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CONDUCTOR CLAMPING MEANS

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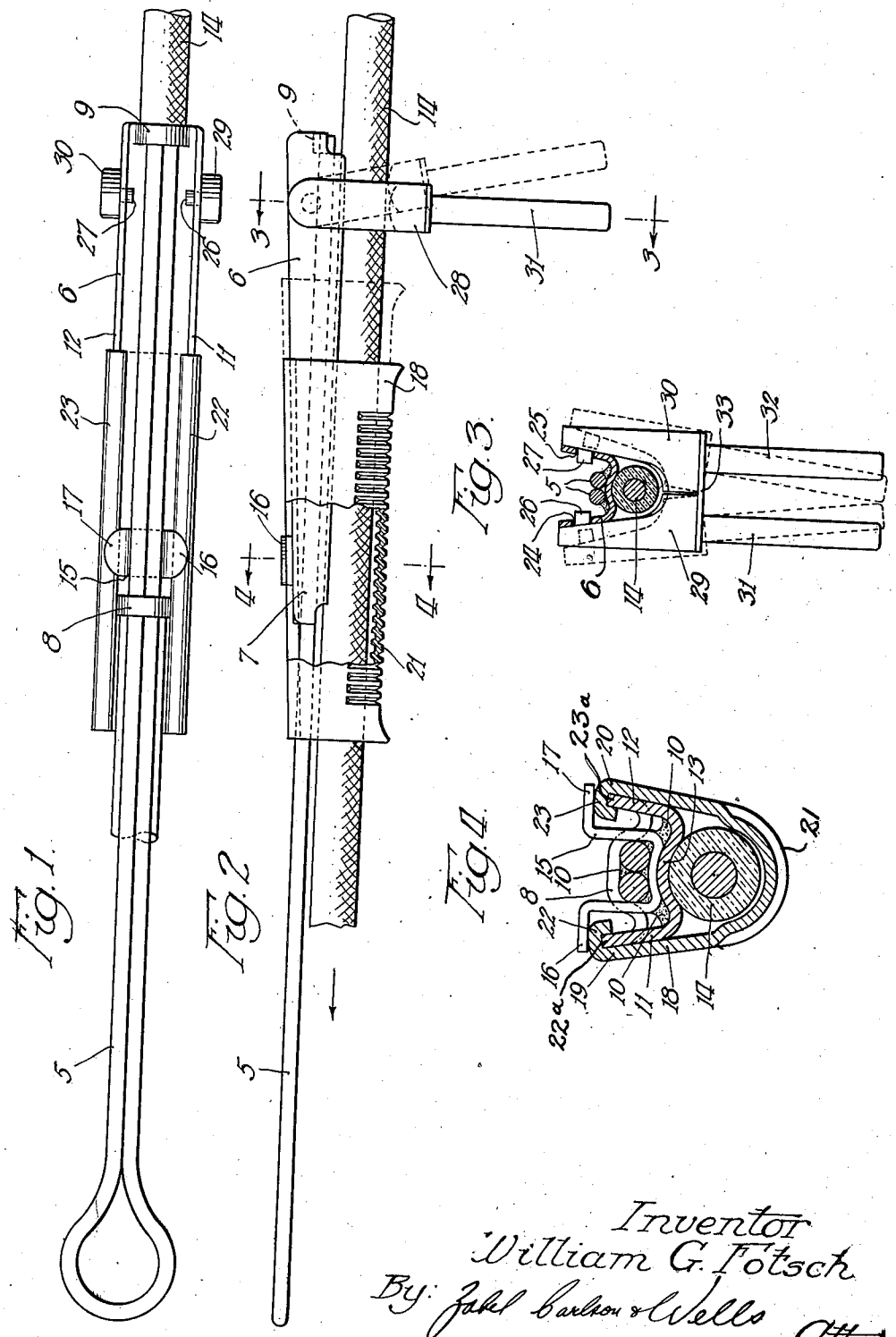


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

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CONDUCTOR CLAMPING MEANS

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2 Claims. (Cl. 24—136)

This invention relates to clamping means for electrical conductors and is particularly adaptable for the mounting or suspending of conductors on a pole or wall where the conductor is to be drawn up taut and held by the clamp.

The invention is shown as applied to a clamp in which there are two separable parts adapted to receive a conductor or cable therebetween. Heretofore in the use of these clamps, the lineman has always encountered difficulty in holding the cable and applying the two clamping members. One of the members has means to secure it to a support and owing to the difficulty of holding the cable, it has been the practice of the lineman to estimate the necessary cable length and cut it off before he attaches it to the clamp. With the present device the lineman can temporarily attach and draw up the cable without difficulty so that it is possible to handle the cable from the reel until he fastens it in the clamp. He can then cut the cable to accurate length which means a saving of cable.

It is the purpose of the invention to provide a device of this character in which a lineman can temporarily connect the clamp to the conductor in such a fashion as to maintain the parts of the clamp assembled with the conductor free to move in the clamp. Thereafter, he can tighten the conductor by feeding it through the clamp without danger of causing the parts of the clamp to separate and with assurance that he will finally clamp the wire tightly at the point desired.

I will describe the preferred form of the invention by reference to the accompanying drawing. It is to be understood, however, that the description and drawing are illustrative only and are not to be taken as limiting the invention except in so far as it is limited by the claims.

In the drawing—

Fig. 1 is a plan view of a clamp embodying the invention;

Fig. 2 is a side view with parts broken away of the clamp;

Fig. 3 is a sectional view on the line 3—3 of Fig. 2; and

Fig. 4 is a sectional view on the line 4—4 of Fig. 2.

Referring now in detail to the drawing, the clamp consists of an attaching portion or loop 5 which is adapted to be secured to a pole or wall by any suitable means. The wire loop 5 is secured by soldering or brazing to a gripping jaw 6 which is tapered, as shown, with its small end 7 toward the free end portion of the loop 5. The jaw 6 has a pair of loops 8 and 9 struck-up at its opposite ends, and the wire loop 5 is threaded through these loops 8 and 9 and intimately connected with the jaw 6 by means of solder as indicated at 10. The shape in cross section of the jaw 6 is substantially a U-shape with the side flanges 11 and 12 diverging as they extend from the base 13. The base 13 is concave slightly to better fit a conductor 14 which is to be gripped by the clamping device.

The jaw 6 also has a guiding device 15 fixed thereon. This device is a U-shaped strip of metal having horizontally extending flanges 16 and 17 that are spaced from the upper edges of the side flanges 11 and 12 to permit the insertion of a cooperating clamping member 18 between the flanges 16 and 17 and the adjacent edges of the flanges 11 and 12. The wire 5 passes over the base of the device 15, and this device is held in place by the solder 10.

The clamping member 18 is U-shaped with diverging side walls 19 and 20, and, like the jaw 6, this member tapers in depth so that, if it is moved to the right from the position shown in Fig. 2 along the jaw 6, the result is to bring its roughened or corrugated base 21 up against the bottom of the conductor 14 to produce a clamping action. The turned over upper edges 22 and 23 of the side walls 19 and 20 cooperate with said side walls to form two grooves 22*a* and 23*a*. The grooves 22*a* and 23*a* act as guides to guide the clamping member 18 along the jaw 6.

At its large end, the jaw 6 is provided with apertures 24 and 25 which apertures are adapted to receive pins 26 and 27 upon an auxiliary releasable clamping device 28. The clamping device 28 has a pair of jaws 29 and 30, each of which carries a hand piece 31 and 32. The jaws 29 and 30 can be spread apart at their upper ends by pressing the hand pieces 31 and 32 toward each other because of the fact that the jaws are connected merely by a spring strip 33. The clamping device 28 is utilized solely for the purpose of temporarily holding the conductor 14 to the jaw 6 when a tightening of the conductor is being accomplished.

As an example of the operation of the device, let us assume that the wire loop 5 is hooked to a post in any suitable fashion, and the loose conductor 14 is placed in the member 18 after which the member 18 is started on the jaw 6 far enough to have the flanges 16 and 17 engage the top portions 22 and 23. The clamping device 28 is then placed in position around the conductor 14 with the projections 26 and 27 in the apertures 24 and 25.

The lineman can now grasp the clamp part 18 in his hand, and, with the other hand, he can feed the conductor 14 to the left in the direction of the arrow shown in Fig. 2 step by step until it is as tight as desired. Each time he releases the conductor 14 to obtain a new grip, the clamping device 28 will grab the conductor by swinging from the full line position shown in Fig. 2 to the dotted line position. In this fashion, the conductor is tightened up to the proper tension, and then the lineman can shove the clamping member 18 to the right on the jaw 6 until it firmly grips the conductor at which time he can release the clamping device 28 and leave the clamp parts 6 and 18 in position. The clamping device 28 is used with all of the clamping devices 6 and 18 and merely serves as a temporary clamping attachment for the permanent clamp.

It will be noted that, when the clamping jaw member 18 is in the position shown in Fig. 2 and before it is moved to the right into final clamping position, the guide member 15 holds the gripping part 21 of the member 18 away from the gripping part 13 of the jaw 6. This permits the conductor 14 to move freely between the gripping parts 13 and 21 while it is being tightened.

From the above description, it is believed that the construction and operation of this device will be readily apparent to those skilled in this art.

Having thus described one specific form of the invention, what I claim as new and desire to secure by Letters Patent is:

1. A conductor clamping device of the character described comprising an inner clamping jaw member having side flanges which increase in width from one end toward the other thereof, a mounting member carried by said jaw for mounting the jaw upon a support, an outer U-shaped clamping jaw member having side flanges provided with grooves adapted to receive the side flanges of the first named jaw whereby to telescope the two clamping jaw members, said inner jaw member having guide means overlying said grooved side flanges whereby to hold the two clamping jaw members together in position to receive a conductor freely therebetween.

2. A conductor clamping device of the character described comprising an inner clamping jaw member having side flanges which increase in width from one end toward the other thereof, a mounting member carried by said jaw for mounting the jaw upon a support, an outer U-shaped clamping jaw member having side flanges provided with grooves adapted to receive the side flanges of the first named jaw whereby to telescope the two clamping jaw members, said inner jaw member having guide means overlying said grooved side flanges whereby to hold the two clamping jaw members together in position to receive a conductor freely therebetween, said guide means comprising a U-shaped member fixed to the inner jaw member between its side flanges, and having outturned flanges overlying and spaced from the side flanges of the inner jaw member.

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