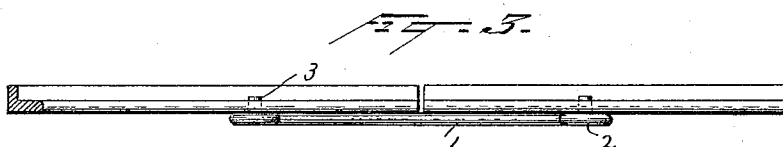
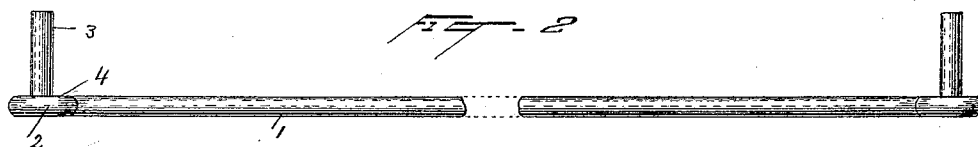
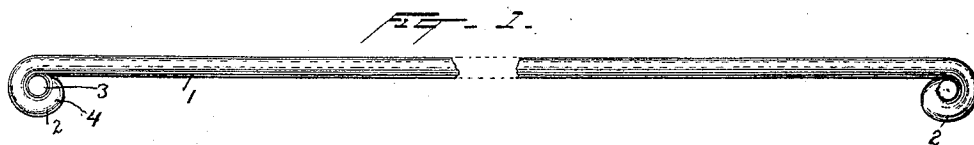


(No Model.)

H. P. BALL.
ELECTRICAL CONNECTING DEVICE.

No. 461,563.

Patented Oct. 20, 1891.



Witnesses
Norris A. Clark.
A. F. Charles

Inventor
Henry Price Ball,
By his Attorneys
Sydney Seely.

UNITED STATES PATENT OFFICE.

HENRY PRICE BALL, OF BROOKLYN, ASSIGNOR TO THE EDISON GENERAL ELECTRIC COMPANY, OF NEW YORK, N. Y.

ELECTRICAL CONNECTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 461,563, dated October 20, 1891.

Application filed June 13, 1891. Serial No. 396,075. (No model.)

To all whom it may concern:

Be it known that I, HENRY PRICE BALL, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in Electrical Connecting Devices, of which the following is a specification.

The present invention relates to devices for electrically connecting the abutting ends of railway-rails or other large conductors of electric currents.

The object of the invention is to provide such a device which shall be simple of construction and easy of manipulation; and the invention consists in a connecting device of the character indicated, consisting of a rod or wire having one or both ends bent at right angles and coiled, as shown in the accompanying drawings, in which—

Figure 1 is a plan view, and Fig. 2 a side view, of the connector; and Fig. 3 is a view of the ends of two rails connected by the device.

The connector consists of a single rod or wire 1, of suitable strength and of sufficient capacity to carry the desired electric current. At the ends this rod is coiled or bent, as shown most clearly in Fig. 1 at 2 2, and from the central part of the flat volutes or coils project the ends 3 of the rod, bent at right angles to the main body thereof. In making the connectors I prefer to first bend the ends of the rod at right angles and then to form the coils 2. I may flatten the face 4 of the coils, so that they will have large even faces to bear against the rails when the connector is put in place.

Fig. 3 shows one way in which the connector may be applied to the rails. In this figure it is shown as applied to the under side of the rails, the right-angled extensions passing up through holes therein. The upper ends of these extensions are to be riveted to secure the rod in place. It is not essential that the connector should be placed below the rail. When used with T-rails, it may be on the upper face of the base or against the web.

The connector above described is found much more serviceable and easier to handle than a connector made in several parts, as has been proposed heretofore. The enlarged ends formed by the coiled or bent portions make it much easier to drive the projecting ends into holes in the rails without bending and distorting the connector than it is with connecting rods or wires having ends bent at right angles, but without the surrounding coils. As before indicated, the large surfaces formed by the coils give good contact with the rails. The rod is of such form that it lies snugly against the rails throughout its entire length. It will be evident that the rod need not be bent to form complete volutes, as shown; but it should be bent at least so as to partially surround the right-angled portions.

What I claim is—

1. A connector consisting of a single metal rod or wire, an end of which is bent at right angles and coiled, the coiled portion surrounding the right-angled portion, substantially as described.

2. A connector consisting of a single metal rod or wire, both ends of which are bent at right angles and coiled, the coiled or bent portions surrounding the right-angled portions, whereby comparatively large ends are formed, substantially as described.

3. A connector consisting of a single metal rod or wire, the ends of which are bent at right angles and wound into flat volutes, said right-angled portions extending from the central parts of the volutes, substantially as described.

4. The combination, with two abutting rails or conductors, of a connecting device consisting of a single metal rod or wire, the ends of which are bent at right angles and coiled, said right-angled portions extending from the central part of the coils, substantially as described.

This specification signed and witnessed this 11th day of June, 1891.

HENRY PRICE BALL.

Witnesses:

CHARLES M. CATLIN,
J. A. YOUNG.