O. S. PROCTOR.

CABLE CLAMP.

APPLICATION FILED APR. 27, 1915.

1,269,507. Patented June 11, 1918.

Fig. 1.

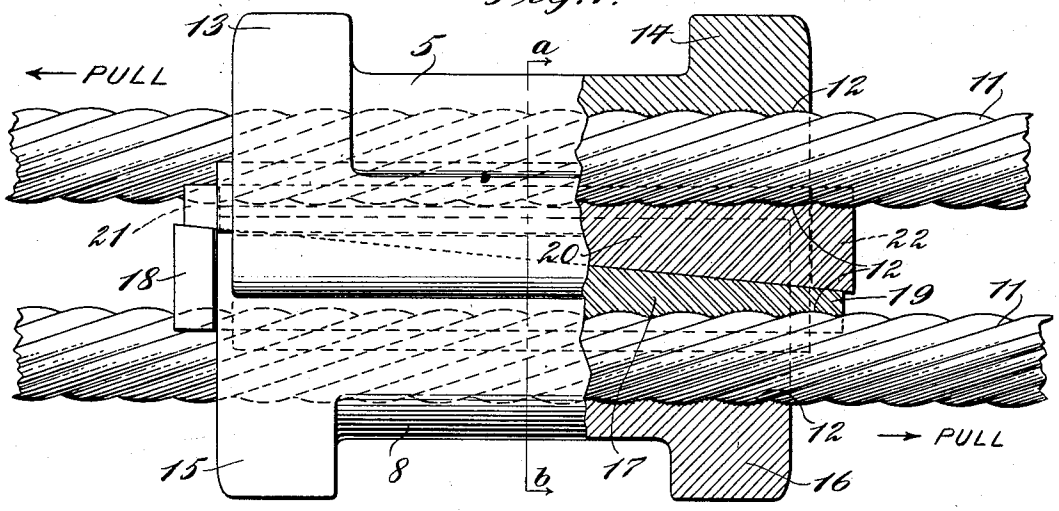


Fig. 2.

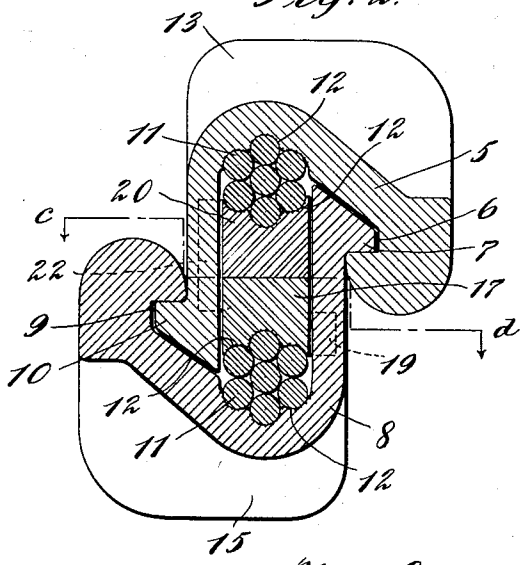
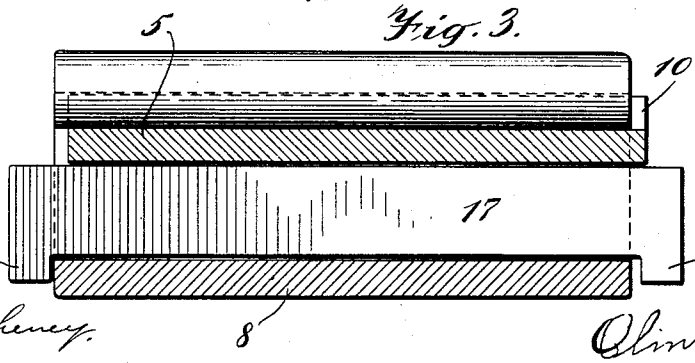


Fig. 3.



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UNITED STATES PATENT OFFICE.

OLIN S. PROCTOR, OF NEW YORK, N. Y.

CABLE-CLAMP.

1,269,507. Specification of Letters Patent. Patented June 11, 1918.

Application filed April 27, 1915. Serial No. 24,339.

To all whom it may concern:

Be it known that I, OLIN S. PROCTOR, citizen of the United States, and resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Cable-Clamps, of which the following is a specification.

This invention relates to cable clamps in which the clamping or gripping of the cable is produced by wedges moving in the direction of the pull on the cable.

The preferred type herewith shown and described comprises two shells of identical shape and two wedges which are identical except that the lugs for engaging the shells are right and left.

Each shell is formed for a certain size cable in the bottom, and has a lip on one side and a corresponding groove on the other, so when one shell is turned over the lips and grooves are in operative position.

The purposes of this invention are:

1. To produce a clamp that can be quickly applied and removed;

2. To make a clamp that grips the cable in proportion to the force applied to the cable;

3. To make a clamp having a large bearing surface so that the cable will not be deformed or marred and break from uneven strain on the strands;

4. To make a clamp with extra hard and rough surface engaging the cable by incorporating an abrasive material in the cable surface of the shell or wedge.

The superiority of this clamp over the U-bolt clips and bolt clamps in common use will be more clearly shown in the detail description and description of operation.

Figure 1 is a side elevation and a sectional view of the clamp assembled with cables;

Fig. 2 is a sectional view on line *a—b* of Fig. 1;

Fig. 3 is a plan view on line *c—d* of Fig. 2.

The shell 5 has a groove 6 formed on one side to engage the lug 7 formed on the shell 8. On the other side, the shell 8 has a groove 9 formed to engage the lug 10 formed on the shell 5. The inside bottom of the shells 5 and 8 are formed to fit any cable 11 with which they are intended to be used, and the parts of the shells engaging the cable are provided with extra hard rough surfaces by incorporating abrasive material 12 in the composition of the shells, 5 and 8. When the shells are made of castings this may be done by coating the core with suitable abrasive material. When the shells are forged, high carbon crushed steel may be pressed into the surface while hot and quickly cooled to retemper the high carboned crushed steel. The shell 5 is provided with lugs 13 and 14, the shell 8 with lugs 15 and 16; these lugs are to stiffen the shells and to afford striking surface for driving together or separating.

The wedge 17 is formed to fit the cable on one side and is provided with lugs 18 and 19 to engage the wall of the shell 8, likewise the wedge 20 is provided with lugs 21 and 22 to engage the wall of the shell 5. The cable surfaces of the wedges 17 and 20 are also treated with abrasive material 12.

The operation of this clamp is as follows:

The operator takes one shell in the left hand with the grooved side next the thumb; stands facing, with the direction of pull on the first cable, which is placed in this shell; he then drops the wedge on top of the cable with the lugs straddling the straight wall of the shell, and the thin end of the wedge is pointed forward; we may call this the right hand wedge as the lugs look to the right. Next the left hand wedge is laid back down on the cable already in place, with the thin end pointed toward the operator and resting on the point of the right hand wedge, then the other cable is laid and pressed down by the left thumb of the operator while with his right hand the other shell is dropped down over the top cable and wedge with the straight wall between the lugs of the wedge; then with a shell, wedge and cable assembled in each hand the lugs and grooves of the shells are brought into operative engagement and the shells forced together as far as possible by hand, and then driven home by holding a heavy hammer against one shell and driving the other into it. The clamp is removed by driving the shells, which each carry a wedge and cable, in the opposite direction from assembling.

It will be observed that any further relative movement of the cables in this clamp tends to pull the thick ends of the wedges closer together, thereby clamping the cable tighter; this tightening effect is operative until the cable slips between the shell and

wedge, hence it is important that the cable surfaces of the shell and wedge be hard and rough.

I claim:

1. A clamping device comprising opposing relatively slidable shell members each having a guide and slide in operative relation one with the other, each shell having a cable receptacle adapted to receive a cable therein, two wedges each with one surface conformed to the cable, and means whereby each wedge is caused to move with the shell encompassing the cable thereby to grip the cable as pull is exerted thereon.

2. A clamping device comprising opposing relatively slidable and separable shell members, means maintaining said shell members against lateral separation, each shell member having a groove formed therein adapted to receive a cable, a pair of wedges, each adapted to grip said cable and in operative relation with the wedge of the opposing shell.

3. A clamping device comprising opposing relatively slidable and separable shells, means maintaining said shells against lateral separation, each shell having an internal cable groove formed to receive a cable therein, and a pair of wedges, each one operating in conjunction with said shell and the cable therein adapted to grip the cable as pull is exerted.

4. A clamping device comprising opposing relatively longitudinally slidable and separable shell members having grooves, means formed therewith to resist lateral separation, said grooves being adapted to receive two opposed tension members, and a pair of wedges interposed between the tension members and walls of said shell members.

5. A clamping device comprising opposing relatively longitudinally slidable and separable concave shell members formed to resist lateral separation and adapted to retain two opposed tension members therein internally and a pair of wedges interposed between the tension members, and means whereby each wedge of the pair is caused to move with the shell inclosing the cable.

Signed at New York, in the county of New York and State of New York, this 24th day of April, A. D. 1915.

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Witnesses:
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