

No. 678,333.

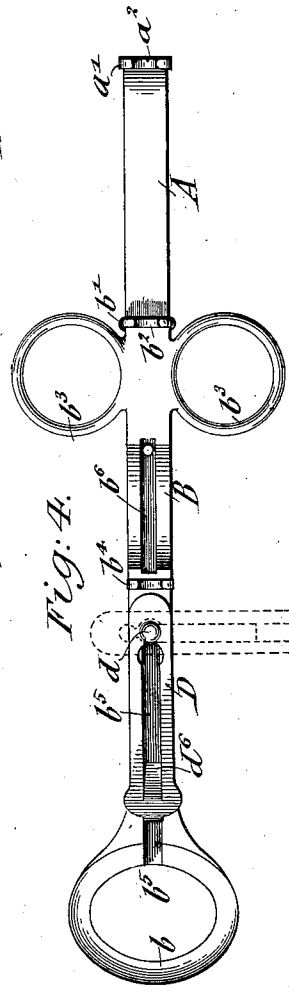
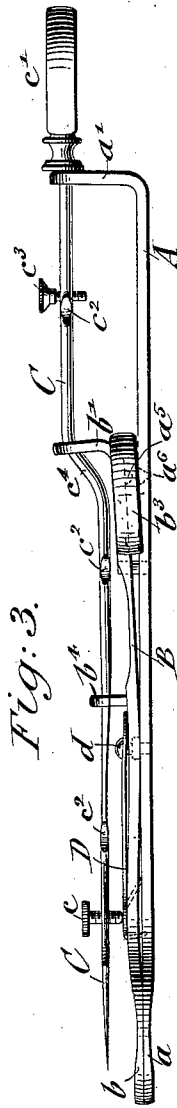
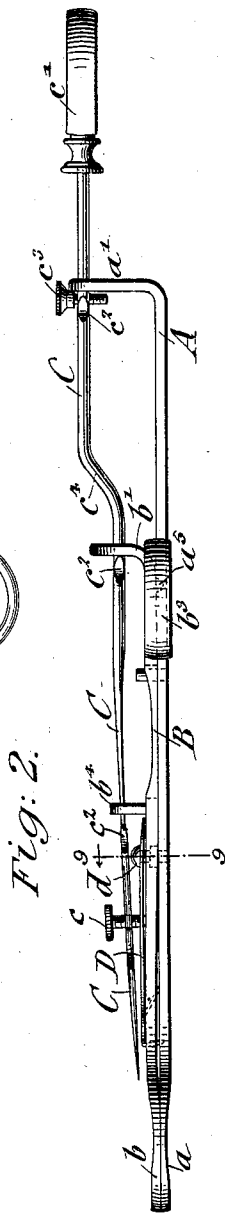
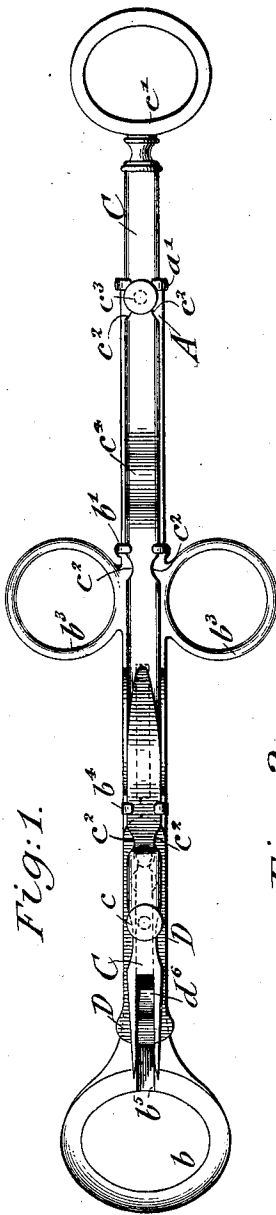
Patented July 9, 1901.

G. ERMOLD.
TONSILOTOME.

(No Model.)

(Application filed Dec. 20, 1900.)

2 Sheets—Sheet 1.



Witnesses:
Joseph H. Niles.
H. Suber.

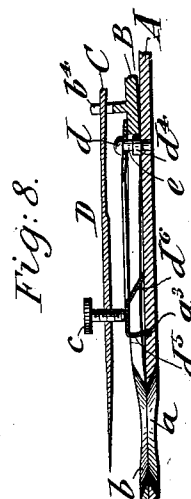
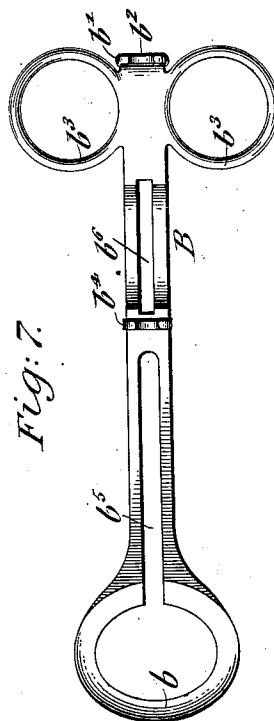
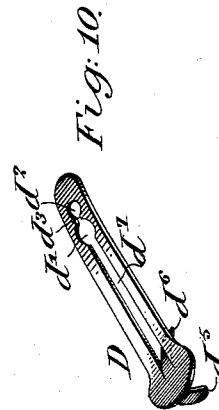
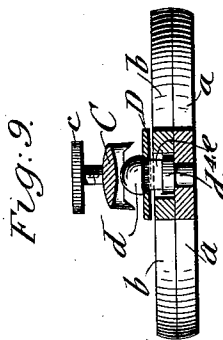
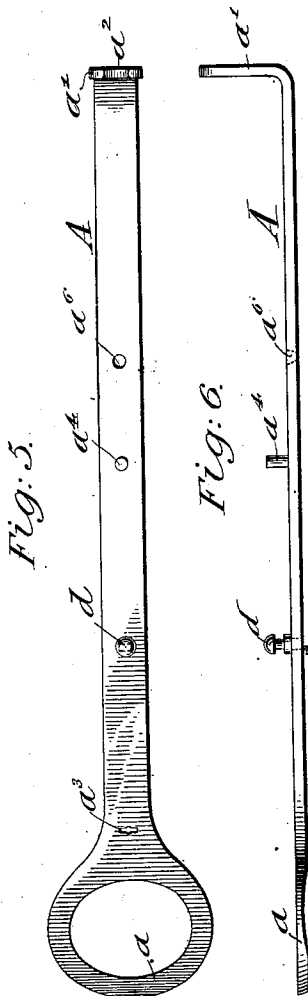
inventor:
George Ermold,
his Attorney.

G. ERMOLD.
TONSILOTOME.

(Application filed Dec. 20, 1900.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses:
Joseph H. Niles.
H. Suberbie.

Inventor:
George Ermold
By *James H. Rogers*
his Attorneys.

UNITED STATES PATENT OFFICE.

GEORGE ERMOLD, OF ELIZABETH, NEW JERSEY, ASSIGNOR TO THE GEORGE ERMOLD COMPANY, OF NEW YORK, N. Y.

TONSILOTOME.

SPECIFICATION forming part of Letters Patent No. 678,333, dated July 9, 1901.

Application filed December 20, 1900. Serial No. 40,484. (No model.)

To all whom it may concern:

Be it known that I, GEORGE ERMOLD, a citizen of the United States, residing in Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Tonsilotomes, of which the following is a specification.

This invention relates to improvements in tonsilotomes, and more especially to tonsilotomes of the type illustrated, for example, in the patent granted to me February 19, 1895, No. 534,433.

The objects of the invention are to provide means for rendering the inclined lug by which the rising of the fork from the cutters during its advance is controlled detachable and to provide an improved locking device for securing the parts of the instrument in position. These objects are attained by locating the inclined lug upon a member separate and detachable from the cutting members, which member may also serve as a locking member.

The invention consists in the combination, with the stationary and movable cutting members and fork guided thereon, of means for locking the members together and a detachable member pivoted at one end to said stationary member and having at its opposite end an inclined lug located to guide the fork during its advance.

The invention consists, further, in certain other combinations of parts, which will be fully described hereinafter and finally claimed.

In the accompanying drawings, Figure 1 is a plan view of the instrument with the fork retracted. Fig. 2 is a side view with the parts in the same position. Fig. 3 is a side view with the fork advanced. Fig. 4 is a plan view of the stationary and movable cutting members, the fork having been removed. Figs. 5 and 6 are respectively a plan and side view of the stationary member. Fig. 7 is a plan of the movable member. Fig. 8 is a longitudinal section through the forward end of the instrument with the fork advanced. Fig. 9 is a section on line 9-9, Fig. 2; and Fig. 10 is a perspective view of the detachable locking member.

Similar letters of reference indicate corresponding parts.

The cutting member A, which as to the fork C and other cutting member B is stationary, is longer than the movable member B and is provided at one end with a loop-shaped cutter a and at the opposite bent-up end a' with a recess a^2 for the fork. The movable cutting member B is provided at one end with a cutter b of shape similar to cutter a and at its opposite bent-up end b' with a recess b^2 for the fork and with handles b^3 . The member B also carries a recessed guide-lug b^4 for the fork. The two members are retained in operative position by means of a locking member D.

When the member B is placed upon the member A, a headed stud d on the latter projects upwardly through a slot b^5 , extending back from the cutter b . The locking member D is preferably struck up from a single piece of metal and is provided at one end with two recesses d' d^2 and with a contraction d^3 between them. The larger recess d' is of such size as to pass over the head of the stud d . The locking member is placed in position indicated in dotted lines in Fig. 4 and is then pulled in the direction of its length, whereby the contraction d^3 passes the contracted shank e of the stud, the shank e being now located in recess d^2 . The shank e is made of less width longitudinally of the member A than laterally of the same, but the lateral width is nevertheless not so great as that of the head of the stud. The recess d^2 is of less width than the head of the stud, yet of such shape and size as to permit turning the locking member when the latter is engaged with the stud, as described, into position longitudinally of the cutting members A and B. The shape of the shank e is indicated in dotted lines in Fig. 5 and its lateral width in Fig. 9. The width of the contraction d^3 is, however, less than the lateral width of the shank e . Hence when the member is turned longitudinally of the cutting members said member D cannot itself move longitudinally, but is locked to the stationary member A. The member D is provided at its forward end with a downwardly-projecting lug d^5 and with a rearwardly-inclined downwardly-projecting lug d^6 . When swinging the locking member upon the stud d from

its position at right angles to the members A and B into line therewith, it is necessary to lift the forward end of the member D, so as to raise these lugs over the member B.

5 The member D is made of steel or other material having spring tension sufficient to permit this. The lugs d^5 and d^6 enter the slot b^5 . In order to further insure against any longitudinal movement of the member D

10 relatively to the member A due to wear of the shank e , it is preferable to seat the lower end of the lug d^5 in a recess a^3 of said member A. The lower portion of the stud d at d^4 is preferably made of approximately the same

15 size as the slot b^5 , so as to serve for guiding the cutting members during their longitudinal movement. A guide-pin a^4 enters a corresponding slot b^6 of the member B, and a stop-pin a^5 enters a corresponding hole a^6 of

20 the stationary member.

The fork C is provided at its forked end with an adjusting-screw c or other downwardly-extending projection, either adjustable or made as a part of the fork, and at its

25 opposite end with a handle c' and at points in its length corresponding to the distance of the ends a' b' and lug b^4 from each other with recesses c^2 and at a point between the rear-most recesses and handle c' with a stop-screw

30 c^3 . The two cutting members having been connected in the manner described, the fork is connected therewith by unscrewing the stop-screw c^3 until it does not project from the bottom of the fork and seating the re-

35 cessed portions c^2 in the recesses a^2 b^2 and of the lug b^4 . The fork is then advanced until the stop-screw passes to the opposite side of the bent end a' , when it is screwed down, so that its lower end projects and pre-

40 vents withdrawal of the fork or detachment of the same from the cutting members, as shown in Figs. 1 and 2.

The operation of the instrument is as follows: The thumb of the surgeon being placed

45 in handle c' and a finger in each of the handles b^3 , the cutters, which are in register, Figs. 1 and 2, are placed so that the tonsil projects upward through the same, and the fork is moved forward into the position shown in

50 Fig. 3, the set-screw c moving in the slot d' of the member D and in the slot b^5 . By this movement of the fork it is caused to enter the tonsil and simultaneously draw the same upward through the cutters by the riding of

55 the set-screw or other projection of the fork up the inclined lug d^6 . The portion of the member D between the lugs d^5 d^6 is preferably flattened, so as to afford a support for the screw. The fork is provided at a point

60 back of the bent end b' with an upwardly-bent portion. The forward movement of the fork causes this bent portion c^4 to lift the stop-pin a^5 out of engagement with the stationary member A. The member B is there-

65 fore free to move backward until the pin a^4 reaches the end of its slot b^6 , thereby cutting off the tonsil which remains upon the fork.

The parts are detached for cleaning by restoring to their original position, Fig. 1, and then unscrewing the stop-screw c^3 , removing

70 the fork, and separating the cutting members from each other by swinging the locking member D so as to permit its detachment from the stud d .

In the instrument shown in my patent re-

75 ferred to the inclined lug for causing lateral movement of the fork during its advance was located upon one of the cutting members. By locating the lug upon a detachable member the lug is rendered detachable from the

80 cutting members. The advantage of this is that detachable members having lugs of different angles of inclination may be used with one set of cutting members, so that the fork may thereby be caused to rise gradually or

85 very quickly in its forward movement, according to the degree of inclination of the lug of the particular member used. As the lugs d^5 d^6 enter the slot b^5 , and thus prevent

90 free swinging of the member D on its stud d , they serve, in addition to their function of providing a rigid and stationary support for the fork, as a part of the locking means whereby the cutting members are secured to-

95 gether.

By the use of the adjusting-screw of the fork the height to which the fork shall rise from the cutters in its forward movement is controlled. By the use of different members

100 D having lugs of different inclinations in connection with the use of the adjusting-screw the movement of the fork relatively to the cutters can therefore be entirely regulated and the particular degree and height

105 of rise desired be obtained.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a tonsilotome, the combination of a stationary cutting member, a movable cut-

110 ting member, means for locking said members together, a fork guided on said members, and a detachable member secured at one end to the stationary member and ar-

115 ranged longitudinally of the same, and having at its opposite end an inclined lug located to guide the fork during its advance, substantially as set forth.

2. In a tonsilotome, the combination of a stationary cutting member, a movable cut-

120 ting member, means for locking said members together, a fork guided on said members and provided with an adjusting-screw, and a detachable member having an inclined lug located to contact with said adjusting-screw

125 during the advance of the fork, substantially as set forth.

3. In a tonsilotome, the combination of a stationary cutting member, a movable cut-

130 ting member, a fork guided on said member, and a locking member detachably secured at one end to said stationary member and arranged longitudinally of the same, and having at its opposite end an inclined lug engag-

ing the stationary cutting member and located to guide the fork during its advance, substantially as set forth.

4. In a tonsilotome, the combination of a stationary cutting member, a movable cutting member, a fork guided on said members, and a locking member having an inclined lug engaging the stationary cutting member and a lug engaging said stationary member, said inclined lug being located to guide the fork during its advance, substantially as set forth.

5. In a tonsilotome, the combination of a stationary cutting member, a movable cutting member, a stud on the stationary member, and a locking member engaging said stud and provided at its forward end with a lug engaging the stationary cutting member, substantially as set forth.

6. In a tonsilotome, the combination of a stationary cutting member having a recess, a movable cutting member, a stud on the stationary member, and a locking member engaging said stud and provided with a lug seated in said recess, substantially as set forth.

7. In a tonsilotome, the combination of a stationary cutting member, a movable cutting member, a fork guided on said members and having an adjusting-screw, a locking member provided with an inclined lug located in the path of said screw, and means for maintaining said lug against movement, substantially as set forth.

8. In a tonsilotome, the combination of a stationary cutting member, a movable cutting member having a slot, a headed stud on the stationary member projecting through said slot, a locking member detachably engaging said stud above the movable member, and having an inclined lug located in the slot of the same, and a fork guided on said cutting members and provided with an adjusting-screw movable into contact with said lug when the fork is advanced, substantially as set forth.

9. In a tonsilotome, the combination of a stationary cutting member, a movable cutting member having a slot, a headed stud on the stationary member projecting through said slot, a slotted locking member engaging said stud and detachable therefrom when moved at an angle to the cutting members, an inclined lug on said locking member, and a fork guided on said cutting members and provided with an adjusting-screw located in said slot of the locking member and movable into contact with the inclined lug when the fork is advanced, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

GEORGE ERMOLD.

Witnesses:

PAUL GOEPEL,
JOSEPH H. NILES.