May 18, 1926. 1,585,467

F. R. COOPER

LAMP FOR LOCOMOTIVE CABS AND THE LIKE

Filed April 21, 1925

Fig. 1.

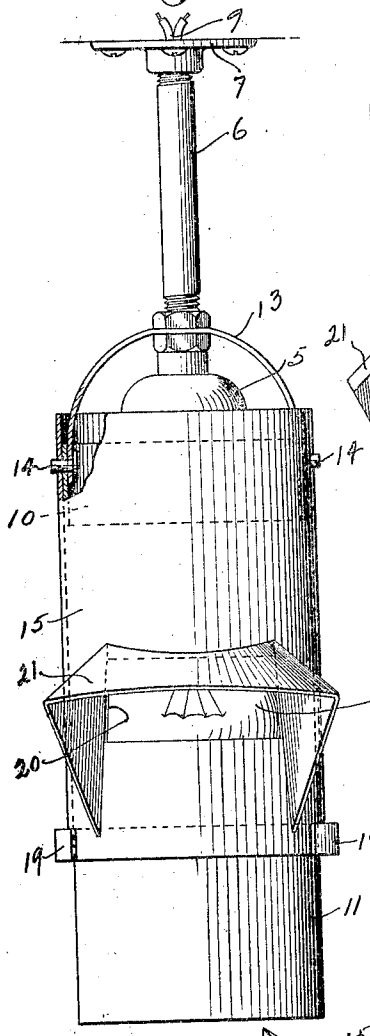


Fig. 2.

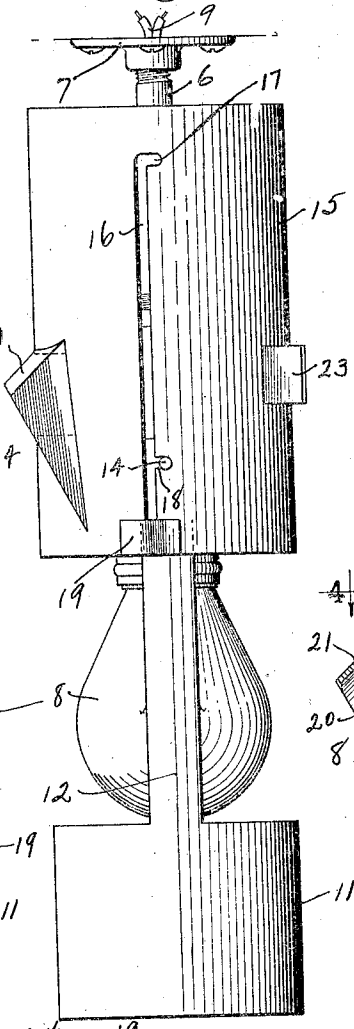


Fig. 3.

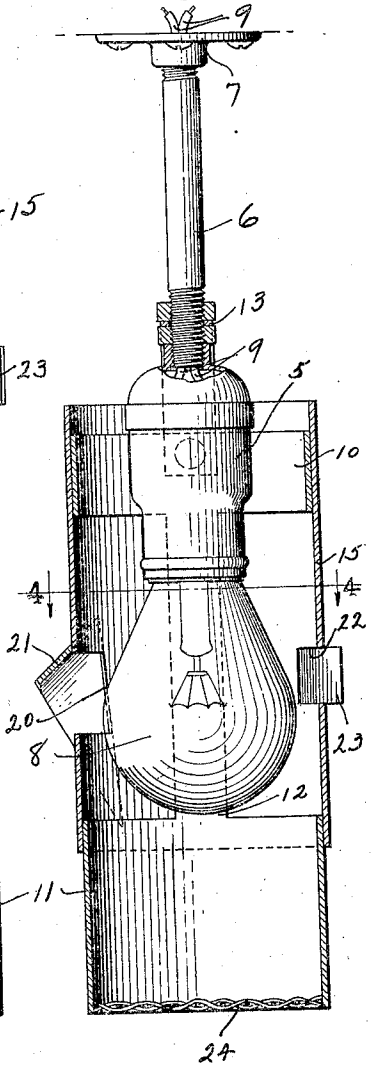
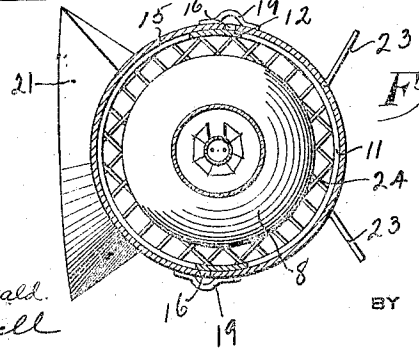


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

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LAMP FOR LOCOMOTIVE CABS AND THE LIKE.

Application filed April 21, 1925. Serial No. 24,797.

This invention relates to an electric light and casing particularly adapted for use in locomotive cabs and in other similar locations, and its object is to provide a suitable arrangement whereby a single source of light will directly illuminate the front part of the tender and the deck, as well as the gages in the cab, at the same time being effectively screened from the eyes of the engineer or fireman or of trainmen approaching from the train, while deflection and diffusion of the light illuminates the interior of the cab sufficiently so that the engineer can readily find the various levers for operating the locomotive.

Other objects and advantages, and the construction by which they are obtained, will be more fully set forth in the following detailed description, which is to be read in connection with the accompanying drawing illustrating one embodiment of the invention.

In the drawing:

Figure 1 is a rear elevation of the invention with a portion of the casing shown in section.

Figure 2 is a side elevation thereof with the outer casing raised.

Figure 3 is a vertical sectional view of the invention.

Figure 4 is a horizontal section thereof.

In carrying out the invention, an electric light socket 5 is secured to the threaded lower end of a small pipe 6, the upper end of which is secured to the gauge bracket or other suitable place on the boiler head by a piece of strap iron 7 fastened at top end of small pipe 6 or riveted to the lower part of the inner cylindrical casing. An electric light bulb 8 is connected with the socket 5, and is supplied with current by wires 9 which pass through the pipe 6.

The bulb 8 is surrounded by an inner cylindrical casing of skeleton formation, consisting of an upper band 10 and a lower band 11 connected by side strips 12, and supported in relatively fixed position by an arcuate strip or bail 13, which is intermedially secured to the pipe 6 immediately above the socket 5, and is provided at its ends with pins 14 soldered or welded thereto, and to the band 10 and protruding outwardly through the latter.

The outer cylindrical casing 15 normally surrounds the inner casing, and is provided with vertical slots 16 for receiving the protruding ends of the pin 14, and forming guideways by which the outer casing is guided for vertical movement with respect to the inner casing and bulb 8. Each slot 16 is provided at its upper end with a laterally disposed portion 17 like a bayonet slot, so that the outer casing 15 may be locked in its lowermost position. There is also a lateral recess 18 near the lower end of each slot 16, whereby the outer casing 15 may be secured in its raised position, as shown in Figure 2. Cleats 19 are soldered or otherwise secured about the lower ends of the slots 16, so as to prevent distortion or spreading of the lower end of the casing 15, while the slot 16 extends to the lower end of the casing 15, so that the latter may, when desired, be completely removed from the inner casing.

An opening 20 is formed in one side of the casing 15 in position for the light from the bulb 8 to shine through and illuminate the tender and deck. A hood or visor 21 is secured to the casing 15, and extends outwardly and downwardly about the opening 20, so as to prevent the direct or reflected rays of light from being projected laterally to dazzle the eyes of the engineer or fireman. A similar though smaller opening 22 is formed in the casing 15 at the side opposite the opening 20, and in a position to illuminate the gages. The opening 22 is preferably formed by cutting two flaps or tongues 23 from the side of the casing, and bending them outwardly to form shields for preventing the light from being projected laterally from the opening 22.

The lower end of the inner casing is closed by a protective screen or shield 24, which may be of wire network, or any suitable material which will catch the fragments of the bulb 8, in case the latter should become broken, and will prevent the same from dropping to the floor of the cab or flying into the face of the fireman.

By the use of this lamp, the electric light which is usually located on the rear of the cab roof is eliminated. A single lamp serves to illuminate the tender and deck, as well as the gages in the cab. The casings are open at the top and sufficient light shines through the top and is reflected and diffused within the cab, so that the engineer can see to operate the engine without having his vision impaired by any glare. The absence of the light in the top of the cab roof eliminates the

glare over the top of the tender in the direction of the train, and also eliminates a source of annoyance to the engineer when switching. The fact that only one light is used also reduces the expense of installation and upkeep. Whenever a bright light is needed, or desired, in the cab, or when it is desired to replace a bulb, the outer casing 15 may be easily lifted and secured in the position shown in Figure 2. The screen 24 in the bottom of the casing not only prevents scattering the glass in case the bulb is broken but prevents the bulb from dropping out in case it should work loose from the socket.

While I have shown and described the detailed construction of the invention in one form in which it may be embodied, it is apparent that many of the details thereof may be modified without departing materially from the salient features of the invention. It is, therefore, my intention to include all such modifications within the scope of the appended claims.

What is claimed is:

1. In a lamp for locomotive cabs and the like, the combination of a socket for receiving an electric light bulb, means for securing the socket in fixed depending relation to some part of the cab, an inner casing of skeleton formation, including an upper band surrounding the socket and formed with depending side strips on opposite sides of the bulb, an outer casing surrounding the inner casing and adjustable vertically to cover or uncover the bulb, said outer casing having openings through which the light may shine upon the tender, deck and gages when said outer casing is lowered, and shields for said openings to prevent the light from being projected laterally when it shines through said openings, said outer casing, when raised, leaving the space between said side strips entirely unobstructed for the passage of light.

2. In a lamp for locomotive cabs and the like, the combination of an electric light socket, a depending fixture to the lower end of which the socket is secured, an inner casing surrounding the socket and having openings to permit passage of light, a bail clamped to said fixture and supporting said casing, opposed pins protruding outwardly from said casing at diametrically opposite points, an outer casing surrounding the inner casing and having vertical slots receiving the respective pins, and means engageable by said pins in a plurality of positions to secure the outer casing against relative vertical movement.

3. In a lamp for locomotive cabs and the like, the combination of a socket, an inner casing surrounding the socket and secured in fixed relation thereto, opposed pins secured to and protruding outwardly from the inner casing at diametrically opposite points, an outer casing surrounding the inner casing and having vertical slots receiving the respective pins, said casings having openings through which the light may shine upon the tender, deck and gages, shields to prevent the light from being projected laterally, both of said casings being open at the top and means to hold the outer casing selectively in a plurality of positions against vertical movement.

4. In a lamp for locomotive cabs and the like, the combination of an electric light socket, a depending fixture to the lower end of which the socket is secured, an inner casing of skeleton formation surrounding the socket, a bail clamped to said fixture and supporting said casing, opposed pins protruding outwardly from said casing, an outer casing surrounding the inner casing and having vertical slots receiving the respective pins so as to guide the outer casing for vertical movement, said outer casing having openings through which the light may shine upon the tender, deck and gages, and shields to protect the light from being projected laterally, each of said slots having lateral branches with which the pins may be engaged to lock the outer casing in an upper or lower position.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature.

FRANCIS RAYMOND COOPER.