ASSOCIATION MEETINGS.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

Fourteenth Annual Meeting, held at Boston, Mass., June 20, 21, *and* 22, 1892.
"*Medical Record,*" *July* 28, 1892.

Dr. S. W. LANGMAID, Boston, *President.*

THE PRESIDENT'S ADDRESS.

Dr. LANGMAID opened his address with a touching reference to the loss of Dr. Donaldson, of Baltimore, and of Sir Morell Mackenzie—the former a Fellow, the latter an Honorary Fellow, of the Association. He then made a brief reference to the rapid advance which laryngology had made since only a few years ago, when it first took a prominent position among the specialties in medicine. He thought that our advance would be more greatly helped by faithful adherence to this Association. Companionship with fellow-workers was necessary to completeness of one's growth. Membership was not only a means of information, but it acted also as a stimulus to work. "Let us hope," he said, "that the next ten years will show such work performed that American laryngology will occupy no other position than that which has always been accorded it, namely, the first in merit as well as priority in establishment."

On the Influence of Certain Diathetic Conditions upon the Prognosis in Operations upon the Throat. By Dr. D. BRYSON DELAVAN, New York.

He called attention to the importance of discovering, before operations upon the throat, the possible existence of a diathetic condition which might influence the result of the operation, and described several such general conditions, including the strumous, the rheumatic, and the hæmorrhagic diatheses, and the diseases exophthalmic goitre and general lymphadenoma. He concluded that in the case of the two last mentioned the removal of enlarged tonsils and of adenoid hypertrophy at the vault of the pharynx was attended with no extraordinary risk. With regard to the prognosis in strumous cases, complete removal of the offending tissue is more difficult, recovery slower, and recurrence more probable. In view of the latter, patients should be warned in these cases of the possible necessity for future operation. Still, the earlier such cases are operated upon the better. In rheumatic cases no especial difficulties are offered, and the prognosis is most brilliant. The hæmorrhagic diathesis is the most important, because the most dangerous. Its presence contra-indicates all surgical interference. The only known accidents that have happened in this country in the removal of adenoid hypertrophy at the vault of the pharynx have been in hæmophilic subjects. Adenoid enlargements are unusually common in these patients. There is no method of operating upon them now known that is safe. The galvano-cautery is not a reliable hæmostatic even in ordinary cases, as bleeding may occur after its use, both immediate and secondary. It should not be relied upon, therefore,

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in the case of bleeders. The writer urges (1) that rigid examination as to the possible existence of the hæmorrhagic diathesis be made prior to operation upon the tonsils and adenoid tissue of the pharynx in every case ; (2) that in the existence of hæmophilia, operation by any procedure at present known is absolutely contra-indicated ; (3) that, since many of these cases urgently require relief for their throat troubles, it is most desirable that a method of reaching them more satisfactory than any heretofore practised be suggested.

Some Pathological Conditions of the Upper Air-Passages coincident with Attacks of la Grippe. By Dr. S. HARTWELL CHAPMAN, New Haven.

Beginning with November, 1891, it had been his pleasure during five months to observe certain secondary affections of the upper air-passages coincident with la grippe ; and from a record of a large number of cases he had selected sixteen which were of more than ordinary interest, as the patients had previously been under treatment for other diseases from seven years to six months. Eight were cases of spinal disease, one of diabetes insipidus, four of renal disease, three of rheumatic gout. The onset of la grippe was quite similar in all these cases : headache, nausea, anorexia, flying pains, exhaustion, progressing to extreme malaise, moderate fever, pulse either considerably accelerated or greatly retarded, mild delirium, pain and stiffness in the back. He called attention to the close similarity between these symptoms of la grippe and the symptoms of the milder forms of epidemic cerebro-spinal meningitis. In the rheumatic cases, the affections of the upper air-passages, during the attack of la grippe, were : in one, laryngitis crouposa, complicated with broncho-pneumonia ; in two, aphthæ of mouth and pharynx, extending to the brim of the larynx. In the four cases of renal disease, the attack of grippe showed the following coincident affections : sanguineo-purulent naso-pharyngeal inflammation, combined with acute tonsillitis and sympathetic enlargement of the cervical glands. The swelling of the tonsils became so great as to threaten suffocation, and was relieved by cutting. In some of them there was hæmorrhage, but not dangerous ; in one, croupous laryngitis. The duration of the naso-pharyngeal inflammation was about two months ; of the laryngitis, only four days. In the case of diabetes, there was intense congestion of the entire pharynx and œdema of the larynx, which continued eight days and markedly interfered with breathing. During the severest period of the disease the pulse, which before had been very rapid, fell to 70, and the patient was less nervous. In one of the eight cases of spinal disease, causing humpback, a form of paralysis developed which had been absent for many years ; and during the attack the pulse was reduced to 50, the normal being 80. The spinous processes were intensely sensitive. In three cases of curvature of the spine, in females, the attack of grippe was not severe, but in all there was reduction in the rate of the pulse, extreme malaise, and very sensitive spine. Secondary affections were aphonia and purulent naso-pharyngeal inflammation. Some other interesting points were also present.

BEVERLEY ROBINSON (New York) had not observed the complications mentioned by Dr. Chapman.

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MULHALL (St. Louis) gave some experience with œdema of the larynx in la grippe.

Pharyngo-mycosis. By FREDERICK I. KNIGHT, Boston.

Ever since special attention had been paid to diseases of the throat, observers had been struck by the peculiar obstinacy of chronic folliculitis of the tonsils, which had been not infrequently accompanied by a similar condition of the base of the tongue, and occasionally of the arches of the palate and of the pharynx. The affection consisted of whitish, yellowish, or greyish exudations, situated at the mouths of the follicles, sometimes cheesy and easily removed, sometimes cretaceous, and sometimes only tough, stringy, running deep into the follicles. There was quick recurrence after removal of the products, and even after the subsequent application of strong medicaments. Fraenkel had, in 1873, pointed out an abundance of leptothrix threads in such products, and some writers had looked upon the parasite as the cause of the condition. A number of other forms of parasitic growths in the throat had also been described. Other observers, notably Chiari, believed that the parasite was simply an accidental complication. In the treatment of typical cases of mycosis, the author had experienced the same difficulty as others, and found nothing satisfactory except boring deep into each follicle with a galvano-cautery point. If any of the disease were situated in a part of the tonsil which could be excised, this would shorten the treatment.

Dr. DELAVAN had found the treatment mentioned by Dr. Knight unsatisfactory, for enough of the leptothrix would remain to cause a recurrence. He had obtained the best results from frequent washing with borax, also bichloride of mercury, and, above all, correction of disturbed digestion.

Dr. DE BLOIS (Boston) used instrumental means, also a mild astringent, as of nitrate of silver, and gave attention to digestion.

Dr. JOHNSON (Baltimore) found these cases mostly debilitated school-children and old subjects. He used local and constitutional measures.

Dr. MULHALL (St. Louis) had found nothing of any effect without treatment of the stomach.

Dr. WRIGHT (Brooklyn) said that these were fungi, and like other fungi would continue to grow as long as they receive the proper food.

Dr. CHAPMAN treated these cases locally with fuming nitric acid, introduced through a grooved platinum needle, and internally by nitro-muriatic acid.

Dr. BEVERLEY ROBINSON had not seen many cases, but in one failed to effect a cure with various remedies until the patient went to Sharon springs.

Dr. LANGMAID did not object to correcting any constitutional condition, but regarded local mechanical measures necessary.

A Case of Fibrous Epithelioma at the Root of the Tongue. By Dr. JONATHAN WRIGHT, Brooklyn.

This case, on account of the interest connected with the diagnosis, was extremely difficult, because of the rare form in which the disease

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presented itself. When he first examined the patient the tongue seemed normal, except for two prominences on each side, at the base, which felt hard and firm. Grave doubts were entertained as to their exact nature for several months; finally, Dr. McBurney operated for cancer, but by this time an ulcer had formed which went to make the diagnosis more evident. The patient did well for a time, but finally died, without, however, a recurrence.

Report of some Cases of Membranous Sore Throat. By Dr. BEVERLEY ROBINSON, New York.

The cases made the basis of a paper on membranous sore throat. He used the term "membranous sore throat" advisedly. In the three cases reported, there was great difficulty of diagnosticating between true diphtheria and a membranous sore throat of some other origin. The bacteriological examination, however, failed to reveal the Loeffler bacillus, while streptococci were present in greater or less abundance. The author pointed out the fact that failure to find the Loeffler bacillus did not necessarily disprove the existence of diphtheria. He impressed the fact that a membranous sore throat of a simple character compared with diphtheria might exist, and one still be in great doubt as to diagnosis. Where such doubt existed, he claimed that it was unwise to prematurely make a diagnosis of true diphtheria, and cause the family the alarm and trouble such an announcement would necessarily imply. At the same time certain precautions could be taken against unnecessary exposure of the well. He especially objected to sulphur fumigations. The treatment, however, might be carried out with all the precautions which one would take in a case of true diphtheria. In this direction he spoke highly of the use of powdered cubebs, taken in small pinches into the mouth at frequent intervals. He must acknowledge, however, that the antiseptic powers of cubebs in the destruction of the Loeffler bacillus had not been proven, at least outside the human body. He condemned the custom of the health officers in some sections of posting houses with diphtheria, as if persons passing such houses and not entering them were liable to take the disease.

Considerable discussion followed, and a resolution was adopted, making as a subject for discussion at the next annual meeting "The Best Means of Protecting the Public against the Spread of Diphtheria."

Presentation of Instruments. By Dr. MORRIS J. ASCH, New York.

A tampon for use after operations for deviations of the nasal septum. The tampon consisted of a hard rubber tube, with perforations.

Dr. Asch also presented a set of Dr. Dessau's antiseptic electrodes and curette for adenoid growths.

Dr. D. B. DELAVAN (New York) demonstrated a new method of administering iodide of potassium in cases of tertiary syphilis of the throat, where the ulceration had become so severe that the patient could not swallow with ease. The method consisted in peptonizing the milk with the essence of pepsin in which the iodide of potassium was to be administered.

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Dr. J. WRIGHT (Brooklyn) presented an improved forceps for the removal of adenoid growths in the post-nasal space.

Dr. JOHN O. ROE (Rochester) presented an improved Adams' forceps for straightening the nasal septum. It possessed the advantage of enabling one to over-correct the deformity.

Dr. C. H. KNIGHT (New York) showed an improved snare for removal of the tonsils, with a ring-safeguard.

Intubation for Chronic Stenosis in a Boy, aged Ten. By Dr. C. H. KNIGHT, New York.

The boy was admitted to the hospital in October, 1891, and, according to the statement of his physicians, he had been ill for a week or more with dyspnœa, aphonia, cough, and fever; there was a history of bad hygiene and poor diet. When admitted the patient could not whisper, and his breathing was quite noisy and laboured. A marked feature in the case was that the dyspnœa was decidedly more marked at night; it was relieved by inhalations of oxygen. The boy's condition grew worse, and on November 8th Dr. Jarvis examined him, and thought he found a neoplasm beneath the vocal bands. The vocal bands were red, and did not approximate on phonation. Beneath the cords, extending along their entire length, and invading the anterior commissure, was a mass of tissue, paler in colour than normal mucous membrane, having an uneven, and at certain points an almost papillated, surface. No ulceration could be discovered. The air-passage was converted into an irregular slit, so narrow as to excite surprise that adequate respiration was possible. Owing to dyspnœa an O'Dwyer tube was introduced, which was worn, more or less, for many weeks. It was impossible to get sufficient of the pathological tissue to make a satisfactory microscopic examination. Dr. Knight's first impression of it was that it was tubercular, but the absence of pulmonary signs, and the marked change for the better subsequent to intubation, pointed to simple sub-glottic papilloma. After about three months, the boy having got along well with the tube (which was worn only part of the time), he was transferred to the surgical division for tracheotomy, thyrotomy, and radical extirpation of the neoplasm, the idea still being that it was a purely local affair. From this time the progress was rapid toward death from general tuberculosis.

The points of interest were:—(1) The simplicity of intubation as compared with tracheotomy, and the ease with which the tube was extracted with the aid of cocaine, and under the guidance of the mirror; (2) the slight amount of disturbance excited by the tube, and the absence of objection to its prolonged retention. Finally the question suggested itself: Was it a case of primary laryngeal tuberculosis? He believed the patient was much more comfortable than he could have been with the tracheal instead of the laryngeal tube.

Rare Forms of Laryngeal Growth. By Dr. ALEXANDER A. MACCOY, Philadelphia.

He described two cases—one of myxoma of the larynx, which had come under his care in 1888; the other of fibroma of the larynx. The former condition was quite rare; the latter not so infrequent. The

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myxoma seemed to have its origin from the margin of the orifice of the ventricle. The patient's voice was completely restored after its removal. In the other case most of the growth was removed by the cold snare, and the remaining part would be operated upon later. It appeared to have sprung from the anterior and right surface of the arytenoid cartilage.

A Case of Tumour of the Larynx. By Dr. H. L. SWAIN, New Haven.

The history of a case of fibro-myxoma of considerable size, attached by a pedicle to the anterior commissure of the vocal cords. He related the difficulties which he had encountered in removing this large growth, whose base was spread out over a greater surface than he had supposed. Its removal had been followed by relief of the difficulty connected with phonation and respiration, and the patient had remained free from recurrence two years.

Dr. C. C. RICE had found the guillotine snare more easily applied in the removal of small laryngeal growths than the forceps. He also mentioned having had syncope follow the use of four per cent. of cocaine in the throat, in the case of a policeman, recently.

Dr. LANGMAID had, on the recommendation of a European author, used nicotine in operation for growth in the larynx in one case, and a very threatening poisonous symptom developed.

The Value of Sprays in the Treatment of Catarrhal Affections of the Upper Air-Passages. By Dr. C. C. RICE, New York.

In discussing this question it was not his object to recommend the spray as a method of treatment to take the place of others. He considered the question of the use of sprays in the form of medicated oily agents, of watery solutions, of astringents, etc. While remarking upon some of the advantages of petroleum preparations, he at the same time pointed out the danger of their inconsiderate use, in that they were followed by a dry condition of the nasal passages, which was anything but agreeable. Such antiseptics as iodoform and aristol lost much of their antiseptic properties when used with oily agents, nor could their stimulating action be so well relied upon when thus used. In catarrhal affections of the upper air-passages nice judgment was required in selecting the drug, and particularly the strength of the solution to be used as a spray. The pressure used and the temperature should be adapted to the particular case, and the location to be reached by the spray. A weak solution of cocaine, say less than one per cent., was perhaps as good an astringent as any, and its place could seldom be taken for any purpose by such agents as morphine, aconite, etc. So far as the degree of pressure was concerned, fifteen pounds to the square inch was strong enough for the anterior nares, while twenty-five to thirty pounds was sufficient for post-nasal spray. All possible combinations could be made with cocaine, menthol, thymol, etc. By such treatment he believed that one could diminish the number of operations for nasal disease.

Considerable discussion followed, in which Dr. Bosworth, of New York, spoke rather disparagingly of nasal sprays as anything else than a cleansing measure, while Drs. Mackenzie, of Baltimore, Asch, of New York, and others, were inclined to give them a greater degree of credit.

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Adenoid Forceps. By Dr. J. W. FARLOW.

A form of adenoid forceps, which he had purchased in Paris, and had found an excellent instrument for removal of adenoid growths in children and adults.

The Correction of Deformity resulting from Abscess of the Nasal Septum. By Dr. JOHN O. ROE, Rochester.

A series of photographs illustrating the results of a new method for correcting this deformity, which he had found very successful in two cases. The method adopted by Tagliacozzi, and in use at the present time, consisted in the correction of the defect by a rhino-plastic operation. A serious defect, however, in this method was the unsightly scar resulting from the operation, which was sometimes scarcely less pronounced than was the original deformity. Five years ago Dr. Roe had submitted to the profession an operation for the correction of the deformity termed pug-nose, by a subcutaneous incision, without in the slightest degree wounding the skin; and again, in 1891, an operation, equally new, for the correction of angular deformities of the nose by subcutaneous incision. At the present time he wished to present a simple method by which the deformity frequently resulting from abscess of the nasal septum might also be corrected, by a subcutaneous and intra-nasal operation. In the case detailed, after considering the various devices to accomplish this purpose without injury to the skin, he adopted the following plan: There was, as usual in these cases, marked thickening and widening of the dorsum of the nose proportionate to the amount of flattening. The thickened ridge of tissue was incised on both sides a short distance from the septum, at a point where it thinned into the ala. The incision was made along the edge of the flattened tissue through the cartilage of the ala, to the under side of the skin, care being taken not to wound the latter, which was raised from the dorsum of the nose, and these flaps then turned upward and held in place by small ivory spring plates on each side, having holes through which sutures were passed from one to the other, extending through the flaps. These threads were then tied so as to hold the flaps firmly in place, care being exercised not to strangulate the part. These relieved the flattened condition of the nose, but not entirely. Owing to the entire absence of the triangular cartilage there was not sufficient support to hold the nose upright. In order to increase the solidity of the septum, he first scarified each side of the lower portion of the septum, leaving, however, the front portion of the skin intact. He then cut wide, thick flaps from the floor of the nostril opposite the portion of the septum which he wished to render more rigid. These he turned upward and fastened together with clamps in the manner similar to the upper flaps, and also connected the upper border of the flaps to the cut portion of the septum with fine sutures. The result was excellent. To maintain the nose in position until the parts healed, he used a small spiral spring.

The After-Results of Nasal Cauterization. By Dr. T. A. DE BLOIS, Boston.

Owing to the difficulty of tracing patients upon whom operation had

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been performed, which may not have proved ultimately successful, he gave the history of five or six in which he or others had cauterized the nose two or more years previously. In most of them the cauterization had been for an hypertrophied condition of the turbinated bone, and the immediate result, as far as relief of the symptoms was concerned, had been more or less successful. Two years subsequently the patients had returned, again complaining of nasal obstruction. A rhinoscopic examination had shown in some, on either side of the original scar left by the cautery, a swollen and projecting mucous membrane which blocked up the nasal passages. In another case, a somewhat remarkable one, the mucous membrane, which was thrown in corrugated folds, had been cauterized frequently at different hospitals. Some of these cases, and doubtless many others walking the street, showed that the cautery might fail of the desired effects by improper application, such as, on the one hand, making the scar tissue too deep, or, on the other, too shallow, and, again, of extending it through too great a distance, or not far enough.

A somewhat lengthy discussion followed, which was devoted mostly to the immediate results of bad usage of the cautery. The efficacy and safety of this method of treatment, in cases to which it was adapted, was dwelt upon by Drs. Wright, Langmaid, Mulhall, and others.

A Case of Suppurating Ethmoiditis. By Dr. J. H. BRYAN, Washington.

A case of suppuration of the ethmoid cells, terminating in caries, and illustrating the condition described as rhinitis caseosa. The patient gave a history of having suffered from caries of an upper molar tooth. In July her nose became closed, the secretions, at first watery, became thick and fœtid. There was a pain over the bridge of the nose, extending along the infra-orbital ridge to the temporal region. Severe headache, pain on pressure of the eyeball, crepitating sensation under the orbit. On the left side of the nose were seen two mucous polypi attached to the anterior extremity of the middle turbinated bone. After snaring off the polypi, the thick caseous secretion was observed to come from both the middle meatus and from above, between the middle turbinated body and the septum. Examination with the electric light showed the left antrum to be opaque, showing this to be complicated with the inflammation of the ethmoid cells. In spite of treatment the condition grew worse, until, on her way to his office, the abscess discharged spontaneously a great quantity of thick caseous secretion, after which the pain ceased and general health improved. The complications of suppurating ethmoiditis more frequently met with were abscess of the antrum, abscess of the orbit, and meningitis. In the above case, the antral complication was purely accidental, dependent upon a carious tooth.

ELECTION OF OFFICERS.

President, MORRIS J. ASCH, New York; *First Vice-President*, S. JOHNSON, Baltimore; *Second Vice-President*, J. C. MULHALL, St. Louis; *Secretary and Treasurer*, C. H. KNIGHT, New York; *Librarian*, T. R. FRENCH, Brooklyn; *Member of Council*, S. W. LANGMAID, Boston.

Place of next meeting, New York, last week in May.

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AMERICAN OTOLOGICAL SOCIETY.

Twenty-fifth Annual Meeting, July 19th, 1892.
"Medical Record," August 6th, 1892.

GORHAM BACON, M.D., New York (*President*), *in the Chair.*

Seven Cases of Mastoid Disease exhibiting somewhat extensive Carious Processes. By Dr. OREN D. POMEROY, New York.

Case I.: J. W., aged nineteen. Two years before admission he had a post-aural abscess, which was incised, and a few months later the mastoid was freely opened and carious bone removed. On entering the hospital the mastoid opening was nearly closed, and the middle ear was suppurating. There was a swelling below the auricle, red, painful, and preventing free movement of the jaw; pressure on this part evacuated pus from the tympanum. Two days later the patient was etherized, and the granulations in the tympanum were removed by the curette. An extension of the mastoid incision opened into a large cavity that seemed to include the mastoid and tympanum. A large quantity of pus was evacuated by syringing. Temperature in the evening, 103·6° F. The next day the temperature was 99° F. Within two days an abscess, in front of the velum on the left side, was opened. This showed no apparent communication with the ear cavity. After two weeks the discharge became much less, and the carious cavity showed signs of filling up with healthy tissue. The abscess in the throat was probably due to the ear trouble.

Case II.: M. G., aged thirty-four. Two months before admission he had acute suppurative otitis in the left ear, with mastoid periostitis, for which Wilde's incision was made. There was an opening in the mastoid three-fourths of an inch deep, into which the little finger could be thrust, at the bottom of which pulsation was apparently felt. The meatus was filled with dried epithelium and pus. There was elevation of temperature from rheumatism in the left hip-joint. The mastoid cavity was cleaned out and packed with iodoform gauze, and large doses of iodide of potassium were given. A few days subsequently some easily-detachable bits of carious bone were removed with curette and gouge. The temperature at this time was 103° F., but this was reduced by phenacetine. Stimulants were freely used, and the patient became much better, and was able to walk about the wards. A month later pieces of carious bone were removed by the bone curette and gouge. Other portions were washed out by the syringe. Considerable granulation material and a cheesy substance were also removed. The part was dressed with iodoform gauze after irrigation with bichloride solution. The patient was discharged two months after admission, much improved.

Case III.: T. S., aged sixteen, came into the hospital with an acute suppurative otitis media of both ears. Six days later a Wilde's incision was made on the left mastoid. The discharge continued from each ear

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when he left the hospital, some weeks later. It was seven months after this that he came under the author's care for the first time. Over the left mastoid was a small aperture leading into a large carious cavity, which included the mastoid and tympanum. This opening was enlarged by a stout knife, so that the finger could be introduced into the mastoid cavity. Dead bone and granulations were found. On syringing, a soft, flocculent material, resembling broken-down brain-substance, was removed in large quantities. The opening in the mastoid was more than an inch in depth. Antiseptic irrigation was practised, and cotton smeared with vaseline, 5000 parts, and bichloride 1 part, was applied to the wound. After three weeks granulations and small bits of bone were removed by the curette. An abscess subsequently appeared above the meatus and communicating with it. This was opened and found not to communicate with dead bone. It was treated antiseptically and by a compress, and gradually the mastoid closed and the discharge from the ear nearly ceased.

The right ear in the meantime had filled with granulations, which were removed with the curette. Pressure on the mastoid caused pus to exude from the meatus, and a Wilde's incision was therefore made in the expectation of finding an opening in the mastoid, but none was found. The wound was kept open by a cotton tent. A month later there was an opening into the mastoid, and two or three considerable masses of dead bone were drawn out with the artery forceps. This left an enormous cavity, which seemed to include the tympanum. Polypi were also removed. There was much hæmorrhage. Antiseptic irrigation was practised, and vaseline and bichloride on cotton was applied. Since this time granulations and bits of dead bone have been removed. The external wound has now closed with considerable sinking, and the ear has almost ceased discharging.

Case IV.: A. W., aged two, had suppurative otitis of the left ear, dating back five months. The author first saw her in November, 1890, when the tympanum was full of polypi. There was a large carious opening in the mastoid, which was filled with granulation. Small bits of carious bone and a cheesy-looking detritus were removed, and in a few days the patient was much improved. After another month more granulations were removed and some dead bone. Four months later the mastoid opening was closed with considerable sinking. The discharge from the ear diminished after each operation.

Case V.: J. S., aged four months, had a swelling behind the left ear of four days' duration, with a discharge from the ear for one month. A Wilde's incision was made, and an opening into the antrum found. After a few days a probe was passed in one and a half inches in the direction of the tympanum, touching bone. This opening was enlarged by the drill, and kept clear by syringing with an antiseptic solution. The patient was brought very irregularly, and the treatment was not carried out intelligently, and the child died two months later with brain symptoms.

Case VI.: A. P., Italian, aged forty-two, had an otitis media suppurating since three months, with a swelling over the mastoid. The latter was at once incised, and a handle of a scalpel could be thrust through an

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opening in the cells, which seemed to include the tympanum in its area. Antiseptic irrigation was practised for some weeks. Granulations were removed from the mastoid. Later there was considerable œdematous swelling about the mastoid, which subsided in a few days, and the temperature became normal. He had several attacks of severe headache, which were relieved by quinine and bromides. More granulations and dead bone were removed, and the next day the patient was better. Soon after this he became offended and made a serious attack on the nurse. He was then sent to the New York Insane Asylum to be examined as to his mental condition, but was soon discharged. He has recently been heard from, and the ear symptoms are not urgent.

Case VII.: A. P., aged forty-two, had a suppurative otitis media on the left side, of one week's duration, and a painful swelling over the mastoid since two weeks. Pus was evacuated by aWilde's incision. A large opening was found in the mastoid, extending inward one and a quarter inches from the surface. After four weeks of treatment by irrigation, the external wound was nearly closed, but a sequestrum of bone was found. There was also apparently some cellulitis of the adjoining soft parts. The opening was enlarged and more dead bone removed. After this there was decided improvement, and the patient disappeared from observation.

In these cases no effort was made to remove all the dead bone, but whatever was loose or readily detachable was taken away. Adequate antiseptic drainage was carefully looked after, and the vital energies were kept up by stimulants, tonics, food, and proper nursing.

It was strange that only one of these cases resulted fatally, when it is known that any considerable quantity of dead bone in the vicinity of the brain may induce fatal cerebral disease. The author did not think it proper to attempt the removal of dead bone where the meninges are in danger of being encroached upon.

Craniometric Studies in Relation to Aural Anatomy. By Dr. B. ALEXANDER RANDALL, Philadelphia.

He referred to the numerous careful studies of the temporal bone made with special relation to operation, and the conflicting results of Korner and Schultzke as to a relation between the cranial index and the dangerous position of the lateral sinus and the middle cerebral fossa. Recognizing from the first the need of more extensive examinations, he had been accumulating data bearing on the matter, and offered now a preliminary report, principally to secure criticism of his methods. Only 122 skulls, 73 broad-headed, 33 long-headed, and 16 medium in index, were used in the tabulation, and the only clear showing was that maximum or minimum dimensions might be found on either side and in any form of skull. The belief in the presence of greater danger on the right side and in the brachycephalic skull received slight confirmation, the cerebral fossa being actually more often lower on the left. But no deductions, he held, should be attempted from so small a series of examinations, since any indications are probably worthless which are derived from less than one thousand skull measurements.

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Otitis Media and Optic Neuritis. By Dr. CHARLES J. KIPP, Newark, N. J.

A case of purulent inflammation of the middle ear, with double optic neuritis and other symptoms of intra-cranial lesion, but without tenderness of the mastoid process, in which the opening of the mastoid cells was followed by rapid subsidence of the optic neuritis and cure of the disease. Particular attention was called to the absence of tenderness over the mastoid even on percussion, and to the desirability of repeated ophthalmoscopic examination in prolonged middle-ear disease.

Mastoid Cases. By Dr. C. J. BLAKE, Boston.

Of twenty-five patients with mastoid congestion and inflammation seen in the first six months of this year, three were treated by continuous cold coil with excellent effect. The remaining twenty-two cases came to operation at various stages of the mastoid disease, and with various complications. Two cases died, one on the ninth day, complicated with pneumonia, and the other on the tenth day, with meningitis from extension of the suppurative process from the middle ear through the tegmen tympani.

Basilar Meningitis occurring in a Case of Chronic Purulent Otitis Media. By Dr. H. KNAPP, New York.

He reported the case of a healthy-looking man, aged thirty-five years. About the middle of April, 1892, he began to complain of headache, apparently due to neuralgia. This, however, was succeeded by slight elevation of temperature, but no change in the pulse and no tenderness over the mastoid. The pupils were normal. By the end of April there was drowsiness, with nervous movements of the hands. Meningitis dependent upon aural disease was diagnosed by the attending physician. The patient was seen by two prominent neurologists, who diagnosed cranial abscess from ear disease.

The speaker saw the case on May 3rd. There had been discharge from the right ear for three years, which had ceased during the previous week. Temperature, 102·2° F. Headache, stupor, incoherent and difficult speech, and delirium were present. The pupils and fundus were normal, and there was no painful spot on percussion of skull. The diagnosis was concurred in and operation urged. This was done the next day. The mastoid was found sclerosed throughout. The superficial portion of the bone presented some evidences of disease, but the deeper the bone was exposed the healthier it appeared. The operation was then suspended. The patient continued to sink, and died a few days later. The autopsy showed marked evidences of basilar meningitis. The lungs were then examined, and distinct evidences of pulmonary tuberculosis found. The patient had presented no symptoms suggesting examination of the lungs, and all the indications pointed to cranial suppuration following aural disease.

Pyæmia following Acute Suppurative Otitis. By Dr. J. B. EMERSON, New York.

A woman, twenty-four years of age, was admitted to hospital with a

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free purulent discharge from the ear, but no special tenderness over mastoid, no redness, and no œdema. The temperature for the first six days varied between 101° and 102° F., at the end of which time there was a chill, and the evening temperature rose to 105 F.; pulse, 125. There was no pain, except in the back of the neck, very little tenderness over the mastoid and left side of head, but no redness or œdema over mastoid. The ear was discharging profusely. The patient's condition continued about the same for five days, when the evening temperature reached 105·4° F. There was still no redness, œdema, or tenderness over the mastoid, and the discharge from the ear was free. The general condition of the patient continued to improve, but an abscess developed over the right sterno-clavicular articulation. Later a second collection of pus formed over the sternum. This was opened, but soon after a swelling formed over the left side of the neck. A few days later an incision was made into the swelling, and pus was found at a depth of one and a half inches. No direct communication with the mastoid could be found. Following this the patient slowly and steadily improved, and was discharged after a course of treatment extending over a period of four months.

Mastoid Operation. By Dr. T. Y. Sutphem, Newark.

On March 17th, 1892, he was called to see Miss B. K., aged sixteen. There had been chronic otitis media of the left ear for several years. For a few days there had been intense pain and a temperature of 105° F., but no sign of mastoid trouble other than the pain. The next day there were general septicæmic symptoms with chills, alterations in temperature, and vomiting. A hard swelling beneath the sterno-cleido-mastoid muscle was discovered. On May 22nd the mastoid was opened, but there was only a drop or two of purulent fluid. The condition of the patient continued very unfavourable until May 30th, when pus began to flow freely from the mastoid wound. The temperature then fell to 99° F., and the patient made a rapid recovery.

Mastoid Disease following an Operation for the Removal of Adenoid Vegetations. By Dr. Gorham Bacon, New York.

The patient, aged thirty, said that a physician had a week before removed adenoid vegetation from the naso-pharynx by means of the index finger, and completed the operation the following day with forceps. She had a subacute pharyngitis at the time. Two days after the operation she had a severe pain in the right ear, and this was followed by a muco-purulent discharge on the day of admission to hospital. She was immediately put to bed, the Leiter coil applied, and the ear douched frequently with a warm boracic acid solution. Under this treatment the mastoid symptoms soon disappeared. A week later a periosteal abscess on the right side was opened, and about a drachm of pus escaped. An incision in a similar swelling on the left side gave a negative result. The patient made a good recovery, and at no time did the temperature go above 100° F. The case was reported because the writer had not seen any mention made of acute otitis media and mastoid disease following the operation for removal of adenoid vegetations. It is possible,

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however, that the carbolic acid solution which the patient was advised to syringe through the anterior nares by the physician, before she came under the author's care, might have had something to do with the etiology of the disease.

Antiseptic Solutions in Purulent Middle-Ear Disease. By Dr. SAMUEL THEOBALD, Baltimore.

He stated that boracic acid in fifteen-grain solution was still, as it has been for some years, his first choice in the treatment of all cases of recent, and in most cases of chronic otorrhœa. Boracic acid, however, occasionally fails to accomplish what is expected of it, and in exceptional instances aggravates rather than lessens the inflammation. It was in these cases that the speaker had recently used, with very good effect, weak solutions (usually one to eight thousand) of mercuric bichloride. The ear is simply syringed with the solution. Unlike some who have recommended the use of this agent in otorrhœa, he had not usually found it necessary to repeat the syringing more than once in twenty-four hours. Notes of several cases were given in which a prompt arrest of suppuration and closure of the perforation in the tympanic membrane followed the employment of the bichloride solution after boracic acid had been used without effect.

Wound of the Lateral Sinus. By Dr. D. B. ST. JOHN ROOSA, New York.

A wound of the lateral sinus, occurring in the course of a mastoid operation, was followed by septicæmia, with subsequent recovery. The speaker remarked that there had been a number of cases reported in which the sinus had been wounded during operation, but that, so far as he was aware, death had in no instance resulted from this accident. The patient, a young lady aged twenty-three, had for years suffered from recurrent attacks of suppuration of the left ear. It was thought that the mastoid was probably in a carious condition, and it was decided to open it, the drill being used. As soon as the bone was perforated the drill dropped into a large cavity, and the removal of the instrument was followed by a gush of venous blood which could not be checked by ordinary means. It was believed that the lateral sinus had been perforated. The wound was plugged with iodoform gauze. Four days later, when the wound was dressed, there was no trouble from bleeding. Symptoms of septicæmia then set in, but after two months of expectant treatment the patient made a complete recovery.

Remarkable Improvement in Hearing following Removal of the Stapes. By Dr. F. L. JACK, Boston.

He had recently operated on a case of chronic suppurative otitis in a girl aged twelve. After removing portions of the membrana tympani, malleus, and incus, examination showed the head of the stapes to be carious, and it was decided to remove the bone. Previous to operation there was very little hearing in the affected ear. On the following morning the hearing was much better, and this fact suggested the possibility of good results from the removal of the stapes. Previous to

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this the speaker had operated on two cases of chronic non-suppurative middle-ear inflammation, by removal of the drum membrane, malleus, and incus. The results, as regards hearing, were not satisfactory. Removal of the stapes is much better in its results, and in the author's experience there had been no inflammatory reaction whatever. The method of operating was then described. Sixteen cases were reported in detail, giving the results of tests for hearing before and after operation. Two of the cases were presented to the Society for examination. The effect of the operation on the hearing, as tested by the watch, in some was not marked in either way, in others there seemed to be a slight loss, and in others again a slight gain. But the result which gave to the operation its importance was the marked improvement in hearing the human voice which was thereby accomplished. If persons who had heretofore heard only with difficulty could be made to hear with ease, the operation by which this was accomplished ought certainly to be worthy of consideration. As to the reason why this effect is produced by the operation, the speaker had no theory to offer other than the simple supposition that it was by the removal of a mechanical obstruction to the sound-waves.

Middle-Ear Operations. By Dr. C. J. BLAKE, Boston.

The history of the surgical treatment of middle-ear disease was first briefly referred to, and it was shown that it had been definitely progressive.

In chronic non-suppurative diseases of the middle ear, where surgical interference is determined upon on account of obstruction to sound transmission through ossicular change, the removal of the incus or malleus may be considered merely incidental, since the stapes is the important element. Various procedures for the mobilization of the stapes have been proposed and practised, but the removal of the stapes has until recently been left out of serious consideration. The justifiability of this procedure is to be premised from the fact that the stapes is especially liable to be tied down by the reduplications found in about eighty per cent. of normal ears.

The writer's experience in this matter consisted in a series of experiments in various cases, beginning with the observations having reference to the diagnostic value of high musical notes (1873), extending up to the present time, and including operations in the following sequence: (1) Excision of the posterior segment of the membrana tympani, allowing the sound-waves to fall directly upon the stapes. (2) Formation of a flap from the posterior segment of the membrana tympani, and attachment of it to the descending process of the incus, for the purpose of transmitting the vibrations of the membrane directly to that bone. (3) Division of the incudo-stapedal articulation through a small triangular opening in the membrana tympani. (4) Attachment of a flap from the posterior segment of the membrana tympani to the head of the stapes, the incus being either wanting or removed. (5) Division of the incudo-stapedal articulation in case of existing perforation of the membrana tympani, division of the stapedius muscle and of numerous folds of adhesions. (6) Removal of the stapes itself.

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Mobilization of the stapes, including stapedenotomy and division of adhesion, is of value in cases resulting from suppurative disease, but is of comparatively little value in the chronic non-suppurative disease of the middle ear. For the improvement of hearing and the relief of tinnitus in the severe cases of chronic non-suppurative diseases of the middle ear, the disarticulation and removal of the stapes is likely to be of more lasting benefit than removal of the incus, or of the malleus and incus. The speaker would not hesitate, in the light of present experience, to recommend stapedectomy in cases where he had previously proposed dividing the articulation of the incus and stapes and tenotomy of the stapedius muscle.

The operation varies in difficulty in individual cases, but is more easily done in chronic non-suppurative cases than in those in which the fixation of the stapes is an incident of a long-continued suppurative process.

A Case of Operation for Catarrhal Deafness. By Dr. ALEXANDER RANDALL, Philadelphia.

The case was one of excision of the drum membrane and malleus for catarrhal deafness, followed by suppuration, mastoid empyema, and burrowing abscess of the neck. No reaction followed till the fifth day, when high fever began with severe pain and profuse muco-purulent discharge. This gradually lessened under treatment, but in about four weeks pain and swelling of the occiput, of the mastoid, and at the angle of the jaw, gave evidence of the mastoid empyema breaking into the digastric fossa. The usual incision was made over the mastoid, pus was evacuated from the digastric fossa; the neck abscess beyond the bone sinus was scraped, and the outer surface of the mastoid was trephined in the usual manner, the antrum being freely opened. On irrigation, the fluid passed into the canal at first, then found its way into the pharynx by some lower opening, the temperature fluctuated greatly during the following fortnight, and there was oculo-motor paresis, diplopia, and some mental aberration suggestive of intra-cranial abscess. A good recovery was ultimately made, but at no time was there any improvement of the hearing to compensate in the least for the suffering. While the severe symptoms might possibly be ascribed to an attack of influenza, it is much more probable that the incus, which had been displaced upward, clogged the exit of the antrum and induced the empyema. This would furnish a strong indication for the removal of the incus in any such operation, which even then may be followed by negative or unfortunate results.

Exostosis of the External Auditory Meatus. By Dr. D. B. ST. JOHN ROOSA, New York.

A woman, aged forty-six years, for twenty-one years had had impairment of hearing and tinnitus in the right ear, and pain in both ears at times. Examination showed the external auditory canal to be almost completely closed by a bony growth at the junction of the osseous and cartilaginous portion. She could hear the watch only on contact. The mass sprang from the posterior wall, and left a small space between it and

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the anterior wall. On operation it proved to be a very thin plate of bone, and was removed by the chisel without difficulty. The patient did well, and the hearing distance for the watch went up from contact to $\frac{12}{40}$.

Dr. C. J. BLAKE (Boston) stated that in two different families he had seen multiple exostoses occurring in three generations—grandfather, father, and son.

Dr. R. A. REEVE (Toronto) reported a case of exostosis of the meatus in which the special indication for operation was that the growth had become so large as to press upon the tissues of the opposite wall of the canal, causing intense suffering.

Dr. E. E. HOLT (Portland, Me.) exhibited *An Ear bitten off by a Horse*, and made a brief report of the case.

Dr. C. J. BLAKE (Boston) exhibited the *Plans for the New Aural Building* of the Massachusetts Charitable Eye and Ear Infirmary.

ELECTION OF OFFICERS.

President, Dr. GORHAM BACON, New York; *Vice-President*, Dr. HUNTINGTON RICHARDS, Des Moines, Ia.; *Secretary and Treasurer*, Dr. J. B. VERMYNE, New Bedford, Mass.; *Member of Executive Committee of Congress of American Physicians and Surgeons*, Dr. WILLIAM H. CARMALT, New Haven, alternate, Dr. F. B. LORING, Washington.

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

Meeting, June 3, 1892.

Case of Adenoid Granulations in an Infant six weeks old. By Dr. C. ASTIER.

Adenoid vegetations are met with at all ages, but it is uncommon to find them in a child six weeks old. It is less the age than the circumstances which preceded and followed the author's intervention which have made his case interesting.

The child was brought one morning by its mother, who stated that a doctor had seen the child, that it was suffering from croup, and ought to be operated on at once by a specialist.

The author found that many of the signs of croup were absent; there was rather stridulous breathing, but the bruits occurred rather in all the throat, and vibrations were felt in the isthmus of the palate, obstructed by abundant mucosities. There was no thoracic or abdominal depression, and no fever; no trace of false membranes, and no swelling of glands. Nasal respiration was nearly completely absent, and there was a flow of thick mucus.

These symptoms had existed since birth, and there had been difficulty in making the child take milk. A probe, wrapped with cotton wool, penetrated the nasal fossæ easily into the pharynx.

Owing to the smallness of the nasal pharynx, digital examination was impossible, and post-nasal forceps were too large. With a smaller pair the author succeeded in withdrawing an enormous mass of adenoid vegetations. He endeavoured to remove as much as possible at one sitting. Injections of boracic acid were then given through the nose, and nasal respiration being established, the

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child was put to the breast. The next day the child seemed well enough. On the sixth or seventh day it was completely stifled, and had violent fever. The throat was filled with thick mucus, which was removed with wads of cotton wool. The pharynx was seen to be very red. Introducing the smallest pair of forceps behind the palate, the author withdrew them full of pus. He recognized the condition, and, making an incision into the median line of the pharynx, let out a quantity of pus. The infant was immediately relieved, and breathed better. He saw the child for fifteen days afterwards, and was satisfied with its progress.

The accidents occurring from extirpation of adenoid vegetations—and which are rare—are commonly hæmorrhage, and the author does not know if retro-pharyngeal abscess has been met with before. He attributes it to the forcible introduction of the finger and of instruments of different calibre.

Some Cases of Pharyngo-Laryngeal Syphilis. By Dr. A. CARTAZ.

1. *Indurated Chancre of the Tonsil* occurring in a man of twenty-seven. The left tonsil was red, swollen, and had a grey deep ulcer upon it; the tonsil was indurated; the faucial pillars and palate slightly swollen and reddened; hard painless adenitis of left submaxillary gland. Roseola appeared a few days later.

2. *Chancre of the Tonsil.* A man of thirty-one, arthritic and with several previous attacks of laryngitis. He had undergone mineral water treatment at Vichy, Enghein, Vittel, Cauterets, for his throat and for dyspepsia. After influenza, in 1889, there was considerable catarrh of the throat. After a winter at Cannes, he returned with the first sign of the actual lesion. There was a tumour of the tonsil, red, smooth, indurated, with greyish and not deep ulceration with muco-purulent secretion. The corresponding submaxillary gland was very hard; the larynx uniformly red, but without swelling or ulceration. The diagnosis was doubtful, between gumma and primary sore. The patient himself believed that his former troubles had been specific, and he had been treated in this manner for a short time.

Three days later roseola appeared, establishing the diagnosis. Patient is still under treatment.

3. *Chancre of the Tonsil.* A man, aged thirty-eight, came to the author with the diagnosis of pultaceous angina. About a month before, he had seen a small excoriation upon the prepuce accompanied with inguinal adenitis of the right side. Three or four days after there was pain in the throat, and the left tonsil swelled. There never were any *taches* on the skin, and the physician whom he had consulted had never spoken of syphilis. There was constant pain on swallowing, but not great. The hypertrophied, hard tonsil had a flat ulcer upon it, rosy coloured, due to removal of all secretions by frequent irrigations with boracic acid. The whole cervical submaxillary region was the seat of a vast, hard, and painless glandular enlargement. The left tonsil, the larynx, and nasal fossæ were normal. The general condition was good. There was no loss of flesh. There was only a cicatrix on the prepuce, and no glandular lesion of any part of the body, except inguinal adenitis. After eight days' mercurial treatment there was marked diminution of the tonsillar and submaxillary enlargements. The patient has been lost sight of.

The diagnosis was embarrassing. Was there simultaneous affection of the two parts, or a precocious gumma of the tonsil? The author leans to the first view, on account of the simultaneous appearance of symptoms, and the induration. The accidents have developed with an intensity much greater on the side of the throat.

4. *Chancre of the Tonsil.* A woman, aged thirty-five, came with an ulceration of the throat, presenting all the characters of a syphilitic chancre. Three weeks

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before she stated that she had had a white and caseous concretion extracted from the tonsil with a steel instrument. She had frequently had attacks of tonsillitis, with retention of caseous matter in the glandular crypts, and it was to this operation that she referred the actual condition. Syphilis was clearly confirmed by the appearance of a typical roseola and secondary symptoms in the larynx. The person suspected of communicating the disease was examined and found to be suffering from mucous patches in the throat.

5. *Chancre of the Arch of the Palate.* A man of forty presented himself with trouble of speech, which he believed to be due to a perforation of the palate. The voice was nasal, and there was difficulty of swallowing, liquids returning through the nose. There was fever, loss of appetite, and general malaise.

A tumour of the left side of the arch of the palate was seen between the uvula and the anterior pillar. The palate here formed a rounded mass, red, and in the centre of which was a sort of indurated nucleus, the size of a small nut, with an ulcerated surface of about one centimètre, of greyish and pultaceous appearance. Except for this ulcer one might have thought of diffuse abscess of the palate. Posteriorly there was felt on digital examination a slight relief, corresponding to the indurated part of the anterior surface. There was adenitis of the submaxillary region of the same side, limited, but hard. There was no fever.

The origin of the lesion was dated back about a month, and attributed to using the pipe of an affected comrade. There was no lesion of the genitals or skin. Under specific treatment the condition improved, and as the patient was careless, and came irregularly, cure was slow. In the second month there was only a slight white surface remaining, of cicatricial appearance at the ulcerated surface. There was no longer any difficulty in swallowing. Two months later the patient, who had badly followed the treatment, came back with mucous patches of the mouth and anus.

6. *Gumma of the Pharynx.* A railway employé, aged thirty-eight, married, and father of healthy children. No syphilitic antecedents. In March, 1889, he came to the author with cough and expectoration, and especially with trouble in deglutition. The first symptoms had appeared not more than three months previously. The voice was slightly nasal. An oval tumour five centimètres long and two centimètres broad was seen on the posterior wall of the pharynx on the left side, parallel with the posterior pillar. The colour of the mucous membrane was pale white. A certain resistance to touch was felt, and no trace of fluctuation. No deviation of the spine; no projection of vertebræ; no lesion of neighbouring parts, and not the least trace of old ulceration of the throat or skin. The patient had slight bronchitis, but no trace of tuberculosis. Cold abscess suggested itself, but the consistence of the tumour, its indolence, and the good condition of the patient left the author undecided between the diagnosis of this and gumma, although the patient had never to his knowledge had a chancre or other syphilitic lesion. Under protiodide of mercury and iodide of potassium the tumour diminished in fifteen days, and shortly afterwards disappeared. Two years afterwards the patient had no recurrence.

7. *Gummata of the Pharynx and the Cranial Periosteum.* A man of thirty-five, of good health; two gonorrhœas, one orchitis. He remembered no syphilitic attack. He came to the author for difficulty in swallowing, which had existed for some weeks. He was pale, emaciated and anæmic, attributed to his occupation (hotel keeper). On the posterior wall of the pharynx on the left side was a tumour the size of a nut, elongated, and filling almost the space limited by the edge of the palate, the anterior pillar, the base of the tongue and the mid-line of the pharynx. The colour was red, with vascular striæ on the surface.

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There was marked resistance without fluctuation; it was of uniform consistence, without thickenings or induration. It projected about 1½ centimètres at the most prominent point. A small gland was enlarged in the submaxillary region, and a similar one existed on the right side, though the pharynx was normal on that side. Diffused redness of the larynx existed, with thickening of the left ventricular band, but no ulceration. The left cord, a little red, imperfectly approached the mid-line. The arytenoid cartilage was not enlarged. Voice a little raucous. Sirop de Gibert was administered. The first visit of the patient was in August, 1889. At the end of September the condition of affairs was not altered; four grammes of iodide were given daily. At the end of October the patient pointed out towards the vinciput a soft tumour, the size of a small mandarin round, and which had grown rapidly within three months. It was sessile on the cranial bones, had a semi-elastic sensation without fluctuation.

The swelling of the left ventricular band had increased and the arytenoid was enveloped in the tumefaction, and the movement of the cord was still more impaired. The state of the pharynx was just the same. Five grammes of iodide daily were administered, and the author began to suspect malignant disease. Prof. Tillaux believed it to be generalized sarcoma. The patient's condition got worse—headache, torpor, and impossibility of following his occupation.

The patient went to Switzerland, saw many physicians, submitted to various plans of treatment, then came to Dr. Jonquière at Berne, who suspecting syphilis prescribed iodide and gave mercurial injections (dose and preparation not known). Under this treatment improvement rapidly followed, the cranial tumour and the lesion of the larynx disappeared. The tumour of the pharynx softened and ulcerated, a little pus exuded from it, but it diminished in turn, and under cauterizations of nitrate of silver and specific treatment (twenty-four injections) the patient was completely cured in six months. Seen by the author the next year, there was no trace of tumour of the cranium or pharynx, or of any laryngeal lesion.

8. *Old Syphilis of the Larynx. Fibrous Polypus.* A man of thirty-seven, in good health, never having had any complaint, in 1876 contracted syphilis. An insufficient treatment was followed for three or four weeks. In 1871 the patient had had a chill with hoarseness lasting two years. Iodide in large doses had been given. The voice did not reappear, and he came in 1880 to consult Krishaber. He was then absolutely aphonic, and had frequent attacks of coughing. Krishaber had made several galvano-cauterizations. The voice returned a little raucous, but sufficient some months later. In 1882 a fresh aphonia occurred. A physician at Buenos Ayres removed a small piece of laryngeal tumour. The voice returned at the end of some months. No internal treatment was given. For six months the patient had felt a little trouble in respiration, then aphonia gradually recurred. In May, 1889, this was absolute, and there was dyspnœa on walking quickly or mounting stairs.

Cicatrices of old ulceration were visible on the tongue. The epiglottis was thin and curled in part on its left edge. All the larynx was of greyish-white colour, thickened, infiltrated, and as if sclerosed. A voluminous infiltration existed in the arytenoid space. The right arytenoid appeared to have been dislocated forwards and inwards. The vocal cords were badly distinguished from the ventricular bands, and on attempts at phonation both parts, lower and upper, approached simultaneously. A large tumour of the volume of a nut was inserted by a large pedicle on the anterior commissure below the insertion of the left vocal cord. This fell below the cords and was carried upwards on expiration. It was of whitish-grey colour, like the adjacent tissues, and pyriform shape. The general health was satisfactory and there was no pulmonary lesion. It was impossible to

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anæsthetize the larynx and throat with cocaine, profuse salivation at once occurring. After educating the patient, the author succeeded at last in extirpating the tumour, and Prof. Hayem, who examined it, pronounced it to be formed mostly of fibrous tissue, in which were some adenomatous tubes. There were no tubercle bacilli to be found in the sputum. The respiratory troubles were suppressed at once, but the voice did not return; the vocal cords remained thickened, and were transformed into sclerous tissue, and the articular movements were badly performed, and the cords badly approximated.

The author proposed to remove the vegetating tumour filling the inter-arytenoid space, but lost sight of the patient, who desired to undergo a course of treatment at Aix-la-Chapelle.

Dr. GOUGUENHEIM recorded three interesting cases from his clinic.

1. Two cases of chancre of the tonsil—one in a man, the other in a woman. In the first case there was hypertrophy, ulceration, glandular enlargements, and secondary symptoms.

In the second case, with hypertrophy, induration, and ulceration there were no secondary symptoms.

In both cases hard œdema of the tonsil persisted for long.

In another case he saw a very hard syphilitic tumour, two or three centimètres long, movable in the pharynx, and situated behind the posterior pubis. It was extirpated but recurred, was removed with the hot snare and the patient cured.

He remembered also a case of polypoid tumour of the larynx, refractory to all internal treatment, and which he found it necessary to extirpate.

Foreign Bodies and Cornified Productions of the Pharynx in Pharyngo-mycosis. Action of Iodated Chloride of Zinc on Leptothrix Buccalis. By Drs. NABIAS and SABRAZÉS.

Pharyngo-mycoses result generally from the colonization upon the tonsils and base of the tongue of a parasite, the *leptothrix buccalis*. Specialists know how tenacious and recurrent is this affection. The explanation of this parasitic proliferation on the tonsils is variously described; normally it lives as a saprophyte in the mouth, and it is not obvious what conditions of the host should be modified in order to make this inoffensive organism pathogenic. Catarrh, rheumatism, tonsillar hypertrophy, season, bad dentition, have been invoked as etiological factors.

The authors have studied two specimens from patients of Dr. Lichtwitz affected with pharyngo-mycosis. They were two small, whitish lumps, with a hard nucleus surrounded by irregular masses of false membranes. They were removed by forceps, the one from a tonsillar crypt, the others from the base of the tongue.

Threads of *leptothrix buccalis* were found to form the membranes, when treated with Gram's iodo-iodated reaction, with a drop of hydrochloric or acetic acid, or, better still, with the iodo-chloride of zinc test so common in vegetable histology. From these two cases and another of mycosis of the base of the tongue, the authors find that microscopically there are bundles of leptothrix surrounding sometimes a foreign body and at others a cornified production. They suggest that these corpuscles have favoured the location and increase of the parasite. The foreign body sometimes resembles the endocarp of an apple or pear cut through the middle, two superimposed lamellæ limiting an angular excavation, and found microscopically to be of sclerous fibres. In the second case there was a series of cornified lamellæ disposed round a central cavity. The portions of dental tartar on the pieces produced at the fourth and fifth day of culture an abundant vegetation of leptothrix. It is easy to understand that the endocarp of one of these fruits accidentally implanted on a tonsil may, by reason of the fleshy portions of the mesocarp adherent to the surface, constitute a point of development for the leptothrix.

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Alimentary particles accumulating round the foreign body may play the same *rôle*. In ruminants a grain of wheat may also, in the throat, be the origin of a mycosis.

In the case of leptothrix of the base of the tongue the foreign body was of buccal origin, being an epithelial proliferation, with horny transformation developed probably on the base of the tongue.

The following preparation is recommended for the study of this mycosis :—

Chloride of zinc, fused	95 grammes.
Distilled water	50 ,,
Iodide of potassium	140 ,,
Iodine	7·50 ,,

The chloride of zinc is dissolved hot in distilled water. The iodide is added drop by drop, forming a precipitate which dissolves on boiling; add the iodine, and stir to complete solution. Filter, and place in a coloured flask, and cork with emery.

Leptothrix under this reaction is coloured like grains of starch, viz., deep blue and nearly black. The reactions obtained by the author dissipate the idea of cellulose in leptothrix. Gram's solution colours leptothrix and does not affect cellulose, and the blue reaction of sulphuric acid and iodine on cellulose is not obtained on leptothrix. What is coloured in leptothrix is not a cellulose wall, but of a starchy nature. Microscopically there is not a continuous coloration, but a staining limited to small cylinders or separate granulations separated by clear spaces.

Treating a fresh preparation of leptothrix by sulphuric acid for about half an hour, and then staining by iodine, it is clearly seen that the filaments present a colourless wall and slightly violet contents, with clear spaces corresponding to the segmentation of the leptothrix.

A drop of the iodated zinc solution placed on a fragment of pharyngo-mycosis produces instantly a characteristic black colour. Grains of starch take this colour also, albuminoid particles are coloured yellow.

The treatment of a little dental tartar by the chloride of zinc reveals, if the parasite is abundant, black streaks on a yellow ground, which are leptothrix alone or associated with grains of starch from the gums.

This reaction facilitates the research of leptothrix, not only in mycosis but upon the teeth, where it contributes to the formation of tartar, precipitating the alkaline salts of the saliva. They develop with great rapidity. They are found even in old cadavers, and the authors have found them on the teeth of an Egyptian mummy, and Miller had done the same.

In a case of caseous coryza from Dr. Moure's clinic the authors have also found a filamentous bacterium differing from leptothrix only by its smallness, and which was not the bacillus amylobaster of Van Treghen.

Other parasites of the mouth and throat—thrush, for example—do not colour with blue by iodine.

Leptothrix coloured by iodine, and to a less degree by iodated zinc, lose their colour quickly, and are difficult to mount in balsam.

Permanent preparations may be obtained by mounting in glycerine. They may be preserved, stained by methylene blue and mounted in balsam.

Iodo-chloride of zinc arrests the development of leptothrix, and is indicated topically as treatment for pharyngo-mycosis, but it is scarcely suitable for dental tartar by reason of its acidity acting on the enamel. Other iodine preparations which destroy leptothrix are preferable in hindering the formation of tartar and preserving the whiteness of the teeth.

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