

ABSTRACTS

THE EAR

Indications and Technique of the different Operations for Chronic Mastoiditis. J. MORRISSET SMITH. (*Surgery, Gynæcology and Obstetrics*, 1931, Vol. lii., No. 2A.)

Only in a limited number of cases of chronic mastoiditis is the sclerotic bone due to the infection encountered. The author indicates the aim of the operative treatment as being the removal of the source of danger, combined with the preservation of as much hearing as possible.

The indications and technique of the three common mastoid operations are given, together with the author's new "radical" operation. In this the results of the ordinary radical operation are obtained with the preservation of the posterior bony meatal wall. This is accomplished partly through the external meatus and partly through the simple mastoid operation, the aditus being enlarged by the removal of the inner part of the bridge.

The final result is similar to that obtained in cases of chronic suppurative otitis media which have healed without operation.

S. BERNSTEIN.

On the Surgery of Otosclerosis. GUNNAR HOLMGREN. (*Acta Oto-Laryngologica*, Vol. xv., Fasc. 1.)

The author reviews the various methods which have been employed for the establishment of a new fenestra in the labyrinth wall, since Kessel in 1876 first treated cases of otosclerosis by stapes extraction. Almost all of these methods were immediately and remarkably successful as regards both the hearing and the tinnitus, but the improvement was always of very short duration. It appeared to the author that the rapid relapse in these cases was due to closure of the fistula by thick scar tissue, the result of healing by granulation. If healing by first intention with closure of the fistula by a very thin membrane could be secured, the improvement might be more lasting. He employed therefore a flap of tympanic mucoperiosteum which he dissected up before making the fistula, and then used to cover it. This delicate operation was made possible by the use of his binocular microscope. In three cases the fistula was made as in the method of Passow, that is, somewhat in front of and below the fenestra ovalis. In a fourth case, during the performance of the same operation, the stapes was dislocated and the fenestra ovalis opened.

These operations were performed under local anæsthesia and in three of the four cases the improvement in the hearing was striking and occurred immediately the labyrinth was opened and the perilymph

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allowed to escape. The improvement was still present many months after the operations, and was associated with a marked lowering of the lower tone limit and relief from the tinnitus.

The principal drawback in these cases was the prolonged after-treatment required to obtain healing.

Much more rapid healing was obtained in the later cases in which the fistula was made in the horizontal semi-circular canal; the fistula as before being covered by a flap of mucoperiosteum. The improvement in the hearing was as marked as in the others, but was unfortunately of shorter duration.

The author promises a further communication on the subject.

THOMAS GUTHRIE.

The Cause of New Bone Formation in Otosclerosis. OTTO MAYER,
Vienna. (*Acta Oto-Laryngologica*, Vol. xv., fasc. i.)

In a large number of sections of temporal bones the author has found fissures which he regards as healed fractures, because they are filled with tissue apparently identical with callus. These fissures are not the result of injury, but are spontaneous fractures, and are due to strains in certain parts of the labyrinth capsule. In otosclerosis the deposits of newly-formed spongy bone are found in relation to the fissures and are to be regarded as consisting of callus. The fissures in the labyrinth capsule occur also in the absence of the cancellous bone deposits of otosclerosis, so that the latter must be partly the result of a constitutional predisposition.

THOMAS GUTHRIE.

Erroneous Musical Hearing in Diseases of the Middle Ear. DR. K. ASAI,
Osaka. (*Oto-Rhino-Laryngologia*, Vol. iv., No. 3, p. 201.)

One case was that of a woman, aged 26, a student of music. Notes higher than c^3 sounded a tone higher than was right, and this was all the more noticeable the more complicated the melody she was listening to. When the catarrh was cured the false hearing disappeared. Another case was that of a woman, aged 46, for whom notes above f^2 sounded two tones higher than the proper one. In her case no improvement followed treatment.

JAMES DUNDAS-GRANT.

The Elements of Absolute Hearing. C. L. CHILOFF, Leningrad.
(*Acta Oto-Laryngologica*, Vol. xiv., fasc. 3-4.)

“Absolute hearing” is one of the components of musical hearing.

There are three forms of musical hearing—the external, internal, and mixed forms. Under the name “external form” is understood the faculty of receiving external sounds and putting them together to create the psychic state of musical appreciation.

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The internal form is the particular faculty for composition, for creation and for the conception of such and such musical images expressed by sounds, yet without the participation of an outside exciting sound.

The inner musical ear is a function of the central nervous system and is not in the adult dependent on the peripheral organ of hearing, hence Beethoven retained his composing faculty after the advent of deafness.

Finally, the mixed form of the musical ear comprises the presence of the external and internal musical ear, and in this form the external musical ear serves as the stimulus for the development of internal hearing. We do not find, therefore, a composer among deaf mutes.

The faculty of determining the absolute pitch of a note without being given a note of known pitch for comparison is precisely what it is convenient to call the absolute hearing power. This faculty is an exceptionally rare condition and cannot be explained by the theory of Helmholtz.

So to illustrate these ideas musicians who had, according to their belief, an absolute ear, were tested with the Bezold-Edelmann diapason, the subject being required to name immediately the note given out by the diapason; but not one answered the tests without a mistake. In subjects not claiming to be possessed of absolute hearing, however, the errors were very much greater. The same two groups were tested for complex sounds using the harmonica of Urbantschitsch. In the first group of fourteen, eight subjects were faultless, only one making an error of between two and three tones. In the second group, five were faultless, sixteen making an error of over three tones.

A complex sound is composed of a fundamental note and a series of harmonics. These harmonics are claimed to be one of the elements of absolute hearing. The pure tones produced by the B.E.D. do not resemble the sounds to which we are usually accustomed. There does not exist a musical instrument without harmonics.

There is yet another factor which determines the essence of absolute hearing; it is the standardisation of sound. The same applies to sound as to colour. Man has a memory for zones of standardised sounds as well as a memory for zones of standardised colour taken from objects surrounding him.

In carrying out research into this matter of absolute hearing it is necessary also to take into consideration the factor of memory for the pitch of a note, so tests were made to see for how many minutes after a sound had been struck it could be exactly reproduced.

Two groups were taken as before—those claiming absolute hearing power, and those not.

The results prove that persons with an absolute ear preserve for

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a long time in their memories the sound given, whereas those without absolute hearing forget it quickly.

In conclusion, therefore, "there are three factors which are the indispensable elements in determining the nature of the absolute hearing power. These are the determination of timbre, the standardised note, and the memory of sound."
H. V. FORSTER.

On some Embryological Points bearing on the Study of the Pathogenesis of Lateral Cervical Cysts and Fistulae. L. MOATTI. (*Les Annales d'Oto-Laryngologie*, No. 1, January 1931.)

This article, which is illustrated with explanatory diagrams, is purely embryological and has no direct clinical references. We are given a résumé of our present-day knowledge of the embryology of the branchial arches, grooves, and pouches. It is pointed out that the hitherto accepted view that the first branchial pouch narrows down to form the Eustachian tube with a terminal dilatation, the tympanic cavity, has recently been criticised by John Fraser, whose researches have thrown light on the interpretation of the origin of the deep auricular fistula.
M. VLASTO.

NOSE AND ACCESSORY SINUSES.

Frontal Headaches of Nasal Origin and their Surgical Treatment.
G. D. DE LAMOTHE and M. SOURDILLE. (*Annales des Maladies de l'Oreille*, etc., July and August 1930.)

In this exhaustive article the authors limit themselves to the study of frontal headaches resulting from hidden causes which can be found only by the most careful search.

They believe that the fundamental cause of these headaches is to be found in a great variety of anatomical malformations, *e.g.*

- (1) Nasal: High septal deviation, hypertrophied middle turbinates.
- (2) Ethmoidal: Exaggerated development of the preinfundibular cells, aberrant interfrontal cells, obstruction of the fronto-nasal canal.
- (3) Sinusal: Blocking or partitioning of the frontal sinus.

These malformations cause phenomena of compression, of vacuum sinus, and of infection, the last most frequently mild. Generally these lesions determine frontal headaches only by reason of a disturbance of the sensory and vasomotor nervous apparatus of the region, the trigeminal and the sympathetic.

These frontal headaches have certain common signs; they are situated at the level of the frontal region, now median or lateral, at another time unilateral or bilateral, radiating towards the temple, vertex or occiput, consequently often at a distance from the causative lesion;

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they are often intermittent in spite of permanent lesions; they are often of a severity disproportionate to the cause, which is generally hidden.

They are accompanied by vasomotor and secretory disturbances: sensation of blocked nose, sneezing, nasal hydrorrhœa, watering of the eyes, and especially ocular disturbances.

The nasal mucosa is rarely normal; one finds slight alterations in it resulting from the mild infection to which it is chronically subjected.

Certain clinical forms can be identified; the headache of the narrow nose, the vacuum sinus, the recurring painful mucous catarrh of the frontal sinus, the chronic catarrhal frontal sinusitis with cystic polypoid degeneration, the serous sinusitis, the pseudo-migrainous headaches.

Although some of these can be diagnosed immediately, more often the diagnosis is reached by elimination. Diagnosis rests on the history of the illness, the patient's statements during the examination, radiography (always necessary and whenever possible stereoscopic), clinical tests with cocaine and jaborandi, laboratory examinations bearing on the blood, urine, cerebrospinal fluid and nasal secretions, and finally the results of different treatments. Then only is one in a position to eliminate endocephalgias due to the cranial hypertension of cerebral tumours, gummata, cerebral abscess, the headaches of syphilis, uræmia, sclerosis and gout, the essential trigeminal neuralgia, the common migraines, the sympathalgias, the psychic headaches.

The headache acknowledged to be of exocranial cause must still be differentiated from the headache due to ocular disturbances; here the collaboration of the ophthalmologist is indispensable. Finally, it is left to us to determine the nature of the naso-sinusal lesion.

The surgical treatment of these headaches with which the authors deal seeks to correct the initial anatomical malformations and their consequences, viz., the compression, the vacuum sinus and the infection. Such treatment is always indicated when the various medical treatments have been tried without avail. Indeed the writers believe that patients should never be allowed to suffer indefinitely after unsuccessful medical treatment and propose that as a last chance of cure surgical treatment should be undertaken. This comprises two stages:—

- (a) The one seeks only the re-establishment of nasal equilibrium and is applied to the septum and turbinates, viz., submucous resection of the septum as high as possible, partial resection and dislocation of the middle turbinates.
- (b) The other bears on the ethmoid and the frontal sinus. This must realise two aims, viz., the suppression of exuberant or aberrant ethmoidal cells and sinusal partitions, and the assurance of a large and lasting sinuso-nasal drainage.

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The authors conclude by describing their three methods of attaining their results, *i.e.*, by an intranasal operation, an extranasal, or a combination of the two.

Details of the operating technique are also given and are admirably illustrated by plates.

L. GRAHAM BROWN.

Injury to the Teeth after Radical Operation on the Maxillary Sinus.

Dr. HALLE (Berlin). (*Archiv. für Ohren-, Nasen- und Kehlkopfheilkunde*, with 8 illustrations, 1930, cxxvi., 251.)

The author, while granting that the new radical operations on the maxillary antrum promise more certainty of cure than the intranasal operations which can be a cure only in certain selected cases, usually early ones, deplors the extensive removal of normal bone and the damage to the dental nerves and blood vessels in an operation such as the Caldwell-Luc or Denker.

He describes three types of operation based on the principle of his original ozæna operation.

In the first, a preliminary operation for the inspection of the interior of the maxillary antrum in doubtful cases; the opening can be closed without leaving any defect if the antrum should prove healthy.

An incision is made through the mucoperiosteum down to the bone, immediately in front of the anterior end of the inferior turbinal, about $\frac{1}{2}$ to 1 mm. behind the free edge of the aperture, downwards to the floor of the nose and then across to the septum. This incision corresponds to about the lower two-thirds of his incision in the ozæna operation.

The mucoperiosteum is detached and raised from the lateral wall and floor of the nostril, then a medium sized Killian's speculum is inserted and the detached mucoperiosteum and free edge of the inferior turbinal are held inwards towards the septum, thus exposing the bone of the lateral nasal wall beneath the inferior turbinal.

Now the preliminary opening into the antrum is made by means of a burr, chisel, or trephine in the foremost part of the lateral nasal wall. An astonishingly satisfactory inspection of the antrum is now possible. This inspection is a more reliable diagnostic method than transillumination, X-ray, or proof puncture, each of which may be fallacious.

If the antrum is found to be perfectly healthy the opening can be covered immediately with the mucous membrane, and will be quite healed by the next day.

If the inspection of the interior has revealed disease then the following radical operation is advised:—

The bone under the inferior turbinal is removed in the same way as in the Caldwell-Luc and other radical operations, but not so extensively.

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The incision in the mucoperiosteum is extended upwards to the anterior attachment of the middle turbinal as in the *ozæna* operation, ending about $\frac{1}{2}$ cm. short of the attachment of the middle turbinal in order to avoid injury to the naso-lacrymal duct.

The bone is chiselled through in the line of the incision, the edge of the bone is levered inwards, and a Killian's speculum is inserted and used to force the lateral nasal wall together with the inferior turbinal inwards towards the septum. There is now an adequate opening for the inspection of all parts of the antrum and the removal of diseased mucous membrane. Inspection may be aided if necessary by inserting a small mirror into the antrum. After the removal of all diseased tissue from the interior of the antrum, the bony edges of the opening are carefully smoothed down. Then a flap of mucous membrane as originated by Böninghaus is cut and laid on the floor of the antrum.

The inferior turbinal is left intact if it is normal in size. Hypertrophies, especially swellings on the inferior free edge, are cut away. Healing is usually complete at the end of three weeks.

If desired the bone between the antrum and inferior meatus can be preserved. If disease of the antrum is found by the preliminary opening described above, then one can proceed with the first steps of the *ozæna* operation, that is extension of the vertical incision upwards, and chiselling of the bone in this line; then the bone at the junction of the floor and lateral wall of the nostril is divided with a chisel so that the lateral wall can be displaced inwards by means of a Killian's speculum.

The diseased mucous membrane is completely removed. Then the lateral wall is returned to its natural position.

The normal ostium is enlarged sufficiently to admit of the insertion of a thick irrigation cannula, and any further treatment is carried out through this enlarged ostium. If a deviated septum is present, this is corrected at the same time.

If the ethmoidal cells and frontal sinus are infected, these are operated on, preferably prior to performing the antral operation, and if the author's flap has been fashioned from the mucoperiosteum of the lateral nasal wall to be folded into the enlarged infundibulum, then the incision for the antrum operation is an extension downwards of the original incision for the flap.

The author acknowledges the publication of a somewhat similar description by his former assistant, Dr. Galscheib, in which, however, some important points were not stressed, or the author had not at that time appreciated their significance.

C. DE W. GIBB.

Nose and Accessory Sinuses

A Contribution to the Study of the Treatment of Epithelioma of the Nasal Septum. HENRI SAKON. (*Annales d'Oto-Laryngologie*, January 1931.)

Treatment of this condition is carried out either by surgical excision or by radium therapy. In the former case the removal must be extensive, and the surgeon is compelled to operate through healthy tissue. Considerable mutilation must of necessity take place.

Treatment by radium therapy is carried out by an external application of radium in "Columbia paste." It is found, however, that external applications of radium cannot efficiently irradiate the deeper posterior portions of the growth. The purpose of this article is to describe the technique suggested by Hautant and Monod to secure more efficacious radium exposure. The principle of their technique is as follows: the alae nasi are raised to allow direct application of radium to the growth. Later on the alae are sutured in their original position.

The tissues are incised a little external to the alar grooves, and the alae are folded back on to the dorsum of the nose and are sutured at their raw surfaces. The tumour is thus exposed, and if necessary, portions of the turbinate bones are removed to allow of a better application of the radium container. After ten to fifteen days when the parts are healed, a Columbia paste mould, softened by heating in a "bain-marie," is applied to the prepared surface. Small nests are dug in the convexity of the mould from which the radium cross-fire is to emanate. The edges of the mould are slightly bent forward, and these are lined with 3 mm. copper or lead leaves to protect the healthy parts.

Two or three days after completion of the radium treatment, the alar edges are again freshened, and sutured into place.

Two cases of carcinoma of the septum nasi are described in detail.

M. VLASTO.

Rhinological Aspects of Cavernous Sinus Thrombosis. E. ROSS FAULKNER. (*Surgery, Gynaecology and Obstetrics*, 1931, Vol. lii., No. 2A.)

The pathology of thrombosis in this region is the same as in other parts of the body; it is the result of the spread of infection from areas drained by the tributaries of the sinus.

The symptoms vary somewhat with the site of the primary focus of infection, as does the course of the disease. Cases that are the result of nasal infection show orbital symptoms similar to those produced by the extension of ethmoidal suppuration into the orbit. Where the diagnosis is doubtful it is justifiable to wait three days, by which time it is usually settled, provided that some drainage can be established by shrinkage of the mucosa and suction.

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The treatment will vary with the site of the original infection. Infections about the lips and side of the nose should be left severely alone apart from the use of fomentations: ligation of the angular vein as a preventive step is not advocated. Nasal sinus suppuration should be evacuated and any localised throat abscess drained.

Direct interference with the sinus is deprecated, and the use of blood from immunised donors suggested. The percentage of recovery is extremely low.

S. BERNSTEIN.

Case of Persistent Hiccough cured by Nasal Septum Operation.

Dr. S. NISHIDA (Osaka). (*Oto-Rhino-Laryngologia*, Vol. iv., No. 3, p. 210.)

A man, aged 62 years, complained of violent hiccough of two years' duration which came on twice in every five minutes. A deviation of the nasal septum and a crest were rectified; the hiccoughs then disappeared entirely. The author looks upon this as having been a case of nasal neurosis.

JAMES DUNDAS-GRANT.

The Rhinoanemometer. W. UNDRITZ (Leningrad). (*Acta Oto-Laryngologica*, Vol. xiv., Fasc. 3-4.)

The rhinoanemometer is an apparatus which permits the objective measurement of the degree of capacity of the nose for the passage of air, and allows one to determine the volume of air expired in a unit of time.

An illustration of the apparatus is given which shows it to be based on the principle of anemometers.

Measurements are recorded by the deviation of a little wheel with six wings bent in the same manner as turbine wheels. The apparatus is graduated in such a manner that the number of millimetres by which one wing has deviated from its original position gives directly the number of cubic centimetres of air expired in one second, and a curve can be plotted to express the relation between the deviation and the volume.

When using the apparatus for observations one nostril is connected with a water manometer, the other with the apparatus. The connections are made with suitable rubber tubes and glass olives to fit the vestibules of the nose.

The water manometer is used to denote the pressure at which the experiment is made and to ensure regularity by observing the level of water.

Experiments may be carried out under inspiration or expiration and with either nostril.

Readings may be taken with respirations at different pressures, and the effect of shrinkage brought about, for example, by adrenalin can be observed in the readings.

Larynx and Trachea

Among the writer's deductions may be mentioned the following:—

“The capacity of passage of the nose must be numbered among the other physiological tests characterising the vitality of the organism.

“Measurements obtained by means of the rhinoanemometer can, in some cases, help to establish indications for an operation designed to improve the respiration by the nose. These measurements are also objective standards establishing the results acquired by the operation.

“Researches concerning the size of the nasal passage, before and after having smeared it with adrenalin, give the possibility of judging the vasomotoric state of the nasal organ.

“The rhinoanemometer can be usefully applied for the study of professional diseases, for professional selections, for calculations in legal medicine, etc.”

H. V. FORSTER.

LARYNX AND TRACHEA.

The Intratracheal Thyroid. DR. EMIL RÜTTER. (*Archiv. für Ohren-, Nasen-, und Kehlkopfheilkunde*, 1930, Vol. cxxvi. p. 224.)

The author summarises his conclusions as follows:—

One must still acknowledge the great importance of the numerous observations establishing the accuracy of the Paultaufschen Theory, so that the view that the intratracheal thyroid is merely a process of the normal thyroid gland grown through the tracheal wall is universally accepted.

Whether it can be proved that intratracheal thyroid can originate from embryonic rests as suggested by v. Brünsschen's theory is questionable. So far there is no recorded proof in the literature, but it would immediately be established if a reliable microscopical section of the wall of the trachea contained no thyroid gland tissue at all.

C. DE W. GIBB.

Pathological Appearances in a Case of Difficult Decannulisation. DR. T. ISHII (Prof. Kubo's Clinic, Fukuoka). (*Oto-Rhino-Laryngologia*, Vol. iv. No. 3, p. 238.)

The case was one of a boy, aged 1 year and 3 months, who had had laryngeal diphtheria requiring tracheotomy. The decannulisation was rendered difficult by the persistence of the disease. A recrudescence took place and post-diphtheritic dysphagia set in with regurgitation of food into the trachea, soiling of the tracheotomy wound and suppuration. The patient succumbed ultimately to purulent pneumonia of the right lung. The changes in the tracheal lumen, shown *post mortem*, indicated that too large a cannula had been used. The author has published the results of his experimental study of this condition.

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TONSIL AND PHARYNX.

A Case of Lymphatic Leukæmia simulating Acute Tonsillitis. Dr. I. KASAHARA (Toyohashi). (*Oto-Rhino-Laryngologia*, Vol. iv., No. 3, p. 231.)

The patient was a man, aged 27, suffering from sore throat, swelling of the cervical lymphatic glands and fever. The palatal tonsils on both sides were dark red and swollen to the size of the tip of a thumb but without any sign of ulceration on the surface. In the further course of the disease the hæmorrhagic diathesis showed itself with manifestations in the mucous membrane of the mouth and intestine. Later there developed a swelling of the spleen and oozing of blood from the tonsils. The temperature continued high and the presence of lymphatic leukæmia was unmistakable. Death followed in a few weeks.

JAMES DUNDAS-GRANT.

Peritonsillar Abscesses — Experimental Study — Results — Surgical Deductions. GEORGES CANUYT. (*Les Annales d'Oto-Laryngologie*, January 1931.)

The starting-point of this investigation is to define the exact anatomical situation of these abscesses. We are first given a *résumé* of the views of other workers, with the experiments on which their conclusions are based. Then we are given an account of the author's own researches; the result of his findings from injections into the faucial regions of fresh cadavers is that the peritonsillar abscess is situated in the tonsillar fossa in the lax areolar space between the capsule of the tonsil and the pharyngeal wall. This conception is supported by the experimental injection of lipiodol into abscesses which have been evacuated by needle aspiration and subsequent examination with X-rays. The above anatomical considerations have led the author to adopt a routine technique when confronted with these abscesses. He first carries out an exploratory puncture to determine whether pus is present or not. He argues that such a puncture is invariably carried out in other parts of the body which are accessible to the needle, and if so, why not in this region. The needle is entered between the tonsillar fossa and the lateral pharyngeal wall in the upper two thirds of the region. The needle has a wide bore, and is thrust through the anterior pillar for a distance of about $1\frac{1}{2}$ cm. If pus is found, the diagnosis is established, and drainage is effected. The author contends that the typical swelling of the soft palate is a late manifestation of suppuration, and that pus will often be found long before this tumefaction becomes evident.

The author's experience is at variance with the accepted view that local anæsthesia is unsatisfactory in peritonsillar inflammations. After the preliminary needle aspiration, he proceeds as follows under local

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anæsthesia: A long vertical incision is made through the anterior pillar about 1 cm. behind the free border. The upper limit of this incision is the upper pole of the tonsil, and the lower limit is on a level with the lower third molar tooth. The tissues are then incised step by step, working rather towards the tonsillar capsule, for a distance of about $1\frac{1}{2}$ cm. If pus is not reached at this level, the intervening tissue is broken down with a blunt instrument. Drainage in this situation will be more complete than if the tissues are incised through the usual palatal route.

Although the author has often performed a tonsillectomy in cases of peritonsillar abscesses without an unfortunate result, he is diffident in recommending this operation as a routine procedure.

M. VLASTO.

ŒSOPHAGUS.

The Normal Mechanism of Swallowing. A. E. BARCLAY. (*British Journal of Radiology*, Vol. iii., No. 36, December 1930.)

An account is given of the mechanism of swallowing as observed by the screening of a radio-opaque meal.

The author summarises his article as follows:—

“It is maintained that the bolus is carried from the back of the tongue to the clavicular level largely by negative pressure. The mechanism by which the negative pressure in the pharynx is produced, is by a combined action of raising the larynx and backward movement of the tongue, which together completely obliterate the pharyngeal space for a fraction of a second. With mouth, nose and larynx closed, the reopening of the pharynx produces a negative pressure that is largely responsible for the act of swallowing. Except for fluids, gravity plays a very minor part in the normal act of swallowing.

“The mechanism by which the larynx is cut off during the act is by a dragging up of the laryngeal pharynx behind the larynx to form contact with the epiglottis, possibly about a quarter of an inch below the tip of the epiglottis.”

E. J. GILROY GLASS.

Traumatic Perforation of Œsophagus with Mediastinitis; Operation and Recovery. HARRY MEYERSBURG, Brooklyn. (*Journ. Amer. Med. Assoc.*, 1st November 1930, Vol. xcvi., No. 18.)

The case reported is that of a woman æt. 60, who swallowed some particles of glass. X-ray with barium meal showed extravasation into the tissues outside the upper end of the œsophagus. The patient's condition became very poor with rapid pulse, cyanosis and laboured breathing. There was crepitation in the neck tissues. Œsophagoscopy was performed and forceps carried through the lacerated area when foul creamy pus under pressure was released. Under local anæsthesia

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external drainage was established. Pleurisy with effusion developed on the right side. The patient, though very ill, finally recovered after three months.
ANGUS A. CAMPBELL.

MISCELLANEOUS

Allergy and the Acid-Base Balance. HARRY BECKMAN, Marquette University School of Medicine, Milwaukee. (*Journ. Amer. Med. Assoc.*, 22nd November 1930, Vol. xcv., No. 21.)

The existence of sensitisation is freely admitted, but as skin tests are so unreliable other factors must be considered. Allergen-antiallergen reaction is not the sole mechanism involved because the disease is not infectious, rarely fatal, definitely hereditary and often precipitated by emotional "upsets." Potential alkalosis is suggested as a cause. This is defined as the tendency of an individual to neutralise too rapidly or too effectively the acid substances that are constantly liberated into the blood stream. The evidence in favour of this is presumptive but not entirely unwarranted. Allergic disease is seldom seen in the acidosis individual, that is—accompanying diabetes, starvation, pregnancy, acute infectious fevers, gastric hyper-acidity, sea-voyage (sea-sickness) or in high altitudes. It is often improved by acid therapy such as calcium, alcohol, aspirin and mineral acids (hydrochloric acid). The author in conjunction with thirty-four physicians treated 237 cases with full doses of nitrohydrochloric acid. The patients were urged to eat meats, fat and cereals, while fruits and green vegetables were restricted. By this simple treatment 67 per cent. obtained marked or complete relief. Two tables compare this method with desensitisation where almost the same percentage (70.5) obtained the same amount of relief.

The article occupies eight columns, and has an extensive bibliography.
ANGUS A. CAMPBELL.

RECENT PAPERS ON RADIOGRAPHY.

Roentgenology of the Upper Respiratory Tract, with Especial Reference to the Larynx and Adjacent Structures. HENRY K. PANCOAST, Philadelphia. (*Journ. Amer. Med. Assoc.*, 1st November 1930, Vol. xcv., No. 18.)

In all examinations of the neck X-ray is decidedly helpful. Fluoroscopy is used for the moving parts and is the first procedure. Roentgenography is done later for purposes of record and finer details. The Zeppelin-shaped ventricles of the larynx are clearly seen. If they are not visible one is justified in assuming the presence of new growth,

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inflammatory process or paralysis of the vocal cord. Ossification is very helpful in making the larynx visible and is sometimes seen in persons as young as 17 years. The study of phonation and of the swallowing act is essential in all cases. Both of these functions are described.

The article occupies seven columns, is freely illustrated and has a bibliography.

ANGUS A. CAMPBELL.

Use of Iodized Oil in Diagnosis of Nasal Sinus Conditions. Further Observations. HENRY M. GOODYEAR, Cincinnati. (*Journ. Amer. Med. Assoc.*, 4th October 1930, Vol. xcv., No. 14.)

Iodized poppy-seed oil 40 per cent. diluted with two parts of heavy petrolatum, iodized rape-seed oil diluted 50 per cent., or brominized sesame oil full strength are the opaque mediums of choice. If irrigation is used previously, the oil should be injected immediately as the sinus membrane may swell. Swelling of the membranes may also occur following an acute rhinitis or allergic disease. Opaque oils may be used as a routine measure in the antra but their use in other sinuses should be confined to obscure cases. The antra are filled preferably through the normal ostium, but where this is impossible a straight needle is used. Both antra may be filled at one time. The sphenoid should be injected on one side at a time to prevent overlapping shadows. The frontal sinuses may be filled with the patient in a knee-chest position. In many cases with negative roentgenograms and negative antrum lavage opaque oils have shown definite filling defects which at operation proved to be cystic membrane, often dotted with small abscesses in its walls. X-ray studies of the oil leaving the antrum with the head in the recumbent position show that it is only a matter of one or two minutes from the time the oil leaves the antrum until it enters the ethmoid and frontal sinus. It is thought that pus may travel in the same way and that infection of these sinuses may be secondary to the antrum. Sinuses which have been opened radically may be studied by packing the cavities with gauze impregnated with opaque oil.

Some therapeutic value has been found in atrophic rhinitis.

The article occupies eight columns, has twelve illustrations and a bibliography.

ANGUS A. CAMPBELL.

The Diagnosis of Laryngeal Disease. Laryngoscopic Appearance, correlated with Roentgenological Observations. CHEVALIER LAWRENCE JACKSON, Philadelphia. (*Journ. Amer. Med. Assoc.*, 1st November 1930, Vol. xcv., No. 18.)

Hoarseness, especially if prolonged, requires the following diagnostic studies: complete history, mirror laryngoscopy, X-ray studies of the

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neck, chest, and in most cases nasal sinuses, complete physical examination especially of the chest, Wassermann test, sputum analysis and sometimes direct laryngoscopy and biopsy. Special stress is laid on the value of fluoroscopic and roentgenographic studies of the neck, especially of the laryngeal ventricles. Thirteen cases are briefly reported. These are cases of benign neoplasms, carcinoma, tuberculosis, syphilis and paralysis.

The article occupies six columns and is freely illustrated.

ANGUS A. CAMPBELL.

Roentgen Examination of the Paranasal Sinuses and Mastoids.

AMÉDÉE GRANGER, New Orleans. (*Journ. Amer. Med. Acad.*, 1st November 1930, Vol. xcv., No. 18.)

The best roentgenograms of the sphenoids and posterior ethmoids are made by resting the head evenly and firmly with the alveolar and glabella points in contact with the author's sinus mask or head rest. The sagittal plane forms an angle of 107° with the table, and the central ray is directed perpendicularly to the latter. While the author admits the advantage of iodized oil he feels that in the vast majority of cases changes in the sinuses can be seen by experienced and careful observers without its use. Great reliance is placed on the appearance of the upper boundary of the sphenoid sinuses (the curved Granger line). When that line is distinct and clean-cut with sharp upper and lower edges the sphenoids do not contain pus and their lining membranes have not undergone hyperplastic or degenerative changes. The density of the sphenoid image is not increased to any extent by hyperplasia without pus or polyps, but it can be increased to a marked degree by pathological changes entirely outside the sinus. In mastoids the antero-posterior position gives a better picture. The different groups of cells and the superior semi-circular and internal auditory canals can be made out. It is particularly valuable in furunculosis. The diagnosis of labyrinthitis and acoustic neuroma has been made by this means. In children under six years of age the Law position is used. In children under three years of age the sinus plate is not seen normally. When seen in the absence of clear and unusual pneumatization it means an extensive destruction of the mastoid down to the sinus plate. Some therapeutic value has been noticed in infants when there was no degeneration of bone. The amount of softening and destruction revealed by X-ray is often out of all proportion to the clinical symptoms.

The article occupies five columns, is illustrated and has a bibliography.

ANGUS A. CAMPBELL.