

No. 643,003.

Patented Feb. 6, 1900.

M. DE W. POLLOCK.
FUNIS CLAMP.

(Application filed Dec. 5, 1898.)

(No Model.)

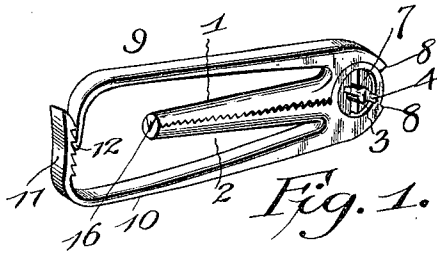


Fig. 2.

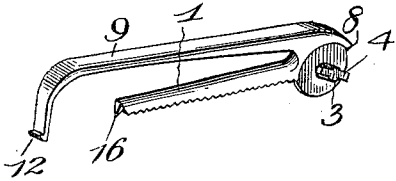


Fig. 3.

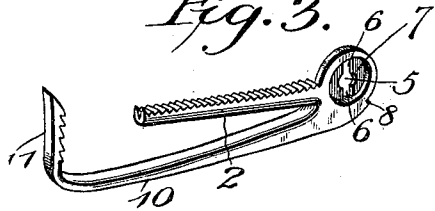


Fig. 4.

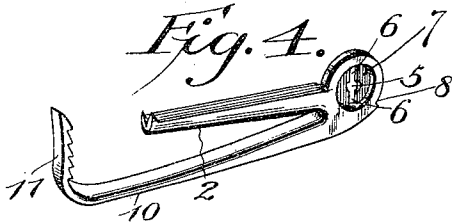
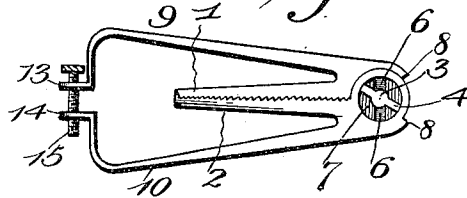


Fig. 5.



Witnesses

A. Roy Appleman
A. J. [Signature]

By *his*

M. De Witt Pollock Inventor

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UNITED STATES PATENT OFFICE.

MILTON DE WITT POLLOCK, OF DECATUR, ILLINOIS.

FUNIS-CLAMP.

SPECIFICATION forming part of Letters Patent No. 648,003, dated February 6, 1900.

Application filed December 5, 1898. Serial No. 698,360. (No model.)

To all whom it may concern:

Be it known that I, MILTON DE WITT POLLOCK, a citizen of the United States, residing at Decatur, in the county of Macon and State of Illinois, have invented a new and useful Funis-Clamp, of which the following is a specification.

My invention relates to surgical instruments, and particularly to clamps for use in arteriotomy and ovariectomy; and the object in view is to provide a funis-clamp adapted to be employed as an improved antiseptic or sterilizable substitute for the tie employed in the present practice, such clamp being readily applicable previous to severing the funis and being adapted to cause the healing or uniting of the tissues close to the cutaneous margin. Also my invention has for its object to provide a device for the purpose named which may be worn without inconvenience to the patient and which may be readily and thoroughly sterilized.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of an instrument constructed in accordance with my invention. Figs. 2 and 3 are similar views of the members of the instrument detached. Fig. 4 is a similar view of one member of the instrument, showing a modified construction of jaw-face. Fig. 5 is a side view of the instrument provided with a modified construction of jaw-securing device.

Similar reference characters indicate corresponding parts in all the figures of the drawings.

The instrument embodying my invention comprises two separable members pivotally united by means of a detachable joint and provided, respectively, with jaws 1 and 2, which are adapted for approximate parallel relation to transversely compress an arterial canal or analogous part. Said parts are provided, respectively, with a pivot 3, having a cross-head 4 and a bearing 5 for the reception of said pivot and communicating radial notches 6, through which the arms of the cross-head are adapted to pass in uniting the members. When the parts are arranged in

a common or operative plane, the arms of the cross-head lie in the plane of a recess 7, formed in the face of the member 2, whereby pivotal movement of the members may be accomplished without the disengagement thereof. Also stop-shoulders 8 may be arranged, respectively, upon the members for contact when the jaws are spread to the limit of their movement, and the cross-head and radial notches of the joint may be so disposed as to be in alinement when said stop-shoulders are in contact. Also carried by the members are handles or grips 9 and 10, arranged in the plane of the jaws 1 and 2 and extended forward from the joint or in the same direction as the jaws, but spread at a greater interval, whereby said handles or grips combine to form a guard adapted for contact with the flesh around the point of engagement of the jaws to prevent displacement angularly or otherwise of the jaws, and hence to prevent the abrasion of adjacent portions of the body of the patient. Furthermore, a locking device is employed in connection with the instrument for securing the jaws at the desired adjustment, as when an arterial canal is clamped therebetween, and although various forms of locking devices may be employed in connection with the instrument I have illustrated a preferred form in Figs. 1 to 4, inclusive, wherein the member having the handle or grip 9 is provided with a ratchet-faced element 11 for engagement by a tooth or detent 12 on the extremity of the handle or grip 10. The handles or grips, with the attached ratchet element and tooth or detent, are spring-actuated to cause the automatic interlocking of said ratchet element and tooth or detent when the jaws reach the desired adjustment. In the construction illustrated in Fig. 5 the handles or grips are provided with alined eyes 13 and 14, engaged by a set-screw 15. Furthermore, the jaws of the instrument embodying my invention are provided at their extremities with interlocking features consisting of a spur 16 on the jaw 1 to fit in a kerf or seat in the jaw 2, whereby relative lateral displacement of the jaws is prevented, particularly in applying the instrument, said interlocking terminals also serving to prevent a non-abrasive surface when the jaws are in their normal or operative positions.

In order that the tissues may be crushed or abraded at the point which is engaged and compressed transversely by the jaws, I preferably provide the latter with abrasive faces 5 formed by either transversely or longitudinally serrating or toothing the same, the serrations or teeth on the opposing surfaces being arranged to match, whereby the serrations or teeth of one jaw interlock with those of the other. Obviously the function of these abra- 10 sive faces is analogous to the bruising action of instruments employed for torsionally severing arterial and other canals to prevent hemorrhage.

15 The apparatus is adapted to be applied to the umbilical cord close to the cutaneous margin, after which the cord may be cut close to the outer side of the instrument, and after twelve or twenty-four hours all that remains is that portion clamped between the jaws, and 20 this is a dry tissue as thin as paper, which may be clipped off (after the instrument is displaced) to remove every vestige of the cord.

25 The guard formed by the forwardly-extended handles prevents the contact of the jaws with adjacent objects, and thus prevents the instrument from abrading adjacent portions of the flesh of the patient.

30 The detachability of the members of the instrument facilitates a sterilization of the instrument.

35 Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

1. A funis-clamp having pivotal jaws, and a guard surrounding the jaws in a common 40 plane therewith, and consisting of spring members carried respectively by the jaws and provided at their free ends with means for maintaining said members under tension to hold the jaws in yielding contact with the 45 opposite sides of an interposed object, substantially as specified.

2. A funis-clamp having pivotally-connected jaws for engaging and transversely compressing an arterial canal, the same being 50 provided at their free extremities with interlocking elements consisting of a spur on one jaw fitting in a kerf or seat in the other jaw, and resilient members for securing the jaws in an adjusted position, substantially as speci- 55 fied.

3. A funis-clamp having pivotally-connected jaws, provided at their free extremities with interlocking elements consisting of a tapered spur on one jaw fitting in a tapered 60 kerf or seat in the other jaw, and resilient members for yieldingly holding the jaws in an adjusted position, substantially as specified.

In testimony that I claim the foregoing as 65 my own I have hereto affixed my signature in the presence of two witnesses.

MILTON DE WITT POLLOCK.

Witnesses:

F. B. EASTERLY,
W. W. BOGGESS.