

G. R. WELCH.
 TERMINAL FOR ELECTRIC WIRES.
 APPLICATION FILED MAY 3, 1912.

1,050,885.

Patented Jan. 21, 1913.

Fig. 2.

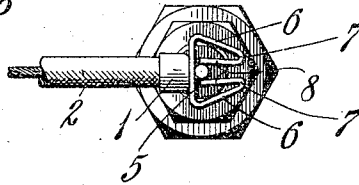


Fig. 1.

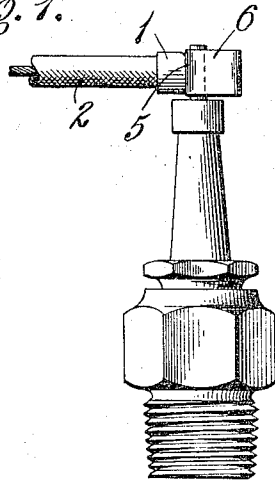


Fig. 4.

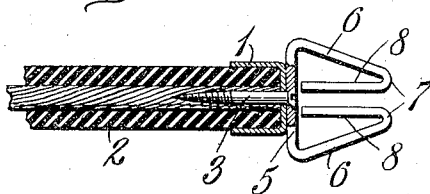
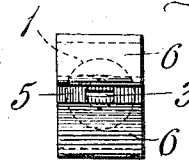
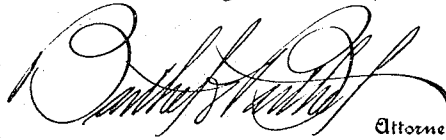


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE R. WELCH, OF DETROIT, MICHIGAN.

TERMINAL FOR ELECTRIC WIRES.

1,050,885.

Specification of Letters Patent.

Patented Jan. 21, 1913.

Application filed May 3, 1912. Serial No. 694,912.

To all whom it may concern:

Be it known that I, GEORGE R. WELCH, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Terminals for Electric Wires, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a terminal for electric wires and to an arrangement thereof whereby the same may be attached or detached without the use of tools and whereby the wire does not become twisted or kinked as the terminal acts as a swivel.

The invention consists in the matters hereinafter set forth and more particularly pointed out in the appended claims.

In the drawings, Figure 1 is a view in elevation of a spark plug with a cable and terminal applied thereto, the latter embodying features of the invention; Fig. 2 is a plan view of the terminal and the plug; Fig. 3 is an end view of the terminal; and Fig. 4 is a view partially in section and partially in elevation, enlarged and in detail of the terminal and adjacent portion of the cable to which it is attached.

As herein shown in preferred form, a ferrule or cap 1 adapted to receive the end of a cable 2 is secured thereon by a screw 3 passing through a central aperture of the cap and engaging the body or core of the cable. The head and adjacent portion of the screw are arranged to form a swivel bearing for a clip member in which the head of the screw is preferably counter-sunk.

As herein shown in preferred form the clip comprises a sheet metal strip having a central body 5 apertured to receive the screw and adapted to be rotated against the head of the ferrule 1 with oppositely disposed convergent spring arms 6 which are bent between their ends to form outer rounded apices 7 with inwardly turned parallel spring arms 8. The inner ends of the latter closely approach the outer face of the body 5 and are so spaced that they are closer together than the diameter of the screw head so that they prevent the latter from working loose or act as a stop for the same. As a result of this formation, the terminal may be readily secured to a cable by slipping the ferrule over the end, inserting the screw through the body of the clip and the aperture of the cap and driving it home with a

screw-driver, the clip being rotatable against the ferrule. When slipped over a stud or terminal member, the convergent arms separate sufficiently to permit the passage of the stud or screw between the apices which afterward return to place while the inner parallel arms are forced apart as the stud approaches the inner ends, leaving them in the divergent position indicated in Fig. 1, whereby the stud is prevented from working out of the clip. Because of the swiveling on the head on the ferrule the cable may be twisted or turned without becoming kinked or bent.

Obviously, changes in the details of construction may be made without departing from the spirit of the invention and I do not care to limit myself to any particular form or arrangement of parts.

What I claim is:—

1. A terminal for an electric cable comprising a ferrule adapted to embrace the end portion of the cable, a clip having spring arms adapted to yieldingly embrace a terminal transversely to the cable and a screw on which the clip is rotatable adapted to secure the ferrule to a cable.

2. A terminal for electric wires comprising a ferrule adapted to embrace the end portion of a cable, a screw through the head of the ferrule adapted to engage a cable to which the ferrule is applied and a clip comprising a spring strip having a body swiveled on the screw against the head of the cable, a pair of oppositely disposed convergent arms extending from the body in bent to form rounded separated apices with inwardly extending parallel spring arms.

3. A terminal for electric wires comprising a ferrule adapted to embrace the end portion of a cable, a screw through the head of the ferrule adapted to engage a cable to which the ferrule is applied and a clip comprising a spring strip having a body swiveled on the screw against the head of the cable, a pair of oppositely disposed convergent arms extending from the body in bent to form rounded apices with inwardly extending parallel spring arms, the inner end faces of the arms overlying the adjacent head of the screw.

4. A terminal for an electric cable comprising a member adapted to embrace the end portion of a cable, a holding member through the embracing member adapted to engage a cable inserted therein, and a spring

clip swiveled on the holding member and adapted to yieldingly engage an inserted terminal.

5 5. A terminal for an electric cable comprising a member adapted to embrace the end portion of a cable, a holding member through the embracing member adapted to engage a cable inserted therein, and a spring clip swiveled on the holding member and

adapted to yieldingly engage an inserted 10 terminal and to act as a stop for retaining the holding member.

In testimony whereof I affix my signature in presence of two witnesses

GEORGE R. WELCH.

Witnesses:

OTTO F. BARTHEL,
ANNA M. DORR

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."