

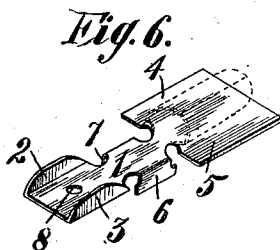
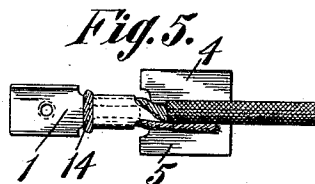
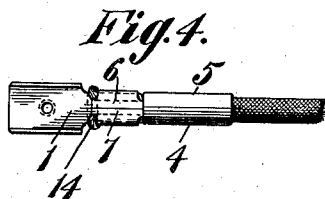
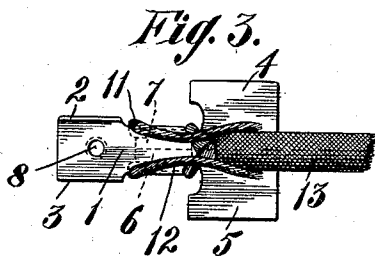
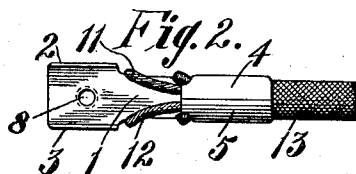
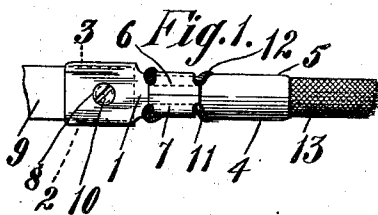
No. 731,400.

PATENTED JUNE 16, 1903.

H. L. WORTHINGTON.
TERMINAL TIP FOR ELECTRIC WIRES.

APPLICATION FILED FEB. 27, 1903.

NO MODEL.



Witnesses:
F. L. Bachenberg.
Henry Thorne

Inventor:
Harry L. Worthington
by attorney
Maurice Seward

UNITED STATES PATENT OFFICE.

HARRY L. WORTHINGTON, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF
TO VALENTINE E. KENNEDY, OF NEW YORK, N. Y.

TERMINAL TIP FOR ELECTRIC WIRES.

SPECIFICATION forming part of Letters Patent No. 731,400, dated June 16, 1903.

Application filed February 27, 1903. Serial No. 145,369. (No model.)

To all whom it may concern:

Be it known that I, HARRY L. WORTHINGTON, a citizen of the United States, and a resident of the borough of Manhattan, in the city and State of New York, have invented a new and useful Improvement in Terminal Tips for Electric Wires, of which the following is a specification.

My invention relates to an improvement in terminal tips for electric wires, and has for its object to provide a device by means of which the wire may be secured to its support without the use of solder.

A further object is to provide an improved form of tip whereby the wire may be secured to the tip against all liability of becoming detached therefrom under the strain of constant handling.

A further object is to provide a tip for use in connection with insulated electric wires in which the insulated wrapping of the wire, as well as the wire itself, is secured to the tip, so as to effectually prevent the wrapping from being stripped from the wire.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Figure 1 represents a portion of an electric wire and its terminal tip to which it is secured in top plan. Fig. 2 is an inverted plan view of the same. Fig. 3 is a similar view with the wings which clamp the insulated wrapping and the ends of the wire to the tip unfolded. Fig. 4 is a top plan view showing the manner of attaching a wire having a single strand to the tip instead of the double strand, as shown in Figs. 1, 2, 3. Fig. 5 is an inverted plan view of the same, and Fig. 6 is a view in perspective of the terminal tip before the wire is secured thereto.

Heretofore it has been common to provide a terminal tip or lug, of cast metal, having a socket therein, in which the end of the wire has been soldered. It has been found that the wire frequently pulls out of the tip when in use, thus causing great inconvenience, and when this cast lug has been used in connection with insulated wires the insulated wrapping has had to be stripped from the wire to a point outside of the lug. The end of the insulated wrapping has therefore been left free

to unravel or strip from the wire, thus causing great danger, owing to the exposure of the wire where it is not desired to have it exposed. These defects I have overcome by the use of the tip to be hereinafter described. This tip comprises a strip of sheet metal of good electric conductivity—such, for instance, as copper. The tip comprises the body portion 1, having an outer pair of wings 2 3, an inner pair of wings 4 5, and an intermediate pair of wings 6 7. This body portion is further provided with a hole 8 therethrough at a point between the outer wings 2 3 for the attachment of the tip to any suitable support 9 by means of a binding-screw 10. This support 9 has squared edges, against which the wings 2 3 are bent downwardly for holding the tip and its wire in the proper position with respect to the said support.

In the form shown in Figs. 1, 2, 3 the insulated wire is shown as being provided with two strands 11 and 12, protected by an insulated wrapping 13 of any well-known and approved form. The insulated wrapping 13 is stripped from the two strands 11 and 12 for a short distance from their ends, and the said strands are then passed around the wings 6 and 7 of the tip, the said wings forming shoulders, whereby the strands may be bent back upon themselves. The wings are then folded snugly together along one face of the body portion 1 of the tip, thus locking the strands against removal from the tip. The end of the insulated portion and the ends of the strands are brought together on the body portion 1 between the wings 4 and 5 thereof. These wings are then folded over around the ends of the strands and also the end of the insulated wrapping for securely fastening the same within the tip. By this arrangement there are no rough ends of the strand left in position to catch upon adjacent objects, and the end of the insulated wrapping is also absolutely prevented from being stripped farther along the wire.

In the form shown in Figs. 4 and 5 I have shown a wire as provided with a single strand 14, which is first wrapped around the wing 6 and then around the wing 7, bringing its end back against the body portion and the insulated wrapping of the wire between the wings

4 and 5 of the tip. When these wings are folded over, the single-strand wire may thus be as firmly secured to the tip as the double-strand wire.

5 It is evident that slight changes might be resorted to in the form, construction, and arrangement of the several parts without departing from the spirit and scope of my invention. Hence I do not wish to limit myself strictly to the structure herein set forth;
10 but

What I claim is—

1. A metallic terminal tip for electric wires having a pair of wings around which the end
15 of the wire is fitted to be passed and separate means for clamping the wire and its end to the tip.

2. A metallic terminal tip for electric wires

having a pair of wings around which the ends of the wire are fitted to be passed and another pair of wings for clamping the wire and its ends to the tip. 20

3. A sheet-metal terminal tip for electric wires having three pairs of wings, one pair for adjusting the tip with respect to its support, a second pair around which the wire is fitted to be passed and the third pair for clamping the wire to the tip. 25

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 25th day of February, 1903. 30

HARRY L. WORTHINGTON.

Witnesses:

FREDK. HAYNES,
HENRY THIEME.