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SWITCHBOARD INDICATING LAMP

Filed June 11, 1927

Fig. 1.

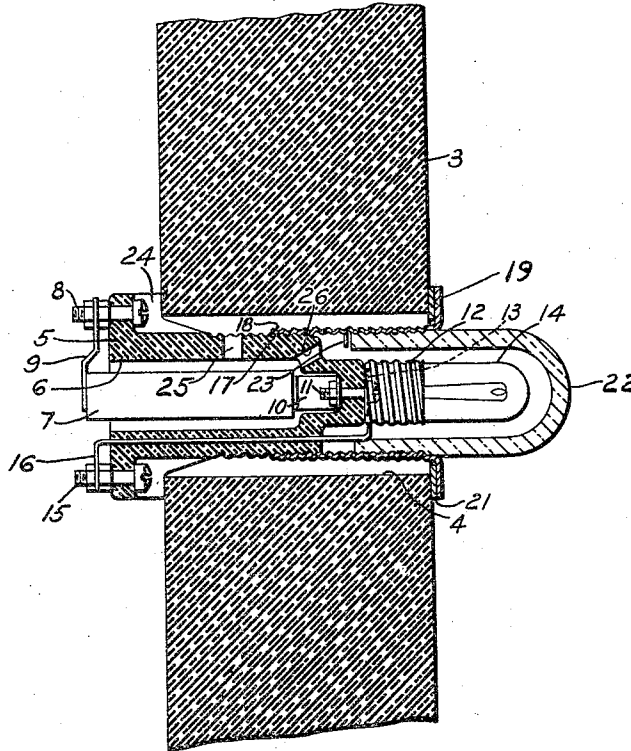
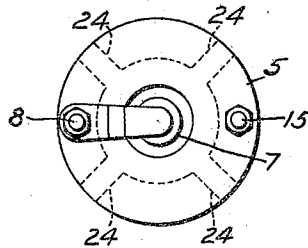


Fig. 2.



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SWITCHBOARD INDICATING LAMP

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My invention relates to switchboard lamps and particularly to lamps used for indicating energized circuits.

3 An object of my invention is to provide a combined receptacle for a heating element and an electric lamp and lens that is of simple and inexpensive construction and which may be assembled upon the switchboard without necessitating the use of screws and like fastening means.

10 Another object of my invention is to provide a switchboard lamp having the above-noted characteristics, wherein the lens project beyond the front face of the switchboard and wherein the filament of the lamp also lies beyond the front face of the switchboard where it is visible from any point in front of the plane of the switchboard.

15 These and other objects that will be made apparent through the further description of my invention are attained by means of the apparatus hereinafter described and illustrated in the accompanying drawing wherein:

20 Figure 1 is a vertical section through a switchboard lamp applied to a switchboard and embodying features of my invention, and,

Fig. 2 is a rear plan view of the lamp apparatus shown in Fig. 1.

30 Referring to the drawing, the switchboard panel 3, which is made of insulating material such as slate, is provided with a bore 4 which extends entirely through the panel and in which the lamp apparatus is mounted. The switchboard lamp comprises an insulating bushing 5 provided with a recess 6 for receiving a resistance element 7 that is connected at one end to a terminal 8 by means of a strap 9, and at the other end to a terminal strap 10, that is secured to the end of the bushing by means of a terminal bolt 11. The straps 9 and 10 are preferably re-inforced with steel to withstand high temperatures without distortion.

45 The bolt 11 serves also to support a threaded lamp socket 12, it being understood that the socket 12 is insulated from the terminal bolt 11 by an insulating washer 13. The lamp 14 is of the usual threaded base type and the circuit through the lamp is

established when the lamp is screwed into the socket 12 that is connected to a terminal screw 15 by means of a conductor strap 16.

55 The insulating bushing 5, resistance element 7 and lamp socket 12, are assembled as a unit, and the outer end of the bushing 5, is threaded at 17 for receiving a threaded lens holder bushing 18 having an end flange 19 of greater diameter than the bore 4 in the panel. The bushing 5 and the threaded sleeve, or bushing 18, are retained in the operative position shown in Fig. 1, when the bushing 18 has been screwed tightly upon the bushing 5. A lock washer 21 serves to prevent the bushing 18 from rotating relative to the panel. The device may be attached to panels of less thickness than that shown by placing an insulating washer or tube between outer end of the bushing and the rear face of the panel.

70 A transparent glass lamp cover or lens 22, having its end threaded, is screwed into the bushing 18 until the end thereof engages a stop lug 23, up-struck from the bushing 18. The lens may be made of colored glass for identifying different circuits.

75 It is apparent from the foregoing that the switchboard lamp may be readily assembled upon the switchboard and that the lens may be detached for the purpose of renewing a lamp with a minimum of effort. The parts are relatively few and inexpensive in construction.

80 By reason of the use of a resistance element 7, that is substantially surrounded by air, there is no danger of the apparatus becoming overheated.

85 Since the voltage of the lamp may be reduced materially below that of the usual switchboard circuits, the amount of heat generated by the lamp is negligible and is dissipated by the large radiating surface of the lens and holder.

90 It will be noted that the insulating bushing 5 is provided with webs 24 which support the flange of the bushing 5 out of contact with the switchboard, and therefore permits a free circulation of air around the exterior of the bushing 5 and the threaded lens holder bushing 18. Vents 25 and 26 establish communi- 100

cation between the recess 6 and the bore 4 and further facilitate the circulation of air through the device.

By reason of the ample radiating surfaces and ventilating facilities, the lamp operates at a relatively low temperature and consequently, the life thereof is not shortened by overheating.

While I have illustrated but one embodiment of my invention, it will be apparent to those skilled in the art that various changes, modification, substitutions, additions and omissions may be made in the apparatus illustrated without departing from the spirit and scope of my invention as set forth in the appended claims.

I claim as my invention:

1. A switchboard lamp comprising a flanged insulating bushing having a portion extending into a hole in the switchboard a distance limited by engagement of the flange with a face of the switchboard and provided with a recess, a resistance element within the recess, a lamp socket mounted on the said portion and conductively connected to the said element, a lens holder releasably attached to the said portion and having means cooperating with the bushing for retaining the holder and the bushing in operative position and a lens having means cooperating with the said holder whereby it is detachably carried by the said holder.

2. A switchboard lamp comprising an insulating, recessed bushing having a threaded portion extending into a hole in the switchboard and a portion engaging the switchboard for limiting movement thereinto, a resistance element within the recess, a lamp socket mounted on the said portion and connected to the said element, a threaded lens holder threaded upon the said threaded portion and having means cooperating with the bushing for retaining the bushing and holder in operative position and a lens threaded upon the said holder.

3. A switchboard lamp comprising a bushing, said bushing being provided with a flange, a recess and a threaded portion, and having a portion extending into an opening in the switchboard with the flange engaging a face of the switchboard, a lens holder threadably engaging the bushing and having an enlarged portion engaging a face of the switchboard and cooperating with the bushing to retain the bushing and holder in an assembled position with the opening in said switchboard, a resistance member disposed within the recess, a socket mounted on said bushing and connected to the resistance member, a lamp cooperating with the socket, and a lens mounted on said holder.

4. In a switchboard lamp support, a switchboard having an opening extending therethrough, a threaded support extending within said opening, said support provided

with a recess, a resistance member disposed within said recess, abutting means on said support for engaging said switchboard, a lens, a threaded lens holder, means for retaining said lens thereon and for threadably engaging said support, said lens holder having an abutting portion thereon for engaging the switchboard whereby to draw the two abutting portions against the switchboard when the holder is rotated, and a lamp mounted on said support.

In testimony whereof, I have hereunto subscribed my name this 2nd day of June 1927.

WALTER H. SCHRAMM.