

April 19, 1938.

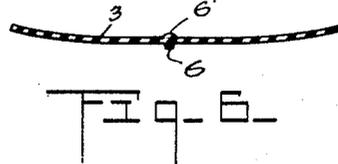
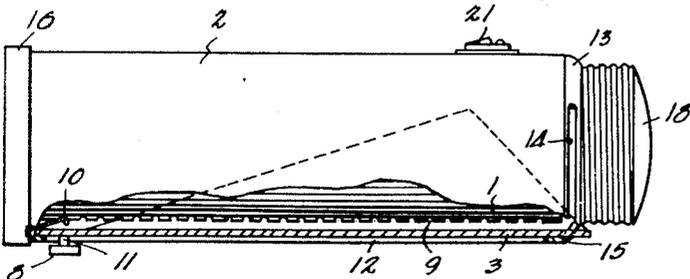
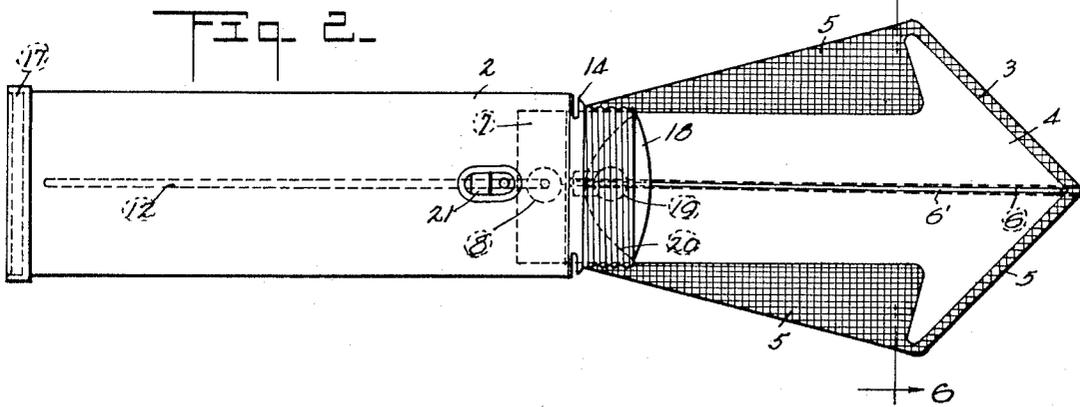
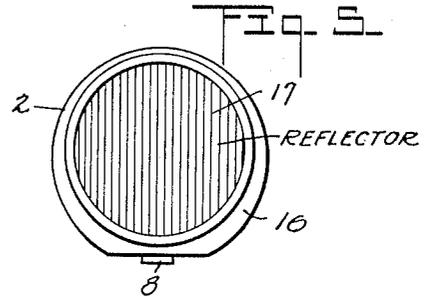
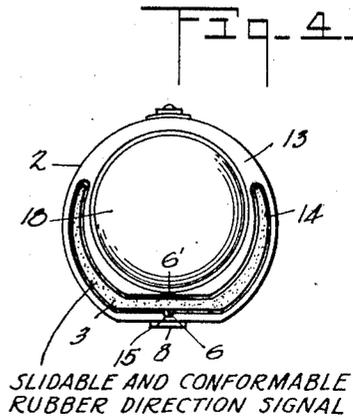
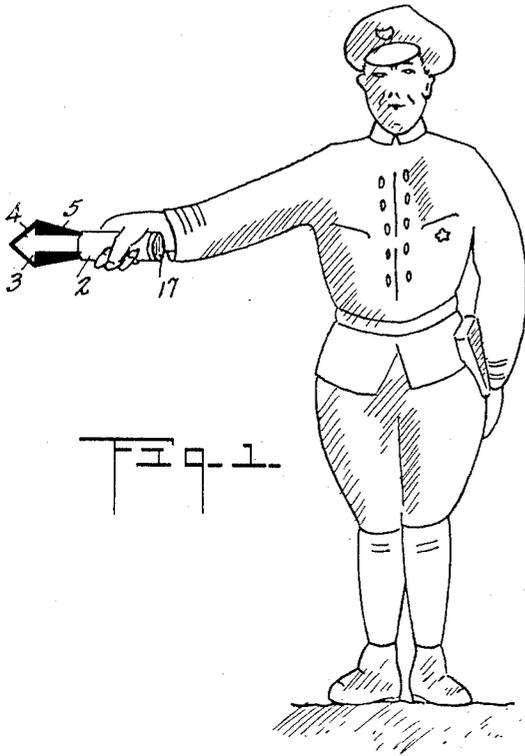
A. T. MARSHALL

2,114,635

COMBINATION SIGNAL AND FLASHLIGHT

Filed March 9, 1936

2 Sheets-Sheet 1



INVENTOR.

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ATTORNEYS.

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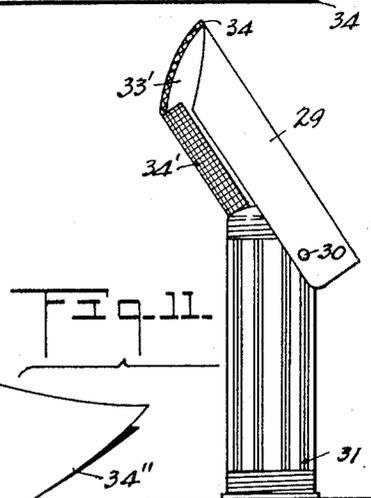
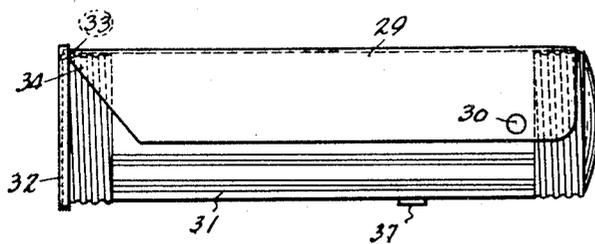
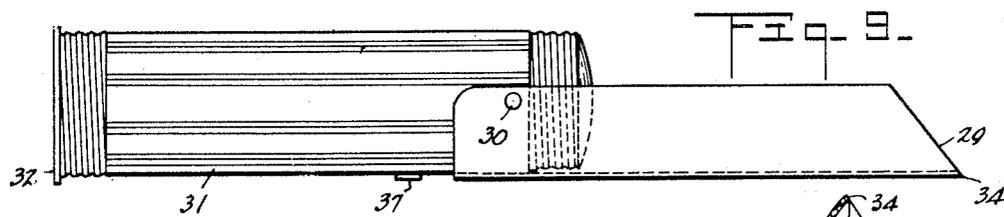
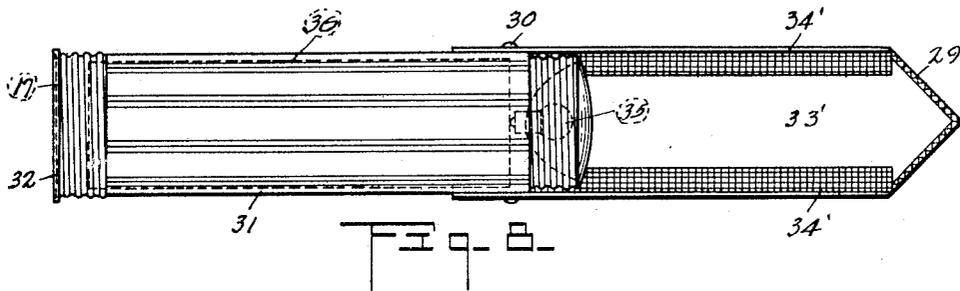
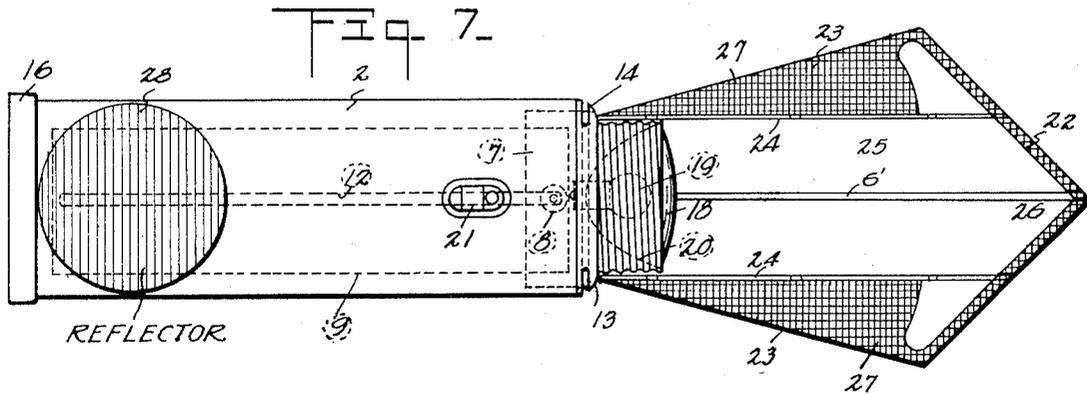
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COMBINATION SIGNAL AND FLASHLIGHT

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

2,114,635

COMBINATION SIGNAL AND FLASHLIGHT

Albert T. Marshall, Petaluma, Calif.

Application March 9, 1936, Serial No. 67,828

7 Claims. (Cl. 177—329)

My invention relates to improvements in combination signals and flash lights, and it consists of the combinations, constructions and arrangements hereinafter described and claimed.

5 An object of my invention is to provide a signal and flash light in which an arrow for indicating direction may be moved quickly into operative position where it will be illuminated by the flash light. The device is especially designed to be
10 used by traffic policemen and firemen where it is necessary at times to direct traffic past a wreck or a fire. The flash light also makes use of a red reflector which is placed preferably in the end of the casing in a two cell flash light and on
15 the side of the casing in a three cell flash light. When the reflector is pointed at oncoming traffic the headlights from approaching vehicles will illuminate the reflector and thus give an appropriate warning. The person using the device
20 can twist his wrist and bring into play either the red reflector or the arrow indicator, and in this way the device can be used both for a warning and a direction indicator.

It is obvious that the red reflector may be
25 placed on the side of the flash light casing instead of on the end, and when the reflector is disposed on the side of the casing both the reflector and the arrow indicator will show at the same time. When the arrow indicator is not in use it may be
30 moved back into the casing, or it may be swung into a position overlying the casing. The flash light now may be used in the usual manner.

The device is extremely simple in construction and a standard flash light may be altered to give
35 both a warning and a direction indicating signal without altering the construction of the flash light casing to a very great extent.

Other objects and advantages will appear in the following specification, and the novel features
40 of the device will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings forming a part of this application, in which

45 Figure 1 illustrates the device in use;
Figure 2 is a side elevation of the device showing the arrow in extended position;
Figure 3 is a plan view of the device partly in section showing the arrow retracted;
50 Figure 4 is an end view of the device showing the arrow within the casing;
Figure 5 is a view of the opposite end of the device showing the red reflector in the casing
55 end;

Figure 6 is a section along the line 6—6 of Figure 2;

Figure 7 is a side elevation of a modified form of the device;

Figure 8 is a side elevation of another modified form of the device;

Figure 9 is a plan view of Figure 8;

Figure 10 is a view similar to Figure 9 but showing the arrow indicator in closed position;
and

Figure 11 illustrates another use of the device.

In carrying out my invention I provide a flash light having an inner casing 1, and an outer casing 2 spaced therefrom, see Figure 3. The inner casing 1 houses the batteries, while the outer casing or shell 2 houses a direction indicating member 3. Figure 2 shows the direction indicating member 3 in the shape of an arrow, and I prefer to make the surface of the arrow 4 white, and the remaining surface of the direction indicating arrow 3 black in color as indicated at
20 5. The direction indicator 3 may be made of any material desired, and in Figures 2 and 6 I show this indicator as being formed from molded or flexible rubber. Figure 6 also shows the indicator 3 as being provided with a rib 6 that extends throughout the length of the rear of the indicator and a rib 6' that parallels the rib 6, and is disposed on the front side of the arrow. The arrow may be curved slightly in cross section
30 when in extended position as shown in Figure 6, and this will cause the arrow to be substantially rigid, and therefore support itself. The indicator 3 is connected to a metal form or base 7 shown in Figure 2. This base carries a button 8.
35

The inner shell or casing 1 is ruffled or serrated at 9, see Figure 3, and these serrations receive a leaf spring 10 that is connected to the indicator 3. The button 8 has a shank 11 slidable in the slot 12 that extends along the length of the
40 outer shell or casing 2. The length of the indicator 3 is substantially the same as the length of the casings 1 and 2.

Figure 4 shows the inner and outer casings 1 and 2 connected together by a flange or end member 13, and this flange is provided with a U-shaped slot 14 for receiving the indicator 3. The rim of the slot 14 may be reinforced if desired. The slot 14 has a recess 15 therein for slidably receiving the rib 6 and for guiding the indicator
50 3 in its movement. The opposite end of the casing 2 is closed by an end cover 16 and this end cover has a red reflector 17 mounted therein, this red reflector being shown in Figure 5. The end of the casing opposite to the red reflector 17
55

carries a lens 18 and a flash light bulb 19, see Figure 2, is disposed in back of the lens. A reflector 20 for the light 19 is mounted in back of the light in the usual manner. A switch 21 is carried by the casing 2 and electrically connects the light 19 with batteries not shown. These batteries are disposed within the casing 1.

From the foregoing description of the various parts of the device the operation thereof may be readily understood.

When the indicator 3 is disposed in the casing 2 the flash light is used in the ordinary manner. When it is desired to use the flash light as a direction indicator the button 8 may be moved from the position shown in Figure 3 into that shown in Figure 2. This movement will extend the indicator 3 and the sides of the indicator will swing from their folded position shown in Figure 4 into the open position shown in Figure 6. The quality of the rubber forming the indicator is such that when it is in extended position, it will hold its shape against wind pressures, and yet it is readily conformable so as to pass through the slot when it is moved into retracted position. The recess 15 will guide the indicator 3 by means of the rib 6. The rib 6' or ridge on the front side of the arrow will prevent the front surface from being scratched against the edge of the opening 14 as the arrow is moved into operative or inoperative position.

The device when used as a direction indicator is held in the hand in the manner shown in Figure 1. The switch 21 when moved into "on" position will cause the light 19 to illuminate the white arrow 4. This arrow will stand out against the black background 5. In this manner the direction is properly shown. The person using the device may twist his wrist for bringing the reflector 17 of the flash light into play. This will give the necessary warning to the oncoming traffic. After the device is used the indicator 3 may be retracted into the casing 2 as shown in Figure 3. The leaf spring 10 will hold the indicator in any position between its extreme limits of movement. It is obvious that the rubber arrow shown at 3 can be made of a molded rubber if desired, or made from a rubber and fabric. It also is possible to use a light spring brass which will curl up into the casing when the arrow is retracted. The arrow design shown at 4 can be applied on the spring brass by means of a flexible rubberized enamel or other suitable material. A rubber arrow will not break and is less harmful than a metal arrow.

In Figure 7 I show a slightly modified form of the invention. The indicator 22 shown in this figure is made of metal and the sides 23 of the indicator also are made of metal and are hinged at 24 to the central portion 25 so that the sides 23 may swing into a position to be received in the slot 14 when the indicator is retracted. This indicator is provided with a white arrow 26 and a black margin 27. The central portion 25 may be provided with a longitudinal crimping for forming guide and spacing ribs similar to the ribs 6 and 6'. In all other respects the indicator operates in the same manner as that shown in Figure 2, and therefore further description need not be given and like reference numerals will be applied to corresponding parts.

It is possible to form the sides 23 of the metal indicator 25 out of rubber or a combination of rubber and fabric, and to secure the sides 23 to the central portion 25 by clamping or other

suitable means such as an adhesive. With this construction, the retracting of the indicator will cause the flexible sides 23 to fold and conform to the U-shaped slot 14. The metal central portion 25 would give rigidity to the indicator while the flexible sides 23 would permit the necessary folding when the indicator is retracted. Such an indicator very likely can be made cheaper than an all metal one with hinged sides.

In Figure 7 I also show the red reflector 28 placed on the side of the outer shell or casing 2. I have found that in a three cell flash light the hand of the operator is not large enough to conceal a red reflector should it be placed on the side of the casing. In this form of the invention the red reflector and the direction indicator will be visible at the same time to oncoming traffic.

In Figures 8 to 11 inclusive I show another modified form of the invention where the indicator 29 is not retractable but is hinged at 30 to the outside of the battery casing 31. The direction indicator 29 may be swung from the operative position shown in Figures 8 and 9 into a position to overlie the casing 31 as shown in Figure 10. The end cover 32 for the casing 31 may be provided with an annular recess 33 for receiving the pointed end 34 of the indicator 29. In this way the indicator may be held in closed position while the flash light is used in the ordinary manner. The arrow indicator 29 may be made of metal or rubber, or rubber and fabric. The curvature of the indicator would make it rigid even though not constructed of metal. This flash light and indicator is cheaper to manufacture than the other forms and may be used as a child's toy signal light. When used as a child's toy the flexible rubber indicator should take the place of a metal one for safety's sake.

The indicator 29 is provided with a white arrow-shaped portion 33' bounded by black sides 34'. The portion 33' is illuminated by a light 35 which is a standard part of the flash light. This light is placed in electrical connection with a battery indicated at 36 when a switch shown at 37 is moved into "on" position. It is obvious that switch 37 may be placed on casing 31 where it is most accessible.

Another use of the flash light shown in Figures 8, 9 and 10 is illustrated in Figure 11. In this figure the device may be used as a table lamp. The casing 31 is set on end, and the indicator 29 is disposed at an angle. The white arrow portion 33' will act as a reflector for the light rays and direct these rays down on the reading matter indicated at 34''. In the form of the device shown in Figures 8 to 11 inclusive the red reflector 17 may be placed in the end of the screw cover 32.

While I have shown only the preferred forms of my invention, it should be understood that various changes or modifications may be made within the scope of the appended claims without departing from the spirit of the invention.

I claim:

1. In combination, a flash light comprising an inner and an outer casing spaced from each other and provided with a U-shaped slot at one end of the flash light, a light disposed at the same end of the flash light, a direction indicator made of resilient material and being slidable through the slot from a space provided between the two casings into a position to be illuminated by the light, said indicator having an arrow marked

thereon, the sides of the indicator being swung toward each other by the edges of the slot when the indicator is moved into a position between the casings.

2. In combination a flash light comprising an inner and an outer casing spaced from each other and provided with a U-shaped slot at one end of the flash light, a light disposed at the same end of the flash light, a direction indicator slidable through the slot from a space provided between the two casings into a position to be illuminated by the light, said indicator having an arrow marked thereon, a button for moving the indicator, the outer casing having a slot therein for slidably receiving the button, the inner casing having a line of serrations in its outer surface, and a spring catch carried by the indicator and being receivable in the serrations for holding the indicator in adjusted position.

3. The combination with a pocket flash light having a compartment therein and a light at one end, of a rubber indicator slidable, from a position to be illuminated by the light, into the compartment, and means slidably carried by the flashlight for moving the indicator.

4. A pocket flash light comprising an inner casing, a light mounted in one end of the casing, an outer casing enclosing the inner casing and being spaced therefrom, the ends of the casings disposed adjacent to the light having a slot therein, an elongated direction indicating member slidably disposed in the space between the casings and normally hidden from view, and means for moving the member through the slot for causing the member to project beyond the end of the casing and to be illuminated by the light.

5. A pocket flash light comprising an inner casing, a light mounted in one end of the casing,

an outer casing enclosing the inner casing and being spaced therefrom, the ends of the casings disposed adjacent to the light having a slot therein, an elongated direction indicating member slidably disposed in the space between the casings and normally hidden from view, and means for moving the member through the slot for causing the member to project beyond the end of the casing and to be illuminated by the light, said member having a reinforcing rib extending throughout its length, and said casing end having a recess communicating with the slot, said recess slidably receiving the rib and aiding in guiding the member into extended position.

6. In combination a flash light comprising an inner and an outer casing spaced from each other and provided with a U-shaped slot at one end of the flash light, a light disposed at the same end of the flash light, a direction indicator slidable through the slot from a space provided between the two casings into a position to be illuminated by the light, said indicator having an arrow marked thereon, a button for moving the indicator, the outer casing having a slot therein for slidably receiving the button.

7. A flash light casing having an arcuate compartment therein, and a U-shaped slot in an end thereof with a recess communicating with the slot, a direction indicating member slidable through the slot and into the compartment, said member having a longitudinally extending rib on its rear face slidably received in the recess and a longitudinally extending rib on its front face for keeping this face from contacting with the edge of the slot, and means for moving the member from a position within the compartment, into one projecting beyond the compartment.

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