G. HUMBER.

ELECTRIC LANTERN.

APPLICATION FILED DEC. 2, 1919.

1,414,415.

Patented May 2, 1922.

2 SHEETS—SHEET 1.

Fig. 1.

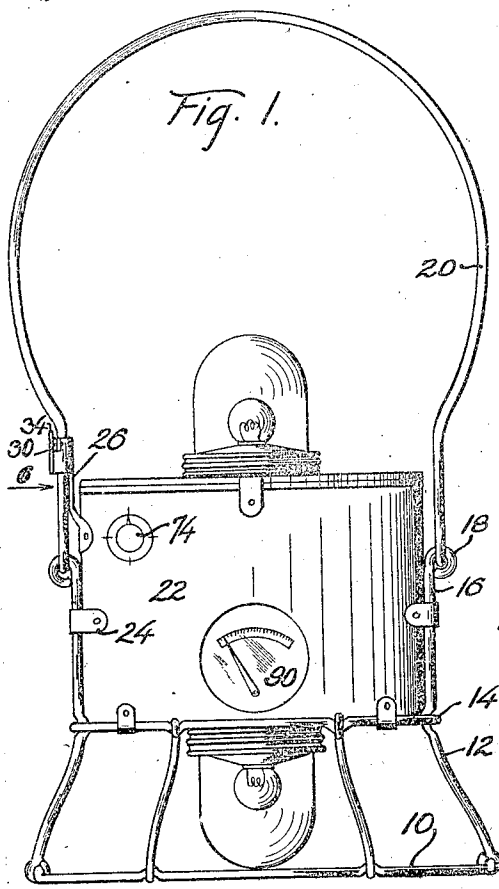


Fig. 2.

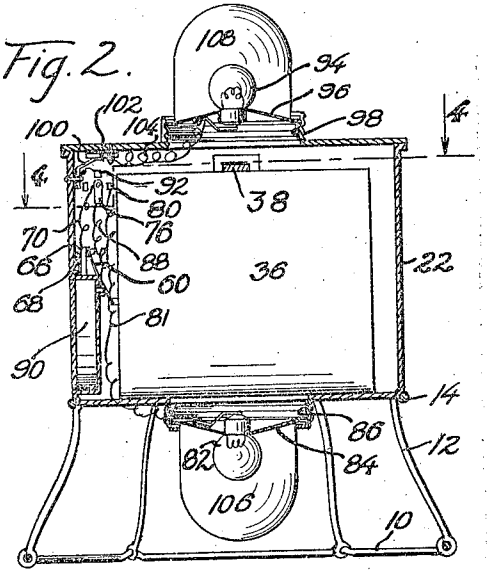


Fig. 3.

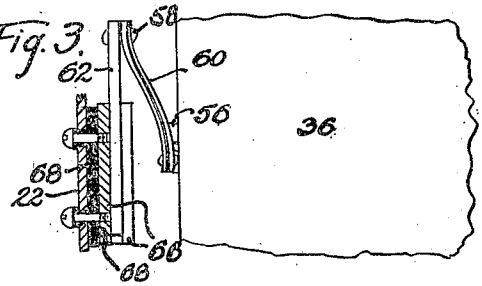


Fig. 4.

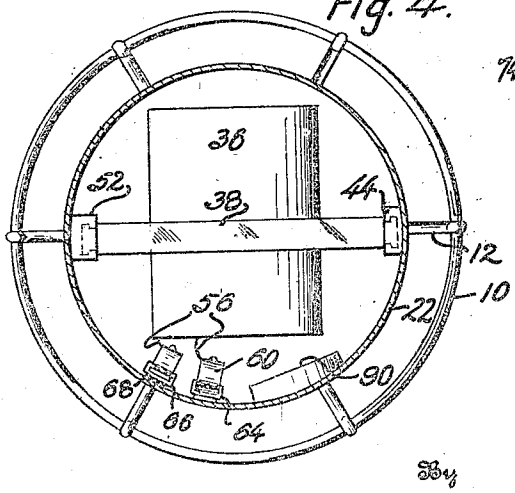


Fig. 5.

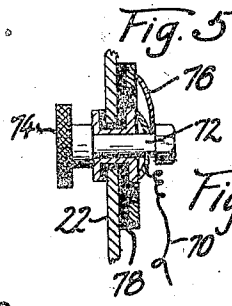
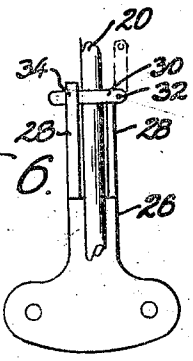


Fig. 6.



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2 SHEETS—SHEET 2.

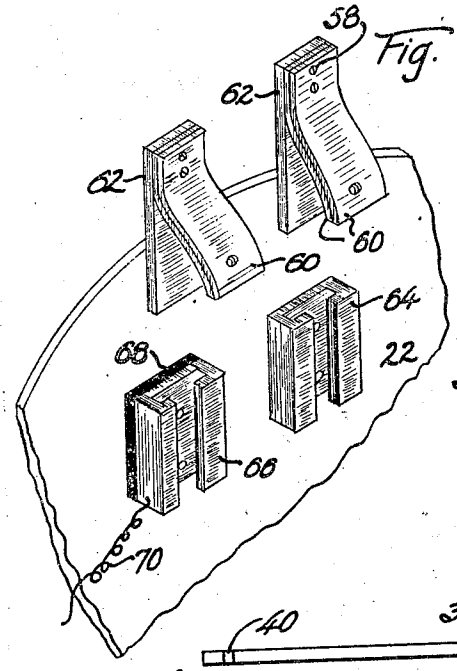


Fig. 7.

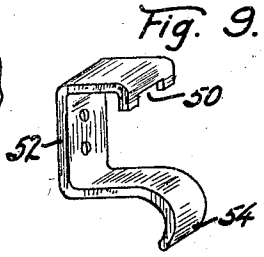


Fig. 9.

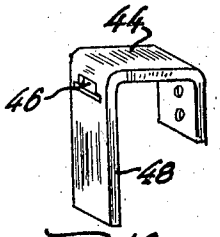


Fig. 10.

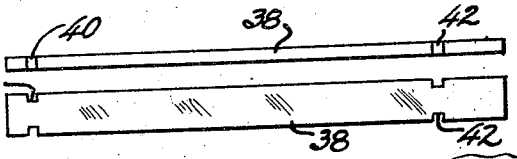


Fig. 11.

Fig. 12.

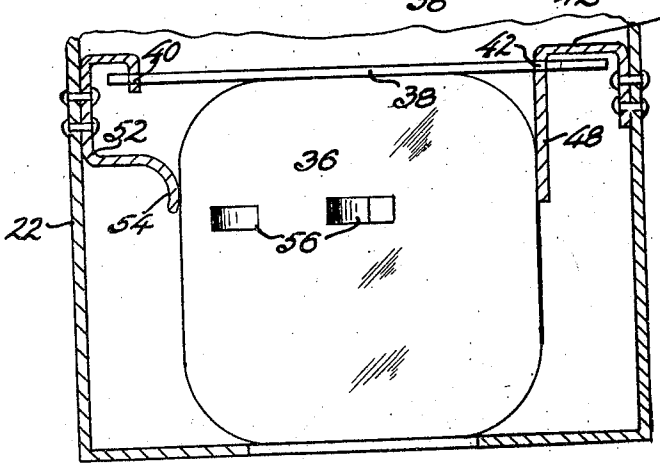


Fig. 8.

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GUSTAVE HUMBER, OF DENVER, COLORADO.

ELECTRIC LANTERN.

1,414,415. Specification of Letters Patent. Patented May 2, 1922.

Application filed December 2, 1919. Serial No. 341,878.

To all whom it may concern:

Be it known that I, GUSTAVE HUMBER, a citizen of the United States, residing at the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Electric Lanterns; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide an electric lantern primarily for railroad use, which carries lights of two different colors, which may be used as desired, and is provided also with means for measuring the strength of the batteries before starting on a run.

Briefly, the invention comprises a wire framework carrying a casing which contains a battery and is provided with the lights. The casing carries a switch and a volt meter, the switch governing both the lights and the volt meter. The casing also carries a spring clip adapted to be engaged with a bail, of the lantern, to hold the same in upright position.

In the drawings:

Fig. 1 is an elevation of the invention.

Fig. 2 is a section therethrough at right angles to the view in Fig. 1.

Fig. 3 is a fragmentary view showing partly in section and partly in elevation, indicating the mounting of one set of contacts.

Fig. 4 is a section taken on the line 4—4 of Fig. 2.

Fig. 5 is a sectional detail of the switch.

Fig. 6 is a detail of the spring clip for the bail.

Fig. 7 is an exploded view of the contacts for the battery.

Fig. 8 is a view partly in cross-section and partly in elevation, showing the means for positioning the battery in the container.

Figs. 9 and 10 are perspective views of the retainers shown in Fig. 8.

Figs. 11 and 12 are edge and face views, respectively, of the bar of Fig. 8, which holds the battery down.

The lantern comprises a wire frame, including a base 10, legs 12, a rim member 14, and arms 16 extending upward from certain of the legs 12 and provided at their upper ends with eyes in which the bail 20 is hinged. The battery container 22 is secured to the framework by means of bands 24, riveted or otherwise secured to the container and passing around the wires of the framework. The container 22 also carries a spring clip 26, whose normal tendency is to assume a position against the container to free the bail 20. This clip, however, is provided with jaws 28, adapted to be positioned on opposite sides of the bail 20, one of which has a latch 30 pivoted thereto at 32 and adapted to engage behind an upstanding lug 34 on the other jaw 28. Thus, when the clip is drawn outwardly, the latch may be moved into the position shown in Figs. 1 and 6. When the latch is raised, the clip will fly back to release the bail 20.

The container 22 carries within it a dry battery 36, which is held in position by means of a crossbar 38, provided at one end on its edges with recesses forming a constricted portion 40, and at its other end with similar notches forming a constricted portion 42. A U-shaped positioning member 44 is riveted to one side of the container, and is provided on its inner leg with an aperture 46, having a reduced upper portion which is adapted to receive the constricted part 42 of the bar 38. The bar 38 is passed through the lower portion of the aperture 46 until the restricted part 42 reaches the narrow portion of the aperture 46, whereupon the end of the bar is lifted to its uppermost position. The opposite end of the bar is then sprung down under an overhanging flange in a positioning member 52, riveted to the opposite side of the casing, the end of the bar being allowed then to spring up so that the restricted portion 40 will fit in the notch 50 in said overhanging flange. The lowermost end 54 of the member 52 is curved inwardly to engage the battery and cooperates with the depending arm 48 of the positioning member 44, thus preventing lateral movement of the battery.

The battery is provided with contacts 56, which are formed of thin spring metal and are adapted to be slipped between fingers 60 secured at 58 to straps 62. The fingers 60 are curved outwardly from the lower portion of the straps 62, as shown in Fig. 7, in order that said straps may be slipped into U-shaped pocket members 64 and 66, which are riveted to the container wall. The member 64 is grounded on the container wall,

while the member 66 is insulated therefrom, as indicated at 68. A conductor 70 is connected with member 68 and with a switch 72 provided with a manipulating knob 74 and a contact finger 76. The switch is insulated in the casing 22, as indicated at 78. The contact finger 76 is adapted to engage with any one of three contacts mounted in the insulation 78. One of these contacts 80 is connected by a conductor 81 with a lamp 82, grounded on a support 84, threaded into a receiver on the bottom of the container 22, as indicated at 86. Another contact is connected by conductor 88 with a volt meter 90, by means of which the strength of the battery 36 may be tested. The third contact 92 is connected with a lamp 94, grounded on a support 96, threaded into a receiver on the cover of the casing, as indicated at 98. Connection between the contact 92 and the lamp 94 is made by means of the conductor leading from the said contact 92 to a spring finger 100, mounted on and insulated from the casing, this finger 100 cooperating with an insulated contact 102 on the cover and connected by means of a conductor 104 with said lamp 94. The lower lamp 82 is enclosed with a globe 106, which may be red, and the upper lamp 94 is enclosed in a globe 108, which may be clear. In this manner, either a red or white light may be had, according to the position of the switch 72. However, these colors may be varied, as desired.

When the battery 36 becomes exhausted, it is necessary only to remove the cover and the crossbar 38, and lift the battery from the casing, bringing with it the fingers 60 and straps 62, which readily leave the pocket members 64 and 66. The fingers 60 are then slipped onto the contacts of the new battery, the straps 62 replaced in the pockets 64 and 66 as the battery is placed in position, and the crossbar 38 positioned in the retaining members 44 and 52.

The cover of the casing is then placed in position so that the contact 102 thereon engages the spring contact 100 on the casing. After the cover is secured, the device is ready for use.

I claim:

1. A lantern comprising a wire frame, a bail on the frame, a casing secured to said frame, lighting means in said casing, a normally retracted spring clip on said casing adapted for engagement with said bail to hold the same in upright position, said clip comprising a pair of jaws adapted to be positioned about the bail, and a latch on one jaw and adapted to engage the other to retain the bail within the clip.

2. An electric lantern comprising a frame, a casing thereon, a battery within the casing, notched retaining members on the inner sides of the casing, a bar detachably engaging in the notches of said retaining members and passing over said battery to retain the same in position, and a lamp on the casing having connections with the battery for lighting the same.

3. An electric lantern, comprising a frame, a casing on said frame, a battery in said casing, a lamp on the top of the casing, a lamp on the bottom of the casing, a switch on the casing, connection between the battery and the switch and the switch and the lamps, whereby either lamp may be lighted, and translucent globes mounted about said lamps, said globes being of different colors.

4. An electric lantern comprising a frame, a casing thereon, a battery within said casing and having contacts, members having spaced fingers to receive said contacts, each member also having a strap, and pocket members secured to walls of the casing and receiving said straps, one of said members being insulated from the casing, a switch on the casing, a connection between said switch and the insulated member, a lamp on the casing, and a connection between the switch and the lamp.

5. An electric lantern comprising a frame, a casing thereon, a battery within the casing, retaining members on the inner sides of the casing, means engaged with said members and passing over said battery to retain the same in position, and a lamp on the casing having connections with the battery for lighting the same, each retaining member having an inwardly disposed depending part engaging the sides of the battery to prevent lateral movement thereof.

6. An electric lantern comprising a frame, a casing mounted thereon, a battery within the casing, oppositely disposed retaining members on the inner walls of the casing having inwardly positioned depending members engaging the battery to position the same, means to engage the top of the battery to retain the same, a lamp on the casing, and connection between the battery and the lamp for lighting the latter.

In testimony whereof I affix my signature.

GUSTAVE HUMBER.