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C. M. SHAY

QUICK DETACHABLE CONNECTER

Filed Jan. 29, 1921

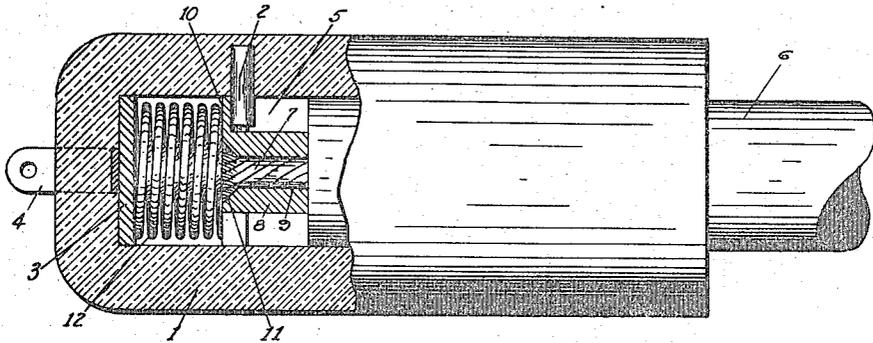


Fig. 1

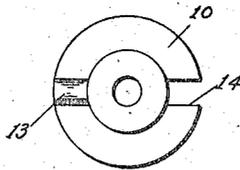


Fig. 2

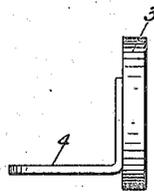


Fig. 3

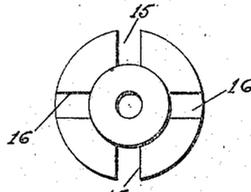


Fig. 4

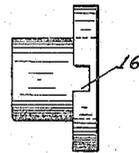


Fig. 5

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QUICK-DETACHABLE CONNECTER.

Application filed January 29, 1921. Serial No. 440,883.

To all whom it may concern:

Be it known that I, CHARLES M. SHAY, a citizen of the United States, residing at Orange, in the county of Essex, State of New Jersey, have invented certain new and useful Improvements in Quick-Detachable Connecters, of which the following is a description, reference being had to the accompanying drawing, and to the figures of reference marked thereon.

This invention relates to cable connecting means, and has for its object the provision of improved means whereby a cable may be quickly and detachably connected to a block without the use of any tools.

Another object is to prevent, in devices of this character, the accidental disengagement of the cable from the block.

Other and further objects will be apparent after reading the following specification and claims in connection with the accompanying drawings in which:

Figure 1 is a view, partly in section, of my connecting block and cable.

Figure 2 is a plan view of one of the members of the cable connecting means.

Figure 3 is a view of the terminal plate of my block.

Figure 4 is a modified form of the member shown in Figure 2 and

Figure 5 is a side view thereof.

In the several drawings, 1 indicates a block of insulating material in which is embedded or moulded a pin 2. Also retained in place by the insulating body is a terminal plate 3 to which the terminal lug 4 is rigidly secured in any desired manner. The insulating body is provided with a bore 5 in which is adapted to be passed the cable 6 with which the plate 3 is to make electrical engagement.

To effect this engagement, the cable is bared at its end to expose the wire or conductor 7 shown as stranded in this instance, and a thimble 8 provided with a bore 9 and a flanged head 10 is slipped over the bared end of the conductor and is soldered or otherwise secured thereto. If desired, the flanged head may be countersunk as at 11 and the strands of the conductor may be spread out in this countersunk portion so that when soldered, the chances of the wire pulling out of the thimble may be minimized. The circuit between the cable and the plate is completed through an inter-

mediate coiled spring 12 seated at the bottom of the bore 5 and the thimble is restrained against movement out of the bore by means of the pin 2 seating within a recessed portion 13 in the flange of the thimble. To permit the thimble to be passed beyond the plane of the pin, there is provided in the thimble, a slotted portion 14 disposed substantially 180 degrees from the recessed portion.

The method of effecting connection between the cable and the block is apparent and in view of the description need not be given here.

In some instances, it is desirable to provide two pins 2 disposed substantially diametrically in the bore, in which instance, the thimble would have two slotted portions 15, 15 and two recessed portions 16, 16 as shown in Figure 4, and the particular configuration of the outline of the recesses is not important, although it preferably should be of the same curvature as the pin 2.

It can be readily seen that with my connecter, a quick engagement and disengagement of the cable is possible and the recessed portion or portions in the flange in cooperation with the pin or pins in the block prevent accidental disengagement of the cable, since rotation of the thimble to align the slots in the flange of the thimble with the pins is rendered exceedingly difficult.

Having thus described my invention, what I claim is:

1. In a quick detachable connecter, a block of insulating material having a bore for the greater part of its length, a pin secured in the side wall of the block and extending into the bore, a conductor provided with a flanged thimble, the body of the thimble being smaller than the diameter of the cable, said flange being of a diameter such that the thimble and cable may be inserted within the bore, said flange having an opening through which said pin may pass and also having means on the cable side of the flange for engaging the pin on rotation of the cable and flanged thimble, a metal plate in the bottom of the bore and having a lug extending through the end of the block and a resilient member between the plate and the flange to hold the latter in engagement with the pin as and for the purpose described.

2. In a quick detachable connecter, a block

of insulating material having a bore for the greater part of its length, a pin secured in the side wall of the block and extending into the bore, a conductor provided with a flanged thimble, the body of the thimble being smaller than the diameter of the cable, said flange being of a diameter such that the thimble and cable may be inserted within the bore, said flange having an opening through which said pin may pass and also having means on the cable side of the flange for preventing a pull on the cable from disengaging it from the connector, said means comprising a recess on said flange face for engaging the pin on rotation of the cable and flanged thimble, a conductor positioned in the bottom of the bore and having a terminal extending through the end of the block and a spring for completing a connection between the said conductor and thimble, and also serving to hold the flange in engagement with the pin as and for the purpose described.

In testimony whereof, I affix my signature.

CHARLES M. SHAY.