## AMERICAN LARYNGOLOGICAL ASSOCIATION.

*Sixteenth Annual Congress, held at Washington, D.C., May 30th and 31st, and June 1st, 1894.*

*President*—Dr. D. BRYSON DELAVAN, New York.
*Secretary*—Dr. CHARLES H. KNIGHT, New York.

(*Scientific Proceedings specially reported for the* JOURNAL OF LARYNGOLOGY *by* Dr. JAMES E. NEWCOMB, *New York, Fellow of the Association.*)

### *First Day—Wednesday, May 30th.*

PRESIDENTIAL ADDRESS.

The President heartily welcomed the members of the Association to its sixteenth anniversary, and proceeded to give a brief account of its history. This was, in fact, almost a history of laryngology, since Manuel Garcia was still living, and an honorary fellow of the society, while the list of its corresponding fellows had contained the names of the most distinguished specialists of the time. It would always be regretted that Horace Green, the pioneer specialist in diseases of the throat, should have died before the society was founded, since his works now prove that in this department he led the world.

The laryngoscope was introduced into the United States in 1860. By 1878 its use was being taught in twenty-five different institutions, and the specialty had gained a position of acknowledged respectability.

A complete history of laryngology in America up to the above date had been given by Elsberg ("Trans. American Lar. Assoc.," Vol. I., 1879). The American Laryngological Association was founded in 1878, with Louis Elsberg as its first president.

The motives which actuated the founders of the society were eminently philanthropic and ambitious. The organization of the society was a preconceived movement in the direction of a higher and broader education; an intelligent, vigorous effort to advance and disseminate the knowledge of laryngologic work. By means of its annual meetings, by the encouragement of the special literature of the department, by the bringing forward of youthful aspirants for laryngological fame, and, finally, by the study and practice of the best methods in the medical schools, it was hoped that the Association might fill a useful place.

The career of the society had been one of uninterrupted success. Its meetings had always been regularly held and well attended. Several hundred scientific papers had been contributed, many of which had been of great value. These facts were attested by the fifteen highly creditable volumes of transactions, for which the society stood sponsor, and the society, successful from the beginning, had steadily advanced, adding yearly to its usefulness, its influence, and its reputation. Within the past six years, national societies had been started abroad, and

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now England, France, Belgium, Italy, and Holland were represented by them.

While discussing the subject of such organized work in laryngology, it was fair to mention the fact that many local societies and special sections of large medical bodies had been founded for the advancement of laryngology. Of these, the New York Laryngological Society, founded by Dr. Clinton Wagner in 1873, was the first association devoted exclusively to laryngology and rhinology established either in America or Europe. This organization was afterwards merged into the laryngological section of the New York Academy of Medicine, which now numbers sixty active members, holds monthly meetings, and is in an exceedingly flourishing condition.

Recently these local societies had greatly increased; existing ones had been more active, many new ones had been formed, and everywhere a spirit of progress had been apparent. The effect of the centralized effort and of the healthful competition made possible by these societies had been productive of great good, and it was gratifying that the United States had been the leaders in this movement. This very success imposed its own responsibilities, for future supremacy meant increased diligence in work and an ever-broadening receptivity to the ideas of others.

The Association had also held a high position in the department of journalism. Of the special journals now in circulation but two existed in 1878. Of these, "Les Annales," founded by Krishaber, Isambert and La Charriere in 1874, had maintained a highly creditable career. The "Archives of Laryngology," founded in 1878 by Drs. F. J. Knight, Cohen, Elsberg and Lefferts, had been a model magazine. In 1875 Dr. Lefferts had begun the publication of a complete bibliography, with critical abstracts, of laryngology. This was continued in the "Archives," and, later, taken up and carried on by other magazines, so that an unbroken chain of great value to the special student has been kept up.

Unquestionably the most important function of the society in the past and its greatest possibility of usefulness in the future lay in the department of teaching. If the Association is to attain and maintain the highest place it must become the exemplar and the guide. The question of education was the most important that could engage its attention, and in the origin of the Association had been its grand, primal idea, inculcated first and last by the wisest and ablest of its founders, and interwoven by them into its very being. Teaching had always been and always would be its most important office. As a teacher of teachers, it should not confine its work to laryngology alone, but should consider the science of pedagogy in so far as it related to this department. The fact that the Society contains the leading teachers of the United States imposes upon it the obligation to the profession which could not be set aside.

The first Presidents of the Association. Drs. Elsberg and F. J. Knight, had written fully upon the subject of undergraduate instruction, which had now reached a high degree of perfection. Indeed, in the department of laryngology, the plan of teaching, the equipment and the general discipline of at least one of our leading institutions, the College of Physicians and Surgeons of New York City, was of conceded superiority, and stood

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unrivalled, whether at home or abroad, while other schools were doing excellent work. The question of the teaching of undergraduates in this country, therefore, might be said to have been fairly considered and successfully met.

With the progress of time new necessities have arisen, and lately a great advance in the study of medicine has been made through the establishment of schools for the special instruction of graduates in medicine. This movement, together with the vast increase in the literature of the department, has given to laryngology a great popularity, and the multiplication of those who assume to treat diseases of the throat has been enormous, calling loudly for increased and improved facilities for instruction. Beginning in New York, the value of this work had been quickly appreciated by the whole country, and not only were the original schools crowded with pupils, but in many other cities similar institutions had been established.

The problem of the instruction of graduates is a much more difficult one than that of the teaching of undergraduates, for while the latter shared relatively the same conditions of education, age and general advancement, the former present a vastly greater diversity of personal need and professional attainment. They are also likely to be hampered by preconceived ideas and imperfectly educated habits of thought and of practice. The meeting of these diversified wants imposes upon the graduate instructor a weighty task. The ideal instruction for graduates presupposes three things—(1) a higher and better general medical education on the part of the practitioner, (2) a rigorously careful selection in the choice of instructors, and (3) a modification of the best undergraduate methods to suit the needs of the older men. Teaching positions should be filled only by men of education and promise, willing to teach for teaching's sake and for the advancement of sound learning rather than for personal motives.

As to the great extension of the practice of aryngology of late years, while this might for a while tend to lower the general standards of excellence, such a result should only stimulate us to attain higher planes of excellence, while from the vast body of new aspirants would arise men who would carry still further upwards and forwards the light of truth for the illumination of mysteries thus far hidden to ourselves.

Dr. JOHN H. LOWMAN (Cleveland, Ohio), the delegate of the Association to the recent International Congress at Rome, gave a report on the work of the section on Laryngology of that body, and expressed his conviction of its high character.

The scientific business of the session was opened by a paper by Dr. W. E. CASSELBERRY (Chicago), entitled *Nasal Polypus; its association with Ethmoiditis and its Treatment by Resection of the Middle Turbinated Body.*

An analysis of forty cases confirms the view that nasal polypus is but a symptom or concomitant of other nasal maladies, the most frequent being various forms of ethmoiditis. Two previous papers by the author are reviewed, in the first of which he advised a vigorous surgical treat-

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ment, having for its object, first, access to and then eradication of the actual seat of attachment, most frequently in the vicinity of the hiatus semilunaris. For the eradication of the attachments upward beneath the middle turbinated body, he has recently substituted for the cautery point, before recommended, a small sharp curette, with which the borders of the hiatus and the bulla ethmoidalis are well scraped.

In a supplementary paper in 1891, he advised, as a part of the radical treatment, removal of the antero-inferior part of the middle turbinated bone, in order to give freer access to the actual point of development. Additional experience with this operation has but confirmed its utility and demonstrated its harmlessness. The middle turbinated body, a process of the ethmoid bone, is rarely itself in a healthful condition in these cases, a phase of the subject which is exemplified in the present paper. Furthermore, it appears from the cases reported as typifying the various forms of associated ethmoid disease, that polypus is commonly one of the earliest prominent manifestations of ethmoiditis, and resection of the middle turbinated bone, in addition to its efficacy for the polypi themselves, is regarded as a prophylactic measure against the development of the more serious suppurative type of ethmoiditis and infection of the maxillary, frontal, and sphenoidal sinuses, by facilitating drainage of the ethmoid cells.

A clinical classification of the various conditions which are found associated with and underlying the formation of nasal polypus is deduced from an analysis of the forty cases, and a list of cases typifying the characteristics of each group is detailed.

Type I. *Nasal Polypus with Hypertrophic Rhinitis* is characterized by simple enlargement of the inferior and middle turbinated bodies, and without evidence of ethmoiditis other than the suggestiveness of the polypi. Drainage is defective and the accumulation of muco-purulent secretion in the middle meatus seems to encourage polypoid growth. Recovery without recurrence follows removal of the polypi and reduction of the hypertrophied turbinated bodies by the cautery. Only six of the series of forty cases were of this type.

Type II. *Nasal Polypus with Simple Myxomatous Ethmoiditis* is characterized by great enlargement of the middle turbinated bodies, which have a glistening aspect and a pultaceous touch, indicative of œdematous or myxomatous degeneration, and pressure in the ethmoid region, productive at times of infra-orbital swelling and broadening of the base of the nose. After resection of a considerable part of the middle turbinated bone the muco-periosteum of the parts of the ethmoid bone thus exposed—the borders of the hiatus, bulla ethmoidalis, etc.—are found in a state of myxomatous degeneration, and covered by polypoid excrescences, the same extending upwards into the ethmoid cells. Fourteen of the series of forty cases were of this nature, and five of them were subjected to the operation of resection of the middle turbinated bones.

Type III. *Nasal Polypus with Vaso-motor Ethmoiditis* is regarded as a variation of type II., and presents the same evidences of myxomatous degeneration of the muco-periosteum of the ethmoid region. In addition

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asthma was a universal symptom, which to some extent influenced the grouping together of these particular cases under the conviction that asthma of this particular variety was a similar vaso-motor tumefaction of the bronchioles.

The group comprised nine cases, and four of them suffered from hay fever, which further indicated the possession of a fundamental neurotic habit. They were all affected by super-sensitiveness to the extent that various irritants, such as dust, coal-smoke, fog, aroma from horses, etc., would suffice at any season to excite a form of nasal tumefaction suggestive of vaso-dilatation, and in most cases the ethmoid region seemed especially sensitive.

Type IV. *Nasal Polypus with Suppurative Ethmoiditis* is characterized by a purulent discharge from the ethmoid cells, coexisting frequently with empyema of the maxillary, frontal and sphenoid sinuses. It is regarded as a sequel to type II. or type III., suppuration occurring only after myxomatous tissue has accumulated sufficiently to obliterate the natural drainage channels, which view is substantiated by a case in which suppuration of the frontal sinus occurred in conjunction with obliteration of its outlet. This group comprises six cases, of which five were subjected to resection of the middle turbinated bone on one or both sides in addition to other measures.

Type V. *Nasal Polypus with Necrosing Ethmoiditis.*

Dr. Woaks' econtention that nasal polypus indicated a chronic inflammation of the ethmoid is in a large measure substantiated, but that necrosis or even caries of bone is a "usual" accompaniment is not confirmed, so that it would seem wise to limit the term "necrosing ethmoiditis" to the class of cases in which necrosis or at least caries actually exists. Only five cases were accompanied by unmistakable necrosis of bone.

Concerning the *technique* of resection of the middle turbinated bone the author has devised curved serrated scissors, with which to cut the bone for a variable distance backward, when the operation, if not complete, can be finished by the snare or sharp forceps. The resection need not be completed at one sitting, but is more often accomplished fragment by fragment, the latter method alone succeeding when the middle turbinated bone is greatly enlarged and closely impacted within the space. Conversely, if the middle turbinated body be of normal contour, and presents no impediment to drainage, to the transmission of light, or to instruments, there will be then no occasion to interfere with it.

The discussion was opened by Dr. W. H. DALY (Pittsburg). He believed that in severe cases of formation of polypi the subjacent bone from which they grew should be removed. The bone always degenerates in old cases, and any treatment other than its removal is useless.

Dr. J. H. BOSWORTH (New York) could not regard ethmoiditis as the most frequent cause of polypi. The amount of necrosis in these cases is over-estimated. Many cases called necrosis are not so. Woakes has been in error in this respect. The fœtid odour often noticed is not that of decaying bone, but is due to one of the fœtid hydrogens arising from retained pus. The cause of the affection frequently is that the inflammatory process takes on a myxomatous type. "Vaso-motor" ethmoiditis is

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a bad term. Many of the so-called "reflexes" from trouble in the ethmoid region should really be looked upon rather as symptoms of the disease.

Dr. J. H. BRYAN (Washington) did not look upon necrosing ethmoiditis as necessarily the cause of polypoid formation. Spiculæ from the turbinated bone are often mistaken for necrosis. Myxomatous degeneration is the proper term. In advanced cases Dr. Casselberry's plan of treatment is the only logical one.

Dr. W. PEYRE PORCHER (Charleston, S.C.) had seen one case of severe hæmorrhage result from removal of the middle turbinated bone with the hot snare.

Dr. J. C. MULHALL (St. Louis, Co.) believed that recurring polypi meant bone disease. He had read Grünwald's recent monograph on diseases of the nasal sinuses with much satisfaction, and he believed in the soundness of the views expressed by this author.

Dr. JONATHAN WRIGHT (Brooklyn) called attention to the dangers attending operations in the ethmoid region. No amount of anatomical foresight can always prevent them. The bones are thin in some subjects and thick in others. It is difficult to remove the anterior part of the middle turbinated bone. Even if we do, we do not thereby reach the ethmoid cells, and consequently do not meet all the needs of the case.

Dr. C. C. RICE (New York) thought that the traumatic atrophic condition frequently left after operation was a much worse condition than partly occluded upper sinuses. The snare sometimes removes more than we desire, and occasionally pulls away the entire middle turbinated body.

Dr. J. N. MACKENZIE (Baltimore) believed that Dr. Casselberry over-estimated the importance of ethmoiditis. We forget that the position of the polypi depends more on their anatomical relations than on anything else. He did not regard the drill as a suitable instrument for these cases. Lack of anatomical knowledge would account for much of the reckless intra-nasal surgery seen at the present day. Removal of polypi is followed by a subsidence of symptoms, and a reasonable time should elapse before the ethmoid bone is attacked. Local medication is often serviceable.

Dr. J. W. HINKLE (Buffalo), reported the case of a woman, aged fifty years, with an enlarged turbinated against the septum, and asthmatic. Under cocaine it was removed with scissors and snare. Immediately she felt a sharp pain in the left parietal region. Three days later she was demented and so continued for a week. There were no symptoms of active brain inflammation. In the course of a fortnight consciousness returned, and she presented some symptoms of brain abscess. Death resulted in a short time, and on autopsy an abscess of the size of a pigeon's egg was found in each frontal lobe of the cerebrum, with pus disseminated through the remaining brain structure. There was none over the cribriform plate. No examination of the heart could be made. The possibility of a cardiac embolus as a cause of the brain lesions had been thought of.

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Dr. BOSWORTH had seen ninety-eight cases. All chronic cases require radical measures. He prefers the drill, as he finds it more delicate than any other instrument. The curette does not reach the ethmoid cells. He had not seen bad results from his method. Severe hæmorrhage would occasionally happen, but as a rule nothing worse happened than the failure to cure. The *vis medicatrix naturæ* does not exist in this region, and the honeycombed cells are full of diseased tissue.

Dr. CASSELBERRY, in closing the discussion, remarked that he had seen only one case of severe hæmorrhage. Bleeding could be easily controlled by tampons or the cautery.

Dr. JONATHAN WRIGHT (Brooklyn) read a paper on *Papillary Hypertrophy of the Nasal Mucous Membrane compared with a true Papilloma.*—The writer stated that much confusion existed in rhinological literature from the loose use of the term "papilloma" as applied to intra-nasal excrescences. This is particularly the case with the Germans, who, when speaking of nasal papilloma are obliged to add that they do not mean true papilloma, but Hopman's papilloma. The latter has described a pathological formation which is not a papilloma in the accurate sense of the term. The true variety is, in the nose, of rare occurrence.

Illustrative drawings were exhibited showing the gross and microscopical differences between the two conditions. The nasal growth came from the middle of the lower turbinated, and the true papilloma from the junction of the uvula and soft palate, where such growths are common enough. The latter consisted of a thick stem having irregular projections. Some of the latter, conical in shape, sprang directly from the central stalk. The majority were divided into secondary stems and projections. The whole mass resembled a tuberous vegetable at the budding stage.

A drawing of the nasal growth revealed a symmetrically rounded mass, subdivided by crossing lines into more or less regular portions. The general appearance was like that of the "mulberry" hypertrophy of the posterior parts of the lowest turbinated. The mass as a whole, though sessile, was freely movable. The cold snare was used in getting it away, and though three-quarters of an hour were occupied in severing its attachments, sharp bleeding followed three hours later.

In comparison with the true papilloma almost any fold of the nasal growth was in connection with the central mass, and there was no resemblance to a "budding" process. There was no thickening or irregularity of the surface epithelium. In the papilloma, no glands were found, the capillaries were small, and there was a slight branching framework of connective tissue which was everywhere overlaid by regularly striated layers of flat epithelia.

The nasal growth consisted, in fact, of all the constituent parts of the mucous membrane of the inferior turbinated body. There was marked dilatations of the venous sinuses, glands were found, but were scanty.

A marked increase was noted in the fibro-connective tissue, which at the periphery was divided into regular processes covered by epithelium and separated from each other by depressions, which gave the whole a

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nodular surface. We must regard these growths as papillary hypertrophies of the erectile bodies of the lowest turbinates. Such enlargements are the outcome of a continuous and exaggerated dilatation and contraction of these sinuses in a stroma, largely deprived by chronic inflammation of its normal amount of muscular and elastic tissue.

A paper on *The Use of Metallic Electrodes in Nasal and Post-Nasal Disease* was read by Dr. C. C. RICE (New York).—This plan of treatment is based upon the "cataphoretic" properties of the galvanic current. It is known as interstitial or metallic electrolysis. The positive pole is made of some easily oxidizable metal as zinc, copper, or iron, and when the current passes new salts (oxichlorides) of these bases are formed and carried through the tissues. The experiments of Gautier and others in France, corroborated by the reports of Morton and Cleaves in America, have proved that these new salts are without injurious effect upon the tissues. These effects are not necessarily germicidal, though it has been determined that the current has an inhibitory effect on the culture growth of certain germs. Shirley and Delavan have previously made use of this therapeutic agent, the former on pharyngeal surfaces and the latter in atrophic rhinitis.

When the current is passed in this manner, moistened cotton being wrapped around the positive (copper) pole, the new salt (oxichloride) is actually carried into the tissues; it is in this way more efficient than solutions applied merely to the surface; the pathological foci are better reached, as it is in the submucous tissues and not on the surface that such foci are developed—the stimulating properties of the current itself, and finally there is the usual electrolysis of the tissues themselves.

Dr. RICE has used this remedy in some twenty cases; six were cured, and three-quarters of all the others greatly benefited. Among the clinical conditions treated were various forms of nasal disease where, after the removal of all offending material, there was a continuous hypersecretion; also irritable cough from laryngeal and pharyngeal catarrh. Enlarged turbinates could be pierced with a copper needle (cupric puncture), the negative pole being the usual flat sponge placed on some indifferent point, preferably the nape of the neck. The positive pole might be probe-shaped and rubbed through the nose.

Succeeding the application there is a temporary coryza rarely lasting over twenty-four hours. In three cases of epistaxis from septal erosions, he has found this agent preferable to the galvano-cautery. It will also reduce swellings of the anterior turbinates, the copper needle being in his view preferable to the caustic acids.

In the discussion of this paper Dr. J. WRIGHT stated that he had treated eight or ten cases of atrophic rhinitis with the galvanic current, but had obtained no better results than with simpler means.

Dr. A. W. DE ROALDES (New Orleans) spoke of the difficulty of securing standard and reliable milliampère metres. He has had good results with electrolysis in post-nasal growths and prefers the bipolar method.

Dr. JOHN O. ROE (Rochester) had seen good results from the current

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in atrophic rhinitis, but he believed they were referable merely to stimulation of nutrition. Ampère metres even if good are unreliable, because the amount of resistance is a personal equation for each patient with regular daily variations.

Dr. W. H. DALY (Pittsburg) believed that all the ampère metres in the market were as unreliable as gas meters. The physician should always test the current on himself before trying it on the patient.

Dr. CASSELBERRY doubted the efficacy of copper solutions on infiltrations of any kind.

Dr. RICE stated that he had rarely exceeded five to ten milliamperes and that cocaine had been previously applied. But little pain had been experienced in any of his cases.

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*Second Day.—Thursday, May 31st*, 1894.

Dr. THOMAS R. FRENCH (Brooklyn) read a paper entitled *Observations on some of the Results of Cutting Operations on the Nasal Septum.* In this paper attention was directed to two conditions—perforations and membranous adhesions. In regard to the former, it is generally admitted that the methods at present employed to correct septal deviations are not always successful. Dr. French therefore wished to present for discussion a question which he had often revolved in his own mind, viz., if we cannot in any other way obtain a successful result is it ever justifiable to purposely perforate the cartilaginous septum?

From his study of perforations made by others, and from his own experience and that of others, in cases of perforations with raw edges, he believed that with proper care in the after treatment deliberate perforation could be made without injury, and in a certain class of cases with great relief. If we cannot obtain a breathway through both nostrils without leaving a hole in the septum, it is allowable to make such a hole if we can impress upon the patient the absolute necessity of leaving the parts alone until healing is complete, and if we can be sure that he or she can be kept under observation until the edges have healed. Unless these two conditions can be obtained it is an unjustifiable mode of operating. Dr. French excepts, however, from this statement perforations (near the entrance of the nostrils particularly in a septum bent obliquely across both openings) by the Blandin punch.

As to membranous adhesions, after a review of the causes which are recognized as productive of this annoying sequel of this operation in the nasal passages, attention was called to a fact hitherto overlooked, viz., that cut surfaces on the septum will become adherent to scar tissue on the turbinated bones made by a previous galvano-cauterization. Therefore, in all fresh cases requiring treatment, and which have never been previously operated upon, where there is need of destroying turbinated tissue and of removing cartilage, the latter should be done first. Then in a month or so, when it is certain that the mucous membrane has completely reformed, the turbinated can be safely attacked. If patients object to a cutting operation on the septum, but are willing to



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have the turbinated hypertrophy destroyed or removed, we should use snare or acids, so as to avoid leaving a surface liable to become adherent to a wound opposite, where a cutting operation might be done on the septum at a later period.

Saws with unprotected ends and in unskilful hands are very liable to do damage in narrow nasal passages, as are also trephines and cutting forceps. All instruments for septal operations should be so constructed as not to be liable to wound the outer wall of the nose. In the use of the saw it is a good rule to begin the section by cutting upwards and finish it by cutting downwards, but whether it is begun from above or below, we should always finish by a cut in the opposite direction. Thereby we can remove a maximum amount of tissue, and run a minimum amount of risk of wounding the outer nasal wall.

The discussion was opened by Dr. F. H. BOSWORTH.—He had been credited with the statement that he had had only one perforation from the use of the saw. What he really did say, however, was that in his first one hundred and sixty-nine cases he had had only one perforation. Since then he had had a great many. No particular harm will result if the perforation is in an antero-posterior direction, or is so shaped that it does not present any salient edge or angle to the irritation of the incoming air.

Dr. JOHN O. ROE saw no danger of falling in of the nose from perforations in adults, but the danger was a real one in the case of children. Perforation from operation is bad surgery, as we merely cut through what we ought in reality to cut away. His improved septal forceps contained a screw in the handle, so that the blades could not be so closely approximated as to cut through the mucous membrane. The intact membrane on the sound side acted as a splint to hold the septal fragments together until healing should ensue.

Dr. W. H. DALY would mention perforations only to condemn them. Cases treated in that way do not remain cured. The causes of deviation include many minor factors, such as lying on one side, the use of the handkerchief, etc. He had tried Roberts' "pin" operation, but with poor results.

Dr. C. M. SHIELDS looked upon the thickening which accompanies these deviations as a provision of nature to limit further bending. If we remove it she is apt to reproduce it. As to instruments he prefers the knife, as punches comminute too much. He makes parallel antero-posterior incisions, one above and one below the deviation, and joins them by a perpendicular cut through the latter. He has never seen perforation result from this procedure.

Dr. W. E. CASSELBERRY objected to perforation for æsthetic reasons, though where the opening is merely an operative accident we need not worry. He could not agree with Dr. French as to the fact that adhesions resulted only where two raw surfaces came together. Naso-pharyngeal tumours would often adhere to surrounding surfaces, probably from pressure. As to hæmorrhage, we must expect it at times from the septum as well as from the turbinated bones.

Dr. M. J. ASCH rehearsed the steps of the operation devised by him.

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and described before the Association some years ago. But few failures had resulted in his experience from it.

Dr. J. W. GLEITSMANN found the failure to relieve symptoms in many septal operations to depend upon a continued enlargement of the posterior parts of the lower turbinates. The latter may swell up from the rarefaction of the air caused by the septal obstruction.

Dr. S. W. LANGMAID said that our operations should certainly be so conducted as to leave our patients better than before we began treatment. Adhesions are frequently set up after caustics, which produce corrosive action followed by the formation of granulation tissue. We should never operate unless we know that we can closely follow up the case.

Dr. W. PEYRE PORCHER had seen severe hæmorrhage result from breaking up adhesions. In such cases iodoform gauze makes the best tampon.

Dr. M. R. BROWN (Chicago) believed that bleeding in septal operations sometimes came from an injured turbinated, but the septum may bleed furiously. Twice only has he found it necessary to perforate the septum, and he was careful to do it from the concav etowards the convex side.

Dr. W. H. DALY (Pittsburg) read a paper entitled *A Plea for Early Operation in the Diseases of the Antrum of Highmore.* He advocated early opening (if necessary) for diagnostic purposes. As the proper operative site, he prefers a point just above the second bicuspid tooth, as he finds that the antrum wall has a certain resiliency at this point. The opening will be sufficiently covered by the cheek, but sometimes a little food will escape into the cavity. After operation, constitutional symptoms sometimes develop. The opening should be of the diameter of a small goose quill. Partitions in the antrum should be thoroughly broken down. A small nozzle bent to the proper curve, with an ordinary bulb syringe, form an efficient and simple irrigator. Dr. Daly has treated twenty-seven cases since 1882. In several of them he has found pain over the eye to be a prominent symptom. It is possible for patients, after having taken a mouthful of the irrigating fluid, to force it by compression with the tongue, cheeks and lips up through the artificial opening into the antrum, whence it escapes through the natural orifice into the middle nasal meatus.

Dr. DE ROALDES had found but little trouble in irrigation through the natural sinus opening. Artificial openings should be large.

Dr. BROWN preferred to make the opening low down between the roots of the teeth. In this way we pierce a portion of the alveolus itself, and tap the antrum at its lowest point; can enlarge the opening if necessary. Prolonged retention of the drainage tube will keep up the discharge. Irrigation through the nose, while possible, is not practicable.

Dr. J. H. BRYAN made a plea for conservative surgery on this cavity If necessary to make a diagnostic opening, we should follow Moritz Schmidt, and select the inferior or middle meatus. The prognosis depends on past history and duration. The mildest fluids, as boric acid solutions, alone are permissible for irrigation purposes.

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Dr. SHIELDS had often seen the discharge cease on removal of the drainage tube. Unless the patient is syphilitic, the opening made will always close in, no matter how large.

Dr. CASSELBERRY believed that in many cases of antral disease we have to do with coexisting affections of other cavities. Consequently, mere drainage of the maxillary sinus can never keep it clear of the dripping from adjacent cavities. The pain above the eye, mentioned by Dr. Daly, might come from ethmoidal disease.

The paper was also discussed by Drs. PORCHER and J. C. MULLHALL.

Dr. A. W. DE ROALDES (Orleans) reported a case of *Compound Follicular Odontoma, involving the Right Antrum of Highmore, and obstructing the corresponding Nasal Fossa;* with a new apparatus for administering anæsthetics, specially adapted to operations on the mouth, nose and throat.

These cases are very rare in American literature. His patient, a boy nine years old, strong and healthy, was first seen by the family attendant in July, 1892. His right upper jaw presented two points of disease: one a fibrous growth, occupying the socket of the central incisor tooth, and the other a hard osseous tumour, carrying a considerable portion of the palate bone back of the missing canine tooth, extending posteriorly along the internal plate of the alveolus to near the tuberosity of the maxilla. Both growths were removed, but in the spring of 1893 the osseous tumour had returned, and was again operated upon. A short while after, necrosis of the bone was found at the seat of operation, and the antrum was found opened.

When examined by Dr. de Roaldes, a hard bony tumour was found occupying the right cheek, depressing the vault of the palate, and encroaching upon the right nasal bone, fused with the alveolar border at a point corresponding with the missing canine tooth. A diagnosis of benign neoplasm was made, probably an osteoma, but with the possibility of an odontoma, this mooted point to be cleared up by the patient's previous history as to teeth-eruption, which history was unobtainable at the time. A radical surgical procedure was performed March 4th, 1894, by a modified Vollet's operation. The whole anterior wall of the antrum was removed from the nose to the tuberosity, from the alveolar border to the orbital floor, and the main mass of eburnated growth chiselled out from a place corresponding to the canine fossa. On its surface were tufts of hard adherent tissue. A large number of smaller ones, to the number of fifty or more, some of them tooth-shaped, were gouged out in all directions. After thorough curettage the cavity was packed, the parts carefully sutured and bandaged. Patient made a rapid recovery, and returned home March 23rd. Twelve weeks later the cavity was two-thirds filled and a photograph shows scarcely any disfigurement.

Microscopical examination made by Dr. Borden, U.S.A., shows the tumour to consist of a hypertrophic tooth capsule, which has ossified sporadically in places, producing a number of denticles (50), which originally had in all probability been bound together by the periosteum,

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the denticles being imbedded in the fibro-vascular structure much as plums are imbedded in a plum pudding. The denticles consist entirely of cementum, and the origin of the tumour was probably connected with the unerupted canine tooth. No dentine or enamel could be found in the specimen. The case resembles very closely those of Sims, Callender and Matthia, figured in Sutton's work (1893).

The main points of interest, on which Dr. de Roaldes laid special stress, were the following :—

1. The sure character of the tumour, which contained the largest number of denticles on record, as far as known.

2. Its very uncommon origin in an unerupted canine tooth.

3. Its location in the upper maxilla, and as in the above-mentioned cases on the right side.

4. The coincidence at one time with another fibrous tumour developed at the site of the right upper central incison, probably itself a fibrous odontoma.

5. The fact that odontomata have often been taken for exostoses, fibroid tumours, etc.

6. The difficulty of the diagnosis, especially when the growth is imbedded in the maxilla. The consideration of the duration of the disease, the age of the patient, and especially the absence of one or more teeth will help to insure a precise diagnosis.

7. The propriety of avoiding in these cases a dangerous operation, as has been done in the removal of the maxilla, when chiselling and enucleation will generally suffice.

Dr. DE ROALDES concluded by presenting in the name of Dr. Souchon, of New Orleans, an apparatus devised by him for administering anæsthetics, and which had been of great service in the present case.

Dr. CHARLES M. SHIELDS (Richmond, Virginia) presented the next paper on ***Extraction of a Cockle Burr from the Larynx.***

The patient, a farmer, while riding through the woods, after some of his dogs, was forced by the bushes to dismount, and continue the pursuit on foot. This exertion made him breathe rapidly through the mouth, and he was suddenly stopped, by feeling that he had drawn something into his throat that prevented easy breathing. The foreign body was found to be a burr lying in the glottic space at the anterior commissure, and just at the lower level of the cords. Its long axis was lying antero-posteriorly, and it was fastened firmly in position by the closing of the glottis on its spurs. It had been grasped just in the act of passing through. The patient had a most sensitive throat, and manipulation was thereby rendered the more difficult.

After he was sprayed with cocaine, Mackenzie's and other forceps opening laterally were repeatedly tried without success, because of the inability of getting the blades between the burr and the bands on either side to which it was so closely adherent. Then a wire loop through a curved canula was likewise unsuccessfully tried, the rapidly contracting vocal bands flattening the loop. Cotton twisted on a curved probe with the hope of entangling the prickles in its meshes met with no better

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success, and a curved, blunt curette passed below the burr failed to extract it on being withdrawn.

Just before doing a tracheotomy, which had now been decided on, a Schroetter tube forceps was again tried. This time, after pushing the closed blades between the cords, they were forcibly opened as the cords tightened on them, and being drawn forwards the blades slipped over the burr, which was withdrawn entire.

*Three Cases of Laryngeal Neoplasm.* Clinical report by Dr. CHARLES H. KNIGHT, New York.

Case I.: Diffuse sub-glottic myxoma. Partial removal through the mouth with Mackenzie's forceps. Tracheotomy under cocaine, and radical extirpation of the growth through the wound. Recovery without a bad symptom. No recurrence.

Case II.: Papilloma of the larynx. Removal with Mackenzie's and the Schroetter-Türck forceps. Electric cauterization of the base of a growth attached beneath the right vocal band. Restoration of voice within three weeks, after nearly eight months of previous aphonia.

Case III.: Multiple papilloma of larynx. Removal with Mackenzie's forceps. In twelve months second recurrence and removal. Five years after the tumours again appeared, and were again removed.

Dr. ARTHUR A. BLISS, of Philadelphia, reported *Two Cases of Malignant Neoplasm of the Larynx.*

Case I.: Squamous epithelioma of larynx. Male, forty-six; previous history negative. For two years, hoarseness; enlarging glands and increasing respiratory difficulty; radical operation refused and trachea opened through two upper rings; heart sounds suggestive of atheroma; considerable albumen in urine, but no casts. Previous examination showed left ary-cartilage and vocal band so swollen that subjacent cord was invisible; right cord forced back into semi-abduction; odynphagia wanting.

During primary stage of anæsthesia (ether), severe glottic spasm ensued; was referred to ether, or possibly accumulation of secretion. After operation, remained weak; had anginoid seizures, and died in four weeks from angina pectoris. Larynx shown; autopsy revealed thickened pericardium, fatty heart muscle, and lesions of chronic nephritis.

Case II.: Small round-celled sarcoma of the larynx. Male, fifty-three. Symptoms as in Case I. Pharynx was normal; epiglottis appeared as a fungoid mass; no visible laryngitis; right arytenoid cartilage swollen and œdematous; some swelling in the supra-hyoid region, but none over the thyroid cartilage; radical operations refused; high tracheotomy performed.

Dr. BLISS expressed the view that both of these cases would have been suitable for a partial laryngectomy.

*An Interesting Case of Laryngectomy by a New Method* was reported by Dr. HENRY L. SWAIN (New Haven).

The operation was performed on a German, aged forty-two, who had an epithelioma which had followed on a simple fibroma of the cord. The

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latter was known to have existed for a year previous. The epithelioma increased in size, so as to fill the entire larynx, so that tracheotomy was performed under cocaine on March 5th. On March 18th the larynx was removed by Dr. W. H. Carmalt, of New Haven. The operative *technique* was as follows:—Incision in median line from hyoid bone to sternum; low tracheotomy; Trendelenburg sponge canula; cross incision from top of linear cut, outward to edges of sterno-mastoid muscles; larynx laid bare and bleeding checked; a stout bistoury passed behind larynx between it and the trachea, and by a strong anterior cut liberated from the latter; larynx hooked up and dissected out from below upwards, the anterior wall of the œsophagus being carefully followed until the level of the arytenoid cartilages was reached, when the direction of the dissection so as to cut across in such a way that a part of the mucous membrane of the arytenoids and ary-epiglottic fold was preserved; epiglottis then cut across, larynx freed, and all bleeding checked; epiglottis then sewed on to the anterior wall of the œsophagus, thus closing in the pharyngeal cavity and cutting off all communication from the wound in the neck. Subsequently the latter was sewed up tight, except enough of the lower part of the median incision to allow of taking in the upper rings of the trachea, which latter were sewed into connection with skin flaps, making a circular opening, turned upwards and forwards. Wound dressed with plain dry dressing; no tubes left in trachea; no bad sequelæ from operation, lasting from two to three hours.

Subsequent healing of the wound followed without adventure, except a large slitch abscess above and back of the trachea, which healed in a few days. The temperature rose to 101° F. on the second day, and gave no trouble thereafter. The internal wound at the base of the epiglottis healed by first intention, and the patient could swallow (sterilized) water from the first with ease. At the end of the week he could take fluid food of all kinds (tube meanwhile), and at the end of another week was placed upon full hospital diet. By this time both internal and external wounds were in excellent condition. He could make no audible sound at first, but later hissing consonants were perceived, and now (June, 1894) single words and brief phrases can be distinctly understood, even with the back turned, so that lip-reading is eliminated. The voice is as yet only a whisper, but it has gained so much in strength as to promise more. He is now working at the carpenter's trade, and most of the time wears a tube in the trachea.

There was no discussion of these reports.

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### *Third Day.—Friday, June 1st.*

The first paper of the closing session was read by Dr. W. C. GLASGOW (St. Louis, Mo.) and entitled *Exudative Pharyngitis*. He described the case of a child ten months old—large and previously robust, who took cold and had otalgia without fever. Two days later a coryza developed, with a temperature running to 104° and marked morning remissions. It had no regular course, however, and became so irregular as to resemble

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the temperative curve of a septic process. Mucus formed from the nose in torrents, so that cloths had to be placed in position to absorb it. It blistered the nares and the skin wherever it touched it. The excoriations soon became covered with a whitish pellicle. The same secretion came also from the throat, where the fauces, uvula, soft palate, and pharyngeal wall were the seat of similar whitish deposits. There were none of these in the nose. They were glistening and elevated, but left no bleeding surface after removal. They looked not unlike blisters, with solid albuminous contents. The exudation on the uvula was regarded as due to the results of mechanical interference. Aphonia was prolonged, and dyspnœa urgent. On attempts at swallowing fluids a part was returned through the nose; deglutition was difficult. The skin deposits were like those on the mucous membranes, except that their edges were raised. Glandular enlargement was wanting; in fact, the deposits suggested diphtheria or scarlet fever in their general appearance.

The mucus was examined, and found to contain streptococci, but no Loeffler bacilli. The case was looked upon, therefore, as a "streptococcus throat," and regarded as one of the protean forms of influenza.

For treatment, salicylate of soda, salol, and brandy were given internally, while hydrogen peroxide was used locally. The skin lesions did well under aristol. A suppurative otitis developed during convalescence. The whole duration of the case was three weeks.

Dr. WRIGHT doubted the causative relation of the streptococci in this case. They were of very common occurrence in all throats. He had not seen about New York the condition of solid œdema which had been observed in other cities in connection with pan-demic of the grippe.

Dr. GLASGOW replied that he had cases from Eastern cities. For the solid œdema, benzoate of soda had given excellent results.

Dr. MURRAY had seen one case of solid œdema in a hospital nurse following a severe attack of grippe.

The next paper was read by Dr. F. J. KNIGHT (Boston) on *Singers' Nodes.*

Dr. KNIGHT spoke of the little nodule as large as a millet seed or larger appearing on both vocal cords at about the junction of the middle and anterior thirds after strain of the voice by prolonged use or wrong vocal method. This manifestation should be considered clinically as a separate entity, although pathologically, as far as examinations hitherto made have shown, the nodule is of the same nature as those occurring in the diffuse form, to which the term "trachoma," sometimes applied to the single nodule, should be restricted.

Whether the term "chorditis tuberosa," which has also, unfortunately, been applied to the diffuse form as well as the single nodule, should be retained for the latter is doubtful, as often there is no general chorditis; but if it is, its use should be restricted to the single nodule.

In regard to the treatment, Dr. Knight said that in the cases he had met with up to this time, by rest and astringents (if there was also inflammation of the surrounding mucous membrane), the voice had been so far restored that he did not feel justified in risking cutting operations;

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but if after this treatment there should be still in any case no useful voice he should not hesitate to employ Rice's guillotine and remove the protruding portion of the growth, if it could be engaged, hoping that the remainder would be the more readily absorbed.

In conclusion, the reader stated that he had been unable to learn the ultimate condition of the singing voice when an operation had been performed, and hoped that the discussion might furnish some facts in this regard.

Dr. GLEITSMANN had used the galvano-cautery on these nodes, and was satisfied with the results. Chromic and trichloracetic acid were also of service.

Dr. LANGMAID said that we had to do physically with a definite circumscribed tumour. The condition occurred more often in women, who generally did well unless chorditis ensued. These nodules are not vascular, and are the result of a previous chorditis. He had seen six or eight in all. He would doubt the causative relation of a wrong vocal method, especially as we were not yet agreed as to what the right vocal method really is. The condition occurs in singers, who are so little affected by it that they are still able to meet artistically the demands of a critical public. Where the voice is at first affected it frequently recovers sufficiently to be used on the dramatic stage. Surgical procedures would not necessarily impair the voice unless much injury was done to the edges of the cords. Curetting might suffice.

In reply to a question by Dr. Porcher, Dr. Knight stated that these growths do not become papilloma.

Dr. MULHALL had seen four such cases. The first one, seen at Stoerck's clinic in Vienna, had been heated with solid silver stick and steam inhalations, and made a brilliant recovery. One of his four patients had been a boy, only seven years old, but he was a singer.

Dr. WRIGHT stated that he had narrated one case before the Section of Laryngology of the New York Academy of Medicine. His patient, a young woman, singer, had been found to have a suspicious spot at one pulmonary apex. He discussed the possible relation between the two conditions. They might be the result of a dyscrasia, or the node might proceed from the direct irritation of the lung lesion.

Dr. SWAIN had treated one case with silver stick. The voice had not improved, but the cord looked fairly well except at one point.

Dr. MACKENZIE had treated one case of the tuberous variety with a concentrated lactic acid solution.

Dr. FRENCH dwelt upon the necessity of long-continued local treatment. In one woman who had over used her voice several nodes were present. The appearance of the cord was such as to suggest previous violence thereto. He had treated her three times a week for over two years and a half with weak astringent. The purity of the voice was completely restored, but the patient tired more quickly than before. The edges of the vocal bands were straight, but there was a little thickening on one side. He did not believe that the condition had any relation to tuberculosis.

Dr. W. R. SIMPSON (New York) believed that the condition arose

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from over use of the voice rather than from a wrong vocal method. The direct cause was either a laryngitis or hæmorrage from vocal strain, whilst hæmorrhage would lead up to nodule formation. In one of his cases there was a linear hæmorrhage on the under side of the cord, not visible in ordinary phonation, but brought up into view in the median line when the high notes were sounded.

The PRESIDENT (Dr DELAVAN) did not believe in any relation between the condition and tuberculosis, though it might, of course, coexist with this most common of all diseases. Surgical measures should be resorted to if possible. The node may appear in acute laryngitis, but the relation of such a node to the chronic variety now under discussion he did not know.

Dr. A. W. WATSON (Philadelphia) reported a case of *Sarcoma of the Tonsil.*

His patient was a woman, aged fifty-three years. She had been well till last Christmas. Suffered then with severe sore throat, probably a quinsy ; thinks she spat up a little pus, but obtained no relief ; continuous severe pain running to ear ; moderate swelling in left tonsil and anterior faucial pillar, the latter overlaying and being adherent to the former ; engorged capillaries visible over the surface of the swelling : no ulceration or infiltration of surrounding structures ; one small gland enlarged at angle of jaw.

Internal medication of various sorts gave no relief ; free bleeding, but no pus, followed deep incision ; a bit of tonsil tissue removed for examination gave a diagnosis of round-celled sarcoma.

Six weeks later, tonsil held out with vulsellum, and under cocaine, together with adherent faucial pillar, removed by short successive strokes of the galvano-cautery knife. No difficulty in keeping the latter hot, and no hæmorrhage. Pain immediately disappeared. Site of operation covered with a thick slough, clearing off in a week.

Three weeks later, no odynphagia : pain in ear nearly gone ; gland has cleared up. Three months later, still doing well, with no recurrence. Noteworthy features of the case were the sudden onset of symptoms, with pain and dysphagia, though there was no infiltration or ulceration. The knife (cautery) was preferred to the snare, as it was desired to remove pillar as well as tonsil.

*Importance of an Early Diagnosis of Malignant Tumours of the Throat.* Paper by Dr. J. W. GLEITSMANN (New York).

The author stated that he did not desire to bring up the question of the possibility in cases so far advanced that the patient had to be left to choose slow emaciation after tracheotomy, or risk a probable death by any attempts at removal.

At the present time there are three distinct methods of procedure which have resulted in a certain number of cures.

First : The endo-laryngeal operation allows of temporary removal, but at times effects a lasting cure. If patients only come under observation early enough, this method of treatment should be more often

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followed than it actually is. The first operation of this nature for epithelioma of the vocal cords was done by Schmitzler in 1867, with no recurrence twenty years later. Reference was made by the writer to several other similar cases which are recorded in the recent literature of laryngology.

Second: Possible relief is promised by the method elaborated by Dr. W. B. Coley (New York), who has treated malignant tumours by inoculations with erysipelas products, or with its toxines as obtained by the cold process. (*See* "Amer. Journ. Med. Sci.," May, 1893.) One of Coley's patients had sarcoma of the tonsil which, under inoculative treatment, diminished greatly in size and had not increased after two years. Dr. Gleitsmann referred to the methyl-blue treatment of cancerous tumours. Internal administration of this remedy has afforded better results than its local application.

Third: Regarding modern surgical procedures, we may look upon the larynx and pharynx as analogous to the breast and uterus. The same general rules will apply to operations on both. But leading surgeons declare that by far too large a number of these malignant throat cases come into their hands only when patients are so far gone that operation is either impossible or extremely hazardous. With the exception of sepsis and trauma, delay in operating is the most potent factor for bad surgical results. Early diagnosis is, we all admit, often difficult, but when once made there is no justification or pardon for delay. In our conversation with patients we should take particular care to avoid the use of the word "cancer."

As to an operation, the case generally goes into the hands of a general surgeon, and no charge of selfishness, therefore, can be brought against the laryngologist for his advocacy of surgical measures. Each individual case must be decided on its own merits as to choice of methods. We may content ourselves with a tracheotomy, do a complete laryngectomy, or a modification thereof after the plan proposed by Solis-Cohen. Piniazek, of Russia, has operated thirty-seven times for laryngo-fissure with the head hanging down, and has had but two deaths, one from tuberculosis and the other from diphtheria.

Dr. GLEITSMANN summarized the results in thirteen cases which had been seen by him during the last few years. Six involved the pharynx and seven the larynx. Of the former, four were carcinoma and two (tonsillar) sarcoma. Of the latter, six were carcinoma and one alveolar sarcoma. One case of pharyngeal cancer was operated upon three months ago, and the patient feels well now; the others died. Of the tonsillar sarcoma, one was inoperable, while the other lived two years without recurrence after removal, but committed suicide from despondency at not being able to make a living. Of the several laryngeal cases, the six cancerous patients are dead, and the sarcomatous patient is living without known recurrence. Laryngo-fissure, with removal of the diseased tissue, was performed twice; unilateral, as well as total extirpation, each twice; and tracheotomy alone once, Death resulted twice from shock; twice from pneumonia (second and third days respectively). One had a recurrence after six months, and died from exhaustion; one with total

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laryngectomy did well for several months, but died of an intercurrent appendicitis.

In discussing the two latter papers, Dr. WRIGHT spoke of the difficulty often met with in making an early diagnosis, even with the aid of the microscope, before the clinical features put the question beyond a doubt. He was politely sceptical as to the trustworthiness of Coley's results. Some people seemed immune to streptococcus inoculation, and with them any such treatment would have decided limitations.

Dr. SWAIN also emphasized the difficulty of making an early diagnosis, as shown in his own case.

Dr. SIMPSON inquired of Dr. Watson as to the amount of cocaine used in his case.

Dr. WATSON replied that a ten per cent. solution had been applied to the tonsil four or five times, extending over ten minutes, No toxic symptoms had been noticed.

Dr. CASSELBERRY called attention to the plan of removing malignant tonsils through incisions made from the outside of the neck. When the diagnosis is once made, it is folly to rely on endo-laryngeal methods. We should not raise false hopes in our patients by suggesting the possibility of a positive cure.

Dr. W. PEYRE PORCHER (Charleston) read a paper on *Neurasthenic Throats*, with illustrative cases.

He called attention to the close relations between the throat and lungs, and noted the fact that lesions in the one place might evolve symptoms in the other. Among the most frequent symptoms of neurasthenic throats are aphonia, reflex cough, and spastic conditions of the laryngeal muscles. Many of these cases seem to form a point of departure for a subsequent phthisis.

Dr. J. C. MULHALL would regard some of Dr. Porcher's cases as hysterical rather than neurasthenic. The latter condition undoubtedly affects, however, many of our throat cases, the patients going so far as to experience air hunger and a sense of self-annihilation.

Dr. HARRISON ALLEN (Philadelphia) demonstrated *a Series of Skulls of Cretins*. The persons from whom they were taken had lived and died in Philadelphia, but were undoubtedly cretins, judging from the peculiarities of the skulls. He showed the peculiarities of the latter as influencing the size of the nasal chambers. In all the hard palate was shortened, and the depth of the inferior meatus increased, while in one case the maxillary sinuses were greatly enlarged. The skulls were from the Wistar museum, and he believed that the cretins were more numerous in America than is generally supposed.

Dr. E. FLETCHER INGALS (Chicago) forwarded clinical reports as follows :—

I. *Cyst of the Larynx* cured by injection of carbolic acid.

Patient male, forty-three : some trouble with throat for past two years ; considerable cough for seven months, and special soreness in throat for past two months. When first seen he had hoarseness and a

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continuous pain in throat. One brother had died of consumption, but there was nothing in patient's personal or hereditary history which seemed to account for his symptoms. General health was good, weight, pulse and temperature normal; deep loose cough, with a daily expectoration of half-an-ounce of muco-pus, which subsequently appeared to be the result of a subacute laryngo-tracheitis and bronchitis. Chest negative. Examination of larynx showed a large swelling of left ventricular band and ary-epiglottic fold measuring about one-and-a-half by one centimètre antero-posterior and lateral diameters; surface uniform and smooth; mucous-membrane over it slightly congested; general appearance that of a solid tumour.

After preliminary resolvent treatment, from 10 to 30 minims of a 30 per cent. lactic acid solution were injected deeply into the growth three or four times, at intervals of two or three days. As the needle entered it gave the sensation of passing through a narrow zone of soft tissue into a cavity. Puncture with a lancet gave escape to a little thick, semi-transparent fluid, which lessened the size of the tumour. Contents soon re-accumulated. It was soon seen that lactic acid caused no permanent change. Then from 15 to 20 minims of an 8 per cent. solution of carbolic acid in glycerine and water were injected every four or six days—eight times in all. At the end of this time the tumour had nearly disappeared. Three months later, no return, and throat felt perfectly well. Special points of interest in the case were (1) the deep-seated position of the cyst; (2) the impossibility of removing it without taking out a large part of one side of the larynx. Its walls were so thick that crushing, tearing, or cutting operations were out of the question.

II. *Mycosis of the Pharynx and Tonsil.* Twelve cases placed on record; four practically received no treatment; all the remainder cured by galvano-cautery.

In 58 per cent. patients had for many years suffered more or less from sore throat; in 66 per cent. soreness of throat present from four to eight weeks immediately preceding the discovery of the mycosis. Symptoms of dyspepsia present in 25 per cent.; in fully one-half the cases patient in good general health.

For treatment, galvano-cautery, heated to a bright red, was passed one-eighth of an inch into tissue beneath the growths; two or three patches burned at each sitting; *séances* repeated about every five days; disease sometimes disappears under natural causes.

*Contribution to the Study of the Etiology of Rheumatic Affections of the Body due to Tonsillar Diseases.* Paper forwarded by Dr. H. L. WAGNER (San Francisco).

The tonsil has been justly termed by Gerhardt a physiological wound—an inlet into the system guarded by leucocytes, which we have learned of late protect the body against the invasion of various micro-organisms. If, through inherited or acquired disposition, the energy of these leucocytes is diminished, or if the tonsil in a diseased state does not allow these corpuscles to migrate, then a soil may be given for infectious diseases, such as diphtheria, scarlatina, follicular tonsillitis, etc.

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The sequences which sometimes follow these diseases are important to observe; paralysis of various parts of the body after diphtheria, and also articular rheumatic affections following follicular tonsillitis. The results gained by clinical and bacteriological investigations in follicular tonsillitis, followed by rheumatic affections, are what the writer wishes particularly to note.

The question which presents itself is, whether these rheumatic affections are produced by the germs (staphylococcus albus et aureus, Fränkel's pneumococcus, etc.) migrating from the tonsillar tissue into other portions of the body, causing rheumatism, or whether they remain in or about the tonsils, sending forth and distributing their ptomaines or poisonous products into the system.

The results of Dr. Wagner's investigations go to show that in follicular tonsillitis there is a migration of these germs, and not a distribution of their toxic products.

The joints most in use are the ones generally affected, *e.g.*, ary-cartilages of singers (five cases), knee-joints in shoe dealers, owing to the constant kneeling posture (two cases), wrist-joints of violinist (one case) and of bookkeepers (two cases). In the two foregoing cases where the knee joint was affected, bacterial analysis showed that the synovial fluid obtained from the joint by tapping contained the same micro-organisms as were found in the diseased tonsils. The germs were also intensified in the urine of nearly all the cases. The family and clinical history of all these patients showed no signs of rheumatism before the attack of this tonsillar disease.

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At the executive sessions the following were elected Members of the Association :—

*Active Fellows :*

Dr. GEO. A. LELAND (Boston).
Dr. WM. HALLOCK PARKE (New York).

*Corresponding Fellows :*

Dr. EDGAR HOLDEN (Newark).
Dr. CHAS. E. SAJOUS (Paris).
Dr. R. NORRIS WOLFENDEN (London).
JOHN MACINTYRE, M.B. (Glasgow).

Dr. JOHN O. ROE (Rochester) was elected President for the ensuing year, and that city chosen as the place of the next meeting, the date to be selected by the Council.

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