March 22, 1932. L. S. O'NEIL 1,850,685

MULTIPLE FUSE

Filed April 29, 1929

Fig. 1.

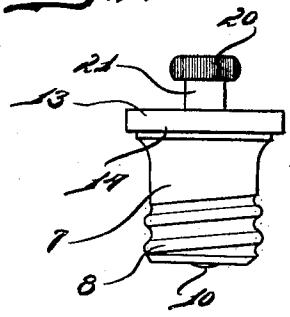


Fig. 2.

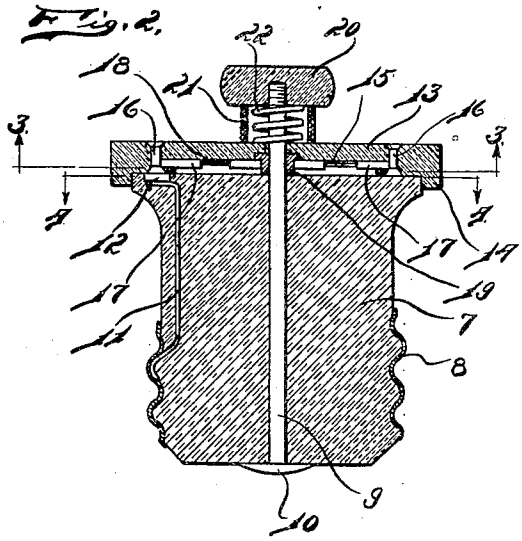


Fig. 3.

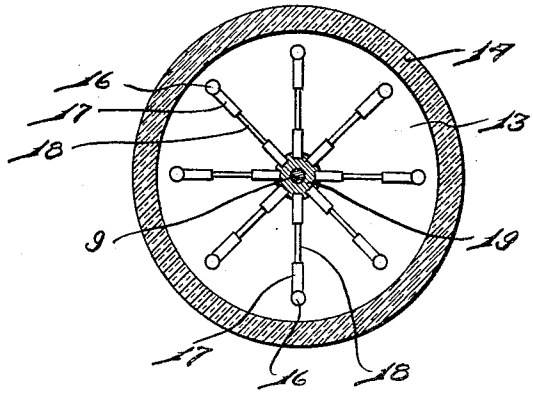


Fig. 4.

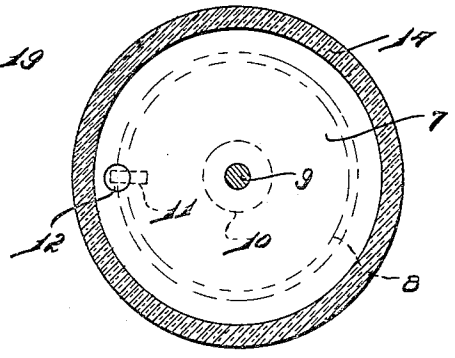
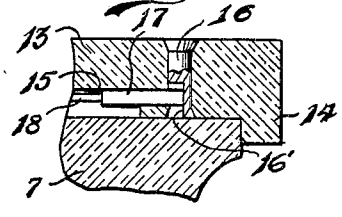


Fig. 5



INVENTOR.
Leo S. O'Neil.

BY Thos. L. Donnelly

ATTORNEY.

Patented Mar. 22, 1932 1,850,685

UNITED STATES PATENT OFFICE

LEO S. O'NEIL, OF DETROIT, MICHIGAN

MULTIPLE FUSE

Application filed April 29, 1929. Serial No. 358,810.

My invention relates to a new and useful improvement in a multiple fuse and has for its object the provision of a fuse which will be simple in structure, economical of manufacture, durable and efficient in use and so arranged that it may be used to carry a plurality of fuses which may be easily and quickly placed in operative position.

Another object of the invention is the provision of a multiple fuse wherein a removable cap will serve to support the fuses in position.

Another object of the invention is the provision in a multiple fuse of a removable cap carrying a plurality of fuses and provided with resilient means for maintaining a close contact when the device is in use.

Other objects will appear hereinafter.

The invention consists in the combination and arrangement of parts hereinafter described and claimed.

The invention will be best understood by a reference to the accompanying drawings which form a part of this specification and in which,

Fig. 1 is a side elevational view of the invention.

Fig. 2 is a central longitudinal sectional view of the invention enlarged.

Fig. 3 is a view taken on line 3—3 of Fig. 2.

Fig. 4 is a view taken on line 4—4 of Fig. 2.

Fig. 5 is a fragmentary sectional view through one of the contacts.

As shown in the drawings, the invention comprises a plug 7 made from suitable insulating material and provided on the periphery of its threaded portion with a metallic casing 8 which may be threaded into an electric socket in the usual manner. A metallic stem 9 extends centrally through the plug 7 and is provided with a contact head 10. An electric conductor 11 extends in the plug 7 and is electrically connected to the casing 8 and also to a contact 12 which is embedded in the plug 7 and exposed at the upper face thereof. A removable cap 13 is provided for the plug and provided with the flange 14 which embraces the periphery of the outer end of the plug. The inner face of the cover 13 is recessed as at 15. Secured in this cover are a plurality of contacts 16, each of which is slitted, as at 16′, and into which may be pressed one end of the fuse strip 17 which has its central portion 18 reduced in area so that when an overload is received and the fuse blows, it will blow at the reduced portion 18. The opposite end of this fuse strip is inserted in a slit formed in a collar 19. Threaded on the upper end of the stem 9 is a knob 20 of insulating material, a sleeve 21 serving as a spacer to retain the knob 20 spaced from the cover 13. The stem 9 projects loosely through the cover 13 as it does also through the collar 19. A coil spring 22 is positioned in the sleeve 21 in embracing relation to the stem 9 and serves to retain the cover 13 pressed tightly against the plug 7 so that the contact 16, which may be in alignment with the contact 12, will always be pressed there-against.

The construction is such that the cover 13 may be rotated on the plug 7 so as to bring the several contacts singly into alignment and contact with the contact 12. Consequently, it is evident that when one of the fuse strips blows a rotation of the cover 13 to bring the next succeeding contact 16 into engagement with the contact 12 will provide an operative fuse. In this way, the fuse may be renewed a number of times without necessitating its removal from the socket in which it is mounted. When all of the fuse strips have been used, the same may be removed by removing the cover 13 and replacing the fuse strips or the cover and fuse strips may be made as a unit so that the cover would be replaced when the fuse strips have been used.

While I have illustrated and described the preferred form of my invention, I do not wish to limit myself to the precise details of structure shown but desire to avail myself of such variations and modifications as come within the scope of the appended claim.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

A multiple fuse of the class described comprising: a plug; a metallic portion threaded on the periphery of one end of said plug, said plug being threadable into a socket at said

portion; a contact mounted in the face of said plug at the opposite end; means for electrically connecting said contact to said metallic portion; a stem projected axially through said plug; a head mounted on one end of said stem; a cover for said plug, said cover being rotatable thereon and said stem projecting centrally there-through; a collar rotatably mounted on said stem, said collar having a plurality of slits formed therein; a plurality of separate contact members mounted on said cover, each provided with a slit formed therein, and each being adapted individually for engaging the contact in said plug upon rotation of said cover; a plurality of fuse strips each engaging at its opposite ends in a slit formed in said collar and in a slit formed in one of said contacts in said cover.

In testimony whereof I have signed the foregoing specification.

LEO S. O'NEIL.