large amount of bone which often accompanies the polypus when snared. In one instance the cribriform plate was identified, the patient, an old woman, dying soon after with meningitis. Evidence of this osteoporosis has been plentifully seen in "out-patient" material and structures removed *post-mortem*.

Specimens: Nasal polypi removed from old patients with bone attached. Slides showing osteoporosis.

(C) Involving Nasal Structures.

Adhesions between Middle Turbinal and Septum leading to Obstruction and Rhinorrhœa.—Mrs. N——. Previous operation by a surgeon for nasal obstruction, followed by attacks of sneezing and rhinorrhœa (symptoms not previously present). Division of adhesions cured the condition.

Swelling of Mucous Membrane, causing more Obstruction than before Operation, and persisting for some Weeks.—Typical example: Fleet-Surgeon S——. Patient had long-standing deflection of septum. Alypin and hemisine used for a submucous resection.

Results of some Operations upon the Septum.—(1) Asthma.

(2) Flapping septum; therefore better results from putting back pieces of cartilage at end of operation.

(3) Falling in of tip of nose.

(4) Perforation of septum—sibilant breathing.

PROCEEDINGS OF THE AMERICAN LARYNGOLOGICAL ASSOCIATION.

Niagara Falls, Canada, June 1, 2, 3, 1915.

Papilloma of the Larynx.

(*Continued from p.* 265.)

Dr. Allen B. Thrasher (Cincinnati): I have not seen cases of papilloma of the larynx very often in adults, because these intralaryngeal growths assume a different character; in children, however, they are very frequently encountered. In these cases one should never operate without telling the patient that the operation probably will have to be repeated. The larynx must be kept clear until the child is fifteen or sixteen years of age. There is always danger of recurrence while the larynx is small. I have kept a tracheotomy tube in for four years without any trouble. It was removed in the meantime, of course, but not left out entirely. In this case I could not see the patient regularly. This patient is now perfectly well, and has had no trouble since he was sixteen years old. He wore the tube constantly from his twelfth to his sixteenth year. I have found tracheotomy more easily performed the second time than the first. I am doubtful about the advisability of massage. It seems to me that it would increase the blood flow to the larynx, and this increased blood supply would be apt to stimulate growth. I have had no experience in this regard, but it does not appeal to me as being a scientific procedure. I believe the fact that

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Dr. Hubbard has not had trouble with his cases is due to accident. I would be afraid to try it in cases of papilloma. In other cases it may facilitate the return of the voice. In cases of papilloma of the larynx, as in cases of warts elsewhere, I have used nitrate of silver. The mucous membrane of the larynx is much more easily destroyed than that of other parts, but nitrate of silver will not destroy it.

Dr. JOHN F. BARNHILL: It has seemed to me, judging from my own experience, to be impossible, under certain circumstances, to get all the growth out, including the base of the mucous membrane. Dr. Lynch's method is largely in the open, and that is why it will prove successful. In all cases in which I have absolutely cured this class of disease, I have opened the larynx thoroughly and have seen that I actually removed all of the growth. Laryngo-fissure is not satisfactory in all cases. To open the larynx, to see what is there, and to thoroughly remove it under antiseptic precautions, is a plain surgical procedure, and, with proper closure of the wound, is, it seems to me, the best method.

Dr. HARMON SMITH: A few days ago I had the opportunity of seeing Dr. Lynch operate on a papilloma of the larynx in a boy fifteen years of age. The larynx had been thoroughly cleared out by another laryngologist. The growth recurred. For a number of years the patient wore a tracheotomy tube, with no particular effect on the growth. He finally fell into my hands, and I used fulguration. Then another used radium. The growth would disappear partially and then recur. There had remained a fibro-papillomatous mass in the anterior commissure, in the sub-glottic space. Dr. Lynch operated, curetting out this fibro-papillomatous mass thoroughly. He could hold the cords aside and look underneath. I think Dr. Lynch has devised a surgical procedure for these cases. Dr. Yankauer has invented a method by which fulguration may be used and oxygen sent in in a current; but there is not the deep burning that is necessary for the removal of these deep growths. Fulguration will certainly take off the skin, but that is not sufficient. There is a difference in the infectivity of these laryngeal warts. In studying a series of cases of warts in children I myself got warts on my hand. There is a great difference between the multiple laryngeal warts in children and those in adults. In adults it is much easier to get rid of them. Radium, in two or three applications, will remove them in adults, but not in children. We do not know the true pathology of these papillomata. If we destroy the mucous membrane at the base and remove the blood, we may be reasonably sure that the growth will not recur.

Dr. LEWIS A. COFFIN: In the clinic I feel hopeless when I see a lot of children with papilloma of the larynx. We have records, however, of cases in children of removal by radium with no recurrence. A case was successfully treated by Dr. Abbe. Another case was that of a woman, forty-three to forty-five years of age, a singer, who was treated by two applications of radium, lasting from one-half to three-quarters of an hour, with the disappearance of every vestige of the growth. Thery has been no recurrence for more than three years. I have now under me care a man from whose larynx I removed growths by the direct method. I treated him with applications of monochloracetic acid, but the larynx filled up completely. One year ago, when he phonated, the larynx was entirely filled with the growths on the arytænoids and in the anterior commissure. Dr. Abbe sent me 100 mgrm. of radium in a tube; this was applied to the growths, and in forty-eight hours they were

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entirely gone. After the removal of the growth on the epiglottis and the one on the arytænoid had grown smaller, I could see the large growth on the anterior commissure. Another application of radium was made to this for an hour. Five days ago, when I saw the man, I found the growths had simply withered up. There is still a small growth on the arytænoid, and a ridge on the epiglottis.

Dr. EMIL MAYER: I would like to hear the views of the members regarding the ætiologic factors concerned in these growths. I have had two cases in adults working in tunnels and breathing compressed air. It seems rational that such a thing might occur. Removal by the indirect method has also resulted in the complete disappearance of the growths. If tracheotomy is employed, the tube must be worn for quite a number of years. I have had a case which is illuminating in this connection, and which shows that there is danger after tracheotomy. A little child had so large a papilloma in the larynx that tracheotomy was necessary. While I was cleaning the tube and putting it back again the child nearly passed away. After that I had two tubes, and as soon as one was out the other was put in, and in that way managed very well. The child lived quite a distance from me. One day while at play the child grasped the tape attached to the tracheotomy tube and pulled it out, gave one cough, and, before help could come, died.

Dr. D. CROSBY GREENE, jun.: Recurrence followed in a case in which I operated, and the patient went to another laryngologist, who removed the growth by thyrotomy under direct vision. Six months later I saw the patient again, and the larynx was entirely filled with papillomatous tissue. Dr. Lynch's method will not be sufficient unless the immunity of the patient has been established. Within the past six months I have seen a case in which the patient presented warts on the skin simultaneously with papillomata of the larynx. Removal of the papillomata in the larynx was followed, within a short time, by disappearance of the warts on the skin.

Dr. HENRY L. SWAIN: Many years ago I had under my care two cases of papilloma of the larynx, one in a boy, the other in a woman thirty or more years of age. The boy was intractable, and passed out of my hands. Nine years afterward he coughed up the remains of his papilloma. I have seen him within the last two years, and he has no growth at all. If he had stayed with me his single papilloma would probably have become multiple. The woman was treated in various ways. I cauterised with pure nitrate of silver and with electricity; I curetted, and rubbed in lactic acid, and despite all this the papilloma returned. Some time ago Dr. Sperry called me in to see a patient, thinking laryngotomy was necessary. I found my old patient, the woman, with several papillomata. She had coughed off one growth, but the others had remained the same for some years. There was never any obstruction in her case. Whether they will become malignant of course I do not know. In another case I have used alcohol sprayed on the surface of the papilloma, and have certainly prevented the necessity of instrumentation. I have done nothing else in this case, and the larynx is now entirely free. The growths have reappeared four different times; but for ten years I done nothing but spray the surface with alcohol. This case is subject to the criticism that the growths might have disappeared if left alone; but I hardly think that true, as they disappeared so quickly under the treatment. At one time there were five distinct papillomata in this case.

Dr. WILLIAM E. CASSELBERRY: In the glamour of the new we are apt to forget the merits of the old. No one has mentioned the old

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galvano-cautery. At the last congress in Washington I presented a cautery which I devised, and which I have been using ever since. I cannot understand why fulguration possesses any advantage over the galvano-cautery. After removal of the growth with the forceps, by either the direct or the indirect method—and I have sometimes used both in the same patient—and after curetting (and I have never been able to curette satisfactorily in my own mind, always feeling that I have left shreds), the cauterisation of the base with the gavano-cautery is desirable. It is the easiest and most convenient method.

Dr. HARRIS P. MOSHER: Did I understand Dr. Hubbard to say that the tracheotomy tube worn for any length of time interferes with the return of the voice? I have not found that to be the case. This particular part of his theory, while very pretty, is not borne out by the facts.

Dr. JAMES E. LOGAN: I have had the very best results after curettement. Within the past two years I have had two cases of special interest. In one case there was a suspicion of carcinoma. I removed the growth a number of times, large pieces of what appeared to be fibrous tissue being taken out, and followed this with curettement. There has been no return. Another case was that of a woman, sixty years of age, the mother of nine children. A few years ago she had every evidence of carcinoma. After removing as much as I could of the growth, I used the galvano-cautery to remove the rest. To-day she has as good voice as ever. In another patient, forty years of age, I have prevented recurrence for seven years by the use of the galvano-cautery. Fulguration cannot be localised as can cauterisation with the electrodes, suggested by Dr. Casselberry.

Dr. ROBERT CLYDE LYNCH: My experience with papilloma of the larynx covers sixteen cases. I will give briefly the histories of two or three, which will illustrate the results obtained with the method which I have devised. The first case was referred to me by Dr. Jackson, by whom the patient, a woman, had been treated for two years. He had operated every month or six weeks for recurrence of papilloma of the larynx. The patient then removed to my neighbourhood. I attempted to operate, as Dr. Jackson had done, with his forceps and other instruments. The method in my hands was entirely unsuccessful. At that time I began to use the suspension apparatus. The patient was anæsthetised, and I carefully dissected out every portion of the growth which could be seen, both above and below the vocal cords and around the epiglottis. I cleared the area entirely. I suspected that I would have a good deal of post-operative œdema, and kept the patient in hospital for several weeks. Healing was perfect. That was a little more than two years ago, and there has been absolutely no recurrence since that operation. The second case was that of a little boy, reported last year. The patient came into the hospital very much cyanosed, and the fright of coming into the clinic practically stopped his respiration. Tracheotomy was performed and the tube left in place. I thought that would be sufficient to clear up the papilloma, but it had no effect. I operated nine times by the direct method, clearing out each time as much of the growth as I could see. Each time the papilloma recurred. Then I attempted thyrotomy. With the tube in place I opened the thyroid. The child was two years old, and this was very difficult. I was not successful in cleaning out the larynx entirely, and in the course of three weeks it was again filled with papilloma. I left the child alone for six months, with the tracheotomy tube in place. In the meantime I was trying to learn some new method for dealing with

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such cases. Finally I suspended him, and dissected out the growths as far down as the end of the tracheotomy tube. That was two years ago, and I saw the patient just before I left home. There was no recurrence. I took out the tube twenty-four hours after doing this dissection. It was the first time in two years that the child had been without it. He had some voice at the end of twenty-four hours, and in two weeks his voice was as good as ever. The third case was that of a negro woman. I dissected out the papilloma in the same way, and she returned home. She was very religious, had attacks of "hysteria," when she shouted and sang, as the negroes do in their meetings, and at the end of six months she came back with papilloma of the larynx. All my operative work in this case had been devoted to the region above the vocal cords. I thought this the first case in which I would have to report recurrence after operating with suspension. In looking over my records, however, I found that our previous efforts had been confined to the region above the cords, whereas the present papilloma was below the cords. This was dissected out, and there has been no recurrence. It is impossible to remove papillomata completely by any method of punching or pinching or biting, using the forceps in one hand and some other instrument in the other. It is for this reason, I think, that we have so much recurrence. In the sixteen cases in which I have operated by dissection with suspension there has been no recurrence up to the present time.

Dr. HUBBARD (closing the discussion): I think Dr. Lynch has devised the most surgical and precise method of dealing with these growths. All, however, have not the apparatus for this particular work, and so there is a field for the older procedures. I have found it a very useful procedure to put interrupted stitches in the tracheal ring. One must have a free field, snipping off, if necessary, all the isthmus which obscured the view. I usually take up the trachea and put in silkworm gut, about one-third back, through the ring in a child. In other words, I want it as firm as possible. The suture is placed between the cellular tissue and the tracheal ring, one stitch on either side, drawn together, and the ends left long. The ends are brought out on the neck and fixed with adhesive plaster. One can then pull on these and draw the trachea and the larynx forward, getting a glimpse of the lower end of the larynx. Otherwise the curetting is done blindly. Thorough curettage of the larynx can be accomplished by this method with curettes of various sizes and angles. If the papillomata are "ripe" they can be gotten out at the base; those that are in a state of active growth cannot be entirely removed. I always inspect the growth from above prior to curettement. In using the trichloracetic acid I simply moisten a small swab, smear with the crystals, and go over the surface with this. The tube is fenestrated, it is inserted in the larynx, and is left there. I want to call attention again to massage as a factor in producing the condition which brings about the restoration of the normal processes of the larynx. Any simple method like massage is superior to the absolute rest of the larynx induced by the prolonged wearing of the tracheotomy tube.[1]

Some Statistic Observations on Oto-Laryngologic Diseases among Negroes, based on Fifteen Hundred Cases.—Dunbar Roy (Atlanta).—It is surprising how few negroes present themselves for nasal diseases. Out of the total 1,500, only 341 came for nasal com-

[1] For further information on "Suspension Laryngoscopy for Laryngeal Papilloma" see JOURN. OF LARYNGOL., RHINOL., AND OTOL., vol. xxix, 1914, p. 71.

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plaints. Spurs and deviations are very rare. The writer has never seen a deviated septum in a full-blooded negro. In the writer's opinion, this is due to two causes. In the development of the maxillary bones you never see a contracted and high-arched palate among negroes. This tends to substantiate Mosher's argument as to the importance of the premaxillary ridge in the causation of septum deviations.

(2) Traumatism as a causal factor is rare, because of the protruding brow and soft resilient cartilages externally. Acute inflammation of the accessory sinuses was exceedingly rare, due, in the writer's opinion, to the free ventilation in the nasal cavities. Only chronic necrosing ethmoiditis with polypi occurred more frequently than other chronic sinus diseases. Hay fever occurred in only two cases, and did not differ in symptoms from that seen in the white race. Atrophic rhinitis was seen in one case only, which would seem to disprove that theory making large nasal passages a predisposing cause for this condition. No case of chronic maxillary abscess was seen. It is a well-known fact that few negroes have bad teeth. Syphilitic lesions were frequent, as also purulent rhinitis in the young, which readily yielded to antisyphilitic treatment of the old *régime—i e.*, mercury and iodide of potassium.

(3) Pharynx, epipharynx, and larynx. There were 106 cases involving these parts, by far the largest percentage. Diphtheria is exceedingly rare in spite of the poor hygienic surroundings of many of these people. Laryngeal tuberculosis occurred only twenty-three times. Laryngeal and pharyngeal syphilis, 270. Adenoids and enlarged faucial tonsils occurred 296 times, which refutes the statement made several years ago that adenoids are very infrequent among the negroes.

Dr. CHARLES W. RICHARDSON: In the main my observation is in accord with Dr. Roy's; but this is not the case with regard to the apparent immunity of the negro from diphtheria. For a number of years I had charge of the diphtheria ward in the Government Hospital in Washington, which was, in fact, the municipal diphtheria ward. There were practically no negroes in it. I do not remember a case of laryngeal diphtheria in any of the wards. I never intubated a negro child in my whole experience. My experience is not in accord with Dr. Roy's with regard to the presence of adenoids and enlarged faucial tonsils in negro children. I think some of the worst cases of adenoids I have ever seen and operated on have been in negro children. Some years ago I was inclined to believe that negroes do not have this condition; but latterly, probably in consequence of school inspection, they come into the clinics in great numbers. Syphilis among negroes is quite general in Washington as well as in Atlanta.

True Myxoma of the Naso-pharynx: Report of Two Cases.—Virginius Dabney (Washington).—Extreme rarity of true myxoma anywhere in the body, but especially in the naso-pharynx, leads to report of two cases. Some pathologists reject entirely the term, believing no such pure tumour exists. However, sections show absolute absence of any fibrous elements. Case 1: Tumour seen on drawing forward soft palate. Under ether, large adenoid curette fitted over growth which was removed from attachment to the basilar process. No recurrence after ten months. Case 2: Two growths found at operation. Only one could be seen at examination. smaller attached to basilar process, larger to posterior ethmoid. Both were divulsed with large adenoid forceps. Patient had had similar growth removed eleven years before. Photographs of growths and of microscopic sections were given.

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Dr. HARMON SMITH: This must be the exception which proves the rule. It has been definitely stated by many histologists and pathologists that true myxomata do not occur in this region. In the majority of instances myxoma has sprung from the ethmoid or somewhere else. Mixed fibroma and myxoma, on the other hand, arise in the naso-pharynx. So far as I know, there has been no other case reported of true myxoma springing from this region.

Dr. JAMES E. LOGAN: I would like to ask the nationality of these patients, especially the one with the very large growth. It often happens that these growths appear in individuals of certain nationalities. Those of Scandinavian birth are more apt to have them than any other class of patients. I have had two pathologists at variance on two cases, one operated by myself and the other by Dr. Fenger. One pathologist said there was every evidence of myxoma, the other that it was fibroid or myxofibroma. The tumour in one case—a boy of Swedish nationality—was attached to the basilar process.

Dr. DABNEY (closing the discussion): One patient was German, the other American. What Dr. Smith says about the origin of these growths is the excuse for this report. They are supposed never to occur. I had the specimens examined by very skilled pathologists in Washington, at Howard University, and also at the Government School. They are true myxoma. I have looked up the literature, and there are no other cases reported of true myxoma of the rhino-pharynx.

The Surgical Anatomy of the So-called Capsule of the Faucial Tonsil.—G. Hudson Makuen.—The so-called capsule of the faucial tonsil is not a capsule at all, in a strict sense of the term, and it consists, in part at least, of that portion of the intra-pharyngeal aponeurosis in a recess of which the tonsil attaches itself during the course of its development. The intra-pharyngeal aponeurosis is a broad membrane, having its attachment above to the base of the skull, and, extending downward, it not only separates the tonsil and the palatal pillars from the superior constrictor muscle and other important tissues in the cervical region; but folds of this membrane protrude themselves between the tonsil and the pillars of the palate, and the anterior fold, when it protrudes itself well in front and below the tonsil, constitutes what is known as the plica triangularis or plica tonsillaris. In the course of its development in embryo and during infancy, the tonsil appears to appropriate a portion of the connective and musculo-fibrous tissue with which it is in juxtaposition, and finally, in adult life, it becomes firmly attached to this membrane to which has been given the name intra-pharyngeal aponeurosis, and a portion of which seems to constitute the so-called capsule of the tonsil. As usually performed, therefore, a complete extracapsular tonsillectomy must leave a window resection of the intra-pharyngeal aponeurosis, not only exposing the palatal pillars and the superior constrictor muscle, but opening up avenues of infection in the deeper regions of the neck. A more desirable operation, which may be called an intracapsular tonsillectomy, or, better still, an intercapsular tonsillectomy, is one in which the tonsil is removed with only the thin innermost layer of the capsule, the major portion of it being left in the pharynx as a complete lining for the fossa, where it serves as a strong wall of defence against infection in this region. This intra- or intercapsular tonsillectomy may usually be done easily and accurately with an ordinary snare in connection with the Sluder tonsillotome, and sharp-cutting instruments are not required except in those rare instances where pathologic adhesions have formed

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between the tonsil and the mucous membrane covering the adjacent pillars.

Dr. E. William Casselberry (Chicago): I am very glad to have heard this definition of terms. I have been doing the same operation that Dr. Makuen has been doing, but whereas he called it the intracapsular method, I have been calling it the extracapsular method. I still object to his term intracapsular for either his way or mine. Intercapsular would be a better term than intracapsular, it seems to me. Whether the capsule develops from the aponeurosis or from the tonsil itself matters not. I would not, in either event, forget the word capsule, for surely, as we see it, it is a capsule of the tonsil. The tonsil is enveloped in a smooth membrane which can be separated from the major portion of the aponeurosis. The smooth dissection of the capsule from the major portion of the aponeurosis is, I believe, the best operation. It results in no distortion of the pharynx. In the majority of instances it is unnecessary to cut much of the plica or mucous covering of the pillar itself. Cutting the covering of the pillar is one of the things which results in infection and distortion. I, too, have been struck by the difference in the thickness of the capsule. Sometimes, when I have exposed a piece of muscle, I have thought I have gone too far, and when I have tried to get only a thin portion, I have got a thicker portion.

Dr. J. Gordon Wilson: If the surgical anatomy of the tonsil is different from the anatomy, I miss Dr. Makuen's point. I cannot understand how he can tell the part of the covering of the tonsil which comes from the aponeurosis of the muscle a part of the capsule of the tonsil. Poire illustrated that in his text-book. That part is not capsule of the tonsil. The capsule of the tonsil normally is very thin, as may be seen when it is sectioned. It is separated from the other tonsillar tissue by a thin layer of areolar tissue. Toldt's anatomy gives the best description of this. The crypts go right down to this connective-tissue sheath. As age increases this sheath thickens; it is also thickened by inflammation.

Dr. George E. Shambaugh: I cannot follow Dr. Makuen in tracing the thickness of the capsule of the tonsil. As I understand it, this thickness increases with age, and the tonsil becomes more and more adherent with age, according to Dr. Makuen's idea. In my experience, this is not the case. I have taken out the tonsil in people of seventy, in whom it is as loosely adherent as in infancy. If there is adherence it is because there has been a great deal of inflammation, and not because of the physiological character of the tissue.

Dr. Henry L. Swain: I have obtained a good deal better idea of what the capsule really means by studying the lingual tonsil than by studying the capsule of the faucial tonsil, especially by studying the follicles, which heap themselves up around the tonsil. The follicles, accumulating around the tonsil, make a complete limiting membrane. If this is taken out it forms an impression or mould in which the tonsil lies. The larger the tonsil the thinner the capsule, and the smaller the tonsil the thicker the capsule. If the tonsil is dissected out in the cadaver, it is found that there is, in a child, a very slight line of demarcation where the covering membrane of the tonsil ends and the posterior pharyngeal wall membrane begins. Young children have very little line of demarcation between the connective-tissue on which the tonsil rests and the posterior layer of aponeurosis.

Dr. John F. Barnhill: Dr. Makuen spoke of splitting the capsule. I could not understand that at the time, but having studied the tonsils which I saved, I can now see how one might speak of splitting the

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capsule, or, rather the tissues around it which are removed with the tonsil. I have brought along a large number of these tonsils, which demonstrate, I think, that there is an external capsule which is connected with the deep tissues of the neck, and another which has nothing at all to do with this. One of the tonsils in this collection, by the way, shows a portion of the styloid process.

Dr. Lewis A. Coffin: My conception of the tonsil with its capsule is about that of a tangerine with its peel. The outside skin of the tangerine can be easily removed, without the fibrous covering just over the pulpy part of the tangerine, which is connected with the interfibrillar tissue of the fruit. This fibrous covering, to my mind, is the capsule of the fruit, and not the outside rind. So it is with the tonsil. If there is repeated inflammation, there will be thickening of the outer capsule.

Dr. Greenfield Sluder: I have listened especially for one point which has not been cleared up in the discussion. I have been very much interested in this subject for three or four years, and feel very much gratified that Dr. Makuen should have used the principle of picking up the tonsil, to which I called attention before the laryngological section of the American Medical Association in 1910. The technique was not original with me: it is the technique of Physick, published in 1827. It has been strengthened, but not changed. The point to which I referred, which has not been made clear, is the capsule splitting process. Is there a delimiting membrane which bears the crypts at one end? Is there a fibrous delimiting membrane which covers the posterior constrictor and pillars, or is the crypt open on its lateral aspect, or is it closed by the envelope? (Dr. Makuen answered that it is closed by a very thin membrane.) If that were uniformly the case, this technique would be the ideal method of tonsillectomy; if it be not the case, the turning of the blade across does not remove the last cell of lymphoid tissue. If it does not remove the last cell of lymphoid tissue, it is not a success, because the activity of this lymphoid tissue will bring about a recurrence of the condition for which the operation was performed. Lymphoid tissue will grow up into the wound from the lingual tonsil, developing all the clinical symptoms which the case presented originally. I have seen that happen.

Dr. Makuen (closing the discussion): Dr. Casselberry has referred to terms and definitions of terms. I used the term intracapsular tonsillectomy chiefly because no distinction has been made between what Dr. Wilson has called the true capsule—and which we all recognise as the true capsule—namely, the thin membrane, and the posterior aponeurosis to which the tonsil becomes so closely attached. The English and French schools of anatomists did not distinguish between these two structures. I use the term intracapsular tonsillectomy because no distinction has been made between the true capsule and this membrane to which it is so closely attached at times that it seems to be a part of the capsule itself. I have found that after mutilation of the tonsils this section of intra-pharyngeal aponeurosis is taken out with the tonsil, and it has been called extracapsular tonsillectomy, where all the capsule has been removed. I object to a sharp instrument because it is so easy to go through this membrane. When you cut through this intra-pharyngeal aponeurosis and get the finger down into the loose tissue between that and the muscle, you simply have to tear things out. That is why the finger dissection so rapidly went into disrepute. The finger nail made tears in the muscle which caused great

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contraction. We also do the same operation and try to get the same results, but the fact remains that we do get deformities in many instances. Someone in New York reported 100 dissections with 80 per cent. of deformities of the palate. We do not all do the beautiful operations which some do, and unless we are very careful we will get these unfortunate results. That is why I have suggested the technique detailed in this paper.

Abstracts.

PHARYNX.

Gile, Ben C.—The Indictment of the Tonsil.—" Annals of Otology," etc., xxiv, p. 747.

An interesting paper showing how the tonsil may be the *fons et origo* of acute nephritis, rheumatism, arthritis, goître, tuberculosis, deafness, and various neuroses, such as œsophageal spasm, recurrent cough, spasm of the glottis, lingual neuralgia, and blepharospasm. That chorea and epidemic cerebro-spinal meningitis may also be traced to a tonsillar focus of infection is not mentioned, but, as the author remarks, the charges in the indictment might be multiplied. *Macleod Yearsley.*

Œrtel, T. E.—Eye Adenoids and their Relation to Throat Adenoids. The Author's Modification of the Adenotonsillectomy Operation. " Annals of Otology," etc., xxiv, p. 763.

The author concludes that: (1) Eye adenoids (follicular conjunctivitis) indicate the existence of throat adenoids. (2) Hasty and rough surgery in the throat is productive of irreparable damage. (3) Adenectomy should be performed, as far as possible, under direct observation. (4) The roller forceps for diffuse pharyngeal adenoids is of value, because it removes them with a minimum amount of damage to the mucous membrane. (5) The silver clip is the best general method of controlling tonsillar bleeding. *Macleod Yearsley.*

Burns, L. J.—The Use of Quinine and Urea Hydrochloride as a Local Anæsthetic in One Hundred and Forty-eight Cases of Tonsillectomy. " Annals of Otology," etc., xxiv, p. 841.

The author considers that the value of this mixture as an anæsthetic is established for the following reasons: (1) Rapidity of action. (2) Absolute non-toxicity in even as strong solutions as 10 per cent. (3) Always producing sufficient anæsthesia to complete operation without the necessity of stopping to make further application or injection. (4) Marked diminution of after-pain and discomfort. (5) Superior advantages over cocaine and its derivatives, due to its nonsystemic action. (6) Absolute absence of troublesome primary or secondary hæmorrhage; this being one of the frequent and dangerous drawbacks of tonsillectomy under local anæsthetic. (7) Readiness with which the solution may be sterilised, frequently repeated high temperature producing no chemical or physiological change. *Macleod Yearsley.*

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