

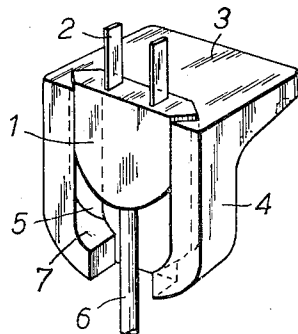
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PLUG WITH SEPARABLE PROTECTION CAP

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2,851,668

PLUG WITH SEPARABLE PROTECTION CAP

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1 Claim. (Cl. 339—36)

The present invention relates to plug structures connected by means of flexible cables to electrical apparatus, where the plug body supports a separate protection cap for sensitive apparatus parts, and more particularly to such plug structures where the plug body is of oblong cross-section permitting connection with a socket having sunk contacts.

In a known execution of such a plug the protection cap is made integral with a sliding sleeve enclosing the insulating body completely and being slidably guided thereon. The protection cap can thereby be displaced from a position of use, in which it is situated in the vicinity of the end of the insulating body carrying the contact pins, into a non operative position in which it will not obstruct connecting of the plug to a socket having sunk contacts. The arrangement is thereby such that the removal of the protection cap or sliding sleeve respectively from the insulating body is not possible without disconnecting the latter from the electrical cable. This is often considered a disadvantage.

One object of the present invention is to provide a plug having a protection cap, in which this cap is easily removable from the insulating body without the necessity of disassembling any parts thereof.

A further object of the invention is to provide such a plug having a protection cap which is slidably arranged on the insulating body and which, because of being made of elastic material and of being provided with an open face, can be snapped out of engagement with the insulating body for removal from the latter.

Accordingly the protection cap on the insulating body can be displaced from a position of use, in which it is situated in the vicinity of the end of the insulating body carrying the contact pins, into a non operative position, at the end of the insulating body facing away from the contact pins, in which it will not obstruct connection of the plug to a socket having sunk contacts. On the other hand the protection cap can be removed from the insulating body if desired.

In one preferred embodiment of the plug according to the present invention, the protection cap extends at substantially right angles from one end of a guide portion of resilient material, which on its side facing away from the protection cap is provided with a groove having relieved side faces, the cross-section of which is similar to the cross-section of the insulating body slidably guided in this groove. Removal of the protection cap from the insulating body is effected in this case by slightly straddling the sleeve portions limiting the groove.

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In order that the invention may be better understood and put into practice one embodiment of the invention is hereinafter described by way of example with reference to the accompanying drawing; showing this embodiment in a perspective view.

The plug shown has an insulating body 1 which carries contact pins 2 in a known manner. The insulating body is of generally oblong cross section as is necessary for certain specified sockets (not shown) having recessed contacts. The insulating body suitably consists of a hard insulating material for instance synthetic material. The plug shown further has a protection cap 3 extending at right angles away from the wider side of the insulating body which protection cap serves for the protection of a sensitive part of the electrical apparatus such as the cutter head of an electrical dry shaver (not shown). The protection cap is made integral with a slide 4 and extends at substantially right angles therefrom. Slide 4 and protection cap 3 consist of resilient material, for example, of soft rubber. At the wider side of the slide 4 of oblong cross-section facing away from the protection cap a dove-tailed groove 5 extending normally thereto, is provided, its cross-section being equal to the cross section of the insulating body. Towards the free end of the slide the groove is narrower and forms stops 7 for the insulating body 1 slidably guided in the groove without obstructing the passage for the cable 6 between the stops 7. The drawing shows the protection cap in operative position in the vicinity of the contact pins 2. It can however be displaced towards the rear end of the insulating body (non-operative position) such that it will no more prevent insertion of the contact pins into the sunk contacts of the socket. On the other hand the protection cap can be moved forward on the insulating body to such an extent over the contact face side of the latter till the stops 7 at the rear end of the groove 5 abut against the insulating body. The length of the groove is suitably chosen such that the contact pins will be completely covered in this forward position of the protection cap.

On the other hand the slide 4 together with the protection cap 3 can be removed from the insulating body 1 by slightly straddling the slide at its rim portions limiting the groove 5.

We claim:

A plug structure for connecting an electrical apparatus to a current supply, said apparatus having a sensitive apparatus part, said plug structure including a plug body, a protection cap of resilient material for covering and protecting said sensitive part, a guide portion made integral with said protection cap and having a groove formed therein of a size and shape slidably to accommodate said plug body, said groove having an open end and side permitting bodily separation of said plug body from said guide portion of said protection cap.

References Cited in the file of this patent

UNITED STATES PATENTS

2,261,979	Domizi	Nov. 11, 1941
2,350,048	Kobler	May 30, 1944
2,383,031	Wilson	Aug. 21, 1945
2,490,580	Colla	Dec. 6, 1949
2,729,797	Kobler et al.	Jan. 3, 1956