there was paralysis of all the recti muscles and of the inferior oblique. Under iodide the conditions had improved.

A case of pachydermia laryngis in a tubercular patient was also shown by Mr. Lake.

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(*Concluded from page* 423.)

Peritonsillar Abscess associated with Diphtheria: Report of Cases. This was a paper by Dr. THOMAS HUBBARD, of Toledo.

His first case was that of a farmer, aged thirty years, with acute tonsillitis. On the fifth day a right peritonsillar abscess appeared, and on the next day the trachea showed the presence of false membrane. Antitoxin was given, but the dyspnœa from the tracheal condition became so urgent that a tracheotomy was done. The patient stopped breathing, but was brought to by artificial respiration, continued for nearly an hour. Death ensued from pulmonary œdema in eighteen hours. The second case illustrated the vagaries of mixed infection, for the various members of the same family suffered from all grades of throat inflammation, from ordinary tonsillitis to fatal diphtheria. In viewing such cases, care should be taken accurately to locate the pus, so that the incision for its evacuation should be made through tissue devitalized by softening, and not through healthy tissue, which site might permit a further diphtheritic infection.

Dr. F. C. COBB, of Boston, showed a series of photographs illustrating wax injections made into the pharyngo-maxillary space. The direction the injected material took was the same as that taken by pus in the course of the evolution of a clinical case.

Dr. NEWCOMB mentioned a case recently reported by Sendziak, in which diphtheria had been followed by multiple abscesses in the various tonsillar structures and double antrum inflammation. Rupture of the peritonsillar abscess on the base of the tongue was followed by a profuse hæmorrhage.

A Case of Lipoma of the Tonsil with Microscopical Section. This paper was read by Dr. T. AMORY DE BLOIS, of Boston.

The patient was a man, aged forty years, who showed a mass the size of a peanut kernel, with a thin pedicle projecting from the upper part of the left tonsil, attached apparently to one of the crypts. It was removed by the hot snare under cocaine. Under

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the microscope, it showed a delicate connective-tissue structure, with fatty contents.

Second Day—Tuesday, May 23.

Discussion: The Relation of Pathological Conditions in the Ethmoid Region of the Nose and Asthma. The question of pathology was discussed in a paper by Dr. HENRY L. SWAIN, of New Haven.

He asked whether one should consider the nasal condition as the cause or merely as a complication of the asthma, or were they both the outcome of some constitutional vice; and if the latter was true, what was the exact rôle played by the nasal affection. The conception of asthma, which was here assumed, was that there existed an irritability of the bronchial structures which might be the result of disease, and which was increased by frequent repetition. Next, it was assumed that some other structure was abnormal or over-sensitive. An excitation of the latter set up asthma. To connect the two, there was a connecting-link in the shape of the vasomotor system, or, as it was often called, the neurotic habit. The nose, therefore, was only one of the many organs which might stand in a causative relation to the asthma. The next questions to be considered were, What was the initial feature of the attacks? and why did they occur? The most obvious cause was the inhalation into the nares of some direct irritant. In other cases, even with polypi present, the exciting cause was not so clear, especially when the attacks came at about the same time each day. If we gave our patient certain remedies, or sent him away to another climate, some link in the chain was broken, and he did not suffer. The minute he returned to his old environment, he became as great a sufferer as before. In such a case, it was evident that the mere presence of the polypi did not explain the attack. The change in environment or in mode of life necessary to break up the vicious sequence might be almost trivial. In one case of the writer's, a change from a feather-pillow to a hair-pillow at night was sufficient to effect a cure. Various intranasal lesions were present in this case, but their removal did not relieve the asthmatic attacks; but when the pillows were changed, one of the middle turbinates, without any treatment whatever, diminished in size. Hence we had plainly one cause of nasal disease assured—namely, that certain irritations applied to certain nerve fibres would produce congestion and chronic inflammation, with swelling and watery discharge. This led to soaking of the tissues of the middle turbinate region, and œdematous hypertrophies appeared, and later these assumed the form of polypi. A peculiar hypersensitiveness of the

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nerves allowed of such results. This condition might be inherited or acquired; but in either case there seemed to go hand in hand with this a thinness or flabbiness of the vessel walls and a vasomotor responsiveness to irritation, which made possible the explosions which were the bane of the existence of these afflicted mortals. This peculiar condition of the vessel walls might be the inherent peculiarity of the neurotic subject. Such a theory would account for his neuralgias, headaches, asthmas, dyspepsias, etc., all of which were at the start nothing but vasomotor explosions. Frequent repetition of the latter might lead to a permanent relaxation of the vessel walls, and thus result in organic disease. In the main, the ethmoidal lesions were of an œdematous nature. Asthma was rare with atrophic disease; the lesions, therefore, were hypertrophic in character, and at first confined to the mucosa. In a series of sixty cases of asthma, purulent ethmoidal disease was present only three times. Disease of the bony structures without purulent conditions occurred some six or eight times, and was here due to polyp formation. The disease in the mucosa always preceded that of the bone. Spurs and deviations of the septum tended to keep up middle turbinate disease, and increased the possibility of pressure. Hence the immediate question to be solved was how to explain the occurrence of the œdematous hypertrophies. Some cause might produce congestion of these, with consequent increase in volume and of vasomotor sensibility. These congestions were more stormy and more often repeated than in simple hypertrophy, and stretching of the venous trunks occurred. In simple hypertrophy and in non-neurotic subjects the veins were well supplied with muscular coats, and soon contracted again to their normal size; but given locally in one small area, or throughout the whole membrane, vasomotor ataxia or deficiency in the amount of muscle fibre, such as is inherent to the neurotic habit, and the result was inevitable permanent stretching and relaxation. As a result of all this, the intranasal structures became more and more œdematous. Then gradually polyp buds began to force themselves through the weakened tissue; their formation was favoured by pressure and contact areas. If, at the same time, the bronchial apparatus was diseased or susceptible, any irritant, such as the recumbent position, night air, etc., stimulated the sensitive nerves in the œdematous areas, and induced an increased flow of blood to the part. Some swelling of the bronchial mucosa also took place, which stimulated the pneumogastric filaments and produced a disturbance in the vasomotor equilibrium. Our asthmatic patient was then in the toils. If we could remove pressure in the nose, we could remove

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one great excitant of this train of phenomena; but when intranasal treatment did not effect this happy result, it might be that even the slightest irritant became sufficient to cause bronchial spasm without there actually being any pressure on the contact areas. Of course, there were many asthmatics who did not have this nasal type of the malady. Even here great relief was often afforded by intranasal treatment. These people suffered after excesses of any kind from an impaired kidney, rheumatic onset, or the recurrence of a menstrual period; but in all the explosion in the bronchi was doubtless through the agency of the vasomotor system. Many cases baffled us entirely, but oftentimes our reward came by the discovery of some etiological factor quite outside of our ordinary conception of the causation. Occasionally change of environment, and that alone, sufficed to cure the patient. The deduction, therefore, was plain, that when treating many of the pathological conditions of the nose, whether asthma existed or not, we should look outside of the latter organ, and even outside the body, for the causes which led up to them.

Clinical Aspects of the Subject. This topic was treated by Dr. E. Fletcher Ingals, of Chicago.

Asthma in association with polypi was not so common in his experience as seemed to be the case with others. Many persons suffered when riding behind horses or when near a stable; they could ride behind oxen or on a wheel without trouble. In three of his cases, the patients had referred their distress in breathing to one side of the chest only, and they had unilateral lesions in the nose corresponding to the side affected. One patient suffered when living on the ground-floor of a house, but was relieved by sleeping in the sixth story. A girl who suffered in a certain house was cured by going to live in the same kind of house six blocks away. Another patient, who suffered in one part of a certain house, was relieved by moving his sleeping quarters to another part of the same house, but which was built out of another material. Some persons suffered while in town, but not when in the country. He had seen some relief from the inhalations of a solution of 3 per cent. cocaine, with 5 per cent. of sodium nitrite. This probably caused a reduction of the swelling in the bronchial mucosa.

Treatment. This was discussed by Dr. F. H. Bosworth, of New York.

He said that this whole question turned upon the matter of the respiratory function of the nose. The bronchi were only air-conductors, but a relation undoubtedly existed between their mucosa

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and that of the nasal passages. The true condition in asthma was not a spasm, but a vasomotor paresis; but behind the polypi, the polypoid degeneration, and the œdematous hypertrophies was an ethmoiditis. The former indicated it, and were its symptoms. Polypoid degeneration of the middle turbinate was pathognomonic of a similar condition in the ethmoid. The cells of the latter burrowed into the turbinate, so to speak, and became its outlying boundary; or, again, they might crowd the turbinate out against the septum, but not hollow it out. The trouble was that the anterior and posterior ethmoidal cells became occluded by mild inflammation, as from cold. This was one of the adventitious results of chronic inflammation of the nasal mucosa. In the ethmoid cavities this change took on an œdematous character, and intracellular pressure caused distension. Now came the neurotic symptoms. Probably the vasomotor centres for this division of the body were not far from the ethmoid. The indication, then, was to cure the ethmoiditis. We must relieve the intracellular pressure and break down the honeycombed mass. The operation must be radical; the removal of polypi was not enough. We must uncap the eggshell-like ethmoid and remove the points of contact, principally because they encroached upon the nasal lumen. Personally, he did not find the curette, forceps, or gouge satisfactory; he preferred to use small burrs, rounded and ovoid. We should burr down, then stop, and use the burr as a probe; burr down again, and so continue until we had established free drainage. He had never had bad results from this procedure. He formerly believed that if cocaine did not relieve the asthmatic seizure, an intranasal operation was useless, but he had modified this view. Purulent ethmoid disease did not give asthma, but inflammatory disease did. Many colds in the head, so called, were doubtless acute ethmoiditis.

Dr. E. L. Shurly opened the general discussion, saying that the question was a difficult one to settle, owing to the complex physiology of the vaso-motor system. We should go further back than ethmoiditis and œdematous rhinitis. Recent observations had shown the existence of fine filaments from the cranial nerves and spinal centres, and that they were conducting cables, having in the same strand nerve channels for various functions. In different animals and in different individuals of the same group there was a difference in the arrangement of those branches connecting the nerve trunks. These anatomical variations might explain the differences in various individuals. Again, the nose was the seat of the olfactory sense, though in man this was very rudimentary.

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Hyperæsthesia might result from breaks in the insulation, so to speak, in these various sensory filaments. We must divide our asthma cases into those which were due to local disease, and those due to psychical causes. He did not believe that the bronchi were merely air-conduits; there was a special arrangement of the adenoid tissue in them about which we knew but little. The cilia in the bronchi had an important office in expelling secretion. In his experience the majority of asthmatic cases were not accompanied by sensible derangement of the nose.

Dr. J. N. Mackenzie said that the primal course of asthma did not reside in any special peripheral organ, but in the individual himself. The area of nerve explosion depended on the seat of the local pathological process. Irritation might come from a peripheral organ, as the nose; a distant organ, as the uterus; or from some systemic dyscrasia, as gout or rheumatism. Contact areas or pressure points cut no figure in this theory. Nasal cough might come from atrophy as well as from hypertrophy. The explanation of all these facts was not to be found in alterations of the nasal or bronchial function, for all of the theories thus far advanced failed to come up to the requirements of a logical hypothesis. All polypoid degeneration was not due to ethmoid disease, as could be proved by both clinical and pathological data. In treating these cases, it is useless to temporize with the curette; the forceps and gouge had been useful in his hands. It was often advisable to remove the anterior end of the middle turbinate, and this could readily be done with the snare.

Dr. Makuen said that asthma depended upon faulty nerve and muscular action, which might arise from any one of a thousand causes.

Dr. Thomas Hubbard called attention to the autotoxæmia theory, the importance of which he thought was underestimated. This might be of two types, gastro-enteric infection and defective elimination.

Recurrence of the Tonsils after Excision; A Case of Hysterical Larynx. This was a paper by Dr. F. E. Hopkins, of Springfield, Massachusetts. The particulars of these cases will be found in *The Laryngoscope* for February, 1899, page 97. Under the first heading, Dr. Hopkins gave a *résumé* of the teaching upon the subject from the literature of modern laryngology.

Wednesday, May 24.—Closing Session.

The session opened with a general discussion of Dr. Hopkins' paper upon the subject of the recurrence of the tonsils after excision. Dr. Farlow said that a partial removal might leave behind diseased

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tissue, especially in the lower prolongation of the organ, which was its hardest part. Friction of the tongue at this point might set up irritation which would lead to recurrence. The instrument usually employed was the guillotine, but the ideal instrument was one which would get in between the faucial pillars, anterior and posterior. The borders of the pillars were not the landmarks of the amount of tissue, but the bulk of the tissue itself. He preferred in many cases the scissors and punch. In many young adults there was developed the plica triangularis, or fold of tissue running down across the anterior portion of the tonsil, which was often mistaken for a part of the faucial pillar itself. It should be removed along with the tonsil.

Dr. NEWCOMB said he thought that in institution patients recurrence was favoured by the fact that they were obliged to return to the same general bad environment which had been such a potent factor in the development of the original disease.

Dr. WOOLEN said that a tonsil could not return if it was once removed. He looked upon the tonsil as upon a wart or papilloma, removal of which might or might not be necessary. He had given up the use of the word "removal" in this connection, and used "enucleation" instead. Enucleation could be done with the guillotine if properly constructed. He preferred the French instrument with the fork removed. The tonsil was at the same time lifted from its bed with the vulsellum. The nubbins of tissue left behind in imperfect removal might excite a later quinsy. He was accustomed to test the tonsil after removal by passing a blunt probe down to the bottom of its crypts. If he found a solid bottom, he felt that he had done a complete operation, but if the probe passed all the way through the mass removed, he felt that he had not gone deeply enough.

Dr. D. BRADEN KYLE said he would look upon a recurrent tonsil as purely pathological. It was a benign hyperplasia. It was the large, soft, spongy tonsil which was apt to recur. Recurring masses were more tumours than tonsils, and were to be regarded as on the order of adenomata.

Dr. MAKUEN dwelt upon the importance of dissecting away the faucial pillars from the tonsils, and had constructed a special set of knives for this purpose.

Fibro-Lipoma of the Base of the Tongue. This was a report of a case by Dr. E. FLETCHER INGALS, of Chicago.

His patient was a farmer, aged twenty-eight years, who for three or four years previous had suffered from difficulty in speaking,

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swallowing, and breathing. Some time previous to his coming under observation, the cautery along with scissors and snare had been applied with some relief. For the last two months all the symptoms had been aggravated, especially dyspnœa on lying down. On examination a smooth tumour with congested surface could be seen situated in the laryngo-pharynx, apparently attached to the right two-thirds of the tongue and the right pharyngeal wall. It seemed to be of a fibrous nature. Removal with the cold-wire (No. 5) snare was attempted, but the wire broke three times. A uterine écraseur carrying a No. 8 wire properly bent proved to be the ideal instrument. One large mass, measuring from 1 inch to 1¼ inches in its various diameters, was removed at the first sitting, and later other smaller masses were removed. Some were fibrous, some fatty, and others were of the mixed type. Attachment was found to be to the right side of the epiglottis, the right pharyngo-epiglottidean fold, the right side of the pharynx, and possibly the base of the tongue. The patient had been seen that very day, and it was noted that there was an adhesion between the epiglottis and the right side of the pharynx and the base of the tongue. This would prevent the epiglottis from shutting down over the larynx during deglutition, but there was no difficulty in swallowing.

Dr. Woolen said he had seen a similar case. The wire had been slipped over the growth several times, as he had shown the case to students to demonstrate the mode of removal. When operation was finally attempted the patient suddenly ceased to breathe. After resuscitation the attempt was again made, and just as the wire was tightened cessation of breathing again occurred, and this time resulted fatally. No anæsthetic, local or general, had been used. If such had been the case and death had ensued, it would have been attributed in all probability to the anæsthetic.

Confined Suppuration of the Frontal Sinus with Spontaneous Rupture, Including the Report of a Case. This paper was read by Dr. D. Bradem Kyle, of Philadelphia.

The patient was a woman, aged sixty years, who was seen first in January, 1898. Her complaint had begun a short time before with an initial fulness at the inner angle of the left orbit and a profuse nasal discharge. The face was swollen on the same side, and there was a slight tenderness. She had an influenza about this time, but this complication did not seem to increase any of the original symptoms. Two months later there was an increase in the size of the orbital swelling, and finally pus appeared through an opening on the forehead a little to the left of the median line.

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Dr. Kyle had been unable to find any case identical with his own in all particulars. Several closely resembled it, and brief notes from their clinical histories were given.

The Importance of Septa and Pockets in the Antrum of Highmore with Reference to Operation. This was a paper by Dr. JOHN O. ROE, of Rochester.

He said that too little consideration had been paid to the anatomical details of this cavity. Four features should always be taken into consideration with reference to operation: the position of the sinus; its size, shape, and conformation; the thickness of its walls, and the relation to it of the roots of the teeth. He exhibited a series of skulls which had been prepared to illustrate these points. He also exhibited an antrum-searcher, which consisted of a flexible wire spring with probe point. It ran in a cannula, and could be extruded from the latter after it had been passed into the antrum. In this way it was possible to get a very accurate idea of the interior of the cavity even through a very small opening.

Dr. MACKENZIE did not think that septa often interfered with operations upon the sinus. He would operate only in extreme grades of inflammation. He would also call attention to the fact that the ostium maxillare might be above and posterior to its normal site. In such case the pus might appear up in the naso-pharynx. Politzerization of the sinus through the ostium would often relieve the pain and enable us to determine its exact site. As to drainage-tubes, he thought that they were often pus-producers.

Dr. ROE, in closing the discussion, said that he preferred a fine saw for enlarging the opening in the antrum after it had been penetrated. Gouges often splintered the bone.

"*Taking Cold.*" This paper was read by Dr. G. V. WOOLEN, of Indianapolis.

He reviewed the extant theories upon the subject. External influences were reflected upon internal surfaces, thereby causing nutritional disturbances. The latter acted by producing deficient calorification. Persons who habitually took cold frequently had a subnormal temperature, as low at times as 95° F. They appeared as a rule properly nourished, but this subnormal temperature might explain much of their indefinite malaise. In this condition of deficient body heat there was defective hæmatosis, which probably acted through the vasomotor system. The condition was frequently set up by improper care as to bathing, etc., during the first week of life. It might be the reflection of hereditary syphilis in the third or fourth generation. If a child passed into adolescence without

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acquiring the habit of taking cold, he regarded it as safe for life. Nasal stenosis might also lead to defective hæmatosis and low body temperature.

Dr. GOODALE called attention to the influence of micro-organisms in producing what we call a cold. They acted through the adenoid or lymphoid tissue. The symptoms of a cold were those of a bacterial infection. In moderate cases the staphylococcus, and in severe cases the streptococcus, predominated.

Dr. BOSWORTH said that the onset of a coryza was frequently too quick to allow of micro-organisms having anything to do with the case as causative factors. Acute rhinitis was a manifestation of a general systemic disturbance. The regulation of the function of the skin was of the utmost importance. Prophylaxis could be summed up in two words—proper clothing and the cold bath.

A Report of the Operative Treatment of Several Cases of Frontal and Maxillary Sinusitis. Dr. FRANK WHITEHILL HINKEL, of Buffalo, contributed a paper which gave the histories of one case of frontal and three cases of antral disease.

The first was that of a man, aged thirty-eight years, who had influenza in February, 1898, with severe pain over the left eye, followed by offensive purulent discharge from the left naris. He came under observation seven months later with persistence of the discharge. Pain and tenderness over the eyeball were at times present. Examination showed disease of both the frontal and maxillary sinuses. The alveolus was opened and irrigation begun, which nearly stopped the nasal discharge, but not quite. Some weeks afterwards the patient reported an increase of symptoms referable to the left frontal region, and opening of the sinus was recommended. The operation was done in January of the present year, and the sinus was found to be filled with greenish pus. It was thoroughly irrigated and its walls were curetted. The fronto-nasal canal was enlarged, and a strip of iodoform gauze was introduced into the nasal chamber through the enlarged infundibulum, as suggested by Bryan. The external wound was closed by silk sutures. After suturing the wound was dressed with cotton-pad and bandage. Dr. Hinkel said he preferred this to any form of collodion dressing, as the difficulty of securing good union after evacuation was increased by any dressing that confined the exudate about the wound and prevented evaporation. The drain was taken out on the third day and the stitches were removed on the sixth. Recovery was uneventful and the patient was permanently cured. The points of interest in the case were the masking of the primary

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frontal empyema by the signs and symptoms of the secondary antral abscess, the persistence of the antral discharge in spite of the drainage and cleansing, and its immediate cessation as soon as drainage of the frontal sinus was secured.

Dr. HINKEL also reported three cases of antral disease. He followed the Caldwell-Luc method exploited in the paper by Dr. Roaldes. He found the hæmorrhage following the gingivo-labial incision to be lessened by the injection of a 1 per cent. solution of cocaine beneath the mucosa just as the anæsthetic was about to be administered. In one case in which he had been treating the antrum through a cannula beneath the inferior turbinate, he was able to reduce the hæmorrhage that was so profuse when the antrum was opened, by injecting into it just before the operation about one drachm of the solution of suprarenal extract. The limitations of this operation for antral disease, and the proper choice of cases for its performance, would be facilitated by the reports of its results, whether successful or otherwise. Dr. Hinkel had found the introduction of the drainage-tube to be the most difficult in the operation. To facilitate this he had had made a modification on a small scale of Bellocq's cannula. Introduced into the nose with the probe point thrust upward and forward into the antrum, it readily brought into reach the ligature, to which the drainage-tube or strip of gauze could be attached, and then drawn through the opening in the nasal wall and out at the nostril. The suturing of the gingivo-labial incision did not seem, according to Dr. Hinkel's experience, necessary. It was difficult to keep the stitches already inserted from being somewhat torn out during the later stitching, on account of the manner in which the parts must be drawn upon to secure access to the lips of the wound. The parts coapted readily without stitches, and there was little motion at this point. The wound did not need to be disturbed if the patient was fed upon soft food, care being taken to use the opposite side of the mouth in eating, and to avoid violent blowing of the nose. Under these precautions, healing took place readily, as shown by the cases narrated.

During the Congress the following additional papers were read by title: "Dermoid Cyst of the Nose," by Dr. H. S. Birkett, of Montreal; "Atrophic Rhinitis, with Report of Cases," by Dr. James E. Logan, of Kansas City; "Tuberculosis of the Pharynx, with Report of a Case in a Child," by Dr. T. Melville Hardie, of Chicago; "Syphilis of the Antrum of Highmore," by Dr. H. L. Wagner, of San Francisco; "Report of Two Cases of Accessory Thyroid Gland at the Base of Tongue," by Dr. A. W. Watson, of Philadelphia; "Remarks on Intra-Nasal Operations," by Dr. W. F.

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Chappell, of New York; "Pemphigus of the Larynx," by Dr. J. H. Bryan, of Washington; "The Early Diagnosis of Aneurism of the Aortic Arch," by Dr. William Porter, of St. Louis; "Report of a Case of Abscess of the Frontal, Ethmoidal, and Sphenoidal Sinuses; Meningitis; Death," by Dr. J. H. Bryan, of Washington.

This closed the scientific proceedings of the Congress. The next meeting of the Association will be held at Washington in connection with the Triennial Congress of the Association of American Physicians.

During the executive sessions of the Congress, the following gentlemen were elected to active fellowship: Dr. F. C. Cobb, of Boston; Thesis, "Peritonsillar Abscess." Dr. J. F. McKernon, of New York; Thesis, "A Contribution to the Technique of Modern Uranoplasty." Dr. Max Thorner, of Cincinnati; Thesis, "Direct Examination of the Larynx in Children."

The election of officers for the ensuing year resulted as follows: President, Dr. Samuel Johnston, of Baltimore; First Vice-President, Dr. T. Amory De Blois, of Boston; Second Vice-President, Dr. Moreau Brown, of Chicago; Secretary and Treasurer, Dr. Henry L. Swain, of New Haven; Librarian, Dr. J. H. Bryan, of Washington; Member of Council, Dr. William E. Casselberry, of Chicago.

Abstracts.

NOSE, Etc.

Stewart, W. R. H.—*Case of Double Empyema of the Frontal Sinus with one Infundibulum.* "Lancet," December 10, 1898.

A patient, twenty-nine years of age, consulted the author two years ago for stuffiness of the left side of the nose, with a discharge of some duration, and occasional severe frontal headache. Examination showed polypi with an abundant milky-white discharge on the left side. The right side was apparently normal. There was no bulging or disfigurement of the face. The radical operation was explained to the patient, who, however, would not have it done, preferring the milder mode of treatment. The polypi were therefore removed, together with the anterior ends of the middle turbinates. A free discharge remained, but all sense of stuffiness and headache disappeared. About eight months ago, however, she wished for the major operation, as the discharge continued so profuse. All the symptoms pointing to unilateral disease, the author operated through the brow incision with a small trephine. The bony septum between the sinuses was found to be situated well over to the left side, and was complete with the exception of a small hole posteriorly, through which pus was oozing. The septum was removed, but there was so much granulation tissue in the right sinus

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