

(No Model.)

G. J. BRENNEN.
CONNECTOR FOR ELECTRIC CONDUCTORS.

No. 438,400.

Patented Oct. 14, 1890.

Fig. 1,

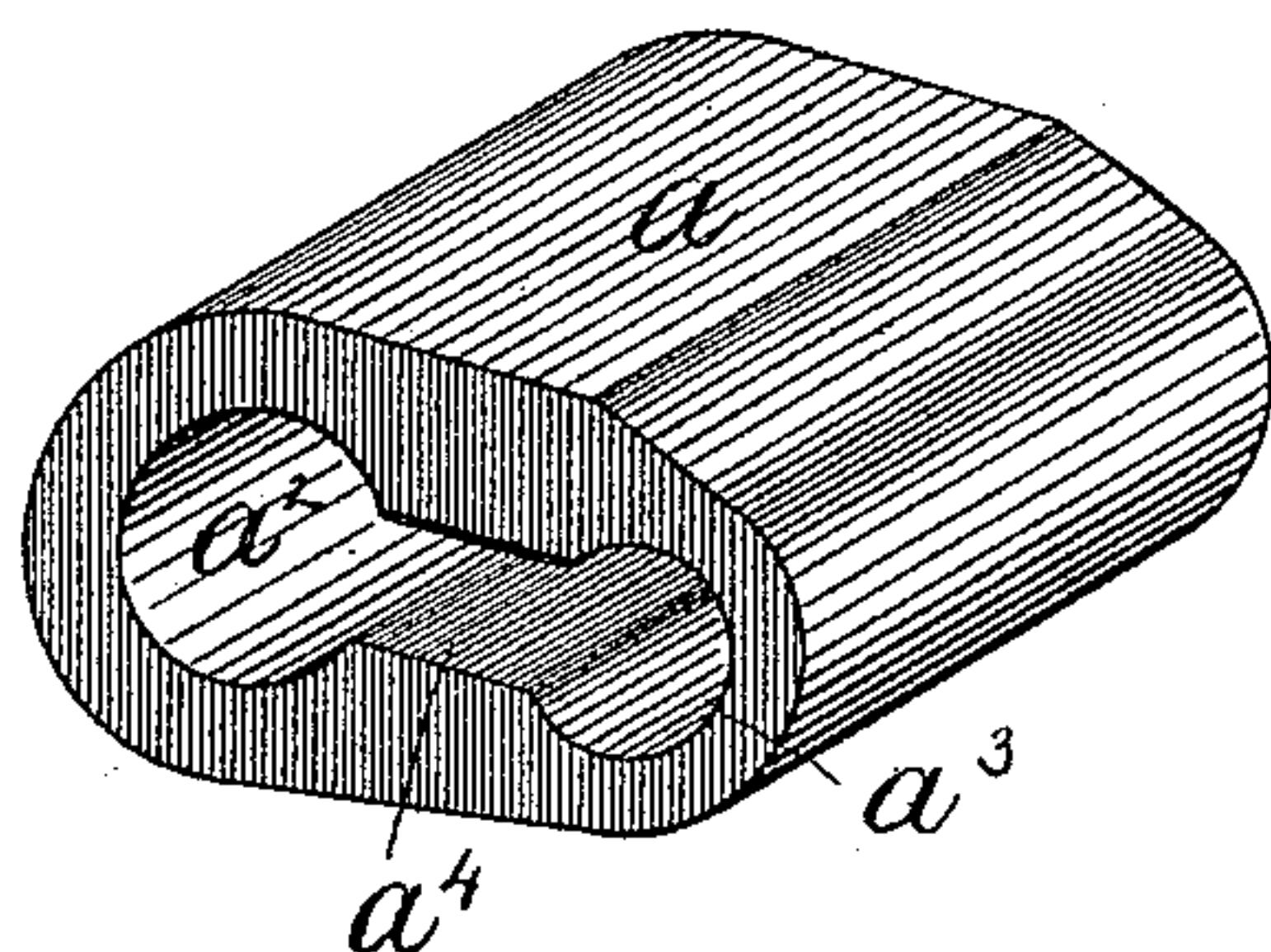


Fig. 2,

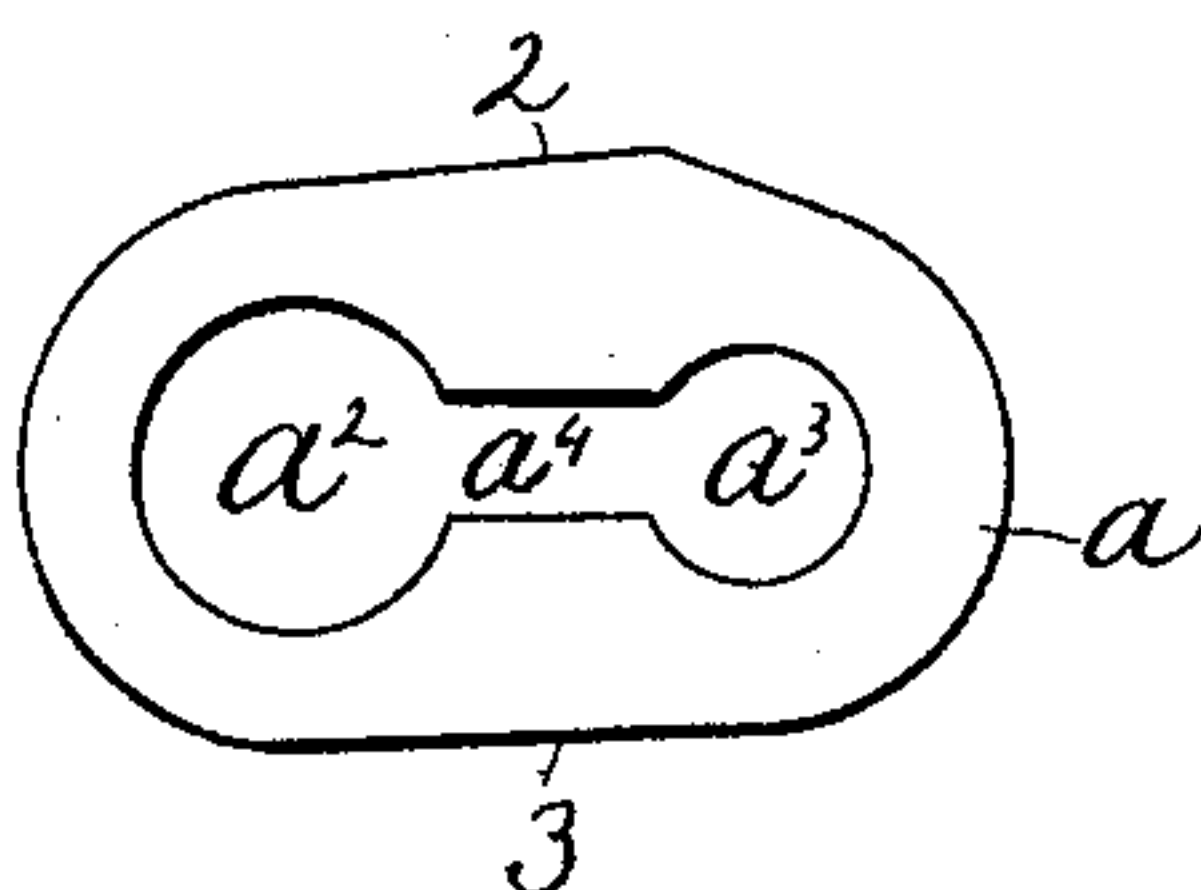
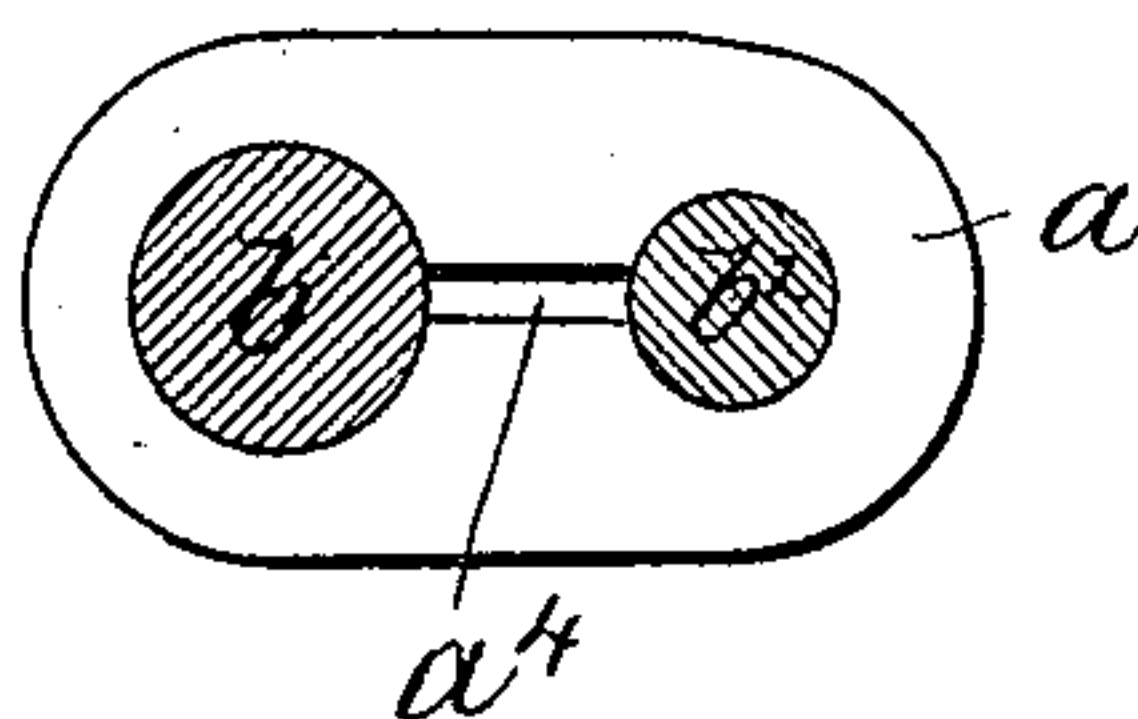


Fig. 3,



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by *Geo. P. Loomore*
Att'y.

UNITED STATES PATENT OFFICE.

GEORGE J. BRENNEN, OF LYNN, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO EDWARD FROST, OF LITTLETON, AND ARTHUR W. TUFTS, OF BOSTON, MASSACHUSETTS.

CONNECTOR FOR ELECTRIC CONDUCTORS.

SPECIFICATION forming part of Letters Patent No. 438,400, dated October 14, 1890.

Application filed February 5, 1890. Serial No. 339,371. (No model.)

To all whom it may concern:

Be it known that it, GEORGE J. BRENNEN, of Lynn, county of Essex, State of Massachusetts, have invented an Improvement in Connectors for Electric Conductors, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

My invention relates to a clip or a connector for forming a mechanical and electrical connection between two or more conducting-wires or two portions of the same conductor, the device constituting a splice or coupler for connecting the adjoining ends of a wire and affording an efficient and less expensive joint than the usual form of joint or connection made by twisting one wire about another and then soldering.

The invention is embodied in a connector composed of a loop-shaped socket-piece of moderately malleable material having parallel wire-receiving sockets a short distance apart and connected by a slot formed in the body of the socket-piece and extending to the walls of the sockets, which are thus circumferentially discontinuous and capable of being contracted by closing together the walls of the slot in the socket-piece, which is made originally with the sockets of sufficient size to receive the wire freely within them, and after the wire is inserted in the socket it is securely fastened mechanically and electrically within the socket-piece by driving together the walls of the slot in the socket-piece, and thereby contracting the walls of the wire-sockets upon the wire—an operation which may be performed by a hammer and generally without resort to any tools especially devised for the purpose.

Figure 1 is a perspective view of a wire-connecting clip embodying this invention; Fig. 2, an end elevation thereof; and Fig. 3, an end elevation of the clip applied and secured upon the wires, which are shown in cross-section.

The connecting devices consist, essentially, of a socket-piece a , having parallel wire-receiving sockets a^2 a^3 , connected by a slot a^4 ,

formed in the body of the socket-piece between said sockets a^2 a^3 , which are set a sufficient distance apart to give an appreciable length to the slot a^4 , affording a substantial mass of metal at either side of the slot between the sockets, the material of the socket-piece at the walls of the slot being thicker than that around the walls of the sockets. Each socket a^2 a^3 is consequently circumferentially discontinuous, and is capable of being contracted or made of smaller bore or diameter by drawing together the ends that intersect with or terminate in the slot a^4 . The socket-piece is originally made, as shown in Fig. 1, with the walls of the slot wider apart and the sockets more open than they are after the piece has been applied to the wire, as shown in Fig. 3, the said sockets being originally of sufficient size to receive the wires freely within them.

In applying the connector so as to mechanically and electrically connect the wires b b^2 , Fig. 3, the said wires are inserted in the sockets a^2 a^3 , after which the socket-piece is contracted by hammering the walls of the slot together, in which operation the walls of the sockets a^2 a^3 are contracted and drawn tightly around the wires, while the thicker masses forming the walls of the socket-pieces between the sockets press against the wires with a wedge-like action, thus affording a very efficient clamping action to hold the wires and bringing the socket-piece into extremely intimate contact with the surface of the wires. This contraction of the socket-piece may be easily produced by striking blows by a hammer on the wall at one side of the slot, as shown at 2, Fig. 2, while the opposite wall 3 is resting on any suitable support or anvil, and no special tools are required to properly apply the socket-piece to the wire.

The socket-piece is represented as having sockets of different diameters to receive wires of different size—as, for example, where a branch wire is connected with a main wire or feeder; but it is obvious that the sockets may be of equal size, they being in all cases of proper size to fit the wire to which the connector is to be applied and affording loose

fit when in original condition and a close fit and clamping action when subsequently contracted upon the wire.

I claim—

- 5 A connector for electric conductors, comprising a loop-shaped socket-piece having parallel wire-receiving sockets and a connecting-slot for contractile action, the said sockets being slightly larger than the wires to be connected thereby and being made circumferentially discontinuous by said connecting-slot

and contractible by hammering on the walls of the slot of the socket-piece between said sockets, substantially as described.

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

GEORGE J. BRENNEN.

Witnesses:

JOHN H. MORISON,
M. E. HILL.