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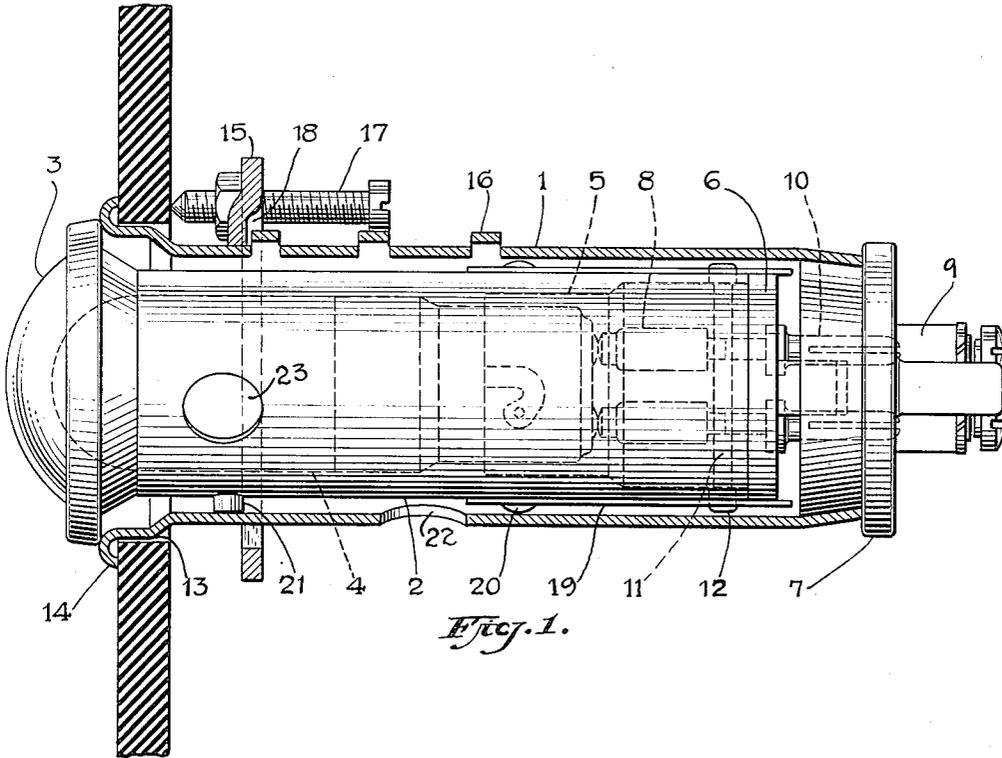
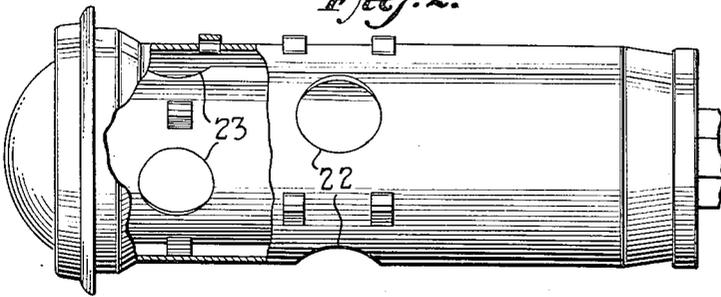
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SIGNAL LAMP FOR SWITCHBOARDS

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*Fig. 2.*



*Fig. 1.*

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## SIGNAL LAMP FOR SWITCHBOARDS

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4 Claims. (Cl. 340—381)

The invention concerns a signal lamp for switchboards and is distinguished by its simple construction and especially by the fact that it affords excellent protection against accidental contact with live parts. Nevertheless the lamp is readily accessible from the front of the switchboard when repairs have to be made.

The signal lamp according to the invention comprises an external cylinder which is rigidly connected with the switchboard and contains a plug part at its rear end. An inner cylinder is coaxially disposed within the external cylinder and has at its front end a signal window and at its rear end a disconnectable lamp holder containing a plug part fitting into the plug part of the outer cylinder in such a manner that the inner cylinder together with the lamp can be inserted into the external cylinder from the front.

Two modifications of the invention are illustrated in the drawing in which Fig. 1 shows a signal lamp partly in section. Fig. 2 is a side view of a portion of the signal lamp assembly of Fig. 1 with a part broken away.

Like parts are designated by like numerals in all figures of the drawing.

In the drawing reference numeral 1 designates an outer cylinder, 2 a coaxial inner cylinder, 3 a signal window and 4 a signal lamp. This lamp may be a conventional electric bulb having, for instance, a bayonet-type cap socket portion by means of which it is fixed in a lamp holder 5, 6, electrical connection being established by means of resilient contacts 8 and terminal pins 10. These pins fit into the contact sockets of plug part 7 which is rigidly connected to outer cylinder 1, the latter being provided with a screw terminal 9.

The signal lamp is inserted through an opening 13 in front of the switchboard until its rim 14 abuts against the switchboard panel. A ring 15 is fitted over the external cylinder 1 from the rear, the latter being provided with several rows of lugs 16 which are spaced around the periphery of the cylinder. By rotating the ring and tightening the screws 17 of which there are three spaced uniformly around the cylinder 1, the ring 15 is pressed against lugs 16 and at the same time the lamp is fixed firmly to the switchboard. Lugs 16 extend into axial recesses 18 of ring 15 in order to prevent rotation of the ring relative to the outer cylinder. Ring 15 is provided with radial recesses to enable it to be moved past the lugs.

Plug part 6 on lamp holder 5 is fixed by means of a pin 11 which is located perpendicular to the axis of the lamp. This pin is riveted in position and its ends 12 project slightly beyond the inner cylinder. The projecting ends 12 slide in corresponding guide slots provided in the inner cylinder so that no rotation of the cylinder relative to holder 5, 6 is possible. At least one leaf spring 19 is arranged parallel to the lamp axis on the outside of the inner cylinder and is fixed to the latter by means of a small rivet 20. The rear end of the leaf spring is provided with an opening adapted to receive an

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end 12 of the holding pin 11. The combination of leaf spring 19 and holding pin 11 results in a very simple connection between the inner cylinder, plug part 6 and lamp holder 5, and enables the latter to be removed by simply lifting the end of the leaf spring away from the inner cylinder.

Lugs 21 projecting from the inner cylinder ensure central position of the latter. Both the inner and outer cylinders are provided with several spaced ventilating holes 22 and 23. In a preferred embodiment, shown in Fig. 2, each cylinder is provided with three ventilation holes spaced along a circumferential line, the holes in one cylinder being staggered both in the radial and axial direction with respect to those in the other cylinder.

I claim:

1. A signal lamp for switchboards comprising an outer cylinder adapted to be clamped to the switchboard, a plug part connected with the rear end of said outer cylinder, an inner cylinder axially slidably inserted in said outer cylinder and having a front end, a signal window mounted at said front end, a lamp holder axially slidably inserted in the rear end of said inner cylinder, holding means for unrotatably holding said lamp holder in said inner cylinder, said lamp holder having a rear portion in the form of a plug fitted into said plug part, said lamp holder having a front portion forming a socket, and an electric signal lamp axially slidably received in the front portion of said lamp holder, said inner and outer cylinders each having a plurality of ventilating holes, the holes in one cylinder being offset relatively to the holes in the other cylinder for affording air circulation around and cooling of said inner cylinder.

2. A signal lamp for switchboards comprising an outer cylinder adapted to be clamped to the switchboard, a plug part connected with the rear end of said outer cylinder, an inner cylinder axially slidably inserted in said outer cylinder and having a front end, a signal window mounted at said front end, a lamp holder axially slidably inserted in the rear end of said inner cylinder, holding means for unrotatably holding said lamp holder in said inner cylinder, said lamp holder having a rear portion in the form of a plug fitted into said plug part, said lamp holder having a front portion forming a socket, and an electric signal lamp axially slidably received in the front portion of said lamp holder, said holding means including a pin extending diametrically through said lamp holder and having ends projecting from the latter, axial slots in the rear end of said inner cylinder for receiving the projecting ends of said pin, and means connected with said inner cylinder and engaging the projecting ends of said pin for fixing said pin relatively to said inner cylinder.

3. A signal lamp for switchboards comprising an outer cylinder adapted to be clamped to the switchboard, a plug part connected with the rear end of said outer cylinder, an inner cylinder axially slidably inserted in said outer cylinder and having a front end, a signal window mounted at said front end, a lamp holder axially slidably inserted in the rear end of said inner cylinder, holding means for unrotatably holding said lamp holder in said inner cylinder, said lamp holder having a rear portion in the form of a plug fitted into said plug part, said lamp holder having a front portion forming a socket, an electric signal lamp axially slidably received in the front portion of said lamp holder, said holding means including at least one leaf spring having one end connected with the outside of said inner cylinder, a slot in the rear end of said inner cylinder, a projection extending laterally from said lamp holder and through said slot, said leaf spring having a free end, and an aperture in said free end for receiving said projection.

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4. A signal lamp for switchboards comprising an outer cylinder adapted to be clamped to the switchboard, a plug part connected with the rear end of said outer cylinder, an inner cylinder axially slidably inserted in said outer cylinder and having a front end, a signal window mounted at said front end, a lamp holder axially slidably inserted in the rear end of said inner cylinder, holding means for unrotatably holding said lamp holder in said inner cylinder, said lamp holder having a rear portion in the form of a plug fitted into said plug part, said lamp holder having a front portion forming a socket, an electric signal lamp axially slidably received in the front portion of said lamp holder, a rim at the front end of said outer cylinder and abutting the front side of the switchboard, circumferentially spaced lugs laterally projecting from and being arranged in spaced radial planes on said outer cylinder, and a holding ring disposed coaxially of and being revoluble around said outer cylinder and adapted to abut the lugs disposed in any one of the spaced radial planes, said holding ring having circumferentially spaced recesses affording axial movement of said holding ring past said

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lugs when said ring is turned into a position in which said recesses are in alignment with said lugs for selecting the spacing of said ring from the rear side of the switchboard and bolt means axially adjustably connected with said ring and having ends abutting against the rear side of the switchboard for pressing said ring against the front side of said lugs of any one of said radial planes when said ring is in position to abut against the lugs, for pulling said rim against the front side of the switchboard.

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