Aug. 9, 1960 H. W. BATCHELLER 2,948,877

ELECTRICAL CONNECTOR MEMBER WITH T-SPLIT FLOOR

Filed Oct. 12, 1956

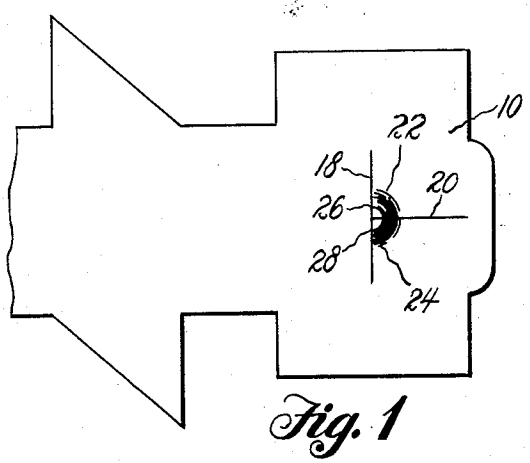


Fig. 1

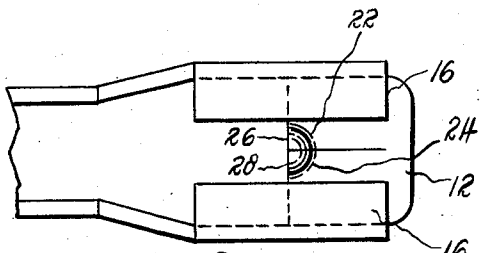


Fig. 2

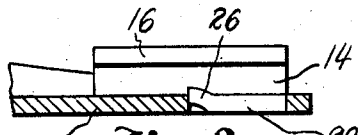


Fig. 3

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United States Patent Office

2,948,877

Patented Aug. 9, 1960

2,948,877

ELECTRICAL CONNECTOR MEMBER WITH T-SPLIT FLOOR

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Filed Oct. 12, 1956, Ser. No. 615,628

2 Claims. (Cl. 339—258)

This invention relates to electrical connector members of the male-and-female type, and more particularly to female members of the kind consisting of a shallow channel having a substantially plane floor, parallel side walls and inturned flanges on the side walls overhanging the side margins of the floor. When a connection is to be made, a male member usually comprising a plane tongue is thrust into the channel, the margins of the tongue engaging under the flanges of the female member. In order to make a good electrical connection, interfacial areas of the two members must be firmly pressed together in spite of inevitable slight variations in the gauge or thickness of the metal strip stock of which connectors of this type are usually made. To this end one or both of the members of the connector are usually made with a part or parts which will yield resiliently and with sufficient stiffness to ensure adequate interfacial pressure between the members when they are joined. The actual stiffness of such parts will depend in part upon the gauge of the strip stock and the dimensions of the connector member. Thus a configuration which produces the desired interfacial pressure in one connector might be inadequate in a similar connector made of lighter stock or with greater dimensions. Hence connector members of various configurations are useful to meet the requirements of different sizes and stock gauges of different connector members.

A female connector member having a configuration especially useful in members of the smaller sizes is hereinafter described and is illustrated on the drawing, of which—

Figure 1 is a plan view of a blank of strip or sheet metal stock ready to be bent to form a female connector member embodying the invention;

Figure 2 is a plan view of the finished member; and

Figure 3 is a longitudinal sectional view of the member shown in Figure 2.

The female connector member shown on the drawing may be of the well-known type consisting essentially of a

single piece 10 of strip stock of brass or other suitable metal with sufficient resilience for the purpose. When bent to shape, the blank forms a connector member having a substantially plane floor 12, side walls 14 and inturned flanges 16 extending along the tops of the side walls and projecting toward each other to overhang the side margins of the floor 12.

To provide yielding elements having the required resilience and stiffness, a T-slit is cut through the floor 12. This slit consists of a transverse slit 18 which is preferably located approximately in line with the mid points of the side walls 14 and extends all or nearly all the way across the floor 12 from one side wall to the other, and a longitudinal slit 20 extending from the mid point of the slit 18 to a point near to but preferably spaced from the forward end of the floor 12. The resultant T-slit forms two pointed tongues 22 and 24 the apices of which are at the intersection of the slits 18 and 20. The pointed end portions 26 and 28 of these tongues are bulged upward to form a half-dome projecting up above the level of the floor 12 as indicated in Figure 3. When a male connector member is inserted into the channel, the thickness of the male member being only slightly less than the clearance between the flanges 16 and the floor 12, the advancing end of the male member will ride onto the boss formed by the tips 26 and 28 of the tongues and will force the tips downward, resiliently flexing the tongues 22 and 24 so that the tongues press the male member against the underfaces of the flanges 16.

I claim:

1. A female connector member comprising a piece of sheet metal in the form of a shallow channel adapted to receive at one end thereof a male connector member of the spade type, said female member having a floor, side walls, and inturned flanges on said walls, said floor having a T-slit therethrough consisting of a transverse slit extending substantially from one said wall to the other and a longitudinal slit extending from the mid point of said transverse slit to a point near said end of said channel, said slits forming two pointed fingers the ends of which are bulged up toward said inturned flanges to form a half-dome above the level of the floor.

2. A connector member as in claim 1, said transverse slit being located approximately in line with the mid points of said side walls.

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