

No. 849,028.

PATENTED APR. 2, 1907.

G. E. STEVENS.
CONNECTOR FOR ELECTRIC CONDUCTORS.
APPLICATION FILED FEB. 11, 1904.

Fig. 1.



Fig. 2.

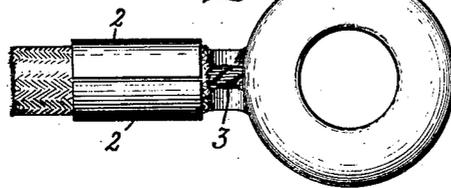


Fig. 3.

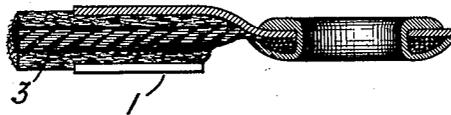
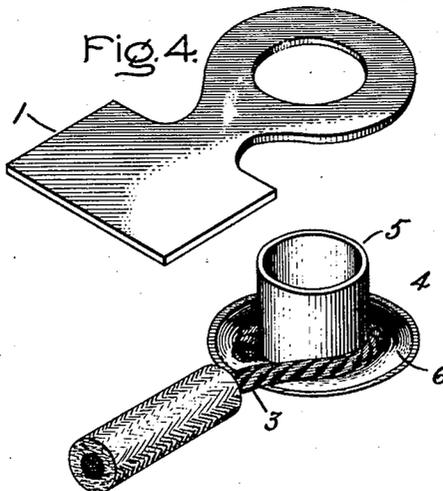


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE E. STEVENS, OF LYNN, MASSACHUSETTS, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

CONNECTOR FOR ELECTRIC CONDUCTORS.

No. 849,028.

Specification of Letters Patent.

Patented April 2, 1907.

Application filed February 11, 1904. Serial No. 193,031.

To all whom it may concern:

Be it known that I, GEORGE E. STEVENS, a citizen of the United States, residing at Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Connectors for Electric Conductors, of which the following is a specification.

This invention relates to connectors for electric conductors which are to be joined to contacts or other conductors of any kind. Its object is to provide a tip or end clip for the conductor which shall afford a ready means for making such an electrical connection, which may be quickly and readily applied to the conductor, which shall not require the use of solder, and which can be manufactured rapidly at a small cost.

To accomplish these ends, I provide a clip or connector for the conductor consisting, preferably, of two metallic pieces adapted to grip the end of the conductor and hold it firmly between them and shaped to facilitate connection to a fixed stud or other device.

One of these parts is a short tubular piece of metal of good conductivity having a curled flange at one end integral therewith, and the end of the conductor, stripped of its insulation, is curled around this tubular stem and pressed against the flange. The other part of the connector is a circular punching of sheet metal of good conductivity having a concentric opening therein and is adapted to fit over the tubular stem of the other part and slip down upon the conductor. With the two parts of the connector assembled thus with the conductor between them the end of the stem extending through the opening in the sheet-metal piece is turned over and pressed down on that piece until the latter is forced into firm engagement with the conductor, which is thus tightly inclosed by the sheet-metal piece on one side and the curled flange on the end of the stem on the other. The sheet-metal blank which forms one part of the connector is preferably punched out with an integral extension forming wings which are adapted to be curled around the conductor to give greater strength to the joint between it and the connector. Both of the operations above described—that of turning the end of the stem over and down upon the sheet-metal piece and that of curling the wings around the conductor—can be

quickly and readily performed at the same time in a suitable press; but other methods of accomplishing the same results may be pursued and will suggest themselves to skilled mechanics. The opening through the stem is left clear and unobstructed, so that the connector can be readily slipped over a stud or contact and secured thereto. I have thus succeeded in making a strong neat connecting device at a small cost adapted for ready connection to a stationary contact, another conductor, or any other device, and, further, the parts of the connector grip the conductor so tightly and the area of contact therewith is so large that the use of solder between the connector and conductor, which stiffens the latter and renders it liable to breakage, is entirely unnecessary.

The novel features of my invention will be definitely indicated in the claims appended hereto. The details of construction of my improved connector will be better understood by reference to the following description, taken in connection with the accompanying drawings, in which—

Figure 1 is a side and Fig. 2 a front view of the connector. Fig. 3 is a central section thereof, and Fig. 4 is a perspective view of the parts before being united.

Referring to the drawings, which illustrate one embodiment of my invention, 1 represents a circular punching of sheet metal of good conductivity having a concentric opening therein and an integral extension on one side, forming the wings 2 2, which are adapted to be curled around the conductor 3. This punched plate forms one part of the connector. The other part 4 is also of metal of good conductivity and consists of a short tubular stem 5, having a curled flange 6 at one end integral therewith. The conductor 3 is bared of insulation for a short distance back from its end and is curled around the stem 5 close up against the flange 6, as shown in Fig. 4. The perforated plate 1 is then slipped over the stem 5 and down against the conductor 3. As thus assembled the parts are put in a suitable press, and that portion of the stem 5 which protrudes through the opening in the plate 1 is turned over on the plate 1, pressing the same into such firm contact with the conductor 3 that the latter is somewhat flattened between the flange 6 and the plate 1 and is completely inclosed therein, as shown

in Fig. 3. At the same time or in a subsequent operation, if preferred, the wings 2 2 are curled around the conductor, as shown in the drawings, to give greater strength to the joint. The finished connector is shown in Figs. 1 and 2. It presents a neat appearance, the joint with the conductor is a strong one, and good contact is made therewith. Moreover, no solder or other material detrimental to the conductor need be used.

It is obvious that if two conductors are to be brought to the same contact the plate 1 may be formed with two extensions having wings 2 2, and the ends of the two conductors may be curled around the stem 5 and clasped between the parts of the connector.

I do not wish to be understood as limited to the exact form of connector shown, as the construction is capable of variation to suit conditions. The construction shown and described, however, is that which I prefer to use.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A connector for an electric conductor, comprising a stem around which the conductor extends, a flange on the stem integral therewith, and a perforated plate fitting on the stem and held in place between the flange and the conductor.

2. A connector for an electric conductor, comprising a stem having a flange thereon, a

perforated plate fitting on said stem and held in place between the flange and the conductor, and an extension on said plate adapted to grip the conductor.

3. A connector for an electric conductor, comprising a stem having a flange thereon, a perforated plate fitting on said stem and held in place between the flange and the conductor, and a second flange on the stem holding the conductor in firm engagement between it and said plate.

4. A connector for an electric conductor comprising a stem having a flange thereon, a perforated plate fitting on the stem and provided with an extension adapted to grip the conductor, and a second flange on the stem holding the conductor firmly between it and said perforated plate.

5. A connector for an electric conductor comprising a stem having a flange at one end thereof, a perforated plate fitting on the stem and provided with an extension having wings which hold the conductor between them, and a flange on the other end of said stem between which and said perforated plate the end of the conductor is held.

In witness whereof I have hereunto set my hand this 8th day of February, 1904.

GEORGE E. STEVENS.

Witnesses:

DUGALD MCK. MCKILLOP,
JOHN J. WALKER.