No. 611,707. Patented Oct. 4, 1898.

J. PEDRIALI.

ELECTRICAL CONNECTOR.

(Application filed Mar. 30, 1898.)

(No Model.)

Fig. 3.

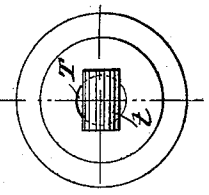


Fig. 1.

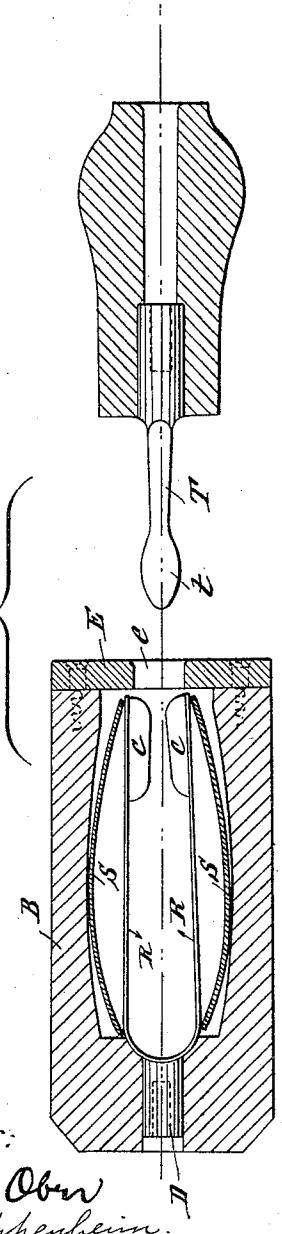
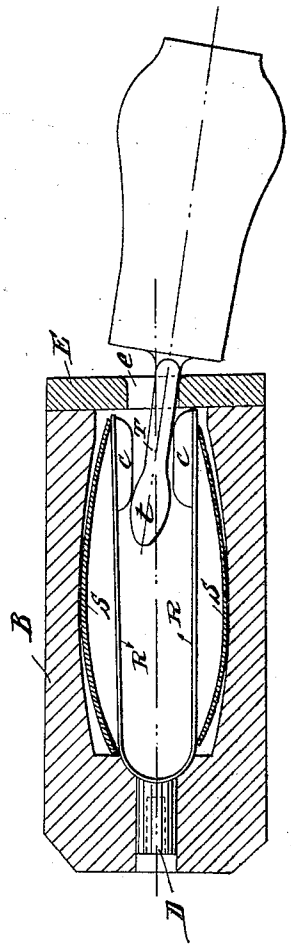


Fig. 2.



Witnesses:
Frank S. Obrn
James Oppenheim.

Inventor:
Joseph Pedriali
by Wm. H. Rosenbaum
Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH PEDRIALI, OF BRUSSELS, BELGIUM.

ELECTRICAL CONNECTOR.

SPECIFICATION forming part of Letters Patent No. 611,707, dated October 4, 1898.

Application filed March 30, 1898. Serial No. 675,677. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH PEDRIALI, a subject of the King of Italy, residing at Brussels, in the Kingdom of Belgium, have invented certain new and useful Improvements in Electrical Connectors, of which the following is a specification.

This invention is an electrical connector especially intended for connecting the conducting-cables between two railway-cars, one of which is the motor and the other the trailer.

Connectors heretofore in use have been constructed to be rigid when the connection is perfected and usually require a pull in an absolute axial direction in order to make the disconnection. The object of the present invention is to provide a connector the parts of which may have some motion upon each other and by which the connection and disconnection may be effected with little effort.

The connector consists of two essential parts, one a female part formed of a flat spring bent into the shape of a U and provided at its extremities with contact-plates facing each other, the other a male part consisting of a metallic plug that enters between the uprights of the U-shaped piece and makes contact with the plates thereon.

In the accompanying drawings, Figure 1 is a longitudinal section of the connector with its two parts, male and female, separated. Fig. 2 is a view, half in section and half in elevation, of the same parts connected. Fig. 3 is a view of the front end of the male part.

The female part consists of a plug B, of suitable insulating material, made hollow and containing a flat copper spring R, bent into the shape of the letter U. At each of its extremities the said spring carries a contact-plate C, said plates facing each other, and at the bend it is provided with a tailpiece D, having a socket for the end of the conducting-wire. The spring R is reinforced by two plates of steel S, one on each side. The open end of the plug B is closed by a cover-plate E, the center of which is provided with opening *e*, through which the male part of the connector may pass. The said male part consists of a handle H, of some insulating material, provided with a metallic plug T, projecting axially therefrom, the outer end of which carries an enlargement or head *t*.

The shank of the part T, which enters the handle, is provided with a socket into which the conducting-wire may pass and be secured, the handle having an axial passage for this purpose.

To connect the two parts of the connector, the plug T is passed through the opening *e* and thrust between the two contact-plates *c*, the head *t* passing somewhat beyond said plates. The action of the springs will close the contact-plates around the head *t* and prevent it coming out unless special effort is made to withdraw it.

It will be seen that the two parts of the connector thus constructed have considerable play in a lateral direction upon each other without breaking the connection and that when it is desired to separate them it is not necessary to bring their axes into exact alinement before pulling them apart. Thus the device may be quickly operated both in connecting and disconnecting.

Having thus described my invention, I claim—

An electrical connector consisting of male and female parts, the former consisting of a handle of insulating material provided with a plug projecting therefrom and carrying at its extremity an enlargement or head, and the latter consisting of a hollow plug of insulating material and containing a U-shaped spring, the extremities of which are provided with contact-plates between and beyond which the head of the plug passes, said U-shaped spring being reinforced by other springs located each side thereof, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOSEPH PEDRIALI.

Witnesses:
GEORGE BEDE,
GREGORY SHALAN.