F. STARR.

CLUTCH CLAMP.

APPLICATION FILED FEB. 24, 1914.

1,139,595. **Patented May 18, 1915.**

Fig. 1.

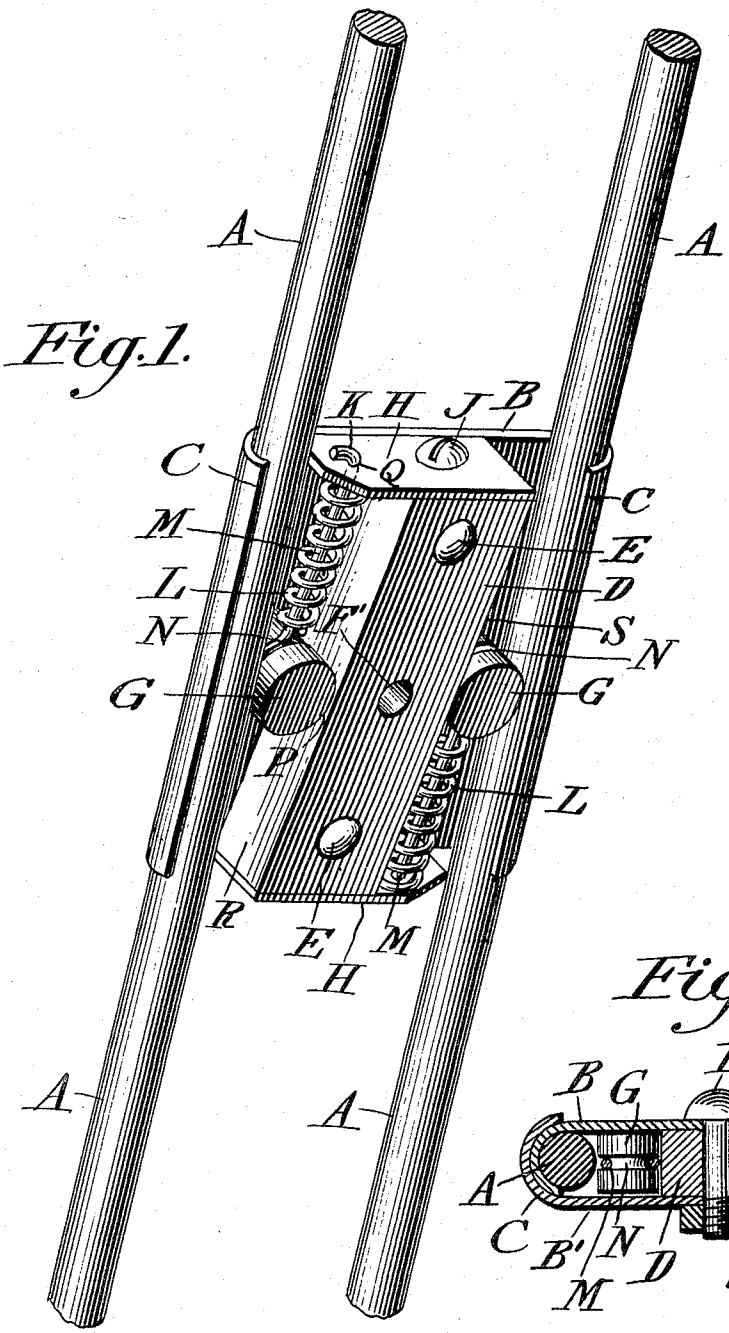


Fig. 2.

Witnesses.

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UNITED STATES PATENT OFFICE.

FRED STARR, OF SACRAMENTO, CALIFORNIA.

CLUTCH-CLAMP.

1,139,595. Specification of Letters Patent. Patented May 18, 1915.

Application filed February 24, 1914. Serial No. 820,546.

To all whom it may concern:

Be it known that I, FRED STARR, a citizen of the United States, residing at Sacramento, in the county of Sacramento and State of California, have invented certain new and useful Improvements in Clutch-Clamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in clamps for clutching cables, ropes, chains, wires or rods, and aims to provide such a device having the novel features of construction, as hereinafter described, and which will not be affected by climatic changes, mechanical failure or neglect of the operator.

The invention is illustrated in the accompanying drawing, in which:—

Figure 1 represents a clamp constructed in accordance with the invention, the outer casing of the same being removed to show the interior mechanism; and Fig. 2 is a horizontal sectional view taken on the center line of Fig. 1.

Referring to the drawing, in which the clamp is illustrated as applied to cables A, it will be seen that the clamp proper comprises a rear casing B having curved lateral edge portions C to accommodate the cables A. Secured to the casing B is a rectangular block D, preferably held in position by rivets E, E, and so disposed with respect to the casing as to present inclined surfaces R and S to the cables or other objects to be clamped. A bolt-hole F′ is provided in the body of the block to accommodate a bolt F (Fig. 2) by means of which a front casing B′ can be applied to the clamp, the nut S′ coöperating with the bolt F serving to retain the casing B′ in position. The said front casing B′ also has curved lateral edge portions adapted to overlie the corresponding curved edge portions of the rear casing B. The lateral walls of the casing are, therefore, of double thickness, as clearly shown in Fig. 2, and are, therefore, reinforced where it is desirable to have the casing of extra strength. Coöperating with the inclined surfaces R and S are two rollers G supported from plates H secured to the top and bottom of the block D, respectively, by means of the screws J. Each roller G may be supported in its proper relation by any suitable means, that illustrated taking the form of a wire M looped at one end, which engages in a groove N provided in the roller G. The other extremity of the wire M is passed through a perforation Q in the plate H and is bent, as shown at K, to prevent slipping of the wire M through the perforation in the plate. Each roller is spring-pressed by a spring L, preferably conical in shape, which tends to hold the roller G in its farthest position up the incline. The springs L and rollers G may be readily removed by loosening the nut S, removing the front casing B′, and loosening the screws J which permits the plates H to be removed.

In order to apply the clamp to the cables A, or other objects to be clutched, both of the springs G are compressed, thereby permitting the cables A to readily slip into the position shown in the drawing. When the strain is applied to the cables, each roller G, G will wedge between its inclined plane and the adjacent cable, thereby firmly gripping the cable and preventing further slipping of the same relative to the clamp.

It is obvious that numerous changes and modifications can be made in the details of construction, without departing from the spirit or scope of the invention, as defined in the accompanying claims.

What I claim is:—

1. A clamp of the character described, comprising a casing, a centrally located element associated therewith and presenting at each side thereof an inclined surface, said surfaces being inclined in the same general direction, and a roller interposed between each inclined surface and the adjacent portion of the casing.

2. A clamp of the kind described, comprising a casing having curved lateral walls to accommodate the cables or the like to be clamped, a block disposed within the casing and presenting inclined surfaces to the cables or the like when the clamp is applied to the same, and rollers associated with the clamp and disposed between the inclined surfaces and said lateral walls and adapted to be engaged by the cables or the like and wedged between the same and the inclined surfaces when strain is applied to the cables.

3. A clamp of the kind described, comprising a rear casing having curved lateral edge portions adapted to accommodate cables or the like to be clamped, an element secured to said casing and presenting oppositely disposed inclined surfaces to said

curved edge portions of the casing, rollers adapted to coöperate with said inclined surfaces and so disposed as to engage the cables or the like when the clamp is applied to the same, and a front casing adapted to be applied to the clamp having curved lateral edge portions adapted to overlie the corresponding curved portions of the first-named casing to thereby reinforce the casing adjacent the cables.

4. A clamp of the kind described, comprising a casing, an element associated therewith presenting oppositely disposed inclined surfaces to the objects to be clamped, rollers coöperating with said surfaces and so positioned as to be engaged by the objects to be clamped when the clamp is applied to the same, and springs tending to hold said rollers in their farthest positions up their respective inclines.

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

FRED STARR.

Witnesses:
A. M. AUBERTUS,
WM. B. THOMAS.