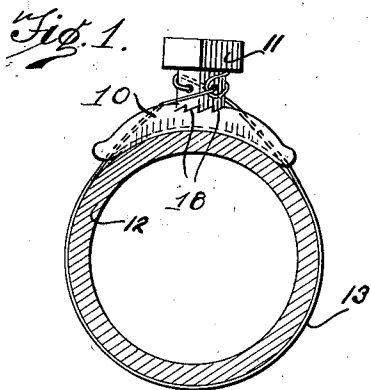
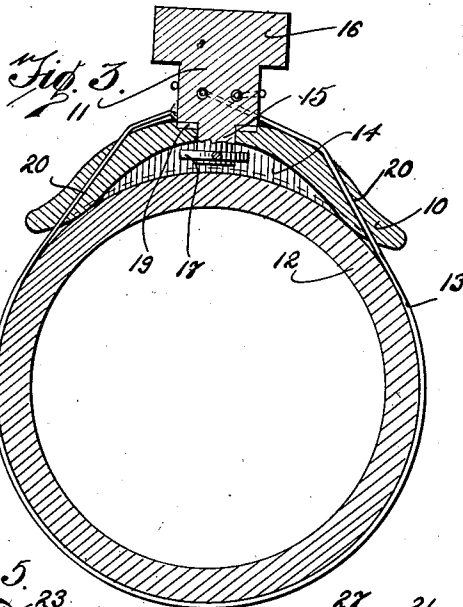
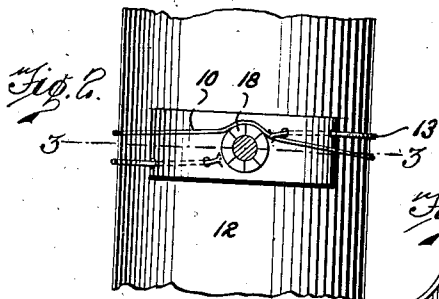
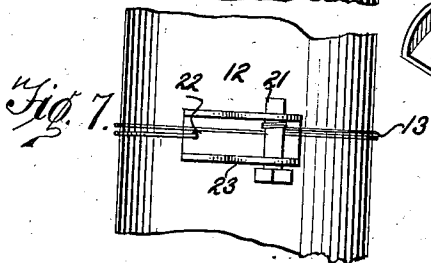
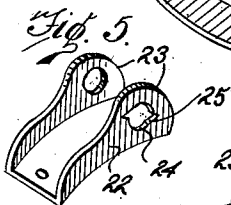
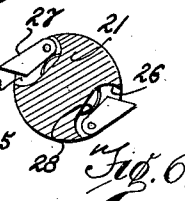
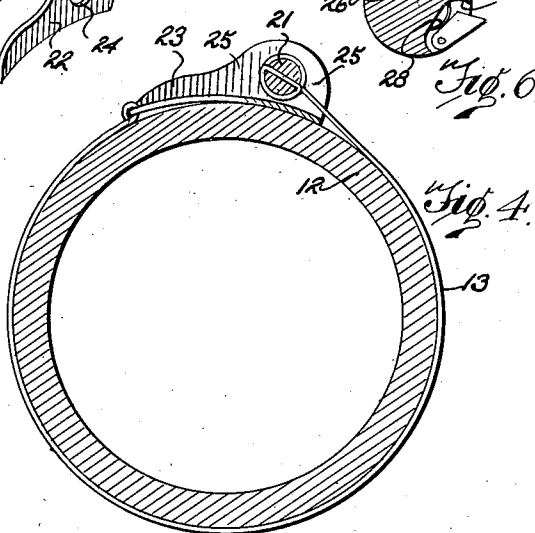
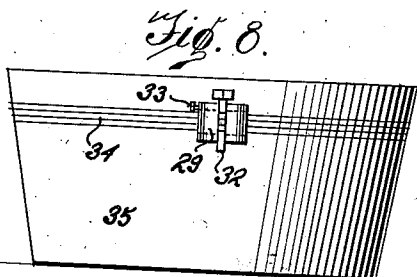
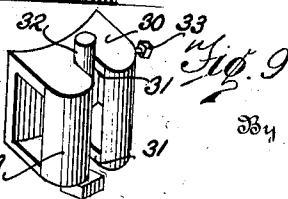


C. A. BROST.
CLAMP.

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1,200,706.

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Witnesses

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CLAMP.

1,200,706.

Specification of Letters Patent.

Patented Oct. 10, 1916.

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To all whom it may concern:

Be it known that I, CHARLES A. BROST, a citizen of the United States, residing at Lemmon, in the county of Perkins and State of South Dakota, have invented certain new and useful Improvements in Clamps, of which the following is a specification.

This invention has relation to certain new and useful improvements in clamps and contemplates the provision of means for connecting the terminals of a wire which has been tightly stretched about the body to be clamped.

A particular object of this invention resides in the provision of means for connecting the terminals of a wire which has been stretched around cylindrical members as hose connections, tubs, barrels or the like, such means to include a block fitted to the member, and means rotatable within the block and engageable with the wire terminals for tightening the wire and being prevented from an unwinding movement by locking association with the block.

A further object of the invention resides in the provision of a clamp of this character which will be of simple construction and operation and composed of the minimum number of parts.

With the above and other objects in view, the invention resides in the novel construction, combination, and arrangement of parts as hereinafter set forth in the specification, pointed out in the claims, and shown in the drawings, in which—

Figure 1 is an elevational view of the clamp as applied to a cylindrical object such as a hose, the object being shown in section; Fig. 2 is a plan of the device illustrated in Fig. 1 with parts shown in section; Fig. 3 is a vertical section on an enlarged scale of the clamp shown in Figs. 1 and 2, said view being taken on substantially the plane of line 3—3 of Fig. 2; Fig. 4 is a similar view but of a slightly modified form of clamp; Fig. 5 is a perspective view of the block employed in the modified form; Fig. 6 is a transverse sectional detail of the pin employed in the block of Fig. 5; Fig. 7 is a plan view of the modified form of the clamp in use; Fig. 8 is an elevational view, showing the application of a third form of the clamp to a tub; Fig. 9 is a perspective view of the third form of clamp.

Referring more particularly to the preferred form of device shown in Figs. 1 to 3, inclusive, it will be seen that the clamp includes a block 10 and a rotatable pin 11 associated therewith. By referring to Fig. 3, it will be apparent that the block is so shaped as to contact with the cylindrical body 12 about which the clamping wire 13 is to be tightened, so as not to injure the body 12 which may be a hose or similar yielding article. A recess 14 is formed in the under face of the block 10 and has extending thereinto through a suitable aperture, the reduced extremity 15 of the rotatable pin 11, the latter being also formed with a squared head 16. Washer means 17 are carried upon the reduced extremity 15 and within the recess of the block, in order to prevent displacement of the pin therefrom, while at the same time permitting some slight play therebetween.

Locking means are associated with the block and pin and include ratchet recesses 18 which are circularly arranged in the exterior side of the block 10 and adapted to coact with teeth 19 formed upon the end of pin 11 at the juncture of the reduced extremity 15 with the main or central portion of the same.

Channels 20 extend through the block 10 for the reception of the wire terminals and apertures are also arranged through the body of the pin 11 for similar purposes. When the wire 13 is applied one end is secured in one of the apertures in the pin 11, the wire threaded through one of the channels 20 and extended around the body 12, over the block 10 and again around the body 12, the last end being threaded in the opposite direction through the remaining channel 20 and then secured in the other aperture in the pin 11.

Rotation of the pin 11 will cause a tightening of the wire 13 which will also react to draw the pin firmly into its seat upon the block, the ratchet recesses 18, in connection with the teeth 19, preventing any retrograde movement of the pin until manually released by disengaging the teeth from the recesses, sufficient play for this release being permitted by the washer 17. The modified form shown in Figs. 4, 5, 6 and 7 embodies the same principles, with the exception that the pin 21 is adapted to be arranged parallel

to the cylindrical member 12 to be clamped. The block 22 permitting this arrangement of the pin includes the side walls 23 formed with registering apertures 24 for reception of the pin 21. One of these apertures 24 has communicating therewith ratchet recesses 25 in the manner clearly illustrated in Fig. 5. Recesses 26 are formed in the body of the pin 21 adjacent the portion resting in the last-mentioned aperture 24 to accommodate the detents 27 pivoted in said recesses 26 and resiliently forced outwardly by leaf springs 28 also positioned in said recesses 26 to force the points of said detents past the surface of the pin 21 and cause said points to automatically engage in the ratchet recesses 26 and thereby lock the pin 27 against rotation in one direction.

In the use of this modified form, one terminal of the wire 13 is secured in a suitable recess provided to receive the same in the end of the block 22 opposite that above which the pin 23 is supported. The wire 13 is then extended around the body 12, over the block 22 and again carried around the body 12, the remaining end of the clamping wire being threaded through a suitable diametrical aperture of the pin 21. The pin may then be rotated to tighten the wire 13 upon the body 12.

The third form of the present invention is illustrated in Figs. 8 and 9 of the drawings and differs from the two forms previously disclosed, mainly in the provision of a set screw in place of the ratchets of the other forms to prevent rotation of the pin in one direction. The block 29 is concaved to fit the cylindrical member, as in the other forms and is provided with side walls 30 which are formed with slots 31 for the reception of the pin 32. Portions of these side walls are connected to opposite sides of the slots 31, as will be readily seen. The set screw 33 is threaded through one of the side walls and is adapted to project into one of the slots 31 for engagement with the pin 32 when the latter is placed therein. The wires 34 which may be clamped by this modified form of the present invention are shown as encircling a tub 35 and passing through the block 30 and the attendant pin 32. Rotation of the pin will obviously tighten the wires 34, retrograde movement of the pin being prevented by the set screw 33.

While the preferred embodiments of the invention have been shown and described, it will be understood that minor changes in the details of construction, and arrangement of parts may be resorted to within the scope of the appended claims without departing from the spirit of the invention or sacrificing any of the advantages of the same.

What is claimed is:

1. In a clamp, the combination of a concaved block, a radially disposed pin rotatably associated with the block, a clamping wire connected with and adapted to be tightened by said pin, and means for locking the pin with said block after tightening of the wire.

2. In a clamp, the combination of a concaved block, a radially disposed pin associated with said block, a clamping wire adapted to be connected at both ends with said pin, channels being formed within the block for the reception of said wire, and means for locking the pin against retrograde movement after a tightening of said wire.

3. A clamp including a block provided with a concaved face, a pin mounted in said block, a clamping wire extending across said block and connected at both ends to said pin, said pin being adapted to be rotated in one direction to wind the ends of the clamping wire thereon and tighten the same and means to prevent retrograde rotation of said pin.

4. In a clamp, the combination of a concaved block, a radially disposed pin rotatably associated with said block, a clamping wire adapted to be connected at both ends to said pin, said block having channels formed therein for the reception of said wire, and an interlocking ratchet means on the block and pin for holding the latter against retrograde rotation after tightening of said wire.

5. In a clamp, the combination of a block provided with a concaved face, said block having a recess formed in its concaved face, a pin rotatably associated with the block, an extension formed on the pin to project into said recess, a clamping wire connected to said pin, and means for locking the pin against retrograde rotation after tightening of the wire.

6. In a clamp, the combination of a block provided with a concaved face and having a recess formed in said face, said block having channels formed therein, a clamping wire extending through said channels, a pin rotatably associated with the block and extending into said recess, means to prevent withdrawal of the pin from the block, ratchet means between the block and the pin to prevent rotation of the pin after tightening of the wire.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES A. BROST.

Witnesses:

WM. C. BROST,
ALBERT E. YAGER.