G. F. ROHN.

FUSE HOLDER.

APPLICATION FILED MAY 27, 1920.

1,404,323. Patented Jan. 24, 1922.

Fig. 1.

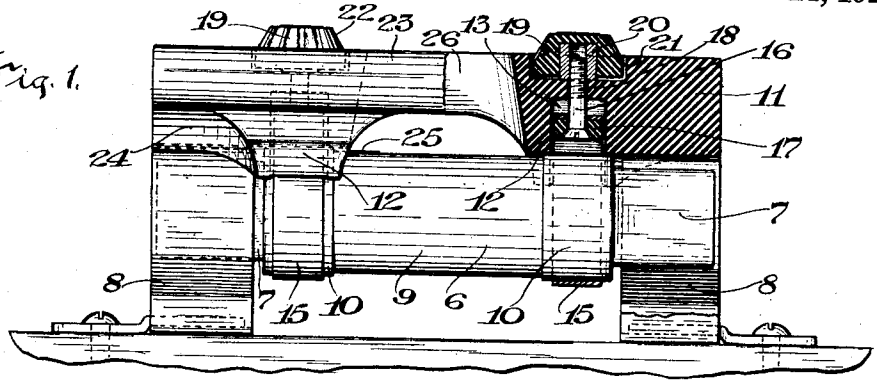


Fig. 2.

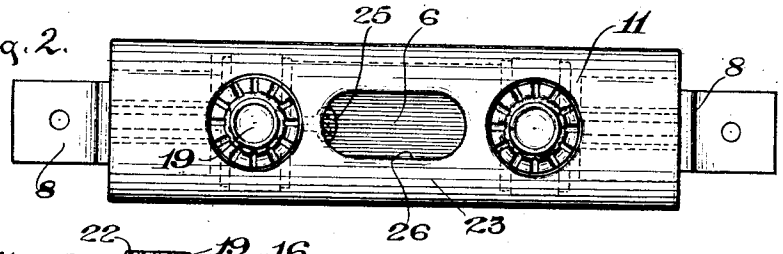


Fig. 3.

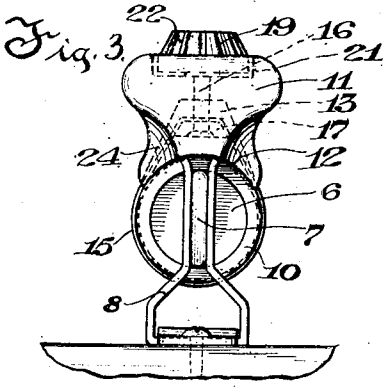


Fig. 4.

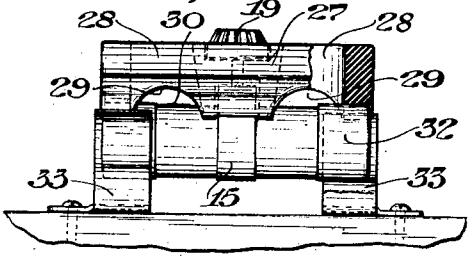


Fig. 5.

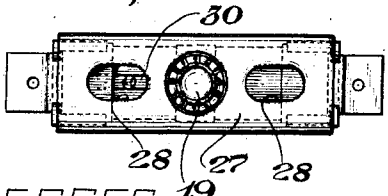
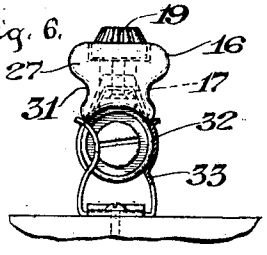


Fig. 6.



WITNESSES

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FUSE HOLDER.

1,404,323. Specification of Letters Patent. Patented Jan. 24, 1922.

Application filed May 27, 1920. Serial No. 384,768.

To all whom it may concern:

Be it known that I, GEORGE F. ROHN, a citizen of the United States, and resident of Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in Fuse Holders, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

The invention relates to fuses and more particularly to an attachable handle for the fuse to prevent possible injury upon the insertion or withdrawal of the fuse from its terminal connection.

The object of the invention is to provide certain improvements on the fuse holder shown in my copending application, Serial No. 365,289 filed March 12, 1920, by allowing for ventilation of the fuse, a ready reading of the capacity of the fuse, and a simple means for drawing up the clamping band.

The invention further consists in the several features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings: Fig. 1 is an elevation view of a device embodying the invention, parts being shown in section; Fig. 2 is a plan view thereof; Fig. 3 is an end view thereof; Fig. 4 is a view similar to Fig. 1 showing a device embodying the invention applied to a smaller type of fuse; Fig. 5 is a plan view and Fig. 6 an end view of the device shown in Fig. 4.

Referring to Figs. 1 to 3 of the drawings, the numeral 6 designates a replaceable cartridge fuse of usual construction having blade contacts 7 at its ends insertable between the jaws of the usual fixed terminals 8. As usually made these fuses have a cylindrical shell 9 of fibre or other suitable insulating material and metal ferrules or caps 10, the fuse link being disposed within the shell and connected to the blades.

In removing or replacing a fuse, if through ignorance or carelessness the operator grasps the fuse in such a way as to short circuit the current through him he will receive a shock or burn which, of course, is more dangerous the greater the voltage. To prevent such an occurrence I have provided a handle member 11 of insulating material which is adapted to be clamped to the fuse so that it may be readily removed therefrom. This handle extends the full length of the fuse barrel and also preferably projects out over the blades so that the operator's hand cannot come in contact with any of the metal parts of the fuse.

The handle member 11 has curved portions 12 with recesses 13 therein receiving the upper ends of clamping bands 15 which engage over the caps 10 of the fuse. These bands 15 are formed from thin metal strips having their ends joined together and apertured to receive screw bolts 16 which are carried by blocks 17 of insulating material seated in the pockets formed at the ends of the bands. The bolts 16 extend up through holes 18 in the handle and are engaged by clamping nuts 19 which may be made entirely of insulating material or be provided with a threaded metal core 20. These nuts extend into recesses 21 in the handle and are preferably provided with fluted beveled sides 22 so that they may be readily manipulated by the operator. By screwing up on the nuts the metal bands are drawn toward the handle and move the fuse into tight clamping engagement with the handle.

To keep the handle cool the intermediate portion 23 is spaced from the fuse to allow the air to circulate freely around the body of the fuse and the ends have grooves 24 formed therein to deflect the air away from the handle.

The underwriters now generally require a visible indicator, such as the printed tag or label 25, to be affixed to the outside of the fuse casing to designate the capacity of the fuse within the fuse casing and in order that the fuse holder may not interfere with a ready inspection of this or any other capacity indicator on the casing the handle has an opening 26 therein.

In the smaller sizes of fuses, as shown in Figs. 4, 5 and 6, the handle 27 of insulating material is clamped to the fuse by means of a single clamp identical with those previously described and therefore similarly designated in the drawing. This handle is provided with sight and ventilator openings 28 and with recesses 29 to permit free circulation of air about the fuse casing. The capacity indicator 30 is readily viewed through one of the openings 28. The sides of the holder have grooves 31 extending lengthwise thereof to provide a good grip. In this type of fuse the metal caps 32 are engaged directly with the terminal caps 33.

The insulated holder eliminates the question of danger to the operator in withdrawing or replacing fuses, the holder is prevented from overheating and does not interfere with inspection of the capacity indication.

I desire it to be understood that this invention is not limited to any specific form or arrangement of parts except in so far as such limitations are specified in the claims.

What I claim as new and desire to secure by Letters Patent is:

1. The combination of a handle of insulating material for a cartridge fuse, and means for clamping said handle to the fuse, said handle having an opening directly through it from its front side to permit inspection of the capacity indication of the fuse.

2. The combination, of a handle of insulating material for cartridge fuses, said handle having recessed portions engageable with the fuse and other portions spaced from the fuse to permit circulation of air around the fuse, and means for clamping the recessed portions of the handle to the fuse.

3. The combination of a handle of insulating material for a cartridge fuse attachable thereto, and attaching means including a metal band surrounding a portion of the fuse, a block of insulating material seated in the end of the band, a bolt carried by said block and extending through the handle, and a nut engageable with the bolt and having an insulated exterior.

4. The combination of a handle of insulating material for a cartridge fuse attachable thereto, and attaching means including a metal band surrounding a portion of the fuse, a block of insulating material engaging said band, a bolt carried by said block and extending through the handle, and insulated means for moving the bolt and band to clamp the fuse to the handle.

In testimony whereof, I affix my signature.

GEORGE F. ROHN.