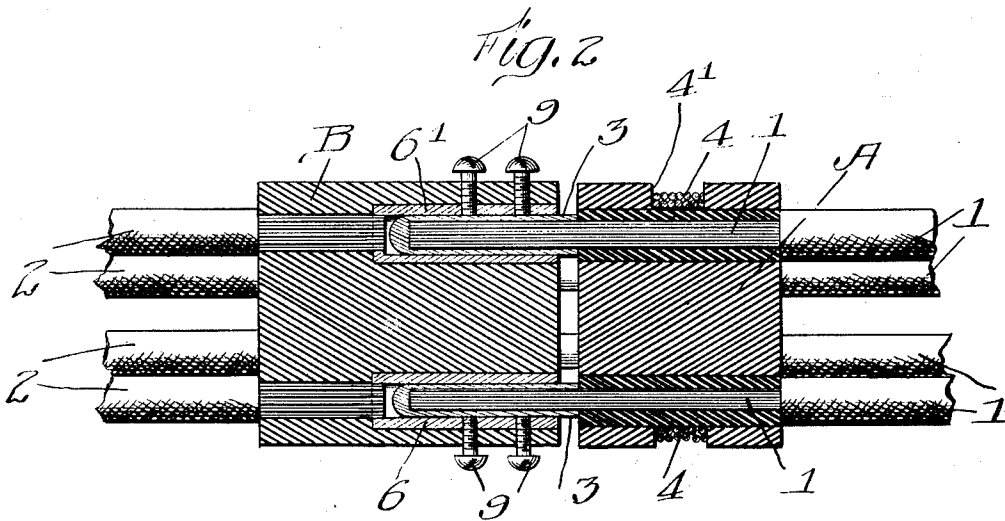
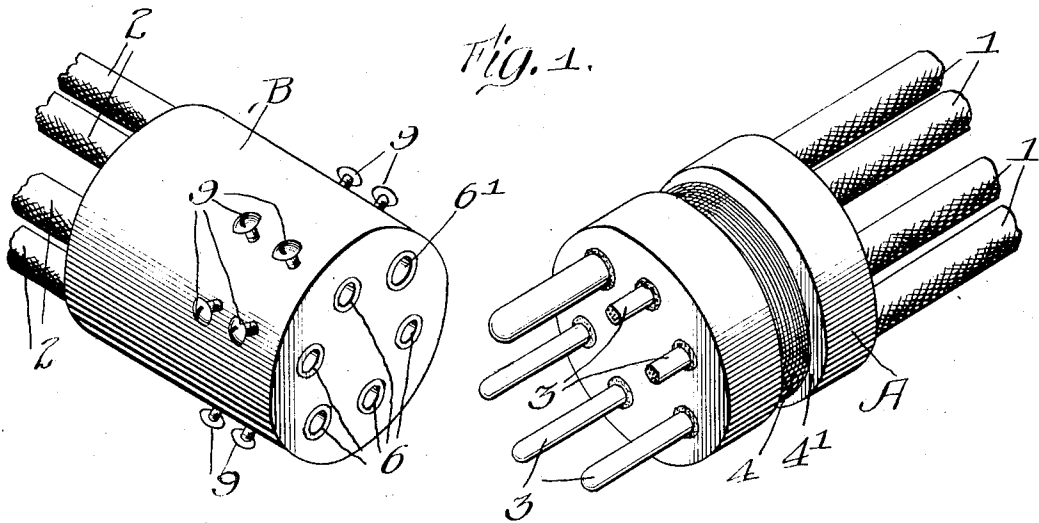


W. L. BLISS.  
 CONNECTOR FOR ELECTRIC CONDUCTORS.  
 APPLICATION FILED AUG. 27, 1907.

983,258.

Patented Jan. 31, 1911.



Witnesses:  
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 Atty:

# UNITED STATES PATENT OFFICE.

WILLIAM LORD BLISS, OF BROOKLYN, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE UNITED STATES LIGHT AND HEATING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF MAINE.

## CONNECTOR FOR ELECTRIC CONDUCTORS.

983,258.

Specification of Letters Patent.

Patented Jan. 31, 1911.

Application filed August 27, 1907. Serial No. 390,370.

*To all whom it may concern:*

Be it known that I, WILLIAM LORD BLISS, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Connectors for Electric Conductors, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

My invention relates to improvements in connectors for electric conductors.

One of the objects of my invention is to provide a connector by means of which sets of electric conductors may be connected in such a manner that they will always have a definite relation.

Another object of my invention is to provide a connector for an electric conductor in which provision is made to accommodate any slight discrepancies in the set of the members thereof.

For the purpose of disclosing my invention I have illustrated in the accompanying drawings, one embodiment thereof.

In said drawings: Figure I is a perspective view of the connector with the members thereof disconnected. Fig. II is a sectional view of my connector, the members thereof being connected.

The connector is preferably formed of two cooperating members A and B, preferably cylindrical in form and constructed of insulating material. Each of the members is adapted to receive a series of electric conductors.

The member A of the connector has secured therein the ends 1 of a plurality of conductors, which extend entirely there-through and have the portions thereof, which project from the face of the member, bared of insulating material. The conductors illustrated are formed of a plurality of strands of wire, and to prevent the separation of these strands, the exposed ends of the member are surrounded by tubular casings 3. It will be noted that the insulation of the conductors surrounds the same and is interposed between the walls of the openings in the member A and the conductors and extends to the front face of the connector. The conductors 1 are securely held within the openings within the member A by their tight fit therein and also by a winding 4 set

in a groove 4', which extends sufficiently deep to permit the winding to engage the conductors 1. One of the sleeves 3 is preferably made of greater diameter than the remaining sleeves, the purpose of which will appear more fully hereinafter.

The member B of the connector is provided with a plurality of sockets 6 into which are arranged to be inserted the projecting ends of the conductors 1. A plurality of conductors 2 have their bared or exposed ends extended into openings in the member B and suitably connected with the sockets 6 by solder or in any other desired manner. One of the sockets 6' of the female member B is made larger than the remaining sockets to accommodate the larger sleeve in the male member in order that when the sleeves 3 are inserted in the sockets 6 of the female member they will always be inserted in the same relation. It is apparent that by the provision of an enlarged conductor and a correspondingly enlarged socket that the connections will be made always in the same relation, as it will be impossible to insert the enlarged conductor in any but its proper socket, which will insure the insertion of the remaining conductors in their proper sockets. The sockets 6 and 6' are secured in position in the member B by screws 9 which extend through the side walls of the member, and through the walls of the sockets 6 and 6'. These screws serve an additional function of securing the male and female members together, as their ends engage the sleeves of the conductors 1 of the male member.

It will be seen that by the construction above set forth, I have provided a connector for electric conductors which insures the connection of the conductors in their proper relation and by the provision of the insulating material between the conductors of the male member and the walls thereof, a resilient cushion is provided which permits a slight lateral movement of the ends of the conductors to accommodate any discrepancies which may occur between the sockets in the female member and the projected ends of the conductors.

Having thus described my invention and its operation, what I claim and desire to secure by Letters Patent, is:

1. In a coupling for electrical conductors,

the combination with two complementary coupling members, of a plurality of electrical conductors entering each of said members, a plurality of sockets mounted within one of said members and electrically connected to the conductors therein, the conductors in the other of said members being arranged to project therethrough and to be inserted in the sockets of said first mentioned member, and means for binding said projecting conductors in said last mentioned member.

2. In a coupling for electrical conductors, the combination with two complementary coupling members, of a plurality of electrical conductors entering each of said members, a plurality of sockets mounted within one of said members and electrically connected to the conductors therein, the conductors in the other of said members being arranged to project therethrough and to be inserted in the sockets of said first mentioned member, said last mentioned member being provided with a plurality of longitudinally extending recesses for receiving the conductors inserted therein, and an annular groove in communication with said recesses and means within said groove for binding said projecting conductors in said last mentioned member.

3. In a coupling for electrical conductors, the combination with two complementary coupling members, of a plurality of electrical conductors entering each of said members, a plurality of sockets mounted within one of said members and electrically connected to the conductors therein, the conductors in the other of said members being arranged to project therethrough and to be inserted in the sockets of said first mentioned member, said last mentioned members being provided with a plurality of longitudinally extending recesses for receiving the conductors inserted therein and an annular groove in communication with said recesses, and a winding within said annular groove for binding said projecting conductors in said last mentioned members.

4. An electrical coupling comprising two complementary members, a plurality of electrical conductors mounted in and projecting from one of said members, sockets carried within one of the complementary members, one of said sockets being larger than the other, tubular members mounted upon the projecting electrical conductors of the other complementary members, a plurality of electrical conductors mounted in and projecting being adapted to enter the larger socket, and means for locking the complementary members in coupled position.

5. An electrical coupling comprising two complementary members, a plurality of electrical conductors mounted in and projecting from one of said members, one of said elec-

trical conductors being formed larger than the rest, sockets carried within the other complementary member, one of said sockets being larger than the other, to receive the correspondingly enlarged projecting conductor, and yielding means for forming a flexible connection between the complementary members.

6. An electrical coupling comprising two complementary members, a plurality of sockets mounted within one of said members, one of said sockets being enlarged, a plurality of electrical conductors mounted in the other of the complementary members, tubes mounted upon the electrical conductors of the last named member, said tubes being provided with rounded end portions, one of said tubes being larger than the others and adapted to be received within the enlarged socket, and means for locking the members in coupled position.

7. An electrical coupling comprising two complementary members, a series of electrical conductors entering each of said members, the conductors of one member projecting therethrough, sockets formed in the other member for receiving the projecting conductors of the complementary member, and means mounted upon the projecting conductors to form a connection between the sockets and said projecting conductors.

8. An electrical coupling comprising two complementary members, a plurality of electrical conductors mounted in each of said complementary members the conductors of one member being yieldingly mounted, sockets mounted in electrical contact with the conductors of one member, tubes having rounded ends and mounted upon said yieldingly mounted conductors permitting of a flexible connection between said conductors and the sockets of the other complementary member, said sockets being adapted to receive the tubes carried upon the conductors always in a definite relative sequence, and means for securing the conductors within the sockets to lock the complementary members in coupled position.

9. A coupling for electrical conductors comprising two complementary members, a plurality of sockets arranged within one of said members, one of said sockets being enlarged, a plurality of conductors extending through the other of said members, tubular members mounted on the ends of said last mentioned conductors and adapted to be inserted in the sockets in the other members, one of said tubular members being enlarged and adapted to fit into said enlarged socket to insure the proper connections of said conductors, and screws carried by one of said members and extending through the sockets therein for engaging said tubular members to secure said coupling members together.

10. A coupling for electrical conductors

comprising two complementary members, a plurality of sockets mounted within one of said members, one of said sockets being enlarged, conductors electrically connected to said sockets, a plurality of electrical conductors extending through the other of said members and resiliently mounted therein, tubular members mounted on the ends of said last mentioned conductors and adapted to be inserted in said sockets, one of said tubular members being enlarged and adapted to fit only in the enlarged socket to insure proper connections of said conductors, and screws carried by one of said coupling members and extending through the sockets therein for engaging said tubular members to secure the coupling members together.

11. An electrical coupling consisting of two parts, each part securing the ends of a plurality of conductors in substantially fixed, spaced relation to each other, the bared extremities of the conductors secured by one part, projecting beyond said part, and a yielding covering between certain conductors and said part, whereby slight relative movement of said extremities is permitted.

In witness whereof, I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM LORD BLISS.

Witnesses:

EDGAR W. MARTIN,  
E. P. HANNIG.