Aug. 24, 1943.

G. N. BISHOP

2,327,696

SAFETY LAMP

Filed March 6, 1942

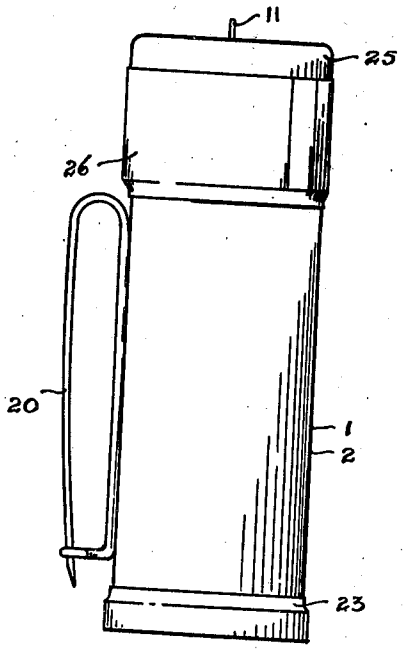


Fig. 1.

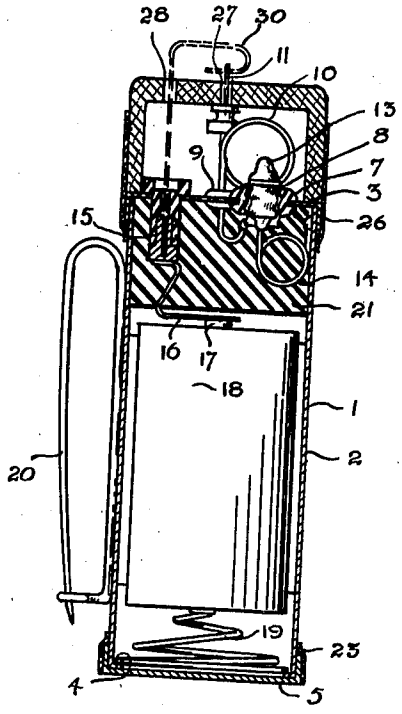


Fig. 2.

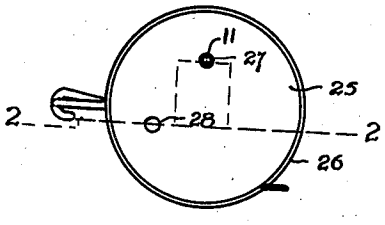


Fig. 3.

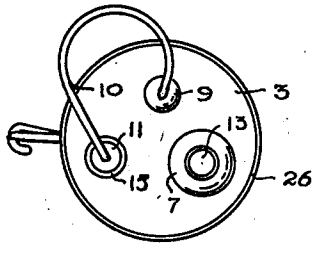


Fig. 4.

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SAFETY LAMP

Gordon Norman Bishop, Vancouver, British Columbia, Canada

Application March 6, 1942, Serial No. 433,614

2 Claims. (Cl. 240—10.6)

My invention relates to improvements in safety lamps which are particularly adapted for use by seamen and others who become shipwrecked.

The objects of the invention are to provide a lamp adapted for attachment to a life belt or other life saving equipment which is normally sealed against being used; to provide a convenient means whereby the lamp may be tested at any time to determine if the battery is in good condition; to provide a lamp in which the battery and battery container are proof against the ingress of water or moisture, and also to provide means whereby the lamp may be immediately put to use when required without having recourse to the use of tools or other devices.

The invention contemplates a watertight battery casing and battery, a lamp and jack connected in series with the battery and a removable cover for the lamp and jack, said cover being apertured to permit the lamp circuit being closed to check the condition of the battery, as will be more fully described in the following specification and shown in the accompanying drawing, in which:

Fig. 1 is an elevational view of the lamp in sealed condition.

Fig. 2 is a vertical sectional view of the invention taken on the line 2—2 of Figure 3.

Fig. 3 is a plan view looking down on the lamp cover.

Fig. 4 is a view looking down on the lamp casing, showing the battery circuit closed.

In the drawing like characters of reference indicate corresponding parts in each figure.

The numeral 1 indicates a metallic casing having a cylindrical wall 2, a top closure 3, an inturned annular flange 4 at the base of the cylindrical wall and a removable bottom closure 5.

The top closure 3 is apertured to receive a rubber grommet 7 in which a lamp socket 8 is held and a second rubber grommet 9 through which a flexible connector wire 10 passes. The connector wire 10 is fitted at its free end with a plug 11 and is secured at the other end to the lamp socket 8. A lamp bulb 13 is fitted within the socket and is connected by a wire 14 to an interior part of the casing 1 preferably by soldering. An insulated jack 15 extends through the top closure 3 and has connected to its base a spring leaf contact 16 which is adapted to extend across the centre of the casing and connect with the central contact 17 of a battery 18.

The battery 18 is supported in position by a conical spring 19 which is entirely supported upon the inturned flange 4, so as to ensure a direct contact with the casing 1 and also permit the ready removal of the spring when necessary to replace the battery.

Fitted to the casing is a safety pin 20 for the purpose of securing the lamp to a life belt, garment or other equipment.

When the lamp and circuit parts of the device are assembled the casing is inverted and suitable insulating compound 21 is poured in to embed all the parts extending into the casing except the free end of the contact 16, thus making the casing water- and moisture-proof from the top.

When the battery 18 has been put in the casing and the conical spring 19 has been placed in position upon the inturned flange 4, the bottom closure 5 is put onto the casing and a strip of adhesive tape 23, see Figure 1, is wrapped around the periphery of the bottom closure and casing to seal the joint against water or moisture and as a further protection the lower end of the device is dipped into a suitable waterproofing compound, thus completely proofing the casing and its contents.

On the top of the casing a cover 25 of wood or plastic is placed, which is held in position by a length of adhesive tape 26 wound around the cover and the upper periphery of the casing. This cover is provided with apertures 27 and 28. The aperture 27 is small and through it the plug 11 of the flexible connector is thrust from the inside, as shown in Figure 2. The connector obviously requires to be bent around to facilitate the fitting of the cover and the bending supports the plug with its free end resiliently projecting through the aperture 27 as shown. The aperture 28 is disposed directly above the jack 15 so that by inserting a bent wire as indicated at 30 in Figure 2, through the aperture 28 into the jack and swinging the free end of said wire into contact with the plug 11 the circuit can be closed and the condition of the battery be determined by the illumination or otherwise of the lamp 13.

A person having one of the devices attached to his clothing or life belt when in the water, say, at night, would be able by unwrapping the adhesive tape 26 or forcibly wrenching off the cover 25 from the casing 1 and inserting the plug 11 into the jack 15 cause the lamp 13 to glow and indicate his position to any adjacent rescue vessel.

What I claim as my invention is:

1. In a lamp having a casing, a battery and a normally open circuit including a light bulb, a

jack and a connector having a plug adapted for insertion into the jack to close the circuit, a removable cover upon the casing for enclosing the jack, the connector and the bulb, said cover enclosing the bulb and adapted to support the plug in partially exposed position, said cover having an aperture affording access to the jack to connect it and the plug for testing the bulb.

2. In a lamp having a casing, a battery hermetically sealed within the casing, an open circuit including a bulb, said circuit having a terminal on one end of the casing and a flexible connector adapted to be connected together to close the circuit, an opaque cover for the casing enclosing the bulb, the terminal and a portion of the flexible connector, said cover having two apertures one of which is adapted for alignment with the terminal and the other being adapted to support the outer end of the flexible connector in exposed position.

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