Nov. 26, 1929. C. S. THOMAS 1,736,807

CABLE CLAMP

Filed April 25, 1927

Fig.1

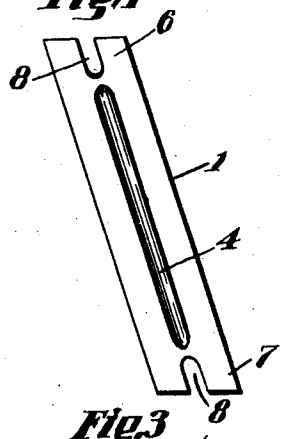


Fig.2

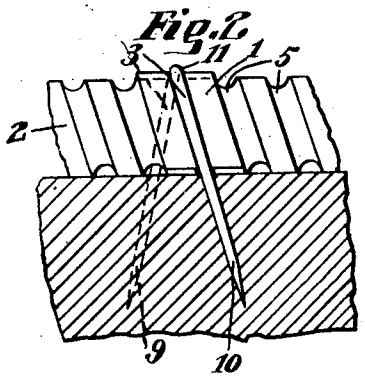


Fig.3

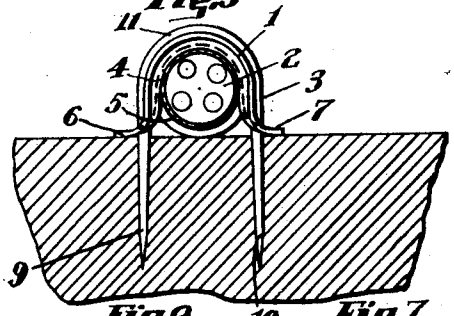


Fig.5

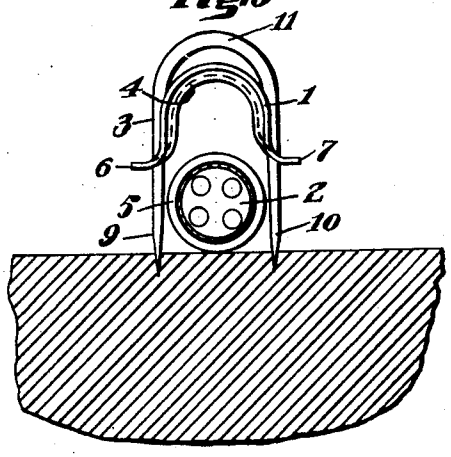


Fig.9

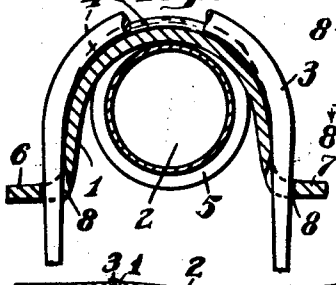


Fig.7

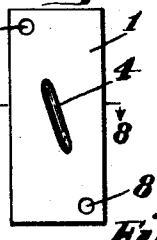


Fig.6



Fig8



Fig.4

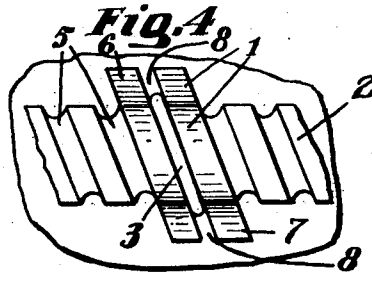
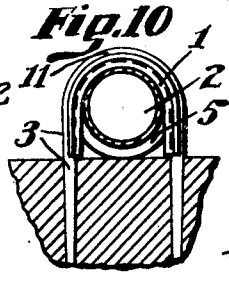


Fig.10



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UNITED STATES PATENT OFFICE

CLIFFORD S. THOMAS, OF GORHAM, MAINE

CABLE CLAMP

Application filed April 25, 1927. Serial No. 186,346.

This invention relates generally to a securing or clamping means for positioning a cable, and relates more particularly to a means for clamping a cable having a groove in the periphery thereof such, for example, as a cable used in the electrical art and therein commonly referred to as "B. X." This is an armored cable having a spiral groove in the surface thereof, and, for brevity, this cable will be referred to as illustrating the conveniences and advantages of the present invention.

Certain type of clamps heretofore employed for cables of the above type have not been entirely satisfactory because it was necessary to use a plurality of screws or other fastenings to secure the clamp in position over the cable. It was somewhat difficult to hold the clamp in proper position relative to the cable while the fastening member was being inserted and the cable, slipping freely through the clamp, made it difficult to prevent slack places between clamps.

One of the objects of my invention is to provide an improved clamp that will securely hold a cable of the grooved type in proper position against longitudinal displacement.

A further object is to provide an improved clamp for an armored cable of the grooved type in which a member of a staple type is provided.

A further object is to provide a clamping means for a grooved armored cable comprising a guard member having a depressed grooved portion adapted to fit within the groove of the cable when in clamping position, a staple being also provided to cooperate with the guard, the prongs of said staple being spaced a sufficient distance and being of such a length as to permit the cable, when the staple is partially driven in a support, to be freely drawn through the legs of the staple while the guard or clamping portion is held in the closed portion of the staple.

One selected embodiment of my invention, for purposes of illustration, has been shown in the accompanying drawings and described in the following specification.

In the drawings:

Fig. 1 is a top plan view showing the cap body portion of the clamp in flattened position.

Fig. 2 is a view, partly in section, showing the relative arrangement of the parts when the staple is driven all the way in and the clamp is securely holding the armored cable in position.

Fig. 3 is a section taken transversely of the cable of Fig. 2.

Fig. 4 is a top plan view of Fig. 2.

Fig 5 is a view showing the relative positions of the parts when the staple is partially driven into a support temporarily and shows the cap body portion of a clamp spaced from the cable so that the armored cable is free to be drawn between the legs of the staple.

Fig. 6 is a diagram showing the manner in which a length of cable may be secured to a support, and shows a number of the cable clamps temporarily positioned to permit the sagging cable to be drawn freely through the legs of the temporarily positioned staple in order to take up the slack in the cable.

Fig. 7 is a developed plan of a modified form of a cap body portion of the clamp, showing a recess of limited length adapted to engage only one side of the armored cable.

Fig. 8 is a section taken on the line 8—8 of Fig. 7.

Fig. 9 is a section through the cable showing the relative position of the various parts of the modified form, and showing particularly that the side portion of the cap body portion of the clamp is spaced from the cable, the clamp engaging only one side of the cable to prevent movement.

Fig. 10 is a view of the clamp with the apertured bent ends omitted.

As shown, the clamping means comprise in general a guard or cap 1 adapted to span or fit over the armored cable 2, and a staple 3, preferably U shaped.

The cap and guard 1 is provided with a depressed or grooved portion 4 extending longitudinally of the cap between the sides thereof, said grooved portion being adapted

to fit within the groove 5 of the cable when the staple and cap are brought into securing position on the cable.

The grooved portion 4 of the cap is disposed diagonally in order to follow the trend of the helical groove of the cable armor. The cap or guard 1 is bent to conform to the cylindrical or tubular shape of the cable. The ends 6 and 7 of the cap are preferably bent outwardly and are apertured as at 8, adapted to receive prongs 9 and 10 of the staple. If desired, the apertured outwardly bent ends may be dispensed with for purposes of economy in manufacture; the clamp would then appear as shown in Fig. 10.

The head or arched portion 11 of the staple lies within the grooved or depressed portion of the cap 1 when the staple is driven into the support the full distance permitted by the length of the prongs 9 and 10. The apertures 8 in the bent end portions of the cap are so placed as to separate the prongs of the staple a sufficient distance to permit the cable to be drawn between the prong portions of the staple when the points of the prongs have been partially driven in the support to provide a temporary positioning means for the cable. The relative arrangement of the parts in the above position are shown in Fig. 2. Such an arrangement is of advantage as it permits the cable to be freely drawn through the prongs of the staple in the partially driven position. In order to permit the drawing of the cable between the prongs of the staple, it will, of course, be necessary for the cap portion to be moved to a position in which the depressed groove 4 does not engage the groove of the cable. It may be desirable to utilize the above feature, where it is necessary to temporarily secure a long run of cable in position and, at a later time, to take up any slack portion of the cable when it is desired to permanently secure the cable in position.

A modified form of clamp is shown in Figs. 7, 8, and 9. In the modified form, the diagonally disposed recess or groove 4 is of limited length and is adapted to engage only one side of the cable. The side portions of the cap body portion of the clamp are not provided with the groove or recess portion so that the cable is free to be withdrawn between the legs of the staple and side portions of the cap when the cap is moved a distance sufficient to remove the depressed portion 4 from the groove of the cable.

As shown in Fig. 5, in order to permit the cable to be drawn through the legs of the staple, the clamp is moved substantially free of the cap because in this construction, the grooved portion 4 of the cap extends along the side portions of the cap.

As shown in Fig. 7, the apertures 8 in the cap, adjacent the ends thereof for receiving the legs of the prong, are closed as distinguished from the slotted form shown in Fig. 1. One advantage of the closed type of aperture for receiving the legs of the prong is that it serves to hold the side portions of the body cap portion in proper spaced relation.

While one preferred form of the invention has been shown, various changes and modifications may be made by those skilled in the art without departing from the spirit and scope of the invention.

What I therefore claim and desire to secure by Letters Patent is:

A fastening for an armored cable having a spiral surface grooving, comprising a staple member and a bowed guard member having a rib extending throughout the connecting and leg portions of the bowed guard, and the rib being disposed with the convex side of the rib inward and its concaved side outward so as to receive the staple when disposed over the guard, said rib serving as a guide for prongs of the staple preventing relative lateral movement between the guard and the staple, independent of other means, the rib in the bowed portion of the guard cooperating with the grooved cable to prevent relative longitudinal movement between the guard and cable while the staple is being driven to final fixed position.

In testimony whereof I affix my signature.

CLIFFORD S. THOMAS.