



TRANSACTIONS

OF THE

TWENTIETH ANNUAL MEETING

OF THE

AMERICAN LARYNGOLOGICAL ASSOCIATION

HELD IN THE CITY OF BROOKLYN, N. Y.

MAY 16, 17, AND 18

1898

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1899

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TABLE OF CONTENTS

	PAGE
Address of the President, Dr. FRENCH	1

Papers :

I. A Note on the Surgical Treatment of Lupus and Tuberculosis of the Larynx in Connection with Tracheotomy. Dr. SHURLY	19
II. Laryngeal Tuberculosis at the Loomis Sanitarium. Dr. CHAPPELL	22
III. Foreign Body in the Larynx, and a Modification of Kir- stein's Autoscopy. Dr. INGALS	32
IV. The Use of the Bernays Aseptic Sponge in the Nose and Nasopharynx, with Special Reference to its Use as a Pressure Hæmostatic. Dr. SIMPSON	36
V. Enlargement of the Lingual Tonsil as a Cause of Cough. Dr. ROBINSON	41
VI. Submucous Operations on the Nasal Sæptum, with At- tempts at Membrane Grafting. Dr. DE BLOIS	53
VII. Early Diagnosis in Whooping-cough. Dr. WAGNER	56
VIII. Natural Immunity of the Mucous Membranes of the Res- piratory Tract. Dr. WAGNER	61
IX. Leprous Ulcer of the Lip. Dr. WAGNER	64
X. On the Use of Schleich's Mixtures for Anæsthesia in Operations on the Nose and Throat. Dr. MAYER	65
XI. Report of a Case of Fibro-lipoma of the Larynx. Dr. HINKEL	75
XII. Report of a Death following immediately an Operation for Nasopharyngeal Adenoids under Chloroform, with Remarks on Chloroform Anæsthesia in this Operation. Dr. HINKEL	80
XIII. The Recurrence of Nasopharyngeal Adenoids after Opera- tions for Excision. Dr. BLISS	89
XIV. Present Methods for the Operative Treatment of Phar- yngeal Adenoids. Dr. DELAVAN	94

	PAGE
XV. Influence of Lymphoid Hypertrophy on Epilepsy. Dr. HITCHCOCK	120
XVI. A Case of Nasal Fibroma. A Supplementary Report. Dr. CASSELBERRY	123
XVII. The General Health and the Upper Air-passages. Dr. MULHALL	128
XVIII. Comparison of the Erectile Tissue in the Nasal Mucous Membranes of a Bull and a Bullock. Dr. WRIGHT	138
XIX. Acute Inflammatory Conditions of the Upper Air-passages accompanied by Laryngeal Edema. Dr. RICE	139
XX. Further Results of Operative Treatment of Chronic Frontal Sinusitis. Dr. BRYAN	155
XXI. A Case of Disease of the Antrum and the Frontal and Ethmoidal Sinuses. Dr. FARLOW	161
XXII. The Local Use of the Aqueous Extract of the Supra-renal Glands of the Sheep in the Nose and Throat. Dr. SWAIN	165
XXIII. The Uvula in its Relations to Various Abnormal Conditions. Dr. HOPE	175
XXIV. Thyreotomy in Papilloma of the Larynx in Adults. Dr. HARDIE	180
XXV. Sarcoma of the Nasal Sæptum. Dr. CLARK	183
XXVI. Observations on the Value of Lactic Acid as a Remedy for Certain Conditions of the Upper Respiratory Tract. Dr. MACCOY	190
XXVII. Spasm of the Tensors of the Vocal Cords. Dr. RHODES	193
XXVIII. A Case of Fracture and Depression of the Anterior Wall of the Maxillary Antrum, with Restoration of the Depressed Wall. Dr. ROE	203
XXIX. Rhinoscleroma. Dr. ROE	206
XXX. Exhibition of Cases.	
Cases of Tuberculosis of the Larynx. Dr. GLEITSMANN	209
(1) Case of Tubercular Laryngitis; (2) Case of Sub-glottic Thickening. Dr. SIMPSON	211
A Case of Asch's Operation upon the Nasal Sæptum. Dr. ASCH	212
Specific New Growth obstructing Anterior Nares. Dr. MAYER	213
A Case of Spastic Aphonia; Cases of Laryngeal Neoplasm; treated by Instillations of Alcohol. Dr. KNIGHT	213
(1) Warty Growths under the Tongue; (2) Obscure Disease of Larynx causing Aphonia. Dr. HOPE	214
(1) Pemphigus of the Mouth and Throat; (2) Vascular Growth at Base of Tongue; (3) Congenital Tumor of Lower Lip. Dr. WRIGHT	215
A Case of Cured Phthisis. Dr. FRENCH	216

Table of Contents.

vii

	PAGE
XXXI. Lantern Exhibit. Dr. WRIGHT . . .	217
XXXII. Presentation of Specimens. Dr. LELAND . . .	217
Specimen of Enucleated Tonsil. Dr. FARLOW . . .	220
XXXIII. Presentation of Instruments.	
"The Latest Form of Kirstein's Autoscope." Dr.	
GLEITSMANN	220
A Knife. Dr. CLARK	222
A Current Transformer. Dr. FRENCH	223
A Drainage Tube for Maxillary Sinus. Dr. MULHALL	223
A Fenestrated Laryngeal Operating Tube. Dr.	
HUBBARD	224
Business Meetings	226
Obituary. Dr. James Ephraim Hastings Nichols	230
The Constitution and By-Laws	232
List of Fellows, 1898	238
Past Members	242
Index	245

TRANSACTIONS OF THE TWENTIETH ANNUAL
MEETING OF THE AMERICAN LARYN-
GOLOGICAL ASSOCIATION,

HELD IN THE CITY OF BROOKLYN, N. Y.,
MAY 16, 17, AND 18, 1898.

THE PRESIDENT'S ADDRESS.

By THOMAS R. FRENCH, M. D.

FELLOWS OF THE AMERICAN LARYNGOLOGICAL ASSOCIATION: In the name of Brooklyn, on behalf of its medical profession and personally as your presiding officer, I extend to you a most cordial welcome, and at the same time I congratulate you on the opening of this the twentieth annual meeting of the association.

As I was not permitted to be present at our last meeting, I desire now to express to you my deep appreciation of the high honor you paid me at that time, in selecting me to administer the affairs of the association for the year which has passed. Feeling as I do that there is no honor which can be conferred upon a laryngologist in America higher than to be made the chief executive officer of this body, my appreciation of your having selected me to act as your president must be understood.

The fact that we have met to-day to celebrate the twentieth annual meeting of this society gives us food for thought, and calls to mind a long retrospect of achievements and successes which have placed this body

on the highest plane of scientific activity. Though I was not a member at the time of the organization of this association, I am aware that some of those participating in it were of the opinion that the establishment of such a society was something of the nature of an experiment, and consequently especially earnest work was done in its early years, which placed it squarely on its feet, determined its standard, and thus enabled it to continue through these twenty years in uninterrupted success. With the advance of years has come an advance in knowledge, and the association is as active and successful to-day as it has been at any stage in its existence.

Our association was born at the daybreak of modern medicine. Though the part played by micro-organisms in disease was known in the laboratories to some extent several years before that time, the revelation of the new light to the profession at large was only just beginning to be made known through medical literature. Mainly as the result of the immortal work of Pasteur, Lister, and Koch, a new pathology has been made. The foundation of a medical education to-day is normal histology and pathology; but at the time that this association was formed, such knowledge was not easily obtained, and but comparatively few sought it, as it was only beginning to be required in the curricula of our best medical colleges. Since then the searchlights of biological and bacteriological research have revealed fields for study which are only now beginning to be fully cultivated, and in the twentieth century many of the truths which are being so ardently sought after will doubtless be disclosed.

We are living in an age in which great advances are being made, and no earnest seeker after a field for fruitful effort need fail to find one. From biological researches must come the enlargement of our knowledge of the causes of disease, and from the further study of the life histories of bacteria must come a better understanding of the means by which the destructive varieties may be controlled. While our dependence upon the microscope in diagnosing disease is growing with

each year, a proper conservatism in regard to its findings must be observed, for the useless loss of important structures may result from the not infrequent simulation of elements of simple inflammatory tissue for those of conditions requiring thorough eradication. We have all seen instances in which the diagnostic instinct acquired from clinical study outweighed the supposed revelations of the microscope. While a large physiologico-pathological groundwork is essential for the attainment of the best results in the treatment of disease, it must not be forgotten that an acuteness of observation, derived from diligent study in clinical work, is of equal value.

The history of the association, which corresponds to the largest part of the history of laryngology and almost all of rhinology, was presented in a masterly and exhaustive address by Dr. Delavan, the presiding officer, in 1894, to which it would seem that nothing particularly new could be added at this time. The thoughts that I would, therefore, express to you to-day are mainly in regard to specialism and the progress of laryngology and rhinology in the past twenty years.

The mind becomes confused in taking a retrospective glance through the past two decades, because of the improved conditions and the number of discoveries and distinct advances made in general medicine and surgery. It would seem almost as if in these years, to use a figure of fancy, the earnest seekers after the truth had bridled and seated themselves firmly upon the back of their Pegasus, and from such vantage ground had dealt and were dealing more effective strokes upon the dragon of disease than in any corresponding number of years in history. Is it that we of this generation are endowed with a greater degree of intellectual activity than those who came before us? Emerson, in his essay on *Circles*, pictures intellectual progress as rhythmic. At a given moment knowledge is surrounded by a barrier which marks its limit. It gradually gathers clearness and strength until some thinker of exceptional power bursts the barrier and wins a wider circle within which thought

once more intrenches itself. But the internal force again accumulates, the new barrier is in turn broken, and a wider horizon is presented. Tyndall, in one of his lectures on Light, says: "People sometimes speak as if steam had not been studied before James Watt, or electricity before Wheatstone and Morse; whereas, in point of fact, Watt and Wheatstone and Morse, with all their practicality, were the mere outcome of antecedent forces which acted without reference to practical ends." It is clearly manifest that we are to-day simply reaping the harvest which others have sown.

During the past twenty years the means of communication have grown prodigiously. The electric wire and the steel rail have belted the globe. The time of transit by land and by sea has been greatly reduced. Books have multiplied. Magazines and journals have increased to such an extent that nearly every department of life, as well as medicine, has its exponent in the printed page. By these means the world has, in a sense, grown smaller. Cities have grown larger, while the population of most countries has not increased. If there have been fewer great men, compensation can be found in the fact that there have been more able men. If there have been fewer great orators there have been more speakers. Associations and societies have been greatly increased in numbers and men to be known must give expression to their thoughts and produce their results. In the days of our forefathers it took years to gather the same amount of information which can now be acquired in a corresponding number of days in one of the large, well-organized libraries. The genius of invention has simplified living. We are in close touch with the whole of the civilized world and are benefiting by the work of others to a greater extent than has ever before been possible. It is not alone that we have easier access to the work and the workshops of the scientists of the world, but the improved methods of promulgating knowledge bring a larger acquaintance with matters of detail, which are essential in order to put the facts to use.

Science has expanded like the branches of a tree,

and each branch is covered with its ever-increasing number of workers who, centring their thoughts upon one particular branch, develop it until new shoots burst from its side, which are nurtured and still further developed by those who stand ready to cultivate them. Three classes of workers we know are needed in scientific work. The first is the original investigator who seeks the truth for the truth's own sake. The second is the teacher who diffuses the knowledge acquired by the original investigator, and the third is the applier of such knowledge to practical ends. Pasteur says: "We have science and the application of science, which are united as the tree and its fruits." We may not all be able to win victories over reticent Nature, but we can, at least, apply as well as promulgate the knowledge of the truths discovered by others.

In reflecting upon the great strides made in scientific medicine in this country during the past twenty years, it may be of interest to note the words of De Tocqueville, written nearly fifty years ago: "It must be confessed that among the civilized peoples of our age there are few in which the highest sciences have made so little progress as in the United States. . . . The future will prove whether the passion for profound knowledge, so rare and so fruitful, can be born and developed as readily in democratic societies as in aristocracies. As for me, I can hardly believe it." Tyndall, in an address delivered in New York twenty-five years ago, said that in no other country would science in its highest forms exert a more benign and elevating influence than in ours. The willingness of American citizens to throw their fortunes into the cause of education was, he said, without a parallel in his experience, but hitherto their efforts had been directed to the practical side of science. While his appeal for science on higher grounds is not as applicable to-day as when made a quarter of a century ago, it still suggests large possibilities for scientific research in this country, for the dependence of practice upon principles is as true to-day as it was then.

Since this association was founded a great change has been wrought in the character of medical practice. Though specialism was recognized and largely practised in Europe, it was comparatively new in this country, and those who confined their work to one department were relatively few. Now their number is legion, and the tendency toward the selection of a special field for practice is growing stronger each year. The widening of the field for study in every department of medicine has brought about this change. In no department, however, have the workers increased so rapidly as in ours. When we consider the intimacy of the relationship which diseases of the nose and throat bear to diseases in remote portions of the body, and how many diseases of other organs, or symptoms referred to other organs, may be caused by diseases of the upper air-tract, it is hardly to be wondered at that so many workers have been attracted to this field of study. The laryngoscope and the rhinoscope are only twice the age of our association, but the pioneers in this department have made such good use of the instruments, and laid so strong and broad a foundation for the study of the diseases of the parts which they reveal, that it is now relatively easy to acquire the manipulative skill necessary to become a specialist in rhinology. Years of practice, together with a natural aptitude, are absolutely necessary in order to acquire skill in the surgical treatment of diseases of the larynx; but much less practice is required to permit intranasal surgical work to be done, and this fact is unquestionably accountable for the large amount of indifferent or mischievous surgery which is yearly growing more noticeable. The ability to adapt many of the modern appliances to the treatment of disease requires only such training as will make a man a skilled mechanic, but to apply such measures with the best results and adapt them with intelligence requires a knowledge of the fundamental laws which are known to govern the human body. Pathology is the foundation of scientific medicine, but a knowledge of general pathology and the diseases which affect the whole economy can

not be sufficiently acquired in a college and hospital course of study; and yet the disposition to consider such a training sufficient to permit a man to devote himself exclusively to the practice of a special department of medicine is growing to an alarming degree, and is bringing into the various fields a large number of men who can hardly be regarded as competent. The advice given by Sir Morell Mackenzie ten years ago, and indorsed by Dr. Asch in his presidential address before this body five years ago, that medical men should practise general medicine and surgery during the first ten years of their professional careers, should be considered of greater value to-day than ever before; and in view of the rapidly increasing number of men who are flocking into the various special departments immediately after graduation, those of us who have the opportunity to speak to medical students should not fail to make it clear to them that success by honest efforts in these days can only be attained by those who have acquired a comprehensive knowledge of disease by years of general practice. It would, perhaps, be wise to remind them of the advice given by Dr. William Osler to the young medical graduate that "as he values his future life let him not get early entangled in the meshes of specialism." That specialism should continue and increase is, however, inevitable and desirable. Is it not because men have made special branches their life work that so much of value has been learned in the past fifteen or twenty years? Earnest workers, devoting most, if not all, of their time to one branch of medicine, have evolved many of the scientific truths on which the practice of to-day is based.

The charge is made that the workers in the various departments of medicine are becoming too narrow in their studies, devoting themselves to the acquisition of knowledge of a limited field at the expense of general medical and surgical information. To a certain extent that, no doubt, is true, but as it has already become at least difficult to digest the rapidly increasing literature in any one department of the healing art, which is neces-

sary in order to keep the methods of treatment abreast of the times, this condition is scarcely to be wondered at. As knowledge increases there will, of course, be less opportunity for general studies, and therefore the need of a higher school and college education as a foundation for the practice of medicine is becoming more apparent. When the means of acquiring information were not as large as they are to-day, great earnestness as well as ability were needed to overcome the difficulties in the path of the student, and are we not facing the danger that, as the acquisition of knowledge is made easier, the information will be accepted passively rather than actively? When, some years before the origin of this association, Dr. Barnard said, "Now we have made the task so easy, we have built so many royal roads to learning, in all its departments, that it may well be doubted if the young men of our day, with all their helps, acquire as much as those of the earlier period acquired without them," did not his words imply the truth that conquest means a spirit of augmented strength, and should we not, therefore, elevate the standard of requirement in proportion as the opportunities to meet it are increased? Another potent reason for the belief that the specialist is occupied with too limited a sphere of thought and action, and is disposed to magnify the ailments in the department of the body to which he confines his practice, is an outcome of the opposition which he has met in extending his field of study. Many of his critics have shown the greatest unwillingness to his having investigations made of other portions of the body than that with which he is identified; and yet the growth of knowledge has made it clear that the correlation of the various parts of the body is so intimate that it is impossible to determine the cause of many of the affections of a given part without a knowledge of the conditions which may exist elsewhere. The feeling is still strong that the specialist must limit his observations to his own field. To do so, the symptoms which he is asked to relieve would in some cases continue in spite of his best-directed efforts, while a happy outcome might be obtained

if the physician who has the case in charge would heartily cooperate with him. To a large extent the absence of cooperation is to blame for not only many unsatisfactory results, but for hedging in the specialist to a limited sphere of action.

The charge is also made that specialism is doing great harm because of the charlatans who live and thrive under its cloak. While the profession of medicine has never been without its charlatans, it is probably a fact that there are fewer of them to-day than ever before, and let this condition, therefore, be set down to its proper account—to the weakness or, if you will, the selfishness of man, but not to specialism. In proportion as the standard of medicine is raised and the people are educated, so will the pretender and those members of the medical profession who are “over the border” of reputable practice be discounted. So long as there is a demand for such men they will be supplied. It is unquestionably true that there are too many men in the special fields who have an eye alone for the main chance; but it is equally true that the earnest, upright specialist has as strong a desire to elevate the standard of medicine, and has as great a power as any to do so.

Despite the evils which are growing out of specialism, the fact that men are centring their thoughts upon special lines of work more than ever will ultimately result in the largest good to mankind, for we are beginning to learn that concentration is the price we must pay for efficiency. The advance of civilization is, in a large degree, dependent upon a subdivision of labor. The advance in the knowledge of the human body in health and disease will depend upon an even greater subdivision of labor than now. The evils resulting from such subdivision of work and practice must be met and controlled as best they may, but the hope that has been recently expressed, that specialism will soon wane, is, in the nature of things, not likely ever to be realized. It therefore behooves us, individually and collectively, to think well on these things, that we may the sooner deter-

mine how best to secure for specialism the minimum amount of harm and the maximum amount of good.

The particular achievements which have been made during the life of this association, which have enabled laryngology and rhinology to occupy such conspicuous places among the specialties in medicine, have been many. The dawn of the most brilliant era in these departments began when Koller made known the local anæsthetic properties of cocaine fourteen years ago. The vast strides made in our knowledge of the pathology and treatment of diseases of the nasal passages and nasopharynx would not have been possible without the assistance of this agent. The ease with which diseases of the upper air-passages can be revealed, the presence of instruments tolerated, and the destruction and eradication of diseased tissue permitted by the application of this drug has revolutionized our knowledge and practice.

While the discovery of lymphoid growths in the pharyngeal vault antedates the foundation of this association by seven years, it is nevertheless true that the importance and frequency of occurrence of these growths were not fully appreciated in this country, at least, until 1884. To our deeply lamented and talented fellow, Dr. Hooper, must be given the credit for first awakening a lively interest in this affection in America. Countless thousands of lives during all the ages were rendered feeble and shortened by this heretofore unrecognized cause. To-day the operation for removal of these growths is performed by surgeons in every part of the civilized world. To have bestowed a boon of such magnitude upon posterity has made the distinguished discoverer of "adenoid vegetations," the late Professor Wilhelm Meyer, the greatest possible benefactor to mankind.

Antitoxine therapy, serum therapy, and organo-therapy are methods of treatment which have arisen since the inception of this association. If antitoxine had accomplished no more than the diminution in the number of cases of laryngeal invasion in diphtheria, it would have been a priceless boon; but, according to Richet, the lives

of about fifty thousand infants are now saved annually by this agent alone.

O'Dwyer began his experiments with intubation of the larynx two years after this association was organized, but it is unnecessary for me to dwell upon the vast value of this distinctly American contribution to the relief of suffering humanity. It has to a very large extent driven tracheotomy from the field, but when a better adjustment of these two operations for the relief of laryngeal stenosis shall have been found the percentage of cures will doubtless be increased. There have been but few greater monuments reared in the science of medicine than that which will perpetuate the fame and the name of Dr. Joseph O'Dwyer.

We are probably standing to-day at the threshold of our knowledge of tuberculosis. Koch found the bacillus sixteen years ago, and how best to destroy it in the living tissues is a problem to the solution of which many scientists in this country and Europe are devoting the best parts of their lives. While the methods of treatment for laryngeal tuberculosis employed to-day give better results than heretofore, we can scarcely look for signal success in dealing with this disease until the nature of tuberculosis is better understood. Whether highly beneficial results from the use of the Krause-Heryng method are to be obtained in this country or not is yet to be demonstrated. The outlook is, however, encouraging.

While but little knowledge has been acquired during the past twenty years in regard to the nature, causes, and medicinal treatment of cancer, we are certainly in a better position to contend successfully with the disease in its early stages than heretofore. The noteworthy operative work in cases of cancer of the larynx of one of our corresponding fellows, Sir Felix Semon, and of Professor B. Fränkel, brings the encouragement that even better results may be expected when the means of making early diagnoses with greater ease and certainty shall have been acquired. Semon reported in 1894 fifty-eight per cent. of cures of selected cases

in his private practice, after removing the diseased parts through an opening made by dividing the thyroid cartilage. Further reports of cases operated upon by him since then, and presented in the *Archiv für Laryngologie*, do not materially change the percentage of cures. The gratifying statement made by Semon is that in only one of his cases had recurrence possibly taken place. In a letter to me dated December 29, 1897, Semon stated that all of the patients who had recovered from the operations were doing well. Surely such results can not but encourage us to believe that even this dire disease, if dealt with in its early stages, may be permanently eradicated in a much larger percentage of cases than has heretofore been believed to be susceptible of cure, and that, too, with a minimum amount of disfigurement or loss of function.

Almost all of our knowledge of diseases of the accessory sinuses has been acquired in the past twenty years. Prior to the eighties the sinuses were opened only to relieve the symptoms occasioned by acute suppuration. Now, thanks largely to the brilliant original work done by a number of the fellows of this association, we are in a position not only to relieve the symptoms produced by acute suppuration but, in a measure, to prevent its occurrence, and also to remove by rational means the conditions resulting from long-standing disease.

In the early years of this society the study of vasomotor reflex phenomena from structural diseases in the nose was begun by members of this body, and has been actively continued until the present time. While, perhaps, more was hoped from it than has been realized, nevertheless brilliant results have been obtained, and the investigators who have elucidated the subject have contributed facts of the utmost importance to rhinology.

Mainly through the researches of a number of the corresponding and active fellows of this association, a large addition to our knowledge of the innervation of the larynx has been acquired.

The discovery of the X rays in 1895 will perhaps mark an epoch of the utmost importance in medicine and surgery. Through the application of the rays to the portions of the body in which we are especially interested, excellent results have been obtained by our corresponding fellow in Glasgow, Dr. John Mackintyre. He has been experimenting with the cinematograph in conjunction with the X rays, and has been so far successful that he was able to show, at the Royal Society of Edinburgh last June, the movements of the bones in the legs of a frog on the screen. In our special department future developments will depend upon how far it will be possible to photograph the soft tissues. By placing a fluoroscope in the mouth Dr. Mackintyre has succeeded in obtaining an image of the septum, the roots of the teeth, and other hard structures in that neighborhood. He has also been able to demonstrate the process of ossification in the thyroid cartilage. In a letter to me dated January 6, 1898, Dr. Mackintyre, in writing of the X rays, says, in substance, that it is possible to get shadows of the larynx, but that their definition is not as sharp as those obtained in photographs of hard structures or foreign bodies. Nevertheless, he has great hopes for the future, as the subject of skiagraphy is but two years old.

If Lister's work has been of less value in our field of practice than in others, it has, at least, taught us the value of cleanliness. It has taught us the necessity of subjecting our instruments, whether used for examination or for operative or non-operative treatment, to the germ-destroying action of heat. If we can not make very free use of antiseptics, we can, at least, give our patients the benefit of thorough asepsis. This brings with it the comforting assurance that if we are not always successful in contributing the largest amount of good, we have rendered it impossible to do harm by the conveyance of infectious germs. Through asepsis, antisepsis, and local and general anæsthesia, the fear of the knife is being rapidly banished, and, while this carries with it a certain degree of danger at the hands

of the overzealous operator, it makes possible the eradication of disease to a degree never before known in history.

Although Valsalva demonstrated nearly two centuries ago that deafness was often due to the closure of the Eustachian tubes, the conditions in the nasal passages and nasopharyngeal cavity which are now known to be frequently accountable for the imperfect ventilation or closure of the Eustachian tubes were not fully appreciated until within the past fifteen years. In one of the standard American treatises on diseases of the ear published less than fifteen years ago, the author states that very few otologists made much use of the rhinoscope, as it was only in exceptional cases that it was found that the revelations compensated for the time employed. There is surely much yet to learn of the relation of diseases of the ear to diseases of the throat and nose, but the degree in which diseases of the ear may be prevented, or, when they exist, may be successfully controlled through the care of the nose and throat, is yearly growing greater. The most successful otologists to-day are necessarily competent rhinologists, and it is quite certain that the most successful textbooks on diseases of the ear, which will be written in the future, will be those in which a large part of the contents will be devoted to the consideration of catarrhal affections of the upper air-passages.

By comparison with the treatment of catarrhal affections by applications of alterative and astringent remedies, which were employed almost exclusively in the early years of this association, how brilliant seems the surgical work now performed for the radical relief of catarrh of the upper air-passages! The recognition of the physiology of the nasal passages, the recognition of the pathological importance of hypertrophied turbinated tissue, septal spurs, and deflected nasal septa, indeed, the recognition of nasal diseases themselves—virtually the inception of rhinology—are a part of the history of our special department of medicine since the association first saw the light. Much of the work which

has revolutionized our methods of treatment has been done in this country, much of it in this association, and to-day we can claim distinctive places for American laryngology and rhinology which could not have been accorded to them twenty years ago.

The utilization of the incandescent electric-light current, which can usually be found wherever specialists are in demand, for galvanism, faradaism, electrolysis, galvano-cautery, and small-lamp work for transillumination, has greatly facilitated special work and saves much time. In the early days of the association these aids could only be obtained from cumbersome apparatuses.

It is my sad duty to chronicle the death of our lamented ex-president, Dr. Harrison Allen. By his personal charms he endeared himself to every member of the association, as well as to all those who had the privilege of an acquaintance with him. He represented the best type of the dualist in medical studies, dividing most of his time, in pursuit of knowledge, between comparative anatomy and laryngology. To a very large extent he filled the place left by the late Dr. Joseph Leidy, but at present it is felt that there is no one to take the place of Dr. Allen, in that particular field of study, in the city of his birth. He was the author of a large number of contributions to the study of anatomy and laryngology, but his superb *System of Human Anatomy* will live as his greatest memorial. We will miss his presence at our annual gatherings, but we will feel the inspiration of his character and work and be prompted by the lesson of his life to do the utmost that is in us for the betterment of mankind.

In the selection of a subject to be brought before a scientific body many, no doubt, are often deterred from reading at all because they are unable to find an original field for discussion, or some novelty which will interest. But I take it that such is far from the meaning of the annual gatherings of this society when we meet, partly to discuss again subjects which, by judicious pruning, may crystallize our knowledge in regard to

them. Such discussions also assist in preventing us from forming habits of work or fixed beliefs in regard to subjects about which men hold different opinions. Let us remember that in scientific medicine the ideal is the truth, and the actual but that part of the truth which has been attained. As we are ever striving for the ideal and have but one desire, to know the truth, and thus but one fear, to believe an untruth, free and friendly discussion, entailing, as it does, the discipline of suspending judgment, is, I take it, one of the means of converting the actual into the ideal. It is for these reasons that I feel that a large part of the value of our meetings is derived from the discussions of papers. If the fellows could be made acquainted beforehand with the manner in which the subjects to be presented were to be treated, they would come better prepared to discuss them. If epitomes of papers to be read at each meeting could be sent to a committee whose duty it would be to print them and mail a copy to each member of the association two weeks before the meeting, discussions of a most fruitful character would be the natural result. Such a course of proceeding would probably also result in the saving of time, as under those conditions the discussions would tend toward crispness and brevity.

To provide the best material for the growth of our association, in the future selection of applicants for fellowship we should take pains to acquire the largest possible knowledge of their mental habits and ideals, as well as their scientific attainments. In this age of rapid advance and sharp competition, the physician who is not a good student can not be a candidate for the honors which will be awarded in the future of modern medicine. But there are things better even than science. Character is higher than intellect, and the highest mark in human nature is reached when high intellect and upright character are found combined. We are all striving for the highest attainments in the work of the association, and we wish to feel assured that the coming men will be thoroughly competent and filled with enthusiasm in their work. We want young spirit, vigorous spirit, and

particularly men who are interested in, and in touch with, the advancing knowledge of biology, bacteriology, and pathology, for it is through these departments that medicine is being rapidly converted from an art into a science.

At its last meeting the council thought it wise to call attention to article 14 of the by-laws of the association, which reads as follows: "Any fellow who shall have failed to furnish a paper for three successive meetings, or who shall have absented himself from three successive meetings, may, on vote of the council, be dropped from the association." At the same time the council recommended that the by-law should be amended by excluding fellows of twenty-years' standing from its provisions—an amendment upon which you will be asked to vote at this meeting. The by-law is one which should be enforced in order to maintain the highest efficiency in the proceedings of the association. The average attendance at the nineteen meetings of the society has been fifty-six per cent. of the total membership. Even though the fellows reside in all parts of the country, from Massachusetts to California, and from Canada to Louisiana, the members of the council are hopeful that the attendance at the meetings in the future will be even greater than heretofore. A dearth of enthusiasm can not be complained of; but it seems desirable at this, the beginning of the third decade in the life of the association, to call attention to such measures as have been provided to insure an increase, or prevent a decline, in interest in the meetings of the association.

Since Elsberg first presided in this place there have been printed in the archives of the association four hundred and eleven papers, many of them masterpieces, carved with infinite pains and great labor in enduring bronze, upon the contents of which much of our practice of to-day is based, and which will, perhaps, be utilized to an equal extent by posterity. The wide range of subjects which have been discussed has, among other things, demonstrated very conclusively the intimate relationship which diseases of the throat and nose bear to

internal medicine. Many of the founders of the association are among our most enthusiastic workers to-day and still continue to contribute material of a character which has made the association famous. The inspiration of the work done for us by Elsberg and Hooper, who sought the truth in its wholeness, not diluting it or masking it, is still with us, and will remain with us as long as the association exists. The heritage of the scientific spirit of Allen will add material strength to the foundation upon which we are to build in the future.

The attendance of the members of the association's council at its annual midwinter meetings during the past twenty years has been sixty-five per cent. of the total membership. No better demonstration could be had of the responsibility felt by that body in conducting the affairs of the association, for, in order to attend those meetings, it required, in some instances, the devotion of the largest part of two days to travel and, in many instances, the absence of at least two days from home.

In order to maintain the high order of excellence in the work of the association and the lofty standard which has resulted from its proceedings thus far, it is necessary to put forth extra efforts in the future so that the scientific spirit of the association may be seen to be growing ever finer, and as from the beginning reflecting the highest credit upon the department of medicine to which we are devoting our lives. The words of Elsberg, written when the laryngoscope was but five years old, that "the realization of a glorious future for laryngology needs but resolution, labor, and perseverance," are as applicable to-day as when written thirty-five years ago, and the high obligations imposed upon us by those who founded this association can only be met when we remember that "men walk as prophecies of the next age." Though great advances have been made, greater advances are yet to be made, and with "resolution, labor, and perseverance" we may lift laryngology to a still higher plane of usefulness, and thus contribute to the elevation of scientific medicine.

Again, gentlemen, I extend to you a cordial welcome

to the borough of Brooklyn in the city of New York, and offer you my best wishes for a highly successful and most enjoyable meeting at this the twentieth annual congress of the American Laryngological Association.

Paper.

A NOTE ON THE SURGICAL TREATMENT OF LUPUS AND TUBERCULOSIS OF THE LARYNX IN CONNECTION WITH TRACHEOTOMY.

By E. L. SHURLY, M. D.

THE recent adoption of curettement and other surgical endolaryngeal methods for the relief of tuberculosis of the larynx, which have been so zealously advocated and so successfully followed by Krause, Heryng, Gleitsmann, and others, have necessarily led the profession to a practical consideration of the advantages and limitations of such proceedings. The limitations may depend either upon the extent or inaccessibility of the laryngeal lesions, rendering approach by the mouth either ineffectual or dangerous, or upon the liability (either from constitutional disease or extreme swelling of the parts) to death, by interference with the respiratory function; indeed, the non-adaptability of curettement, excision, or escharotic topical applications in cases of tuberculosis and lupus of the larynx has been experienced so often that many practitioners have come to abandon all thought of such manipulation in the treatment of the majority of cases. Such observations have led the writer to adopt the plan of making tracheotomy previous to any attempt at the destruction of the diseased tissue of the larynx. This practice in some instances has shown marked advantages. Of course, in the case of a slight lesion situated upon the epiglottis, especially, or about the vestibule of the larynx, tracheotomy would be rarely indicated excepting for the relief of a tumescence sufficient to offer a dangerous impediment to respiration; but in cases of

more extended tuberculosis or lupus, which from the character and extent of the lesions would seem amenable to surgical treatment, the previous introduction of a tracheotomy tube will be found of great advantage; for in this way the operator may take all the time necessary for proper manipulation without incurring the dangers arising from laryngeal spasm, laryngeal hæmorrhage, or subsequent laryngeal swelling.

Chloroform anæsthesia may be adopted if desired for each manipulation—although cocaine anæsthesia is usually sufficient.

To compensate for the loss of dilatation of the larynx by the ordinary respiratory movements after tracheotomy, a broad retractor, similar to the old-fashioned palate retractor, may be introduced into the larynx and held by an assistant during the performance of curettement or excision. By this means a considerable amount of diseased tissue can be removed at one sitting, and sometimes the full amount desired may be removed at once. The dressing of the wound with iodoform and boric acid is also facilitated, inasmuch as no attention need be paid to the respiration. In one instance, in a case of lupus of the epiglottis and aryepiglottic fold, the writer met with sharp hæmorrhage which, without the tracheotomy tube, would have been troublesome to check and possibly dangerous to life. In this instance there was no difficulty whatever in checking hæmorrhage by the application of styptics; indeed, by making a previous tracheotomy, the operator may remove with comparative comfort and unconcern the diseased tissue, whereas without the tracheotomy, as we all know, such manipulations are fraught with difficulty and misgiving and are peculiarly unsuccessful. The removal of laryngeal tumors may also be accomplished with much more ease after having inserted a tracheotomy tube.

When there is more or less extensive pulmonary disease, such as caseation of the lungs or a great amount of bronchitis, tracheotomy is contraindicated. The tracheotomy tube seems to interfere with expectoration, and in many instances will lead to additional septic

infection. In two cases of this sort, as well as in several cases of laryngeal and pulmonary tuberculosis, more or less advanced, under the writer's care, the insertion of the tracheotomy tube speedily brought about an aggravation of the pulmonary disease, and thus led to an earlier death. This effect is probably brought about mainly by the interference with the free expectoration of the products of pulmonary caseation. Another objection which might be urged against the use of the tracheotomy tube in these as in all other chronic laryngeal diseases is the danger of destroying the natural resiliency of the trachea by the presence of the tracheotomy tube for a long time. This objection, however, is hardly applicable to the cases of adults. In children it is true that the wearing of a tracheotomy tube for a long time may lead to subsequent difficulty from collapse of the tracheal wall, as well as by the formation of adventitious folds or inequalities of its mucous membrane; but as this event so rarely occurs in adults, excepting in cases of diphtheria or tracheal syphilis, it ought not to be considered as a serious objection. Another objection which has developed in the experience of the writer is based upon the fact of the recurrence of the lupoid or tuberculous disease after the tracheotomy tube has been removed, thus creating an indication for a second tracheotomy. Such cases will occur in practice, and perhaps are not exceptional. Of course, it is unnecessary to say that a repetition of the tracheotomy will be inadvisable in the majority of instances. From this fact it therefore behooves the operator to allow the tracheotomy tube to remain, if possible, until the diseased tissue has been quite thoroughly and finally removed. Yet, notwithstanding the exercise of such precaution, there may be a recurrence of the disease.

I have made these suggestions for the purpose of bringing forth discussion upon this phase of the subject, and have purposely refrained from reviewing the merits and demerits of the surgical treatment of laryngeal tuberculosis and lupus, because of your familiarity with the subject.

Paper.

LARYNGEAL TUBERCULOSIS AT THE LOOMIS SANITARIUM

By WALTER F. CHAPPELL, M. D., M. R. C. S. ENG.

THE object of this paper is to present to this society a report on cases of laryngeal tuberculosis which have received climatic, systemic, and local treatment under most favorable conditions. No favor has been given to any special remedy or method of treatment, and the report is a simple statement of facts as taken from the notes of the sanitarium.

The climatic conditions and the general surroundings were, of course, the same in all cases, but the internal medications and local applications differed, the selections being made according to what in the experience of the writer and others seemed best for such cases.

Before proceeding to the histories of the patients, I think it would be interesting to the society to know something about the sanitarium and climate.

Sanitarium.—The Loomis Sanitarium, situated at Liberty in this State, admits only persons in the primary stage of pulmonary and laryngeal tuberculosis, and keeps them as long as there is a possibility of arresting the disease. I may also state, in this connection, that the sanitarium has a department which will appeal strongly to the members, and that is a hospital for incurables, situated in this city, where homeless and poor incurable tuberculous patients can receive every care and the special treatment so necessary for their comfort.

The sanitarium enjoys an altitude of twenty-three hundred feet above sea level, and is one of the highest accessible points between the Atlantic and the great Canadian lakes. The surrounding country consists of short hills and undulating ground. The watershed converges from this point, giving natural drainage. There is little or no forest land, and, with the exception of a few rivulets, there are no large sheets of water.

The sanitarium is built on the cottage plan and con-

sists of administration building, cottages, and infirmary. Its capacity is for ninety patients.

The throat department is specially arranged so that patients can receive the same treatment they would at any dispensary in the city. This, in the opinion of the writer, is a great advance, as in his experience throat treatment of tuberculous patients in charitable institutions in the country is somewhat neglected.

Climate.—In winter the temperature ranges about zero, and the days are generally bright. In summer the temperature ranges from 70° to 85° F., with cooler nights. The prevailing winds, winter and summer, are northwest and southwest. The altitude and absence of forests and lakes contribute largely to the little humidity found in this region. There are also comparatively no morning and evening fogs, so common in many mountainous districts.

Local Treatment.—Special attention is given to the condition of the upper respiratory tract in all the sanitarium patients, whether suffering from tuberculous throat manifestations or not. This attention, it is believed, assists largely in the general good results obtained. The applications for tuberculous laryngitis consisted of such well-recognized remedies as creosote, lactic acid, ichthyol, iodoform, nitrate of silver, etc.

General Systemic Treatment.—This embraced suitable clothing, food, exercise, and the administration of medicinal remedies reputed to influence the pulmonary and general conditions, and indirectly the laryngeal lesions. The most important of these were beechwood creosote, creosotal, guaiacol valerianate, ichthyol, benzozal, arsenic, and tonics, also the hypodermic injection of horse serum. The latter was the antitubercle serum prepared at the Biochemic Laboratory, Washington, D. C., for the United States Government.

It was administered on alternate days, beginning with a dose of ten minims, gradually working up to a maximum dose of twenty minims. In case of high fever or irritation of the skin, the dose is diminished, and then again gradually increased. The mouth of the bot-

tle should always be sterilized with heat before and after use. The serum is drawn out of the bottle by the sterilized barrel of the syringe; residual serum in the syringe should never be returned to the bottle.

The serum injections do not produce any immediate changes in the throat lesion, but that they do have a part in the ultimate results seems very possible. Dr. Stubbert says in his report to the medical board: "By referring to the table I shall read to you it will be seen that during the past few months the results of serum treatment upon temperature, cough, expectoration, weight, and tubercle bacilli are far in advance of those of any agent we have used. I, for one, am not ready to pin my faith to serotherapy in tuberculosis; but in the face of such facts as are and have been lately presenting themselves before me daily, both in and out of the sanitarium, I find it necessary to cultivate a conservative spirit, lest I believe too quickly. With a common ground of climate, hygiene, food, etc., placing side by side patients treated with serum and other remedies, we are forced to acknowledge in incipient cases, with or without bacilli, that the percentage of good results in every way has been lately in favor of the former. Numerous cases, more advanced, that have not prospered under other treatment, have gained weight and reduced temperature under the serum."

The observations on the following cases extended over a period of from three to nine months, and were made by myself on the dates mentioned in the history of each case. The local treatment was carried out at my suggestion by Dr. Stubbert and his assistant at the sanitarium, Dr. Stephen Wells. I am also indebted to Dr. Stubbert for the notes of the pulmonary condition of the laryngeal cases, and his method of administering the antitubercle serum.

CASE I.—Miss A. D. Examined first, December 20, 1897. Left vocal cord thickened, right cord ulcerated; grayish patch on mucous membrane in the interarytænoid space; voice hoarse; considerable laryngeal tickling and cough. Pulmonary trouble, incipient in the right apex

with tubercle bacilli. Treatment: Dobell's solution, followed by peroxide of hydrogen daily, and the local application of No. 2 creosote solution three times a week.

February 8, 1898.—Thickening of left cord very slight; ulceration on right cord healed; no longer hoarse.

April 10th.—Grayish interarytænoid patch disappeared, leaving some thickening; no ulcerations. Cough much better; voice normal. Condition of apex of right lung much improved. No bacilli; increased in weight sixteen pounds. General condition excellent.

CASE II.—W. S., October 30, 1897. Mucous membrane covering both arytaenoids and interarytænoid space much thickened; several papillomata and a moderate-sized ulcer at the base of left arytaenoid cartilage; voice hoarse; general condition poor. Consolidation of upper lobe of right lung, with evidence of a disseminated process in other parts of right lung. Infiltration in region of left nipple. Treatment: Dobell's solution and peroxide of hydrogen daily. Twenty-five-per-cent. solution of orthochlorophenol in glycerin twice a week to the ulcer.

December 7th.—Laryngeal thickening the same; ulcer smaller; voice and cough the same. Orthochlorophenol produced some irritation, and was reduced to four per cent. solution.

March 6, 1898.—Laryngeal thickening the same; ulcer quite small; cough better; voice more certain; general condition improved. Orthochlorophenol stopped. Twenty-grain solution of nitrate of silver ordered twice a week.

April 10th.—Laryngeal thickening much less; ulcer healed; voice better; tones more sustained; cough greatly improved; general condition good; weight increased nine pounds; left lung has cleared up; on the right side has now only some consolidations of right upper lobe.

CASE III.—Mr. P., October 30, 1897. Two points of ulceration on right margin of epiglottis; hoarse at times; slight laryngeal cough; has advanced trouble in right lung extending downward on a line with the nipple, and incipient trouble in left apex. Treatment: Dobell's solution daily, No. 2 creosote solution twice a week.

December 7th.—Ulceration healed; cough slight; no longer hoarse; general condition improved.

March 6, 1898.—Same as last notes.

April 10th.—Right arytaenoid cartilage slightly red;

general condition excellent; gain in weight ten pounds; left apex cleared up, and infiltration on right side extends only to second rib.

CASE IV.—Miss H., October 30, 1897. Interarytænoid space thickened and red; no ulceration; slightly hoarse at times; has advanced trouble in right apex, incipient in left apex. Treatment: Dobell's solution daily.

March 6, 1898.—Thickening in interarytænoid space less.

April 10th.—Larynx healthy in appearance; voice natural; gained three pounds since last note. Trouble on left apex disappeared, right apex improved.

CASE V.—Mr. F., October 30, 1897. Thickening in interarytænoid space; ulceration on both ventricular bands; voice very hoarse; considerable pain on swallowing; had advanced trouble on both upper lobes and signs of softening on left side. Treatment: Dobell's solution daily, No. 2 creosote solution three times a week.

December 7th.—Ulcerations healed; voice and cough improved; dysphagia less.

March 6th.—Condition about same as at last note. No pain on swallowing.

April 10, 1898.—Very slight interarytænoid thickening; voice improving steadily. Pain, which had continued over fifteen months, entirely disappeared. Pulmonary signs no longer active; general condition much improved; has gained fifteen pounds since admission.

CASE VI.—Mr. E., October 30, 1897. Arytænoid cartilage and vocal cords red; voice hoarse; advanced trouble in upper left lobe and incipient in right upper lobe. Treatment: Dobell's solution and No. 2 creosote solution.

December 7th.—Cords red and thick, and present minute ulcerations along their margins; hoarseness very great, and considerable pain on swallowing.

March 6, 1898.—Both vocal cords present a worm-eaten appearance; cough, hoarseness, and pain much worse. Ordered twenty-five-per-cent. solutions of lactic acid twice a week.

April 18th.—Cords thick; ulcerations much improved; considerable granulation tissue in larynx; hoarseness continues; cough and pain improved. Pulmonary conditions improved, also general condition.

CASE VII.—Miss M., December 7, 1897. Thickness and redness of interarytænoid space; occasional hoarseness; infiltration in right apex; tubercle bacilli. Treatment: Nitrate of silver, twenty grains to ounce.

March 6, 1898.—Thickening and redness in larynx less.

April 10, 1898.—Larynx normal in appearance; pulmonary conditions improved; no bacilli.

CASE VIII.—Mr. H., October 30, 1897. Cords slightly thickened and red; intermittent hoarseness; infiltration in right apex with bacilli. Treatment: Dobell's solution and ten-grains-to-the-ounce solutions of nitrate of silver.

December 7th.—Cords normal; voice natural.

March 6th.—No laryngeal symptoms.

April 10th.—No laryngeal symptoms and no bacilli.

CASE IX.—Mr. J., January 22, 1898. Several papillary growths in interarytænoid space and grayish patch on its mucous membrane. Consolidation on left side to nipple, infiltration in right apex. Treatment: Twenty-grain solution of nitrate of silver to interarytænoid space.

April 10th.—Papillary growths less in size; grayish patch about the same; pulmonary and general appearance improving; weight increasing.

CASE X.—Miss D., December 20, 1897. Interarytænoid thickening; very hoarse at times; had infiltration in right and left apices. Treatment: Solution nitrate of silver to interarytænoid space and spray with Dobell's solution.

April 10, 1898.—Larynx much improved; hoarseness better.

CASE XI.—Miss R., December 12, 1897. Arytæoids and both cords thickened and red; voice hoarse. First stage of phthisis in upper lobes of both lungs. Treatment: Dobell's solution and No. 2 creosote solution.

March 6, 1898.—Laryngeal infiltration increasing; speaks with a hoarse whisper, and when discharged, April 1st, there were signs of breaking down under the right clavicle, and larynx was unimproved.

CASE XII.—Mr. F., December 7, 1897. Left arytaenoid considerably swollen, also posterior pharyngeal wall; advanced trouble in right lung apex to base, incipient on the left side. Treatment: No. 2 creosote solution. This patient passed from under our observation, but we ascertained that the disease spread rapidly in the throat and lungs until his death, April 1st.

CASE XIII.—Mrs. P., August 20, 1897. Thickening in posterior commissure and several small spots of ulceration. Small ulcer on posterior end of right cord, also on the anterior wall of trachea just below the cords; tips of

arytænoid cartilages red and slightly swollen. Quite hoarse, and considerable laryngeal cough, owing to accumulation of mucus on upper part of trachea and the posterior commissure. Both apices infiltrated and passing to the advanced stage of pulmonary tuberculosis. Treatment: Locally, Dobell's solution, followed by peroxide of hydrogen and No. 2 creosote solution.

October 30th.—Little interarytænoid thickening and several granulations; no ulceration in the larynx or trachea; occasionally hoarse; gained fourteen pounds.

December 7th.—Larynx looks healthy, and all active symptoms have subsided.

March 6th.—Recently had a slight attack of influenza, followed by return of temperature and signs of renewed trouble in right apex and a small ulcer in the interarytænoid space.

May 1st.—The pulmonary and laryngeal activity has entirely ceased, and the patient seems perfectly well, having gained ten pounds since the first note was made.

CASE XIV.—Mr. W., December 30, 1897. Ventricular bands swollen and œdematous; large ulcer on left cord; voice hoarse, and considerable pain on swallowing and talking; advanced trouble in upper right lobe and incipient in left lobe. Treatment: Dobell's solution and No. 2 creosote solution.

February 22, 1898.—Ulceration covering both ventricular bands, all symptoms worse; ordered lactic acid to be applied instead of the creosote.

March 6th.—Arytænoid cartilages, epiglottis, in fact, the mucous lining of the larynx appeared to be entirely dotted with fine point ulcerations; general and local symptoms all worse, and pulmonary trouble increasing. Died early in April of advanced laryngeal and pulmonary tuberculosis.

CASE XV.—Miss R., October 30, 1897. Vocal cords and bands thickened; large superficial ulceration covering both bands, especially the left; also two ulcers on interarytænoid space; is very hoarse, and has considerable pain and difficulty on swallowing; has increased vocal resonance and prolonged expiration, with dullness over apex of right lung. Treatment: Apply No. 2 creosote solution twice a week.

December 7th.—Laryngeal ulcerations much lessened and covered with abundant granulative tissue; voice and laryngeal pain much improved; was discharged early in January, 1898, much improved.

CASE XVI.—Mr. S., October 30th. Interarytænoid space thickened; superficial ulcerations on posterior margins of both cords and on the anterior wall of the trachea; hoarse, especially at night; had advanced tuberculosis on upper lobes of both lungs. Treatment: Cleanse throat and apply No. 2 creosote solution twice a week.

December 7th.—Laryngeal ulcerations healed; voice natural. Died January 10, 1898, of pulmonary cedema and angina pectoris.

CASE XVII.—Miss L., December 9, 1897. Mucous membrane in interarytænoid space red and swollen, and presenting several small superficial ulcers; voice hoarse at times; had advanced trouble in both apices. Treatment: Apply creosote twice a week.

March 6th.—Ulceration healed; voice improved.

CASE XVIII.—Mr. D., March 6th. Right arytaenoid very much thickened, left moderately so; both cords red and thick; mucous membrane in upper part of trachea very red; incessant laryngeal cough. Ordered solution of nitrate of silver, twenty grains to ounce, to be applied every other day to the larynx. The laryngeal symptoms improved very much, and he was discharged four weeks later, having gained fourteen pounds in three months.

CASE XIX.—Mr. C., October 30, 1897. Arytænoid cartilages swollen; edge of right cord ulcerated; epiglottis congested; voice harsh, and some difficulty in swallowing; has infiltration of both upper lobes of lungs. Treatment: Dobell's solution, nitrate of silver, and No. 2 creosote solution.

April 10th.—Ulceration in larynx less, and a good deal of granulation tissue present; general condition improved.

A brief *résumé* of the interesting points of these histories shows the following results: Laryngeal ulcerations healed, eight cases; laryngeal ulcerations improved, two cases; laryngeal ulcerations unimproved, two cases; laryngeal thickenings improved, seven cases.

The subjective symptoms also show marked improvement, the voice returning to its normal tone in several instances, and the laryngeal cough and irritation entirely subsiding. Relief of pain was also marked, especially in one case, when it had been very severe for fifteen

months. In every case of laryngeal improvement the pulmonary involvement also showed equal gain, and the generally improved condition was marked by a universal gain in weight. A more critical examination between the laryngeal and pulmonary conditions will show their great dependence one upon the other, ulcerations occurring only when the pulmonary disease is active or in the advanced stage, and the location of the laryngeal ulcerations corresponding in nearly every instance with the lung which is most affected.

In conclusion, I wish to state that, although the patients for this report were specially selected for admittance to the sanitarium, the results have been most encouraging as showing what may really be attained. I have always felt that most of the reports by throat specialists did not represent all that might be done, as their observations have usually been made in large cities, and often in climates very unsuitable for such cases.

From my observations I am led to believe that if special attention is given to the upper respiratory tract in every tuberculous patient that the frequency of laryngeal tuberculosis will be diminished. Furthermore, that when patients with tubercular laryngitis can secure competent throat treatment early, with suitable climate, excellent results may be expected.

Discussion.

Dr. MAYER: Only a short time ago I presented a paper on tuberculosis of the upper air-passages before one of the medical societies, and which appears in the current number of the *Medical News*, wherein I stated that a properly equipped sanitarium should have every appliance for systematic throat treatment. We very frequently keep our patients under our control because of the absence of opportunity for such treatment as Dr. Chappell now informs us may be had at the Loomis Sanitarium.

I wish particularly to approve of the suggestion made by Dr. Swain a few moments ago that patients sent to sanatoria should remain there much longer than they are accustomed to at present.

With regard to the illustrations here presented, it

strikes me that these cottages are much too ornate in their construction. I think that the object could be attained in a better manner if a different plan were adopted, similar to that in one southern resort where small cabins are obtainable. These are occupied by a single individual and are used for sleeping purposes only, the patient spending the greater part of the time out of doors. They have the advantage of being inexpensive and may be destroyed after being used.

I presume that the applications of creosote mentioned are intratracheal as also subcutaneous. Parachlorphenol has been valueless in my hands.

Dr. NEWCOMB: I have been much interested in the paper of Dr. Chappell, and especially with the treatment of patients in the Loomis Sanitarium which he has brought before us. One signal advantage which these institutions have should be mentioned. I think that we must acknowledge that until within very recent times the treatment of cases of tuberculosis in the hospitals of this country has been shamefully lax. The cases were kept as short a time as possible, received very little attention, and were passed on. But in these sanatoria patients receive special attention, and they become impressed very soon with the idea that tuberculosis is an infectious disease, and they become thoroughly satisfied and accustomed to the idea of the danger of infection of others. When they return to their homes after cure they are agents of instruction for the rest of the community, and continue their precautions with regard to disinfection of sputa, etc.

I have some personal knowledge of the sanitarium at Santa Clara in the Adirondacks, which is an institution especially for the treatment of shop girls from large stores, and I have been pleased to notice that after these girls return to their homes they continue to carry out the strict plan with regard to the use of spit cups that they were taught in the sanatoria, thus conveying to the other members of the family and their friends a knowledge of the necessity of the precautions against the spread of the disease. And I have also observed that they live upon a much higher sanitary plane.

The PRESIDENT: I am glad that this subject has been brought before the association, and quite agree with Dr. Mayer's suggestion of the importance of building cabins with but one or two rooms. I think that the governors of the various sanatoria are fully impressed with the importance of such small structures, and that

the question is only one of expense. That Dr. Trudeau believes in the necessity of using small buildings is proved by the structures put up at the sanitarium at Saranac Lake. Most of them in that large and superb institution have but two rooms, and only one has, I think, more than four rooms. The excellent results obtained at that sanitarium are, no doubt, to a considerable degree, dependent upon the use of cottages which accommodate from two to four patients.

Dr. CHAPPELL: As regards the question of the mode of application of lactic acid and creosote, we use them both locally and by submucous injection. With reference to the cabin plan, I would say that most of the cottages at the Loomis Sanitarium have only two rooms. One or two have four rooms. Our object is to have only two rooms in future cottages. Of course, the expense is very great, as in our climate the cottages have to be built so as to be warm in winter. I think that the cabin plan for one or two patients is the plan for the future.

With regard to the remark of Dr. Newcomb about the importance of local treatment and its neglect in many institutions, I may say that I have noticed that where the patients in a sanitarium receive the proper attention for their throats, they progress more favorably in every other respect.

Paper.

FOREIGN BODY IN THE LARYNX, AND A MODIFICATION OF KIRSTEIN'S AUTOSCOPY.

By E. FLETCHER INGALS, M. D.

J. M., a boy, three years of age, was brought to Dr. Rhodes and myself on the 7th of January, 1898, with the history of having drawn a shoe fastener into the larynx four weeks previously, since which time he had been aphonic, even when attempting to cry; but there had been only a moderate amount of dyspnoea, although the child had considerable difficulty in sleeping on account of the choking. An effort made, at the time of the accident, to dislodge the foreign body had been followed by some bleeding. There was no history of any previous disease, and the appetite and digestion remained good. I attempted to inspect the parts by means of the laryngoscope, the tongue being drawn well forward by a special depressor; but I was unable to see

anything below the epiglottis on account of the free secretion and the difficulty in restraining the patient. Upon passing my finger behind the epiglottis I could feel the foreign body in the vestibule of the larynx. As there had been no material change in the symptoms during the preceding four weeks, I directed the parents to bring the child to my clinic a few days later, but to apply to me immediately if any difficulty in respiration occurred in the meantime.

On the 12th of January the child was brought to my clinic, at Rush Medical College, and completely anesthetized with chloroform. The patient was placed upon his back with his head hanging over the end of the table; I took a seat on a low stool at his head, and by means of an ordinary light and the laryngoscopic reflector endeavored to examine the larynx with the aid of a vaginal retractor about four inches long, used in a manner similar to that tried by J. Solis-Cohen in lieu of Kirstein's autoscope. I had had the retractor cut off and the end bent slightly backward to adapt it for this purpose, but I found that it was too short, and the end was so much bent that I could not get it behind the epiglottis, which rested against the pharynx; therefore I was unable to see the lower portion of the larynx, though I had a perfect view of the parts as low as the retractor would reach. Failing in this, I attempted, by passing my finger down to the larynx (as in doing intubation), to direct a forceps so that I could catch the foreign body; but in this I also failed. I then did a laryngo-tracheotomy, dividing the cricoid cartilage and two of the upper rings of the trachea. Through the opening I introduced a Trousseau bent tracheal forceps, and with the finger of my left hand in the mouth, touching the upper portion of the larynx, crowded the foreign body upward until I was able to work it out with the finger. The body proved to be a shoe eyelet hook (Fig. 1).



FIG. 1.

In performing the tracheotomy, following the course that I usually pursue in such operations, I introduced through each side of the cut in the trachea a strong silk ligature, the ends of which were tied together, forming loops by which the edges of the opening could be pulled apart. I allowed these loops to remain, so that if swelling should occur in the larynx by them the interne, after cutting a couple of stitches, could easily draw the two sides of the opening apart and introduce