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CARTRIDGE-FUSE RECEPTACLE WITH TERMINAL CLAMPING MEANS

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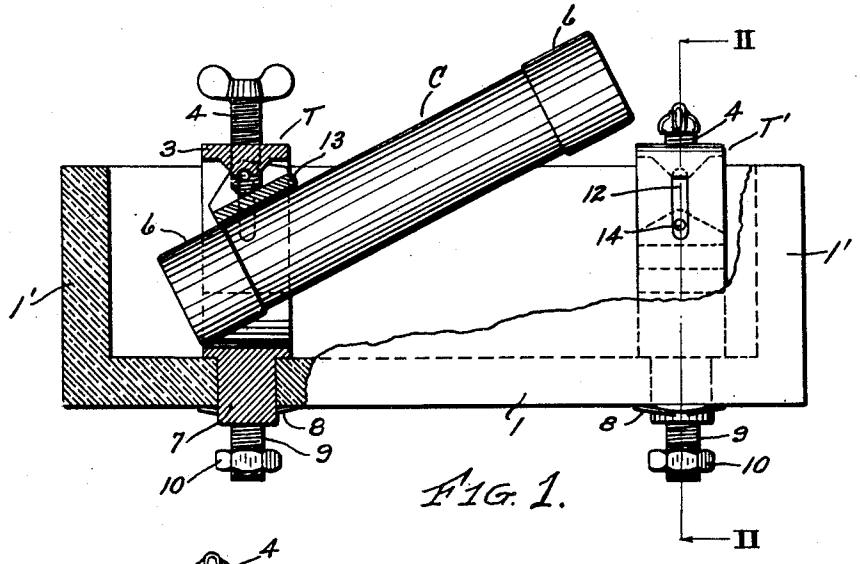


FIG. 1.

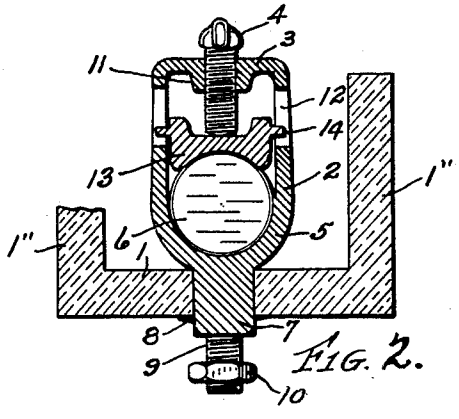


FIG. 2.

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CARTRIDGE-FUSE RECEPTACLE WITH TERMINAL CLAMPING MEANS

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2 Claims. (Cl. 200—134)

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Our invention relates to fuse devices and has particular reference to holders for fuses, especially the cartridge type of fuse.

Conditions are often met in which the standard spring clip type of fuse holder for a cartridge fuse will not meet requirements as for instance when the currents involved are abnormally high requiring a special holder or where the space in which the holder is mounted is too small to permit renewing a blown fuse.

We have provided a fuse holder for a cartridge type fuse in which the holder will clamp onto the terminals of the cartridge, thereby effecting a secure and efficient contact between the holder and the cartridge terminals, sufficient to carry an abnormally high current; at the same time we so construct the holder that the cartridge may easily be renewed when the holder is so placed that the cartridge may not be applied as in the case of the spring clip holder or applied longitudinally with respect to the terminals.

For a better understanding of our invention reference may be had to the detailed description herein and the accompanying drawing, in which:

Fig. 1 is a side view in partial section of our invention in which the holders are mounted in a receptacle of limited dimensions and shows the manner of inserting a fuse cartridge in place under such conditions.

Fig. 2 is a view in partial section on the line 2—2 of Fig. 1.

When it is desired to use a fuse to carry several hundred amperes, more efficient contact means must be provided than is found in the standard spring clip holder and also in many of the improved types thereof.

Referring to Fig. 1, the base 1 may be of any suitable insulating material such as porcelain, fiber, slate, etc. Mounted on the base are the terminal members T and T'.

Each terminal member comprises a closed loop shaped member 2, closed on the top by a flat portion 3 to receive the threaded thumb screw 4, and closed at the bottom by a curved portion 5, shaped to conform to the terminal 6 of the cartridge C.

Means 7 at one end of the looped member 6 is provided for attaching the terminal to the base, and is held in place by a dish-shaped spring washer 8. Other means may be employed to secure the parts together such as threading the means 7 into a threaded opening in the base.

Projecting from the means 7 is a threaded stud 9 to receive a conductor or a cable terminal, and held in place by nut 10.

The portion 3 is provided with a boss 11 which

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increases the threaded attachment of the screw 4 to the terminal.

The sides of the loop-shaped member 2 are each provided with a longitudinal slot 12. Mounted within the loop-shaped member 2 is a longitudinally movable clamping member 13 provided with a curved surface to conform to that of the cartridge terminal and laterally projecting guides 14 projecting into and longitudinally movable in the slots 12.

The clamping member 13 is moved into and held in secure clamping engagement with the terminal 6 of the fuse cartridge C, thus providing secure and efficient electrical contact between the fuse terminal and the contacting parts of the holder terminal, and more dependable and reliable than the spring clip and some other types of terminals especially for high currents.

The guides 14 permit the clamping members 13 to pivot relative to the loop-shaped members 2, thus providing adjustment between the terminals 6 and the contacting parts thereby aiding in effecting more efficient contact between the parts.

This pivotal feature of the clamping member 13, aids materially in applying the cartridge C to the holder when the terminals T and T' are mounted in a confined space as shown in Fig. 1, the base 1 being provided with end walls 1' and side walls 1''.

Under such conditions the clamping member 13 of one terminal T may be raised to its limit as shown in Fig. 1 and pivoted to one side, all the result of the slot 12 and guide 14 which also retains the parts assembled.

To add to the ease of inserting the fuse holder C in position the screw 4 of the terminal T' may be lowered as far as possible.

Fig. 1 shows clearly the method of renewing a cartridge fuse C when the terminals T and T' are located in a confined space and the fuse C cannot be inserted longitudinally or endwise.

While we have shown terminals T and T' as duplicates, one terminal, T' as in the case of Fig. 1 may be made without the pivotal feature as it is evident that after the fuse C has been inserted into place in terminal T and brought to a horizontal position or aligned with the terminal T' that, the fuse C may then be moved longitudinally into position in the terminal T', in which case the pivotal action of terminal T' will be of no benefit.

A metal base member may be used but in that case the terminals T and T' must be insulated from the ground and from each other by the use of insulating washers and bushings between the

terminals and the base as is well known to and used by those skilled in the art.

Having described our invention, what we wish to protect is set forth in the accompanying claims.

We claim:

1. A fuse holder comprising, a receptacle with an insulated base and upstanding end walls preventing insertion of the fuse endwise of the terminals, a pair of spaced and insulated terminals secured to the base member, means to attach conductors to the terminals, each terminal having a rigid yoke shaped member with a fixed seat to receive the terminal of a fuse and a clamping member associated with each terminal to engage the fuse terminal and cooperate with the said seat in securing the fuse terminal in position, one terminal having longitudinally disposed slots in its side members and its clamping member having means positioned in the slots whereby the clamping member in the said one terminal is movable toward and away from its seat and tiltable relative thereto whereby a fuse may be inserted in position in the terminals, a threaded member associated with each of the said terminal members to engage the associated clamping member to move it into secure engagement with the associated fuse terminal, one end wall of the receptacle positioned adjacent the other terminal, the other end wall being spaced a sufficient distance from the said one terminal to permit the fuse terminals to be positioned properly in the terminals by tilting the clamping member of the said one terminal and moving it away from the seat and inserting the fuse therebetween without interference from the said other wall.

2. A fuse holder comprising, a receptacle with a base and upstanding end walls, a pair of spaced and insulated terminals secured to the base, means to attach conductors to the terminals, each terminal having a rigid yoke shaped member with a fixed seat to receive the terminal on a fuse, each terminal provided with a clamping member longitudinally movable relative to the yoke member to engage the fuse terminal and hold it against the associated seat, means to move each clamping member into engagement with the fuse terminal and the fuse terminal into engagement with the associated seat, the end walls so positioned relative to the terminals that the fuse is prevented from being inserted in the terminals endwise thereof, means on one clamping member cooperating with means on the yoke shaped member to permit the clamping member to tilt relative to its yoke member whereby the clamping member may be tilted and one fuse terminal inserted in position between the last said clamping member and the associated seat and the other fuse terminal brought into alignment with the other terminal and moved axially into position therein without interference from either end wall of the receptacle.

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