Dec. 8, 1942. C. W. HERDER 2,304,690

KEYHOLE ILLUMINATOR

Filed Aug. 23, 1941

Fig. 1.

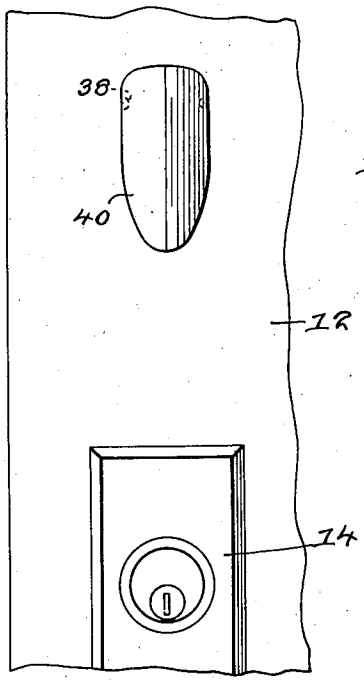


Fig. 2.

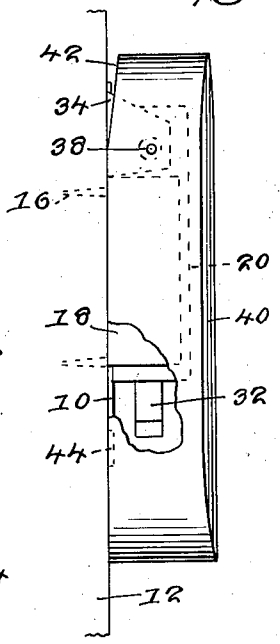
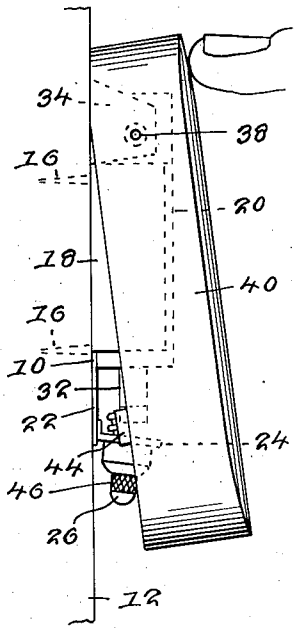


Fig. 3.



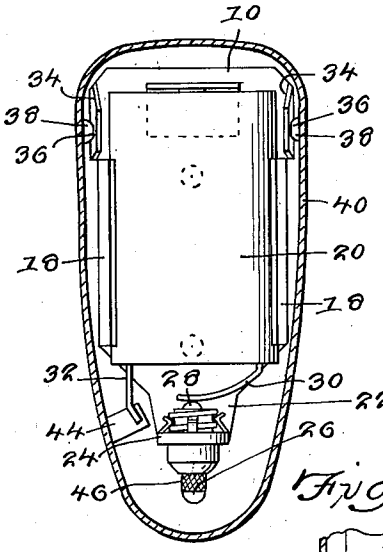


Fig. 4.

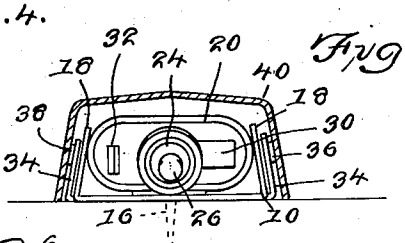


Fig. 5.

Fig. 6.

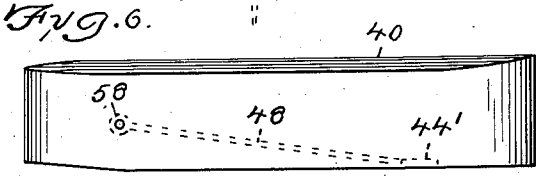
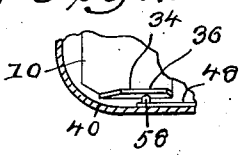


Fig. 7.



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UNITED STATES PATENT OFFICE

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KEYHOLE ILLUMINATOR

Charles W. Herder, Bloomington, Ill.

Application August 23, 1941, Serial No. 408,099

2 Claims. (Cl. 240—2.13)

My invention relates to door locks, and has among its objects and advantages the provision of an improved keyhole illuminator.

In the accompanying drawing:

Figure 1 is a fragmentary view of a door and door lock illustrating my invention applied thereto;

Figure 2 is a side elevational view of the keyhole illuminator with a portion broken away for the purpose of illustration;

Figure 3 is a view similar to Figure 2 but illustrating the circuit closing position of the illuminator;

Figure 4 is a face view of the illuminator with the front wall removed;

Figure 5 is a transverse sectional view;

Figure 6 is a side elevational view of a different form of the illuminator; and

Figure 7 is a detail view of a cover pivot employed in the form of Figure 6.

In the embodiment selected for illustration, I make use of a plate 10 secured to the outside face of the door 12 above the lock 14 through the medium of screws 16. Plate 10 is provided with flanges 18 along two side margins, which flanges are arranged in converging relationship and have pressure engagement with a conventional battery 20 positioned therebetween. Plate 10 is preferably formed of sufficiently resilient material to permit the flanges 18 to be flexed to facilitate positioning of the battery.

One end of the plate 10 is extended at 22 and provided with a socket 24 for a lamp bulb 26. The lamp bulb is in electrical engagement with the socket 24 and includes a contact 28 engaging a resilient terminal 30 of the battery 20. The battery is provided with a second terminal 32.

Two ears 34 are formed on the plate 10, each ear being provided with a small depression 36 in its outer face for the reception of a pivot lug 38 formed on a cover 40. Ears 34 are preferably arranged in diverging relationship in the manner of the flanges 18 so that the pivot lugs 38 may be pressed downwardly on the ears to snap into the depressions 36. However, the cover 34 may be disconnected from the ears 34 by imparting a sufficient pull on the cover. Figure 2 illustrates the normal position of the cover 40 with respect to the door 10. One end of the cover is cut away at 42 so as to provide clearance for the cover when it is pivoted from the position of Figure 2 to that of Figure 3 about the axes of the lugs 38. To one side of the cover 40 is secured a contact 44 arranged to engage the contact 32 when the cover is pivoted to the position of Figure 3. Since the cover 40 is formed of conducting material, engagement between the contacts 32 and 44 will close the circuit through the lamp bulb 26. In addition, positioning of the cover 40 in accordance with Figure 3 uncovers the downwardly projecting lamp bulb 26 so as to illuminate the lock 14. The lamp bulb is preferably provided with an opaque coating 46 about its sides so as to permit the projection of light from its end only, thereby projecting a light beam across the lock 14, particularly its keyhole area.

In cases where the cover 40 is formed of molded plastic material, a conductor 48 is secured to one side wall of the cover 40 and has one end connected with the contact 44' and its other end electrically connected with a pivot end 58 adapted for insertion in one of the depressions 36. The other side wall of the cover 40 of Figure 6 is, of course, provided with a pivot pin also.

Without further elaboration, the foregoing will so fully illustrate my invention, that others may, by applying current knowledge, readily adapt the same for use under various conditions of service.

I claim:

1. An illuminator of the type described comprising a plate adapted to be secured to a support, said plate being provided with a lamp socket and comprising conducting material, a lamp in said socket and having electrical engagement therewith and provided with a contact, flanges on said plate, a battery positioned between said flanges and frictionally retained thereby, said battery having a terminal electrically engaging said contact, a second terminal on said battery, and a cover pivotally connected with said plate and having a contact arranged to engage said second terminal when said cover is pivoted to a predetermined position, said cover normally lying against said support and masking said lamp from view but uncovering the lamp when pivoted to said predetermined position.

2. A keyhole illuminator comprising a plate adapted to be secured to a door having a keyhole, said plate having first flanges, a battery pressed between said first flanges, a lamp socket formed on said plate and electrically connected therewith, an electric lamp in said socket for illuminating said keyhole and having a contact engaging one terminal of said battery, second flanges formed on said plate, a cover having detachable pivotal connection with said second flanges, said cover normally lying snugly against said door to mask said lamp from view, said plate and said cover being formed of conducting material, and a contact carried by said cover and engageable with the second terminal of the battery for closing the circuit therethrough when pivoted to a predetermined position for unmasking the lamp.

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