

Wallace, D. (Edinburgh).—*Two Cases of Laryngectomy.* "Edinburgh Med. Journ.," Oct., 1890.

IN the first case a complete laryngectomy was performed by Mr. Chiene, and, in addition, the upper portion of the gullet was removed. The patient died thirteen days after the operation. In the second case (which had been correctly diagnosed by the abstractor fifteen months before operation) a partial laryngectomy was carried out by the same surgeon. The patient was alive eighteen months after the operation. Malignant disease was present in both cases. *Hunter Mackenzie.*

Clegg, W. T. (Liverpool).—*Tracheotomy in an Infant four days old.* "Brit. Med. Journ.," Jan. 9, 1892.

THE operation was performed on account of the presence of a large nævoid mass beneath the tongue, and the existence of swelling of the nasal mucous membrane, which together obstructed the respiration. The child died two days afterwards. *Hunter Mackenzie.*

Wagner.—*A Case of Thyrotomy in a Child eighteen months old.* "New York Med. Journ.," Dec. 5, 1891.

THE patient was suffering from obstruction to the respiration evidently laryngeal and not thoracic. Tracheotomy was performed, and two weeks later the thyroid cartilage was opened, when a papilloma about the size of a small pea was found on the left vocal cord posteriorly. This was removed and the child made a very good recovery. Owing to the illness of the author the tracheotomy tube was not removed for eleven months, at the end of which time the patient died of influenza. During this period the child breathed perfectly well through the mouth and nose, and was evidently in excellent health. *John Macintyre.*

THE EAR.

Lichtenberg, K. (Buda-Pesth). — *On Disturbances of Hearing in Railway Servants with reference to the Safety of the Travelling Public.* "Monats. für Ohrenheilk.," 1891, Nos. 11 and 12.

LICHTENBERG has officially recommended the circulation of the points established by Moos, as follows :—

1. Locomotive drivers and stokers suffer sooner or later from affection of the organs of hearing, with marked diminution of hearing power, and usually on both sides, while pursuing their calling.

2. This acquired dulness of hearing appears to be more dangerous in regard to signals than does colour-blindness. The latter is congenital, and can be detected before the individual is employed, but the former is slow and insidious in its onset, and its occurrence may only be recognized accidentally, as when, for example, through cold or injury, the hearing on one or both sides becomes feebler or abolished.

3. As the striking evidence shows that the ears of railway servants engaged on the trains are very frequently diseased, further investigation may perhaps correct this result, but the fact is positive and unquestionable.

4. Before engagement the hearing ought to be investigated with the greatest care, and only by a medical man thoroughly practised in otology, as the tests, especially the functional ones, are difficult and complicated, and because the customary use of the watch and voice is quite insufficient.

5. That those employed should be instructed that a diminution of their hearing capacity is liable to come on in the course of their pursuit, and that they must report the slightest sign of its approach.

6. That an examination of the hearing organs of railway drivers, etc., appears to be necessary, at least every two years, for the prevention of accidents.

Dundas Grant.

Sune y Molist.—*Artificial Drum made of Collodion.* “*Revista de Laringologia*,” &c., Aug., 1891, and “*Bolletino delle Malat. dell’ Orrechio*,” &c., Jan., 1892.

THIS only differs from the well-known artificial membrane of Michael in the omission of the water which this otologist instils before the collodion. Dr. Sune y Molist considers the collodion alone sufficient. [We cannot but think that those who have practised the use of the cotton-wool drum of Yearsley will be loth to relinquish it for collodion if they try both, as we have done.]

Dundas Grant.

Milligan (Manchester).—*Meningitis following Chronic Suppurative Middle Ear Disease.* “*Brit. Med. Journ.*,” Jan. 2, 1892; Manchester Path. Soc., Dec. 9th, 1891.

EXHIBITION of specimen, taken from a boy, aged seven, in whom the mastoid antrum had been opened, thick cheesy pus evacuated, and diseased bone scraped away. Death occurred ten hours after the operation. Necropsy showed the base of the brain floating on pus, which had entered the cranial cavity along the sheath of the auditory nerve.

Hunter Mackenzie.

Cousins, J. Ward (Portsmouth).—*Improved Method of Examining the Auditory Canal and Membrana Tympani.* “*Brit. Med. Journ.*,” Jan. 16, 1892.

THE author describes and illustrates a method of examining the ear by means of a speculum, with mirror and lens attached, and a special form of head-rest. They are made by Messrs. Maw, Son, and Thompson, of London.

Hunter Mackenzie.

Booth, J. Mackenzie (Aberdeen).—*Mastoid Abscess.* “*Brit. Med. Journ.*,” Jan. 16, 1892; Aberdeen, &c. Branch, Brit. Med. Assoc., Nov. 18, 1891.

EXHIBITION of a girl, aged ten years, whose mastoid antrum had been opened with a chisel for abscess. The symptoms were immediately relieved, and the patient was well in ten days.

Hunter Mackenzie.

Milligan, Wm. (Manchester).—*The Treatment of “Attic” Suppuration by Excision of the Membrana Tympani and Auditory Ossicles.* “*Lancet*,” Jan. 16, 1892.

MILLIGAN describes the anatomical relations of the “attic,” which is no doubt well-known to our readers to be the portion of the tympanic cavity

above the level of the short process of the malleus, containing the head of the malleus and body of the incus. Retention of secretion, and the frequent association of disease of the ossicles and mastoid antrum, render suppuration in this region persistent and obstinate. He thinks the frequency of the condition has been under-estimated, and that it is present "in three and a half per cent. of the cases" [of what?—ear disease in general, or suppurative median otitis? We assume the latter.]

In opposition to Walb, who considers that suppuration in the "attic" is usually due to extension or infection from the external meatus through the very doubtful foramen of Rivini, he believes (rightly, we think) that the cause is usually general inflammation of the tympanum, and that the "attic" spaces are then shut off by inflammatory adhesions with the natural results. Out of twelve cases, Milligan found it secondary to scarlet fever in six, to naso-pharyngeal catarrh in two, and without assignable cause in four.

Caries of the ossicles and parietes is common, and may only be detectable by careful exploration with a fine probe. The importance of thorough treatment is evident when we remember the proximity of the "attic" to the cranial cavity, the mastoid antrum, and the lateral sinus.

The indications for the operation are: (1) chronic suppuration with caries of the ossicles, and (2) the presence of cholesteatoma in the drum cavity. Carious spots must be scraped and free drainage must be established.

The operation is performed under illumination from the forehead light or mirror. A general anæsthetic is needed. For antiseptic purposes the ear is previously irrigated with warm carbolic or boracic lotion several times daily, the auricle is cleansed with turpentine or ether and covered with a carbolized towel. To minimize hæmorrhage, a twenty per cent. solution of cocaine is kept in the external meatus for five minutes before the operation. If the membrane is intact (which is rare), a circular incision is made 1-16th of an inch from the periphery. The tendon of the tensor tympani is then cut close to its insertion into the malleus. The superior ligament of the malleus is then divided. [This is easier in the diseased than in the normal condition of parts.—ED.] Milligan next divides the malleo-incudal ligaments by means of a curved knife. The malleus thus freed is removed by means of forceps or snare. If the incus is to be removed it must now be drawn down by means of a hook and its attachment to the stapes severed. [It is said that the chorda tympani—if in such cases it is likely to have any functional value—is more likely to escape injury if the incus be removed before them alleus.—ED.] The ear is lastly irrigated with warm boracic lotion, carefully dried, insufflated with finely pulverized iodoform and lightly packed with iodoform wool. The dressings are changed when they get moist.

Four cases are described in which benefit, as regards both hearing and suppuration, followed excision of the malleus alone after other methods of treatment had been unavailing. [This paper will be read with interest in connection with abstracts of papers by Kuhn, Schmiegelow, and Bezold, in the Journal for January. It may not be out of place to remind our readers that the chief clinical characters of these cases are

prolonged otorrhœa and the presence of a *perforation in Shrapnell's membrane*, out of which there usually grows a *polyypus*.]

Dundas Grant.

Charazac, J. (Toulouse).—*Contribution to the Study of Malignant Tumours of the Ear.* "Revue de Laryngol., d'Otol., etc.," Jan. 1 and 15, and Feb. 1, 1892.

THE *auricle and external meatus* may be the seat of epithelioma, of sarcoma or of carcinoma. *Epithelioma* may follow an injury or a simple cutaneous affection (eczema, impetigo, etc.), or may arise without any known cause. It generally originates in the skin of the upper portion of the auricle. Soon there is a sensation of heat and discomfort, ulceration appears, and with it a variable amount of pain. The ulcer bleeds readily, discharges a more or less abundant ichor, is usually irregular with "punched-out" edges, the floor being red or violet and smooth, or more often covered with granulations. In some cases it takes a vegetating form, and there are warty excrescences separated by irregular furrows. Sooner or later, the peri-auricular glands are enlarged. [It will be noted that a resemblance to lupus, rodent ulcer, syphilitic ulcer or papilloma may render diagnosis difficult.—*Reporter.*] *Sarcoma* appears as a tumour which may be of the size of a small nut. It may have the softness of a lipoma, the firmness of a fibroma, or the vascularity of an angioma. Later, it ulcerates and fungates. Its favourite seat is the lobule. *Carcinoma* appears generally as a pimple which rapidly attains a considerable degree of development. The auricle has been seen to be converted into an ulcerated mass of the size of a fist.

The *middle ear* may be attacked primarily or secondarily from the external ear or the parotid, the tongue, the superior maxilla (of the last, Dr. Charazac narrates an interesting case in which hæmorrhage and obstruction to the passage of the Eustachian catheter led him to employ digital exploration and posterior rhinoscopy, and to diagnose malignant disease of the maxilla). More rarely, extension from the dura mater to the ear may take place. In a typical case of epithelioma of the middle ear, a patient, aged sixty-five, experienced discomfort in the right ear, followed soon by deafness, local pain, noises, etc., and otorrhœa. Shortly there appeared a polypoid granulation, whose removal failed to relieve the symptoms. Increased pain and facial paralysis next supervened, and the skin of the mastoid and occipital regions became œdematous and tender, without fluctuation. The symptoms might all have arisen from middle ear suppuration, and accordingly the mastoid was opened. The cavity was filled with granulations; there was much dark blood, but no pus. The microscopical examination of the "fungosities" revealed characteristic lobulated pavement *epithelioma*. The patient died six months after the exploration. It is difficult to decide as to whether the earlier middle ear symptoms depend on an established malignant disease, or whether they are merely those of a simple median otitis which creates a *locus minoris resistentiæ*, a starting-point for the evolution of neoplastic growths in subjects predisposed to it. The pain, the offensive discharge, the facial paralysis, the vegetations, the tendency to bleed occurring in patients over forty years of age, should awaken suspicion as to the malignant nature of

the otitis. *Sarcoma* occurred in a child of twelve years of age under Dr. Charazac's care. Two and a half years previously an acute suppurative inflammation occurred and a small granulation formed on the promontory. This was removed, and, under treatment, complete recovery appeared to take place. In April, 1891, there came on severe pain, facial paralysis, and polypous excrescence, with extreme general feebleness. The removal of the excrescence gave some relief, but the palsy continued. The otorrhœa persisted, and was at times tinged with blood. The outgrowth recurred in the tympanum and attained the size of a large pea. It was removed twenty days before the publication of the report, and was found to consist wholly of a round-celled sarcomatous tissue. So far, this was an exception to the generality of cases of malignant disease of the middle ear; as a rule, there is extension in various directions. Towards the mastoid there results local pain and swelling, with ulceration, fungation, and foetid ichorous discharge, without necessarily any evidence of feverishness. In other cases the disease extends inwards to the internal ear and brain, or forwards to the temporal fossa, where it may simulate a temporal abscess. Again, it may affect other neighbouring organs, such as the naso-pharynx, producing permanent dysphagia. Intermittent dysphagia, on the other hand, is observed when the glosso-pharyngeal nerve is involved. The other bulbar nerves may also be affected with the natural symptoms. In general it may be stated that "when, in a patient " past middle age, there occur, in the course of old or recent otorrhœa, " violent local pain, accompanied by foetid discharge, with the production " of fungosities which readily bleed and recur rapidly after removal, we " ought to suspect malignant neoplasia. The probability becomes greater " if there supervene facial paralysis and inflammation in the mastoid " region or temporal fossa. The microscopical examination of the vege- " tations is the only thing which can make the diagnosis certain." The prognosis is absolutely fatal, and the treatment only palliative. Relief may be afforded by the removal of vegetations, the incision and curettage of the mastoid, and above all by the unstinted use of morphia.

Malignant disease of the *labyrinth* is practically unknown, except as secondary to disease of the outer or middle ear (usually epithelioma or carcinoma) or of the cranial contents (more frequently sarcoma). Tumours of the *auditory nerve* are generally fibro-sarcomata, producing deafness and the usual symptoms of intra-cranial tumours. Numerous cases have been reported.

The appended bibliography of malignant diseases of the organs of hearing is so valuable that a debt of gratitude is due to Dr. Chazarac for his well directed labour in compiling it.

Dundas Grant.

Polo (Nantes).—*Trephining the Cranium and the Mastoid Process in a case of Suppurative Otitis.* "Revue de Laryngol.," &c., Jan. 15, 1892.

AN acute suppurative otitis followed an attack of measles in a boy of six years of age. There came on without interval an extreme degree of local and general headache, with evening pyrexia and great constitutional disturbance. The patient was pale, and there were noted dilatation of pupils, not contracting to light, slow hard pulse, diminished consciousness,

scarcely any response to questions, bilious vomiting, sluggishness of bowels, internal strabismus of the left eye. On account of the slight elevation of temperature, the localization of the cephalalgia, and the greater frequency of cerebral abscess than of meningitis, a diagnosis of abscess was made. The mastoid was opened, only a drop of pus was found, and the lateral sinus was exposed. Next day there was little change, and the cranium was trephined over the temporo-sphenoidal lobe. The dura mater bulged, and was incised. After exploring forwards and backwards in several directions, the operator hit upon a small collection of pus by means of an aspirating needle, driven straight in for about four centimètres. This was followed by the escape of what appeared to be cerebro-spinal fluid from the lateral ventricle. The opening in the cerebrum was enlarged and drained. The patient slept, the pulse improved, the left eye squinted outwards instead of inwards. Death occurred next night. [It is to be regretted that there is no account of a *post-mortem* examination, by which the diagnosis of this not very clear case might have been more definitely confirmed.] *Dundas Grant.*

Botey, Ricardo (Barcelona).—*Treatment of Otitis Media Acuta.* "Revista de Ciencias Médicas," Oct. 10, 1891, "Archivos Internac. de Rinol., Laring., Otológ.," Jan., 1892.

DR. BOTEY advises a vigorous antiseptic treatment, thus :—During the first forty-eight hours instillations every two hours of one to two per mille solution of the bichloride of mercury in glycerine, aural injections of solutions of half per mille in salt water, and nasal douche and gargles of one in ten thousand, combined with tartaric acid and chloride of sodium. If the pain lasts more than thirty-six hours he performs myringotomy, and inflates the tympanum by Politzer's method in children, and catheterization in adults. He advises Wilde's incision to be promptly practised if the mastoid is affected. [In addition to the well-known antiphlogistic and derivative measures employed the reporter would recommend to his readers the instillation of cocaine one per cent., and resorcin two per cent., for fifteen minutes at a time, the drops being moderately warmed.]

Dundas Grant.

Dench, E. B. (New York).—*Chronic Non-Suppurative Inflammation of the Middle Ear.* "New York Med. Journ.," Sept. 26, 1891.

To arrive at data on which to ground the prognosis in this disease, Dench analysed a number of cases (forty-one) *in which there was a reasonable doubt as to what the result of treatment would be*, testing the relation of "bone" to "air"-conduction in each by means of five tuning-forks from C, having 128 vibrations per second, to C iv. having 2048. He was thus guided by an application of Rinne's experiment. It was of course requisite to determine how great a diminution of air conduction was necessary in order to render the "positive" or "negative" result of Rinne's experiment of diagnostic value, and he accepted Lucae's standard, viz., understanding of whispered speech at not more than one metre (say forty inches).

Dench therefore tested systematically, by means of the five tuning-forks, those cases in which the whispering distance after inflation did not

remain at a considerable distance above forty inches, as well as some doubtful cases in which the whispering distance was over forty inches. He excluded six cases as due to disease of the perceptive apparatus, to injury or to senile change (presbykuis). Of the thirty-eight remaining, twenty-eight were improved, six were practically cured, three were unimproved, and one was apparently made worse.

The *cured* cases were mostly young patients; the bone-conduction for the first three forks was better than the air-conduction (negative Rinne); while, we presume, for the two highest the air-conduction was the better (positive Rinne). In one case only—a boy of fourteen—in which whispering distance was under forty inches, air-conduction was throughout better than bone-conduction, resembling a case of disease of the perceptive apparatus, but inflation doubled the hearing-distance, and after a few weeks' treatment perfect restoration resulted.

In only twenty-four out of the twenty-eight *improved* cases was a complete record made. Bone-conduction was greater than air-conduction in eighteen, and less in six, the whispering distance in the latter being over forty inches, except in one case aged seventy-four. In four of the improved cases in which whispering distance was over forty inches, bone-conduction was relatively greater for the first two or three forks, air-conduction for the others.

Of the three *unimproved* cases, in one the general health was at fault. In the other two the whispering distance was under two feet, and bone-conduction for the first four forks exceeded air-conduction.

What cases, then, may be hopefully treated? Those, generally speaking, in which the whispering distance is over four feet and in which the preponderance of air-conduction over bone-conduction for at least the highest tuning-fork is preserved, especially in comparatively young patients and of not very long standing (the last point often quite undeterminable, and therefore often negligible).

As regards *treatment* the ordinary lines were followed. Dench thinks that prolonged and rather powerful inflation is of importance when there is evidence of firm adhesions, and when the membrane is not atrophied to an extent to endanger rupture from this procedure. He did not find Lucae's spring probe of any great value. Eustachian bougies were useful when obvious narrowing of the tube did not soon pass off. In one case he found tenotomy of the tensor relieve tinnitus to a considerable extent. Hygienic treatment among the poor patients treated was little available, and treatment of the throat and nose was of course carried out, but the cases with which this paper is most particularly concerned are precisely those in which the nose and throat are not palpably at fault. The prognosis is favourable in proportion to the degree to which the deafness depends on naso-pharyngeal trouble, with a history of increased impairment of hearing due to a cold or an exacerbation of a concomitant catarrhal trouble. In some instances he found improvement follow massage of the ossicles by means of some form of ear-trumpet or conversation-tube, such as Dr. Maloney's "otophone" ("Archives of Otology," 1887, p. 177). As an inexpensive substitute he recommends an india-rubber tube about two feet in length, into one end of which is slipped the tube of an

ordinary kitchen funnel. The free end is inserted into the meatus, while the patient is read to for ten or fifteen minutes twice daily. In a few cases he gave small doses of pilocarpin by the mouth, and he thought that improvement was afterwards more marked. Intra-tympanic operation, (such as the division of the incudo-stapedial articulation) is safe if under proper precautions, and should be recommended when a prolonged course of treatment produces no improvement of hearing, and the tinnitus remains distressing. No case, he thinks, should be pronounced beyond hope until we have tried the various means at command and continued treatment for some time—say at least four or six weeks—and then persisted for months if there is the least sign of improvement. *Dundas Grant.*

ASSOCIATION MEETINGS.

THE SOCIETY OF LARYNGOLOGY, OTOTOLOGY, AND RHINOLOGY, OF PARIS.

Meeting, November 6, 1891.

The Treatment of Tracheitis by Hot Inhalations of Menthol. By Drs. ALFRED MARTIN and LUBET-BARBON.

Though used by Rosenberg in the form of inhalations and intra-tracheal injections in oily solution, hot inhalations have not been sufficiently employed, although the drug is thus introduced into the air-passages without intermixture with any vehicle. For more than two years we have found it of excellent service in tracheitis, especially in cases where the patient suffers habitual irritation of the larynx and trachea, and where the pressure upon the latter is painful and provokes attacks of coughing. These attacks occur spontaneously, and are preceded by a kind of tickling, so that the patient can pretty accurately localize the seat in the laryngo-tracheal region. These tracheites are generally very persistent, and are reproduced by the slightest atmospheric variations. This is the weak point of some patients who appear to be "habitual coughers," and have simultaneously a rhino-pharyngitis. Laryngoscopically, the cords are seen to be slightly reddened, especially at the free edges; mucus is adherent in the inter-arytenoid region and subglottic region, which latter is often slightly swollen; the trachea is red, and exudation products can be seen along its walls. Inhalations of menthol are facilitated by the fact of the solid body being fused about 38°, and volatilized about 45°. The apparatus employed is of the simplest kind, consisting practically of a wide-necked flask, closed by a cork with two holes, through each of which passes a glass tube—one short, intended simply to carry air into the receiver; the other longer, and ending in a caoutchouc tube for insertion into the patient's mouth. The receiver is heated in a water bath, or by an alcohol flame, and white vapours of menthol soon fill the receiver, and can be drawn by inspiration along the caoutchouc tube. The first inhalations should be slowly taken, and the menthol should not be too highly heated, in order to avoid cough and suffocation. Two or three inhalations of about ten inspirations a time can be thus made during the day, employing a temperature so much the higher according as the disorder is more or less intense or rebellious.