

March 25, 1924.

H. E. EWING

1,487,927

FUSE

Filed March 5, 1923

Fig. 1.

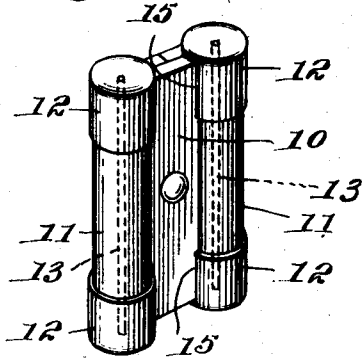


Fig. 2.

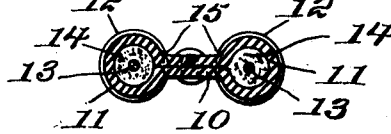


Fig. 4.



Fig. 3.

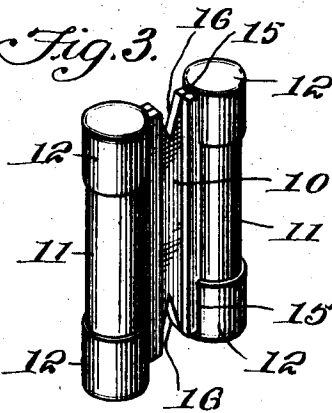


Fig. 8.

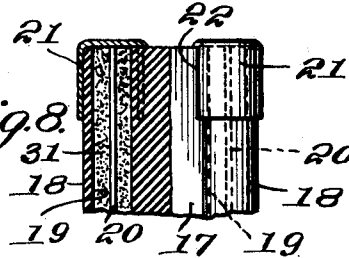


Fig. 6.

Fig. 9.

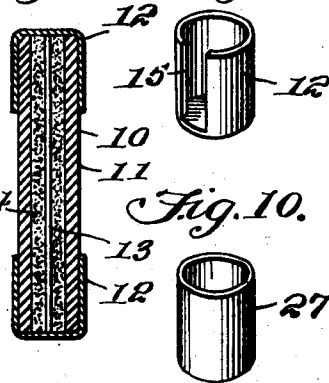


Fig. 5.

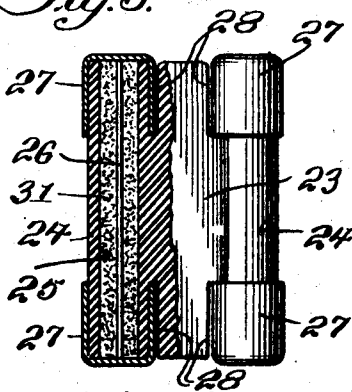


Fig. 7.

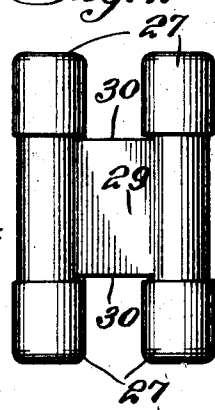


Fig. 10.

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INVENTOR

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WITNESS:

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UNITED STATES PATENT OFFICE.

HARRY E. EWING, OF UNIONTOWN, PENNSYLVANIA.

FUSE.

Application filed March 5, 1923. Serial No. 622,981.

To all whom it may concern:

Be it known that I, HARRY E. EWING, a citizen of the United States, residing at Uniontown, in the county of Fayette and State of Pennsylvania, have invented new and useful Improvements in Fuses, of which the following is a specification.

This invention relates to electrical devices, particularly to fuses, designed for use in electric circuits of various kinds and for various purposes, and has for its object the provision of a duplex fuse of such a nature that one side may be used while the other side constitutes a handle facilitating insertion or removal of the fuse into or out of the holder provided for it, the device not only being easy to handle but also having the advantage of providing in one unitary structure two separate fuses which are selectively usable, so that when one is burnt out the device may be turned over and the other one used.

Another object is the provision of a device of this character which includes a minimum number of parts which are very easily assembled, the device being consequently simple and inexpensive in manufacture, as well as efficient and durable in service and a general improvement in the art.

With the above and other objects and advantages in view the invention consists in the details of construction to be hereinafter more fully described and claimed and illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of one form of the device,

Figure 2 is a cross section therethrough,

Figure 3 is a perspective view of a slight modification,

Figure 4 is a cross section through a modified form,

Figure 5 is an elevation, partly in section, of a still further modified form,

Figure 6 is a longitudinal section through all forms,

Figure 7 is an elevation of a further modification,

Figure 8 is an elevation, partly in section of the form shown in Figure 4,

Figure 9 is a perspective view of one form of cap,

Figure 10 is a perspective view of another form of cap.

Referring more particularly to the drawings, and especially to Figures 1 and 2, I

have shown the device as comprising a body 10 of insulating material, such as sheet fiber or the like and formed from a single piece having its ends curled or coiled upon themselves as indicated at 11 to define cylindrical channels. Disposed upon the ends of these cylindrical members are metallic caps 12 which are connected with ends of the fuse wire 13 and each channel is filled with pulverized asbestos or other similar material indicated at 14. The caps 12 are slit at one side as indicated at 15 so that they may be easily engaged upon the cylindrical end members in enclosing relation to the ends thereof.

In Figure 3 I have shown the intermediate portion of the sheet 10 as formed with a V-shaped notch or groove 16 which permits the body of the device to be easily broken into two pieces so as to define two separate fuses.

In Figure 4 the structure is slightly different inasmuch as the body 17 instead of being a thin sheet with coiled or rolled edges is a thicker sheet having its ends or opposite side portions 18 rounded and formed with bores 19 which contain the fuse wires 20 which have their ends connected with the metal caps 21 which are slit at 22 and held in place in the same manner as the caps 12.

In Figure 5 I have shown still another modification in which the body 23 is formed at its edges with cylindrical portions 24 having bores 25 which contain the fuse wires 26. In this form, however, the caps 27 connected with the ends of the fuse wires are not slit or slotted but the body 23 is slotted as indicated at 28 to accommodate the caps when they are placed in position upon the cylindrical or rounded ends.

In the form of the device shown in Figure 7, the body 29 has its central portion cut away as shown at 30 whereby to permit the extra fuse to swing around to the side in case the device is used in places where switches are employed, as otherwise there might be interference with the switch action.

In all forms of the device the caps are connected with the fuse wires in the same manner and the spaces around the fuse wires are all filled with pulverized asbestos or other non-conbustible material indicated at 31.

In the use of the device it will be seen that either fuse member may be engaged

within whatever holder is provided, the other side of the device serving as a handle facilitating insertion or removal as the case may be. In case one fuse wire burns out 5 the device is merely turned over and the other side used, while the burnt out side then becomes the handle.

From the foregoing description and a study of the drawings it will be apparent 10 that I have thus provided a simply constructed and consequently inexpensive fuse which has double use and which is very convenient, efficient, and which saves time and annoyance.

15 While I have shown and described the preferred embodiment of the invention it is of course to be understood that I reserve the right to make such changes in the form, construction and arrangement of parts as 20 will not depart from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention I claim:

1. A device of the character described comprising a body of insulating material 25 formed at its opposite sides with bores, metal caps upon the ends of said sides for closing the bores, and a fuse wire within each bore having its ends connected with the adjacent caps, the caps being slotted for the 30 accommodation of the edges of the body.

2. A fuse of the character described comprising a sheet of insulating material having opposite edges rolled to define bores, 35 fuse wires within said bores, heat insulating fillings within the bores around the wires, and metal caps engaged exteriorly upon the rolled edges for closing the bores and for retaining said rolled edges in shape.

In testimony whereof I affix my signature. 40

HARRY E. EWING.