

O. H. OESTERWITZ,
TURBINOTOME.
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1,324,976.

Patented Dec. 16, 1919.

FIG. 1.

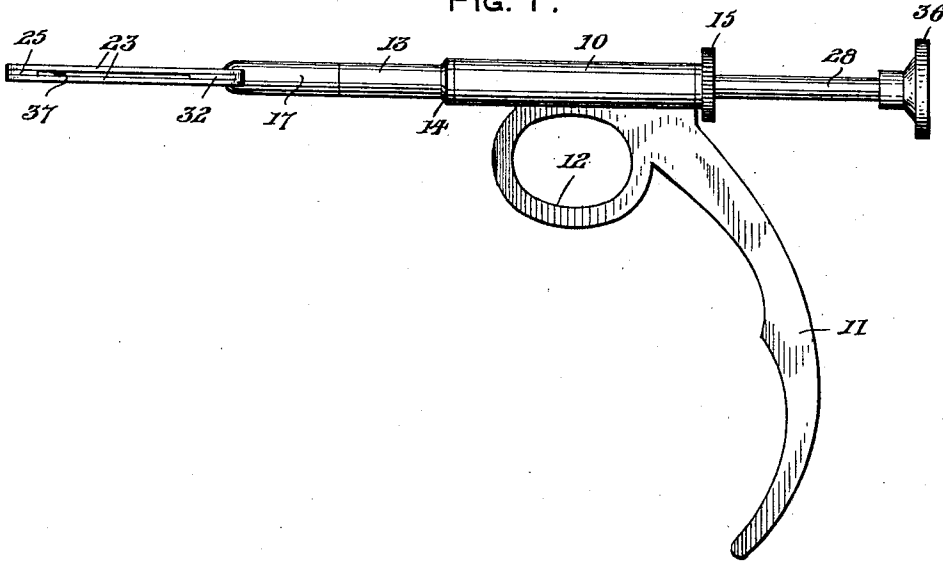


FIG. 2.

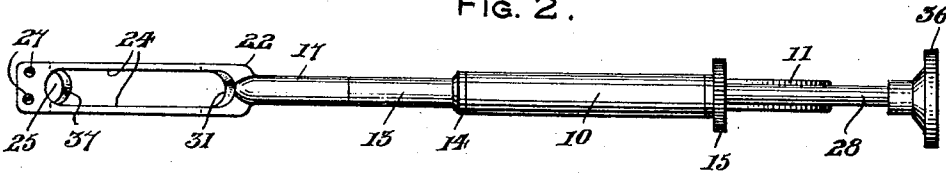


FIG. 3.

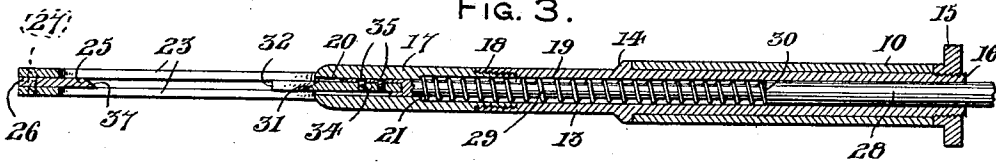


FIG. 4.

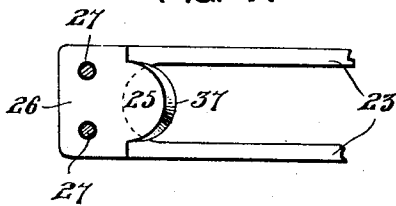


FIG. 5.



Inventor
O. H. Oesterwitz

334 J. M. Bryant.
Attorney

UNITED STATES PATENT OFFICE.

OTTO H. OESTERWITZ, OF SYRACUSE, NEW YORK.

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To all whom it may concern:

Be it known that I, OTTO H. OESTERWITZ, a citizen of Germany, residing at Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Turbinotomes, of which the following is a specification.

The primary object of the invention is a provision of an instrument designed for nasal operations such as the removal of polypus by cutting the same, the instrument being easily operated and adjustable for different operations.

A further object of the invention is to provide an instrument for performing surgical operations upon the nose in a positive and quick manner, the structure of the device being simple and unlikely to get out of order, capable of long use as a surgical appliance.

A still further object of the invention is to provide a surgical instrument that is cheap and inexpensive to manufacture well calculated for carrying out the above objects for operations in connection with the turbinate bones.

With these general objects in view the invention consists of the novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawing and then claimed.

In the drawing forming a part of this application and in which like reference numerals designate corresponding parts throughout the several views,

Figure 1 is an elevational view of the invention,

Fig. 2 is a top plan view thereof,

Fig. 3 is a central longitudinal sectional view of the same upon an enlarged scale and partly broken away,

Fig. 4 is an enlarged longitudinal sectional view of the blade carrying end of the instrument and

Fig. 5 is an elevational view of the movable blade employed with the device with its push rod broken away.

Referring more in detail to the drawing, my nasal surgical instrument comprises a barrel 10 having a curved handle 11 with a finger ring 12 beneath the barrel. A tube 13 journaled in the barrel 10 has a limiting shoulder 14 at its forward end while a lock nut 15 upon the threaded rear end 16 of the

tube 13 is adapted for engaging the rear end of the barrel 10 for securing the tube 13 adjusted.

A forward portion 17 of the tube 13 has a threaded connection 18 permitting its removal when desired, the axial bore 19 of the tube 13 extending into the portion 17 with a reduction 20 in said portion 17 forming an annular shoulder 21. A substantially rectangular extension 22 upon the free forward end of the tube portion 17 has spaced sides 23 in the form of frames with oblong openings 24 through the same transversely of the instrument.

A semi-circular blade 25 has a plate portion 26 secured between the outer ends of the sides 23 by screws 27, positioning the blade 25 between the openings 24 as best illustrated in Figs. 2 and 4 of the drawing. A push rod 28 longitudinally slidable in the bore 19 has an encircling spring 29 between the shoulder 21 and a shoulder 30 formed on the rod 28. A U-shaped blade 31 has a plate portion 32 slidable in the extension 22 for reciprocations toward and away from the blade 25, the push rod 28 having bifurcated forward end 33 receiving an extension 34 of the plate 32 and secured to the rod 28 by screws 35.

A finger plate or disk 36 upon the rear end of the rod 28 is adapted for engagement by the thumb of the operator when grasping the handle 11 by the hand with a finger positioned in the ring 12. The plate 32 may be removed from the rod 28 by removing the screws 35 and upon removing the tube portion 17, with the extension 22, an extension of different dimensions may be substituted of any desired size and with blades 25 and 31 of different dimensions corresponding to the work to be operated upon.

The complete operation of the invention will be understood from this detailed description thereof it being seen that upon releasing the nut 15, the entire tube 13 may be readily revolved by turning the disk 36 or the extension 22 so as to position the latter with its cutting blades as may be found desirable for the operation at hand. The semi-circular blade 25 has its cutting edge 37 preferably beveled at one side for reception within the concave or correspondingly arcuate blade 31 for engaging the beveled cutting edges of the two blades closely together

when the instrument is closed; thereby severing the membrane or member to be cut.

While the form of the invention herein set forth is believed preferable minor changes may be made if desired without departing from my invention. The set nut 15 is tightened upon the barrel 10 for holding the tube 14 properly adjusted while the portion 17 is tightened sufficiently upon the threading 18 to normally maintain the portion 17 a permanent part of the tube 13 for all purposes of practical operation, the connection between the portion 17 and the tube 13 being ordinarily undiscernible as the instrument appears in its preferable formation.

What I claim as new is—

1. A surgical instrument comprising a handle member, a rotatably adjustable tubular means journaled therein, and a relatively fixed and a shiftable coöperating blade operatively carried by the tubular means.

2. An instrument comprising a handle, a barrel upon the handle, a tube journaled in the barrel, rotary adjustment retaining means for the tube, a fixed blade attached to one end of the tube and a shiftable blade reciprocatingly mounted adjacent said fixed blade and operable by manual pressure rearwardly of the tube and barrel.

3. A nasal surgical instrument comprising a barrel, a tube adjustably journaled in the barrel in rotary directions, an extension upon one end of the tube, a blade secured to the extension, a push rod extending through the tube, a blade upon one end of the rod slidable within said extension adapted for coöperation with the secured blade and an operating disk upon the other end of the rod adapted to be engaged by the operator to force the blade upon the rod into engagement with the blade carried by the tube.

4. A device of the class described comprising a barrel, holding means for the barrel, a tube adjustably secured through the barrel in different rotary positions, a push rod slidable through the tube, a blade on the forward end of said rod, a companion blade secured forwardly of the tube, a push member at the opposite end of said rod from the blades and automatic retracting means for the rod whereby the blades are normally spaced apart when the device is not in use, the blades when operating being manually forced in directions toward each other against the retracting means.

5. A surgical instrument comprising a barrel, a tubular member carried thereby, a blade slidably carried by the tubular member, a relatively fixed blade attached to the tubular member and means adapted for retracting the slidable blade, the slidable blade when operating being manually forced against the action of the retracting means.

6. A surgical instrument comprising a barrel, a tubular member carried thereby, a blade slidably carried by the tubular member, a relatively fixed blade attached to the tubular member, an operating rod for said slidable blade extending through the tubular member, a finger engaging disk upon the outer end of the rod and means for manually holding the blades separated, the finger engaging disk adapted to be engaged by the operator to move the slidable blade against the action of the separating means.

7. A surgical instrument comprising a barrel, holding means therefor, a tubular member extending through the barrel, an extension on one end of the tubular member, a semi-circular blade at the free end of said extension, a slidable blade within the extension adapted to coöperate with the semi-circular blade, a push rod slidable through the tubular member, automatic retracting means for the rod and the blade attached thereto and an engaging disk at the opposite end of the rod from said blades adapted to be manually engaged by the operator to move the slidable blade against the tension of the retracting means.

8. A surgical instrument comprising a mounting member, a tubular member carried thereby, a blade slidable upon the tubular member, a relatively fixed blade mounted upon the tubular member within the path of movement of the slidable blade, manual operating means for moving the slidable blade toward the fixed blade and automatic retracting means for said operating means operating in opposition to the manual operating means.

9. A surgical instrument comprising a tube, a handle carried by the tube, a push rod slidable through the tube, a substantially rectangular extension at one end of the tube, a semi-circular blade removably secured to the free end of the extension, an arcuate blade slidable in the extension detachably secured to said rod, automatic retracting means for the rod and a finger engaging disk upon the outer end of the rod adapted to be operated manually to move the slidable blade against the tension of the retracting means.

10. A surgical instrument comprising a barrel, a tube adjustably journaled through the barrel, a lock nut upon the rear end of the tube adapted for engaging the adjacent end of the barrel when the tube is adjusted, a shoulder upon the tube adapted for engaging the forward end of the barrel, the forward end of the tube being a threaded separable portion and the tube having an axial bore provided with a shoulder in said separable forward portion, a substantially rectangular extension carried by said forward tube portion including spaced frame numbers with elongated oval opening there-

through, a semi-circular blade removably secured between the forward ends of said frame members with said openings at opposite sides of the blade, a push rod longitudinally movable through the tube having an annular shoulder therein, a spring between the shoulder of the tube portion and the shoulder of said rod, a semi-circular blade member detachably connected to the forward end of the rod slidably mounted between said frame members adapted for engaging the blade secured to the frame

members and an engaging disk upon the rear end of the push rod.

11. In a surgical instrument of the character described, a barrel, a tubular member in said barrel, cooperating cutting blades carried by said tubular member, and means carried by the tubular member engaging said barrel to hold the tubular member and blades carried thereby in adjusted rotary positions.

In testimony whereof I affix my signature.

OTTO H. OESTERWITZ.