F. W. MEBOLD.

PORTABLE SELF CONTAINED ELECTRIC LAMP.

APPLICATION FILED FEB. 27, 1915.

1,167,707.

Patented Jan. 11, 1916.

FIG. 1.

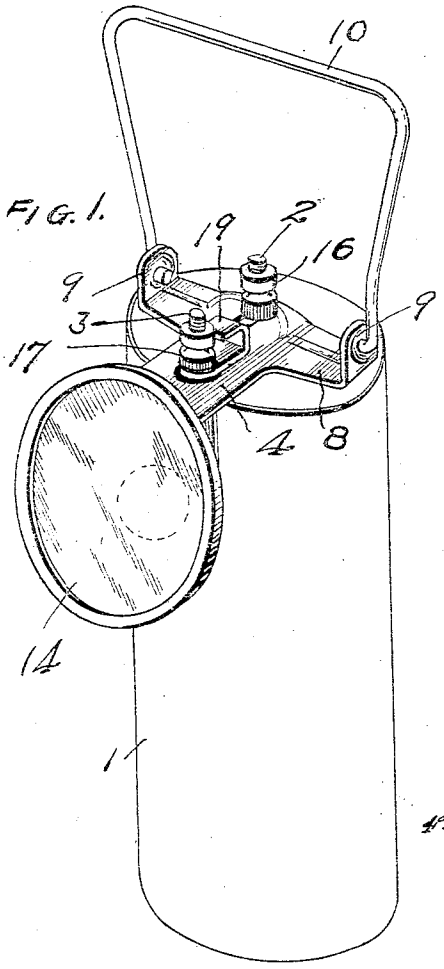


FIG. 5.

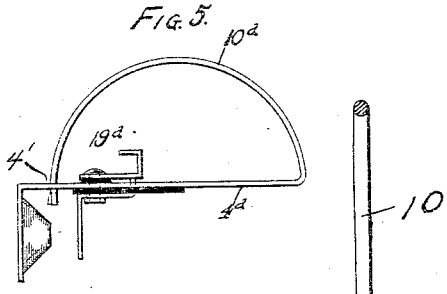
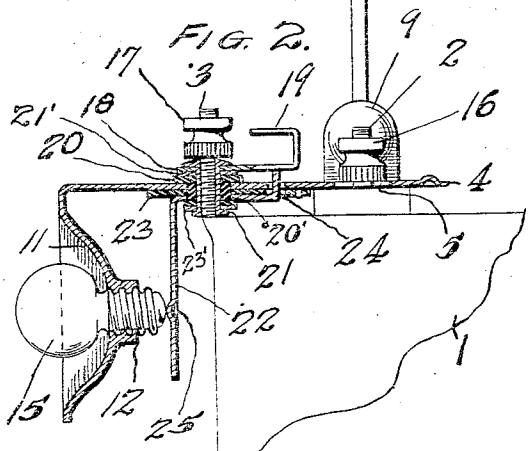


FIG. 2.



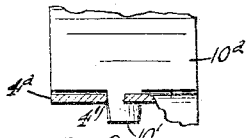


FIG. 6.

FIG. 4.

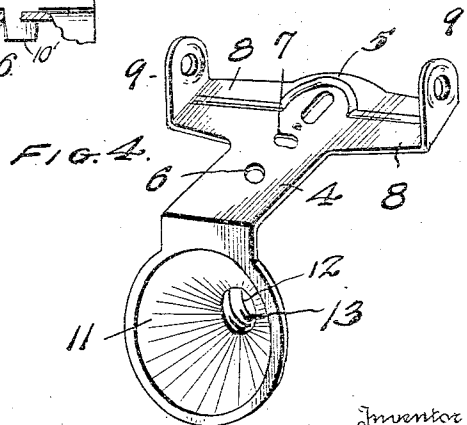
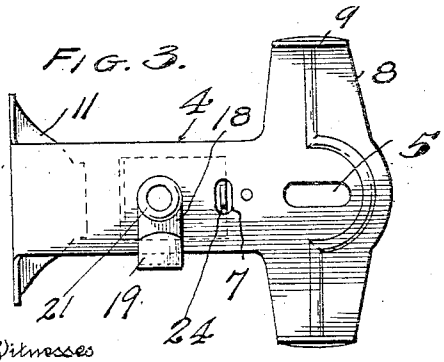


FIG. 3.



Witnesses

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PORTABLE SELF-CONTAINED ELECTRIC LAMP.

1,167,707. Specification of Letters Patent. Patented Jan. 11, 1916.

Application filed February 27, 1915. Serial No. 10,930.

To all whom it may concern:

Be it known that I, FREDERICK W. MEBOLD, a citizen of the United States of America, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Portable Self-Contained Electric Lamps, of which the following is a specification.

The present invention relates to improvements in portable self contained electric lamps, and is designed as a safety lamp attachment.

The primary object of the invention is the provision of an attachment to be used in conjunction with an ordinary electric dry battery, and the attachment is so constructed that it is applicable for use in connection with such a dry battery as is obtainable in the open market.

The invention consists in certain novel combinations and arrangements of parts to provide an attachment for use with a dry battery, as will be hereinafter more fully described and claimed.

In the accompanying drawings I have illustrated two complete examples of the physical embodiment of my invention showing the best modes I have so far devised for the practical application of the principles of the invention.

Figure 1 is a perspective view showing the attachment complete as applied to a dry battery of standard construction. Fig. 2 is an enlarged sectional view of the attachment showing its connection with the dry battery, and showing a portion of the device of Fig. 1 omitted. Fig. 3 is a top plan view of the base plate and the switch of the device. Fig. 4 is a perspective view showing the base plate detached, and illustrating a reflector as integral with the base plate. Fig. 5 is a side view showing a modification of the handle of the device. Fig. 6 is a sectional detail of the device of Fig. 5.

My attachment, as before stated, is designed for use in connection with standard dry batteries as obtained in open market, and in the drawings the numeral 1 indicates such a battery having the center post 2 and the circumferential post 3, which are common to all standard batteries. The batteries of different makes are usually of the same or approximately the same diameter, and the two posts 2 and 3 are approximately the same distance apart in most standard batteries as obtained in the open market.

My illuminating device is designed for attachment to the dry battery by means of the two posts 2 and 3. For this purpose I employ the base plate 4, which is preferably of brass. All other operating parts of the attachment are also preferably of brass, but may be of other suitable material, and the parts are stamped out or wrought into proper form by suitable machines. This base plate 4 is fashioned with an elongated slot 5 and an orifice or opening 6, the slot 5 being adapted to pass over the post 2, and the orifice 6 is adapted to pass over the post 3. Located between the slot 5 and the orifice 6 is a transversely extending opening 7 in the plate 4, and the plate is further provided with oppositely extending wings 8—8, each of which is fashioned with a bent-up perforated ear 9, and, as clearly seen in Figs. 1 and 2, these perforated ears have the bail or handle 10 swiveled therein. At the front of the plate 4, the metal is bent downwardly and formed as a conical shaped cup 11 in a plane approximately at right angles to the plane of the plate 4. This cup is formed with an open boss 12 which is interiorly threaded, as at 13, and in Fig. 4, the cup is illustrated as a reflector, the inner face of the cup being provided with a coating or polished surface to act as a reflector. In Fig. 1, a reflector 14 is illustrated, and in Fig. 2 an incandescent light bulb 15 is shown as threaded into the boss 12 of the reflector cup 11.

The attachment is fixed to the post 2 by means of a thumb nut 16 threaded on to the post 2, and the thumb nut 17 is employed on the post 3 to clamp the attachment at the circumference of the dry battery. In connection with the attachment for the post 3, I employ a switch device, and this device comprises a turn plate 18 with the handle 19, and an insulating washer 20 is interposed between this turn plate and the base plate. An eyelet 21 is provided to attach the turn plate and washer at the upper side of the base plate, and this device also attaches the spring plate 22 and insulating washer 23 at the underside of said base plate. Thus, the eyelet 21 acts as a rivet to hold the washers 20, 20′, 21′, 23′ and the spring plate to the base plate, but permits the turn plate to be turned upon the eyelet as a center.

The spring plate 22 is angular in form, as clearly shown in Fig. 2, and is provided with an upwardly bent tongue 24. This

tongue 24 normally projects upwardly through the transverse slot 7 in the base plate, and is in position to be ridden down by the turn plate as it is swung around the post 3 as a center. It will readily be understood that when the switch is closed the turn plate is turned around to contact with the tongue 24, as in Figs. 1 and 2, and when the switch is opened, the turn plate is swung around to position, as in Fig. 3. The spring plate 22 has a boss 25 projecting therefrom in position to be contacted by the incandescent lamp 15 in order to make connection to complete the circuit.

From this description taken in connection with the drawings, it will be apparent that the electric circuit is made from the battery through the post 2, the thumb nut 16, and the base plate 4 to the cup 11, and thence to the light 15, and the current returns through the spring plate 22, the spring tongue 24, the switch or turn plate 18, the eyelet 21, and binding post and nut 3 and 17.

The lamp 15 will, of course, remain lighted as long as the switch 18 is turned to close the circuit, but in addition to this feature, the device may be used as a flash light apparatus. For this purpose the spring plate 22 may be pulled backwardly to break the contact between the lamp and the boss 25, and released to form a flash light of the device. In this connection the device is particularly meritorious, because it can be carried by the hand through the medium of the cell 1, and the forefinger of this hand may be employed to bend the spring plate back out of contact, and operate the device as a flash light.

Another meritorious feature of the invention resides in the single piece base plate embodying the reflector and suspending means whereby the integral member performs the functions of a reflector, a base plate, and a carrying device. It will of course be understood that the battery is replaceable, or rather the attachment is replaceable to a fresh battery when the old one wears out.

In Figs. 5 and 6, a novel form of handle is shown comprising the arched plate 10^a which is integral with the plate 4^a and is turned to the front over the switch 19^a. The end of the handle 10^a is provided with a reduced end or tongue 10′ which is passed through a slot 4′ in plate 4^a and then turned slightly to lock it in the slot and thus lock the handle to its plate. This construction reduces the cost of the device and is desirable in some instances.

From the above description, it will be apparent that I have provided a novel and meritorious apparatus, applicable for use with standard dry batteries, and which is a desirable, efficient, and economical device for performing its required functions.

What I claim is:

1. The combination with a dry battery and its binding posts, of an attachment comprising a base plate having a reflector portion and an incandescent lamp secured therein, an insulated eyelet on the base plate to receive one of the binding posts and said base plate slotted to receive the other post, an insulated spring plate on the eyelet having a tongue, and a switch on the eyelet to co-act with said tongue.

2. The combination with a dry battery and its two binding posts, of a base plate fashioned with a reflecting cup, an incandescent lamp threaded through said cup, a switch plate, a spring plate, an eyelet fastening these two members above and below the base plate respectively, and a tongue on the spring plate projecting through a slot in the base plate in position to contact with the switch plate, substantially as described.

3. The combination with a battery and its binding posts, of a base plate fashioned to support an incandescent lamp, a switch plate, a spring plate and an eyelet fastening these two members above and below the base plate respectively, and a tongue on the spring plate projecting through a slot in the base plate in position to contact with the switch plate.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK W. MEBOLD.

Witnesses:
GEORGE MEYER,
WM. J. DELLERT.