Nov. 22, 1938. H. M. FRIEDMAN 2,137,569

PLUG-IN SWITCH

Filed Jan. 8, 1938

Fig. 1.

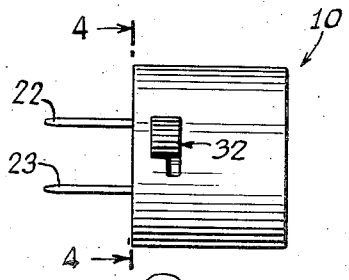
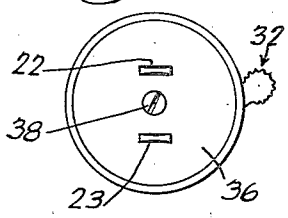


Fig. 4.

Fig. 2.



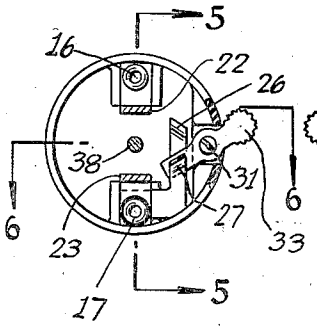


Fig. 3.

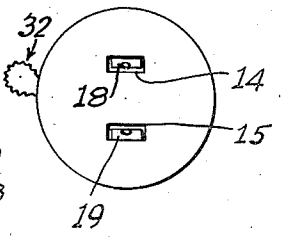


Fig. 5.

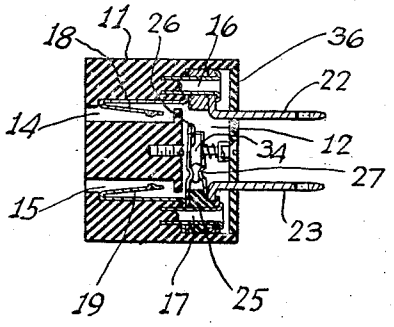
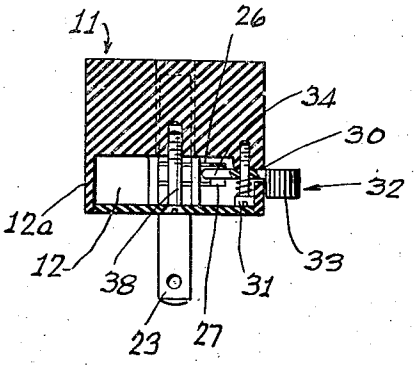


Fig. 6.



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PLUG-IN SWITCH

Harry M. Friedman, Bayonne, N. J.

Application January 8, 1938, Serial No. 184,098

1 Claim. (Cl. 200—51)

This invention relates to plug-in switches. It is particularly directed to a combination plug and receptacle connector provided with a switch.

I have found it often necessary, desirable or convenient to interpose a switch in wiring, for example, between a plug and receptacle receiving such plug. It is therefore an object of my invention to provide an electric connector in the form of a combination plug and receptacle which may be interposed between separable plugs and sockets or receptacles and which is provided with a switch whereby to make or break the circuit through said wiring. Such a connector may be interposed between any plug and socket or receptacle, for example, the plug on an electric appliance and an outlet wall receptacle in which the plug is usually inserted.

A further object of this invention is to provide a connector of the character described which may be connected to any receptacle or outlet and which is adapted to receive the plug of an electric appliance, the connector provided with a finger operated switch whereby the appliance may be easily switched "on" or "off", without pulling out the plug.

A further object of this invention is to provide a compact, strong and durable electric connector of the character described, which shall be relatively inexpensive to manufacture, easy to manipulate, and practical and efficient to a high degree in use.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts which will be exemplified in the construction hereinafter described, and of which the scope of application will be indicated in the following claim.

In the accompanying drawing, in which is shown one of the various possible illustrative embodiments of this invention,

Fig. 1 is a side, elevational view of a combination plug and receptacle connector provided with a switch, embodying the invention;

Fig. 2 is a top plan view thereof;

Fig. 3 is a bottom plan view thereof;

Fig. 4 is a cross-sectional view taken on line 4—4 of Fig. 1, with the cover removed;

Fig. 5 is a cross-sectional view taken on line 5—5 of Fig. 4; and

Fig. 6 is a cross-sectional view taken on line 6—6 of Fig. 4.

Referring now in detail to the drawing, 10 designates an electric connector embodying the invention, here shown for the purpose of illustration, in the form of a combination plug and receptacle provided with a finger operated switch which may be interposed between any separable plugs and sockets or receptacles. My improved connector may be plugged into any wall outlet or receptacle and is adapted to receive the plug of any electric appliance such as a toaster, percolator, electric iron, electric shaver, etc., thereby giving an immediate switch control thereto without additional wiring or labor.

The device, 10, comprises a body, 11, of insulating material such as "Bakelite", porcelain or the like substance. The same may be of cylindrical outer shape. At the top thereof the body, 11, is formed with a recess, 12 providing an annular rim edge 12a. Said body, 11, is furthermore formed with a pair of longitudinal through openings 14 and 15 communicating with recess 12, on opposite sides of the axis of said body.

Attached to the body, 11, by means of eyelets or rivets 16 and 17 are a pair of spring contacts 18 and 19, projecting into the openings 14 and 15 for engagement with a pair of plug blades adapted to be received within said openings. Attached to the blades 18 and 19 by said eyelets 16 and 17, is a pair of parallel plug blades 22 and 23. The plug blade 22 is in electrical contact with spring blade 18, whereas the plug blade 23 is insulated from the spring contact 19 by an insulating disc or washer 25.

Attached to spring contact 19 and plug blade 23 are a pair of spaced spring fingers 26 and 27, respectively, insulated from one another by said disc or washer 25, but normally pressed together at their outer ends to electrically interconnect said plug blade with said spring contact. The rim wall 12a of the body 11 is formed with a slot 30. Pivoted to a pin 31 just inside said rim and adjacent said slot is a switch lever 32 of insulating material, having a handle 33 on the outside of said body, and an insulating blade 34 within recess 12 and adapted to be moved between the spring fingers 26, 27 to separate and hence insulate them. It will now be understood that upon manipulating switch lever 32, the circuit through my improved connector may be made or broken at will.

A circular cover 36 formed with parallel slots receiving the plug blades 22, 23, may be screwed to the body 11 by an axial screw 38 to cover the recess 12.

It will now be understood that my improved connector or fitting may be interposed between

any plug and receptacle where it is desired to provide switch control. The plug blades may be inserted into the usual slots or openings of an outlet receptacle, and the openings 14 and 15 are adapted to receive the blades of a plug. With my improved connector, immediate switch control may be given to any electric appliance such as a toaster, percolator, electric iron or electric shavers, etc., without additional wiring or labor. The switch control may be accomplished by plugging my improved connector into a receptacle and inserting the blades of the plug of the electric appliance into the slots 14, 15.

Although my invention is illustrated in the drawing as embodied in a fitting of the plug blade and slot type, it will be understood that the invention is equally applicable to combination plug and socket fittings of the screw threaded type, it being a dominant feature of the invention to incorporate a manual switch into a combination plug and socket fitting whereby the switch may be applied at any point in a duplex cable between a pair of quickly detachable plug and socket fittings.

It will thus be seen that there is provided a device in which the several objects of this invention are achieved, and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawing is to be interpreted as illustrative and not in a limiting sense.

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

An electric fitting comprising a body of insulating material having a recess at one end thereof, and having a pair of parallel longitudinally extending through slots on opposite sides of the axis of said body and communicating with said recess, a pair of spring contacts, means within said recess securing said contacts to said body, said contacts projecting into said slots, plug blades in the plane of said slots attached to said body and projecting outwardly therebeyond, one of said blades being in electrical engagement with one of said spring contacts, a pair of spring fingers in said recess attached to the other blade and other contact respectively, and normally in contact with one another, and a manual switch pivoted to said body and projecting into said recess for separating said spring fingers to insulate said other blade from said other contact.

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