

G. ERMOLD.
TONSILOTOME.

(Application filed Aug. 22, 1900. Renewed May 24, 1901.)

(No Model.)

3 Sheets—Sheet 1.

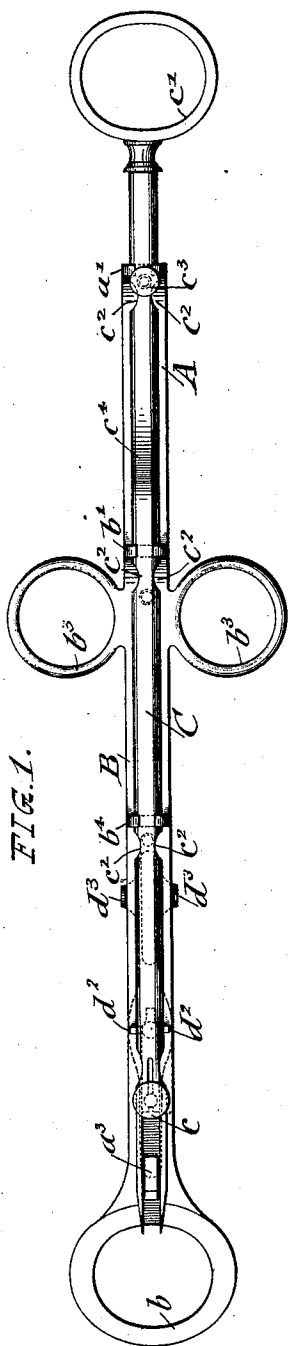


FIG. 1.

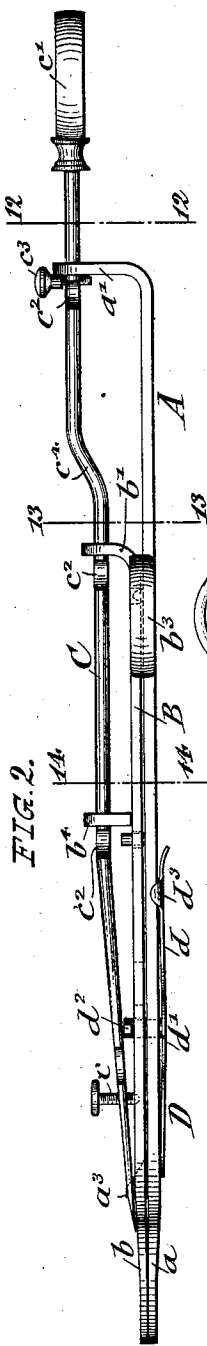


FIG. 2.

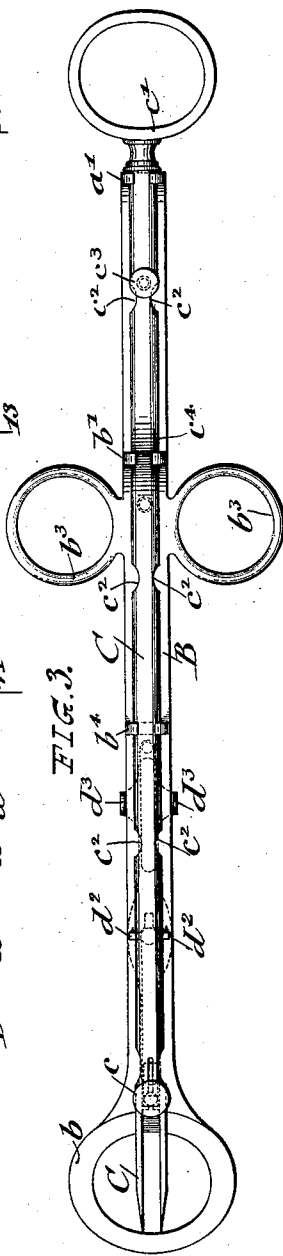


FIG. 3.

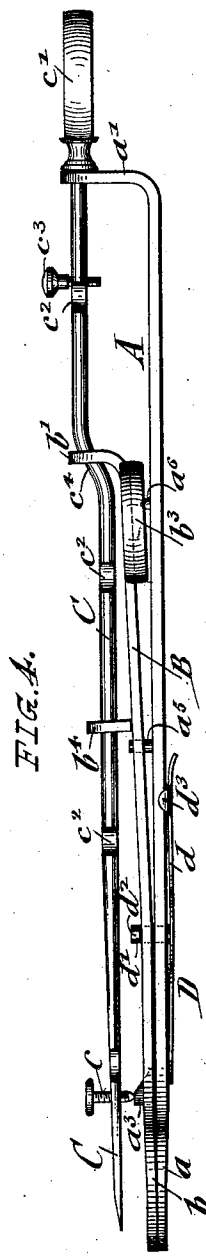


FIG. 4.

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No. 678,334.

Patented July 9, 1901.

G. ERMOLD.
TONSILOTOME.

(Application filed Aug. 22, 1900. Renewed May 24, 1901.)

(No Model.)

3 Sheets—Sheet 2.

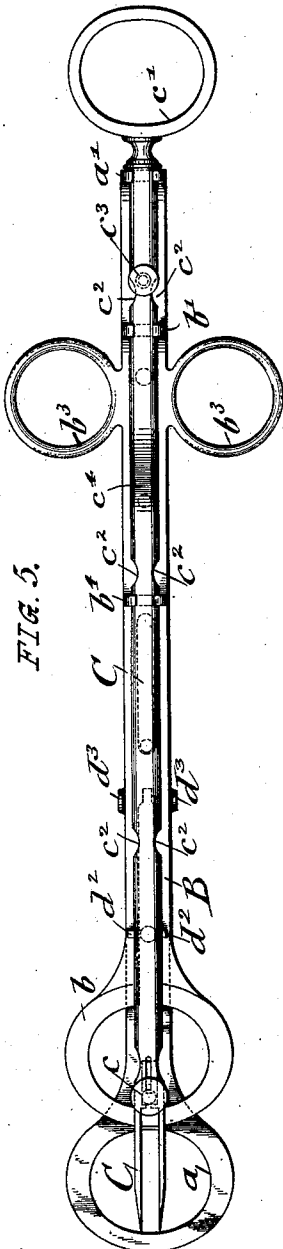


FIG. 5.

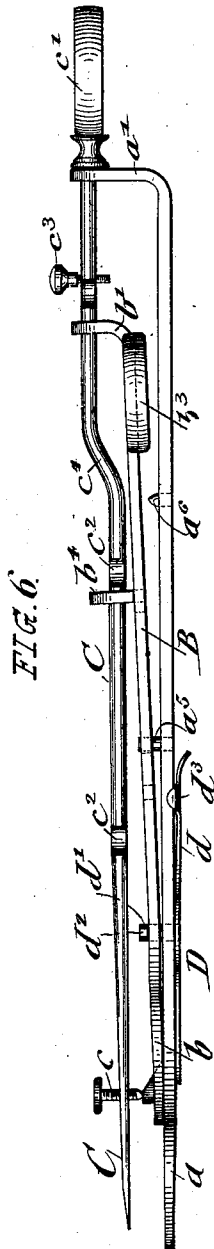


FIG. 6.

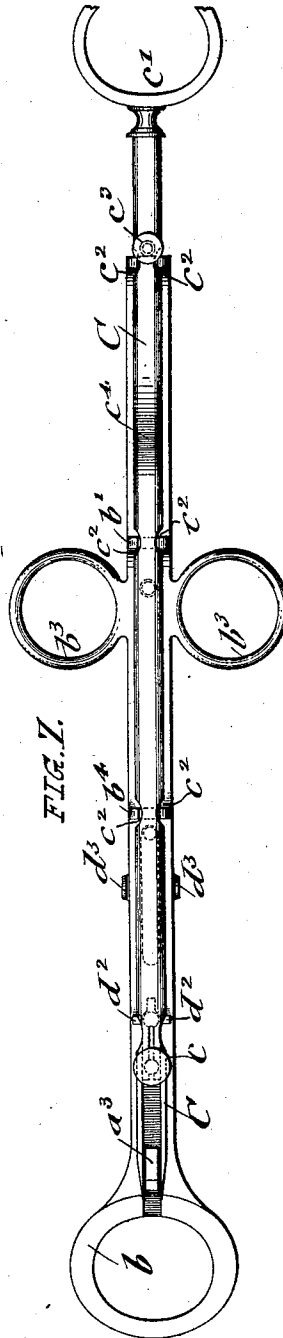


FIG. 7.

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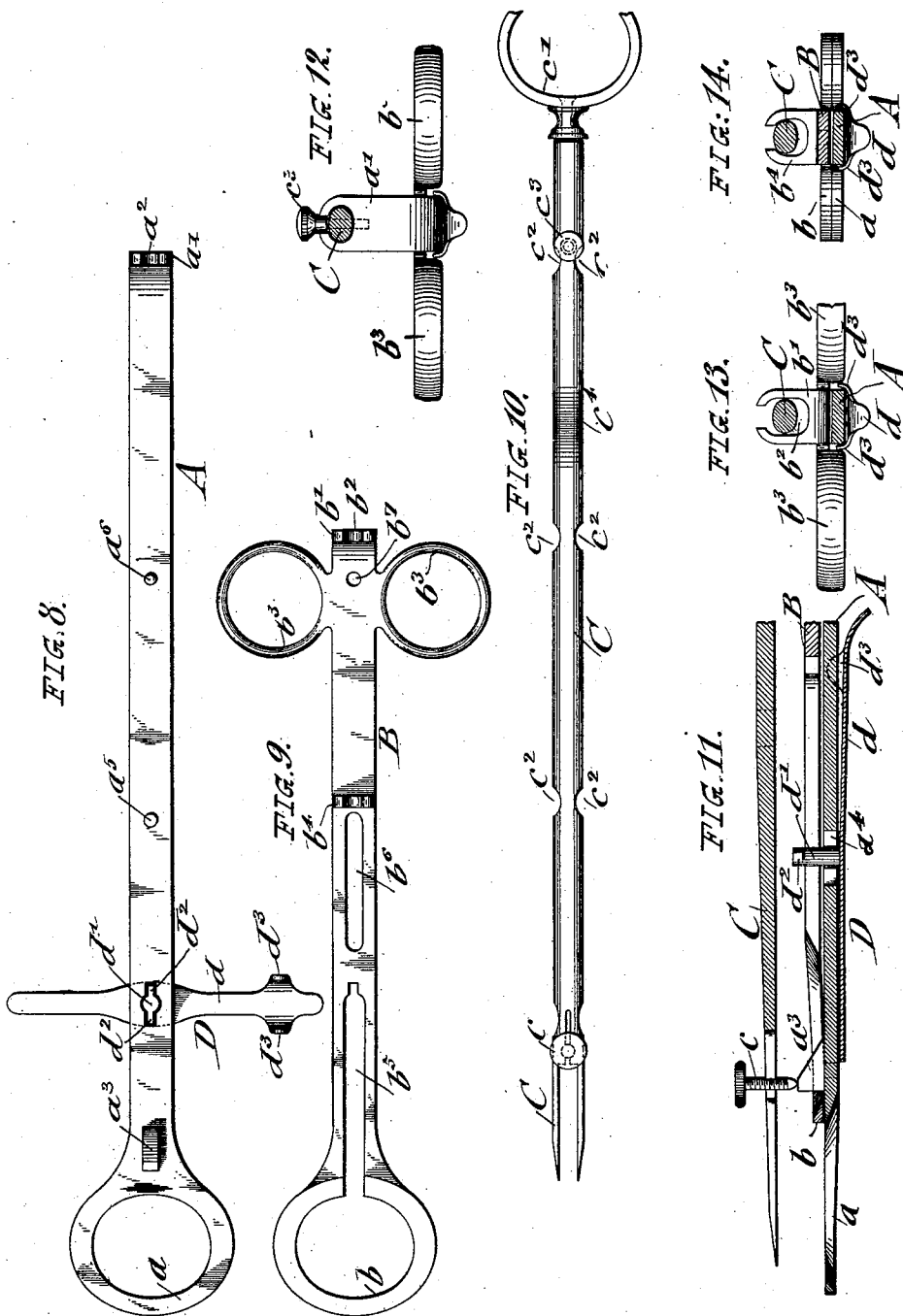
Patented July 9, 1901.

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(Application filed Aug. 22, 1900. Renewed May 24, 1901.)

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3 Sheets—Sheet 3.



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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. 678,334, dated July 9, 1901.

Application filed August 22, 1900. Renewed May 24, 1901. Serial No. 61,817. (No model.)

To all whom it may concern:

Be it known that I, GEORGE ERMOLD, a citizen of the United States, residing in the city of Elizabeth, county of Union, in the 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 of the type illustrated, for example, in the patent granted to me on February 19, 1895, numbered 534,433.

The object of the invention is to simplify the construction of the tonsilotome, render the same more easily detachable into its parts for cleansing, and provide means for regulating the height to which the fork shall rise above the cutters before the cutting action, and means for maintaining the fork rigidly in position during such action.

The invention consists for these purposes in certain details of construction and 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. Figs. 3 and 4 are respectively a top and side view with the fork advanced. Figs. 5 and 6 are respectively a top and side view with the fork advanced and the movable cutting member retracted. Fig. 7 is a top view with the fork retracted for detaching. Figs. 8, 9, and 10 are plan views, respectively, of the stationary and movable members and fork. Fig. 11 is a section on line 11 11, Fig. 5; and Figs. 12, 13, and 14 are respectively sections on lines 12 12, 13 13, 14 14, Fig. 2.

Similar letters of reference indicate corresponding parts.

The cutting member A, which as to the fork 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. Adjacent to the cutter a is located an inclined lug a^3 . The movable cutting member B is provided at one end with a cutter b , of shape similar to the 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 a locking device D, consisting of a spring-plate d , from the middle of which rises a T-shaped stud d' , the heads d^2 of which extend at an angle to the spring-plate. The member B is placed upon the member A and the lug d' passed up through an opening a^4 in the member A and a slot b^5 , extending back from the cutter b until the heads d^2 are above the movable member, when the spring-plate d is turned into line with the members and retained in position by its ears d^3 . The lug a^5 enters the slot b^5 , a guide-pin a^6 enters a corresponding slot b^6 of the movable member, and a stop-pin a^6 enters a corresponding hole b^7 . The two members are thus secured together and prevented from movement laterally or otherwise relatively to each other. The fork C is provided at its forked end with an adjusting-screw c and at its 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 rearmost recesses and handle c' with a stop-screw 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 recessed portions c^2 of the fork in the recesses of the ends $a' b'$ and lug b^4 in the position shown in Fig. 7. The fork is then moved forward until the stop-screw passes to the opposite side of the bent end a' , when it is screwed down again, so that its lower end projects and prevents the withdrawal of the fork or detachment of the same from the cutting members, as shown in Fig. 2.

The operation of the instrument is as follows: The thumb of the surgeon being placed in the handle c' and a finger of the same hand 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 Figs. 3 and 4. By this movement it is caused to enter the tonsil

and simultaneously draw the same upward through the cutters by the riding of the set-screw c up the inclined lug a^3 . The top of this lug is preferably flattened, so as to afford a support for the screw, so that the pressure of the same on the lug does not tend to force the fork backward. It will be noticed that the fork is provided at a point back of the bent end b^7 with an upwardly-bent portion. The forward movement of the fork causes this bent portion c^4 to lift the rear end of the member B out of engagement with the stop-pin a^6 , Fig. 4. Said member is therefore free to move backward until the pin a^5 reaches the end of its slot b^6 into the position shown in Figs. 5 and 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 the fork, and separating the cutting members by swinging the locking device D so as to permit its detachment from the cutting members.

In the instrument shown in my patent referred to the inclined lug for the fork was located upon the movable member. The backward movement of this lug under the fork during the cutting action was objectionable, as it permitted the fork to yield slightly. By locating the lug on the stationary member a stationary support is provided for the fork and the same is rigidly and equally supported during the cutting action. I am aware that an adjusting-screw has heretofore been placed adjacent to the fork; but such a screw has not heretofore been employed in combination with an inclined lug and has only been employed to regulate the height of the fork for the whole of a horizontal thrust and not to regulate or limit the height to which a fork should rise in an upward movement from the cutting members. In the present construction the screw in combination with the inclined lug are means to this latter end and form a valuable improvement in tonsilotomes. The locking device shown provides a simple and effective means for readily attaching and detaching the members. The bending of the fork to secure the releasing of the movable member at the proper moment is a novel means of accomplishing this and is a simpler and less expensive construction for this purpose than in previous instruments of this kind.

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 member, a movable member thereon, cutters at the ends of said members, an inclined lug on the stationary member adjacent to the cutter of the same, a fork movable on said members, and an adjusting-screw carried by said fork, the parts being so located as to cause the riding of said screw upon the inclined lug when the fork is operated, substantially as set forth.

2. In a tonsilotome, the combination of a stationary member, a movable member thereon, cutters at the ends of said members, an inclined lug on the stationary member adjacent to the cutter of the same and provided with a flattened upper part, a fork movable on said members, and an adjusting-screw so carried by said fork as to ride upon the inclined lug when the fork is operated, substantially as set forth.

3. In a tonsilotome, the combination of a stationary cutting member provided with an opening, a movable cutting member provided with a slot registering therewith, and a locking device comprising a spring-plate and a stud having heads at right angles thereto and adapted to pass through said opening and slot, substantially as set forth.

4. In a tonsilotome, the combination of a stationary cutting member, a movable cutting member having a recessed bent-up rear end, and a fork movable longitudinally of said members and having a bent portion adapted to engage the recessed bent end of the movable member, substantially as set forth.

5. In a tonsilotome, the combination of a stationary cutting member, a stop-pin thereon, a movable cutting member engaging said stop-pin, and provided with a recessed rear end, and a fork movable on said members and having a bent portion movable into engagement with the rear end of the movable member and adapted to lift the same out of engagement with said stop-pin, 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.

GEO. ERMOLD.

Witnesses:

PAUL GOEPEL,
M. H. WURTZEL.