

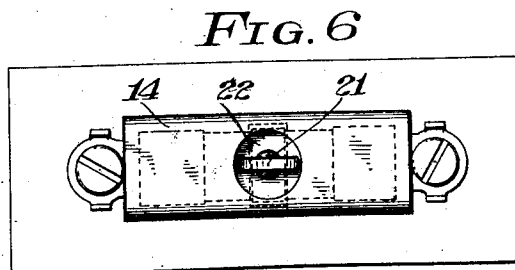
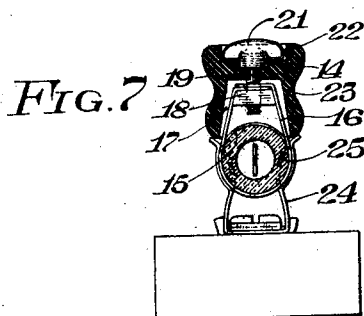
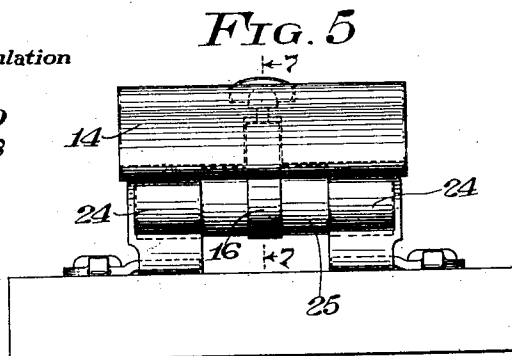
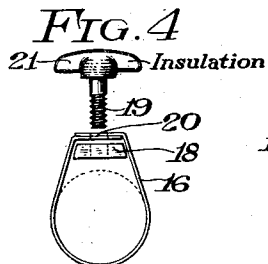
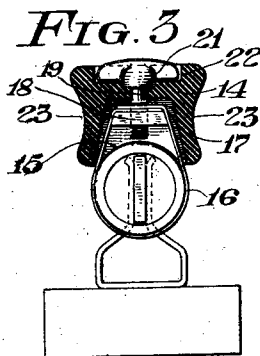
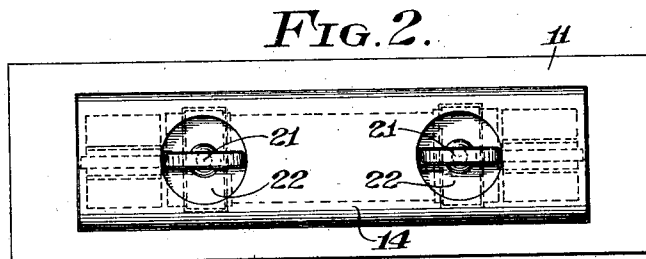
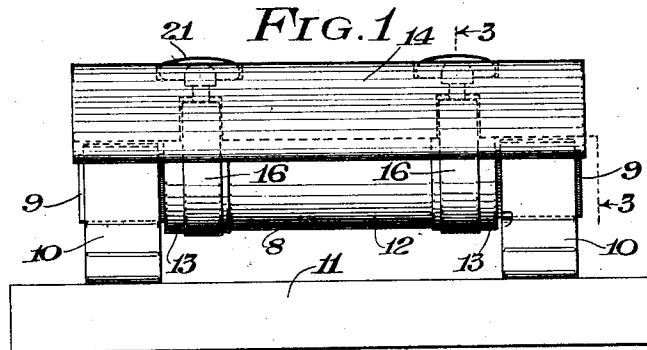
G. F. ROHN.

FUSE.

APPLICATION FILED MAR. 12, 1920.

1,404,322.

Patented Jan. 24, 1922.



WITNESSES.

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FUSE.

1,404,322.

Specification of Letters Patent. Patented Jan. 24, 1922.

Application filed March 12, 1920. Serial No. 365,289.

To all whom it may concern:

Be it known that I, GEORGE F. ROHN, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Fuses, 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 a means for preventing possible injury while inserting or withdrawing fuses from the terminal connections.

To one familiar with electrical devices it is evident that care has to be exercised in inserting or withdrawing a fuse because of liability of touching the terminals. Where, as is now frequently the case, the duty of replacing or withdrawing fuses is left to unskilled labor safeguards are necessary to prevent accidents and the present invention provides a safeguard for the usual fuse by the provision of an insulated handle readily detachable from the fuse.

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; Fig. 2 is a plan view thereof; Fig. 3 is a section taken on the line 3—3 of Fig. 1; Fig. 4 is a detail view of one of the handle clamps; Fig. 5 is an elevation view of the device applied to a different type of fuse; Fig. 6 is a plan view of the device shown in Fig. 5; Fig. 7 is a section taken on the line 7—7 of Fig. 5.

Referring to Figs. 1 to 4 of the drawing the numeral 8 designates a replaceable cartridge fuse of usual construction having blade contacts 9 at its ends insertable between the parts of the usual fixed terminals 10 on a base 11. As usually made these fuses have a cylindrical shell 12 of fibre or other suitable insulating material and metal ferrules or caps 13, the fuse link being disposed within the shell and connected to the blades. The caps 13 are of metal and connect with the blades.

In removing or replacing a fuse, if through ignorance or carelessness the operator grasps the fuse in such a way as to bridge the caps or blades 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 14 of suitable 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 lower side of the handle has a curved recess 15 contacting with the fuse and is clamped to the fuse by means of thin flexible strips or bands 16 of metal or other suitable material having their ends joined together to form loops which fit over the metal caps 13 and extend into recesses 17 in the handle, said bands being secured to said handle and clamped to the fuse by means of nuts 18 and thumb screws 19. Where the bands 16 come in contact with metal, as with the metal cap, the nuts 18 are preferably of insulating material such as hard fibre, and where such contact does not occur they may be made of metal. The nuts are seated in a pocket formed at the ends of the band and these ends have a screw opening 20, preferably slightly larger in diameter than the diameter of the screw, to insulate the screw from the band. The threaded portion of the screw is preferably of metal and its head 21 of insulating material, said head fitting within a recess 22 in the handle member. By screwing up on the nuts the metal bands draw the fuse into tight engagement with the handle. The handle is provided with grooves 23 in its sides to give a good hand hold.

In Figs. 5 to 7 inclusive I have shown the handle member 14 applied to a usual fuse of small size in which the cap members are engaged directly with the terminal contacts 24 and the clamping band engages the shell 25 of insulating material. This band and its connection with the handle member is identical with that previously described, the only difference being that it is located in the central portion of the fuse and handle. The handle member extends the full length of the fuse.

From the above description it will be noted that all danger of the operators coming in contact with the fuse contacts is prevented and that the guard may be readily attached to or removed from the fuse.

I desire it to be understood that this in-

vention 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, with a handle of insulating material for cartridge fuses, of means for connecting the fuse to the handle including a metal band carried by the handle and surrounding a portion of the fuse, and means for drawing the band into clamping engagement with the fuse.

2. The combination, with a handle of insulating material for cartridge fuses, of a pair of metal bands engageable with the end portions of the fuse and carried by the handle, and means for drawing the bands into clamping engagement with the fuse.

3. The combination, with a handle of insulating material for cartridge fuses, of means for connecting the fuse to the handle including a flexible band carried by the handle and engaging a portion of the fuse, and

means for drawing the band into clamping engagement with the fuse.

4. The combination, with a handle of insulating material for cartridge fuses, of means for connecting the fuse to the handle including a flexible band fitting around a portion of the fuse and into a recess in the handle, and means for drawing the band into the recess to bring said band into clamping engagement with the fuse and the fuse into engagement with the handle.

5. The combination, with a handle of insulating material for cartridge fuses, of attaching means comprising a metal band fitting around a portion of the fuse and into a recess in said handle, a nut seated in the end of the band, and a thumb screw passing through the handle and engageable with the nut whereby the fuse is drawn into clamping engagement with the handle.

In testimony whereof, I affix my signature.

GEORGE F. ROHN.