

Dec. 8, 1931.

D. CORNE ET AL

1,835,204

WIRE WRAPPING TOOL

Filed March 31, 1931

2 Sheets-Sheet 1

Fig. 1.

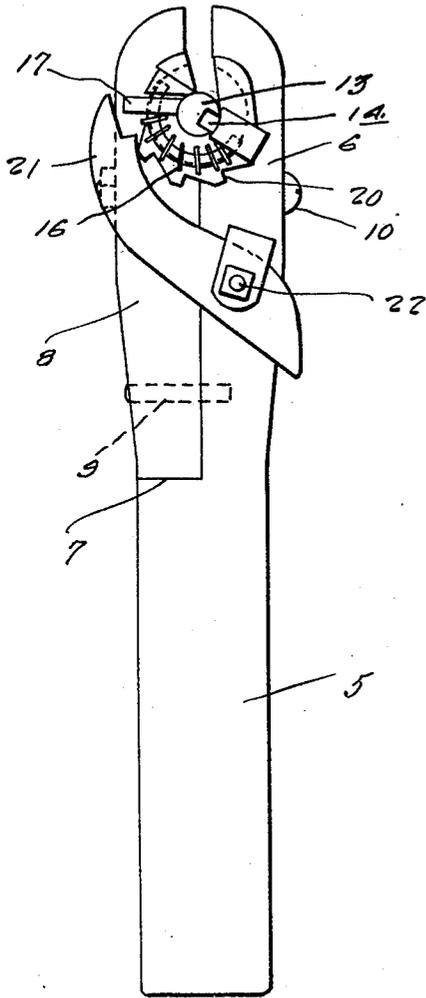


Fig. 3.

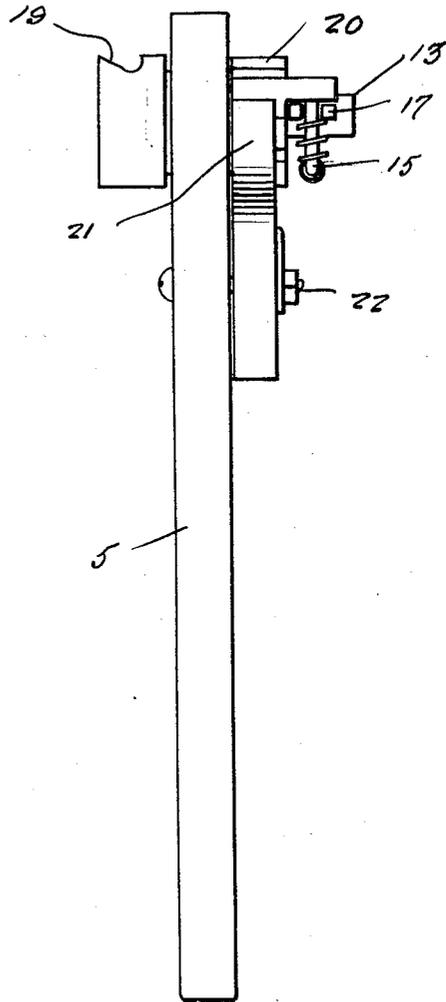
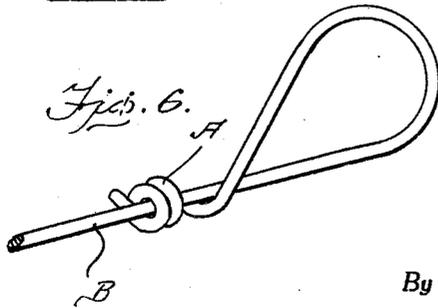


Fig. 6.



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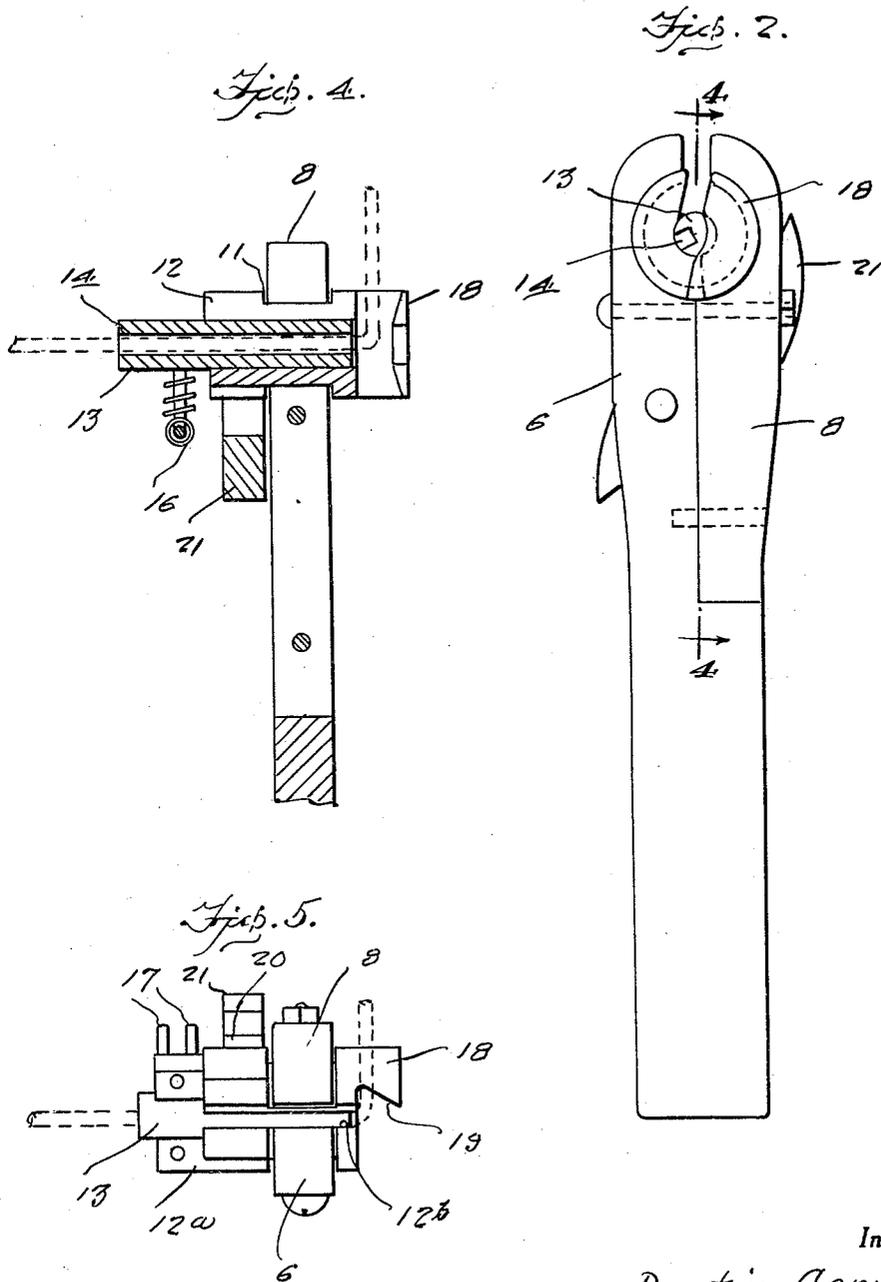
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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WIRE WRAPPING TOOL

Application filed March 31, 1931. Serial No. 526,746.

This invention relates to tools of the class used for wrapping the end of a fence wire about an intermediate portion or "line" portion of the fence wire for securing the wire at its end to a fence post.

A primary object of this invention is to provide a tool of the character above mentioned, which will facilitate the wrapping of the end of the fence wire about the intermediate or "line" portion of the wire in a practical and efficient manner, with facility, and without requiring a great deal of skill on the part of the operator.

Other objects and advantages of the invention, and the invention itself, will be best understood from a study of the following description taken in connection with the accompanying drawings wherein:

Figure 1 is an elevational view of one side of the tool.

Figure 2 is a similar view looking at the opposite side of the tool.

Figure 3 is an edge elevational view thereof.

Figure 4 is a detail sectional elevational view taken substantially on the line 4-4 of Figure 2.

Figure 5 is a top plan view of the tool.

Figure 6 is a perspective view illustrative of the work accomplished by the tool.

With reference more in detail to the drawings it will be seen that the wire wrapping tool comprises a shank 5 at one end extended longitudinally to provide a fixed jaw 6 and a shoulder 7 at the inner end of the jaw 6. Cooperative with the jaw 6 is a removable jaw 8 adapted to be disposed opposite to the jaw 6 with the inner end of the jaw 8 engaging the shoulder 7. Suitable dowel means 9 is provided for initially positioning and retaining the jaws in operative position with respect to one another and bolt and nut means 10 is additionally provided for rigidly securing the jaws in operative position to one another.

Each of the jaws adjacent its outer end is provided with an arcuate notch or recess for accommodating between the jaws the grooved intermediate portion 11 of what may be termed a wrapping spool 12.

Spool 12 is provided with an opening extending therethrough for reception of an end portion of a tube 13 rotatably mounted in the bore or hole of the spool 12 and provided with a longitudinally extending groove 14 for accommodating a portion of the intermediate or "line" part of a fence wire as will be hereinafter made manifest. One end of tube 13 projects beyond the corresponding end of sleeve 12 as shown in Figure 4.

At said one end, spool 12 is provided with a pair of oppositely disposed projections 12a connected by an arcuate member 15 about which is convoluted a coil spring 16. One end of the coil spring 16 bears against one of the projections 12a while the free end of the coil spring bears against a pair of radially projecting relatively spaced fingers 17 provided on the extended end of the tube 13 and straddling the arcuate guide member 15. (See Figures 1 and 3.)

Under action of spring 16, the tube 13 is normally urged to the position shown in Figure 1 so that the open longitudinal side of the groove 14 is normally closed by a corresponding portion of the spool 12.

At its opposite end the wrapping cylinder or spool 12 is provided with a longitudinally extending projection 18 disposed laterally of the opening or bore of the spool 12 and undercut as at 19 for accommodating the free end of the line or fence wire.

The wrapping cylinder 12 at the end thereof remote from the projection 18 is provided on a portion of its periphery with ratchet teeth 20 adapted to be successively engaged by the free end of a dog 21 pivoted as at 22 to the jaw 6.

In using the tool, by pressing on the fingers 17, the tube 13 is rotated so that the groove 14 thereof is arranged in alinement with the longitudinal slit 12b of spool 12 so that a portion of the intermediate part or "line" part of the fence wire accommodated between the jaws 6 and 8 passes into and is received in the groove 14, after which the fingers 17 are released, and the tube 13 rotated relative to the cylinder 12 for closing the groove 14 so that the tube 13 and cylinder 12 are in the relative position suggested in

Figure 5. The tool is then moved longitudinally of the line wire toward the fence post, and the free end of the line wire after being passed about the post is then engaged with the undercut portion 19 of the hook extension 18.

The free end of dog 21 is then moved into engagement with one of the ratchet teeth 21 thus locking the cylinder 12 against rotation relative to the jaws. By gripping the shank 5 the tool is then rotated relative to the line wire for a fraction of a revolution, after which, by the use of pliers or like tool engaged with cylinder 12 retains the cylinder in the position assumed thereby upon the said rotation of the tool. Dog 21 is then moved out of engagement with a tooth of the ratchet teeth 20 and shank 5 together with the jaws 6 and 8 rotated in an opposite direction relative to the cylinder 12, after which the dog is then moved into engagement with a second one of the teeth 20 so that upon subsequent rotation of the shank 5 and jaws 6 and 7 with the cylinder 12 rotating therewith the cylinder 12 is advanced a further fraction of a revolution.

This operation is continued a sufficient number of times for coiling or wrapping the free end A of the fence wire about an intermediate or "line" portion B of the fence wire. (See Figure 6.)

Even though we have herein shown and described the preferred embodiment of the invention, it is to be understood that the same is susceptible of changes, modifications and improvements coming within the scope of the appended claims.

Having thus described our invention what we claim as new is:

1. A device of the character described comprising a member, a spool rotatably mounted on said member, a tube rotatably mounted in said spool and adapted to accommodate an intermediate portion of a fence wire, yieldable means for normally retaining said tube against rotation relative to the spool, and means releasably keying said spool to said member for effecting a step by step rotative movement of the spool relative to the fence wire, and said spool at one end provided with means engageable with the free end of the fence wire for wrapping said end about an intermediate portion of the fence wire during step by step rotative movement of said spool.

2. A device for wrapping the end of a fence wire about the intermediate or line portion of the wire, and comprising a shank, a pair of jaws at one end of the shank, a wrapping spool arranged between said jaws, a tube rotatably mounted in said spool and adapted to accommodate an intermediate portion of the fence wire, means for yieldably retaining said tube against relative rotative movement with respect to said spool,

said spool at one end provided with a projection engageable with the free end of the fence wire, ratchet teeth provided on the periphery of said spool, a dog pivotally mounted on one of said jaws and having a free end engageable with said teeth whereby upon rocking movement of said jaws relative to said spool step by step rotation of the spool relative to the fence wire is effected for wrapping the free end of the fence wire about the intermediate portion of the fence wire.

3. A tool of the character described comprising in combination a wrapping cylinder having an axial opening extending there-through, a longitudinally grooved tube extending through the opening in the spool, a work engaging projection on one end of the spool, an arcuate member supported on an opposite end of the spool, fingers carried by the tube at a corresponding end of the tube, and a spring disposed about the arcuate member and engaged with said fingers for normally urging the tube to rotate in one direction relative to the spool.

4. A wire wrapping tool including in combination a pair of separable jaws arranged in opposed relation, an axially bored wrapping spool rotatably supported between the jaws, a wire receiving longitudinally grooved tube extending through the bore of said tool, said tube and spool at corresponding ends provided with cooperating means for yieldably retaining the tube against rotation relative to the spool, a wire engaging projection on that end of the spool remote from said last named means, and means for releasably keying the spool to one of said jaws.

In testimony whereof we affix our signatures.

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