Nov. 27, 1945. W. F. BURKE 2,389,762

AUXILIARY LIGHTING FIXTURE

Filed July 7, 1944

Fig. 1.

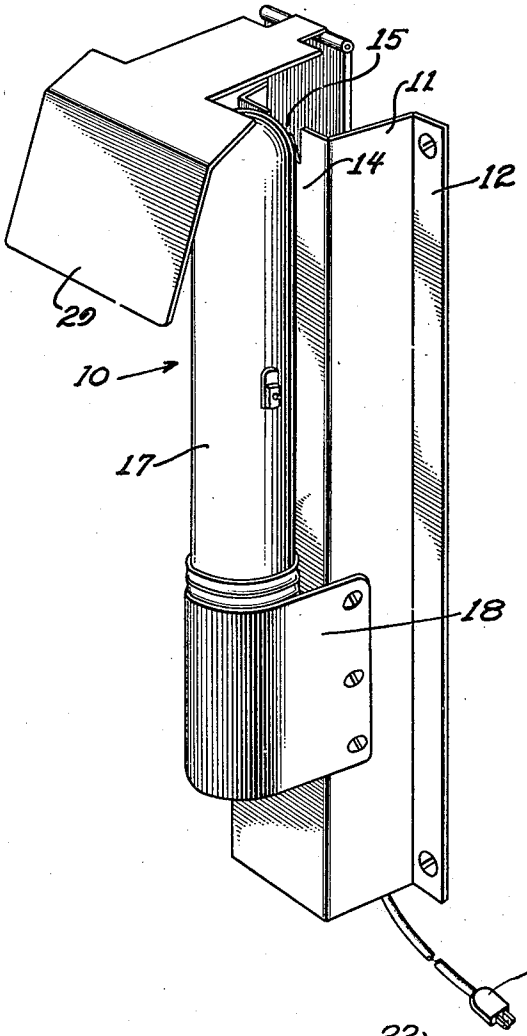


Fig. 2.

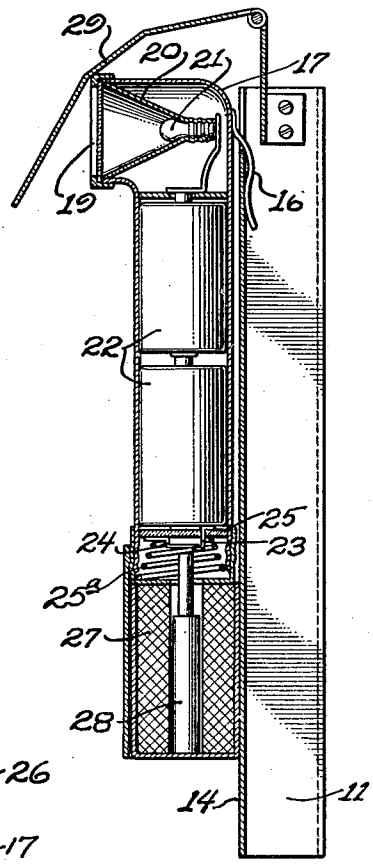
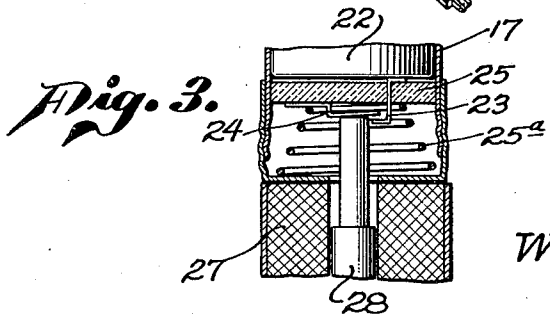


Fig. 3.



WILLIAM F. BURKE,
INVENTOR

BY Oscar A. Mellin
ATTORNEY

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AUXILIARY LIGHTING FIXTURE

William F. Burke, Athens, Ohio, assignor to The McBee Company, Athens, Ohio, a corporation

Application July 7, 1944, Serial No. 543,802

1 Claim. (Cl. 240—1)

This invention relates to illuminating systems and particularly pertains to an auxiliary illuminating fixture.

Particularly in the operating rooms of hospitals, it is absolutely essential that the illumination be uninterrupted. Because of the possibility of failure of the main source of illumination, it is essential to provide a "stand-by source" for use during the interruption of the main service.

It is one object of my present invention to provide an improved and simplified auxiliary lighting fixture having a battery as a source of current, the circuit of which fixture is so interconnected and controlled by a separate circuit of the main source of current, that when the latter circuit is closed, the circuit of the auxiliary lighting fixture remains open, but when no current is flowing through said separate circuit of the main source of current, the circuit of said auxiliary lighting fixture automatically closes to provide illumination.

Another object of my invention is to provide a simple auxiliary lighting fixture which includes a removable self contained lighting unit which will automatically illuminate when a main circuit is interrupted, which lighting unit may be then removed from the fixture and used.

One form which the invention may assume is exemplified in the following description and illustrated by way of example in the accompanying drawing, in which:

Fig. 1 is a perspective view of my improved auxiliary lighting fixture.

Fig. 2 is a central vertical section through the same.

Fig. 3 is an enlarged fragmentary view in vertical section through the switch mechanism of the auxiliary lighting fixture.

Referring more particularly to the accompanying drawing, 10 indicates my improved auxiliary lighting fixture. This fixture comprises a channel shaped wall bracket 11, the legs 12 of which are turned outwardly as illustrated, so that it may be properly fastened to a wall by any desired means. The web 14 of the channel bracket 11 will be disposed parallel to the wall surface at a spaced distance therefrom. The upper end of this web 14 is notched at its upper end to enable engagement of the web by a hook member 16 secured at the rear side of a light casing 17. By this means the light casing 17 may be suspended from the bracket 11 in a vertical position as illustrated in the drawing. The light casing 17 is cylindrical and elongated as illustrated.

The light casing 17 in reality comprises a self contained lighting unit similar to what is commonly termed "a flashlight" and it is intended that it be removably incorporated in the entire fixture as illustrated. It will be noticed that secured on the wall bracket 11 adjacent its lower end is a socket member 18 within which the lower end of the casing 17 may nest. The nesting of the lower end of the casing 17 in the socket member 18 together with the engagement of the clip 16 with the web of the channel bracket 11 removably supports the casing 17 in the correct position.

The upper end of the light casing 17 is formed with light emitting opening 19 disposed at 90° to the longitudinal axis of the casing 17. This opening is enclosed by a lens as illustrated. In register with the opening 19 and within the casing 17 is the usual reflector 20 and light bulb 21.

Contained within the casing 17, in the usual manner, are batteries 22. The batteries 22 and the light bulb 21 having a circuit the same as ordinary flashlights, which circuit is controlled by a switch in the lower end of the casing as illustrated, which switch comprises a switch part 23 in contact with the batteries 22 and a switch part 24 which is maintained insulated from the batteries by an insulating washer 25. However, this latter switch arm 24 is in contact with the casing 17 through a spring 25 so that when the switch parts 23 and 24 are in contact, a circuit is established from the casing through the batteries to the light bulb 21 and from the bulb to the casing, completing the circuit.

In the present instance, I provide a medium for maintaining said switch open when current is flowing through a separate electrical circuit which would be the circuit conducting the main source of current for illumination to a hospital operating room or the like.

Connected with this circuit by means of a connector 26 is an electro-magnet 27 secured in the socket 18 in alignment with the casing 17 beneath the switch mechanism previously described. The core or plunger 28 of electro-magnet 27 projects into the casing 17 and is disposed in cooperative position with the switch part 24 so that when the electro-magnet is energized, the core or plunger 28 will be in a position opening the switch by maintaining the switch part 24 out of contact with the switch part 23 as shown in Fig. 3. However, when the circuit through the electro-magnet 27 is opened or no current is flowing therethrough, the core 28 will move to an ineffective position causing contact between the switch parts

24 and 23 and completing the battery circuit through the bulb 21 and providing illumination through the light emitting opening 19. The electro-magnet is secured in position on the bracket 11 by means of the bail shaped socket member 18 forming a part of the bracket 11.

At the top of the bracket 11, I have provided a hinged shield 29 which may be disposed to shield the light emitting opening 19 as illustrated in Figs. 1 and 2, or which may be swung to an ineffective position as is obvious from those figures.

In operation of the device, it is constructed as illustrated in the drawing and mounted on an upright surface in the desired position. The electro-magnet 27 is then interposed in the circuit of the main source of illumination by means of the connector 26. When current is flowing in this circuit, the electro-magnet 27 will be energized and will maintain the switch of the battery circuit of the auxiliary lighting fixture open. However, the minute that the current ceases to flow in the main circuit and to the electro-magnet 27, the core 28 thereof will descend, closing the switch of the auxiliary lighting fixture, illuminating the bulb 21 and automatically providing a secondary source of illumination.

Obviously, when the main source of illumination is cut off the room would be in total darkness except, of course, for the illumination of the auxiliary lighting fixture. This, of course, will not only provide a source of illumination for the room but will enable the occupants of the room to definitely locate the auxiliary fixture.

If it is desired to remove the auxiliary fixture to provide a more local illumination at any point, it is merely necessary to grasp the casing 17 and remove it from the socket 18 and disengage the clip 16 from the web of the bracket 11. The switch, of course, controlling the circuit of the auxiliary fixture will remain closed due to the fact that the switch mechanism as previously described is normally closed.

From the foregoing it is obvious that I have provided a very simple and inexpensive auxiliary lighting fixture, the circuit of which is so associated with the circuit of a main and separate source of energy for illumination, that when said separate circuit is open, the circuit of the lighting fixture will be closed and vice versa.

While I have shown the preferred form of my invention, it is to be understood that various changes may be made therein by those skilled in the art without departing from the spirit of the invention as defined in the appended claim.

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

A lighting fixture of the character described, comprising a wall bracket, a bail shaped member on the bracket forming a socket, a cylindrical casing having a lower end to project into said socket, means for detachably connecting the casing to said bracket, a battery contained within said casing, said casing having a light emitting opening, an electrical bulb mounted in said casing in register with said opening, an electrical circuit including said battery and light bulb, a normally closed switch included in said circuit and disposed within the casing, an electro-magnet mounted in said bail shaped member on said bracket with its core in operative relation to said switch and capable of maintaining said switch open when said magnet is energized but permitting said switch to close when said magnet is de-energized.

WILLIAM F. BURKE.