B. BENEDICT.

FLASH LIGHT.

APPLICATION FILED NOV. 19, 1915.

1,246,042. Patented Nov. 13, 1917.

Fig. 1.

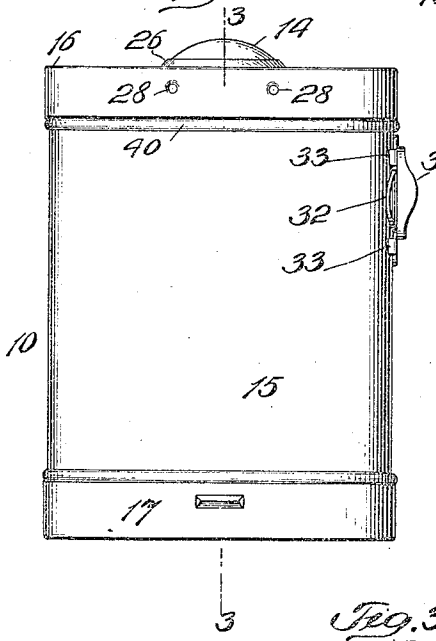


Fig. 2.

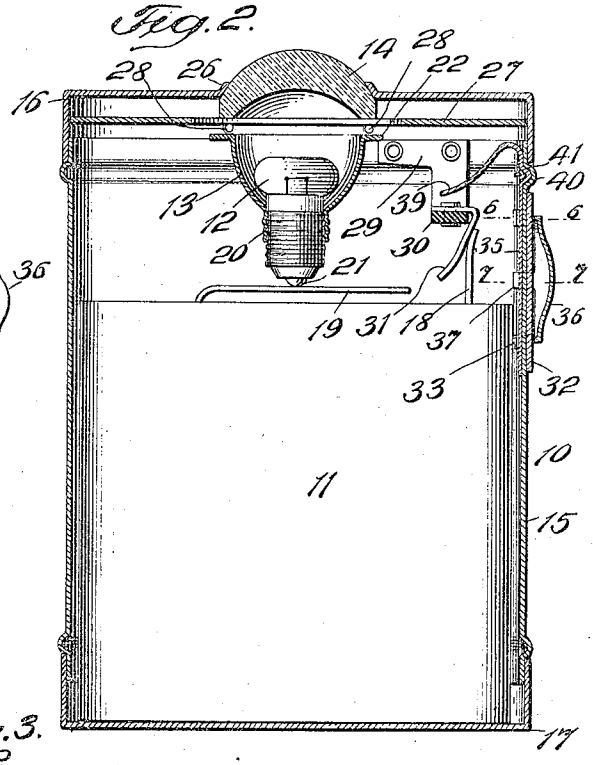


Fig. 3.

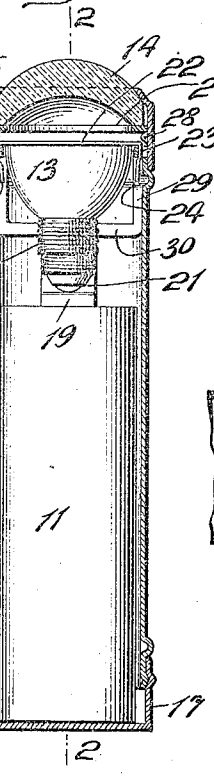


Fig. 4.

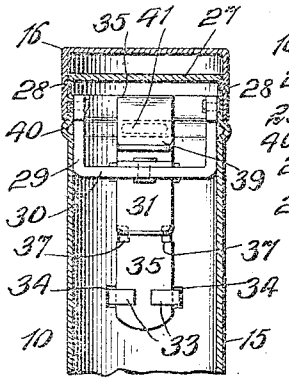


Fig. 5.

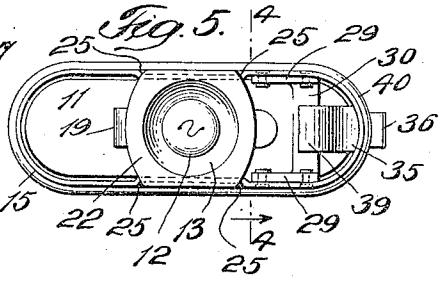


Fig. 6.

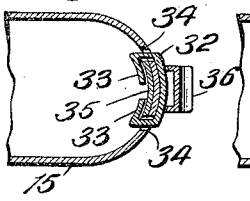
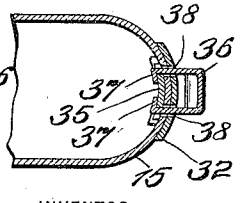


Fig. 7.



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BERNARD BENEDICT, OF NEW YORK, N. Y., ASSIGNOR TO BEACON MINIATURE ELECTRIC CO., INC., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

FLASH-LIGHT.

1,246,042. Specification of Letters Patent. Patented Nov. 13, 1917.

Application filed November 19, 1915. Serial No. 62,303.

To all whom it may concern:

Be it known that I, BERNARD BENEDICT, a citizen of the United States, and a resident of New York city, in the county of Bronx and State of New York, have invented certain new and useful Improvements in Flash-Lights, of which the following is a specification.

The invention pertains more particularly to a novel construction of flash light adapted to be carried in the pocket, and by preference the casing of this flash light will have flattened sides and rounded edge portions connecting said sides. The lower end of the casing has a hinged bottom and at the upper end of the casing there is provided a lid adapted to hold a lens over an electric bulb supported in a socket which is fastened to the edges of the casing below said cover. A battery of usual character and possessing the customary terminals will be used within the case and the casing is provided with a permanent contact to be in constant electrical connection with one of said terminals while the other terminal engages one lamp terminal. The casing is of metal and provided with a slidable switch adapted for manual operation, the circuit through the lamp being completed when said switch is moved into engagement with the permanent contact carried by the casing and being broken when said switch, by means of a thumb piece or slide provided on the casing, is moved from engagement with said contact.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which:

Figure 1 is a side elevation of a flash light constructed in accordance with and embodying the invention;

Fig. 2 is a vertical section on a larger scale through the same, taken on the dotted line 2—2 of Fig. 3 as viewed from the right;

Fig. 3 is a section through the same, taken on the dotted line 3—3 of Fig 1 as viewed from the left;

Fig. 4 is a vertical section through a portion of the casing of the light, taken on the dotted line 4—4 of Fig. 5 as viewed from the left;

Fig. 5 is a top view of the flash light with the cover removed;

Fig. 6 is a horizontal section through a portion of the same, taken on the dotted line 6—6 of Fig. 2, and

Fig. 7 is a horizontal section through a portion of the same, taken on the dotted line 7—7 of Fig. 2.

In the drawings, 10 designates the exterior casing of the flash light, 11 the battery, 12 the lamp, 13 a reflector receiving the lamp bulb and 14 the customary lens over the lamp. The receptacle 10 comprises a body portion 15, a cover 16 applied upon the upper end thereof, and a hinged bottom 17 at the lower end of said body portion. The casing or receptacle 10 is of metal and it has flattened sides connected by rounded edge portions and the receptacle is of convenient size to be held in the hand or carried in the pocket. The battery 11 is of usual commercial character and equipped with the customary terminals 18, 19.

The reflector 13 has a lower threaded neck portion 20 to receive the stem of the lamp 12, which has one terminal 21 in engagement with the battery terminal 19. The reflector 13 is formed of metal and at its upper edge has a horizontal flange 22 whose edges at the opposite sides of the casing 10 are formed with depending flanges 23 having at the central portion of their lower edges narrow flanges or fingers 24. The upper opposite side portions of the casing body 15 are depressed, as at 25, to receive the flanges 23 and the metal of said body 15 at the base of such depressed portions 25 is slit, as shown in Fig. 3, to receive the depending flanges or fingers 24. The flange 22 of the reflector fits closely upon the opposite side edges of the casing body 15 and the small flanges or fingers 24 are sprung slightly inwardly so as to aid in firmly holding the reflector 13 in position, while at the same time allowing said reflector to be detached from the body 15 whenever it may be desired to remove the reflector from the casing 10.

The cover 16 has an opening in its top surrounded by an upwardly turned lip or flange 26 which engages the lens 14, as shown in Fig. 2. Within the cover 16 is provided a horizontal partition or plate 27 which has an open center and is spaced from the top of the cover. The edges of the lens 14 are, at opposite sides of the lamp, caught between the partition or plate 27 and the top of the cover 16, and hence said plate or partition 27 coöperating with the flange 26

serves to hold the lens in position. The lens-holding partition or plate 27 is sprung into the cover 16, and hence may be detached therefrom in the event that a new lens 14 might be required. I secure the partition or plate 27 in position by indentations 28 in the sides of the cover 16, these indentations forming small studs above which the plate 27 may be moved and which serve to support said plate or partition.

Within one edge portion of the casing 10 I secure to the opposite inner sides thereof a yoke 29 of fiber or other non-conducting material, this yoke extending downwardly and having secured to its transverse member 30 a conducting plate 31, this plate 31 being rigidly secured to the said member 30 and extending downwardly and inwardly on an inclined line and affording a spring contact against which the terminal 18 of the battery will pass on the introduction of the battery to the casing 10. The conductor or contact 31 has a horizontal upper end portion which is insulated from the casing 10 by means of the yoke 29. The plate or contact 31 is in constant engagement with the terminal 18 of the battery, but is normally out of circuit through the lamp.

Upon the exterior of the casing 10 is secured an escutcheon plate 32 having lips 33 which are inserted through holes 34 in the casing 10 and then bent inwardly toward each other and upon a slidable strip or conductor 35, as more clearly shown in Fig. 6, said lips 33 serving not only to hold the escutcheon plate 32 in position, but also as guides for the strip 35. Upon the escutcheon plate 32 is mounted a thumb piece or slide 36 having at its opposite sides fingers 37 which pass through slots 38 in the escutcheon 32 and corresponding slots in the casing 10 and are bent inwardly at their inner ends to engage the conducting strip 35, the opposite edges of said strip 35 being recessed to receive the lips 37, whereby said lips and strip become interlocked and the slide or thumb piece 36 is permitted, when actuated, to move the strip 35 upwardly or downwardly within the guides afforded by the lips 33 of the escutcheon plate 32. The upper end of the conducting strip 35 is bent inwardly and downwardly and terminates above the upper horizontal portion of the contact plate 31, said upper portion of the strip 35 constituting a make and break switch 39. When the thumb piece 36 is moved downwardly it carries the strip 35 with it and causes the switch 39 to engage the upper portion of the plate 31 and at that time the circuit is completed from the battery terminal 19 through the lamp, casing 10, switch 39, plate 31 and battery terminal 18. When the thumb piece or slide 36 is pushed upwardly, it causes the strip 35 to slide upwardly and the switch portion 39 thereof to leave the contact plate 31, thereby breaking the circuit. Near its upper edge the body portion 15 of the casing 10 is formed with an encompassing outwardly projecting beading 40, and near its upper end the strip 35 is formed with an outwardly projecting indentation or stud 41 to engage the groove formed by the beading 40 for locking the strip 35 in its upper position and the switch 39 out of engagement with the plate 31, as shown in Fig. 2. The strip 35 is of spring metal, and hence the stud 41 may spring into the groove formed by the beading 40, and in addition on the descent of the thumb piece or slide 36, the said stud 41 may leave its seat in the beading 40 and slide against the inner surface of the casing 10.

My invention resides more particularly in the construction of the upper portion of the casing 10 and in the means provided by me for establishing and controlling the circuit through the lamp.

What I claim as my invention and desire to secure by Letters-Patent, is:

1. A portable electric light comprising a casing supporting a lens and an electric lamp bulb one terminal of which is in electrical connection with the casing and the other being projected within the casing, a battery having one terminal in engagement with the inwardly projecting terminal of the lamp bulb and a second terminal, a contact plate carried by and insulated from the casing and extending downwardly into position to be engaged by said second terminal of the battery upon the introduction of the battery to the casing, a slidable switch within the casing, an escutcheon plate on the exterior of said casing having inwardly extending fingers engaging and forming guides for said switch, and an exterior thumb piece on the casing connected with said switch and adapted to move the same into engagement with said plate for completing the circuit or away therefrom for breaking the circuit.

2. A portable electric light comprising a casing supporting a lens and an electric lamp bulb one terminal of which is in electrical connection with the casing and the other being projected within the casing, a battery having one terminal in engagement with the inwardly projecting terminal of the lamp bulb and a second terminal, a non-conducting yoke secured to and extending transversely of the casing and having secured thereto a contact plate extending downwardly into position to be engaged by said second terminal of the battery upon the introduction of the battery to the casing, a slidable switch within the casing, an escutcheon plate on the exterior of said casing having inwardly extending fingers engaging and forming guides for the vertical por-

tion of said switch, and a thumb piece mounted on said escutcheon and having fingers extending through and guided by the same and connected with the said vertical portion of said switch and adapted on the movement of said thumb piece to carry said switch into engagement with said plate for completing the circuit or away therefrom for breaking the circuit.

3. A portable electric light comprising a casing supporting a lens and an electric lamp bulb one terminal of which is in electrical connection with the casing and the other being projected within the casing, a battery having one terminal in engagement with the inwardly projecting terminal of the lamp bulb and a second terminal, a non-conducting yoke secured to and extending transversely of the casing and having secured thereto a contact plate extending downwardly into position to be engaged by said second terminal of the battery upon the introduction of the battery to the casing, a slidable switch within the casing, an escutcheon plate on the exterior of said casing having inwardly extending fingers engaging and forming guides for the vertical portion of said switch, and a thumb piece mounted on said escutcheon and having fingers extending through and guided by the same and connected with the said vertical portion of said switch and adapted on the movement of said thumb piece to carry said switch into engagement with said plate for completing the circuit or away therefrom for breaking the circuit, the vertical portion of said switch and adjacent portion of said casing being correspondingly recessed for releasably locking said switch in its inoperative position.

4. A portable electric light comprising a casing supporting a lens and an electric lamp bulb one terminal of which is in electrical connection with the casing and the other being projected within the casing, a battery having one terminal in engagement with the inwardly projecting terminal of the lamp bulb and a second terminal, a contact plate carried by and insulated from the casing and extending downwardly into position to be engaged by said second terminal of the battery upon the introduction of the battery to the casing, a slidable switch within the casing, an escutcheon plate on the exterior of said casing having inwardly extending fingers engaging and forming guides for said switch, and a thumb piece mounted on said escutcheon and having fingers extending through and guided by the same and connected with said switch and adapted on the movement of said thumb piece to carry said switch into engagement with said plate for completing the circuit or away therefrom for breaking the circuit, the said switch and adjacent portion of said casing being correspondingly recessed for releasably locking said switch in its non-operative position.

5. A portable electric light having, in combination, a casing having a top cover adapted to be opened, the top cover having a lens-receiving opening therein, a lens at the inside of the top cover and projecting outward partly through said opening, and a removable lens-holding member sprung into place in the top cover for removably holding the lens in place in the opening in the top cover of the casing.

6. A portable electric light having, in combination, a casing having a top cover adapted to be opened, the top cover having a lens-receiving opening therein, a lens at the inside of the top cover and projecting outward partly through said opening, and a lens-holding plate detachably held in the top cover inward from the lens and engaging the lens for removably holding the lens in place in the opening in the top cover of the casing.

Signed at New York city, in the county of New York and State of New York, this 3rd day of November, A. D. 1915.

BERNARD BENEDICT.

Witnesses:
ARTHUR MARION,
CHAS. C. GILL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."