

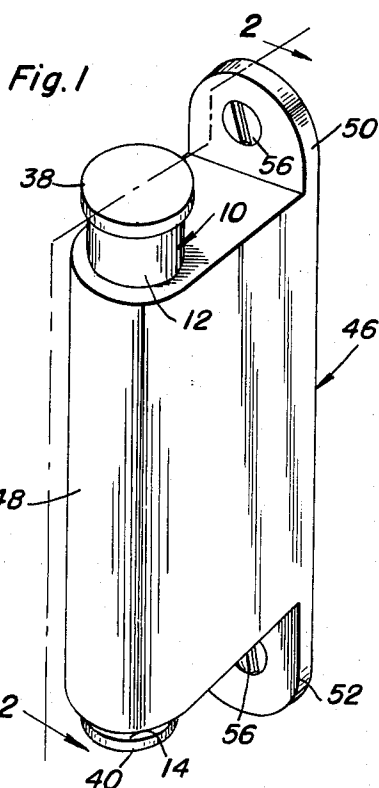
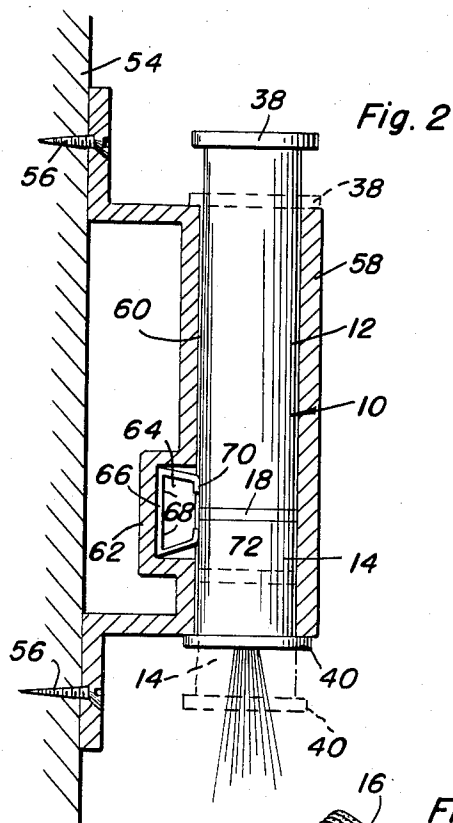
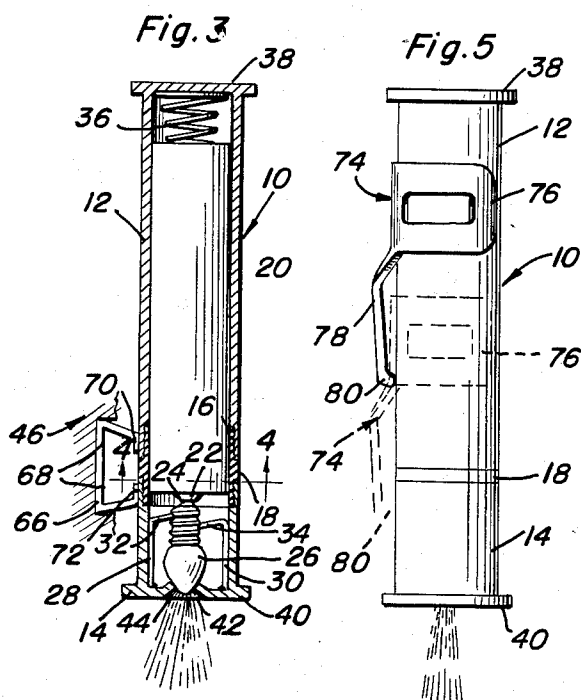
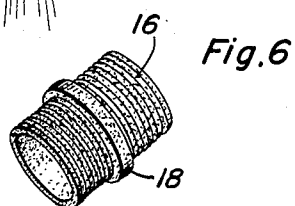
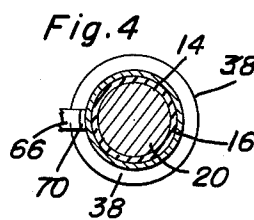
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W. M. WELLS II

2,732,480

UTILITY LAMP

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1

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UTILITY LAMP

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2 Claims. (Cl. 240—2.13)

This invention relates in general to illuminating devices, and more specifically to an illuminator or utility lamp which is so constructed to have a novel switch construction.

The primary object of this invention is to provide an improved utility lamp which includes a casing shiftable with respect to a support, said casing forming one lead of a circuit between a battery and bulb carried therein and having end portions thereof insulated, the casing being in engagement with spring contact means whereby the casing, when shifted with respect to the spring contact means forms a complete circuit between the battery and bulb.

Another object of this invention is to provide an improved utility lamp which includes a casing slidably mounted within a support, a circuit between a bulb and battery mounted within the casing being completed upon sliding movement of the casing with respect to its associated support.

Another object of this invention is to provide an improved utility lamp which may be utilized for illuminating key holes, said utility lamp being of a relatively simple and compact construction and having a novel switch whereby the same is economically feasible.

A further object of this invention is to provide an improved switch means for an illuminator, said switch means being of relatively simple construction and including a two-piece casing for a battery and a bulb, said casing forming a lead between the battery and bulb and having the halves thereof connected by an insulated connector, said switch including a spring having spaced contacts engageable with the two ends of the casing to complete the circuit between the battery and the bulb.

With these objects definitely in view, this invention resides in certain novel features of construction, combination and arrangement of elements and portions as will be hereinafter described in detail in the specification, particularly pointed out in the appended claims, and illustrated in the accompanying drawings which form a material part of this application and in which:

Figure 1 is a perspective view of a preferred embodiment of the invention and shows the lamp mounted in a rigid support secured to a supporting wall;

Figure 2 is a transverse vertical sectional view taken substantially upon the plane indicated by the section line 2—2 of Figure 1 and shows the general relationship of a casing containing a battery and a bulb, and its respective support which secures the same to a supporting wall;

Figure 3 is a longitudinal vertical sectional view taken through the center of the casing of Figure 2 and shows the manner in which the same is formed and the relationship of a battery and bulb disposed therein, also shown is a spring and an accompanying portion of the support, the spring being in engagement with the casing;

Figure 4 is a transverse horizontal sectional view taken substantially upon the plane indicated by the section line 4—4 of Figure 3 and shows the general cross-section of the casing and a connecting means for connecting together two end portions thereof;

2

Figure 5 is a front elevational view of the casing illustrated in Figure 3, said casing being provided with a modified form of support which also forms a switch for the light, the support being shown in its off position by solid lines and in a position completing a circuit between the battery and bulb by dotted lines; and

Figure 6 is an enlarged perspective view of the connector utilized for connecting together the two end portions of the casing.

Similar characters of reference designate similar or identical elements and portions throughout the specification and throughout the different views of the drawings.

Referring now to the drawings in detail, it will be seen that there is illustrated in Figure 3 a casing, which is referred to in general by the reference numeral 10, the casing forming a major portion of this invention. It will be noted that the casing 10 includes first and second tubular end portions 12 and 14, respectively, which are connected at their opposed ends by a connecting element 16. The opposed ends of the end portions 12 and 14 are internally threaded and the connector 16 is externally threaded so as to removably secure the end portions 12 and 14 together. It will be noted that the connector 16 includes an annular shoulder 18 positioned intermediate its ends and adapted to be engaged by the opposed ends of the end portions 12 and 14 to retain the same in spaced relation.

Disposed primarily in the end portion 12 is an elongated battery 20 of a conventional construction and having a contact 22 at one end thereof. The contact 22 is in engagement with a contact 24 at the base of a conventional low voltage bulb 26. The bulb 26 is secured within the end portion 14 by a pair of spring fingers 28 and 30 having inturned end portions 32 and 34, respectively, engaged between adjacent threads of the base of the bulb 26, the extreme ends of the end portions 32 and 34 being longitudinally offset. It will be noted that the battery 20 is spring urged into engagement with the bulb 26 by a coil spring 36 disposed within the outer end of the end portion 32 and engaging an end plate 38 closing the same. The end portion 14 is provided with an end plate 40 which has a recess central portion 42, the recess central portion 42 being provided with a centrally located bore 44 through which extends the extreme tip of the bulb 26 whereby light may shine therethrough. It will be noted that the end plates 38 and 40 are of greater diameter than the end portions 12 and 14 of which they are a part and form outwardly projecting annular shoulders at the ends of the casing 10.

Inasmuch as the end portions 12 and 14 are utilized to form a second lead in the circuit between the battery 20 and the bulb 26, it will be noted that the bulb 26 is not normally lit due to the fact that the end portions 12 and 14 are insulated from each other and the circuit is not complete. It is, therefore, necessary to provide means for selectively engaging the end portions 12 and 14 for completing the circuit between the battery 20 and the bulb 26.

Referring now to Figures 1 and 2 in particular, it will be seen that the casing 10 is mounted in a support, which is referred to in general by the reference numeral 46. The support 46 includes a housing 48 which is generally rectangular in cross section and has vertically projecting flanges 50 and 52 at the upper and lower ends thereof. The flanges 50 and 52 are secured to a supporting surface 54 by conventional screws 56 countersunk in holes therethrough. The front edge of the housing 48 is rounded and in the form of a vertically extending sleeve 58 having a longitudinally extending vertical bore 60 therethrough. The casing 10 is disposed within the bore 60 and limited in movement therethrough by the end plates 38 and 40 which engage the upper and lower ends of the

3

housing 48 upon sliding movement of the casing 10 through the bore 60.

In order that the circuit between the battery 20 and the bulb 26 may be completed, the sleeve 58 includes an offset portion 62 forming a recess 64 offset from the main portion of the bore 60. Disposed within the recess 64 is a spring element 66 which is secured to the offset portion 62 by a rivet 68. The spring element 66 is provided with spaced contacts 70 and 72 which are adapted to engage the casing 10. It will be noted that the casing 10 is normally positioned with the end portion 14 extending downwardly from the bottom of the housing 48 and the contacts 70 and 72 of the spring element 66 engage the outer surface of the end portion 12. When the casing 10 is moved upwardly through the bore 60, the contact 70 remains in engagement with the end portion 12 while the contacts 72 moves over the annular shoulder 18 of the insulator connector 16 and engages the end portion 14. Inasmuch as the spring element 66 electrically connects the end portion 12 to the end portion 14, the circuit between the battery 20 and the bulb 26 is completed when the casing 10 is in its uppermost position within the bore 60. It will be understood that the support 46 is adapted to be mounted on a door or the like about a lock mechanism (not shown) therein and that the casing 10 may be moved to an operative position by upward movement of the hand holding a key (not shown) for the latch mechanism. The lamp 26 may be turned off by merely bumping the casing 10 into its downwardly projecting position.

Referring now to Figure 5 in particular, it will be seen that there is illustrated a modified form of support for the casing 10. Inasmuch as it is often desirable to carry a tiny flashlight or the like for illuminating key holes, the casing 10 has been provided with a support in the form of a spring clip, which is referred to in general by the reference numeral 74. It will be noted that the spring clip 74 includes a U-shaped upper portion 76 which partially surrounds the upper part of the end portion 12 of the casing 10 and firmly clamps the clip thereto. Integral with the U-shaped portion 76 and projecting downwardly therefrom is a resilient leg 78 which is offset from the casing 10 intermediate its ends and having a lower end 80 which is rounded and resiliently engaging the external surface of the casing 10. It will be understood that the clip element 74 is of the type normally utilized with pencils, pens, etc., for retaining an element in a pocket or a like carrying space. The leg 78 is intended for engagement over the front of a pocket and clamps the front of the pocket against the casing 10 whereby movement of the casing 10 out of the pocket is prevented. The U-shaped portion 76 forms a first contact and the end 80 forms a second contact whereby when the clip 74 is moved to the position illustrated by dotted lines the U-shaped portion 76 engages the end portion 12 of the casing 10 and the end 80 engages the end portion 14 thereby completing

4

the circuit between the two. In view of the foregoing, it will be seen that the lamp 26, when the casing 10 is provided with the spring clip 74 may be lit by merely sliding the casing 10 with respect to the spring clip.

The operation of this device will be understood from the foregoing description of the details thereof, taken in connection with the above recited objects and drawings. Further description would appear to be unnecessary.

Minor modifications of the device, varying in minor details from the embodiment of the device illustrated and described here, may be resorted to without departure from the spirit and scope of this invention, as defined in the appended claims.

Having described the invention, what is claimed as new is:

1. An electric light comprising a casing for holding one terminal of a battery in engagement with one terminal of an associated bulb, a support for said casing, cooperating switch means carried by said support, said switch means being actuated by movement of said casing with respect to said support, said support including a spring having spaced points of contact with said casing, said casing forming a lead for connecting a second terminal of the battery with a second terminal of the bulb, one end of said casing being insulated from the other, said spring being adapted to simultaneously contact both ends of said casing to complete a circuit between the battery and the bulb, said support including a housing having a sleeve portion guidingly receiving said casing and providing a permanent support for the same.
2. A utility lamp comprising a non-conductive support, said support including a sleeve portion, an elongated tubular casing guidingly disposed within said sleeve portion for movement therethrough, said casing including first and second conductive end portions connected together by an insulated central portion, a bulb removably carried by said first end portion, a battery disposed within said casing having a first terminal retained in engagement with a first terminal of said bulb, a second terminal of said battery being connected to said second end portion, a second terminal of said bulb being connected to said first end portion, stationary switch means carried by said support for selectively electrically connecting said first and second end portions upon positioning of said casing relative to said sleeve, said switch means including a spring carried by said sleeve portion and having spaced ends extending thereinto and engaging said casing.

References Cited in the file of this patent

UNITED STATES PATENTS

1,195,728	Recker	Aug. 22, 1916
2,386,255	Morey	Oct. 9, 1945
2,480,800	Wickwire	Aug. 30, 1949
2,481,295	Corigliano	Sept. 6, 1949
2,580,258	Tarasuk	Dec. 25, 1951