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ELECTRIC WARNING OR CUT-OFF DEVICE

Filed Oct. 24, 1965

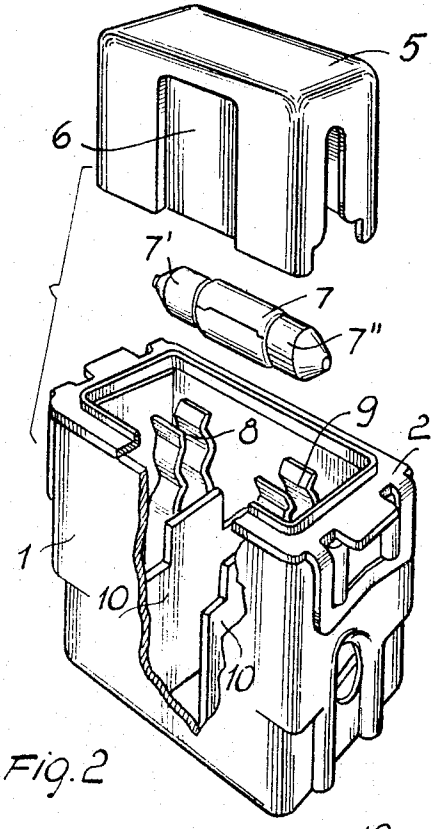


Fig. 2

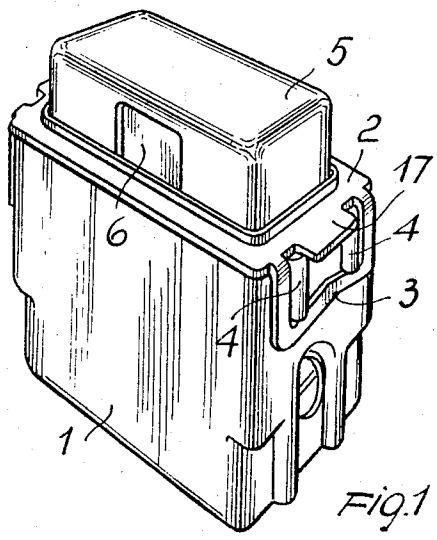


Fig. 1

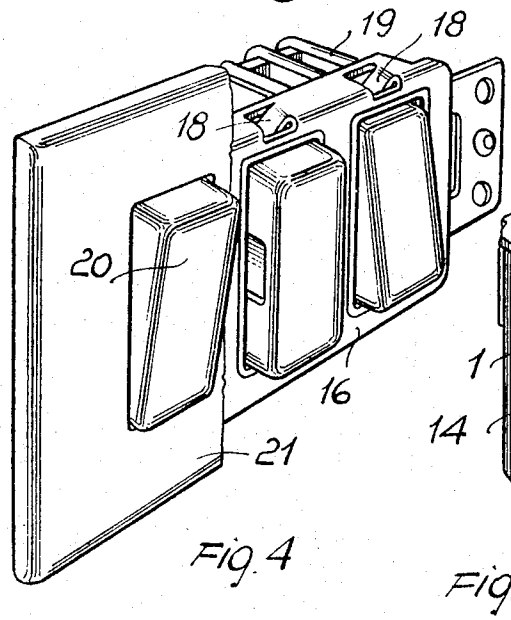


Fig. 4

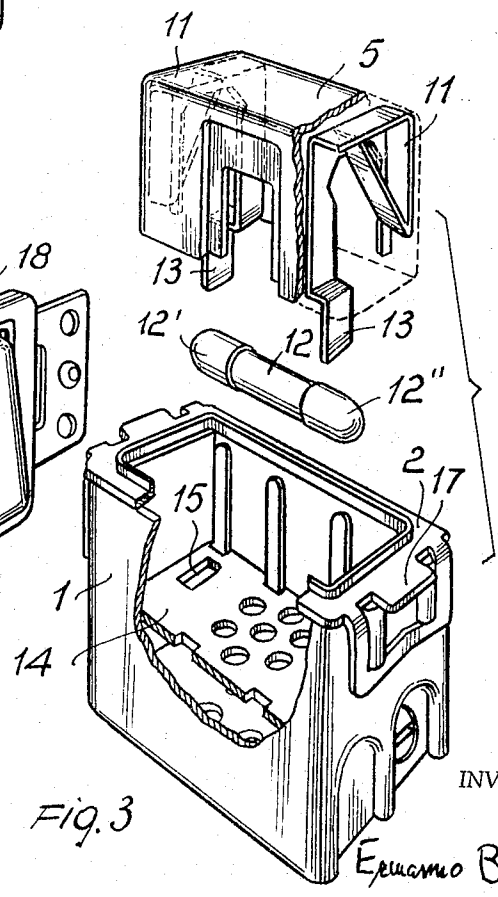


Fig. 3

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ELECTRIC WARNING OR CUT-OFF DEVICE

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This invention relates to an electric warning or cut-off device and more particularly to an electric warning or cut-off device having a readily insertable fuse or lamp in the form of a cartridge, or a signalling lamp of a cartridge type, which with the usual electric switches, plugs and the like can be mounted on a supporting frame, and then set under the wall plaster. Said device is closed to the exterior by means of a covering plate in the form of a parallelepiped of such a size as to partially enter said device and to project therefrom, also projecting over the supporting frame and the covering plate as well.

Internally of said covering plate conductive metallic supporting means are provided, whereby the metallic ends of the cartridge (fuse or signalling lamp) are held.

According to the present invention there is provided an electric device comprising an electric warning or cut-off means in the form of a cartridge, an electrically conductive means in the form of claws provided for clamping the cartridge by its metallic conductive ends, a cover shaped as an engageable cap, a casing of electrically insulating material, a collar capable of joining the casing to the demountable cover and by means of which the device may be set up on a supporting frame alone or in combination with other electric devices.

An illustrative embodiment of the invention will now be particularly described with reference to the accompanying drawings, wherein:

FIG. 1 is an external perspective view of the device;

FIGS. 2 and 3 show different embodiments of the device in a similar perspective view, but with cut away portions to show the internal construction;

FIG. 4 shows an arrangement for mounting the device onto a supporting frame in combination with other like devices encased within a wall.

In said drawings, FIG. 1 shows an embodiment of this invention comprising open ended casing **1** consisting of an insulating material which is substantially parallelepiped in shape. To this casing a collar member **2** is fastened by means of stirrups **3** which clasp onto projections **4** of the casing. A cover **5** is engaged in the collar **2**, and projects outwards therefrom. This cover is also of parallelepiped conformation, and is made recessed in its inner face. Recessed portions **6** corresponding to the longitudinal sides of said cover render easier to hold said cover for its engagement and disengagement in respect of the device.

In the case of FIG. 2, the cartridge (f.i., a signalling lamp **7**) is enclosed within the device, inserted on supporting means **8** and **9** shaped as claws for the purpose to clasp the metallic ends **7'** and **7''** of the cartridge.

The current-conductive holding elements **8** and **9** are separated by means of insulating walls **10**, preferably made of cardboard which prevent these supporting members from coming into contact with the fingers or a tool whenever the lamp **7** is changed.

In the case of FIG. 3, the cartridge **12** is supported inside the cover **5**. To this end, the cover is provided with metallic supports **11** between which the cartridge is inserted by its metallic ends **12'** and **12''**. Said metallic supports **11** have downwardly projecting pins **13** which project in turn over the lower border of cover **5**. Said pins reach the bottom of the device in order to engage therein with conductive means connected with the electric wires of the device, when said cover is put in place thereon.

The device **1** of the invention is provided internally

with a wall or platform **14** parallel to the bottom and spaced from the same. The wall **14** shows holes **15** for the passage of said pins **13**. The wall protects any current-carrying members in the bottom part of the device.

The device, complete as represented in FIG. 1 is mounted as shown in FIG. 4 on a supporting frame **16** by means of tongues **17**, **18** respectively, provided on said frame.

As shown in FIG. 4, further electric devices or controls may be mounted on said frame **16**, e.g., switches **19**, **20**. The frame is then covered by a plate **21** with the aim of covering the encasing recess, wherein the device and the frame **16** enter. The cover **5** will project together with the pushing buttons and controlling levers of switches **19** and **20** from said plate **21** of the cover, for which the same will appear as a controlling member of whatever kind for electric controlling device. Of course said cover may be semitransparent or opaque, according to its use as to cover a signalling lamp or a fuse respectively.

In the case of FIG. 2, the change operation of the cartridge is very quick, inasmuch as after the cover has been taken away the cartridge will be extracted from its supporting means **8** and **9** by means of an appropriate tool, and a new cartridge will be inserted in substitution of the old one by only a slight pressure exerted thereon with the fingers.

In the case of FIG. 3, as the cover is disengaged, also the cartridge will be taken therefrom, so that the operation of the substitution will take place at a distance from the elements under electric current, thus avoiding any danger for the people effecting the substitution.

Of course the invention is not limited to the herein reported example of embodiment, but it comprises on the contrary all variants which may derive from the principle as herein claimed.

What I claim is:

1. In an electrical device, an arrangement comprising, in combination, casing means having an opening and defining an inner chamber; slidably withdrawable cap means extending into and closing said opening; current-conductive holding elements carried by one of said means; a current-responsive electrical component engaged by said holding elements in current-conductive relationship therewith; collar means surrounding said opening of said casing means; frame means having an aperture into which said casing means extends; and a plurality of coupling means, including cooperating first and second coupling means respectively provided on said collar means and said casing means for couplingly securing one to the other, and cooperating third and fourth coupling means respectively provided on said collar means and said frame means for couplingly securing the former to the latter and for thereby connecting said casing means to said frame means.

2. An arrangement as defined in claim **1**, wherein said first coupling means comprises female coupling portions provided on said collar means and said second coupling means comprises male coupling portions provided on said casing means.

3. An arrangement as defined in claim **1**, wherein third coupling means comprises male coupling portions provided on said collar means and said fourth coupling means comprises female coupling portions provided on said frame means.

4. An arrangement as defined in claim **1**, wherein said holding elements are carried by said cap means and said component is engaged exclusively by said holding elements and becomes accessible externally of said casing means on withdrawal of said cap means from said opening.

5. An arrangement as defined in claim 1, wherein said casing means is of parallelepiped outline.

6. An arrangement as defined in claim 1, wherein said electrical component is a fuse.

7. An arrangement as defined in claim 1, wherein said electrical component is an electric bulb.

8. An arrangement as defined in claim 1, wherein said holding elements comprise first and second clamping members spaced from one another; and wherein said electrical component has opposite end portions respectively engaged by said first and second clamping members.

9. An arrangement as defined in claim 8, wherein said clamping members are carried by said casing means.

10. An arrangement as defined in claim 8, wherein said cap means is hollow and has an open side facing said chamber, said clamping elements being located in the interior of said cap means and being carried by the latter.

11. An arrangement as defined in claim 9, and further comprising insulating means electrically insulating said clamping members from one another.

References Cited

UNITED STATES PATENTS

2,186,813	1/1940	Adams et al.	200—133
2,417,692	3/1947	Kline	200—114
2,581,308	1/1952	Smith	200—133
3,213,189	10/1965	Mitchell et al.	200—168

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