

Aug. 29, 1933.

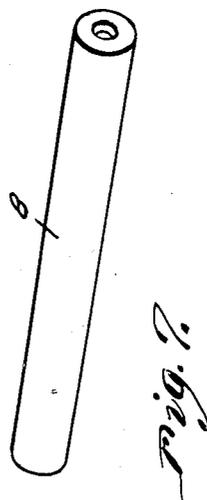
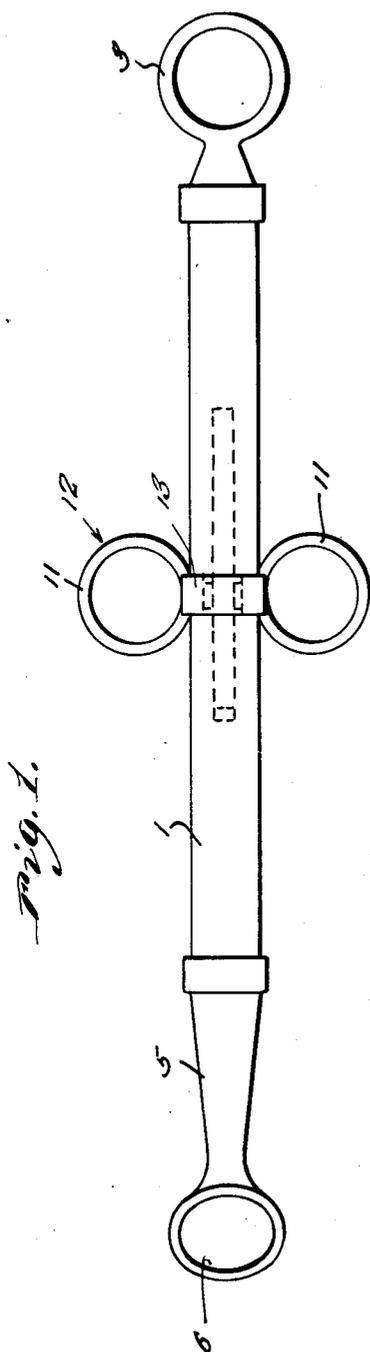
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1,924,348

TONSILLECTOME

Filed Sept. 7, 1932

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

Fig. 2.

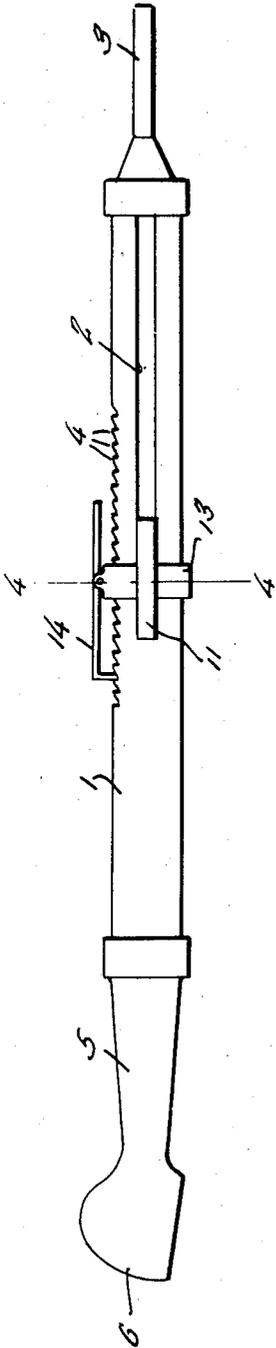


Fig. 3.

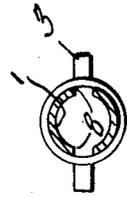
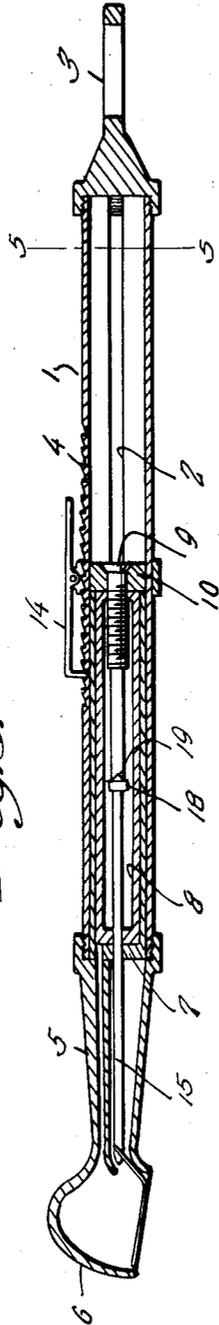


Fig. 5.

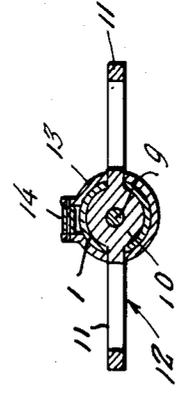


Fig. 4.

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UNITED STATES PATENT OFFICE

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TONSILLECTOME

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Application September 7, 1932. Serial No. 632,054

9 Claims. (Cl. 128—309)

The present invention relates to new and useful improvements in tonsillectomes and has for its primary object to provide, in a manner as hereinafter set forth, an instrument of this character embodying a novel construction, combination and arrangement of parts through the medium of which a tonsillectomy operation may be expeditiously performed with one hand.

Other objects of the invention are to provide a tonsillectome which will be simple in construction, strong, durable, highly efficient and reliable in use, light in weight, compact, and which may be manufactured at low cost.

All of the foregoing and still further objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawings, wherein like characters of reference designate corresponding parts throughout the several views, and wherein:

Figure 1 is a bottom plan view of a tonsillectome constructed in accordance with the present invention.

Figure 2 is a view in side elevation thereof.

Figure 3 is a view in vertical longitudinal section through the instrument.

Figure 4 is a view in vertical transverse section, taken substantially on the line 4—4 of Figure 2.

Figure 5 is a view in vertical transverse section, taken substantially on the line 5—5 of Figure 3.

Figure 6 is a detail view in perspective of the snare actuating rod.

Figure 7 is a detail view in perspective of the piston.

Figure 8 is a detail view in perspective of the retaining pawl.

Figure 9 is a detail view in perspective of the snare.

Referring now to the drawings in detail, it will be seen that the embodiment of the invention which has been illustrated comprises an elongated barrel 1 of any suitable material having diametrically opposite slots 2 extending thereinto from one end thereof. Threadedly mounted on said one end of the barrel 1 is a thumb receiving eye 3. The barrel 1 is further provided with a longitudinal series of ratchet teeth 4 on its upper side, the purpose of which will be presently set forth.

Threadedly mounted on the other end of the barrel 1 is a cannula 5 which terminates, at its free end, in a tonsil receiving cup 6. The barrel 1 may have mounted therein a cylinder 7 in which

an elongated piston 8 is operable for creating a suction or partial vacuum in the cup 6. The piston 8 is secured at one end by a screw 9 to a slide 10 which is operable in the barrel 1, said slide having projections on diametrically opposite sides thereof which travel in the slots 2 and which terminate in finger receiving eyes 11. It will thus be seen that the elements 10 and 11 constitute a finger piece for actuating the piston 8. This finger piece is designated generally by the reference numeral 12 and has mounted thereon a split band 13 which encircles the barrel and which has pivotally mounted between its end portions a pawl 14 which is engageable with the ratchet teeth 4 for releasably locking the piston 8 in any desired position.

A rod 15 is mounted for longitudinal movement in the cannula 5 and extends slidably into the piston 8. At one end, the rod 15 is formed to provide a hook 16 for engagement with a wire loop or snare 17 which normally is disposed in the mouth portion of the cup 6. The other end of the rod 15 has formed thereon a head 18 for engagement by the internal shoulder 19 in the piston 8 for connecting the rod to said piston for actuation thereby after limited initial movement of said piston independently of the rod has occurred. The screw 9 projects longitudinally into the piston 8 and has its inner end socketed for the reception of a projection 20 on the head 18. If desired, the mouth portion of the cup 6 may be provided with an annular groove or channel for the reception of the snare 17.

In use, the thumb is inserted in the eye 3 and two fingers of the hand are inserted in the eyes 11 of the fingerpiece 12. The cup 6 is then positioned over the tonsil and the piston 8 is then retracted in a manner to create a suction in the cup 6, thereby drawing the tonsil upwardly thereinto through the snare 17. As the piston 8 is actuated in this manner, the shoulder 19 therein engages the head 18 on the rod 15 and the said rod then moves with the piston drawing with it the snare 17 which severs the tonsil. The suction retains the tonsil in the cup 6 and it will thus be seen that the removal has been accomplished in one operation with one hand. During the operation, the pawl 14, which is engaged with the ratchet teeth 4, will retain the piston 8 in any desired position, as previously stated, thus permitting the operator to make observations at any time, should this be desired. The screw 9 constitutes a stop for the rod 15 and provides means for returning said rod to its former position when the piston 8 is also returned to its former position.

It is believed that the many advantages of a tonsillectome constructed in accordance with the present invention will be readily understood, and although the preferred embodiment of the invention is as illustrated and described, it is to be understood that changes in the details of construction and in the combination and arrangement of parts may be resorted to which will fall within the scope of the invention as claimed.

10 What is claimed is:

1. A tonsillectome comprising a barrel, a tonsil receiving cup on one end of the barrel and communicating with said barrel, a piston operable in the barrel for creating a suction in the cup for drawing the tonsil thereinto, a snare in the cup for severing the tonsil, a rod connected to the snare and extending slidably into the piston, means for connecting the rod to the piston for actuation thereby after independent initial movement of said piston, and means for actuating the piston.

2. A tonsillectome comprising a barrel, a tonsil receiving cup mounted on the barrel and communicating therewith, a piston operable in the barrel for creating a suction in the cup and drawing the tonsil thereinto, a snare in the cup for severing the tonsil, means connecting the snare to the piston for actuation thereby, and means for actuating the piston.

3. A tonsillectome comprising a barrel, a cannula mounted longitudinally on one end of the barrel, a tonsil receiving cup on the free end of the cannula, said cup communicating with the barrel, a piston operable in the barrel for creating a suction in the cup for drawing a tonsil thereinto, a snare mounted in the cup for severing the tonsil, a rod slidably mounted in the cannula and extending slidably into the piston, means for connecting the rod to the snare for actuating said snare, coacting means on the rod and on the piston for connecting said rod to the piston for actuation thereby after independent initial movement of the piston, means for actuating the piston, and means for releasably locking the piston against movement in one direction.

4. A tonsillectome comprising an elongated barrel, a cannula mounted on one end of the barrel, a tonsil receiving cup on the free end of the cannula, said cup communicating with the barrel, a piston operable in the barrel for creating

a suction in the cup for drawing the tonsil thereinto, a snare in the cup for severing the tonsil, a rod slidably mounted in the cannula and connected to the snare, said rod extending slidably into the piston, coacting means on the rod and on the piston for connecting the rod to said piston for actuation thereby after independent initial movement of the piston, the barrel having diametrically opposite slots therein, a finger-piece slidable in the slots and secured to the piston, means for securing the piston in adjusted position, and a thumb receiving eye on the other end of the barrel.

5. A tonsillectome comprising a barrel, a tonsil receiving cup connected to the barrel, means operable in the barrel for engaging a tonsil in the cup, means for severing the tonsil, and means operatively connecting the second-named means to the first-named means for actuation thereby.

6. A tonsillectome comprising a barrel, a tonsil receiving cup connected to the barrel, means operable in the barrel for engaging a tonsil in the cup, means for manually actuating the first-named means, means for severing the tonsil, and means operatively connecting the third-named means to the first-named means for actuation thereby.

7. A tonsillectome comprising a cup for the reception of a tonsil, suction means connected with the cup for drawing the tonsil thereinto, means for severing the tonsil, and means connecting the severing means to the suction means for actuation thereby.

8. A tonsillectome comprising a cup for the reception of a tonsil, suction means connected with the cup for drawing the tonsil thereinto, means for severing the tonsil, and means connecting the severing means to the suction means for actuation thereby after initial independent movement of said suction means.

9. A tonsillectome comprising a barrel, a tonsil receiving cup connected to the barrel, means operable in the barrel for engaging a tonsil in the cup, means for actuating the first-named means, means for severing the tonsil, and means operatively connecting the tonsil severing means to the first-named means for actuation thereby after initial independent movement of the first-named means.

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