No. 612,123. Patented Oct. 11, 1898.

F. SCHWEDTMANN.

ELECTRICAL CONNECTOR.

(Application filed Nov. 11, 1897.)

(No Model.)

Fig.1.

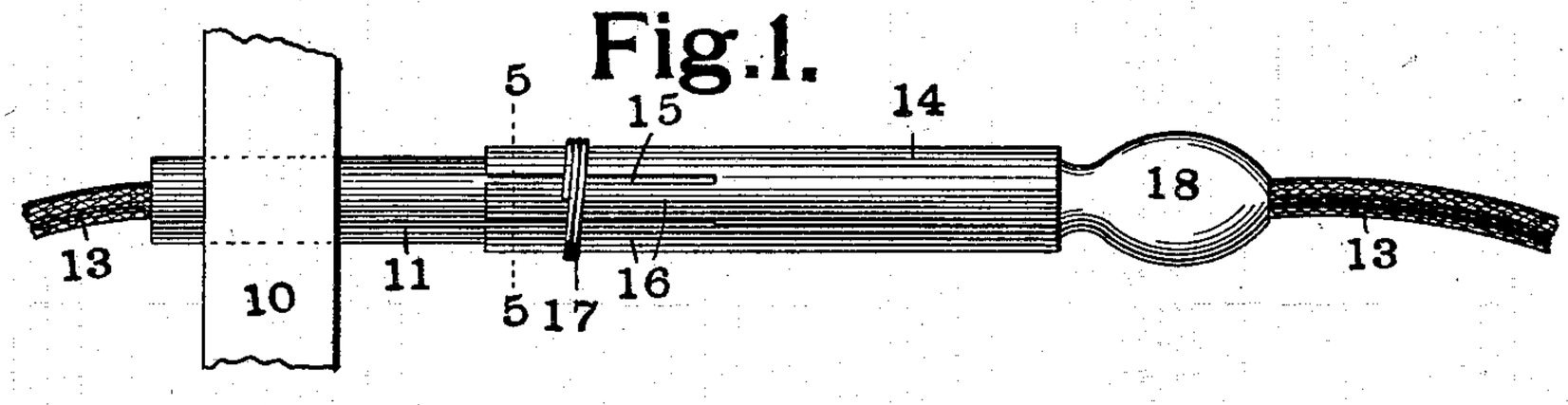


Fig.2.

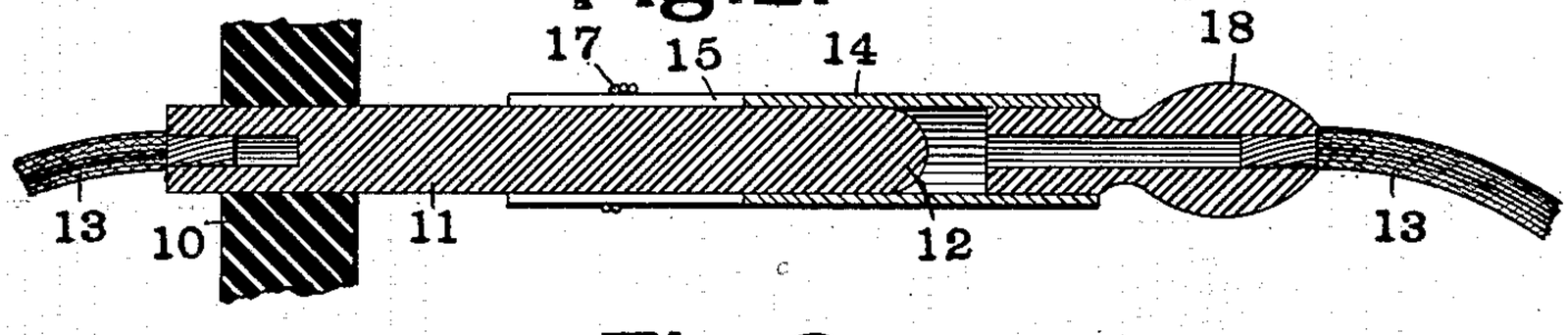


Fig.3.

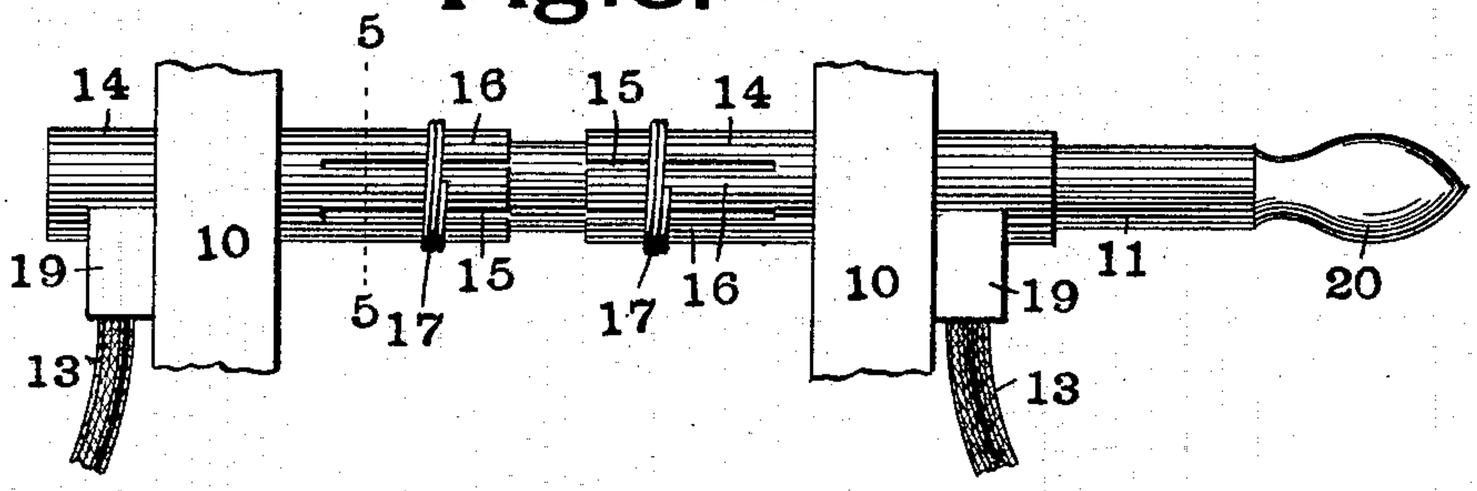


Fig.4.

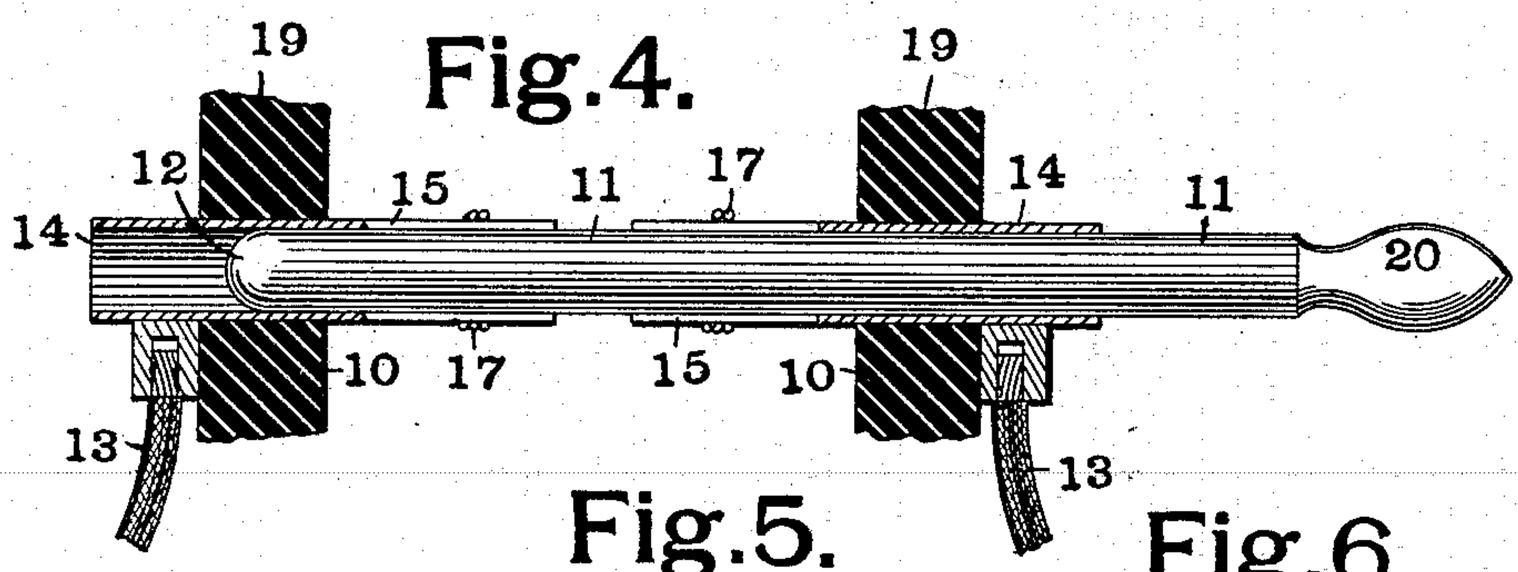


Fig.5.

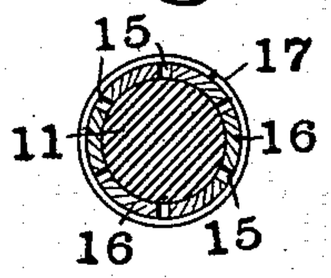
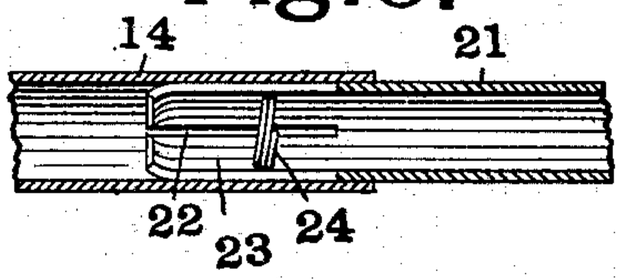


Fig.6.



Witnesses

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UNITED STATES PATENT OFFICE.

FERDINAND SCHWEDTMANN, OF ST. LOUIS, MISSOURI.

ELECTRICAL CONNECTOR.

SPECIFICATION forming part of Letters Patent No. 612,123, dated October 11, 1898.

Application filed November 11, 1897. Serial No. 658,183. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND SCHWEDTMANN, a citizen of the United States, residing at the city of St. Louis, in the State of Missouri, have invented a certain new and useful Electrical Connector, of which the following is such a full, clear, and exact description as will enable any one skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The object of my invention is to produce an electrical connector which will be simple of construction and effective and by means of which a good electrical contact, such as is necessary for carrying heavy currents, can be obtained without careful fitting and truing of the parts.

In the accompanying drawings, which illustrate a connector made in accordance with my invention, Figure 1 is a side view. Fig. 2 is a vertical longitudinal section. Fig. 3 is a side view of a modification. Fig. 4 is a vertical longitudinal section of the modification shown in Fig. 3. Fig. 5 is a section on the line 5 5 of Figs. 1 and 3, and Fig. 6 is a sectional view showing another modification.

Like marks of reference refer to similar parts in the several views of the drawings.

Carried by a suitable support 10, of insulating material, is a rod 11, of brass, copper, or other good conducting material, which forms the inner member of the connector. The end 12 of the rod 11 is rounded, and to the opposite end is secured one end of a flexible conductor 13. The outer member of the connector consists of a tube 14, preferably of drawn copper, in the end of which are made slits 15, leaving a number of tongues or strips 16. Around the end of the tube 14 is placed an annular spring 17, preferably formed of coiled-steel wire, which forces the strips or tongues 16 firmly against the rod 11. The tube 14 is provided with a handle 18, to which is secured one end of the flexible conductor 13.

To make the connection between the two ends of the conductor 13, the tube 14 is slipped over the end of the rod 11. The spring 17 forces the tongues 16 firmly against the rod 11 and then makes a good electrical contact between the parts. It is not necessary for either of the parts to be carefully trued or fitted, as the connector will make a good electrical contact without this. The pressure between the parts may be varied by using a spring of different-sized wire or by varying the number of turns of wire in the coil.

In the modification shown in Figs. 3 and 4 there are two of the insulating-supports 10, in which two tubes 14 are secured in line. The tubes 14 are provided with slots 15, forming tongues 16, and annular spring 17, as in the above-described form. To each of the tubes 14 is secured a block 19, in which is secured one end of the conductor 13. The inner member 11 is not connected directly with the conductor 13, but is provided with a handle 20. To make the connection between the two ends of the conductor 13, the rod 11 is passed through the two tubes, so as to make contact with both.

In the modification shown in Fig. 6 the tube 14 is not slit, as in the above forms. The inner member consists of a tube 21, in which are formed slits 22, leaving tongues 23. Within the tube 21 is an annular spring 24, which forces the tongues 23 out against the tube 14.

I am aware that connectors have been made heretofore in which a solid plug is provided with slits, so as to yield to a certain extent as it entered a cylindrical opening, and do not claim the same.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. An electrical connector, consisting of an inner and an outer member, having smooth contact-surfaces, one of said members being tubular and slit along a portion of its length to form a plurality of tongues or strips, and an annular spring for forcing said tongues or strips against the other member, said annular spring having its axis coincident with the axis of said tubular member.

2. An electrical connector, consisting of an inner cylindrical member having a smooth contact-surface, an outer tubular member

slit along a portion of its length to form a plurality of tongues or strips, and an annular spring for forcing said tongues or strips against said inner member, said annular spring having its axis coincident with the axis of said tubular member.

In testimony whereof I have hereunto set my hand and affixed my seal in the presence of the two subscribing witnesses.

FERDINAND SCHWEDTMANN. [L. S.]

Witnesses:
J. CLARENCE TAUSSIG,
W. A. ALEXANDER.