May 16, 1939. W. H. KOCH 2,158,128

FENCE TOOL

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FIG 1

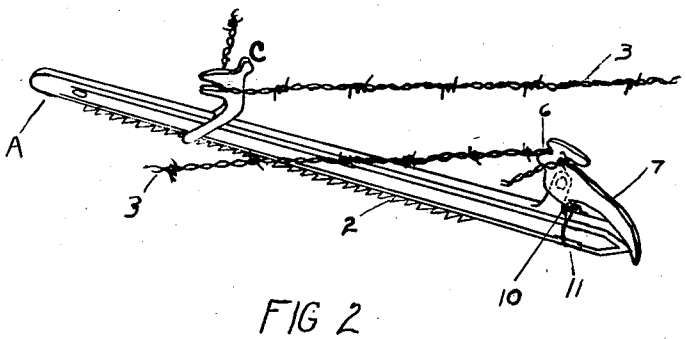


FIG 2

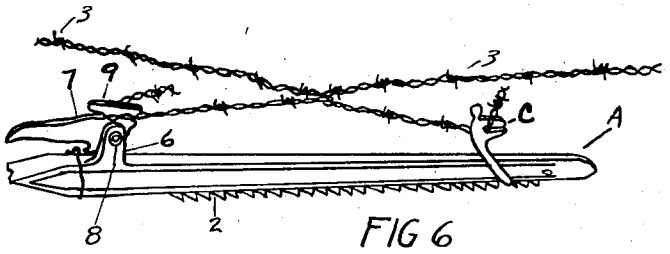


FIG 6

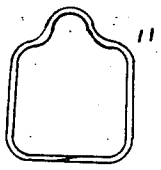


FIG 5

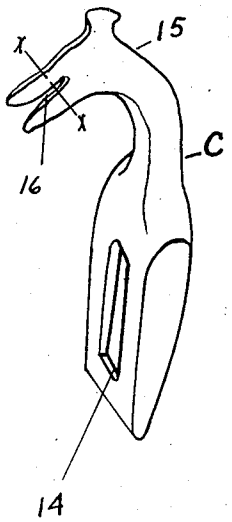


FIG 3

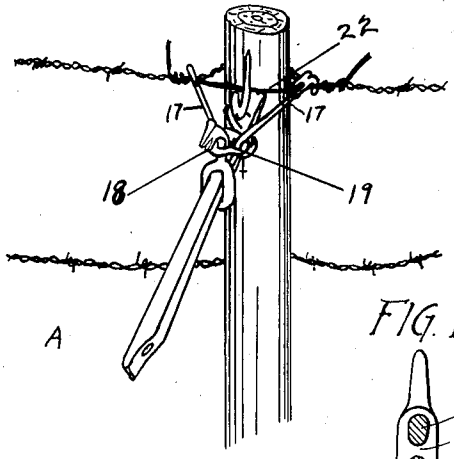


FIG 4

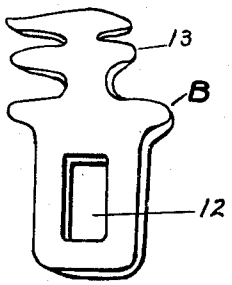
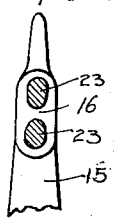


FIG. 10.



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FIG 7

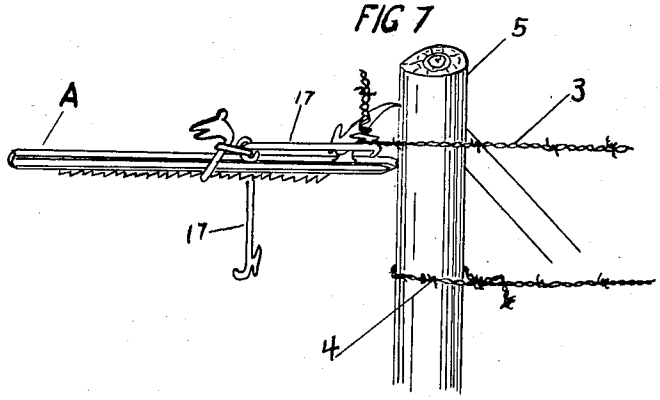


FIG 8

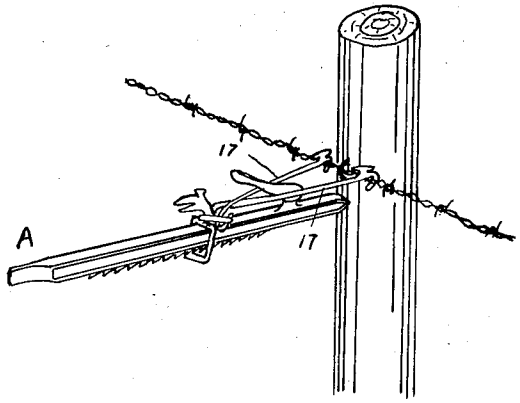
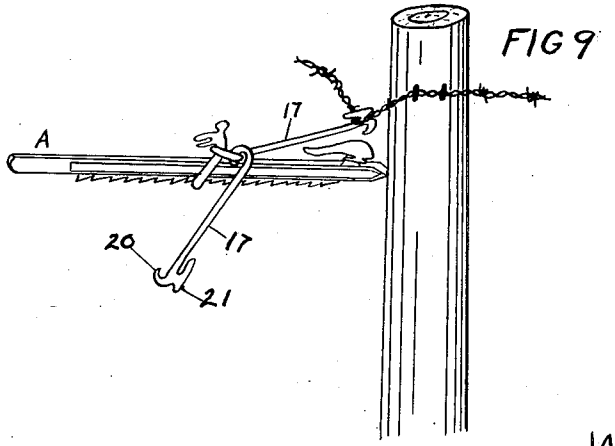


FIG 9



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UNITED STATES PATENT OFFICE

2,158,128

FENCE TOOL

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Application January 21, 1938, Serial No. 186,126

3 Claims. (Cl. 140—123.5)

The present invention relates to devices designed for different operations in connection with a wire fence, as in splicing the wire, taking up slack in the wire, pulling staples, etc.

An object of the invention is to provide a device which will be particularly strong and effective in performing these different operations, and that will be particularly easy of manipulation.

This and other features of the invention will be more specifically brought out in the following description and the accompanying drawings, wherein:

Figure 1 is a view in perspective of the device shown in use in the first stage of a wire splicing operation.

Figure 2 is a view in perspective with the device in the second stage of a wire splicing operation.

Figure 3 is a side view of the device shown in position in connection with a fence supported wire in connection with a stretching operation of the wire.

Figure 4 is a view of a wire holding horn forming a part of the device.

Figure 5 is a view in detail of a modified form of the device.

Figure 6 is a view in detail of locking means for a lever forming part of the device.

Figure 7 is a view in side elevation of the device shown in connection with the wire fence and supported pole for drawing the wire taut.

Figure 8 is a view similar to Figure 7 showing the device in position for initial grasping of the same upon opposite sides of a supporting staple;

Figure 9 is a view of the device when in twining position in connection with a post supporting wire; and

Figure 10 represents a cross section of Fig. 5 along the line X—X.

Referring to the drawings in detail, A represents the main bar or lever of the device, formed on its under side with serrated teeth 2. The device is adapted for use with the fence wires 3, ordinarily supported by staples 4 upon posts 5.

The forward end of the bar A is formed with an upwardly projecting lug 6 a short distance rearwardly of the extreme of the front end of the bar, a forwardly projecting cam lever arm 7 having fulcrum support 8 on said lug. The cam lever arm 7 is formed with a finger 9 extending forwardly over said arm from a point above and at the rear of the fulcrum of the cam lever to form a wire clinching jaw portion. The lever 7 is formed with a finger 10 on its under side, permitting a locking ring 11 to be slipped over the end of the bar A, and said finger to hold the lever arm 7 down toward the bar and finger 10, as shown in Figure 1, to hold the lever arm in wedging engagement with the wire. Slidable upon the bar and adapted to be held in adjusted position on said bar by the teeth 2 is a wire engaging horn B or C, as shown in detail in Figures 4 and 5.

In the form shown in Figure 4, the horn is formed with an opening 12 for receiving the bar and the upper end of the horn is formed with laterally projecting fingers 13 forming a wire clinching jaw portion. The openings between said fingers are adapted to receive the end of the wire wound around the horn to clamp the wire.

In the modified form of horn C, shown in Figure 5, the horn is formed with an opening 14 in its lower end to receive the bar, the forwardly bent upper end 15 of the horn being formed with a notch 16 to receive the wire, as shown in Figure 1. The two forms of horn shown in Figures 4 and 5 operate upon the same principle in holding the end of the wire, except that in the form shown in Figure 5 it becomes easier to clamp the wire within the slot 16 formed by the jaws 23 without winding the wire around the horn.

Co-operating with the device and forming a part of the same in operation, as hereinafter set forth, are grab arms 17, said grab arms at their inner ends having swivel support upon a plate 18, which plate 18 is formed with an opening 19 to receive the horn. The free ends of the grab arms are formed with hooks 20 and 21 to interlock with the wire in certain operations of the device, as illustrated in Figures 9 and 10.

In operation, in the use of the device for splicing, as illustrated in Figures 1 and 2, the ends of the wires to be spliced will be, respectively, clamped in the lever 7 and horn B or C, as is being used, with the lever arm 7 clamped down between the loop 10 and the horn properly positioned on the bar, as shown in Figure 1. The device is then turned to intertwine the ends of the wire, as shown in Figure 2, and the extreme ends of the wire twisted around the adjacent portions of the wire to tie the ends of the wire together. In completing the splicing operation the device may be released from the intertwined ends of the wire and the ends of the wire held together by the operator in the winding operation of the ends of the wire around the remainder of the wire.

As illustrated in the drawings, the device is adapted to be used as a splicer, a slack taker, a staple puller, or a stretcher.

For instance, as shown in Figure 3, the grab arms 17 are employed and with the device in position, as shown, against the post and the grab arms hooked over the wire of the fence, the wire may be pulled taut to permit the passing of an anchoring wire 22. As shown in Figure 7 the device may be positioned against a post, as a corner post, and one of the grab arms clinched with the wire to draw the wire taut and permit stapling.

As is shown in Figure 7 the pull will be from the center of the post, preventing turning of the post.

In Figure 8 the device is shown positioned against the post with the two grab arms hooked over the wire on opposite sides of the staple, making an effective staple pulling tool.

I claim:

1. A wire splicing tool comprising a main lever bar having its front end adapted to be placed against the fence post, said lever bar having ratchet teeth along its lower edge, a forwardly projecting cam lever fulcrumed on the front end of said bar, a finger extending forwardly over said arm from a point above and at the rear of the fulcrumed support of said cam lever to form a wire clinching jaw portion, a horn adjustably slidable upon the main lever bar and projecting above the bar and a rearwardly projecting wire clinching jaw portion carried by the upper portion of said horn.

2. The structure specified in claim 1, and means carried by the under side of the post engaging arm of the cam lever engageable by a locking member carried by the lever bar below said arm, for the purpose set forth.

3. The structure specified in claim 1, and a finger carried by the under side of the post engaging arm of said cam lever, and a locking ring carried by the main lever bar below said arm and interlocking with said finger, for the purpose set forth.

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