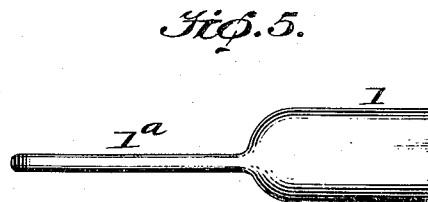
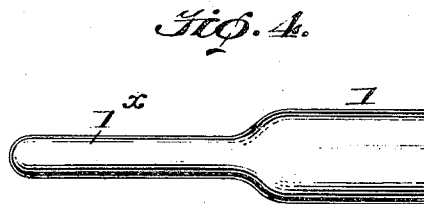
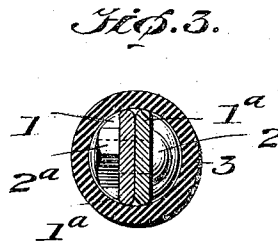
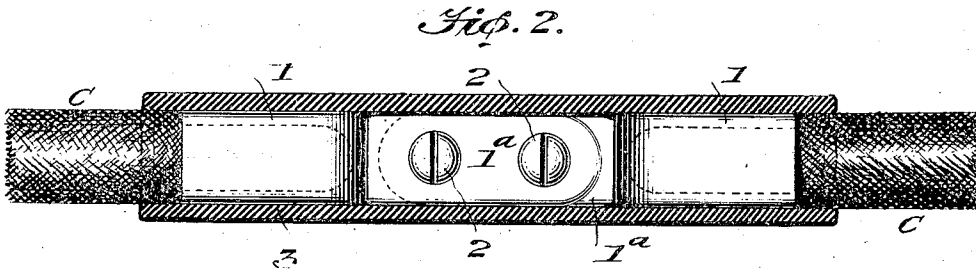
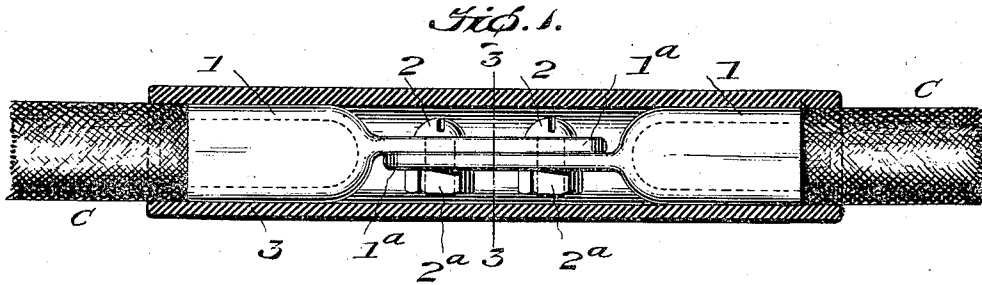


T. D. SMITH.
CONNECTOR.

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1,277,765.

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CONNECTOR.

1,277,765.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS DALTON SMITH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Connectors; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

The object of this invention is to provide a novel connector for uniting two electrical conductors, such as insulated copper wires or cables; said connector comprising two peculiar complementary drawn copper members, each having a socket and a shank portion formed in a peculiar manner; means for uniting the shanks, and an outer insulating casing.

The ends of the electrical conductors to be connected are soldered or otherwise properly secured in the sleeve portions of the opposite members of the connector and a perfect electrical contact is secured by the flat contact surfaces of the shanks of both members which are firmly united by bolts; and the joint may then be covered with an insulating sleeve, the inside diameter of which should be approximately the same as the outside diameter of the tubular portions of the members, thus forming a perfect protected and insulated joint.

I will explain the invention with reference to the accompanying drawings, and set forth in the claims the essential features and combination of parts for which protection is desired.

In the drawings:

Figure 1 is a view of the complete connector, the insulating casing thereof being shown in section.

Fig. 2 is a similar view thereof disposed at right angles to Fig. 1.

Fig. 3 is an enlarged transverse section on line 3—3 Fig. 1.

Fig. 4 is a diagrammatic view of a drawn shell for one of the members of the connector, prior to flattening of the shank portion thereof.

Fig. 5 is a view of such shell after flattening and before perforating the shank.

As shown in the drawings, the connector comprises two similar members each of which is made of drawn metal, and has a

socket portion 1 and a shank portion 1^a; the ends of the electrical conductors, either wire or cable, indicated at C, are fastened, preferably by solder, within the sockets 1.

The shanks 1^a of the opposite members are then lapped as in Fig. 1, and fastened together, preferably by screw bolts 2 and nuts 2^a; said bolts passing through suitable perforations in the shanks 1^a. After they are so united a casing or sleeve 3 is slipped endwise over the connector to cover and protect the same and insulate it.

The casing 3 should be slipped upon one of the cable ends before or after the connector member is united therewith, and before the shanks of the connector members are bolted together; and after the shanks are united said sleeve can be drawn endwise over the connector to the position indicated in Figs. 1 and 2 to form an insulating covering for the joint and protect the metal parts thereof from dust, weather, etc. The casing may be either flexible or rigid, and may be of any suitable, preferably non-metallic, material such as fiber or rubber.

The connector members are preferably made of drawn copper and hollow throughout. For small connectors not more than $\frac{1}{8}$ " outside diameter of socket portions, I prefer to use copper shells made in general by the method set forth in Patent 1,144,281; but in order to secure a flat shank portion the width of which will be no greater than the diameter of the tubular portion the shells are drawn or redrawn for a portion of their length so that the tubular portion 1^a for the shank shall be of less diameter than the socket portion 1 as indicated in Fig. 4. Then when such smaller tubular end is flattened, it will produce the flat shank portion 1^a substantially the same in width as the diameter of the socket portion, which is left round.

Further, in order that the socket portions of both halves of the connector shall be in line and parallel when the members are united, the shank portion of each member is preferably pressed off center or eccentric to the socket as indicated in Figs. 1 and 5, so that the line of contact between the two shank portions of opposite members when bolted together shall be on the center line of the socket portions. If the flattened shanks were disposed centrally or axially of the socket portions when the shanks were con-

5 nected the socket portions would be out of line a distance corresponding to the thickness of a shank portion, and such non-alignment would prevent or interfere with the positioning of the casing 3 thereover, which casing should fit snugly on the tubular socket portions.

10 For connectors for conductors larger than $\frac{13}{16}$ " in diameter I could use ordinary copper tubing, but redraw or shape it so that the shank portions of the members would be equal in width to the tubular portions thereof as above described.

15 My connectors are neat in appearance; efficient, and inexpensive; and the method of manufacture is more economical, and the completed joint less clumsy in appearance than other connectors.

I claim—

20 1. The herein described process of making connector members consisting in drawing a tubular metal shell to form the socket portion of the connector; then redrawing the said shell to produce an elongation of part
25 of the shell of less diameter than the other part thereof and then flattening the elongated part to form a shank, such shank being of approximately the same width as the diameter of the unreduced part of the shell and

extending parallel with the axial line of the unreduced part. 30

2. The herein described process of making connector members, consisting in drawing a tubular metal shell to form the socket portion of the connector; then redrawing the said shell to produce an elongation of part of the shell of less diameter than the other part thereof, and eccentric to said other part; then flattening said elongation to form a shank of approximately the same width as the diameter of the unreduced part of the shell and extending parallel with but to one side of the axial line of the unreduced part. 35 40

3. A connector made from a drawn metal shell having an open ended tubular portion and a flattened reduced tubular portion; said open ended tubular portion forming the socket of the connector and said reduced flattened tubular portion forming the shank of the connector; said flattened shank corresponding in width to the diameter of the socket portion, and perforated, substantially as described. 45 50

In testimony that I claim the foregoing as my own, I affix my signature. 55

THOMAS DALTON SMITH.