

Nov. 5, 1963

R. A. RANDO

3,109,332

WIRE JACKET SKINNER

Filed Jan. 15, 1962

2 Sheets-Sheet 1

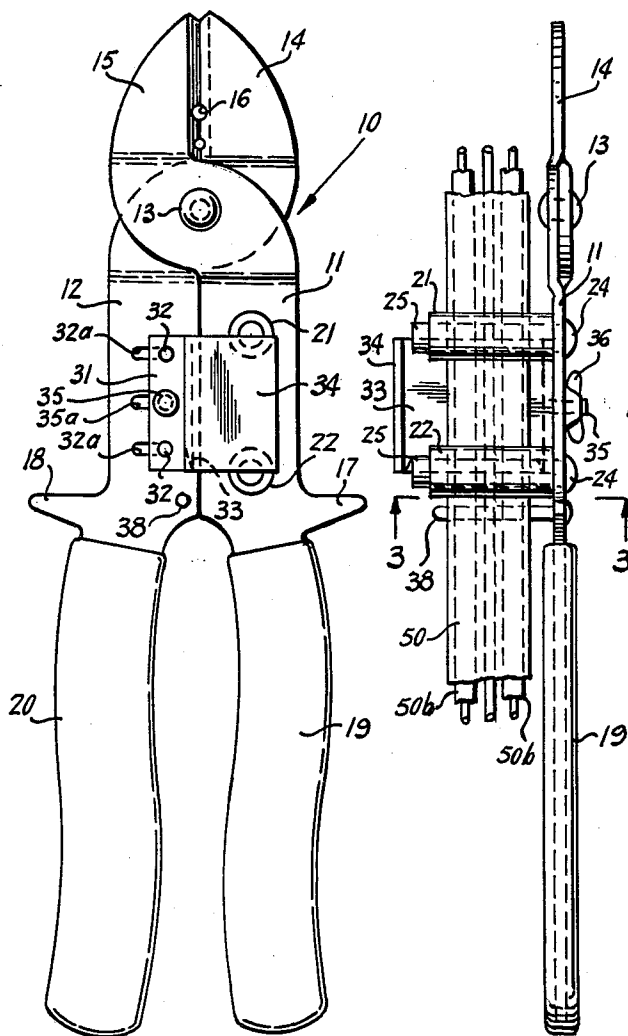


FIG. 1

FIG. 2

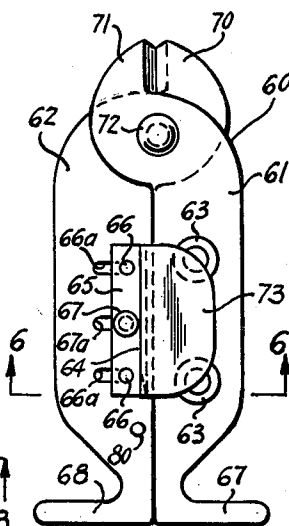


FIG. 5

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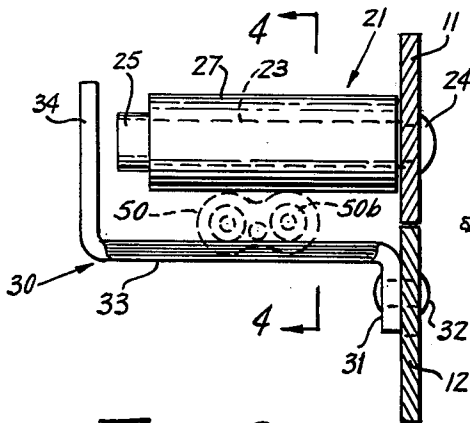


FIG. 3

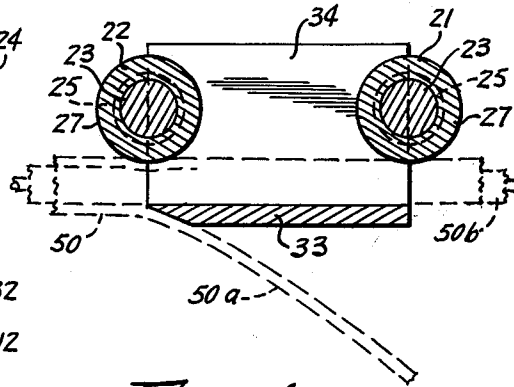


FIG. 4

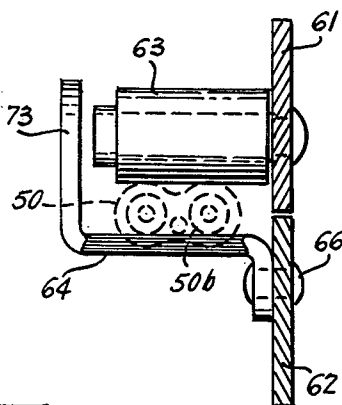


FIG. 6

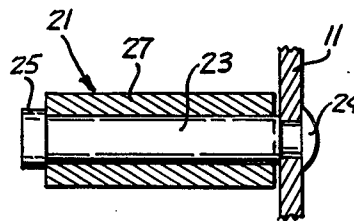


FIG. 7

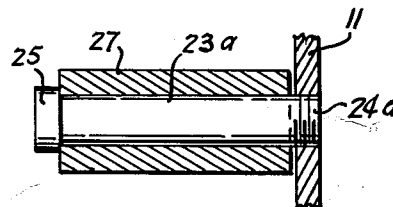


FIG. 8

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3,109,332

WIRE JACKET SKINNER

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7 Claims. (Cl. 81-9.5)

This invention relates to a wire jacket skinner and has as its primary object the provision of an improved attachment which may be applied to a conventional pair of pliers for skinning or stripping the outer jacket from UF wire, or underground direct burial non-metallic sheathing cable, exposing the inner insulated conductors without damaging them.

As conducive to a clearer understanding of this invention, it may here be pointed out that in the use of such cable or other wires it is frequently necessary to remove the outer covering of insulation to provide terminal contact or for other purposes, from a portion of the end of the wire. This has been done in many ways, such as manually by the use of a knife, by the use of stripping pliers of awkward and unhandy construction, or by other methods.

It is a particular object of this invention to provide a skinning device or attachment which may be readily applied to any pair of conventional pliers or the like and which, when employed in a manner to be more fully described hereinafter, will readily and expeditiously remove the plastic outer jacket from the cable exposing the inner conductors along a portion of the length of the cable and permitting the complete stripping of the jacket as may be necessary or desirable.

A further object of the invention is the provision of a device of this character which is sturdy and durable in construction, reliable and efficient in operation, and relatively simple and inexpensive to manufacture, assemble, and utilize.

Still other objects reside in the combinations of elements, arrangements of parts, and features of construction, all as will be more fully pointed out hereinafter disclosed in the accompanying drawing wherein there is shown preferred embodiments of this inventive concept.

In the drawing:

FIGURE 1 is a plan view of a pair of pliers of somewhat conventional design showing the jacket skinner of the instant invention as applied thereto.

FIGURE 2 is a side elevational view of the construction of FIGURE 1.

FIGURE 3 is an enlarged sectional view taken substantially along the line 3-3 of FIGURE 2 as viewed in the direction indicated by the arrows.

FIGURE 4 is a sectional view taken substantially along the line 4-4 of FIGURE 3 as viewed in the direction indicated by the arrows.

FIGURE 5 is a slightly modified form of construction disclosing the application of the device to a different type of pliers.

FIGURE 6 is an enlarged sectional view taken substantially along the line 6-6 of FIGURE 5 as viewed in the direction indicated by the arrows.

FIGURE 7 is an enlarged fragmentary sectional view showing a detail of mounting the rollers comprising a part of this invention; and

FIGURE 8 is a view similar to FIGURE 7 showing a modified method of mounting such rollers.

Similar reference characters refer to similar parts throughout the several views of the drawing.

Having reference now to the drawings in detail, and more particularly to FIGURES 1 and 2, there is generally indicated at 10 a pair of pliers which comprise a pair of separable members 11 and 12 which are pivotally

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connected as at 13, and which are provided respectively with cutting or clamping blades 14 and 15. Conventional openings 16 are provided between the cutting edges of the blades as here shown for stripping small diameter wire, and the insulation on the inner conductors of the UF-wire. Each plier portion 11 and 12 is provided with a lateral offset 17 and 18, respectively, and a handle member 19 and 20, respectively, which may be covered with a rubber insulating sleeve, if desired.

The device of the instant invention is comprised of a pair of rollers 21 and 22 which are mounted in parallel alignment and transversely extending relation perpendicular to the body portion 11. As best shown in FIGURE 7, for example, each of the rollers comprises a core or axle 23 which is formed with a head 24 which extends through a suitable opening in the plate or plier portion 11 and which has at its opposite end a second head 25. A sleeve 27 surrounds the axle 23 between the plier portion 11 and the head 25 and is rotatable in a manner and for a purpose to be described more fully hereinafter.

FIGURE 8 shows a slight modification in the mounting of the rollers wherein the axle 23a is provided with a threaded extremity 24a which engages a threaded opening in the plier portion 11, the threaded connection replacing the head 24. The outer roller sleeve 27 and the head 25 are identical in this modification.

While roller 21 has been described in detail, it is to be understood that the roller 22 is identical thereto, the other or opposite section 12 of the pliers is provided with a blade unit generally indicated at 30, which includes a mounting plate 31 which is adjustably secured by pins 32 movable in slots 32a, and a center pin 35 movable in a slot 35a and having a clamping nut thereon or in any other desired manner to that portion 12. A cutting blade 33 extends at right angles to the mounting plate 31 in perpendicular relation to the plier body 12 and parallel to the rollers 21 and 22. The adjustable feature of the blade permits the accommodation of several sizes of wire. A cover plate 34 extends perpendicularly to the blade 33 into alignment with the ends of the rollers 21 and 22 to prevent disalignment of a cable or cables drawn over the blade. A guide pin 38 for the wire to be stuffed is also positioned in alignment with the blade edge.

In the use and operation of the device a UF wire 50 or the like is positioned between the rollers 21 and 22 and the blade 33. The handles 19 and 20 are then squeezed firmly together so that the wire is grasped firmly between the rollers and the blade edge, the blade edge being so designed as to cut into the outer jacket a suitable distance, preferably about $\frac{1}{32}$ of an inch. By placing two fingers on the grip members 17 and 18 and pulling the pliers toward the body, the jacket 50a of the cable or wire 50b is effectively stripped for any desired length, exposing the insulated inner conductors.

A modified construction is disclosed in FIGURES 5 and 6 wherein a plier member 60 is comprised of two separable portions 61 and 62. Rollers 63 and 64 identical to the previously described rollers 21 and 22 are mounted on the section 61 while a blade 64 is mounted as by means of a mounting plate 65 and rivets or screws 66 on the other portion 62. In this modification it is not necessary that the handles 19 and 20 be provided. However, laterally projecting members 67 and 68 permit a finger grip to be afforded to draw the device toward the body in such manner that the wire may be readily stripped of its associated jacket. In this modification cutting blades 70 and 71 complete the assembly and are pivoted as at 72 as in the preceding modification. A cover plate 73 similar to the cover plate 34 is also provided, and the use and operation of this form of device is substantially

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identical to that previously described. A guide pin 80 similar to guide pin 38 is also provided.

From the foregoing it will now be seen that there is herein provided an improved jacket skinner which materially facilitates the removal of the outer coating of UF wire or the like, and which accomplishes all of the objects of this invention, and others, including many advantages of great practical utility.

As many embodiments may be made of this inventive concept, and as many modifications may be made in the embodiments hereinbefore shown and described, it is to be understood that all matter herein is to be interpreted merely as illustrative, and not in a limiting sense.

I claim:

1. A jacket skinner for covered wire comprising a pair of pivoted handle members, a pair of clamping rollers mounted on one of said handle members extending perpendicularly to said handle member, and a blade assembly mounted on the other of said handle members, said blade assembly including a mounting plate secured to said other handle member, a blade perpendicular to said mounting plate having a cutting edge extending parallel to said rollers and spaced therefrom a distance less than the thickness of the covered wire, and a cover plate parallel to said mounting plate and extending beyond the ends of said rollers, whereby upon pivoting said handle members to clamping position said cutting edge will cut through the covering on said wire and movement of the jacket skinner linearly of said wire will strip the covering therefrom.

2. The structure of claim 1 wherein each of said rollers comprises an axle secured to said one of said handle members, a head on said axle and a rotatable sleeve on said axle between said head and said one of said handle members.

3. The structure of claim 2 wherein said axle extends through an opening in said one of said handle members and is provided with a second head on the opposite side of said one of said members.

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4. The structure of claim 2 wherein the end of said axle opposite said head is threaded and engages a threaded opening in said one of said handle members.

5. The structure of claim 1 wherein each of said handle members is provided with a laterally offset finger grip to facilitate the linear movement of the jacket skinner relative to the wire to be stripped.

6. The structure of claim 1 wherein said mounting plate is adjustably secured to said other handle member.

7. A jacket skinner for covered wire comprising a pair of pivoted handle members, a pair of clamping rollers mounted on one of said handle members extending perpendicularly to said handle member, and a blade assembly mounted on the other of said handle members, said blade assembly including a mounting plate secured to said other handle member, a blade perpendicular to said mounting plate having a cutting edge extending parallel to said rollers and spaced therefrom a distance less than the thickness of the covered wire, whereby upon pivoting said handle members to clamping position said cutting edge will cut through the covering on said wire and movement of the jacket skinner linearly of said wire will strip the covering therefrom.

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