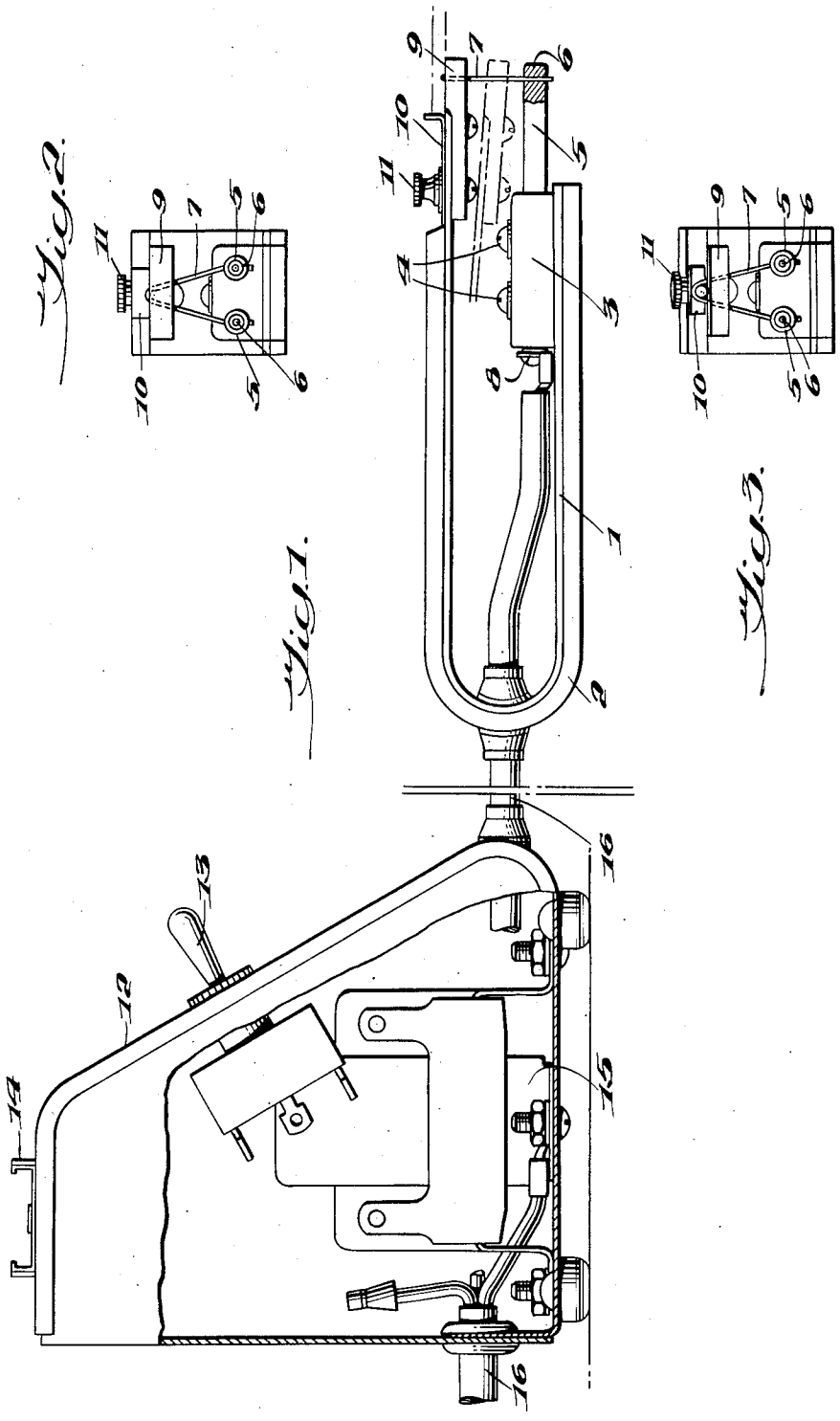
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THERMOELECTRIC WIRE STRIPPER

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THERMOELECTRIC WIRE STRIPPER

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This invention relates to a wire stripper and more particularly to a device which is adapted to remove the insulation from wire by thermoelectric means.

Any electrician recognizes the difficulties encountered in stripping wire in order to make an electrical connection. Customarily a pair of cutters is utilized and an attempt is made to cut away the insulation without in any way injuring the wire. Frequently the wire is cut or difficulty is encountered in removing all of the insulation. It is also been proposed that heating elements be used to burn off the insulation but such devices generally have been unduly complicated and expensive, hence, unsuitable for the workman in the field.

According to the present invention there is provided a thermoelectric wire stripper wherein the insulation may be removed from the end portion of the wire simply and expeditiously. The apparatus used can readily be carried in an electrician's kit and is designed for one hand operation. There is provided a U-shaped spring clip in combination with a U-shaped heating element. The end portions of the U-shaped heating element are secured to one arm of the clip while the bight portion of the U-shaped heating element extends above the other arm of the clip. The arms of the clip are resiliently biased outwardly so that normally the bight portion of the heating element is retained in close engagement with the outer surface of one of the arms. By pressing the arms of the clip together it is possible to position a wire to be stripped between the upper surface of one of the arms of the clip and the bight portion of the heating element. When the clip arms are released the thermoelectric element is brought into engagement with the insulation on the wire and the insulation may be readily removed by rotating the wire. Means is provided for adjusting the length of wire from which the insulation is to be removed and means is provided so that the wire stripper may either be held in the hand or mounted on an electrical component container.

An object of the present invention is to provide a wire stripper in which the insulation on a wire may be removed by thermoelectric means.

Another object of the present invention is to provide a thermoelectric wire stripper wherein a U-shaped heating element is held between the resilient arms of a spring clip.

Other objects and many of the attendant advantages of the present invention will become more fully apparent upon consideration of the following detailed specification in connection with the accompanying drawing wherein:

FIG. 1 is a side elevational view partly in section showing the stripper in its normal non-use position,

FIG. 2 is an end view of the clip and resistance element and,

FIG. 3 is a view of the spring clip with the wire in position for stripping.

Referring now more specifically to the drawing wherein like numerals indicate like parts throughout the several views there is shown at **1** in FIG. 1 a U-shaped spring clip which has the upper arm thereof slightly longer than the lower arm. Bonded to the outer surface of this spring clip is a layer of cork insulation **2**. It will be noted that this cork insulation extends over the entire outer face of the lower spring clip arm and extends to a point spaced from the end of the upper arm of the U-shaped clip.

Secured to the outer end of the lower arm of the spring clip is an electrode holder **3** which is made of insulating material and is secured to the lower arm by means of screws **4**. The electrode holder **3** has a pair of arms **5** extending outwardly therefrom and at the outer ends of these arms are set screws **6** which cooperate with slots in the arm to grip the end portion of a resistance wire **7**. Means is provided within the electrode holder **3** and the arms **5** for connecting electrically the resistance wire with terminals **8** on the electrode holder.

The upper arm of the U-shaped spring clip has a ceramic head mounted thereon which extends outwardly beyond the outer end of the upper arm. This ceramic head is provided with a pair of slots and it will be noted that portions of the arms of the resistance wire **7** pass through these slots so that the bight portion of the resistance wire rests against the upper surface of the ceramic head.

There is also mounted on the upper arm of the spring clip a stop **10** which has a flanged end portion and a slot therein so that a knurled nut **11** may be screwed down onto the stop **10** to secure the same in any position along the length of the slot.

There is provided a cabinet or operating unit **12** which has an off-on switch **13** mounted thereon. On the upper surface of this box there is provided a flanged holder **14** into which the lower arm of the spring clip **1** may slide so as to provide a base support for the wire stripper.

The cabinet houses a transformer **15** and the primary thereof is connected with an outlet cord **16**. The secondary coil is connected through cable **16** with the terminals **8** and through the electrode holder **3**, arms **5** with the end portions of the resistance wire **7**.

It can be seen that when the transformer is energized, the resistance wire will heat and that by pressing the arms of the spring clip **1** together, there will be provided sufficient space between the bight portion of the resistance wire and the ceramic head **9** for the passage of a wire as shown in FIG. 3. When the pressure is released on the spring clip the arms tend to return to the original position thereof and the bight portion of the resistance wire is forced into the insulation thereby burning a slot therein. By simply rotating the wire all of the insulation adjacent the end portion may be freed so that the wire can simply be pulled away from the head and the end portion will be stripped. It will also be noted that the stop **10** may be adjusted so that any desired length of wire may be stripped. The device may be held in the hand when in use or alternatively may be mounted within the holder **14** so that the transformer can form a support therefor.

Obviously many modifications and variations of the present invention are possible in light of the above teachings. What is claimed as new and desired to be secured by Letters Patent is:

1. In a device for removing the insulation from a wire, in combination, a U-shaped spring clip having a pair of arms extending outwardly from the bight portion of the U, a resistance wire having the end portions thereof se-

cured to one arm of the spring clip, the resistance wire being generally U-shaped, insulated means mounted on the end portion of the other arm of the spring clip, said insulated means having a pair of openings therein for the passage of the resistance wire, the arms of the spring clip normally urged apart to bring the bight portion of the U-shaped resistance wire into engagement with the insulated means, and means for heating said resistance wire.

2. In a device according to claim 1 and further including adjustable means for determining the length of wire to be stripped.

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