

CONSIDERATIONS RELATIVE TO NASAL OBSTRUCTION.*

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My purpose in choosing such a broad title as "Considerations Relative to Nasal Obstructions" is to put together some thoughts which have a general bearing on the whole subject, without attempting to exhaust any particular phase. The abstract of my paper is embodied in the following questions, an endeavor to answer which will be made in as brief a manner as consistent.

First: What is the cause of the prejudice regarding tonsil operations, and what is the remedy?

Second: Why do some operators frequently have failures in adenoid operations?

Third: Why do many operators use the cautery and snare in treating inferior turbinal enlargement?

Fourth: Why does any one attempt an operation for nasal polypus in the middle meatus without removing the middle turbinates?

Fifth: Why does any one ignore the relation of the accessory sinuses in the consideration of nasal obstruction?

Sixth: Why does any one attempt the handling of a malignant growth unless he is inclined, in emergency, to open and curette or cauterize with the thermal cautery, the remotest corner of any one of the accessory sinuses?

I am convinced that the prejudice against tonsillectomy which prevails is due to the slipshod methods which have prevailed in the past. It has seemed such an easy matter to slip a tonsillotome over an enlarged tonsil which is not submerged, and is free from palatal adhesions, that many of the doctors of the land have indulged in this unscientific method, and in most of the cases left behind a considerable portion of the tonsil.

When one thinks that the reason these organs are hypertrophied is because of the fight which is being waged on the part of nature, on the one hand, in her effort to destroy the invading microbes, and the microbes, on the other (being tubercular in 10 per cent of the cases), in their effort to involve the system, the futility of cutting in two the barrier wall becomes at once apparent. Further, the operator who is responsible for the prejudice, has been in the habit

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of ignoring adenoids, hypertrophied turbinates and deflected septums. He has promised good breathing; and the result has been weighed in the balance by the public, and found wanting. Ten good operations will not balance one failure, and as long as physicians perform incomplete operations, prejudice resulting from failure will continue to exist.

To facilitate the removal of the tonsil, it is essential, in the difficult cases, to separate the pillars which may be adherent to the tonsils. The patient is placed on a chair or table, preferably a Yale chair, which can be so tilted as to incline the body head downward sufficiently to let the blood flow out when the face is turned to the side. The chair is raised *ad maximum* and the operator sits on a low stool so that his head is as low as that of the patient. An original O'Dwyer gag is preferred, since its curve permits it to be inserted on the right side of the mouth, permitting the largest space for the introduction of the left fore finger into the naso-pharynx. A good operation for nasal obstruction means a comprehensive



Fig. 1. Author's Tonsil Scissors.

grasp of the situation, and the removal of all the causes of obstruction, whether it be the tonsils, adenoids, turbinal enlargement or septum deflections. In the practice of the author all these operations excepting those for deflections are done at one time, and to accomplish this, much depends on position, instruments, anaesthetic, etc., which will be briefly considered.

A combination scissors and separator is here offered, which has been found efficient in the author's hands. After grasping the tonsil with an efficient forceps, it is first inserted under the anterior pillar, and the blades separated. Next, the palato-tonsillar membrane is divided, and the incision is carried down behind the tonsil, separating the posterior pillar. The tonsil may then be dissected out down to the fauces with such scissors as may meet with favor at the hands of the individual operator.

The adenoid operation is next undertaken.

Many operations for the removal of adenoids have failed because they are done with a large curette—and without digital co-operation.

This is illustrated by cases in which a nodule of adenoid is found anterior to the vomer.

The operator who attempts the operation with a Gottstein's curette or adenotome, will fail to reach such portions. A case comes to mind in which a child had two operations, both under an anaesthetic, without result. Upon digital examination, a remnant was found on each side anterior to the posterior line of the vomer, which could only be reached with a narrow curette or a forceps.

As a matter of fact, the curette has been almost discarded in favor of a type of forceps which is here exhibited.

Another reason why adenoid operations are often unsuccessful is the timidity which prevails regarding the use of a general anaesthetic.

An operation which is done without an anaesthetic is often unworthy of the name. If the result were open to inspection after a Gottstein's curette had been thrust into the pharyngeal vault of a frightened child, the surgeon would consider himself disgraced.

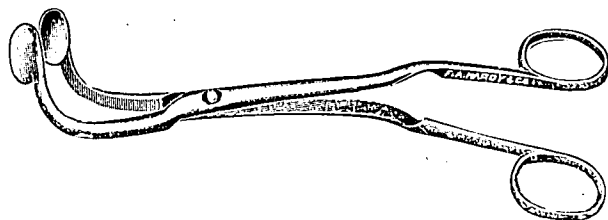
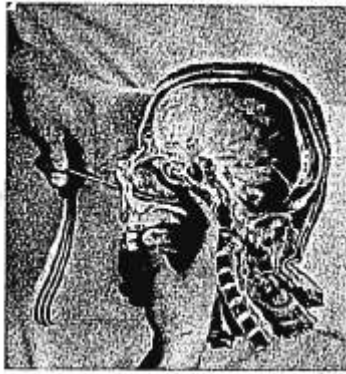


Fig. 2. Adenoid Forceps.

In these operations we must attain 100 per cent of success. The man who exonerates himself by claiming that he told the truth nine times out of ten is to be compared with the doctor who congratulates himself for having had 90 per cent of success in adenoid operations. The 5 or 10 per cent of the partial failures may seem very small, but the physician owes it to every individual child that is brought to him suffering from oxygen starvation, to provide capacity for complete aeration. This can only be accomplished by the use of general anaesthesia, especially in children. Here a word is *apropos* regarding the use of an anaesthetic. It matters little whether it be chloroform or ether or ethyl bromide. The main point is that the operator must overcome timidity, for no operation requires more profound anaesthesia than those on the throat and nose. Timidity can only be overcome by the establishment of confidence in some quick, simple, always-at-hand method of resuscitation of suspended animation. The method recommended is the direct inspiration. This is accomplished by extending the head, press-

ing on the stomach with the left hand, closing the nose with the right, placing the operator's mouth over that of the patient and blowing the latter's lungs full of freshly inspired air. Repeat this every three seconds. The ashen or livid lips will assume a normal color, and may be maintained so indefinitely. Commence this whenever respiration lags, and you will soon gain the confidence in the method which is essential to success.

Regarding the use of the cautery, chemical or galvanic, in the treatment of turbinal obstruction, it is my belief that better results are obtained by the method of excision. An examination of the nose in a condition of intumescence will reveal the fact that there is an amount of mucous surface in excess of that required to cover the inferior turbinate bone. At the posterior end this is distended by the accumulation of blood until quite a balloon is formed, which



Illustrating the method of crowding the hypertrophied posterior portion of the mucous membrane of the inferior turbinal between the branches of the forceps.

After grasping, rotate forceps to the right for the right side. The left forefinger is inserted, and not the right, as exhibited in the illustration, which was made necessary by the conditions of photography.

alternately expands and contracts. The principal symptom is the alternating obstruction of one side or the other. . .

The treatment of these cases by the cautery method destroys the epithelium, and leaves a membrane which adds little moisture to the air in passing. Submucous cauterizations do not give the lasting benefit derived from excision. The cauterization of the posterior end of the inferior turbinate has proved so unsatisfactory that the majority of operators resort to the snare.

The application of the snare requires the use of cocaine, which contracts the vessels, and defeats the very object one wishes to obtain. The shrinking of the erectile tissues prevents the application of the snare, and at best, but a small strip of mucous membrane is

removed, insufficient to effect a complete relief from the symptoms of obstruction.

This difficulty was experienced by the author about twenty years ago, at which time he designed a forceps for the removal of the hypertrophied redundant tissue along the lower edge and posterior end of the inferior turbinate. The forceps was given a concavity on the biting edge corresponding to the curved surface of the inferior turbinate. On the convex surface, it was left open so that it might grasp firmly the tissue and bite through the membrane. It was made very strong, so that if a portion of bone was found to reach quite near the floor of the inferior meatus, it would cut it away and establish a free meatus, it being the design to remove whatever fell into the grasp of the forceps. The instrument has not been very popular owing to insufficient knowledge regarding its manipulation, as well as to defects which have resulted in efforts to cheapen the construction. To be efficient, the hinge should have a strong reinforcement on both sides, or else the coaptation of the edges will be imperfect.

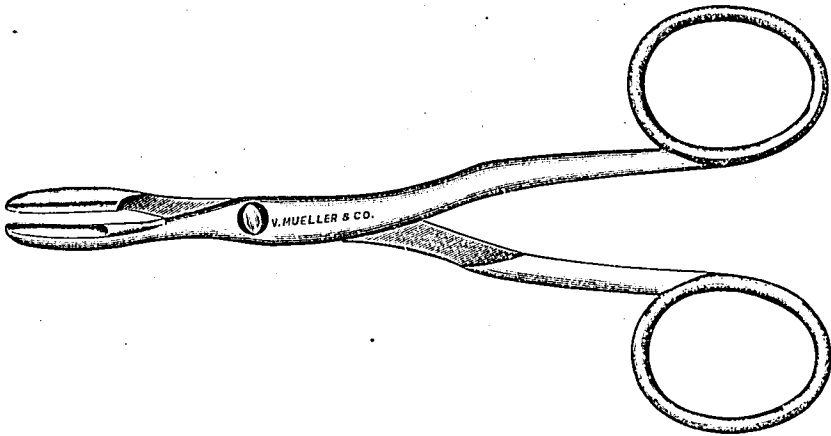
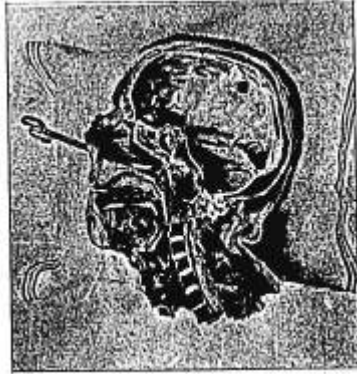


Fig. 3. Author's Middle Turbinal Forceps.

In view of the fact that it has been in daily use in the author's hands for this long period, with almost universal satisfaction, it may be permitted to repeat a word regarding its manipulation. To get the best results, the patient is under the influence of ethyl chloride or chloroform, to escape the contraction of the vessels which attends the use of cocaine. He is placed partly on the right side with body inclined head downward.

The instrument is inserted into the inferior meatus with the biting edge down. When the advancing end has reached the posterior extremity (see cut) of the inferior turbinate, it is turned so that the

concave surface is in contact with the free surface of the inferior turbinate. At this point, the blades are opened, and the rotation is continued, which brings the inferior blade under the lower edge, when it is closed, and secures the redundant soft tissue, and perhaps a narrow strip of bone along the free lower border. Before clos-



Illustrating the third position of the inferior and post-turbinal forceps, showing that it grasps nothing in a normal nose with mucous membrane contracted. If hypertrophied or relaxed, it will remove a strip the length of the lower margin of the inferior turbinal. This strip is removed by rotation of the forcep.

ing, the forefinger of the left hand inserted back of the palate, presses the soft post-turbinal tissue into the grasp of the forceps. In this manner a strip is secured, extending the entire length of the inferior turbinate, and representing the amount of tissue that

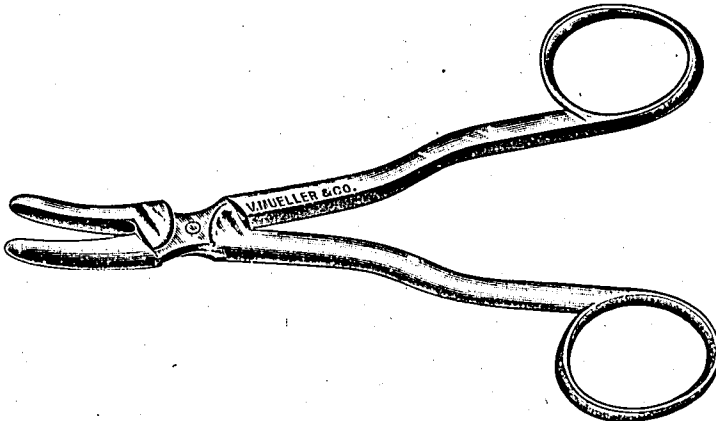


Fig. 4. Forceps for Bridges between Septum and Inferior Turbinal.

can be spared, and still leave enough to cover the remaining inferior turbinate bone. The handles are then taken in the hollow of the hand, and squeezed ad maximum. If the edges are sharp, they will

cut almost through the tissue. At this point do not pull, but continue the rotation and push the forceps into the pharynx until the strip is loosened.

There will be considerable hemorrhage, which usually ceases spontaneously. I avoid packing or inserting a plug or splint, although occasionally use a compressed sponge, and saturate it, when in position, with a drenalin solution. Some attention must be given to bridging. The use of a bulb ear syringe, and normal salt solution, three times a day by the patient, will usually complete the cure.

This operation has been done by the author more than one thousand times, and the minimum of trouble at the time or later has made this instrument and method regarded with great favor.

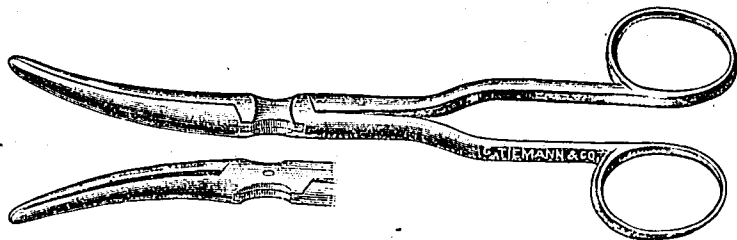
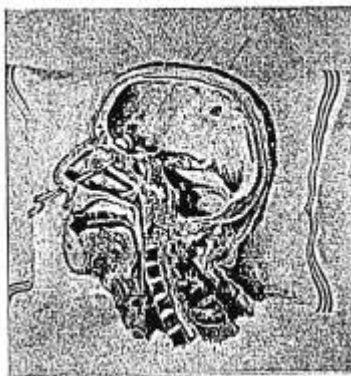


Fig. 5. Forceps for Post-Turbinal Hypertrophy.
POLYPUS IN THE MIDDLE MEATUS.

In answer to the question regarding the removal of polypi in the middle meatus, it should be acknowledged that in the past no operation in surgery has been less efficient. These polypi usually arise as



Illustrating the operation of the superior turbinal punch, for exposing the nasofrontal duct and permitting the removal of the ethmoidal cells, by the intra-nasal route.

a result of secretion from the frontal sinus or ethmoid cells or maxillary sinus. The secretion irritates the membrane, and causes it to proliferate. This further interferes with the escape of the secretion, and results in a development of polypi which usually originates at

a point which cannot be reached without the removal of the middle turbinal, and the exposure of the hiatus semilunaris.

It has been the authors' lot to work in this field before Luc and Grünwald produced their instruments, to facilitate work, and it may not be without profit to exhibit an instrument which has served many years in the removal of the middle turbinate, and at the same time all the polypi which infest the region, short of opening the sinuses.

This forceps is called "middle turbinal or bridge forceps." The use of this instrument entirely supplants the snare, and it is believed that it has sufficient merit to make it worth a trial.

A further thought regarding nasal obstruction is the turgescence due to diseases of the accessory sinuses, sight of which must not be lost. This may be illustrated by reference to a case of polypus. The growths prevailed on both sides, and were removed together with the middle turbinates, under a general anaesthetic. On the right side, the obstruction was entirely removed, but on the left, it was found that the patient could not breathe well. This was partly accounted for by the fact that the septum encroached on that side, but the main source of the obstruction was found to be due to the secretion from the frontal sinus, which kept the entire mucous membrane in swollen condition. Persistent pain was complained of over the left frontal region. It was decided to insert a gold drainage tube into the sinus, after the Ingals method, which was done. This rendered the discharge free, and under improved drainage, the quantity diminished, and the character improved. Free drainage or a radical operation is recommended as a remedy for the swelling, which may prevail in conjunction with the empyaemia of the accessory sinuses of the nose.

In closing, it seems desirable to say a word regarding the obstruction due to malignant growths. During the past year, three cases have presented, which have served to modify my opinion on this subject.

First, that of Mrs. S., age 30, a bleeder, suffering from complete obstruction due to a growth in the right side of the nose. Several attempts had been made to remove the growth, but nothing was accomplished on account of the alarming hemorrhage. The history led to the belief that it was a malignant growth, and the fact was explained to the husband. An operation was undertaken with faint hope. It was found to be a soft sarcomatous growth, filling the maxillary antrum, having completely obstructed the inferior and middle meatus. Owing to the profuse hemorrhage, the operation

was made as rapidly as possible, and the cavity packed. In a month the nose was filled with the same growth, and respiration, which, after the operation, was free, was entirely obstructed.

Believing that the X-ray would be useless in such a case, it was recommended purely to postpone the fatal sentence. To my surprise, in two months the patient developed a breathing space which increased from day to day, until the growth entirely disappeared, and today she is a well woman.

Second: Mrs. H., wife of Dr. Hubbard, of Virginia, Ill., developed a growth on the left side, which proved to be a round-cell sarcoma, involving the vomer and palate bones.

Stimulated by the recovery of the former case, the use of the X-Ray was assiduously persisted in. Extensive necrosis continued, until the case was regarded as hopeless. At this stage, cleft existed in the palate; the entire septum was destroyed, and part of the externa of the nose. After returning home, the use of the X-Ray was continued by Dr. Carl Black, of Jacksonville. She greatly improved, but was not satisfied. About the time the necrosis was under control, she sought aid from Christian Science, and is now, I understand, entirely well.

Third: Mrs. N. presented an obstruction to breathing on both sides. Diagnosed by microscopic section as sarcoma.

The tumor involved the septum, which necrosed extensively. The growth was radically removed, and cauterized with galvano-cautery. X-Ray treatments were commenced, but did not at once control the progress of the necrosis. After six months of close observation, however, the case made a complete recovery.

In the past, I have relinquished these cases after a feeble fight against what seemed an unmerciful destiny, but since having my experience of success in the last three cases, I shall in the future put up a more vigorous fight with the most improved X-Ray coil.

On six occasions, I resorted to galvano-cautery, which, I am very sure, was essential. This makes it impossible to estimate the degree of importance to be attached to the X-Ray, but is my conviction that without these two remedies, the results would have been fatal.

If the sinus is involved, one should consider himself in the position of a drowning man, and fight the enemy with cautery and X-Ray after freely opening and curetting the sinus or sinuses, which may be involved.

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