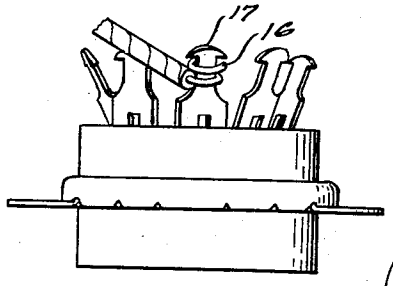
Dec. 28, 1948. F. W. JOHNSON 2,457,475

METHOD OF AND DEVICE FOR WRAPPING WIRE ON TERMINALS

Filed Dec. 22, 1945

Fig. 5.



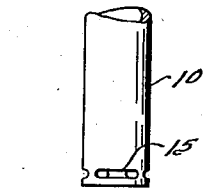


Fig. 2.

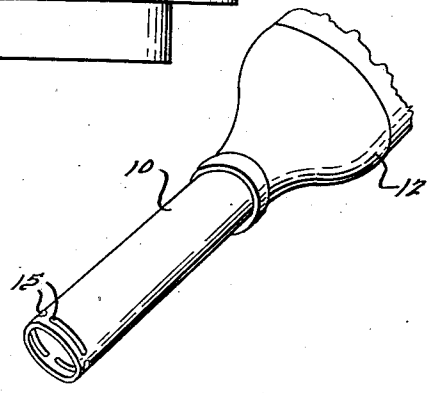


Fig. 1.

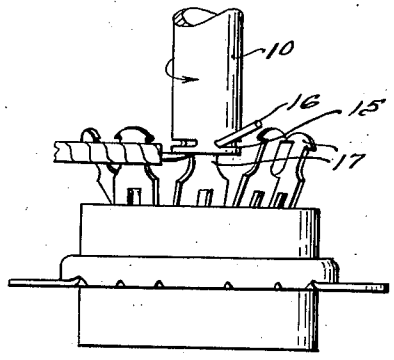


Fig. 4.

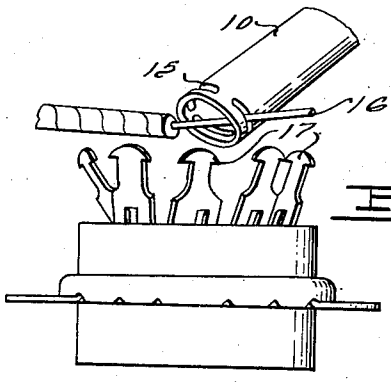


Fig. 3.

INVENTOR.
Fleming W. Johnson.
BY
Harness, Dickey & Pierce
ATTORNEYS.

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UNITED STATES PATENT OFFICE

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METHOD OF AND DEVICE FOR WRAPPING WIRE ON TERMINALS

Fleming W. Johnson, Detroit, Mich., assignor to International Detrola Corporation, Detroit, Mich., a corporation of Indiana

Application December 22, 1945, Serial No. 636,641

4 Claims. (Cl. 140—123)

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This invention relates to method of and wire wrapping devices and particularly to an improved power-driven tool for wrapping the ends of electrical conductors around terminals or binding posts to effect a mechanical attachment which may of course form a basis for subsequent soldering to provide an unbroken electrical path.

The principal object of the present invention is to provide means whereby such wrapping of wire terminals may be effected more easily and rapidly than is possible by the hand methods presently used, with consequent increased production and lessening of operator fatigue.

Another object is to provide a new method of wrapping wire about a terminal or other postlike structure.

Other objects and advantages will be apparent upon consideration of the present disclosure in its entirety.

In the drawing:

Fig. 1 is a perspective view of a tool constructed in accordance with the present invention, the driving motor being fragmentarily illustrated;

Fig. 2 is a side elevational view of the wire-engaging end portion thereof;

Fig. 3 is a perspective view of the operative end of the tool showing a conductor wire inserted and ready for wrapping about an electrical terminal;

Fig. 4 is a side elevational view of the tool and wire applied to the terminal at the commencement of the wrapping operation; and

Fig. 5 is an elevational view of the wrapped terminal.

Referring now to the drawing, reference character 10 designates the shank of my improved wire wrapping tool which may be drivable by an electric motor as 12 or any other suitable rotary driver. The working end of the tool is formed as a hollow cylinder, provided near its free end with a plurality of closed-periphery slots 15 extending entirely through its wall. Such slots serve to provide a tool having adjacent one end, axially successive hollow portions connected together in spaced relation with postlike means extending between adjacent ends of the hollow portions and joining them together with said adjacent ends spaced apart axially of the tool to thereby define peripherally extending slot means which, except as interrupted by the postlike means, extends throughout the periphery of the hollow portion. The internal diameter of the tool is sufficient to provide considerable clearance when the tool is placed over a terminal or binding post 17, so that a wire 16 threaded through one of the closed-periphery slots 15 in the tool in the manner shown

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in Figs. 3 and 4, may also be fitted over the terminal with the tool. The end portion of the wire 16 to be wrapped may be inserted in any one of the slots 15, as indicated in Fig. 3, in such manner that it projects through the slot from inside the cylinder, and the portion to be wrapped extends outside the tool as shown in Figs. 3 and 4. The tool and wire are then placed over the terminal, as shown in Fig. 4, the driving motor started, and the end of the wire is carried around the terminal 17 by the rear wall of the slot as the tool is rotated. As the wrapping progresses, the free end of the wire withdraws and as the wrapping is completed the free end of the wire slips out of the slot and the tool may be removed, leaving the wire 16 wound around the terminal 17 as shown in Fig. 5.

I claim:

1. The method of securing wires to terminals by means of an open-ended hollow member having an apertured peripheral wall which comprises the steps of inserting an end portion of the wire to be wound around the terminal into the hollow portion of the member and outwardly through the aperture, of placing the hollow member over the terminal in telescoping fashion with the wire inserted therein, and of rotating the member relative to the terminal until the inserted end of the wire is withdrawn inwardly through the aperture and wound about the terminal.

2. In a tool for wrapping wire about a terminal or other postlike structure, a tool member having adjacent one end axially successive hollow portions and postlike means extending between adjacent ends of said hollow portions and joining them together with said adjacent ends spaced apart axially of the tool to thereby define peripherally extending slot means leading into the interior of said portions, said slot means extending throughout the periphery of said portions except when interrupted by said postlike means and said postlike means being so narrow, measured circumferentially of said hollow portions that said slot means extends substantially completely around the periphery of said hollow portions, said hollow portions being adapted to encompass a portion of said terminal, said slot means being of sufficient size relative to that of said wire so that an end portion of said wire readily may be inserted through said end and outwardly through said slot means at any of a number of rotative positions of said tool member so that subsequent rotation of said tool member about the axis of said hollow portions subsequent to said tool member being in said encompassing position will cause said wire end

portion to withdraw inwardly through said slot means and be wound about the terminal, said hollow portions being of sufficient dimension relative to the terminal and to said wire so as to encompass at least one complete turn of wire wound about the terminal.

3. In a tool for wrapping wire about a terminal or other postlike structure, a tool member having a recess opening outwardly through one end thereof adapted to encompass a portion of the terminal about which the wire is to be wound, said member having a plurality of elongated openings through its side wall leading from said recess, said openings being arranged so that each of the elongated portions extends circumferentially of said member and being arranged around the periphery of said member such that said openings provide a nearly completely peripheral opening, said openings further being of sufficient size relative to that of said wire so that an end portion of said wire may be inserted through said one end into said recess and outwardly therefrom through one of said openings whereby rotation of said member about its longitudinal axis will cause said wire end portion to withdraw inwardly through said one opening and be wound about the terminal, the interior of said recess being of sufficient dimension relative to the terminal and to said wire so as to encompass at least one complete turn of wire wound about the terminal.

4. The combination of claim 3 in which all of said elongated openings lie in a plane transverse to the longitudinal axis of said member and are separated only by relatively narrow postlike portions of said member.

FLEMING W. JOHNSON.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,113,372	Porter	Oct. 13, 1914
1,397,876	Meldal	Nov. 22, 1921
1,845,951	Worsham	Feb. 16, 1932

FOREIGN PATENTS

Number	Country	Date
110,283	Australia	Mar. 29, 1940