This invention relates to devices for stripping the insulation from electrical conductors.

An object of the invention is to provide a tool which may be used by electricians to rapidly and easily slit the insulating outer sleeve of non-metallically insulated cables.

Another object is to provide a tool having provision both for slitting the outer sleeve of cables and for stripping off the insulating coating from the individual conductors of cables (or from any insulated conductors).

These and various other objects the invention attains by the construction hereinafter described and illustrated in the accompanying drawings, wherein:

Figure 1 is a plan view of the tool.
Figure 2 is a side view of the same.
Figure 3 is a view of the knife-carrying end of the tool, showing a cable engaged by the knife.

Figure 4 is a view of the yoke-forming end of the tool.

In these views the reference characters 1 and 2 designate a pair of elongated sheet metal jaw members fashioned to channel shape, and having their channels opening toward each other. An integral spring connection is established between corresponding ends of said jaw members by a relatively wide yoke portion 3 of the blank from which said members are formed. Said portion has an approximately semi-cylindrical curvature, the axis of such curvature being transverse to the length of the jaws 1 and 2. The spring-forming part 3 has a set tendency to hold the jaws spaced apart as shown in full lines in Figure 2. In said part 3 there is formed a central opening 4 through which a cable comprising two or more conductors may be inserted between the jaws 1 and 2. The conductors of such a cable are indicated in Figure 3 by the reference character 4a, and 4b designates the fabric sleeve which embraces said conductors.

Upon the free end portion of the jaw member 3 there is exteriorly rigidly mounted by brazing or other suitable means a metal block 5 which is slotted lengthwise of and transversely to said jaw member, as indicated at 6. In the slot 6 a knife blade 7 is held fixed by a clamping screw 8, the slot in the block being extended also through the free end portion of the jaw member 3 to permit the cutting portion of said blade to project into the channel of said jaw member, as best seen in Figure 3. Thus, said knife blade is disposed in substantially the central longitudinal plane established by the jaw members 1 and 2, that is to say, in the mid-plane of the length of the channels of said jaw members.

In using the tool, as so far described, a cable comprising a plurality of individually insulated conductors embraced by a fabric sleeve, such as is exemplified at 4a and 4b (Figure 3), is engaged between the jaw members 1 and 2 and said members are brought together so as to engage the knife blade 7 with the sleeve of the cable at a distance from the cable end equal to the length of the sleeve 4b which is to be slit. The slitting of said length is then effected by simply maintaining the jaw members 1 and 2 firmly gripped toward each other, while the tool is slid along the cable to the end thereof. By thus using the described tool the slitting of the insulating sleeve may be accomplished in a moment's time and without any trouble whatever. In the practice now commonly followed, a pocket knife is used for slitting the outer sleeve of the cable and the operation is time-consuming and difficult, and involves a risk of the individual insulation of the conductors being cut and also results sometimes in a workman cutting his hands. Use of the described tool eliminates any such risks.

A feature will now be described which gives to the tool additional utility as a stripper of the individual insulation from a conductor. The edges of the jaw member 1 (or the other jaw member) are formed with a pair of opposed notches 9 and 10 therein, preferably in the mid-length portion of said member. The notch 9 is V-shaped and its edges are beveled to adapt them to exercise a cutting function. The notch 10 is preferably semi-circular and is somewhat larger and deeper than the notch 9.

To strip the insulation from the end portion of a conductor, the latter is passed through the notches 9 and 10 transversely to the length of the described tool, as indicated in dash lines in Figure 1. The jaws are now gripped firmly in the hand to clamp them upon the insulation of said conductor. The tool is now rocked about the conductor causing the edges of the notch 9 to annularly sever the insulation of the conductor. The workman then jerks the tool toward the free end of the conductor stripping off the insulation between the annular cut and said end. The opening 10 is merely for the purpose of
affording clearance to a conductor clamped in the notch 9. The described tool may be inexpensively manufactured since it comprises merely a single sheet metal stamping with the slotted block 5 secured thereto.

The extension 11 of the block 5 reinforces the mid portion of the jaw member 1 and compensates for the weakening effect of the notches 9 and 10.

The relatively wide form of the yoke portion 3 not only adds to the strength of said portion, but tends also to prevent a workman's hand from slipping from the tool when the latter is being drawn endwise of a wire to exercise its slitting function. The normally diverged relation of the jaw members facilitates the introduction of an end of a cable between said members.

What I claim is:

1. A tool for slitting the outer insulating sleeve of a cable comprising a pair of jaw members channeled to embrace opposite sides of a cable, a spring connection between corresponding ends of said members, maintaining them normally slightly diverged and formed with an aperture to accommodate a cable passing between said jaw members, and a knife blade carried by one of said members upon its end portion opposite to that engaged by said spring connection, disposed substantially in the central longitudinal plane established by both of said members.

2. A tool for use upon insulated wires comprising a stamped sheet metal body fashioned to form a pair of companion jaw members of channel shape, the channels thereof opening toward each other, said body being further fashioned to form a spring connection between corresponding ends of said jaw members, said connection being formed with an opening to accommodate a cable engaged between said jaw members, and a knife blade carried by the free end portion of one of said jaw members projecting into the channel thereof and disposed substantially in the common central longitudinal plane of the two jaw members.

3. A tool for use upon insulated wires comprising a stamped sheet metal body fashioned to form a pair of companion jaw members of channel shape, having their channels opening toward each other, said body being further fashioned to form a spring connection between corresponding ends of said jaw members, one of said jaw members being formed with a V-shaped notch opening into one of its longitudinal edges, the edges of said notch being sharpened to exercise a cutting function.

4. A tool for use upon insulated conductors comprising a pair of jaw members fashioned to form channels opening toward each other, and a spring connection between corresponding ends of said jaw members maintaining a normal divergence between said members, the channel edges of one of said jaw members being formed with a pair of opposed notches one of which has an edge thereof sharpened to exercise a cutting function.

5. A tool for slitting the outer insulating sleeve of a cable comprising a stamped sheet metal member fashioned with a pair of channelled jaw members into substantially cylindrical shape, with an enlarged yoke portion at one end to prevent the hand from slipping, and a cutting means carried by one of said jaw members within the channel thereof.

6. A tool for slitting the outer insulating sleeve of a cable comprising a stamped sheet metal member fashioned with a pair of channelled jaw members into substantially cylindrical shape, with an enlarged yoke portion at one end to prevent the hand from slipping, and a knife blade rigidly carried within one end portion of one of the channelled jaw members, disposed substantially in the mid plane of the channel length.

7. A tool for slitting the outer insulating sleeve of a cable comprising a stamped sheet metal member fashioned with a pair of channelled jaw members into substantially cylindrical shape, with an enlarged yoke portion at one end to prevent the hand from slipping, formed with an aperture to accommodate a cable passing between said jaw members, and a cable insulation slitting means carried by one of said jaw members.

8. A tool for slitting the outer insulating sleeve of a cable comprising a stamped sheet metal member fashioned with a pair of channelled jaw members into substantially cylindrical shape, with an enlarged yoke portion at one end to prevent the hand from slipping, formed with an aperture to accommodate a cable passing between said jaw members, and a knife blade rigidly carried within one end portion of one of the channelled jaw members disposed substantially in the mid-plane of the channel length.

In testimony whereof I sign this specification.

LEON FRIEDMAN.