthalmologist, and otologist take a greater interest in the nervous system as a whole rather than in that portion pertaining only to their specialties, and that the first two introduce the ophthalmoscope into their armamentarium. (4) That as neurological cases present so many borderline problems a society to which these various specialists belong might do much to bring us all together. *Macleod Yearsley.*

Amyloid Tumours of the Upper Air-Passages.—Gordon B. New. "The Laryngoscope," June, 1919, p. 327.

Amyloid tumours of the upper air-passages are rare. They occur as part of a general amyloidosis or as a local condition. The upper air-passages are frequently involved. These tumours may be divided into three types: (1) Diffuse subepithelial infiltration; (2) tumour forming local amyloidosis; (3) amyloid degeneration of a pre-existing tumour. From a thorough review of the literature New has been able to collect but 42 cases; four new cases observed in the Mayo Clinic make 46 cases in all. (Only four cases have been found among 217 neoplasms of the larynx examined at the Mayo Clinic.) The youngest of the 46 patients was twenty years, the oldest eighty. Thirty-two patients were males. In many of the cases reported there were no local symptoms, but the condition was accidentally found at necropsy. When the larynx and trachea are involved the symptoms are such as accompany benign neoplasms of slow growth. In the diffuse infiltrating type of tumour in which the larynx and trachea are affected early hoarseness and later dyspnœa were noted.

Amyloid tumours of the upper air-passages are most common in the larynx. The clinical findings are by no means uniform. Many cases present a picture that is seen in amyloid tumours only, others one that is impossible to differentiate clinically from other benign neoplasms, gumma, or malignant growth. Local amyloidosis occurs most often in a nodular form. Multiple or single nodules may be pedunculated or sessile, but all

tend toward the rounded or oval form. The surface is usually mammillated; the tumours are quite firm when touched with a probe, and in most cases they are of a waxy yellowish-grey.

The diagnosis must be made microscopically. General amyloidosis occurs following certain chronic diseases, such as osteomyelitis, tuberculosis and syphilis. Many cases of apparently local amyloid tumours show a general pathologic condition, which may be sufficient to account for the local degenerative process. In only one of New's four cases was there an associated pathologic condition—a chronic cholecystitis. Many writers believe that the swellings should not be called tumours, as they are simply enlargements of the part, due to the deposit of the amyloid substance. The blood-vessels are especially affected. The amyloid gives the characteristic staining reaction with iodin, and shows up distinctly with hæmatoxylin and eosin.

Treatment.—In cases of localised tumours surgical removal, either by endoscopy or by thyrotomy, seems indicated. If the amyloidosis is diffuse and involves the entire circumference of larynx and trachea, removal will probably result in loss of voice and necessitate the permanent use of a tracheotomy tube. Willimann reports a case in which an amyloid tumour of the larynx entirely disappeared after two X-ray treatments. New himself employed fulguration and radium with marked improvement.

J. S. Fraser.

Surgery of the Trifacial Nerve.—John F. Barnhill. "The Laryngoscope," June, 1919, p. 342.

Surgical relief from trifacial neuralgia is not sought until medicinal means of cure have been tried and found useless. The patient is worn, and not infrequently addicted to morphine. Often the sufferer is past middle life. The patient delays seeking surgical relief because of objection to possible scars. It is advisable to adopt a technique that will insure the minimum of deformity. Many of these patients come with foul skins due to the fact that the pain resulting from the use of soap and water is so intolerable. Unusual care is therefore necessary in the sterilisation of the field of operation. The extent of surgical procedures should be governed by the nature and extent of the disease. The seat of the affection may be in the brain, in the Gasserian ganglion, in any one of the three trunks, or solely in one branch. The longer the duration and the greater the violence of the paroxysms the more apt is the affection to be located in the ganglion. It is presumed that all pathologic conditions that may be regarded as causative factors of the neuritis have previously been removed, *e.g.* diseased teeth or nasal sinusitis.

Extra-cranial Operations.—The branches of adjacent trunks of the trifacial apparently overlap and anastomose, much to the confusion of the surgeon. Thus certain of the terminal branches of the infraorbital, nasal and infratrochlear nerves terminate about the ala of the nose, with such intimacy that it often is extremely difficult to determine whether neuralgic pain is due to involvement of the ophthalmic, or to the superior maxillary branch.

(*a*) Barnhill favours surgery of the ophthalmic and its divisions at a much earlier period of the neuralgia than on the remaining divisions, because (1) of the greater probability of failure to relieve or cure by injection methods; (2) almost no deformity should result; (3) of the comparative ease with which the several branches may be dealt with. If all branches are involved the incision should follow the supra-orbital

margin from the junction of the outer and middle thirds well down upon the bridge of the nose. The orbital structures are held downward by means of a flat retractor. The supra-orbital and supra-trochlear branches are readily isolated for a distance into the orbit; the deepest portions are then caught in artery forceps and twisted out by the Thiersch method. Barnhill has devised the following plan for the easy successful avulsion of the nasal nerve: cut through the periosteum from the root of the nose to the lower end of the nasal bone, and cautiously detach the periosteum toward the apex of the orbit until the anterior ethmoidal foramen is reached. The nasal nerve will readily be found entering this foramen. With a wide retractor the orbital contents are dislocated outwardly and downwardly, putting the nerve on the stretch sufficiently to enable one to grasp it with an artery clamp. The periosteum at the point of penetration of the nerve is incised, the nerve loosened, and the whole is then easily twisted out deeply enough to include the infratrochlear branch.

(*b*) *The Superior Maxillary Nerve.*—Barnhill does not favour neurectomy at the infraorbital foramen. Good results can be expected only when enough of the trunk has been extracted to include the anterior and posterior dental branches and the branches to the spheno-palatine ganglion. This means that the trunk must be severed at, near, or in the foramen. Barnhill makes use of reflected light, and advocates the Kocher incision for the exposure of the infraorbital foramen. The soft structures are retracted upwards to the sharp edge of the orbit, and the periosteum is incised along the entire length of the infraorbital margin. The periosteum of the entire orbital floor is lifted, and the orbital contents retracted upwards with a broad-bladed spatula. Gauze packing is used to arrest the oozing of blood. While waiting for the bleeding to cease the infraorbital nerve is loosened external to the foramen, and a stout silk thread is tied about it. The terminal branches are cut upon the face, and the roof of the infraorbital canal is chipped away by means of a V-shaped chisel throughout its entire length, thus permitting the nerve to be lifted free from the canal back into the spheno-maxillary fissure. With the nerve held taut as a guide, and with the apex of the orbit lighted from the head mirror, it may be followed through the fissure, grasped deeply by an artery forceps, and twisted away to the foramen rotundum. The transorbital operation has the very great advantage of not opening the maxillary antrum—an event which is almost certain to be followed by troublesome infection.

(*c*) *The Inframaxillary Division.*—Neuralgia of this nerve is rarer, and it is easier to differentiate any affected branch, so that relief is more likely to follow the extraction of the nerve superficially. When the inferior dental branch is solely involved the nerve is best extracted through the mouth. External methods are necessary if the foramen ovale is to be reached. Because of the certainty of facial palsy, operations that require incisions to the bone over the external surface of the mandible should not be considered, except in extreme cases. Incisions which follow the lower and posterior margin of the jaw result in less deformity, and are preferable in lean patients, but in the robust the operations of Kocher or Kroenlein are necessary.

Intracranial Operations.—Many now believe that the surgery of the trifacial nerve should be wholly intracranial. For operation on the Gasserian ganglion Barnhill prefers the technique of Frazier. The aim of the operator now is seldom to remove the Gasserian ganglion, because section of the sensory root of the ganglion is the best procedure.

J. S. Fraser.

Blood Examinations in the Surgery of the Nose and Throat.—Seymour Oppenheimer and Mark J. Gottlieb. "The Laryngoscope," July, 1919, p. 400.

The writers call attention to references in the literature to cases of severe or even fatal hæmorrhage following operations upon the nose and throat, and emphasise the great importance of blood examinations preliminary to operative work. The usual method of calculating the coagulation time of the blood does not give us a fair index comparable with that which obtains after an operation. After a surgical procedure the blood exudes over cut tissues, and gains the action of the thromboplastic substances from these cut tissues in addition to those produced by the disintegration of blood-platelets and blood-cells. To diagnose hæmophilia the writers claim to have adopted a method which is most serviceable in relation to nose and throat surgery. The skin is punctured with a needle having a knife edge and the blood is sucked into a 0·2 c.c. pipette, such as is used in serological work. The blood is allowed to flow to about the centre of the pipette, which is then placed in the thermostat at 37° C. and observed every two minutes. From time to time a small drop of blood is blown on to a glass slide to determine whether coagulation has started. When coagulation is complete it is very difficult to blow the blood from the pipette. With this method the coagulation time was estimated in over 400 cases, the average time being 6·3 minutes; the most prolonged coagulation time was 29 minutes and the shortest was 1½ minutes. A series of several cases having a delayed coagulation time were prepared successfully for operation by the administration of large doses of calcium lactate.

To exclude purpura, in which the bleeding time is prolonged and the coagulation time is normal, the bleeding time is determined by noting the time when the skin is pierced and observing how long bleeding occurs by gently squeezing the part from time to time. The average time was 5 minutes, the longest bleeding time 29 minutes, and the shortest 2 minutes. Hæmophilia and purpura demand especial attention, for if they are not recognised before operation they may jeopardise the patient's life. Where either the bleeding or coagulation time varied much beyond the limits of normality, operation was not undertaken without preliminary preparation to improve the blood condition. If this was not successfully accomplished a refusal to operate was emphatically made.

Occasionally the bleeding time may be shortened by administration of large doses of human serum on diphtheria antitoxin.

J. S. Fraser.

A Definite Solution of the Stammering Problem.—Ernest Tompkins. "The Laryngoscope," July, 1919, p. 409.

Tompkins agrees with Kenyon that no constant or characteristic anatomical imperfection of the cerebral, nervous or peripheral organs related to speech is known to be present, and further, that except for the effect resulting from the stammering, the stammerer does not differ in character from other people. Kenyon believes stammering finds its inciting cause in the social emotion present. The social emotion is much augmented by the embarrassment resulting from the peripheral phenomena.

Home Treatment.—The child should be made to understand that stammering will not be tolerated, that it may decline to answer questions—

in short, that it has no speech responsibility. If it can write, it should be required to carry a pad and pencil and use them if necessary. The mere act of reaching for them will generally supply sufficient distraction to release the normal speech. Even a child with considerable inclination to stammer will be practically fluent when with another child and distracted by amusement.

School Treatment.—The universal feature of school treatment will be prohibition of stammering on school property. The afflicted pupils are freed from all speech requirements. The stammering pupil should be required to carry at all times a pad and pencil, so that he may write instead of stammer. Very young pupils may recite and read in concert until they learn to write. *J. S. Fraser.*

Naso-Pharyngeal Conditions, tending to prolong Meningococcus Carriage. —**James W. Babcock.** "The Laryngoscope," August, 1919, p. 486.

Reasoning from the facts found in the somewhat similar condition of "diphtheria carriage," the tonsils and adenoids were suspected as being the probable "dug-out" of the meningococci. The germ is readily destroyed by even a comparatively feeble disinfectant could the latter get at it. Other factors worthy of consideration are—irregularities in the septum, diseased teeth, diseased accessory sinuses. No attempts were made to correct septal deformities for fear that meningitis would be incited. Conclusions: (1) A group of very resistant meningococcus carriers showed a high incidence of abnormalities in their nose and pharynx, particularly the presence of adenoids. (2) The folds and depressions of adenoids make an ideal protection from disinfectants to meningococci at their depths. (3) The correction of diseased conditions of the nose and throat were of considerable aid in eliminating meningococci from chronic carriers. *J. S. Fraser.*

LIST OF ORIGINAL PAPERS.

Rev. de Laryngol., d'Otol., et de Rhinol., June 15, 1919. (Abstracted by H. Lawson Whale.)

Roy, J. N.—"Syphilis among the African Blacks."

June 30, 1919.

Cheval, Victor.—"Physiology of the Eighth Nerve; Hearing and Equilibration."

Brindel, A.—"Two Cases of Labyrinthine Fistula."

September 15, 1919.

Trétrôp.—"Transverse Gun-shot Wound of the Face, from one Ear to the Other."

Laurens, Paul.—"Closure of Mastoid Fistulæ after Operation."

The Laryngoscope, May, 1919, vol. xxix, No. 5. (Abstracted by J. S. Fraser.)

Wright, Jonathan.—"Modern Commentaries on Hippocrates; The Physiology and Pathology of the Nose and Throat," p. 295.

June, 1919, vol. xxix, No. 6.

Gatewood, Lawrence (New York City).—"A Simple, Safe and Rapid Tonsil Enucleation Technic for Local or General Anæsthesia," p. 366.

Fisher, L. F. (Philadelphia).—"Practical Value of Ear Studies," p. 374.

White, F. W. (U.S.A.).—"Foreign Body in the Œsophagus," p. 379.