

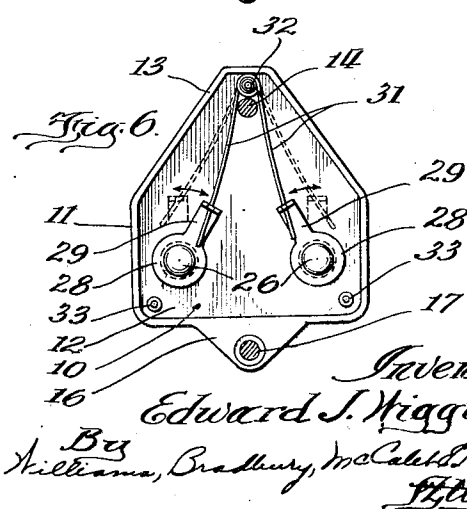
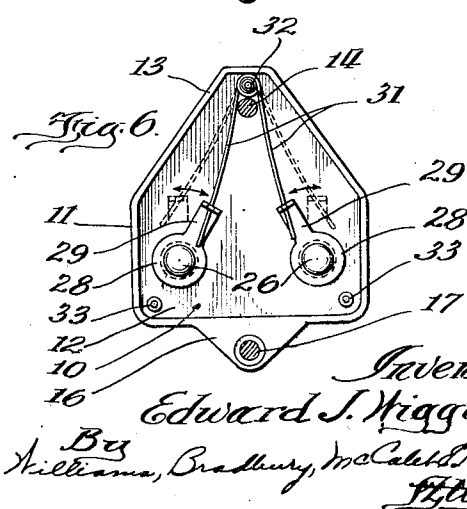
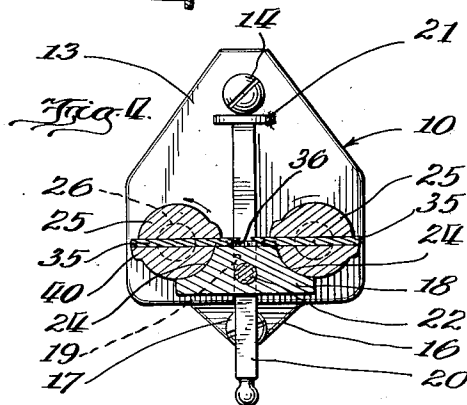
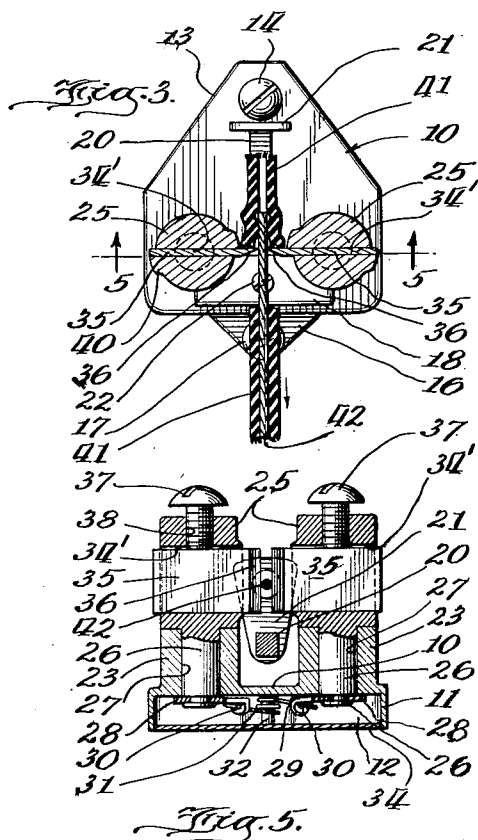
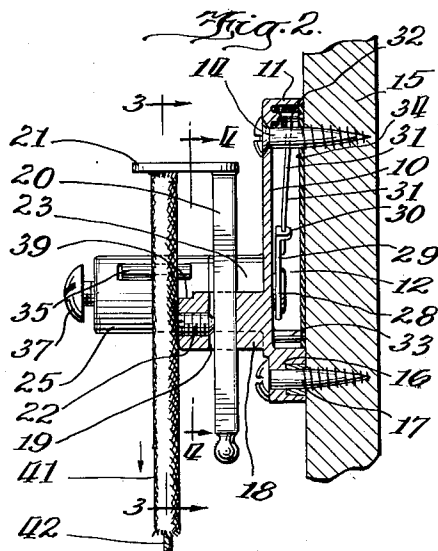
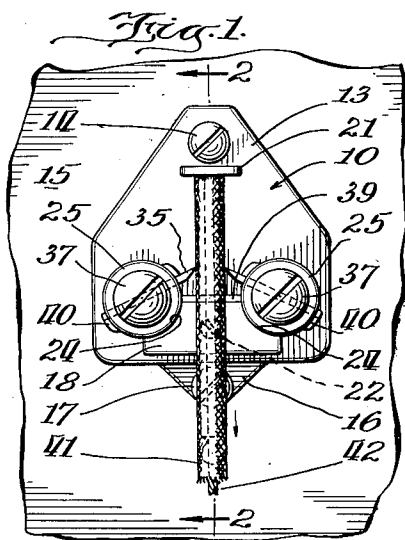
Sept. 15, 1936.

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2,054,529

INSULATED WIRE STRIPPER

Filed July 2, 1934



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UNITED STATES PATENT OFFICE

2,054,529

INSULATED WIRE STRIPPER

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Application July 2, 1934, Serial No. 733,436

2 Claims. (Cl. 81-9.51)

This invention relates to insulated wire strip-
pers and has for its principal object the pro-
vision of an improved wire stripper which can be
economically and simply made and assembled,
and which is convenient and efficient in use.

The invention will readily be understood from
the following description of a preferred embod-
iment thereof, taken in conjunction with the ac-
companying drawing, in which

Figure 1 is a plan view of my stripper showing
a piece of insulated wire inserted for stripping;

Fig. 2 is a longitudinal section therethrough
taken on the line 2-2 of Fig. 1;

Fig. 3 is a sectional plan view taken on the
line 3-3 of Fig. 2, showing the end of the wire
partly stripped;

Fig. 4 is a sectional plan view taken on the
line 4-4 of Fig. 2;

Fig. 5 is a sectional elevation taken on the line
5-5 of Fig. 3, and

Fig. 6 is an inverted plan view of the stripper
with the cover plate removed.

Referring to the drawing, the reference num-
eral 10 designates a base plate which is pro-
vided with a marginal skirt 11 to form a housing
12 within the base for the reception of the more
delicate parts which might be damaged by ac-
cidental blows and impacts if left exposed.

The base plate 10 is preferably of the form
shown, having a rear apical portion 13 provided
with an opening for the reception of a screw 14
whereby it may be secured to a wall or bench
15. In the center of the front edge opposite the
apical portion 13, the base is provided with a lug
16 which is also perforated for the reception of
a mounting screw 17.

A block 18 integral with the base plate 10 ex-
tends upwardly therefrom adjacent the front of
the plate 10. The block 18 is provided with a
central bore 19 which extends in the longitudinal
direction of the base and parallel thereto. The
bore 19 is non-round and may suitably be square
in cross-section. This bore receives with a slid-
ing fit a rod 20 of similar shape. This rod is
relatively long and carries at its end an integral
plate 21 which is intended to serve as a stop for
the end of the wire being stripped. The rod is
held in desired position of adjustment by means
of a set screw 22 which is threaded into an open-
ing extending from the upper face of the block
18 into the bore 19.

A pair of bosses 23 are formed integral with
the block 18 and with the plate 10. These bosses
are located at the rear corners of the block 18 and
are somewhat lower than the block. The block 18

is formed with recesses 24 at these corners for
the reception of the enlarged portions of posts
25, which portions are preferably of the same
diameter as the bosses 23, as best seen in Fig.
5. The lower portions 26 of the posts 25 are of
smaller diameter than the upper portions 25 and
they are received with a free working fit in axial
bores 27 in the bosses 23.

The lower extremities of the posts 25 are still
further reduced and, after assembly of the posts
in the bosses 23, these extremities are peened over
on washers 28 which are larger than the bores
27 and, consequently, hold the posts in the as-
sembly. The washers 28 have radially directed
arms 29, the ends of which are turned downwardly
and provided with openings 30. A spring 31
is provided, the ends of which extend into the
openings 30. The spring 31 comprises a central
coil which is mounted on a pin 32 projecting
downwardly from the plate 10 behind the screw
14. Adjacent its forward edge the plate 10 also
carries pins 33 which project downwardly also.
The pins 32 and 33 are preferably integral with
the plate 10. Their lower extremities are reduced
and extend into openings in a cover plate 34.
These extremities are peened over to hold the
cover plate in position.

The upper portions of the posts 25 are provided
with diametrical slots 34' which receive knives
35. The sharp or beveled edges of the knives
35 are directed inwardly in apposition, the be-
veled faces 36 being preferably forwardly directed.
The knives 35 are slidable in the slots 34' and are
held in position by screws 37, threaded into open-
ings 38, which extend from the upper faces of the
posts 25 into the slots 34', the lower ends of the
screws 37 bearing against the upper edges of the
knives 35. It will readily be understood that the
distance between the edges of the knives can
readily be adjusted by merely loosening the
screws 37, moving the knives 35 to desired posi-
tion and tightening the screws 37 again. It will
be understood that the distance between the
edges of the knives 35 should be approximately
the diameter of the wire, that is, the metallic
part of the wire which is to be stripped. It may
be noted, however, that this adjustment is not
critical since it is found that the wire is effec-
tively stripped with a somewhat wider spacing of
the knives 35.

The lower edge of the slots 34' and the knives
35 is located slightly below the upper surface of
the block 18 and the upper part of the rear face
of the block 18 is cut away, as shown at 39 in
Figs. 1 and 2, so that the forward faces of the

knives 35 bear against the block and are held firmly against the pull to which they are subjected during the stripping of the insulation from the wire. The spring 31 is arranged so as to bias the knives into this position which corresponds to the position of the arms 29 shown in full lines in Fig. 6. When the knives 35 are displaced into the position shown in Fig. 1, the arms 29 are displaced into the position indicated in dotted lines in Fig. 6 against the action of the spring 31. The spring 31 and arms 29 are protected from violent treatment by being enclosed within the chamber 12. In order to prevent injury to the arms 29 by an excessive displacement of the knives 35 from their normal position, which may occur by any impact applied to the knife 35 or posts 25, I provide abutments 40 on the posts 25 adjacent the outer ends of the slots 34', that is, the ends which are remote from the operative edges of the knives 35. These abutments 40 are located so that they come into contact with the outer sides of the block 18 before the arms 29 hit the skirt 11 of the base 10. For simplicity of manufacture I provide abutments 40 on diametrically opposite positions on the posts 25.

It is to be noted that the wire stripper is not provided with any guide in front of the knives 35, the reason being that the present device is self-centering and equally effective no matter whether the presented end of insulated wire hits one knife or the other knife or exactly in the center of the space between the two knives.

The operation of the stripper is as follows: The stripper being mounted on a suitable support, the set screw 22 is loosened and the rod 20 is moved so as to locate the plate 21 from the normal position of the knives 35, an amount approximately equal to the length of wire which it is desired to strip. The screw 22 is then tightened in position. If necessary, the spacing of the knives 35 is adjusted so as to adapt them to work on wire being used, which will depend upon the gauge of the wire. The end of the wire is then thrust towards the bite of the two knives 35 and these knives move inwardly, the posts 25 rotating against the action of the spring 31. This thrust

is continued until the end of the insulated wire hits the plate 21. This condition is illustrated in Figs. 1 and 2 and it is to be noted that the knives 35 are deflected inwardly and bear against the insulation 41 of the wire 42. The wire is then pulled rearwardly with the result that the edges of the knives 35 cut into the insulation and hold it against withdrawal, as shown in Fig. 3. Continued withdrawal of the wire effectively strips the end and leaves the separated piece of insulation behind the knives 35.

An important feature of the present invention is the fact that all the adjustment screws are directed upwardly, which facilitates the adjustment of the various elements and effectively prevents possibility of injury to the operator since the screw driver is directed away from him towards the bench or the like 15.

Although the invention has been disclosed in connection with the specific details of a preferred embodiment thereof, it must be understood that such details are not intended to be limitative of the invention except in so far as set forth in the accompanying claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. An insulated wire stripper comprising a base having a housing therein, a pair of posts mounted in said base and having reduced ends projecting into said housing, a knife on each post, washers rigidly mounted on said posts within the housing, arms carried by said washers, and spring means acting on said arms tending to maintain said knives in apposition.

2. An insulated wire stripper comprising a base having a housing therein, a pair of posts mounted in said base and having reduced ends projecting into said housing, a knife on each post, washers rigidly mounted on said posts within the housing, radial arms carried by said washers, said arms having their ends turned up and having openings therein, and a spring within the housing having portions extending freely into said openings to tend to hold said knives in apposition.

EDWARD J. WIGGINS.