March 11, 1924. 1,486,840

H. B. PATCHE

ELECTRIC LANTERN

Filed June 19, 1922

Fig. 1

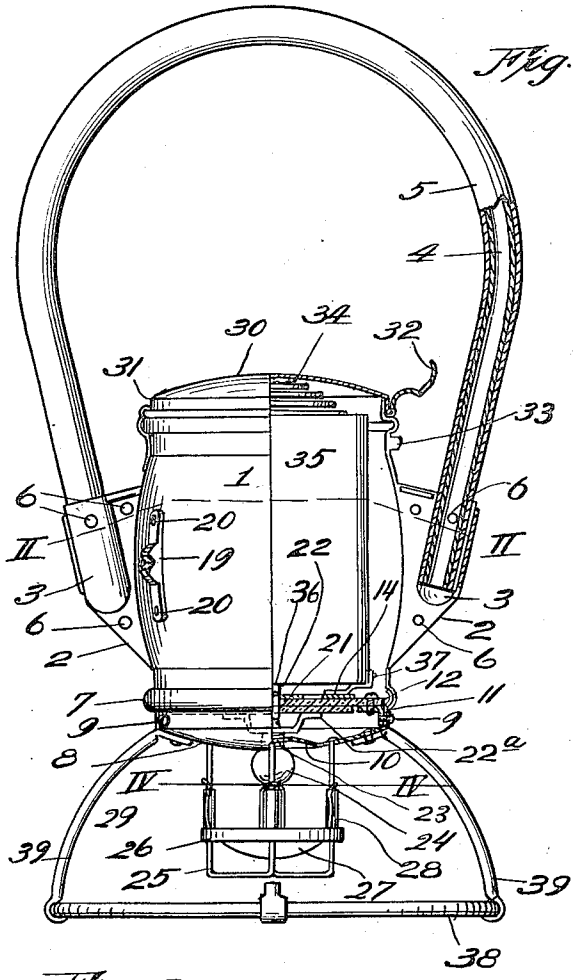


Fig. 3

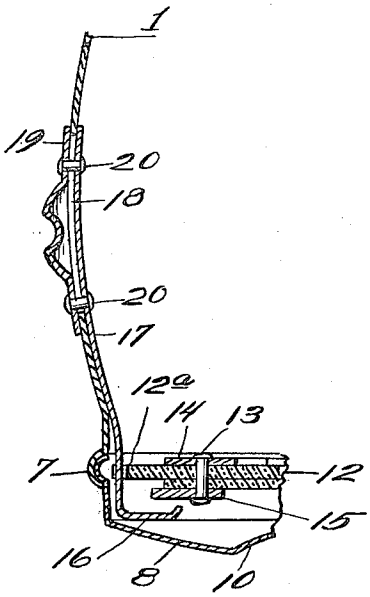
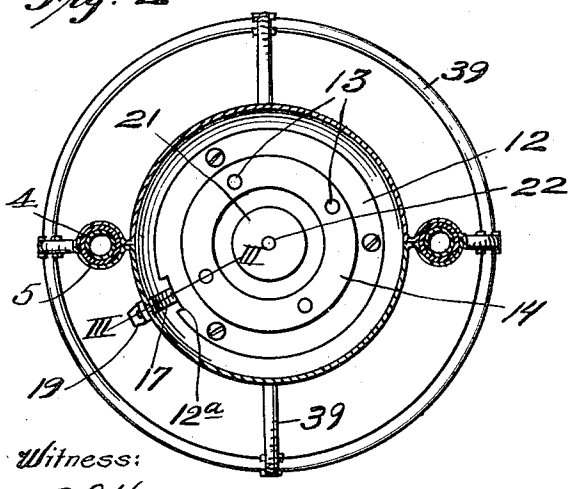


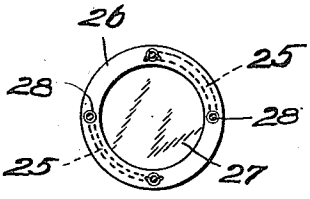
Fig. 2



Witness:

R. C. Hamilton

Fig. 4



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UNITED STATES PATENT OFFICE.

HENRY B. PATCHE, OF KANSAS CITY, MISSOURI.

ELECTRIC LANTERN.

Application filed June 19, 1922. Serial No. 569,529.

To all whom it may concern:

Be it known that I, HENRY B. PATCHE, a citizen of the United States, and resident of Kansas City, county of Jackson, State of Missouri, have invented a certain new and useful Improvement in Electric Lanterns, of which the following is a complete specification.

This invention relates to electric lanterns designed primarily for railroad use, and structurally is an improvement in the railroad lantern disclosed by Patent No. 1,410,671, issued to Genesy Electric Lantern Company, March 28, 1922, the object being to produce an electric lantern of great efficiency, strength, durability and attractiveness of appearance, and one which will be comfortable to the hand of the operator at any season of the year.

With this general object and other objects of a secondary character in view, the invention consists in certain novel and useful features of construction and combinations of parts as hereinafter described and claimed; and in order that it may be fully understood reference is to be had to the accompanying drawing, in which:—

Figure 1 is a view partly in side elevation and partly in central vertical section of a lantern embodying the invention;

Figure 2 is a section taken on the line II—II of Figure 1;

Figure 3 is an enlarged section taken on the line III—III of Figure 2; and

Figure 4 is a section on the line IV—IV of Figure 1.

Referring now to the drawing in detail, 1 indicates the body or casing, the same being of barrel form and made of metal in two members, and each provided with similar oppositely-projecting ears 2 formed with substantially upright sockets 3, and fitting in said sockets is a loop-shaped handle composed of an inner metal tube 4 and an outer fibre or equivalent tube 5, rivets 6 extending through the socketed portions of the ears 2 and the ends of the handle to secure the latter in place, similar rivets 6 cooperating with the first-named rivets in securing the two members of the body or casing in rigid relation.

The barrel-shaped body or casing is provided near its lower end with an outwardly-bowed stiffening bead 7, and with a removable convex bottom 8, the latter being flanged marginally to fit within the lower end of the said body and provided with a securing bead 8^a fitting within the bead 7. The bottom is also formed with a central concave portion 10 to act as a reflector, and said portion is centrally perforated for the accommodation of the socket for an electric lamp, hereinafter identified. Secured to and within the body at suitable intervals by screws 9, are angle brackets 11 for the support of a disc 12 of insulation material, said disc having a peripheral notch 12^a for a purpose which hereinafter appears. Rivets 13 secure a contact ring 14 upon the disc 12, one of said rivets also securing a contact plate 15 at the underside of the disc, for engagement at times by a switch point 16 formed at the lower end of a slide switch 17 extending through the peripheral notch 12^a of disc 12, and fitting flatly for the greater part of its length against the inner side of one of the members of the body or casing and covering a vertical slot 18 formed in such member. A thumb piece 19 covers the said slot at the outer side of said member and is connected to the switch 17 by rivets 20 extending through slot 18, as shown most clearly by Figure 3, the arrangement being such that upward pressure on the thumb piece effects contact between switch point 16 and contact plate 15, and reverse movement of said thumb piece breaks such contact, as will be readily seen.

Secured upon and centrally of the disc 12, is a contact plate 21 electrically connected by a pin 22 to a bracket 22^a depending from the disc and carrying the threaded socket 23 for the electric lamp 24. Rigid with and depending from the bottom of the body portion of the lantern, is a pair of U-shape brackets 25, the bridge or lower portions thereof being bowed outwardly so as to underlie a ring or frame 26 equipped with a lens 27 underlying the lamp. The said lens-carrying ring is equipped with upwardly-projecting tubular arms 28 slidingly engaging the vertical or leg portions of the U-shaped frames, the arrangement being such that by sliding the ring, the lens can be disposed at different distances from the lamp, and in order to secure the lens at the desired point of adjustment, U-shaped clamping springs 29 are secured to and project upward from the ring and bear at their upper ends against the legs of the U-shaped frames above the upper ends of the tubular arms 28.

The body is provided with a cap 30 hinged as at 31, and provided with a pivoted latch 32 for engagement with a lug 33 projecting from the body, the arrangement being such that when the latch engages the lug it will retain the cap or cover 30 in closed position against the upward pressure of the coiled spring 34 mounted in the cap and exerting downward force on a battery 35, to hold the spring contacts 36 and 37 in electrical engagement with the contacts 21 and 14, respectively.

As the electric connection from the battery to the lamp is through the contact 22, to the usual insulated central contact (not shown) at the base of the socket 23, and then through the filament of the lamp and from the latter through the socket, the body of the lantern 1, switch 17, contact 15, rivet 13 and ring 14 to the other contact 37 of the battery, it is not deemed necessary to diagram the circuit nor to show the battery itself in detail, as it is of conventional type, it being understood that when the thumb piece 19 is up the lamp emits light, and when down the circuit through the lamp is broken.

As the handle is rigid the operator can readily signal through the lens and at the same time it radiates light laterally and is therefore useful in other connections. A skeleton guard for the protection of the lamp without impairing its radiating function and for supporting the lamp when upon the ground or the floor of a car, is in the form of a circular base and arms 39 connecting the base with the bottom of the body. The handle described guards against the chance of one handling the lantern, being lightly shocked, and provides for a better grip when the hand is moist or wet and can be gripped without discomfort in wintry weather, by an ungloved hand.

From the above description it will be apparent that I have produced an electric lantern of simple, strong, durable and attractive type, which is susceptible of modification in minor particulars within the scope of the appended claims.

I claim:

1. In an electric lantern, a body, an underlying skeleton guard therefor, an electric lamp depending from the bottom of the body, a pair of U-shaped frames depending from the body, a lens holder slidable on the U-shaped frames toward and from the lamp, and clamp springs carried by the lens holder and frictionally engaging the leg-portions of the U-shaped frames.

2. In an electric lantern, a hollow body having a hinged cap carrying an underlying spring, a bottom forming a reflector, an incandescent lamp depending from the bottom centrally of the reflector and in electrical connection with the body, a lens below and adjustable toward and from the lamp, a skeleton guard depending from the body and inclosing the lamp and lens, insulated contacts within the body, a battery in the latter, provided with contacts held in yielding engagement by the pressure of the said spring on the battery, with said insulated contacts respectively, a switch slidable on the battery for making and breaking electrical connection between the body and one of said insulated contacts, and electrical connections between the other insulated contact and said lamp.

In witness whereof I hereunto affix my signature.

HENRY B. PATCHE.