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OR 2,593,942
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April 22, 1952 R. E. VAN VLIET ET AL 2,593,942
PISTOL TYPE FLASHLIGHT HAVING SEPARABLE CASING PARTS AND TRIGGER OPERATED SWITCH
Filed Sept. 16, 1950

Fig. 1

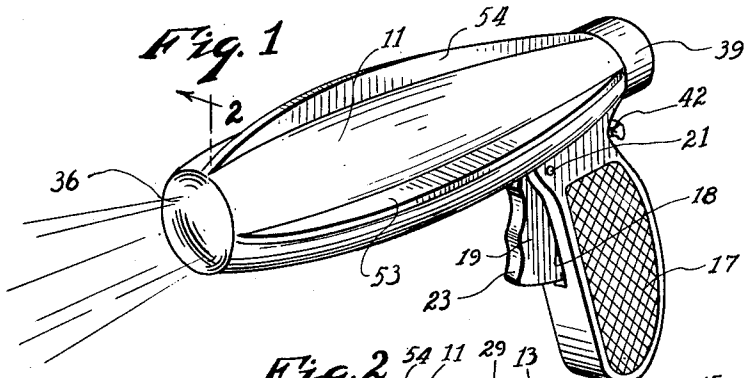


Fig. 2

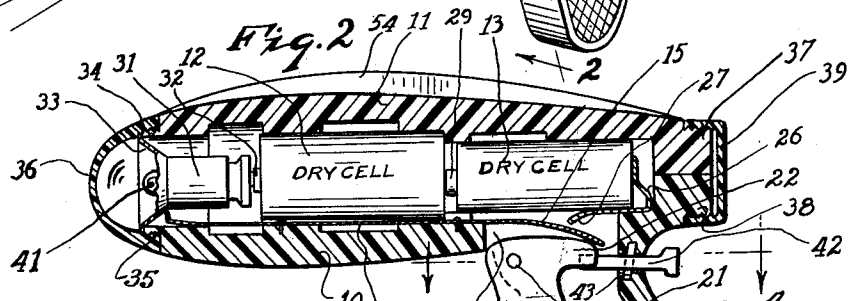


Fig. 3

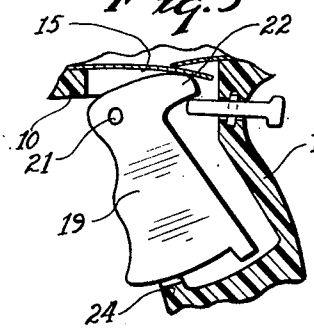


Fig. 4

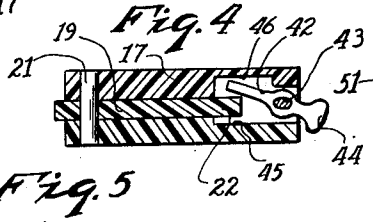


Fig. 6

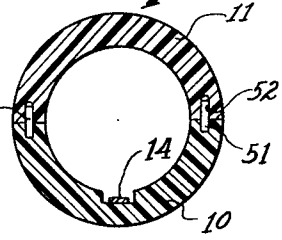
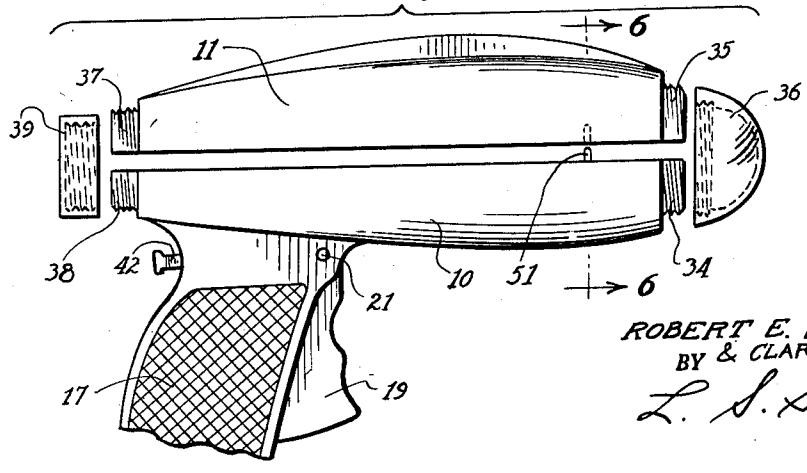


Fig. 5



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PISTOL TYPE FLASHLIGHT HAVING SEPARABLE CASING PARTS AND TRIGGER OPERATED SWITCH

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Application September 16, 1950, Serial No. 185,192

2 Claims. (Cl. 240—10.62)

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This invention relates to a pistol grip flashlight or flashlight gun.

It is an object of the present invention to provide a piston grip flashlight or flashlight gun wherein the barrel which contains the dry cells may be of streamlined shape and which is adapted to contain dry cells of different sizes in order that the streamlined shape can be confined to a minimum size for a small and large dry cell arrangement.

It is another object of the invention to provide an electric flashlight wherein the casing parts are longitudinally separable from each other and wherein the handle forming a pistol grip is connected to the under part and can serve to support the dry cells while the upper part is removed and wherein the parts are held in their assembled state by the transparent internally threaded lens cup which surrounds threaded portions of the separable parts and at the same time serves as a lens and coupling means for the securement of the reflector within the parts and wherein by a simple internally threaded cap screw threaded to the rear end of the parts which is easy to remove, the dry cells and internal parts of the flashlight can be made readily accessible.

It is another object of the invention to provide a simple contact and trigger arrangement for a pistol grip flashlight wherein upon the pull of the trigger element, contacts are brought together and wherein there is provided a weighted holding lever which can engage with the projection of the trigger element automatically by pulling the trigger element and simply leaning the flashlight toward one side and wherein by a simple pull of the trigger element the same weighted lever can be released automatically by pulling slightly on the trigger element and leaning the flashlight toward the opposite side.

Other objects of the present invention are to provide a pistol grip flashlight or flashlight gun which is of simple construction, inexpensive to manufacture, has a minimum number of parts, compact, of pleasing appearance, easy to assemble and disassemble, sturdy and rugged and efficient in operation.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which:

Fig. 1 is a perspective view of the pistol grip flashlight embodying the features of the present invention.

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Fig. 2 is a longitudinal sectional view of the flashlight taken on line 2—2 of Fig. 1.

Fig. 3 is a fragmentary sectional view showing the trigger element latched in its pulled position.

Fig. 4 is a transverse sectional view taken on line 4—4 of Fig. 2.

Fig. 5 is an exploded view of the flashlight with the parts released from the opposite ends thereof and the top part lifted from the bottom part.

Fig. 6 is a transverse sectional view of the top and bottom parts assembled upon one another and as viewed generally on line 6—6 of Fig. 5.

Referring now to the figures, 10 and 11 represent respectively bottom and top parts separable from each other and hollow to house dry cells 12 and 13. These parts are generally of streamlined shape and the use of a smaller dry cell 13 makes possible a greater rear taper of the parts. Extending longitudinally along the bottom part is an electric contact strip 14 having an end 15 downwardly bent through an opening 16 in the bottom part. A handle or grip portion 17 depends from the bottom part below the opening 16 and has a depending slot portion 18 in which is pivoted a trigger element 19 upon a pivot pin 21 extending transversely through the handle portion 17 and into the slot 18 thereof. The upper end of the trigger element 19 has a horizontally extending projection 22 which engages the depending end 15 of the contact strip 14. The forward edge of the trigger element is recessed, as indicated at 23, to accommodate the fingers. The slot 18 has a raised projection 24 in the forward part which serves as an abutment for a projection 25 that depends from the trigger element whereby to limit the outward pivotal movement of the trigger element. The depending portion of the contact strip 14 provides the spring action to normally maintain the trigger element extended outwardly and forwardly from the slot 18.

Also laying in the bottom part is a second contact strip 26 having a portion 27 adapted to be engaged by the depending portion 15. This contact strip is engaged by small dry cell 13.

The central terminal of dry cell 13, as indicated at 29, engages with dry cell 12 and a socket member 31 engages with central terminal 32 of the dry cell 12 when its reflector portion on the forward end thereof, as indicated at 33, rests upon the threaded ends of bottom and top parts 10 and 11. These parts have reduced threaded portions 34 and 35 respectively. An

internally threaded cup-shaped lens member of transparent plastic, and as indicated at 36, is threaded over the threaded portions 34 and 35 of the parts and holds these parts, as well as the socket member 31, and dry cells 13 and 12 in place at the forward end of the assembly.

The rear ends of the parts 10 and 11 have reduced threaded portions 37 and 38 respectively and an internally threaded cap 39 is extended over these threaded portions to hold the parts together at the rear end of the assembly. It will thus be apparent by a simple coupling and de-coupling of the cup-shaped members 36 and 39, the top part 11 can be readily removed from the bottom part 10 so that dry cells can be replaced or a different lamp bulb 41 in the socket member 31 can be replaced and finally the parts easily assembled and connected together by the same members 36 and 39.

In order that the light can be held in its "on" position without a constant pull on the trigger, a weighted latch element 42 is pivoted upon a vertical and slightly inclined pivot pin 43. As viewed in Figs. 2 and 3, it will be seen that this latch lever 42 is slightly inclined to a horizontal. The latch 42 has a weighted portion 44 thereon. Its forward end will be brought under the projection 22 as the weight portion 48 is pivoted to the right, as viewed in Fig. 4. With the trigger element 19 pulled rearwardly and the projection 22 lifted, the latch 42 will be pivoted to the right by a simple tilting movement of the flashlight to the right as held in the right hand. The weighted portion 44 will bring its forward end against wall 45 of a slot containing the lever 42. Its forward end will automatically be positioned under the projection. By tilting the flashlight to the left and pulling the trigger element 19 at the same time, as when held in the right hand, the weighted end portion 44 will cause the lever to pivot away from the projection 22 of the trigger element and engage with wall 46 of the slot in which the latch lever 42 is pivoted. By having the lever 42 pivoted upon a slightly off the vertical axis, the pivotal movement of the lever 42 can be effected without having to point the nose of the flashlight either downwardly or upwardly. It will accordingly be seen that this weighted lever 42 is operated by pulling the trigger element and by a simple tilting movement of the flashlight either to one side or the other.

The parts 10 and 11 may have respectively pins 51 and openings 52 for holding the parts against lateral displacement with one another while they are being assembled and while the members 36 and 39 are applied. These parts 10 and 11 may have respectively decorative fins 53 and 54 to give it a fanciful appearance as well as some reinforcement.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

We claim:

1. A flashlight gun comprising separable bottom and top parts, said parts being hollowed and having respectively upon the opposite ends of the same reduced threaded portions, dry cell means lying within the parts, a socket member connected to the dry cell means and having a lamp bulb therein, internally threaded members engaging the reduced threaded portions of the bottom and top parts whereby to hold the same in coupled relationship, electric circuit means having separable contacts and connected between the socket member and the dry cell means, a trigger element pivotally connected to the bottom part and operable upon the separable contacts to unite them, handle means connected to the bottom part and confining said trigger element, said trigger element having a rearwardly extending projection at its upper end engageable with said separable contacts of the electric circuit means, said separable contacts being of spring material and normally urging the trigger element downwardly and outwardly, a weighted latch lever pivotally mounted in the handle portion and extending outwardly thereof to be accessible to the thumb of the hand and swingable under the weight thereof either to the right or left, depending upon the manner in which the gun is tilted when being held in the hand, said latch lever being movable under the projection on the trigger element as the flashlight is tilted to the right and to release from the projection on the trigger element as the trigger element is depressed and the flashlight tilted to the left, said depending handle grip portion having a slot in which the lever may operate and said slot having stop wall faces for limiting the pivotal movement of the lever upon the pivot pin.

2. A flashlight gun as defined in claim 1, said trigger element having a depending projection on its lower end, said grip portion having an abutment extending upwardly and engageable by the projection on the trigger element to limit the outward pivotal movement of the trigger element.

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