

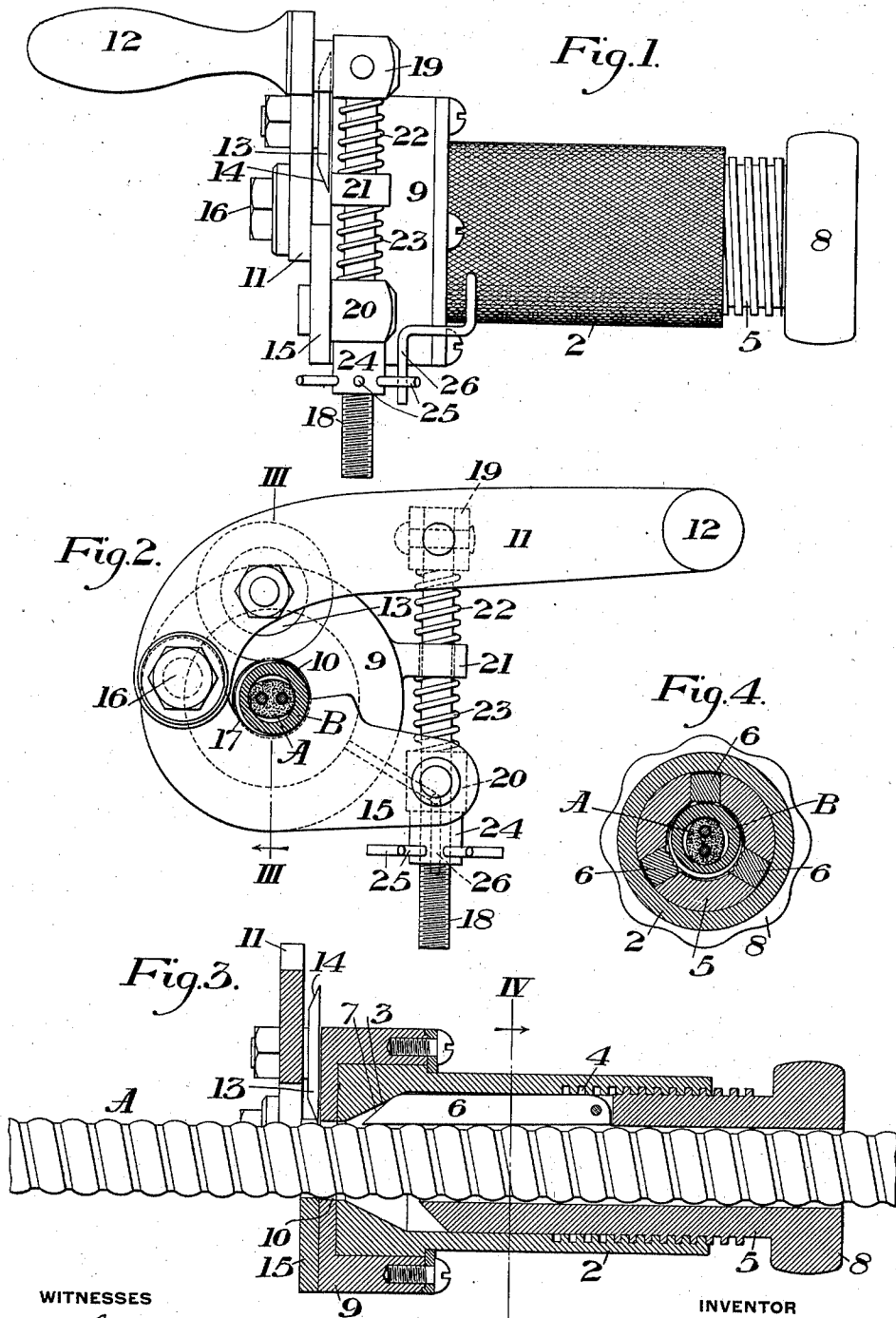
W. B. HEWITT.

DEVICE FOR REMOVING METALLIC COVERINGS FROM INSULATED CONDUCTORS.

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967,635.

Patented Aug. 16, 1910.



WITNESSES

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UNITED STATES PATENT OFFICE.

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DEVICE FOR REMOVING METALLIC COVERINGS FROM INSULATED CONDUCTORS.

967,635.

Specification of Letters Patent. Patented Aug. 16, 1910.

Application filed April 8, 1908. Serial No. 425,866.

To all whom it may concern:

Be it known that I, WALLACE B. HEWITT, of West Pittsburg, Lawrence county, Pennsylvania, have invented a new and useful
5 Device for Removing Metallic Coverings from Insulated Conductors, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

10 Figure 1 is a plan view of the device embodying my invention; Fig. 2 is an end view of the same; Fig. 3 is a longitudinal section on the line III—III of Fig. 2; and Fig. 4
15 is a transverse section on the line IV—IV of Fig. 3.

My invention has relation to a device or tool to be used for the purpose of removing metal coverings or sheaths from insulated
20 conductors, and for other purposes, and is designed to provide a simple and efficient device of this character which may be conveniently operated, and by means of which the metal covering or sheath can be cut at
25 any desired point without injuring the insulation in any manner.

The precise nature of my invention will be best understood by reference to the accompanying drawing, in which I have
30 shown one embodiment thereof, and which will now be described, it being premised, however, that various changes may be made in the construction and arrangement of parts by those skilled in the art, without
35 departing from my invention as defined in the appended claims.

In the drawings, the numeral 2 designates a tubular holder, preferably circular in cross section and having therein near one
40 end the cone or cam surface 3. The opposite end portion of the member 2 is provided with an internal thread 4 to receive a threaded chuck carrier 5, in which are pivotally
45 seated a plurality of longitudinally extending jaws 6, the free end portions of which are beveled, as indicated at 7, for engagement with the internal cone surface 3. The outer end of the chuck carrier 5 is provided with a hand portion 8 preferably of milled
50 or knurled contour, and by means of which the chuck carrier can be screwed into and out of the holder 2 for the purpose of closing and releasing the jaws 6, which are arranged to clamp the sheathed conductor to

be operated upon. This conductor is indicated in Figs. 2, 3 and 4, by the letter A, as consisting of one or more conductors embedded in insulation and surrounded by a ribbed or corrugated metallic sheath B.

9 is a head which is revolvably seated upon
60 the end portion of the member 2, and which is formed with a central opening 10 there-through for the work, said opening being in axial alinement with the opening through the chuck carrier 5. Pivoted to the outer
65 face of this head is a jaw or lever 11, provided with a suitable handle 12, at its free end, and having journaled thereto a cutter or cutters, preferably in the form of a wheel or disk 13. This wheel or disk has a flat
70 surface at one side in contact with the outer face of the head and its opposite face is beveled, as shown at 14, in Figs. 1 and 3, to form a peripheral cutting edge. 15 is a second arm or jaw, which is also pivoted
75 to the head, preferably by the same bolt or pivot 16, which secures the jaw 11, and which is provided in its inner face with a concave recess 17, which is adapted to fit the work at the side opposite the cutter.
80 This second arm or jaw 15 may be provided with rollers in its jaw face, instead of the concave recess shown. This would aid in reducing friction. The two jaws 11 and 15 are connected by a bolt 18, which, in the
85 form shown, is fixed at one end in a lug 19 on the jaw 11, and at its opposite end portion has a threaded portion which engages a thread in a lug 20 on the jaw 15. Said bolt also has a loose bearing in a lug 21 of
90 the head 9. Seated around said bolt at each side of the lug 21 and bearing against said lug at their inner ends and against the inner sides of lugs 19 and 20 at their outer ends are coil springs 22 and 23. On the
95 outer threaded end portion of the bolt 18 is a nut 24, having the radial pins or projections 25, which are adapted to engage with an arm or tappet 26, which is secured to the member 2.

100 The machine may be adapted and adjusted to different sizes of conductors or metal coverings by turning the star wheel 25 by hand, to bring the jaw 15 up to the work. After this adjustment is made, the tool will
105 then operate without further adjustment, as long as the same size of conduit is being cut. Thus, the star wheel is turned by hand to

bring the jaws up to the work, and then as the handle is turned, the tappet 26 actuates the star wheel to draw the jaws together and press the cutter into the sheath or covering. After each cutting operation, the jaws are adjusted back to their normal position by turning the star wheel in the reverse direction by hand. The cutter may be in the form of a knife instead of the disk shown.

The operation is as follows: The tool is slipped over the end of the sheathed conductor, which is to have its sheath or covering cut, and the chuck carrier 5 is turned to cause the jaws 6 to securely clamp the conductor. The nut 24 is then actuated by hand to bring the cutter into cutting relation to the work and the head 9 is then rotated about the work by means of the handle 12. At each revolution of the head, one of the radial projections 25 of the nut 24 will engage with the fixed arm or tappet 26, and will thereby actuate said nut to effect the feed of the cutter. The operator can readily determine the moment the metallic sheath or covering B has been severed, so that the cutter will not come in contact with the insulation. The form of the cutter insures making a clean sharp cut without fins or burs which will abrade the insulation in stripping off the severed piece.

The tool can be conveniently held in one hand, which grasps the member 2, while the head is rotated with the other hand. The tool can be held at any desired angle to accommodate the end of the work to be done; it can be readily applied to and withdrawn from the conductor, and forms a very simple and effective device for the purpose. Heretofore great difficulty has been experienced in doing this kind of work without injuring the insulation, but these difficulties are entirely obviated by the device described.

It will be apparent that many changes may be made in the construction and arrangement of the parts. Thus, any suitable form of chuck or holding device may be em-

ployed for grasping the work; the automatic feed for the cutter may be provided in any one of a number of different ways, and various other changes may be made without affecting my invention. It is also obvious that the device may be used for various other purposes, such as the cutting of wires, rods, tubes, etc.

What I claim is:—

1. A hand tool of the class described, comprising a holder having gripping means for the work, a head rotatably mounted on the holder, a pair of jaws pivoted to the head, a cutter mounted on one of the jaws, an adjustable connection between the jaws, and means for automatically actuating said connection to feed the cutter to the work as the head is rotated; substantially as described.

2. A hand tool of the class described, comprising a holder having gripping means for the work, a head rotatably mounted on the holder, a pair of jaws pivoted to the head, one of said jaws being extended to form a hand lever for rotating the head, a cutter mounted on one of the jaws, an adjustable connection between the jaws, and means for automatically actuating said connection to feed the cutter to the work as the head is rotated; substantially as described.

3. A hand tool of the class described, comprising a tubular holder having work gripping devices therein, means for actuating said devices to grip and release the work, a head rotatably mounted upon one end portion of the holder, a pair of jaws pivoted to the head, a cutting tool mounted on one of said jaws, said jaw having a lever extension, a connection between the jaws, and means for actuating said connection to feed the cutting tool to the work; substantially as described.

In testimony whereof, I have hereunto set my hand.

WALLACE B. HEWITT.

Witnesses:

JOHN MILLER,
H. M. CORWIN.