June 13, 1950 H. J. SCHWAB 2,511,015

INSULATION REMOVING TOOL

Filed Aug. 1, 1945

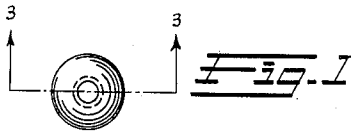


Fig. 1

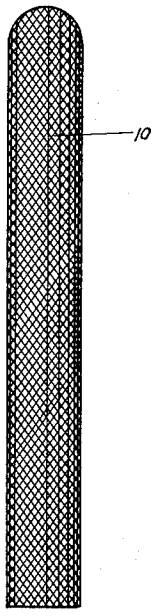


Fig. 2

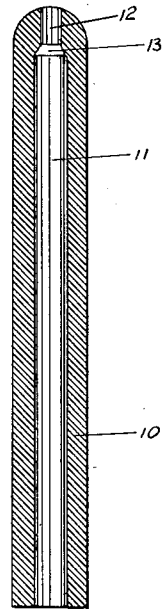


Fig. 3

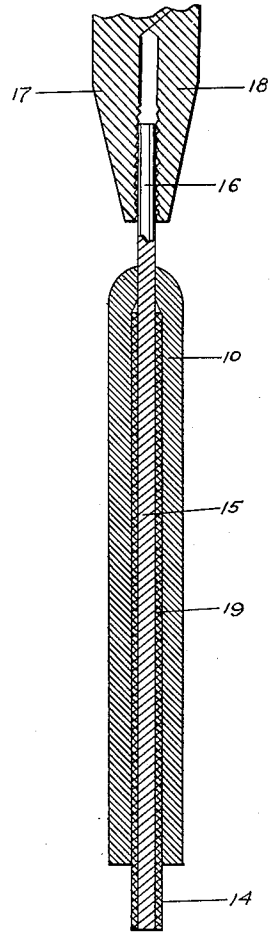


Fig. 4

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INSULATION REMOVING TOOL

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2 Claims. (Cl. 81—9.5)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

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This invention relates to a tool for removing insulation from wire in such a manner that the insulation is in an undamaged condition for laboratory tests.

Previous to this invention the insulation was removed by clamping one end of the wire in a vise and pulling the insulation off with bare hands. This resulted in tearing or bulging of the insulation and also frequently injured the hands.

An object of this invention is to provide a tool for rapidly removing insulation from wire.

A further object is to provide a tool for removing the insulation from relatively short test samples of wire without damage to or distortion of the insulation so that the insulation in substantially its original condition can be subjected to laboratory tests.

Further objects and advantages of this invention as well as its construction, arrangement and operation will be apparent from the following description and claims in connection with the accompanying drawing in which:

Fig. 1 is a plan view of the present device;

Fig. 2 is a side elevational view;

Fig. 3 is a sectional view taken on line 3—3 of Fig. 1, and

Fig. 4 is a sectional view similar to Fig. 3 showing the device in use.

A preferred embodiment of the present invention comprises an elongated cylindrical body portion 10 preferably rounded at one end. The body portion is provided with a central longitudinal bore 11 having a reduced portion 12 adjacent the rounded end. A tapered shoulder 13 joins bore 11 and reduced portion 12. As shown in Fig. 4, the larger bore portion 11 is of a diameter adapted to receive a section of insulated wire 14 snugly therein while the reduced bore portion 12 is of a diameter to fit closely about the metal core 15 of the wire.

In the use of the invention one end of a short piece of wire 14 has a small part of the insulation removed by conventional means, such as a knife, leaving a stripped metal portion 16 at one end which stripped portion is inserted through bores 11 and 12 and extends through the rounded end of the device a distance sufficient to allow clamping in the jaws 17 and 18 of some clamping device such as a vise, pliers or a similar tool.

As can be seen clearly in Fig. 4, the bare metal portion 16 fits snugly in bore 12 and likewise the insulated portion fits snugly in bore 11. When the device is pulled away from the jaws, tapered

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shoulder 13 presses firmly against the insulation 19 removing it from the metal portion 15 of the wire. This may be called stripping the wire. The restraining effect of the walls of bore 11 prevents the insulation from being damaged either by tearing or the tendency to bulge as would be the case in the former practice of pulling the insulation off with bare hands.

Use of this tool considerably reduces the time required to remove the insulation from a short specimen of wire for laboratory tests.

Changes can be made in this invention without departing from the spirit and scope thereof as set forth in the appended claims.

The invention described herein may be manufactured and used by or for the Government of the United States of America for governmental purposes without the payment of any royalties thereon or therefor.

What is claimed is:

1. A tool comprising an elongated tubular body having an elongated bore of one diameter formed therein, and extending inwardly from one end of said body, said bore being of an axial length equal to several times its own diameter, said body having formed therein only a second bore, the second bore being in alignment with the first named bore and of less diameter than the first named bore, said second bore opening at the other end of said body, said body being formed with the bores interconnected in an area defined by a continuous tapered wall, said body at every transverse plane along its length being unitary and forming a continuous smooth wall about the bore, said body being free from openings other than the bore openings at opposite ends of said body.

2. A tool for stripping insulation from a wire, said tool comprising an elongated tubular body having an elongated bore of one diameter formed therein and extending inwardly from one end of said body, said bore being of an axial length equal to several times its own diameter, said diameter being substantially the same as the outside diameter of the insulation on the wire to be stripped, said body having formed therein a second bore in alignment with the first named bore and of less diameter than the first named bore, said second bore opening at the other end of said body, the diameter of the smaller bore being substantially the same as the outside diameter of the wire to be stripped, said body being formed with the bores inter-connected in an area defined by a continuous tapered wall so that if insulated wire is fed into the larger bore and then forced

through the smaller bore the tapered wall prevents passage of insulation into the smaller bore and the insulation is retained in the larger bore while the stripped wire passes through the smaller bore, the wall of the larger bore serving to protect the stripped insulation from bulging or tearing, said body being free from openings other than the bore openings at opposite ends of said body.

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