July 5, 1932. M. GUETT 1,866,407

SECURING MEANS FOR ELECTRICAL CONNECTERS

Filed Nov. 6, 1930

Fig. 1.

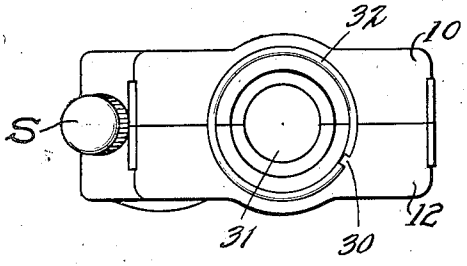


Fig. 2.

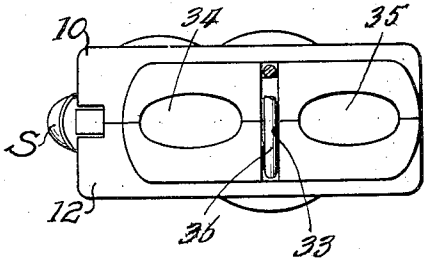
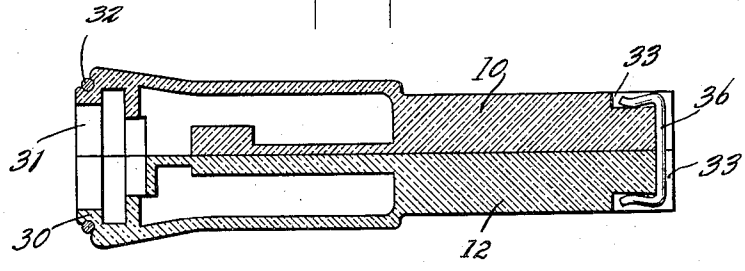


Fig. 3.



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UNITED STATES PATENT OFFICE

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SECURING MEANS FOR ELECTRICAL CONNECTERS

Application filed November 6, 1930. Serial No. 493,868.

This invention relates to electric connecting devices, more particularly it relates to quick detachable connecters provided with socket contacts which are adapted to cooperate with contact fingers which project from an electrical translating device.

Heretofore this type of connecter has commonly been made of two similar halves which have been secured together either by nuts and bolts piercing the two halves or by a metallic band surrounding them. The nut and bolt method had the disadvantage that the bolt loosened and had to be repeatedly tightened; and the metallic bands have not been wholly satisfactory.

It is an object of my invention to provide a more simple securing means which may be removed and replaced more quickly that the prior securing devices and which can be manufactured very cheaply.

In the drawing:

Fig. 1 is a view of the feed line end of a connecter having a switch mechanism incorporated therein and having its halves held together by a modified form of my securing means.

Fig. 2 is a view of the contact-finger-receiving end of the connecter shown in Fig. 3.

Fig. 3 is a section view of the connecter and securing means shown in Figs. 1 and 2, the section being taken at right angles to the divisional plane between the two halves of the connecter.

Referring to the drawing, Figs. 1, 2 and 3 show a conventional connecter having similar complementary halves 10 and 12 made of an insulating composition and having cavities 14, 16 molded in one surface thereof to receive the usual electrical switch mechanism. The connecter shown is of the switch type, the switch thumb piece being indicated at S in Figs. 1 and 2.

Upon fitting the halves of the connecter together a flattened tube is formed. Into an aperture 31 at one end thereof feed wires are customarily led while twin apertures 34 and 35 at the other end permit the contact fingers of an electrical device to enter and engage the socket contacts (not shown) within the connecter.

According to my invention the halves of the connecter are held together at one end by a split metal ring 32 which possesses the characteristics of stiffness and resiliency. The ring fits snugly around a cylindrical nub 30, which defines the feed wire aperture 31. One half of the nub 30 is formed on each half of the connecter at the feed wire aperture. To hold the ring in place around the nub, a bead or the like may be formed around the top of the nub.

Each half of the connecter has cut in it at the outer end an L-shaped channel 33 extending down the side of the connecter around the edge to a position between the contact apertures, 34 35. The channel in one half of the connecter registers with that of the other half and there is seated in the continuous passage thus formed a metallic U-shaped spring clip 36. The legs of this clip bearing against the bottom of the channel press the two halves of the connecter together at the contact receiving end thereof.

The spring clip 36 and the ring 32 may be cut from steel wire. Thus the cost of the connecter is reduced without impairment of quality over prior connecters. From the foregoing it will be apparent that I have provided a simple, secure means to hold the halves of a connecter together, which means may be quickly removed and replaced without the necessity for the use of the customary tools.

I claim:

1. An electrical connecting device comprising a casing formed of a plurality of parts and having a substantially circular channel formed therein adjacent to one end of said device and a substantially U-shaped channel formed therein adjacent the other end of said device, portions of each of said channels being located in each of said parts, a spring ring engaging in said circular channel and a spring clip engaging in said U channel whereby said parts are held together.

2. An electrical connecting device comprising a casing formed of a plurality of parts and having a substantially circular channel formed therein and a substantially U-shaped channel formed therein, portions of

each of said channels being located in each of said parts, said circular channel being formed around the feed wire opening and said U channel being formed between the contact apertures of the device, a ring engaging in said circular channel and a spring clip engaging in said U channel whereby said parts are held together.

3. An electrical connecting device comprising a casing formed of a plurality of parts and having a substantially circular channel formed therein adjacent to one end of said device and a substantially U-shaped channel formed therein adjacent the other end of said device, portions of said channels being located in each of said parts, a spring ring engaging in said circular channel and a spring clip engaging in said U-channel, whereby said parts are held together, the plane of said clip being perpendicular to the plane of said ring.

In testimony whereof I have signed my name to this specification.

MONROE GUETT.