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3,213,899

WIRE SPLICING TOOL

Filed May 17, 1963

Fig. 1

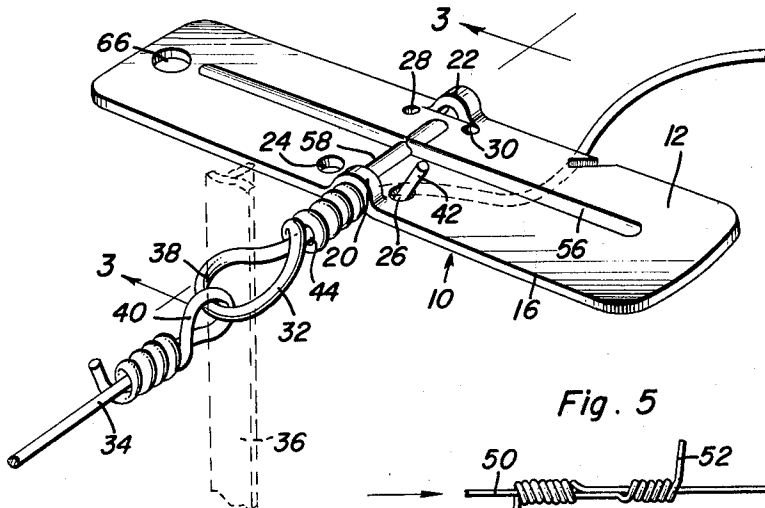


Fig. 5



Fig. 2

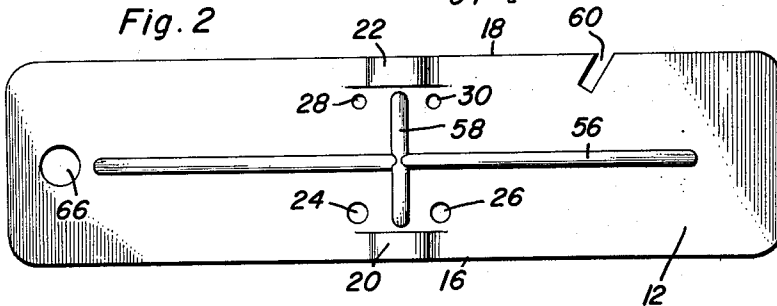


Fig. 3

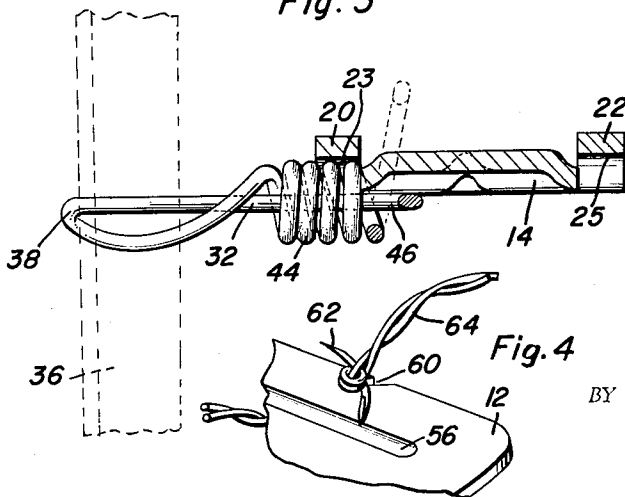
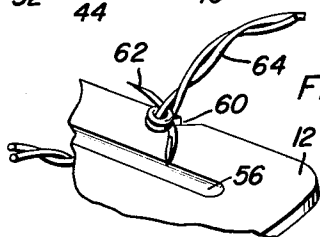


Fig. 4



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WIRE SPLICING TOOL
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This invention primarily relates to a novel article of manufacture for splicing wire together and for twisting wire about itself in forming wire joints.

It is the primary object of this invention to provide a tool for twisting wire which may be formed simply and efficiently from a piece of flat bar stock.

Another object of this invention resides in the provision of means on the tool for twisting wire whereby two wires may be quickly and efficiently spliced together.

A further object of this invention resides in the provision of a safety feature in the invention for holding barbed wire wherein twisting or wrapping of the wire may be accomplished without the fear of the barbs on the wire penetrating the hand of the user.

Still another object of this invention resides in the provision of a tool of the character specified which is adapted to splice and twist wires of different sizes.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view of the tool comprising the subject matter of the instant invention shown in use for twisting wire about itself.

FIGURE 2 is a top plan view of the tool.

FIGURE 3 is a sectional view taken substantially along the plane indicated by the line 3-3 of FIG. 1.

FIGURE 4 is a fragmentary perspective view of a portion of the tool illustrating the safety feature of the tool when in use with barbed wire.

FIGURE 5 is a side view in elevation of a pair of wires which have been spliced by the tool of the instant invention.

Referring now to the drawings in detail, the tool of the instant invention is generally designated by the numeral 10 and comprises a bar of flat steel stock including opposed flat surfaces 12 and 14. The bar also includes longitudinally extending opposed edges 16 and 18. Centrally disposed along the edges 16 and 18 are a pair of opposite side, laterally struck and semi-cylindrical portions 20 and 22 which project above the upper surface of the flat surface 12 and define downwardly opening semi-cylindrical recesses 23 and 25. Adjacent the semi-cylindrical hump 20 are a first pair of spaced apertures 24 and 26. A second pair of large diameter apertures 28 and 30 are similarly located adjacent the hump 22 but are of a diameter smaller than the diameter of the apertures 24 and 26. As shown in FIGURES 1 and 2, one aperture of each pair is located on opposite sides of the axis of revolution of said semi-cylindrical humps.

Referring specifically to FIGURE 1, a piece of wire such as 32 is adapted to be joined to either another wire such as shown at 34 or a fence post such as shown at 36. To accomplish this desired result, the wire 32 is formed with a loop such as shown at 38 which is placed about the fence post 36 or intertwined with a loop such as 40 on the wire 34. The wire 32 is adapted to be twisted about itself to close the loop 38 by running the free end 42 of the loop 30 through the aperture 26. The

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tool 10 is then rotated in a counterclockwise direction as viewed in FIGURE 1 forming a plurality of convolutions such as 44 about the straight shank portion of the wire 46, the wire being continuously fed through the aperture 26. The hump 20 is adapted to seat upon the convolutions 44 and with the inner surfaces of the hump 20 engaging the convolutions 44 so as to provide a fulcrum for turning the tool 10 as the wire is being twisted about the shank 46. It should be understood that this result can be accomplished with a finer gage wire by reversing the tool 10 so that the wire to be twisted extends through the smaller aperture 28 adjacent the hump 22. It should also be apparent that the contact of either of the humps 20 or 22 with the twisted bends 44 increases the leverage which can be exerted to twist the wire.

With specific reference to FIGURE 5, it will be noted that a pair of wires such as 48 and 50 may have their ends overlapped and spliced together. The wires are individually twisted about each other by rotating the end 52 of the wire 50 in a counterclockwise direction when the wires are viewed in end elevation in the direction indicated by the arrow in said figure. The end 54 of the wire 48 is then twisted in a like manner in a counterclockwise direction. To accomplish this the end 52 is first placed through the aperture 26 and then the tool 10 is rotated in the prescribed manner. Then, the tool is reversed end to end, and the end 54 is placed through the opposite aperture 24. Thus, the tool can be used to accomplish the desired result by reversing the tool and without changing the position of the user with respect to the spliced wire.

The tool 10 is provided with longitudinal and transverse ribs 56 and 58 for strengthening the tool. A notch such as 60 cut in the longitudinal extending edge 18 is adapted to cooperate with a barb such as 62 formed on the barb wire 64 to positively seat and hold the wire while the wire is being twisted to thereby prevent any accidental piercing of the user's hand by the barb 62 during the twisting motion.

An aperture such as 66 can be formed at one end of the tool whereby the tool may be stored by means of a hook or the like in any suitable or convenient place.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A tool for twisting a wire end about a wire section, said tool comprising a generally planar plate-like body member including a longitudinal marginal edge portion, said edge portion, intermediate its opposite ends, including an elongated and longitudinally extending laterally struck and generally semi-cylindrical segment defining a semi-cylindrical recess opening longitudinally outwardly of said one edge portion and one side of said body member laterally of the medial plane of said body member, said plate-like body member having an aperture formed therein immediately inwardly of and adjacent one end of said segment adapted to slidably receive and frictionally grip a wire end for winding said wire end about a wire section generally paralleling and registered with the longitudinal axis of said semi-cylindrical recess and disposed on said one side of said body member.

2. The tool of claim 1 including reinforcing ribs running longitudinally and transversely of said body member.

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