(No Model)

F. E. AUSTIN.

ELECTRIC CONNECTOR.

No. 583,589. Patented June 1, 1897.

Fig. 1

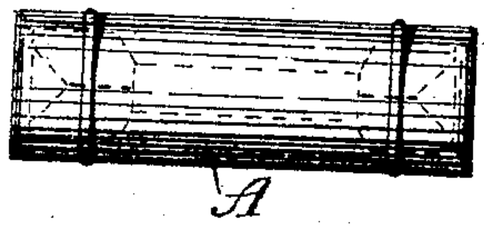


Fig. 2.

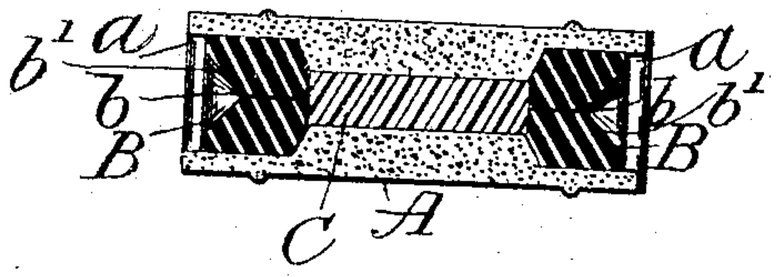


Fig. 3.

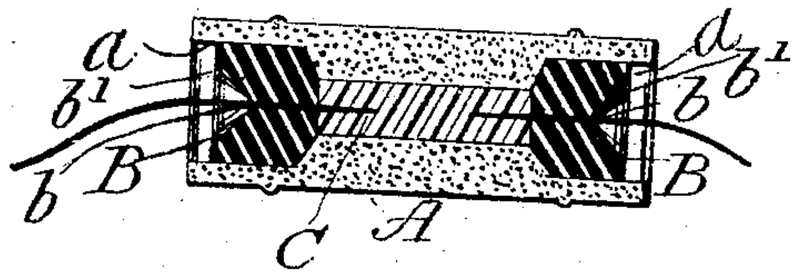


Fig. 4.

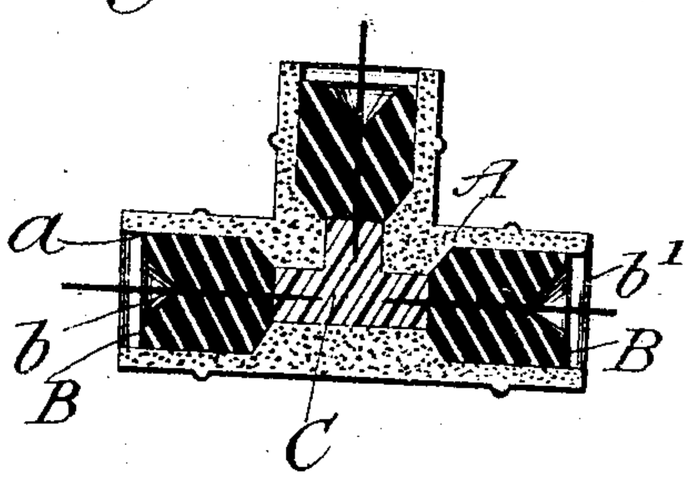
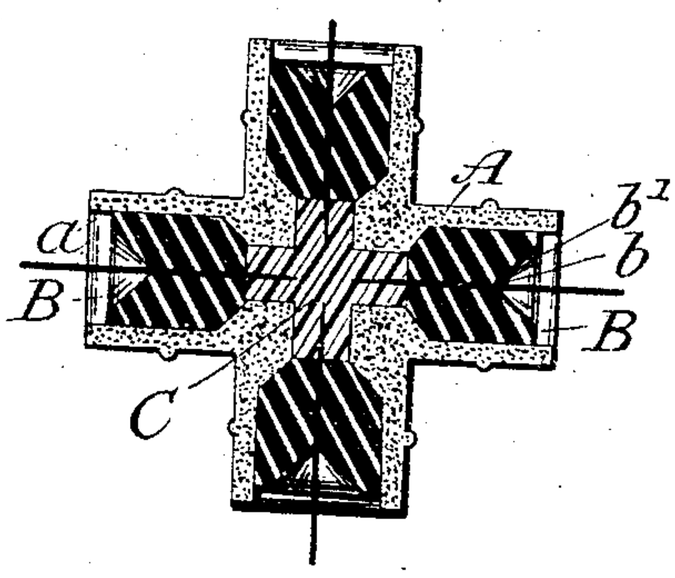


Fig. 5.



WITNESSES

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ELECTRIC CONNECTOR.

SPECIFICATION forming part of Letters Patent No. 583,589, dated June 1, 1897.

Application filed January 7, 1897. Serial No. 618,373. (No model.)

To all whom it may concern:

Be it known that I, FRANK E. AUSTIN, a citizen of the United States, residing at Hanover, in the county of Grafton and State of New Hampshire, have invented certain new and useful Improvements in Electric Connectors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in connecting devices for electric conductors, and has more particular relation to devices for forming temporary electric connections between the ends of wires.

The invention consists of the combination, with a suitable containing insulating-casing, of elastic closing-plugs for the same adapted to permit the insertion of the ends of conducting-wires into said casing and a conducting amalgam in said casing adapted to establish an electrical connection between the inserted ends of the wire.

In the accompanying drawings, forming a part of this specification, Figure 1 represents a side elevation of a conductor embodying my invention. Fig. 2 represents a central vertical section through the same. Fig. 3 represents a similar view with the wires inserted. Fig. 4 represents a central vertical section through a modified form of my invention for connecting three wires, and Fig. 5 represents a similar view of another form for connecting four wires.

A in the drawings represents the casing, B B the closing-plugs, and C the conducting amalgam. The casing A is constructed of any suitable insulating material in the form of a sleeve provided at each end with an enlarged recess *a*, into which the closing-plugs B are adapted to snugly fit. Each of these plugs is preferably constructed of rubber and is provided with a central pin-passage *b*, which normally remains closed, and a flaring mouth *b'* at the outer end of said passage. When said plugs B B are applied in their respective recesses *a*, the interior of the casing A is effectually sealed, as the passages *b* through said plugs when closed are practically air-tight. The inclosed space of the casing between said plugs is filled with a conducting amalgam *c*.

It will be observed from the foregoing description that should the ends of two electric conducting-wires be forced through the pin-apertures *b* of the plugs B the ends of said wires will enter the conducting amalgam and thus establish a perfect electric connection. It will also be observed that should the ends of the conducting-wires be withdrawn from the flexible plugs B the apertures of said plugs will automatically close and thus prevent the escape of the conducting amalgam or the entrance of air, which would result in oxidizing said amalgam.

The operation of the modified forms of my invention shown in Figs. 4 and 5 is practically the same as that heretofore described, with the exception that the containing-casing is provided with more entrance-apertures closed by sealing-plugs, so that a plurality of wires may all be joined in the same circuit.

This invention is intended principally for laboratory use in experimenting, &c., as a desired electrical connection may be instantly made or broken without the usual troublesome winding of the wire.

Having thus described my invention, what I claim as new, and desire to procure by Letters Patent, is—

1. In an electric connector the combination with an insulating-casing, of elastic closing-plugs for the same provided with pin-hole apertures for the insertion of the ends of the conducting-wires, and a conducting amalgam in said casing adapted to establish an electrical connection between the inserted ends of the wires, substantially as described.

2. In an electrical connector the combination with a containing-casing having a plurality of enlarged recesses formed therein, of elastic sealing-plugs mounted in said recesses, and each formed with a pin-aperture for the insertion of a wire, and which normally remains closed, and a conducting amalgam in said casing adapted to establish an electrical connection between the inserted ends of the conducting-wires.

3. In an electrical connector the combination with a suitable containing-casing, having a plurality of flexible sealing-plugs ap-

plied in said openings, and each formed with a pin-aperture having a flaring mouth; said apertures being adapted to normally remain closed, and a conducting amalgam in said casing adapted to establish an electrical connection between the inserted ends of the conducting-wires.

4. In an electrical connector, the combination with an insulating-casing, of elastic closing-plugs for the same adapted to permit the insertion of the ends of conducting-wires, and a conducting amalgam in said casing adapted to establish an electrical connection between the inserted ends of the wires.

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

FRANK E. AUSTIN.

Witnesses:
F. W. DAVISON,
CHAS. P. CHASE.