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CABLE SLITTING DEVICE

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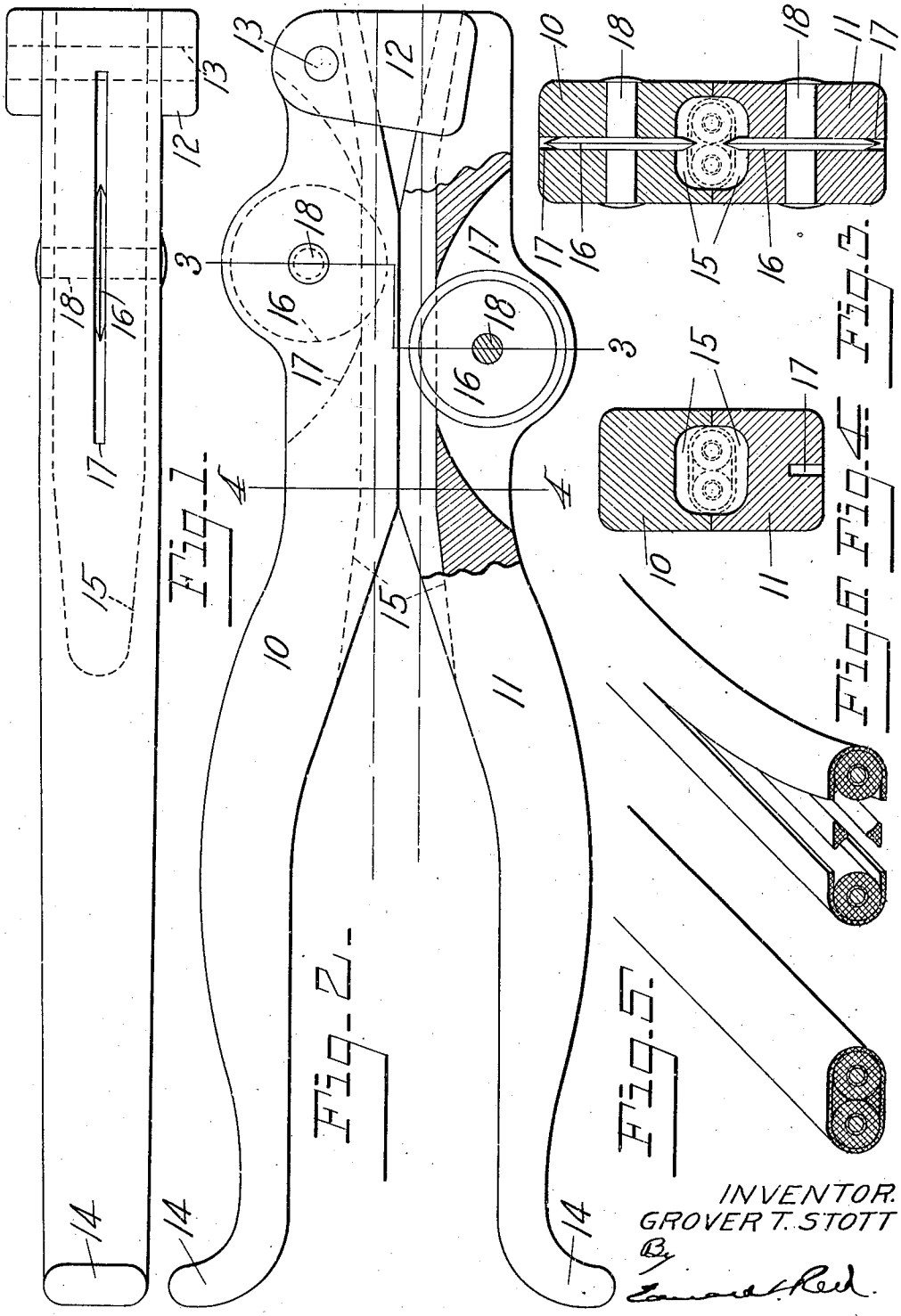


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

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CABLE-SLITTING DEVICE.

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This invention relates to cable slitting devices and is designed for slitting the wrappings of an electric cable lengthwise to permit access to be had to the conductor contained within said wrappings.

There is now in extensive use a form of electric cable which is oblong in cross section and in which are arranged two parallel conductors which are separately wound with insulating material. When such conductors are to be connected with other conductors or with the terminals of an electrical device it is of course necessary that the cable wrappings should be removed and the insulating wrappings removed from the individual conductors to bare the same so that an electrical connection may be established. It has been customary to split such a cable between the two conductors by the use of a pocket knife but this is rather a slow difficult operation and, further, it is very difficult to so guide the knife blade as to avoid cutting the insulating wrappings on the individual conductors or even cutting the conductors themselves. The insulation on the individual conductors is spirally wound and when this remains intact the insulation may be quickly and easily removed by grasping the ends of the spiral windings and unwinding the same. If the insulating wrappings have been broken in one or more places the individual pieces must be separately removed, which involves a loss of time. It is therefore desirable that the insulating wrappings on the individual conductors should remain intact.

One object of the present invention is to provide a simple efficient device for slitting the wrappings of an electric cable lengthwise to permit access to be had to the conductor contained within said wrappings.

A further object of the invention is to provide such a device which will slit the wrappings of the cable between two conductors contained therein without breaking the insulating wrappings on the individual conductors.

A further object of the invention is to provide such a device which will slit the opposite sides of the cable wrappings simultaneously so as to completely separate the two individual conductors at a single operation.

A further object of the invention is to provide such a device which will be simple and compact in its arrangement, of light weight and of such a character that it can be easily manipulated.

Other objects of the invention will appear as the device is described in detail.

In the accompanying drawings Fig. 1 is a plan view of a device embodying my invention; Fig. 2 is a side elevation of the same, partly broken away; Fig. 3 is a transverse section taken on the line 3—3 of Fig. 2; Fig. 4 is a transverse section taken on the line 4—4 of Fig. 2; Fig. 5 is a perspective view of the end portion of a cable; and Fig. 6 is a similar view showing the cable after it has been slitted.

In these drawings I have illustrated one embodiment of my invention but it will be understood that this particular embodiment has been chosen for the purposes of illustration only and that the device may take various forms without departing from the spirit of the invention.

The device preferably comprises two members movably connected one to the other, one or both of said members having connected therewith a cutter blade and said members being so arranged that they will guide a cable in the direction of its length and in contact with said cutter or cutters. It will be obvious that the manner of connecting the two members and the arrangement of the cutters and guide may take various forms.

In that particular embodiment here illustrated the device comprises two elongated members 10 and 11 which are pivotally connected one to the other near one end of the device. As here shown, one of the members, 11, has near its forward end upwardly extending ears 12 between which the adjacent end of the other member, 10, extends and to which it is connected by means of a pivot pin 13. The opposite end portions of the two members are shaped to form handles and may, if desired, have their end portions turned outwardly, as shown at 14, to provide for a firm pulling grip on the device. The forward ends of the two members, between the ears 12, are spaced apart, as shown in Fig. 2, to provide a space through which the end of a cable may be inserted and the opposed portions of the two members in the rear of said ears have longi-

tudinal grooves 15 which cooperate to form a guideway into which the end portion of the cable may be inserted and in which it may have movement in the direction of its length. The grooves are of such shape that a cable oblong in cross section, may be supported in the guideway in a horizontal position. Mounted on each member of the device is a cutter 16 arranged in a plane parallel with and extending into the respective grooves 15. In the present instance, each member has a slot 17 in which the cutters are mounted, the cutters being here illustrated in the form of rotatable disks carried by pins 18 mounted in the respective members. If desired, the axes of the two blades may be arranged in different planes so that the blades will not be directly in line one with the other.

In using the device the operator grasps the handle portion thereof with one hand and manipulates the two members to separate the blades and then, with his other hand, inserts into the guideway, between the blades, the end portion of the cable, the cable being inserted in the guideway a distance corresponding to the length of the portion thereof which is to be slit. The two members are then moved one toward the other to cause the blades to engage the opposite sides of the cable, the arrangement being such that the blades will engage the cable substantially midway between the lateral edges thereof. When the blades have been forced into the wrappings of the cable the cable is moved lengthwise of the device to withdraw it from the guideway and as it is withdrawn the wrapping will be slit on both sides, as shown in Fig. 6. Ordinarily in this operation the cable will be grasped in one hand and the slitting device in the other and movement will be imparted to both the cable and the slitting device. It will be obvious, however, that either the cable or the slitting device may be held against longitudinal movement and the other part may be moved with relation thereto, it being only necessary that the cable and the cutters should have relative movement in the direction of the length of the cable.

While I have shown and described one embodiment of my invention I wish it to be understood that I do not desire to be limited to the details thereof as various modifications may occur to a person skilled in the art.

Having now fully described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a cable slitting device, two members pivotally connected one to the other on an axis transverse to their length and having opposed portions provided with longitudinal grooves to form a guideway for a cable, cutters carried by the respective members and extending into said grooves, said members having parts forming handles by means of which one of said cutters may be moved toward and from the other.

2. In a cable slitting device, two elongated members pivotally connected one to the other on an axis transverse to their length and near one end of said device and having parts near the other end of said device to form handles, said members having parts extending lengthwise thereof and cooperating to guide a cable in the direction of its length, each of said members having a slot, and cutters rotatably mounted in the respective slots and arranged to engage a cable when the latter is moved lengthwise of said device.

3. In a cable slitting device, two elongated members arranged substantially parallel one with the other, ears carried by one of said members near one end thereof, means for pivotally mounting the adjacent end of the other member between said ears, said ends of said members being spaced apart between said ears, said members having longitudinal grooves in the opposed portions thereof to form a guideway to receive a cable and having slots opening into said grooves, and cutters rotatably mounted in the respective slots and extending into said grooves.

4. In a cable slitting device, two elongated members pivotally connected one to the other on an axis transverse to the length thereof and arranged to provide a passageway for a cable between the pivotally connected portions thereof, said members having portions forming handles, one of said members having a portion shaped to form a guideway for the cable in line with said passageway, and a cutter carried by the other of said members and arranged to engage a cable in said guideway and slit the same when said cable is moved lengthwise in said guideway.

In testimony whereof, I affix my signature hereto.

GROVER T. STOTT.