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L. G. HOWARD

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SURGICAL INSTRUMENT

Filed March 22, 1933

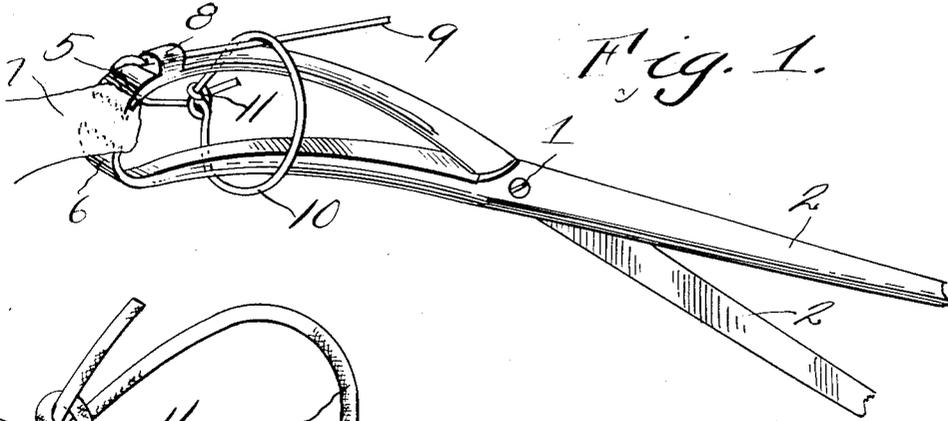


Fig. 1.

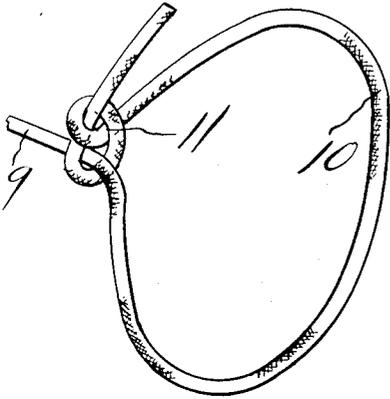


Fig. 2.

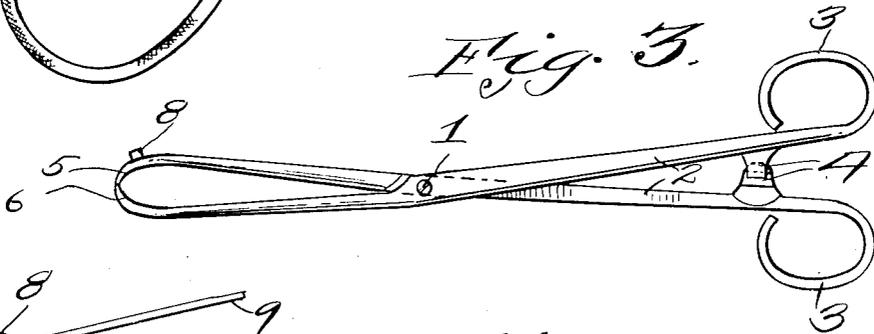


Fig. 3.

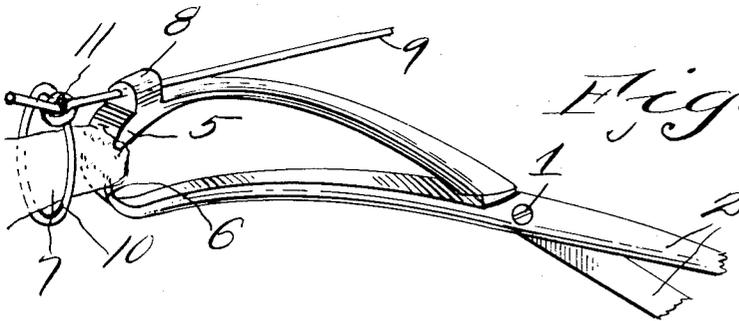


Fig. 4.

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UNITED STATES PATENT OFFICE

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SURGICAL INSTRUMENT

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2 Claims. (Cl. 128—326)

The invention relates to surgical instruments and has for its object to provide a hemostatic ligature, particularly adapted for tying blood vessels and bleeding parts in portions of the body
5 which are difficult to reach for tying purposes.

A further object is to provide a surgical instrument for grasping bleeding points or blood vessels and comprising cooperating jaws adapted to grasp the bleeding point or blood vessel and provided with an eye on one jaw through which the lead end of a strand extends, the other end of said strand terminating in a loop having a slide and jam knot surrounding both jaws and adapted to be moved beyond the ends of the jaws and pulled into contracted engagement with the body portion upon a pull on the lead end of the strand extending through the apertured lug of one of the jaws.

With the above and other objects in view the invention resides in the combination and arrangement of parts as hereinafter set forth, shown in the drawing, described and claimed, it being understood that changes in the precise embodiment of the invention may be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawing:

Figure 1 is a perspective view of the instrument, showing the same in position for use.

30 Figure 2 is a perspective view of the loop end of the ligature.

Figure 3 is a side elevation of the instrument.

35 Figure 4 is a perspective view of the jaw end of the instrument, showing the ligature loop in position to be contracted by a pull on the lead end thereof.

Referring to the drawing the numeral 1 designates the pivotal point between cross members 2, the outer ends of which terminate in finger loops 3 adapted to receive the fingers of the operator. Cross members 2 adjacent the finger loops 3 are provided with interengaging lugs 4 for holding the toothed gripping jaws 5 and 6 in gripping engagement with a portion 7 of the patient.

45 At the present time it is extremely difficult and often impossible to reach blood vessels and parts of the body, for instance in cavities for ligating and tying, and to obviate this difficulty the present instrument is primarily designed. Jaw 5 is provided with an apertured lug 8, through which the lead end 9 of the ligating strand extends rearwardly and is adapted to be grasped by the operator for the tying operation. The other end of the strand terminates in a loop 10 encircling
55 the jaws 5 and 6 rearwardly of the lug 8 and is

provided with a slip jam knot 11 which when contracted is held in contracted condition by the jamming.

In operation the part 7 of the body is gripped between the jaws 5 and 6 with the loop 10 in the position shown in Figure 1, then the loop 10 is passed forwardly over the jaws 5 and 6 and lug 8 to a position shown in Figure 4, and at which time the operator imparts a pull on the lead end 9 of the ligature, thereby contracting the same around the part 7 for the tying operation, after which the instrument may be removed from its position on part 7, or further tying operation may be accomplished if desired, utilizing the lead end 9 of the ligature, after passing the same from the lug 8.

From the above it will be seen that an instrument is provided for surgical purposes for tying blood vessels in inaccessible cavities and positions, and that the tying operation is a positive one and controlled from the outside of the cavity, so that the hands of the operator will not interfere with a full view of the operation.

The invention having been set forth what is claimed as new and useful is:

1. A ligating instrument comprising cooperating jaws adapted to be encircled by a ligating loop having a slip knot therein and an apertured lug carried by one of said jaws and through which the lead end from the ligating loop extends rearwardly and through the loop.

2. The combination with a surgical instrument having cooperating jaws adapted to grip a portion of the body, of a ligating device carried thereby, said device comprising an apertured lug carried by one of the jaws, a slip knot strand encircling the jaws and having a lead end, said lead end from the loop extending rearwardly through the apertured lug and through the loop around the jaws.

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