

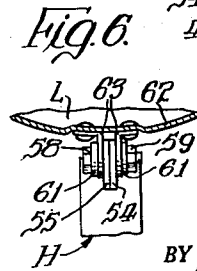
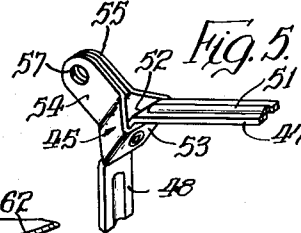
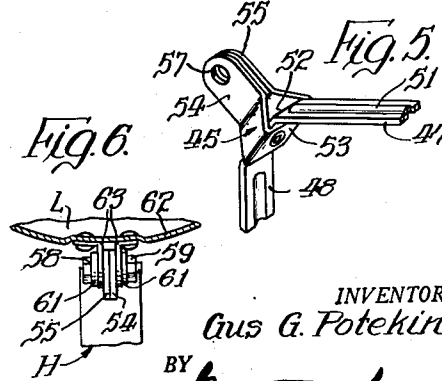
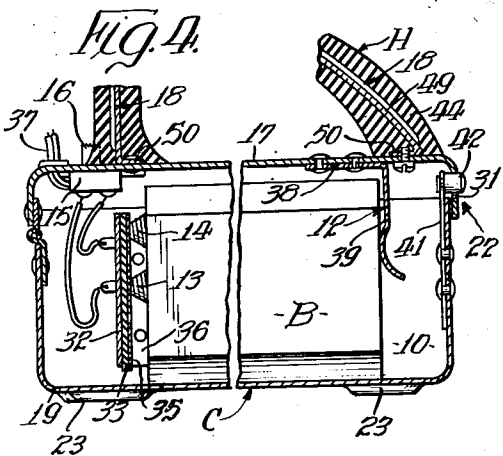
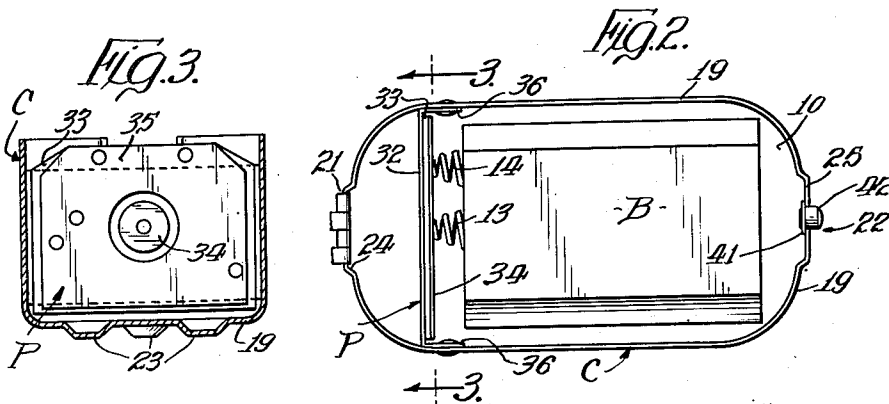
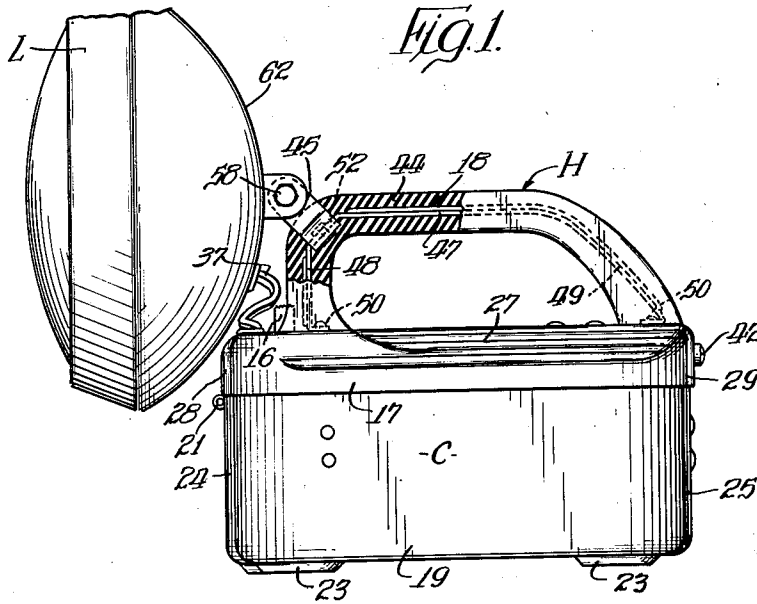
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ELECTRIC HAND LANTERN OF THE HORIZONTALLY ELONGATED TYPE

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2,611,072

ELECTRIC HAND LANTERN OF THE HORIZONTALLY ELONGATED TYPE

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The main objects of this invention are to provide an open-top casing equipped with a hinged cover therefor, constituting a mount for the lamp and an enclosure for the battery which supplies the current therefor; to provide improved means for holding the battery in its operative position in the casing when the cover is in closed position; to provide a latch means with ample strength for securing the cover to the casing during all the usual conditions encountered in service of the lantern; to provide an improved form and arrangement of a cover handle whereon the lamp is fixedly mounted with provision for a wide measure of rotative adjustment of the lamp; and to provide a lantern of this kind which is constructed of only a few parts of simple design, hence economical to manufacture, and possessing the maximum endurance for the severest kind of use.

In the accompanying drawings:

Figure 1 is a side elevation of a lantern embodying this invention, parts of the handle being broken away and shown in vertical section to more clearly indicate its construction;

Fig. 2 is a plan view of the lantern casing with the cover in fully open position to show the battery in place;

Fig. 3 is a view in transverse section, taken on line 3—3 of Fig. 2;

Fig. 4 is a view in vertical section, showing the switch carried by the cover and the battery-positioning spring and the cover latch in their normal positions;

Fig. 5 is a fragmentary perspective detail of the handle core, showing the arrangement of the lamp mounting bracket; and

Fig. 6 is a fragmentary detail showing the manner in which the lamp is hinged to its mounting bracket.

A lantern embodying this invention in a commercial form is herein shown to comprise a box-like casing C wherein is a cross partition P to form a compartment 10 for a battery B which is pressed by a spring 12 to hold the battery contacts 13 and 14 against the partition P to complete a circuit to a switch 15 carried by the cover and equipped with an operating button 16 (see Fig. 1). The casing C is provided with a cover 17 whereon is mounted a U-shaped handle H having an embedded core 18 on which is supported a lamp L the illumination of which is controlled by the switch. The casing is in the form of an elongated open-top box-like base 19 to which the cover 17 is secured by a hinge connection 21 at one end; when closed thereupon, the cover is held by a releasable latch 22 which constitutes a lock therefor.

The base 19 and cover 17 are preferably of light metal construction. The base is of considerable depth so that it will accommodate a conventional

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dry battery B in the casing compartment 10. The cover 17 is comparatively shallow with its marginal flange overlapping the upper portions of the walls of the base. The base 19 has embossments formed adjacent the corners of its bottom to provide feet 23. The ends of the base 19 are slightly outset medially at 24 and 25 to provide seats for the hinge 21 and latch 22. The upper part of the cover 17 is formed with reinforcing ribs 27 (see Fig. 1) and at its ends with outsets 28 and 29 registering with the base outsets 24 and 25, respectively. At the end opposite the hinge 21 the cover flange is formed with an aperture 31 (see Fig. 4) positioned to coact with the latch 22 for holding the cover 17 in a normally closed position relative to the base.

The contact partition P comprises a bracket 32, an insulating panel 33, and a pair of contacts 34 and 35. The bracket 32 is a piece of metal bent U-shape to transversely span the base 19, the laterally turned ends 36 of the bracket 32 being bonded to the base side walls, by rivets or other suitable means, at a point adjacent the end of the base 19 where to the cover 17 is hinged at 21. The panel 33 is formed of a non-conducting material, and is fastened to the bracket in any suitable manner. The contact 34 (see Fig. 3) may be a metal disc of brass or copper or some comparable conductive material, and is attached to the panel 33 approximately at the center. The contact 35 is shown as a polygonal-shaped piece of similar metal cut out at the center on a diameter larger than the contact disc 34 and secured to the panel 33 so that the two contacts are amply spaced from each other. From these contacts 34 and 35 conductor wires lead to the switch 15 from which other wires 37 lead to the lamp L to complete the circuit therefor.

The battery B is a standard low-voltage unit of such form as to be readily accommodated within the compartment 10 with but a slight amount of free movement before the cover 17 is closed down onto the base 19. As herein shown, the contacts 13 and 14 are helically coiled springs located on one end of the battery. The contact 13 is located approximately on the axis of the battery, hence in position to engage the center contact 34. The other battery contact 14 is axially offset and hence positioned to engage the partition contact 35.

The spring 12 is a leaf having a form which approximates that of the Figure 5. The transverse or top part 38 is anchored by rivets or other suitable means to the inner face of the casing cover 17, near the end opposite the hinge 21, so that the stem part 39 is disposed with its concave face toward the back of the casing C. The spring 12 is attached to the cover 17 at such a point that, when the cover 17 is advanced into closed position upon the base 19, the curved end of the spring

12 will contact the proximate end bottom of the battery B and push it forwardly in the compartment 10 for practically the full distance of the compression of the spring contacts 13 and 14. The spring 12 will maintain its pressure on the battery B so that at all times there is a firm engagement of the electrical contacts 13, 14, 34 and 35 regardless of the position of the lantern during use.

The latch 22 whereby the cover 17 is secured to the base 19 comprises a leaf spring 41 and a button 42 (see Figs. 2 and 4). The leaf spring 41 is anchored at its lower end in the base offset 25 with the upper end of the spring extending above the top edge of the base 19. The button 42 is of cylindrical form with the outer face slightly convex and is secured to the upper end of the spring 41 so that when the cover 17 is pushed down over the base 19 the button 42 will extend through the cover aperture 31 and thereby lock the cover to the base.

The handle H comprises the core 18 around which is molded a covering 44. There is also secured to the core 18 a lamp supporting bracket 45 of novel construction. The handle core 18 may be a flat strip of metal formed to provide a base or grip part 47 and transverse end extensions 48 and 49 the extremities of which are formed with laterally turned feet 50 whereby to facilitate anchorage of the core to the casing cover 17 by the use of rivets or other suitable fastening means. Generally the strip of metal forming this handle core is embossed longitudinally, as shown at 51 in Fig. 5, for purposes of reinforcement.

The forward end extension 48 is disposed substantially at right angles to the grip part 47, the juncture of these parts being a short intermediate base section 52 disposed at an oblique angle of about 45° therebetween. The rear end extension 49 slopes downwardly at an angle of around 45° to provide an inclined portion whereby the handle assumes a more comfortable position in the hand.

The lamp-supporting bracket 45 is in the form of a short metal strip 53 bent to embrace the base section 52 of the core 18, as most clearly shown in Fig. 5. The ends 54 and 55 of this bracket strip extend in parallel relation in a direction that is normal to the base section 52. As shown, the extremities of the bracket ends 54 and 55 are rounded, and are formed with registering apertures 57 to receive a headed bolt 58 for hingedly supporting the lamp L on the bracket 45. Between the bracket ends 54 and 55 and the head of the bolt 58 and its nut 59 are inserted conventional spring washers 61 (see Fig. 6) which coact to provide the friction requisite for retaining the lamp 18 yieldingly in any rotative position within the full range of its swing as permitted by the casing C and the handle H.

The lamp L is here shown as of the "Sealed Beam" type with a convex back 62 (see Fig. 1). Approximately at the axis of its back is anchored a pair of angle members 63 between the parallel apertured legs of which are compressed the ends 54 and 55 of the bracket 45 and through which ends extends the bolt 58.

The handle H is positioned on the cover 17 medially longitudinally thereof with the forward end extension 48 of its core but a short distance inwardly from the cover hinge 21. This affords a rigid support for the lamp L which, by reason

of the form and position of the mounting bracket 45, has a range of swing materially greater than 90°, in fact very close to 120°.

I claim:

1. A lantern comprising an open-top horizontally-elongated casing, an elongated cover fitted over the open-top of the casing and hingedly connected thereto at one end thereof to define therewith a normally-closed compartment, a latch releasably securing the free end of the cover to the opposite end of the casing, a pair of electrical contacts insulated from each other mounted within the casing for exposure toward the end thereof whereat the cover is latch-secured thereto for engagement with the terminals at one end of an elongated battery when rested upon the bottom of the casing within the compartment thereof, a leaf spring fixedly secured at one end to the under side of the cover and depending therefrom at a point relatively close to its latch-secured end and in position to engage the proximate battery end when the cover is closed thereby to maintain the battery in a fixed endwise position within the compartment where its terminals remain in pressure engagement with the contacts, and to disengage from the battery when the cover is opened thereby to free the battery for removal from the casing, a carrying handle upstanding from the cover, a lamp mounted thereon, and a switch carried by the cover upon its under side at a point adjacent its hinge-secured end and in circuit with the two contacts and the lamp.

2. A lantern according to claim 1 in which a vertically-disposed transversely-extending partition is fixedly secured within the casing toward, but spaced from, its end whereat the cover is hingedly secured thereto to provide on one side thereof a mounting for the electrical contacts and on its opposite side a protected space for accommodation of the switch and of the circuit connections extending between the two contacts and the lamp.

3. A lantern according to claim 1 in which the carrying handle is U-shaped with depending legs at opposite ends, the entire handle being formed about a continuous metallic core having at its opposite ends feet engaged with and secured to the cover at points near opposite ends thereof.

4. A lantern according to claim 1 in which the carrying handle is U-shaped with depending legs at opposite ends, the entire handle being formed about a continuous metallic core having at its opposite ends feet engaged with and secured to the cover at points near opposite ends thereof, the core furnishing also a supporting base whereon the lamp is mounted.

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