Sept. 1, 1936. W. PONATH 2,052,654

WALL LIGHT

Filed Oct. 26, 1933

FIG.1.

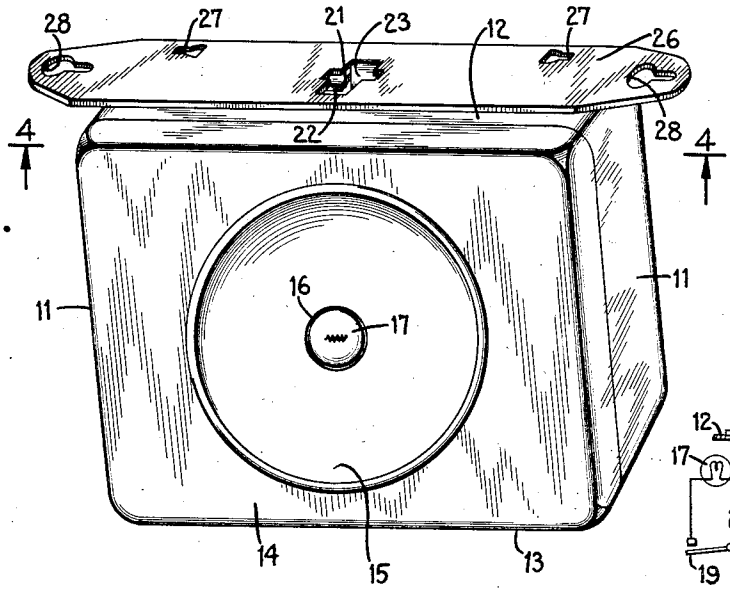


FIG.6.

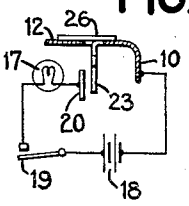


FIG.2.

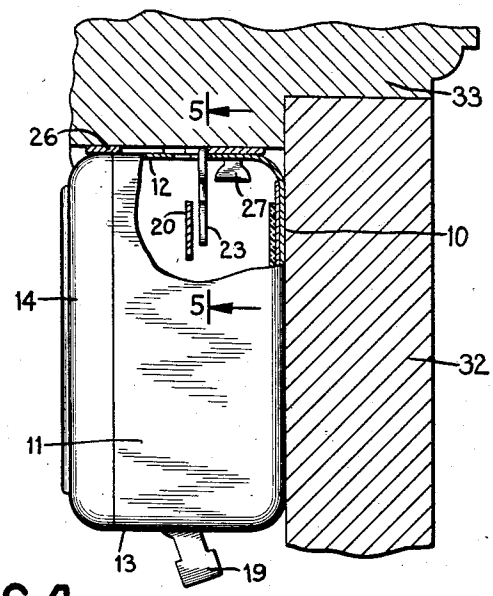


FIG.3.

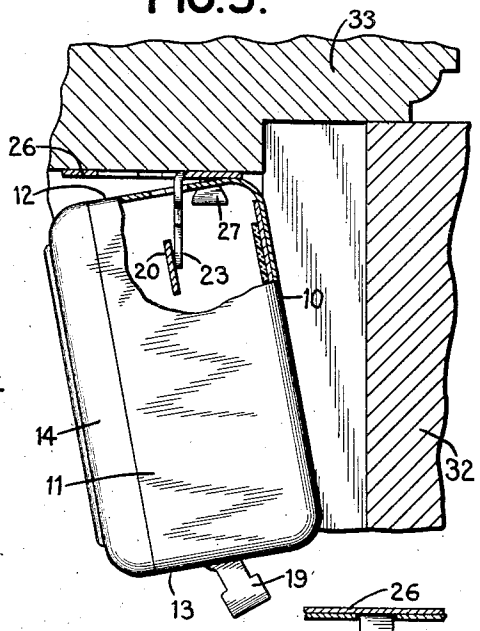


FIG.4.

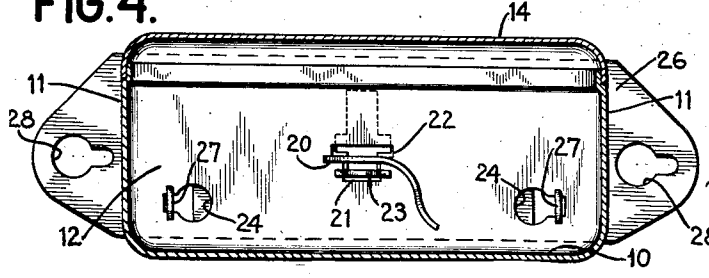
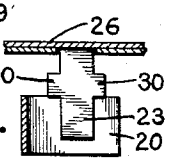


FIG.5.



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UNITED STATES PATENT OFFICE

2,052,654

WALL LIGHT

William Ponath, Richmond Hill, N. Y., assignor to Bond Electric Corporation, Jersey City, N. J., a corporation of Delaware

Application October 26, 1933, Serial No. 695,222

6 Claims. (Cl. 240—10.6)

This invention relates to electric lanterns and more particularly to electric lanterns of the kind known as wall lights, in which the source of electrical energy in the form of a battery of electrolytic cells is disposed within a casing and this battery is in an electrical circuit including an incandescent lamp carried with the casing and controlled by a switch.

One object of the present invention is to provide a wall light of this kind which can be used to automatically illuminate a closet whenever the door is opened. Accordingly, means carried with the lantern is displaceable when the door of the closet is opened to effect the closing of a switch illuminating the lamp.

It is also an object of the invention to provide switch closing mechanism adapted to close the circuit through the incandescent lamp when the casing of the light is free to assume its normal position, and to open said circuit when said casing is displaced from normal, as by the closet door in closed position.

Moreover, the invention seeks a hinge construction for a wall light which comprises switch closing elements.

The invention also seeks an automatic wall light which is practical from the standpoint of simplicity and cheapness of manufacture and durability and efficiency in use.

These and other objects of the invention and the means for their attainment will be more apparent from the following detailed description taken in connection with the accompanying drawing illustrating one embodiment by which the invention may be realized, and in which:

Figure 1 is a view, in perspective, showing the wall light of this invention;

Figure 2 is a view in side elevation showing the wall light of Figure 1, looking from the right, parts being removed to disclose the construction by which the closing of the circuit is effected, the parts being illustrated in open circuit position;

Figure 3 is a view similar to Figure 2 but with the parts in circuit closing position:

Figure 4 is a transverse sectional view taken in the plane indicated by the line 4—4 of Figure 1, looking in the direction of the arrows;

Figure 5 is a detail view showing the switch contacts, taken in the plane indicated by the line 5—5 of Figure 2; and

Figure 6 is a diagrammatic view showing the wiring diagram of the wall lantern of this invention.

Referring first to Figure 1, the casing is substantially rectangular in form and is preferably composed of metal in the interest of durability and rigidity and to permit the use of the casing as a portion of the electrical circuit. The casing is conveniently a stamping comprising the rear wall 10 integral with side walls 11, top wall 12 and bottom wall 13 providing an open side or front adapted to be closed by a removable cover 14. The means for removably securing the cover 14 is not illustrated as this forms no part of the invention. Conveniently, the cover 14 may be depressed somewhat, as at 15, to form a reflecting surface, apertured, as at 16, to permit the passage of an incandescent lamp 17 therethrough, which lamp is mounted in any convenient manner on the inside of the casing. Also within the casing are batteries 18 (not shown) in circuit with the lamp 17 and with a circuit breaking device 19 of any convenient kind movable through a slot in the bottom wall 13 by which the circuit may be permanently opened when desired.

Any convenient arrangement of battery contact and lamp socket support may be availed of, one such construction being illustrated in a copending application, Serial No. 634,472. As in the copending application, the casing forms a part of the electrical circuit. The circuit is interrupted by a contact member 20, conveniently leading from a battery contact clip and disposed within the casing proximate the upper wall 12 thereof. Immediately above the contact 20 and in the top wall 12, there is formed an aperture 21 of a larger diameter at its forward end, as at 22, through which the companion contact member 23 extends for engagement by the contact 20. Also in the top 12 and proximate the rear wall 10, are formed two oppositely directed key hole slots 24. By means of these slots 24 the casing is hingedly connected to a base member or companion hinge member 26 comprising, conveniently, an elongated plate having two spaced keys 27 punched downwardly therefrom, and key hole slots 28, one at each end, both extending in the same direction.

Intermediate the ends, a cruciformed contact 23 is punched downwardly to lie in a plane parallel with the longer edges of the plate 26 and parallel to the contact end 29. This contact 23 is formed with the arms 30, Figure 5, so that after it is passed through the wider part 22 of the slot 21 and assumes its normal position, as shown, the arms 30 thereafter prevent its removal from the slot. It is narrower than the slot so as to be out of contact therewith. In assembly, after the contact is inserted in the slot, the plate 26 is

then shifted with respect to the casing so that the contact 23 lies and moves within the narrower part of the slot to permit entrance of the keys whereby the plate is permanently and hingedly connected with the casing. The keys 27 are so formed as to have a head or end of larger diameter and enter the key hole slots 24 in the casing and are bent to a position within the narrow portion of the key hole slots 24 and held therein by the heads. These keys in the slots 24 form pivotal connections between the plate 26 and the top 12 and permit the light to move from the vertical position shown in Figure 2 to the position shown in Figure 3 about the keys 27 as pivots. When the plate 26 and top 12 are parallel and adjacent one another, the contacts 20 and 23 are parallel and spaced from one another, but when the plate is moved angularly relative to the top 12, the contact 20 is moved into engagement with the contact 23 to close the circuit.

The manner in which the wall light is used is illustrated in Figures 2 and 3. The door of, say, a closet is indicated at 32 and the top of the doorway is indicated at 33. The plate 26 is secured to the top of the frame as by screws passing through the slots 28 and in a position such that when the door 32 is closed, the casing will be moved about its pivotal connection to a vertical position as shown in Figure 2, with the top 12 in parallel relationship with the plate 26, thus carrying the contact 20 away from the contact 23 and opening the circuit. When, however, the door is opened, as viewed in Figure 3, the case swings downwardly by its own weight and by reason of the fact that it is pivoted proximate one edge, that is, to one side of a median plane thereby bringing the contact 20 against the contact 23 to close the circuit. Since the casing 10—14 forms a part of the circuit and since the contact 23 is in electrical connection with the casing 10 through the hinge connection 27 and plate 26 and since the contact 20 is insulated from the casing and is in circuit with the lamp and battery, the electrical circuit is completed through the lamp whenever the contacts are brought together.

The switch handle 19 may be used to interrupt the circuit at such times as it is not desired to use the light, irrespective of whether or not the door is open.

It will thus be seen that a wall light is provided, the circuit of which is automatically opened upon displacement of the casing with respect to its support and wherein the hinged connection forms a part of the electrical circuit.

Various modifications will occur to those skilled in the art in the circuit of the lamp as well as in the form taken by the circuit closing elements and no limitation is intended by the phraseology of the foregoing specification or illustrations in the accompanying drawing.

What is claimed is:—

1. A wall light comprising in combination, a support having a fixed contact depending therefrom, a casing formed with an aperture to receive the contact, a cooperating contact carried within the casing in operative relation with said first named contact on one side thereof and a pivotal connection between the support and the casing in a vertical plane on the other side of the fixed contact from the cooperative contact, said contacts and pivotal connection being so relatively related that said contacts are in electrical connection when the casing hangs freely.

2. A wall light comprising in combination, a supporting plate having a contact depending therefrom and depending spaced hinge keys, a casing formed with apertures to receive the hinge keys and freely suspended thereon and an aperture for the passage of the contact thereinto and a cooperating contact carried within the casing in operative relation with said first named contact.

3. A wall light comprising in combination, a metallic supporting plate having a contact depending therefrom and spaced metallic hinge keys, a metallic casing formed with apertures to receive and engage the hinge keys whereby said casing is freely suspended therefrom and an aperture for the passage of the contact thereinto and a cooperating contact carried within the casing and normally in electrical connection with said first named contact when the casing is not displaced, said contacts being in an electrical circuit comprising a lamp, a source of electrical energy and the casing.

4. A wall light comprising a casing, a supporting plate, pivotal connections between the casing and the supporting plate to one side of a median plane thereof, the casing forming a portion of the electrical circuit, said circuit being interrupted and terminating in a contact fixed on the interior of the casing, a contact carried by the supporting plate, in electrical connection therewith extended into the casing, said engagement being so positioned as to be in contact when the wall light is angularly related to the supporting plate.

5. A wall light comprising in combination, a conductive supporting plate having a contact depending therefrom, a conductive casing formed to receive the contact, a cooperating contact carried within the casing in operative relation with said first named contact, and a pivotal connection between the support and the casing to one side of a median plane of the casing, said contacts being in a circuit comprising a lamp, a battery, the casing and the supporting plate.

6. A self-contained light of the class described, comprising in combination a casing, a lamp carried by the casing, a battery carried in the casing and electrically connected thereto, a contact piece carried in the casing, and a mounting plate adapted to be secured to a fixed support and provided with a contact piece extending into the casing in proximity to the first named contact piece, said mounting plate being also provided with means for swingably supporting said casing, so that when the casing is freely suspended from its support the two mentioned contact pieces engage and complete a circuit through the lamp.

WILLIAM PONATH.

CERTIFICATE OF CORRECTION.

Patent No. 2,052,654. September 1, 1936.

WILLIAM PONATH.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 2, second column, line 38-39, claim 4, for the word "engagement" read contact; and line 39, same claim, for "contact" read engagement; and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 20th day of October, A. D. 1936.

Leslie Frazer

Acting Commissioner of Patents.

(Seal)

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