

H. R. SARGENT.
FUSE PLUG.
APPLICATION FILED JAN. 8, 1910.

1,001,694.

Patented Aug. 29, 1911.

Fig. 1.

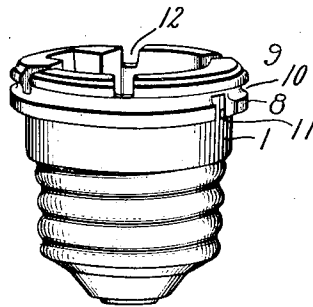


Fig. 2.

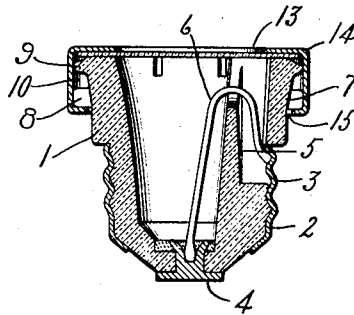
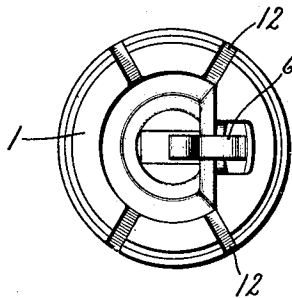


Fig. 3.



Witnesses:

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by *Alfred H. Davis*
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UNITED STATES PATENT OFFICE.

HOWARD R. SARGENT, OF SCHENECTADY, NEW YORK, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

FUSE-PLUG.

1,001,694.

Specification of Letters Patent.

Patented Aug. 29, 1911.

Application filed January 8, 1910. Serial No. 537,023.

To all whom it may concern:

Be it known that I, HOWARD R. SARGENT, a citizen of the United States, residing at Schenectady, county of Schenectady, State of New York, have invented certain new and useful Improvements in Fuse-Plugs, of which the following is a specification.

The present invention relates to thermal cutouts and more especially to that type known as fuse plugs, and the object of the invention is to provide an improved form of fuse plug, which, while permitting the escape of volatile gases therefrom, effectively operates to dissipate the heat thereof before reaching the outside of the plug so that they cannot ignite inflammable material in proximity to the fuse when blowing.

One embodiment of my invention is illustrated in the accompanying drawing, in which—

Figure 1 shows in perspective the main portion of a fuse plug with the cap removed; Fig. 2 shows a complete fuse plug in vertical section; and Fig. 3 a plan view of the parts shown in Fig. 1.

The base 1 is a cup-shaped piece of porcelain or other suitable insulating material with its lower portion 2 reduced and adapted to receive a screw-threaded contact shell 3 and its lower end apertured and provided with a center contact 4. Within the base is formed a bridge 5 over which the fusible element 6 is bent in passing from its connection with the screw shell 3 to its connection with the center contact 4. The upper portion 7 of the base is provided with two peripheral flanges 8 and 9 with a space or groove 10 between them. Leading from the groove 10 are vents 11 and across the upper edge of the base are notches 12 which connect the space within the base with the groove 10. The notches 12 are disposed out of alinement with the vents 11, as shown in Fig. 1, to produce a baffling effect on the escaping gases.

At the top of the base 1 is a cover comprising an insulating disk 13, preferably of mica, which is securely held in place against the outer end by a metallic flanged ring 14 having its upper flange resting on top of the disk and its lower flange spun under the

lower flange 8 of the base but with slight clearance 15 between its inner edge and the outer surface of the base.

When the fusible element 6 volatilizes under the action of an electric current, the gases pass through the notches 12, impinge upon the surface of the groove 10 and the ring 14 and are thereby checked or baffled to permit dissipation of the heat thereof so that when they reach the vents 11 and pass to the surrounding air they are not sufficiently heated to cause combustion of lint or other readily inflammable material. The number of vents 11 may be greater or less than the number of notches 12 so long as the gases are unable to escape before coming in contact with an extended condensing area.

I do not desire to restrict myself to the particular form or arrangement of parts herein described and shown, since it is apparent that they may be changed and modified without departing from my invention.

What I claim as new and desire to secure by Letters Patent of the United States, is,—

1. In a fuse plug, the combination with a fusible element and its terminal contacts, of a cup-shaped base provided adjacent its open end with an external peripheral groove, with notches or passages connecting the interior of said base with said groove and with vent openings from said groove, and a cover for the open end of the base inclosing said groove.

2. A fuse plug having a chambered insulating base with a peripheral flange about its upper end, a cap seated against the upper end of said base with a peripheral flange interlocked with the base flange, a peripheral passageway between the flanges of said base and said cap, apertures extending from the chamber of said base to said passageway, and vents extending from said passageway to the outside of said cap flange and offset with relation to said apertures.

3. A fuse plug having a chambered insulating base with spaced peripheral flanges about its upper end, a reduced lower end and a central peripheral shoulder, a screw shell contact secured to said reduced portion of the base, a center contact extending through the lower end of the base, a fusible

element extending through the chamber of the base and connecting said contacts, a metallic cap seated against the upper end of the base having a peripheral flange surrounding the flanges of the base and interlocked therewith, said base or said cap having apertures extending from said chamber to the space between the base flanges and the cap flange, and vents extending from

said space to the outside of the plug above 10 said central shoulder.

In witness whereof, I have hereunto set my hand this 6th day of January, 1910.

HOWARD R. SARGENT.

Witnesses:

BENJAMIN B. HULL,
HELEN ORFORD.
