

SUBMUCOUS CORRECTION OF THE NASAL SEPTUM.

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Since describing my submucous operation on the nasal septum, before the Illinois State Medical Society, 1917, I have performed many more operations by the same method, and feel that it is the one to choose.

I will not discuss other operative procedures, but will limit myself to a description of my operation. The method of anaesthesia will rest with the operator.

The incision (Fig. 1) is made on the side of the deflection or convexity, just posterior to the mucocutaneous junction, carrying it from above downward through the mucous membrane to the cartilage and bony portion below and onto the floor of the nasal cavity. This incision can be varied to suit the individual case, but up to the present I have not found it necessary. Having made the incision elevate the mucous membrane with an elevator (Fig. 3), back to the ethmoid plate and down to the apex of the ridge if one be present. If the ridge be absent carry the elevation of the mucous membrane down to the floor. Should a thickening be present opposite the anterior end of the middle turbinate, elevate the mucous membrane over it.

The cartilage now being bare on the convex side, I pass my cartilage shave (Fig. 13A) through the incision and back to the ethmoid plate (Fig. 4), then making pressure toward the cartilage and drawing the instrument forward along the lower part of the cartilage to the initial incision, and I find a narrow strip of cartilage removed (Fig. 5), leaving the perichondrium of the mucous membrane of the opposite side exposed, where this small strip was removed.

Should the obstruction be due to the deflection of the cartilage, introduce the septum shave in a like manner (Fig. 6) beyond the bulging area and make a similar groove through the bulging center parallel with the initial groove. If the perpendicular plate of the ethmoid has shared in this deflection, I elevate the mucous membrane from the ethmoid plate beyond the deflected area; then introduce my septum forceps (Fig. 13B), of which the inner surface of one blade is roughened and the other smooth. The roughened blade is introduced into the nostril in which the

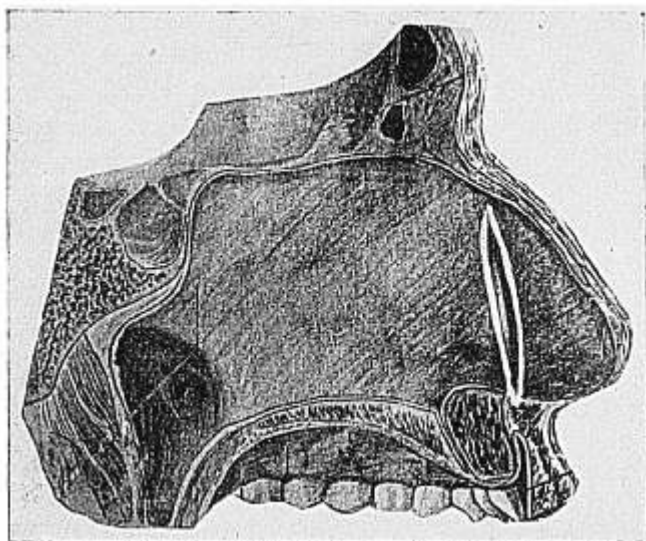


Fig. 1. Incision made on convex side anterior to ridge or deflection.

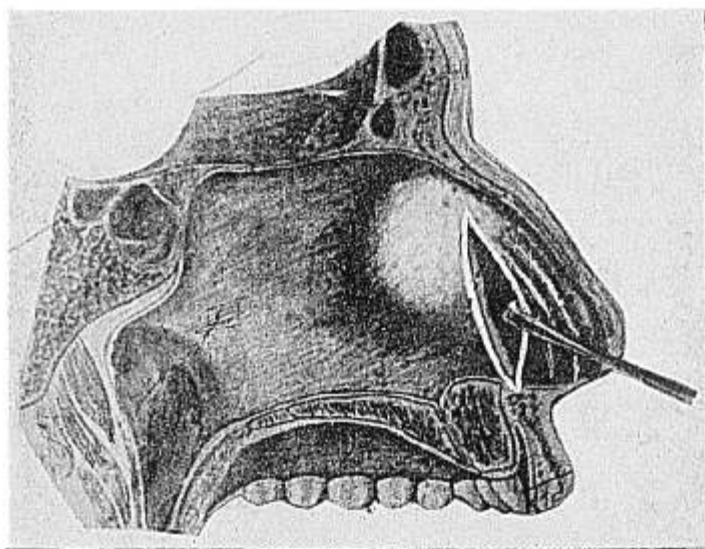


Fig. II. Elevating mucous membrane forward when bulging of cartilage extends anterior to incision.

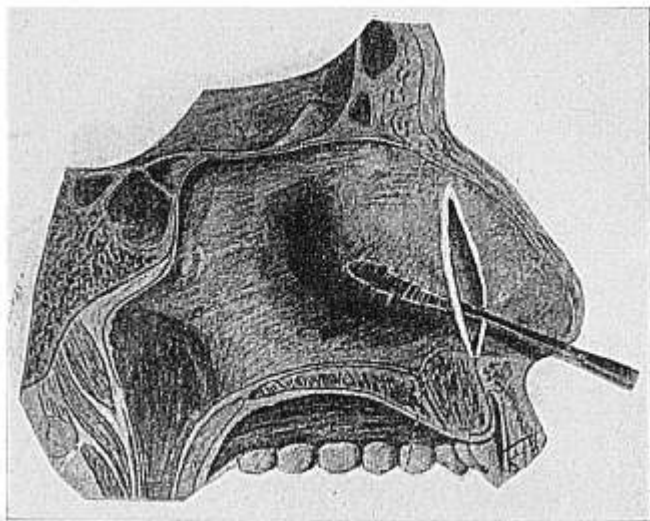


Fig. III. Elevating mucous membrane backward on convex side.

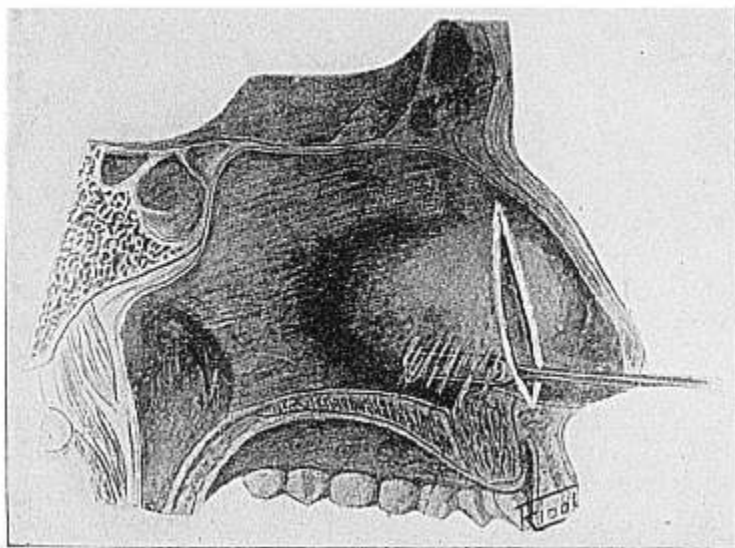


Fig. IV. Septum shave introduced between membrane and cartilage, back to perpendicular plate of the ethmoid and at lower edge of the cartilage.

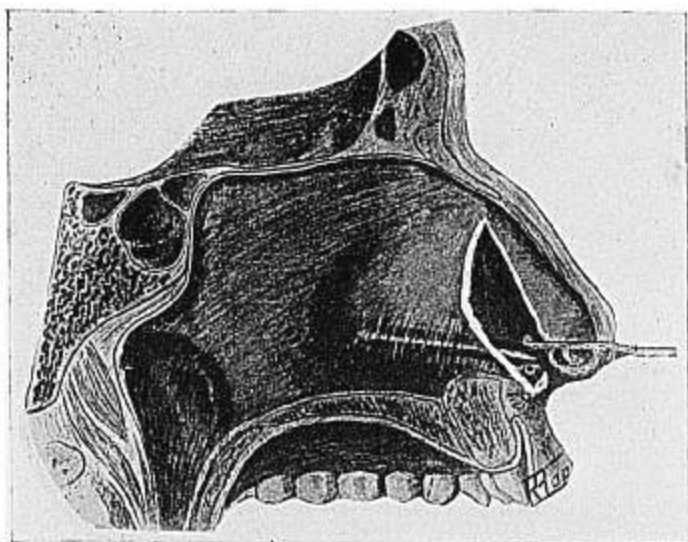


Fig. V. Septum shave having been pressed against the cartilage and drawn forward, removes a small strip of cartilage and exposes perichondrium of opposite membrane.

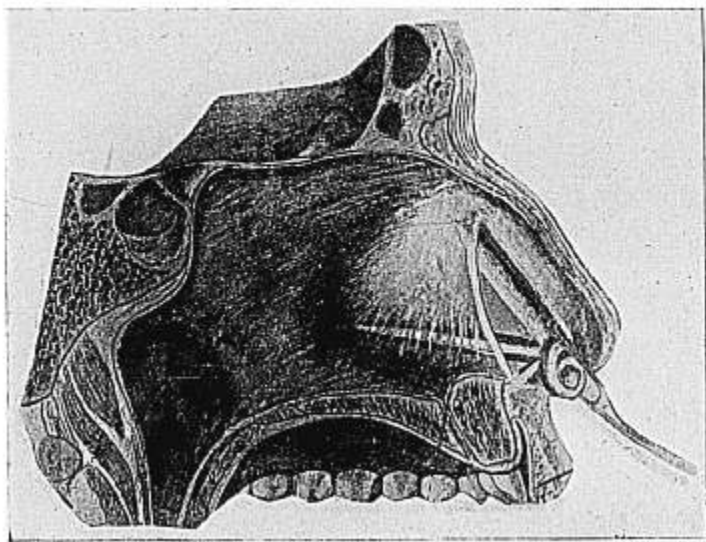


Fig. VI. Removing strip of cartilage parallel to nasal bones when bulging of cartilage is well anterior.

mucous membrane has been elevated and through the incision, so as to rest upon the exposed bony ethmoid plate, while the other blade, which is smooth, rests upon the mucous membrane of the opposite nostril. In this way the ethmoid plate can be fractured in several places (Fig. 9), then this portion of the septum can be freely and easily pushed into the position desired.

Where a ridge is present I proceed as before, removing a narrow strip of cartilage with my septum shave (Fig. 5) from the upper surface of the ridge. Most of these ridges are due to the displaced lower edge of the quadrilateral cartilage; this strip of cartilage left below my septum groove (Fig. 10B) is loosely attached to the perichondrium and easily removed. Should the bone partake in this ridge, I make an incision through the periosteum (Fig. 11B) on the upper border of the vomer after having removed the strip of cartilage (Fig. 10B) and then elevate the mucous membrane from the lower surface of the bony ridge (Fig. 12), which can now be done much easier, and without the danger of tearing the mucous membrane. I now introduce the septum gauge (Fig. 13C) and remove the bony ridge (Fig. 11C).

The thickened tuberculum septi can in some cases be shaven down (Fig. 8), if the septum shave can be introduced above it. When the tubercle is bony, or when I am unable to pass my septum shave above it, I shave off a little of the cartilage below the tubercle (Fig. 7A) and use the blunt double edged knife (Fig. 13D) to elevate the mucous membrane on the opposite side and make an antero-posterior incision through the cartilage (Fig. 7B); I then introduce a biting forceps to remove the thickened area.

If only a spur be present, make a vertical incision just anterior to the beginning of the elevation of the spur, then elevate the mucous membrane to the tip of the spur anterior, above and below, and with a blunt right angle elevator, elevate behind the spur to the tip and then cut off the cartilaginous tip, leaving the tip attached to the mucous membrane. Placing the septum gauge just anterior to the elevated portion of the spur, an assistant with a mallet drives it back, elevating the mucous membrane of the opposite side and at the same time removing the spur. As the gauge is driven back it should be held parallel to the mucous membrane of the opposite side.

Stitches can be introduced to bring the cut edges together if one so desires.

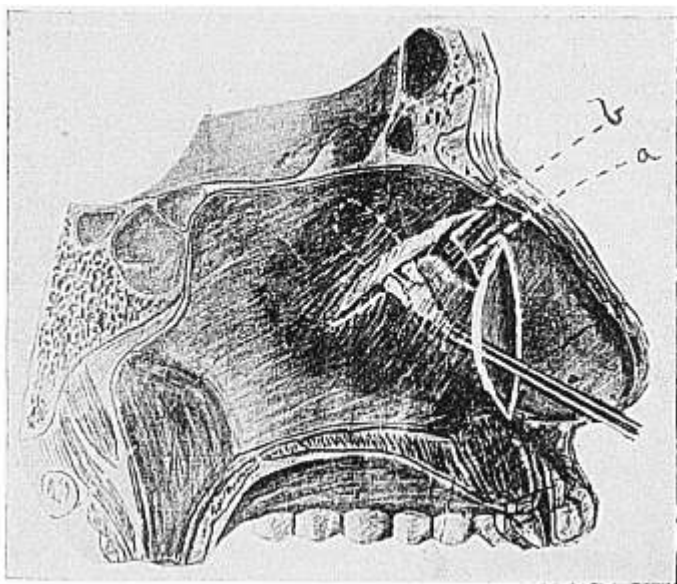


Fig. VII. Thickening of tubercle. (a) Groove made with septum shave through cartilage. Septum knife introduced at this opening elevating membrane on opposite side of tubercle and drawing knife forward and backward cuts cartilage. (b) Bite out thickened area.

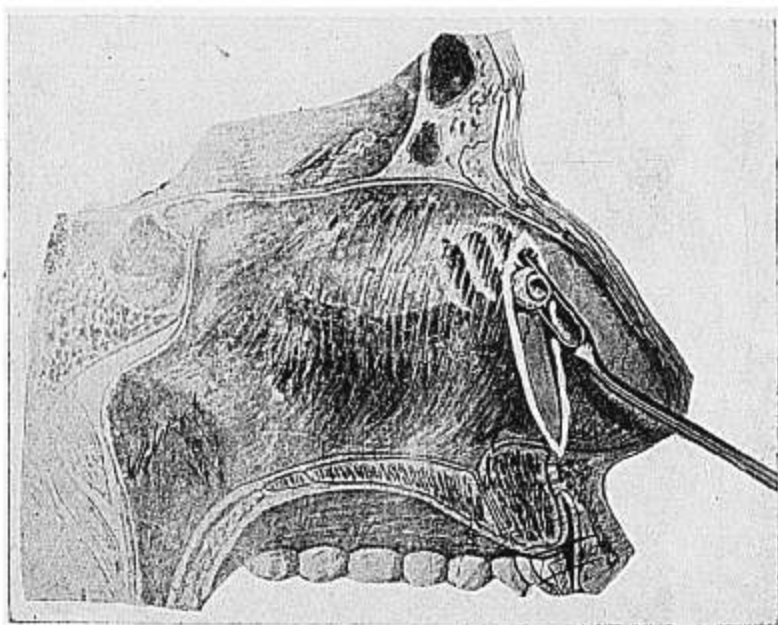


Fig. VIII. When tubercle is cartilaginous it may be shaven off.

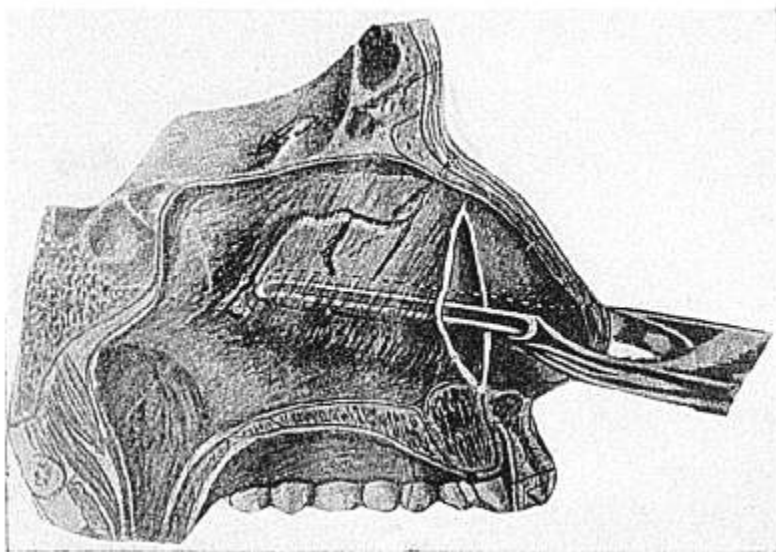


Fig. IX. Fracturing bony area of deflection with bone forceps.

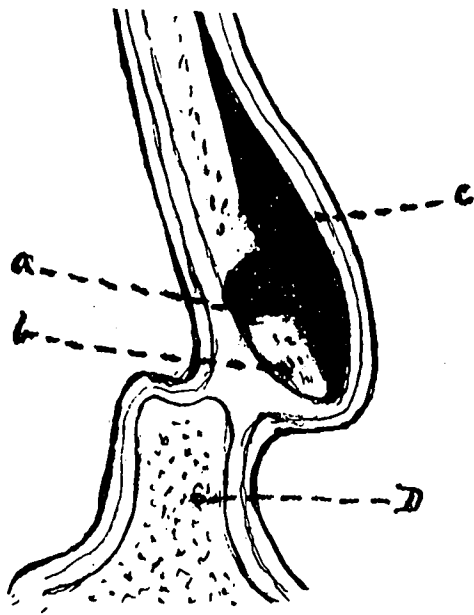


Fig. X. A—Groove made by septum shave. B—Lower end of cartilage. C—Elevated mucous membrane. D—Vomer.

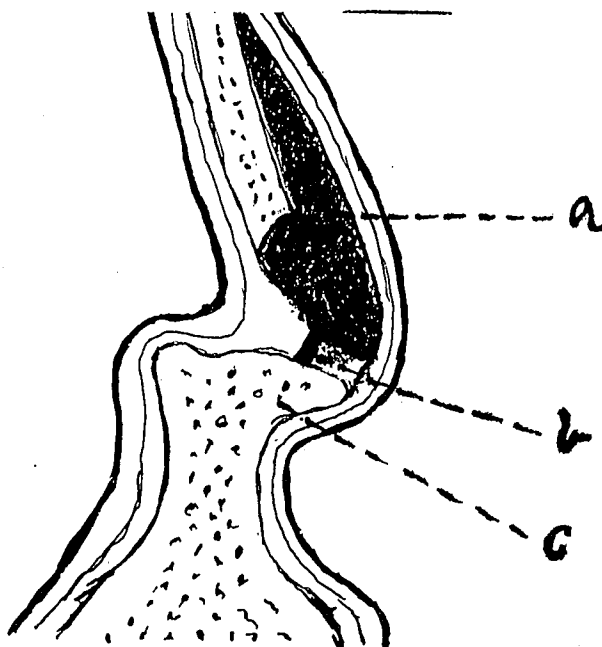


Fig. XI. A—Elevated mucous membrane and lower part of cartilage removed. B—Incision through perichondrium and periosteum to vomer. C—Exostosis of vomer.

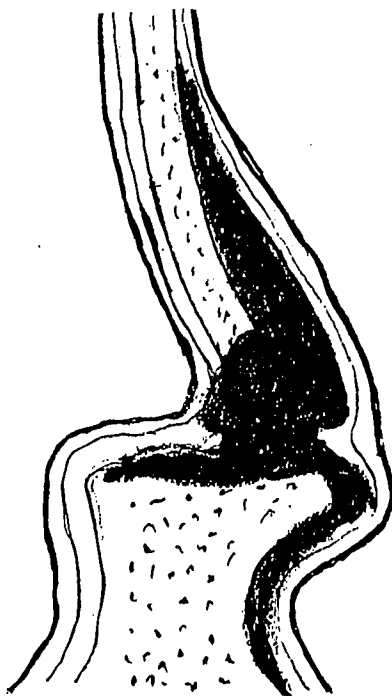


Fig. XII. Mucous membrane elevated over exostosis of vomer.

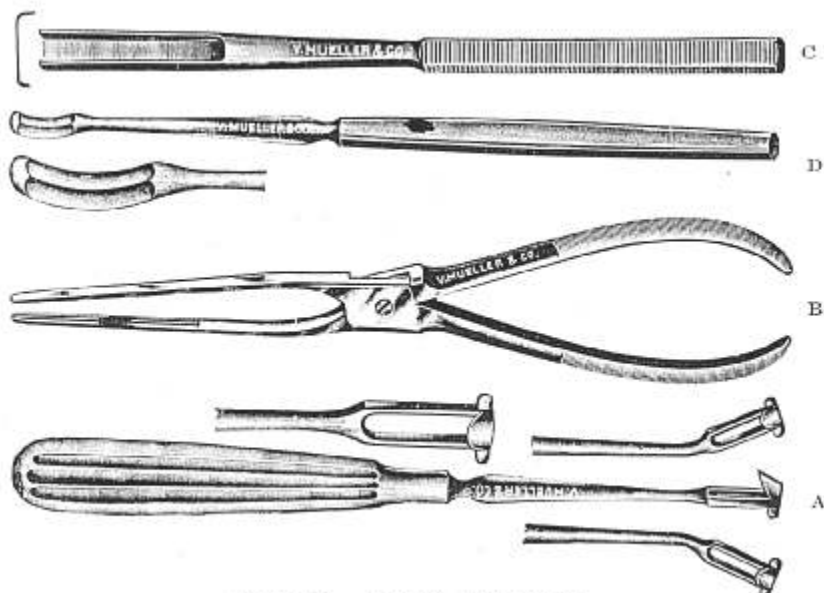


Figure 13. Author's Instruments.

A. Septum shave; B. Septum bone forceps; C. Septum gouge; D. Blunt end double edge knife.

I pack on the side that the mucous membrane has been elevated, with a rubber tissue, cut about the size and shape of the septum and spread over the mucous membrane surface, holding it in place with absorbent cotton which has been soaked in a weak iodine solution. This I allow to remain 24 hours.

I have performed about one hundred operations using this method, with excellent results and with no perforations.

I have operated with good results two cases, which were previously operated by the Ash method and in which the usual submucous operation would have been impossible.

In conclusion let me say the advantages of the operation are many.

It is easily performed.

Accomplished in less time.

Practically impossible to have a perforation.

Impossible to have a sinking of the nose.

Flapping of membranes during respiration never occur.

Can be performed at any age.

Previous operations, as the Ash Gleasa and sawing, will not interfere with this procedure.