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R. L. ATHEY

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SAFETY FUSE PLUG

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FIG. 1.

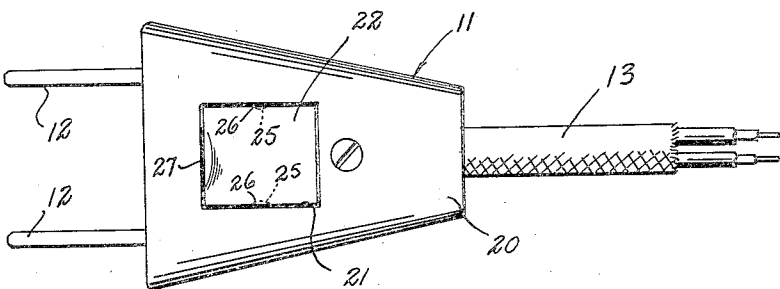


FIG. 2.

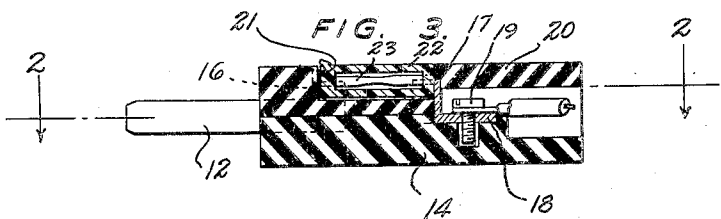
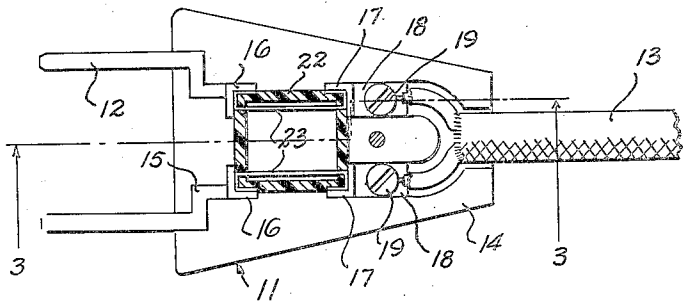
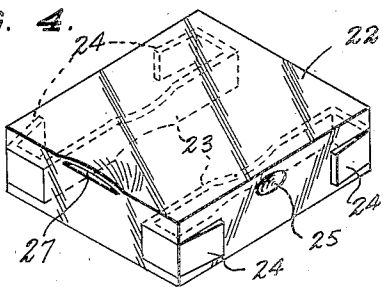


FIG. 4.



ROBERT L. ATHEY, ^{Inventor}

By *W. Morrow, Reeman & Davidson*
Attorneys

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SAFETY FUSE PLUG

Robert L. Athey, Hanford, Calif.

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2 Claims. (Cl. 200—115.5)

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This invention relates to electric plugs, and more particularly to electric plugs of the safety fused type.

A main object of the invention is to provide a novel and improved electric plug provided with an individual replaceable fuse element, said plug being very simple in structure, compact in size and providing protection against major damage to current supply wiring and against fire hazards by locating the fuse element at the plug of each appliance.

A further object of the invention is to provide an improved safety fused electric plug which is inexpensive to manufacture, neat in appearance, and wherein a burnt-out fuse element is easily visible and readily replaceable.

Further objects and advantages of the invention will become apparent from the following description and claims, and from the accompanying drawings, wherein:

Figure 1 is a top plan view of a fused plug constructed in accordance with the present invention.

Figure 2 is a horizontal cross-sectional view taken on line 2—2 of Figure 3.

Figure 3 is a vertical cross-sectional view of the plug of Figure 1 taken on line 3—3 of Figure 2.

Figure 4 is an enlarged perspective detail view of a fuse block member employed in the plug of Figure 1.

Referring to the drawings, 11 designates generally a plug according to the present invention, the plug being of conventional outline and having a pair of male prong members 12, 12 adapted to be inserted in a standard electric outlet. Designated at 13, is a two-wire electric cord leading to an electrical appliance which is to be energized. Plug 11 comprises a main body portion 14 of suitable insulating material. The rearward portions of prongs 12, 12 comprise inwardly offset portions 15, 15 secured in main body portion 14 and having upstanding angled lugs 16, 16 rising therefrom, said angled lugs being aligned so as to define two respective corners of a rectangle. Defining the remaining two corners of said rectangle are angled lugs 17, 17 rising from respective terminal strips 18, 18 secured in main body portion 14, and having respective terminal screws 19, 19 for fastening the wire ends of cord 13, to the said terminal strips.

Overlying and secured to main body portion 14 is an auxiliary body member 20 of insulating material formed with a top rectangular recess 21 in a location defined by the angled corner lugs 16, 16 and 17, 17, and formed with angle slots receiving said corner lugs and penetrating into

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the corners of recess 21 so that the upper inner surfaces of the angled lugs are exposed at the corners of the recess when the auxiliary body member 20 is fastened to main body portion 14 in assembled relation therewith.

Fitting into the recess 21 is a rectangular hollow block 22 of preferably transparent insulating material such as clear plastic or the like. Molded into block 22 are fuse strips 23, 23 each having exposed corner tabs 24 adapted to engage the respective angular lugs 16 and 17 at each side of the plug with frictional spring pressure so as to bridge said lugs. The current carrying capacity of the fuse strips 23 is preferably below the current rating of the line fuse, so that if the appliance to which the plug is connected is short-circuited, one or both of the fuse strips 23, 23 will burn out before the line fuse, therefore preventing the line from being completely out of service. Since the fuse strips are visible from outside, the shorted condition of a particular appliance may be readily determined by a quick examination of its fused plug.

The block 22 is slightly recessed at its side surfaces as shown at 25 so as to receive small locking projections 26 formed in the side walls of recess 21 to releasably lock said block in its seat, and is formed with a recess 27 in its front edge adapted to receive a fingernail or tool when the block 22 is to be removed from its seat for replacement.

While a specific embodiment of a safety fused appliance plug has been disclosed in the foregoing description, it will be understood that various modifications within the spirit of the invention may occur to those skilled in the art. Therefore, it is intended that no limitations be placed on the invention other than as defined by the scope of the appended claims.

What is claimed is:

1. An appliance cord plug comprising a main insulated body section having a pair of laterally spaced contact strips at one end to which the appliance cord wires are adapted to be connected and a pair of laterally spaced outlet engaging prongs on the opposite end of said body section, the longitudinally inward ends of both pairs of contact strips and prongs being longitudinally spaced, L-shaped cross section terminals defining the four corners of an open rectangle, a secondary insulated body section secured on said main body section and formed with a rectangular opening into whose corners said L-shaped terminals project, a fuse block comprising a substantially rectangular insulated body removably positioned in said rectangular opening and between said L-

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shaped terminals, and fusible strips along opposite sides of said block having terminals externally exposed at the corners of said block and engaging corresponding ones of said L-shaped terminals.

2. An appliance cord plug comprising a body 5 comprising a main section having a pair of laterally spaced outlet engaging prongs at one end and a pair of laterally spaced contact strips at the opposite end with which the wires of the appliance cord are connectible, the longitudinally inward ends of said prongs and contact strips being substantially spaced from each other, said prongs and said contact strips having portions on their longitudinally inward ends which lie substantially in the same plane, said portions having L-shaped terminals, said L-shaped terminals having the major portions thereof positioned above the related prongs and contact strips and facing in directions to define corners of a rectangle bounding the space between the longitudinally inward ends of said pairs of prongs and contact strips, a fuse block located in said space comprising a rectangular insulated body dimen-

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sioned to seat its corners in said L-shaped terminals when in place in said space, and longitudinal fusible strips having terminals exposed on the sides of the corners of said body conformably and frictionally engaging the corresponding ones of said L-shaped terminals.

ROBERT L. ATHEY.

REFERENCES CITED

- 10 The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
15 1,847,172	Ciotta	Mar. 1, 1932
1,904,691	Magee	Apr. 18, 1933
2,117,346	Millis	May 17, 1938
2,225,718	Sheppley et al.	Dec. 24, 1940

FOREIGN PATENTS

Number	Country	Date
20 753,844	France	Aug. 21, 1933