April 18, 1933. J. B. MAGEE 1,904,691

ATTACHMENT PLUG

Filed March 13, 1930

Fig. 1.

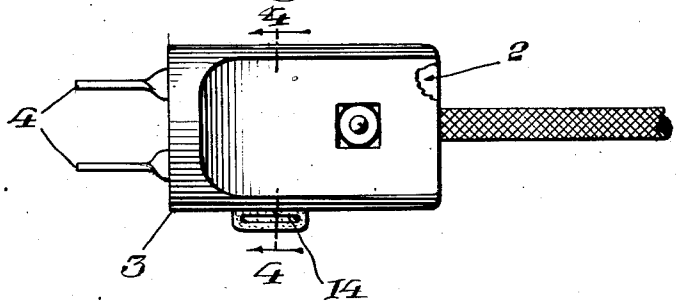


Fig. 2.

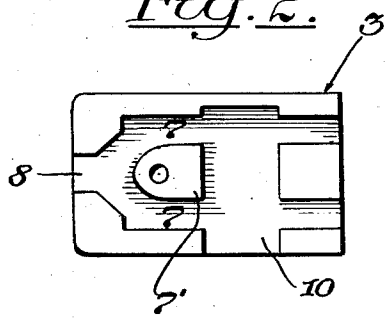


Fig. 3.

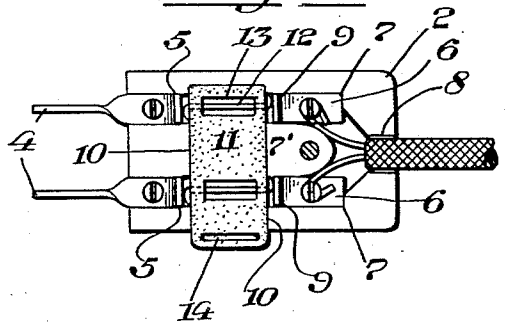


Fig. 4.

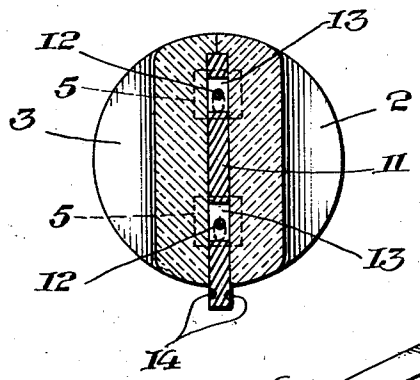
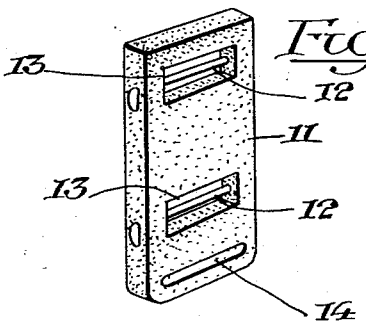


Fig. 5.



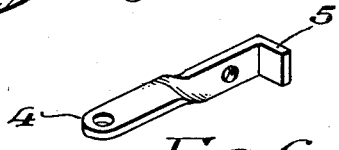


Fig. 6.

Inventor:
James B. Magee
by his Attorney

Patented Apr. 18, 1933

1,904,691

UNITED STATES PATENT OFFICE

JAMES B. MAGEE, OF NYACK, NEW YORK

ATTACHMENT PLUG

Application filed March 13, 1930. Serial No. 435,415.

This invention relates to attachment plugs, particularly adapted for use with electrical appliances or utensils such as lamps, flat-irons, toasters and other household devices, the object of the invention being to provide an improved plug for connection with a light socket or wall socket and having therein a readily renewable fuse which will serve to protect the main fuses of the building so that in the event of a short circuit the fuse of the plug will be blown out instead of the main fuses in the house or building, and which fuse member can be readily renewed without the separation of the parts of the plug and thus obviate the necessity of going to the main fuse box, usually located in a more or less inaccessible place, and trying to determine which one of the usually numerous fuses in the fuse box has blown.

A further object of the invention is the provision of a simple, inexpensive electrical plug having a detachable fuse therein which can be readily and quickly removed and replaced by any inexperienced person without the necessity of taking the plug apart and which by reason of its location between the appliance and the light socket will not only protect the main fuses but will enable the user to know without detailed examination just what fuse has to be replaced.

In the drawing accompanying and forming a part of this specification—

Fig. 1 is a view of this improved electrical plug having the readily removable fuse member therein;

Fig. 2 is an inside view of one-half or the cover portion of the plug;

Fig. 3 is an inside view of the other half or body portion of the plug, this view showing the sliding fuse member therein;

Fig. 4 is a cross sectional view taken on line 4—4 of Fig. 1;

Fig. 5 is a perspective view of the fuse carrying member or slide; and

Fig. 6 is a perspective view of one of the projecting prongs or terminals.

Similar characters of reference indicate corresponding parts in the several views.

Before explaining in detail the present improvement and mode of operation thereof, I desire to have it understood that the invention is not limited to the details of construction and arrangement of parts which are illustrated in the accompanying drawing, since the invention is capable of other embodiments, and that the phraseology which I employ is for the purpose of description and not of limitation.

This improved plug in the preferred form thereof comprises a body portion 2 and a cover portion 3 made of any suitable insulated material as of hard rubber. In the form shown, one member of the plug as the body is provided with two sets of terminals or contact members spaced apart, one set comprising a pair of projecting prongs 4 for attachment in the usual way to a light or wall socket. Each of these prongs is provided with an upstanding or bent inner end 5. Each of the other set of terminals 6 is preferably located in a recess 7 communicating with an opening 8 at the end of the plug for the passage of the usual flexible cord or conductor and each of these terminals is likewise provided with an upstanding or bent end 9. These recesses 7 are separated by a protecting partition 7'. The cover is substantially similarly formed and is therefore suitably recessed to receive the upstanding ends 5 and 9 of the several terminals and also to permit the passage of the cord, this cover being secured to the body portion by suitable fastening devices or screws, one being shown in the present instance and is provided with a transverse opening or recess 10 for the insertion of the fuse member or slide, this recess having a width corresponding to the space between the upstanding ends of the two sets of terminals 5 and 9 so that when the fuse slide is in place the fuses carried thereby will form contact with the terminals 5 and 9.

Insertible into this transverse recess 10 is a slide member 11 of suitable insulating material having a pair of fuses or fuse wires 12 located in spaced position to form contact between the two sets of spaced terminals of the plug so that when the fuse slide is in position there will be an electrical connection between these terminals.

In the present instance ordinary fuse wire is used each of which is bent over at its ends along the edges of the fuse slide so as to make sufficient contact with the terminals.

In practice the slide is provided with openings 13 of sufficient size to space the side walls thereof from the fuse wires thereby permitting the wires to break or blow under a short circuit and also facilitating the inspection of the fuse wires when the slide is withdrawn from the plug.

The fuse wires may be of a size to withstand any desired amount of current but preferably will be of a size to carry somewhat less amperage than the regular house fuses thereby insuring that they will blow out without the current running therethrough to the house fuses.

In practice the slide is provided with a thumb nail groove 14 whereby it can be readily pulled out from the plug.

When either of the fuses blows out thus putting the appliance or utensil out of commission, it is merely necessary to slip out the slide and insert a new one which can easily be done by anyone.

As it is usual to use an attachment plug with each appliance or utensil it follows that when the appliance goes out of commission the user will now immediately know that there is something wrong with the appliance that has caused the fuse to blow out so that it is unnecessary to go to the main fuse box to find the particular fuse that is blown out. As each of these main fuses usually controls a number of sockets in the building it is often difficult to ascertain just what particular appliance or lamp has caused the trouble, so that the present improvement very much facilitates the location of the trouble and permits the removal of the fuse in the room where the trouble occurred without the necessity of going to the main fuse box and trying to ascertain which particular fuse is blown out, so that the present improvement not only has the advantages stated but also the further advantage that it protects the fuses in the building.

In practice the plug could be formed as a socket if desired, having this improved removable fuse slide therein.

It is to be understood that by describing in detail herein any particular form structure or arrangement, it is not intended to limit the invention beyond the terms of the several claims or the requirements of the prior art.

Having thus explained the nature of my said invention and described a way of constructing and using the same, although without attempting to set forth all of the forms in which it may be made, or all of the modes of its use, I claim:

1. An attachment plug having two pairs of spaced terminals and a flat detachable member carrying a pair of fuses for maintaining electric connection between said pairs of terminals.

2. An attachment plug having two pairs of spaced terminals and a slidable member carrying a pair of fuses for maintaining electric connection between said pairs of terminals.

3. An attachment plug having spaced terminals and a flat detachable member carrying a fuse member for maintaining electric connection between both of said terminals.

4. An attachment plug having spaced terminals and a slidable member carrying a pair of fuse members for maintaining electric connection between both of said terminals.

5. An attachment plug having a plurality of pairs of spaced terminals and a single slidable member carrying a plurality of spaced fuses for maintaining electric connection between said pairs of terminals.

6. An attachment plug having two sets of spaced terminals and an opening through the wall thereof, and means insertible through said opening and carrying fuses to maintain electric connection between said sets of terminals.

7. An attachment plug having two sets of spaced terminals and an opening through the wall thereof, and means insertible through said opening and carrying fuses to maintain electric connection between said sets of terminals, said means comprising a slide and spaced fuses carried thereby.

8. An attachment plug having two pairs of spaced terminals provided with upturned ends and an opening through the wall thereof in communication with the space between said upturned ends, and a slidable fuse member insertible through said opening for maintaining electric connection between said spaced terminals.

9. An attachment plug having two pairs of spaced terminals provided with upturned ends and an opening through the wall thereof in communication with the space between said upturned ends, and a slidable fuse member insertible through said opening for maintaining electric connection between said spaced terminals, said member projecting exteriorly of the plug thereby to permit the ready removal thereof.

10. An attachment plug having a pair of terminals for the connection of conducting wires, and a pair of prong formed terminals for insertion into a socket, the two pairs of terminals being spaced apart, a slidable fuse member carrying a pair of wire formed fuses having overturned ends for contact with said terminals, said member projecting exteriorly of the plug thereby to facilitate the replacement thereof.

11. An attachment plug having a pair of terminals for the connection of conducting wires, and a pair of prong formed terminals

for insertion into a socket, the two pairs of terminals being spaced apart, a slidable fuse member carrying a pair of wire formed fuses having overturned ends for contact with said terminals, said member projecting exteriorly of the plug thereby to facilitate the replacement thereof, and said member having openings with the side walls thereof spaced from the fuses.

12. A flat slidable fuse member of a single thickness having a plurality of spaced fuses projecting edgewise therethrough for an attachment plug.

13. A flat slidable fuse member of a single thickness having openings and having a pair of spaced fuses projecting edgewise therethrough and spaced from the side walls of the openings for an attachment plug.

14. A flat slidable fuse member of a single thickness having openings and a pair of spaced fuse wires projecting edgewise therethrough with the ends thereof overturned at the opposite edges of the member for an attachment plug.

15. A flat slidable fuse member of a single thickness having openings and a pair of spaced fuse wires projecting edgewise through the openings and spaced from the side walls thereof with the ends bent over the side edges of the member for an attachment plug.

16. An attachment plug comprising a body and a detachable cover, two pairs of spaced terminals carried by one of said members, one of said members having a recess between the ends of the two pairs of terminals and opening through the wall of the plug, and a slidable fuse member insertible into said recess and having fuse members in position to maintain electric contact between the two pairs of terminals, and readily removable upon the blowing out of the fuses.

Signed at Nyack, in the county of Rockland and State of New York, this 10th day of March, 1930.

JAMES B. MAGEE.