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J. B. BACON

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ARTERY FORCEPS

Filed May 18, 1932

Fig. 1.

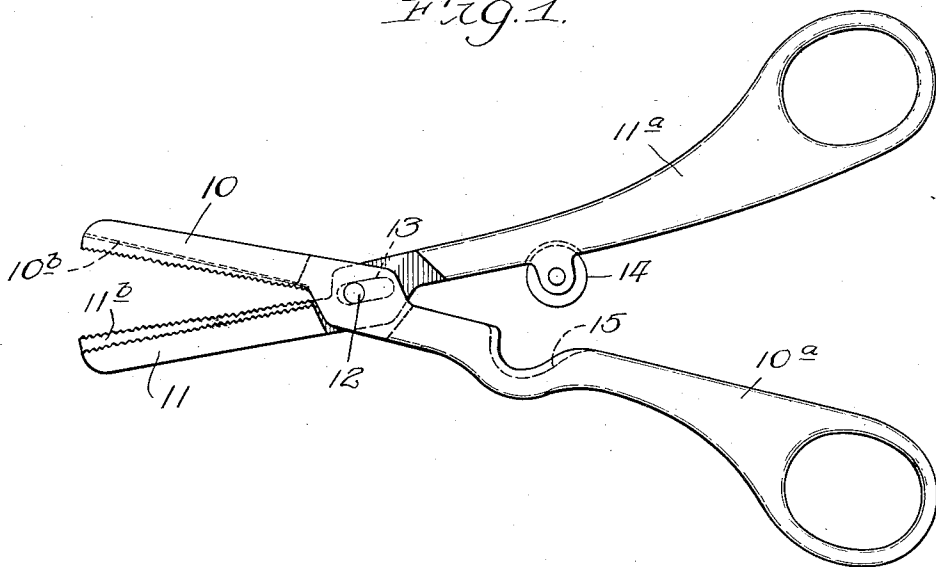


Fig. 2.

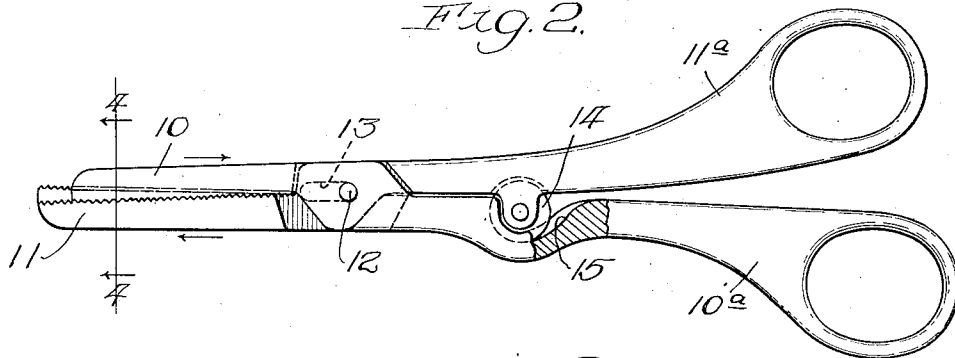


Fig. 3.

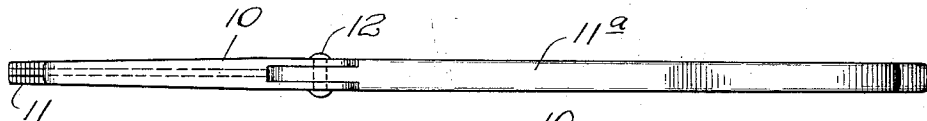


Fig. 4.

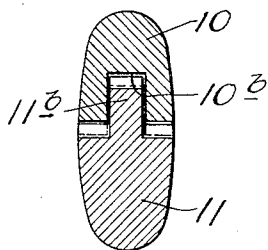
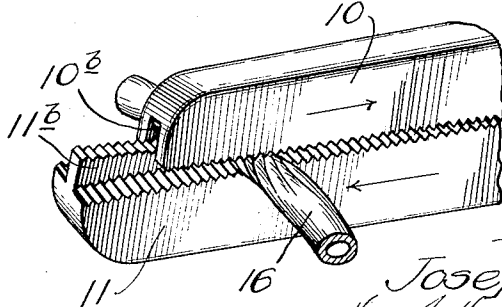


Fig. 5.



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ARTERY FORCEPS

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This invention relates to improvements in artery forceps and, more especially, such an instrument designed for use in closing the ends of severed arteries. The instrument finds its principal use in connection with surgical operations where arteries are severed and the ends must be closed to prevent excessive loss of blood.

It is well known that the ends of severed arteries can frequently be closed by twisting the same, and after being so twisted, it is not necessary to retain pressure on the end. It has been the practice heretofore to close such arteries with an ordinary forceps by grasping the end and then twisting the instrument.

The principal feature of my invention is the provision of a forceps of the character described that will automatically twist the end of the artery as the jaws are closed. This is accomplished by providing means for causing relative sliding movement of the jaws with respect to each other as the same are closed on the end of the artery. This sliding movement gives the twisting required to close the end of the artery.

Other features and advantages of my invention will appear more fully as I proceed with my specification.

In that form of device embodying the features of my invention shown in the accompanying drawing—

Figure 1 is a view in side elevation showing the forceps open; Fig. 2 is a similar view showing the same closed; Fig. 3 is a top plan view showing the same closed; Fig. 4 is a view taken as indicated by the line 4 of Fig. 2; and Fig. 5 is a view in perspective of the jaws, showing the sliding movement which accomplishes the twisting of the end of the artery.

As shown in the drawing, the device includes two jaws with handles pivotally attached in the conventional manner. As here shown, the upper jaw is indicated by 10 and its handle by 10^a. The lower jaw is indicated by 11 and is provided with the handle 11^a. The pivot pin 12 is supported in the upper jaw 10, that is, between the jaw 10 and handle 10^a, and extends through a slot 13 in the lower jaw.

14 indicates a cam member, here shown as a roller, carried by the handle 11^a adapted to engage the cam surface 15 in the handle 10^a. When the forceps are closed, the roller 14 strikes the cam surface 15, thus projecting

the lower jaw forwardly to cause relative sliding movement between the jaws as the same are closed. In the operation of the device, the lower jaw 11 will be retracted, as shown in Fig. 1, when the forceps are open. As they are closed, the roller 14 striking the cam surface 15 will project the lower jaw in the direction indicated by the arrow in Fig. 2. There will consequently ensue a relative sliding movement of said jaws with respect to each other as the same are closed, said movement being indicated by the arrows in Figs. 2 and 5.

In Fig. 5, the end of an artery is indicated by 16 and it will be seen that the sliding movement of the jaws referred to will serve to twist this end, as above described.

As here shown, the lower jaw 11 is provided with a longitudinally arranged central raised rib or ridge 11^b accommodated by a co-operating similarly arranged recess 10^b in the upper jaw.

While I have shown and described certain embodiments of my invention, it is to be understood that it is capable of many modifications. Changes, therefore, in the construction and arrangement may be made without departing from the spirit and scope of the invention as disclosed in the appended claim, in which it is my intention to claim all novelty inherent in the invention as broadly as permissible, in view of the prior art.

What I regard as new, and desire to secure by Letters Patent, is:

A forceps of the character described, including; two jaws with handles, pivotally attached together, the pivotal attachment including a slot in one jaw and a pivot pin in the other jaw embraced by said slot, whereby relative sliding movement of said jaws with respect to each other is permitted; a cam member carried by one handle; and a cam surface on the other handle adapted to be engaged by said cam member when the handles are closed to cause relative sliding movement of the jaws with respect to each other.

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