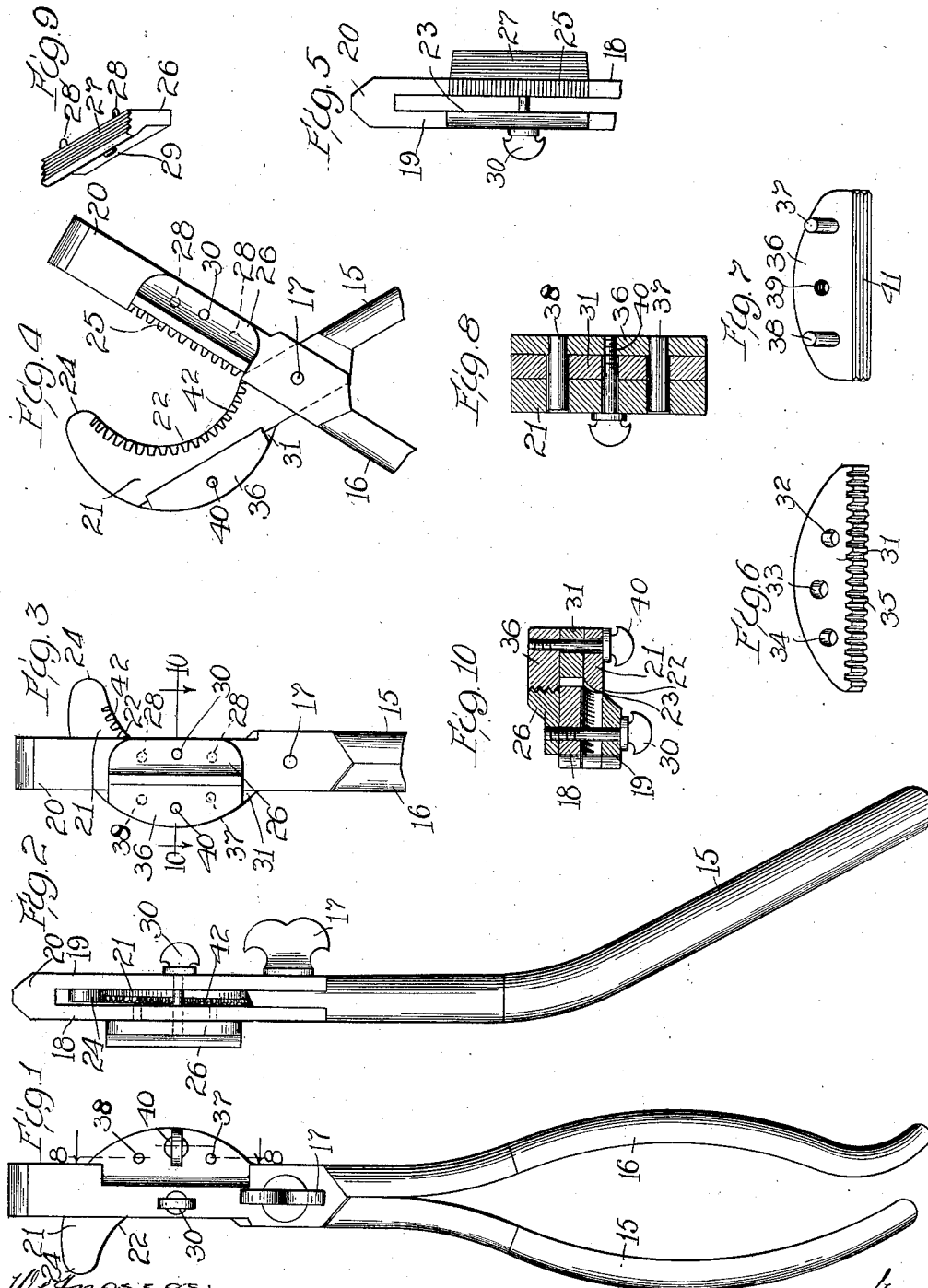


E. D. DOUGLASS.
EMASCULATOR.
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1,062,087.

Patented May 20, 1913.



Witnesses:
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UNITED STATES PATENT OFFICE.

ERNEST D. DOUGLASS, OF CHICAGO, ILLINOIS, ASSIGNOR TO FRANK S. BETZ, OF HAMMOND, INDIANA.

EMASCULATOR.

1,062,087.

Specification of Letters Patent.

Patented May 20, 1913.

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To all whom it may concern:

Be it known that I, ERNEST D. DOUGLASS, a citizen of the United States of America, and a resident of Chicago, Cook county, State of Illinois, have invented certain new and useful Improvements in Emasculators, of which the following is a specification.

The object of the present invention is the general improvement of instruments of the class to which it relates.

In the accompanying drawings, Figure 1 is a plan view of the under side of the instrument, with the jaws of the same closed. Fig. 2 is a side elevational view of the same. Fig. 3 is a top plan view of the same. Fig. 4 is a top plan view of the instrument with the jaws open, the handle ends of the lever being broken off. Fig. 5 is an edge view of the shorter arm of one of the levers. Figs. 6 and 7 are perspective views of the removable serrated jaws which are carried by one of the arms. Fig. 8 is a vertical sectional view, showing the method of securing the jaws shown in Figs. 6 and 7 in place, the section being taken on the line 8—8 of Fig. 1. Fig. 9 is a perspective view of the removable jaw which is carried by the shorter arm of the other lever. Fig. 10 shows a cross-section taken on the line 10—10 of Fig. 3.

In the several figures of the drawings, in which like reference numerals indicate the same part throughout, 15 and 16 are the two levers of the instrument, which are pivoted together by means of the thumb screw 17. Each of these levers has its longer arm formed as a handle, as usual in forceps and the like, and its shorter arm provided with a cutting jaw and carrying a serrated compressing jaw. The shorter arm of the lever 16 is slotted so as to form an upper member 18 and a lower member 19 united by a portion 20 at the end of the arm. The shorter arm 21 of the lever 15 is formed with a shearing edge 22 to cooperate with the shearing edge 23 of the lower member 19 of the other lever. The arm 21 is curved so that its extreme end 24 passes between the members 18 and 19 in advance of its shearing portion 22.

The member 18 has the edge thereof which faces the curved arm of the other lever serrated transversely, as shown at 25 in Figs. 4 and 5. Resting upon the member 18 is a

removable jaw 26 (shown by itself in Fig. 55 9) having its face 27 longitudinally serrated. This jaw 26 is provided with a pair of dowel pins 28 which extend into suitable openings provided therefor in the member 18, and is also provided with a screw-threaded opening 29 into which extends a threaded thumb screw 30 which passes through both the upper member 18 and the lower member 19 of the lever 16.

The curved arm 21 carries a pair of removable jaws, one mounted upon the other. The lower removable jaw 31 is shown by itself in Fig. 6, and is formed with three openings 32, 33, and 34. This jaw has its edge which faces the jaw of the other arm formed with transverse serrations 35. The upper removable jaw 36 carries a pair of dowel pins 37 and 38 which, when the jaw is in place, extend through the apertures 32 and 34 of the lower jaw 31, and enter suitable openings in the arm 21. This jaw 36 has also a threaded opening 39 which receives the threaded end of a thumb screw 40, this screw passing through an opening in the curved arm 21, and through the aperture 33 of the removable jaw 31, thus securing both of the removable jaws 31 and 36 in place. The jaw 36 is formed with longitudinal serrations 41 which face and cooperate with the longitudinal serrations 27 of the removable jaw 26 which is carried by the arm of the other lever. The serrations 35 of the removable jaw 31 cooperate with the transverse serrations 25 of the edge of the member 18 of the straight arm. The curved inner edge of the arm 21 is beveled off slightly on its upper side at 42 and slightly serrated, so that when the jaws are closed together, that part of the cord or artery which is just above the point at which the same is severed will be carried in between the upper member 18 and the upper side of the curved arm, and slightly lacerated and pressed together, instead of being cut at this point between the lower edge of the member 18 and the upper side of the curved arm.

In the use of the instrument, a clean cut is made by the shearing action of the cutting edge 23 of the member 19 and the cutting edge 22 on the lower side of the curved arm 21. In operations of the kind for which this instrument is designed, a clean

cut, with nothing more, is undesirable, as it permits excessive bleeding. The provision of the serrated jaws, and their location, cause the sides of the artery to be pressed
5 together above the cut-off end of the same and lacerated to cause them to unite and heal together. The serrated jaws, being removable, are readily cleaned and sterilized.

Although but one specific embodiment of
10 this invention is herein shown, it will be understood that numerous details of the construction shown may be altered or omitted without departing from the spirit of this invention.

15 I claim:

1. An instrument of the class described, comprising a pair of levers, the shorter arms of which have coacting cutting edges, one of said arms comprising an upper member
20 and a lower member, said upper member being serrated transversely of said arm, a longitudinally serrated jaw removably mounted on said upper member, a transversely serrated jaw removably mounted on
25 the other arm, and a longitudinally serrated

jaw removably mounted upon said transversely serrated jaw.

2. An emasculator comprising in combination a cutting jaw a sustaining jaw, provided with a knife edge, the sustaining jaw
30 being provided with a slot through which to project the cutting jaw, both of said jaws being provided with transverse serrations and longitudinal serrations respectively opposing each other, the longitudinal serrations in one jaw being in a plane outwardly
35 beyond the adjacent transverse serrations of that jaw, and in the other jaw in a plane inwardly beyond the transverse serrations thereof, whereby a cutting action by, and
40 between, said serrations is prevented and a crushing action is exclusively maintained between the jaws.

Signed at Chicago this 1st day of April 1910.

ERNEST D. DOUGLASS.

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