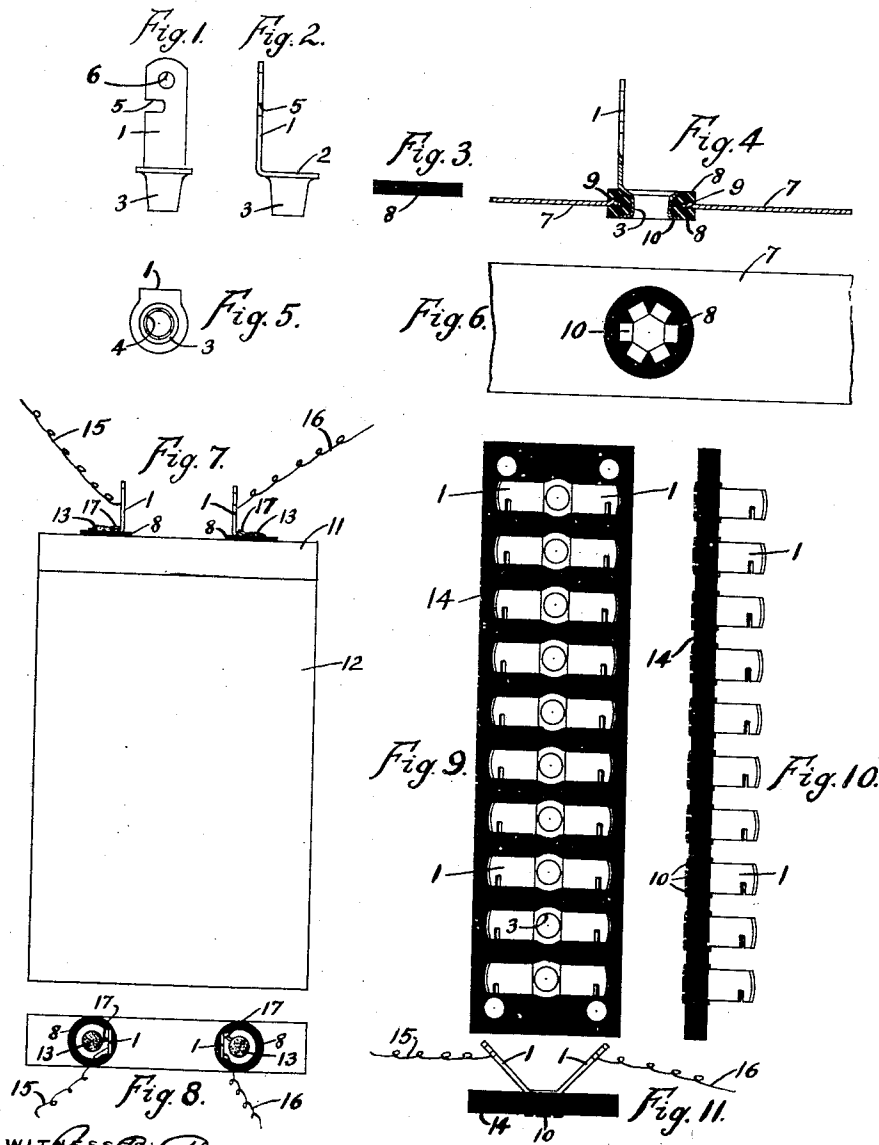


H. G. ADDIE.
 CONNECTION TERMINAL FOR ELECTRIC CONDUCTORS.
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926,451.

Patented June 29, 1909.



WITNESSES:
R. E. Fields
D. H. McIntosh

INVENTOR:
Herbert G. Addie.
 BY *Frederick R. Parker*
 ATTORNEY.

UNITED STATES PATENT OFFICE.

HERBERT G. ADDIE, OF CRESCO, IOWA, ASSIGNOR TO ARVID L. PETERSON, OF CRESCO, IOWA.

CONNECTION-TERMINAL FOR ELECTRIC CONDUCTORS.

No. 926,451.

Specification of Letters Patent.

Patented June 29, 1909.

Application filed April 26, 1906. Serial No. 313,868.

To all whom it may concern:

Be it known that I, HERBERT G. ADDIE, a citizen of the United States of America, residing at Cresco, in the county of Howard and State of Iowa, have invented a new and useful Connection-Terminal for Electrical Conductors, of which the following is a specification, reference being had to the accompanying drawings, illustrating same.

My invention relates to connection terminals for connecting electrical conductors, to be used in various places, as, for instance, on electrical condensers, distributing strips, or wherever such terminals are required.

The principal objects of my invention are to provide a terminal which does away with screw, bolt, or pin fastenings; to provide a terminal which may accommodate a conductor leading out of an inclosed portion and at the same time seal the inclosed portion perfectly air or moisture tight; to provide improved means for insulating such a terminal from conducting parts to which it is mounted; and to provide simplicity, durability, and accessibility in such a terminal connector.

It is generally customary to mount such terminals by the use of screws or bolts, and with the terminals generally in use it is very hard to seal the aperture through which electrical conductors extend from an inclosure to the terminal, as in a condenser, without going to extra trouble and expense, and then generally the sealing of the aperture is not perfect.

The terminal of my present invention has a hollow portion through which an electrical conductor may extend and be soldered thereto so that the solder completely seals up the hollow portion, the latter also serving as a rivet to secure the terminal in place. Thus it will be seen that this terminal, made of a single piece of metal, serves as a connection terminal for electrical conductors and also as a means for mounting itself and sealing up the aperture through which a conductor may extend from the interior of an inclosure.

Referring to the accompanying drawings illustrating the preferred form of my invention, Figures 1 and 2 are side elevations of the connection terminal of the invention. Fig. 3 shows an insulating washer. Fig. 4 shows a cross-section of the terminal riveted in place to a piece of sheet metal and suitably insulated therefrom. Fig. 5 is a bottom end view of Fig. 1. Fig. 6 is a bottom view of Fig. 4, showing how the terminal is

riveted in place. Fig. 7 is a side elevation of a condenser provided with the terminals of my invention. Fig. 8 is a top view of Fig. 7. Fig. 9 is a front elevation of a distributing strip showing a modified form of terminal connector. Fig. 10 is an edge elevation of Fig. 9. Fig. 11 is an end view of Fig. 9.

Like characters refer to like parts in the several figures.

The terminal of Figs. 1 and 2 preferably comprises a metal strip 1 provided with a portion 2 bent at right angles thereto, a part of the metal of portion 2 being drawn out into a thimble 3 which is preferably scarred on the inside as shown at 4 so that when it is riveted over as shown in Fig. 4 it will split as shown in Fig. 6. The portion 1 may be provided with a slot 5 and a hole 6 therein to accommodate electrical conductors leading thereto. In securing the terminal to a piece of sheet metal 7, Fig. 4, and insulating same therefrom, an insulating washer 8 is placed on each side of the sheet metal 7, and the thimble portion 3 of the terminal is then inserted through the washers 8 8, and the plate 7, and riveted thereto. The hole through the plate 7 is considerably larger than the holes through the washers, so as to give considerable clearance between the terminal and the plate. In riveting, the thimble portion 3 is tightly riveted over as shown in Figs. 4 and 6, thereby tightly squeezing washers 8 8 against the plate 7 and together through the hole therein. This riveting makes a perfectly tight joint between the plate 7 and the thimble 3, and at the same time insulates the terminal from the plate. The plate 7 may be provided with projections 9 9 thereon to press in washers 8 8 to prevent the washers from turning on the plate after the terminal is riveted thereto. The bottom portions 10 of the thimble 3 embed themselves in a washer 8 so as to prevent the terminal from turning in the washer.

In Fig. 7 the condenser is provided with the terminals of my invention secured to the lid 11 thereof as just described in connection with Figs. 4 and 6. The conductors 17 17 leading from the conducting strips of the condenser, inside the case 12, extend through the hollow thimbles 3 3 of the terminals and are soldered thereto by solder 13 which completely seals up the apertures leading from the condenser. The external conductors 15

and 16 leading to any suitable circuit arrangement, may be secured to the portion 11 of the terminals in the usual manner.

5 In Fig. 9 I have shown a modified form of my terminal provided with two legs 11 thereon and riveted to an insulating distributing strip 14. In securing these terminals to the strip 14 it is not necessary to use insulating washers 88, as in Fig. 4, as the
10 terminals are riveted direct to the strip 14. Conductors 15 and 16, to be distributed, may be soldered to the portions 11 of the terminal, as shown in Fig. 11. If desired, conductors may be brought from the rear of the
15 strip 14 through the hollow portions of the terminals and soldered thereto as described. The distributing strip of Figs. 9, 10 and 11, may be suitably mounted in place in the usual manner.

20 I do not wish to limit this invention to the particular details of construction as herein shown, as many modifications may be made without departing from the scope of the invention.

25 What I claim as my invention and desire to secure by Letters Patent is;

The combination with a metallic casing forming an inclosure for electrical conductors, of a one-piece terminal member having a hollow portion extending through the wall 30 of the casing and a portion exterior of the casing extending out therefrom and adapted for a terminal for an external conductor, insulating members for insulating the said hollow portion from the metallic casing, the
35 said hollow portion being riveted to the said insulating members whereby the said terminal member is securely mounted to the said casing, means for preventing the said terminal member from turning relatively to the
40 said casing, and solder securing an internal conductor to the said hollow portion and sealing the latter, all for purposes substantially as set forth.

As inventor of the foregoing I hereunto
45 subscribe my name in the presence of two subscribing witnesses this 19th day of April, 1906.

HERBERT G. ADDIE.

Witnesses:

C. E. FIELDS,

D. H. McINTOSH.