G. W. WACKER.

FLASH LIGHT CONTAINER.

APPLICATION FILED MAY 5, 1917.

1,316,870. Patented Sept. 23, 1919.

Fig: 1.

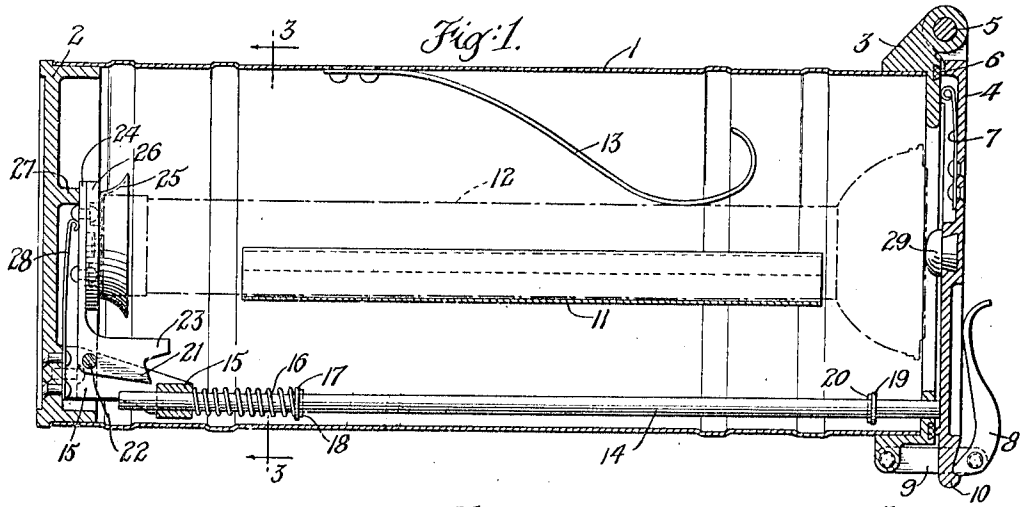


Fig: 2.

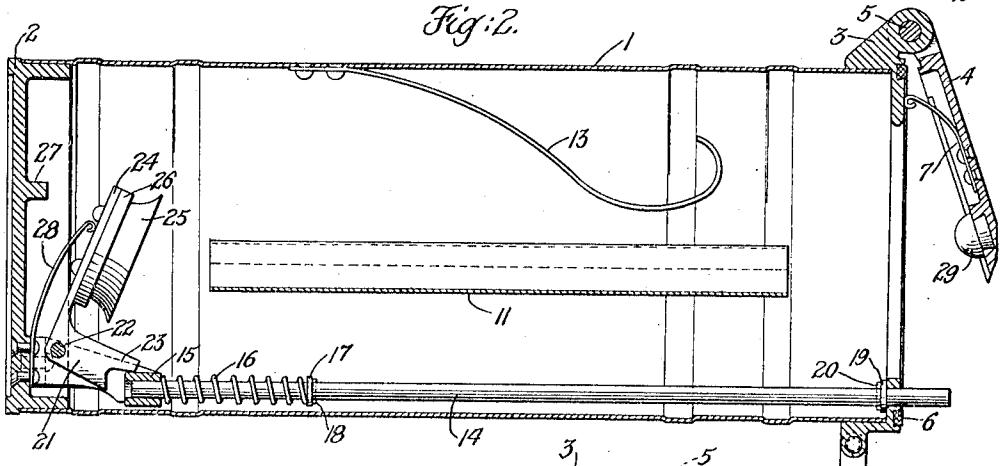


Fig: 3.

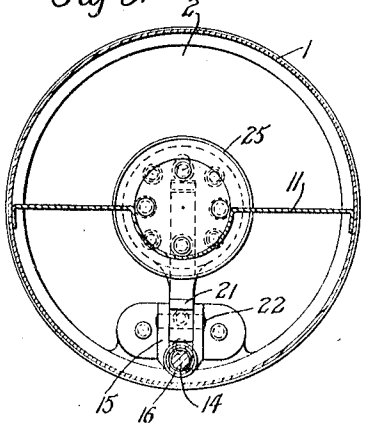
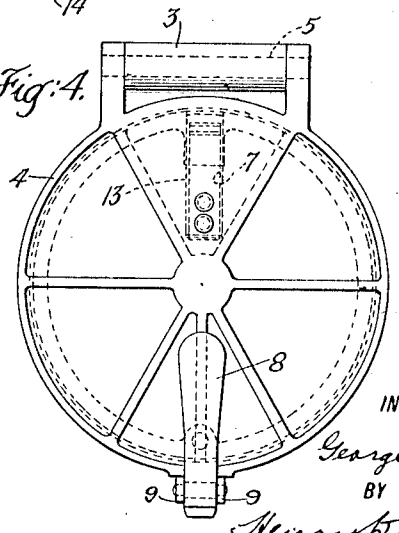
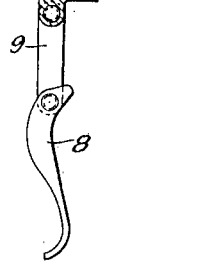


Fig: 4.





INVENTOR

George W. Wacker

BY

Henry H. Williams

ATTORNEY

UNITED STATES PATENT OFFICE.

GEORGE W. WACKER, OF RUTHERFORD, NEW JERSEY, ASSIGNOR TO NATIONAL CARBON COMPANY, INC., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

FLASH-LIGHT CONTAINER.

1,316,870. Specification of Letters Patent. Patented Sept. 23, 1919.

Application filed May 5, 1917. Serial No. 166,536.

To all whom it may concern:

Be it known that I, GEORGE W. WACKER, a citizen of the United States, residing at Rutherford, in the county of Bergen and State of New Jersey, have invented certain new and useful Improvements in Flash-Light Containers, of which the following is a specification, reference being had therein to the accompanying drawings, forming part thereof.

My invention relates to containers or receptacles and has for its principal object to provide a suitable container for a flashlight for use on life boats or other boats or under other similar circumstances and which will protect the inclosed flashlight from the elements and which shall be of such a construction as to assure that the flashlight shall always be in its place within the container without the necessity of being compelled to look into the container to see whether the flashlight is there. In this connection a more particular object of my invention is to provide such a flashlight container in which merely a glance of the eye or a touch of the hand will be sufficient to determine whether or not the flashlight is contained therein. Other more particular objects and advantages of my invention will hereinafter appear.

My invention broadly includes a container provided with signaling means for automatically disclosing whether or not a flashlight is contained therein. My invention more particularly includes such a container provided with a cover or door which cannot be closed unless the flashlight is within the container and which by its open position indicates the absence of the flashlight or by its closed position indicates that the flashlight is within the container. My invention further includes means for preventing the closing of the door, such means being released by the flashlight as it moves into the container. My invention also includes several detail features of construction and combinations of parts as will appear from the following description.

I shall now describe the flashlight container embodying my invention illustrated in the accompanying drawings and shall thereafter point out my invention in claims.

Figure 1 is a longitudinal central vertical section of the complete container with a flashlight contained therein and indicated in outline by broken lines, the hinged door or cover of the container being closed and latched in the closed position.

Fig. 2 is a similar view with the flashlight absent and illustrates the door held open at a conspicuous angle by its opening spring and the safety means in position for preventing the door from being closed sufficiently to latch it, parts of the open door being broken away.

Fig. 3 is a transverse section on a plane indicated by the line 3—3 of Fig. 1 as viewed from the right.

Fig. 4 is an end view of the front end of the container as seen from the right in Fig. 1.

The flashlight container embodying my invention illustrated in the accompanying drawings comprises a comparatively thin sheet metal tube or casing part 1 which is permanently closed at its rear end by a metal head 2 and permanently provided at its other or front end with a metallic annular cover-supporting ring 3 to which a metallic cover 4 is hinged by means of a pintle pin 5, the hinge being placed at the top. The end ring 3 is provided with a gasket 6 for effecting a water-tight seal with the cover 4. A leaf spring 7, shown as secured by rivets to the inner side of the door or cover 4, projects upwardly and at its upper inwardly turned rounded end engages with the adjacent surface of the end ring 3 at a point spaced downwardly from the hinged pintle pin 5 and within or below the sealing gasket 6, and this spring 7 when unrestrained will open the hinged door 4 and will hold this door open at a wide and conspicuous angle, substantially as is clearly illustrated in Fig. 2 of the drawings. A latch device is provided for locking the hinged cover or door 4 in the closed position against the tension of the door-opening spring 7 and this latch comprises a manually operable catch member 8 which is pivotally connected by means of toggle links 9 to the cover-supporting ring 3 at a point opposite to the hinge pivot 5, the manually operable catch member 8 being adapted to engage in a recess formed in the outer side of a downward projection 10 from the hinged cover or door 4, as is clearly illustrated in Fig. 1 of the drawings.

Within the container a longitudinally extending transverse shelf or partition 11 having, as appears in the drawings, a longitudinally extending semi-circular depressed part, is provided for supporting a tubular flashlight 12 centrally of the cylindrical casing part 1 and shown in outline by means of broken lines in Fig. 1 of the drawings. A curved spring 13, secured by means of rivets at its rear end to the tubular casing part 1, extends forwardly and downwardly and presses upon the flashlight 12 toward the front end thereof and holds the flashlight in place upon the supporting partition or shelf 11. Safety means now to be described are provided for preventing the latching or locking in closed position of the hinged door 4 unless a flashlight, for example, the tubular flashlight 12, is in place upon the supporting shelf 11 within the container and whereby the hinged door 4 will then be held widely open at a conspicuous angle by its opening spring 7, as is illustrated in Fig. 2, so that this widely open door 4 thereby constitutes a visual signal for quickly and absolutely determining, merely by a glance at the container, whether or not the flashlight 12 is contained therein, or in case of darkness the open or closed condition of the door 4 is readily ascertainable merely by a touch of the hand, thereby in either case assuring that the flashlight may be obtained from its container when needed.

In the construction illustrated in the drawings a longitudinally slidable abutment rod 14 extends longitudinally in the lower part of the casing shell 1 and at its forward end passes through an opening in and is guided by the door-supporting ring 3 and at its rear end has a slidable bearing in and is guided by a bracket 15 which projects forward from and is shown as secured to the inner side of the rear closure or head 2 adjacent to the lower edge thereof. A coiled thrust spring 16 surrounds the abutment-providing push rod 14 between the forward side of the guide bracket 15 and a thrust ring or collar 17, shown as held in place on the rod 14 by a pin 18, so that the thrust spring 16 constantly tends to slide the abutment-forming rod 14 forward to the position appearing in Fig. 2 in which the forward end of this rod projects for a considerable distance to the front of and beyond the front door-supporting ring 3, the forwarding movement of this slidable rod 14 being limited by means of an abutment collar 19 thereon held in place by a pin 20 through the rod 14 and engaging the door-supporting ring 3 as shown in Fig. 2. It will now be noted that the slidable abutment rod 14 must be pushed inward against the tension of its thrust spring 16 by the hinged cover or door 4 as the latter is moved to its closed position, and it should also be noted that the manually operable catch 8 of the latch device cannot be engaged with the locking projection 10 of the door 4 until the door has reached its completely closed position appearing in Fig. 1.

An abutment-forming pawl 21 is pivoted on the bracket 15 adjacent to the rear head 2 by means of a pivot pin 22 and is adapted in its lower position appearing in Fig. 2 to lie in the path of the rear end of the abutment-forming slidable push rod 14 so as to prevent a sufficient rearward movement of this abutment-forming push rod for the closing and locking of the door 4, as will be perfectly clear from an inspection of Fig. 2. The free rod-engaging end of the abutment pawl 21 is shown as provided with an upper extension or projection 23 for engaging the upper side of the guide bracket 15 for thereby limiting the downward movement of this pawl 21, as clearly appears in Fig. 2. In its upper or elevated position the abutment pawl 21 is out of the path of the rearwardly moving end of the rear end of the slidable push rod 14 so as to permit this rod to be freely pushed inward by the closing door 4 against the tension of its thrust spring 16 as clearly appears in Fig. 1. The pivoted abutment pawl 21 is shown as provided with an upstanding arm 24 which forms a bell-crank therewith and which extends upward into alinement with and into the path of movement of the rear end of the flashlight 12 so as to be operated thereby as the flashlight is pushed into the container. The upstanding lever arm 24 of the abutment-forming pawl 21 carries on its forward side a forwardly-directed shallow flaring or bell-shaped socket 25 adapted to receive therein the rear end of the flashlight 12 and to render additional support to the latter over that afforded by the shelf 11 and spring 13. Preferably and as shown in the drawings the metallic socket 25 is insulated from the upstanding metallic lever arm 24 by means of an interposed insulating disk 26 for thereby preventing the short-circuiting of flashlights as such lights are sometimes constructed. An abutment lug 27 shown as formed upon the inner side of the casing head 2 limits the rearward movement of the upstanding lever arm 24 and correspondingly limits the upward movement of the abutment-forming pawl 21. A curved leaf spring 28 is secured at its lower end, for example by means of rivets as shown, to the inside of the casing head 2 and presses at its upper turned over end against the back of the upstanding lever arm 24 and tends constantly to push this lever arm 24 forward from its vertical position appearing in Fig. 1 to the inclined position appearing in Fig. 2 and thereby to lower the abutment pawl 21 from its elevated position shown in Fig. 1 to its lower abutment-form-

ing position shown in Fig. 2. A soft and resilient button 29 is carried by the hinged cover or door 4 at the inside and center thereof in position to engage the forward end or usual glass or lens of the flashlight 12, as is clearly shown in Fig. 1, this button 29 being of suitable material, such as soft rubber.

The operation and manner of use of the flashlight container of my invention will now be more particularly described in view of the foregoing description of the construction thereof in the embodiment illustrated in the accompanying drawings. When the flashlight 12 is inserted into the front end of the casing part 1 through the open raised door 4 upon the supporting partition 11, the advancing rear end thereof will push up the curved forward end of the flashlight-holding spring 13 and as the flashlight 12 continues its inward movement the rear end thereof will engage with the socket 25 in the position of this socket appearing in Fig. 2 and upon further inward movement the flashlight 12 will push rearwardly the upstanding operating arm 24 to the upright or vertical position thereof appearing in Fig. 1, thereby raising the free end of the abutment pawl 21 out of the path of the rear end of the abutment-forming push rod 14. The flashlight 12 may be pushed to its final rearward position appearing in Fig. 1 by the rubber button 29 in the closing movement of the hinged cover or door 4, the proportion and arrangement of the parts being such that the pawl 21 will be lifted out of the path of the rear end of the push rod 14 in time to permit this rod 14 to be pushed inward by the door 4 during the final stages of its closing movement. It will be noted that this final closing movement of the door 4 is opposed by all of the three springs, 7, 16 and 28. The manually closed door 4 may now be locked in its completely closed position or condition by means of the hereinbefore described catch device including the manually operatable catch member 8, and this is the condition of the container with the flashlight contained therein which is illustrated in Fig. 1 of the drawings. Should an attempt be made to close the door 4 in the absence of the flashlight 12 therefrom, this door can then only be moved until it engages or abuts against the outer projecting end of the abutment-forming slidable push rod 14 whose rearward movement to an extent sufficient to affect the latching or locking of the door 4 is prevented by the lowered abutment pawl 21, as hereinbefore described and as will be clear from an inspection of Fig. 2 of the drawings. Moreover when the door 4 is released after the removal of the flashlight 12 therefrom, it not only cannot be latched in a closed condition, but it will be held open at a very conspicuous angle by its spring 7, as is illustrated in Fig. 2, thereby making it clearly apparent to the most casual observer that the container is empty. On the other hand it is equally apparent from the most casual inspection of the container in its closed condition as illustrated in Fig. 1 that the flashlight 12 is contained therein ready for use when desired.

It is obvious that various modifications may be made in the construction shown in the drawings and above particularly described within the principle and scope of my invention.

I claim:

1. A flashlight container comprising a tubular casing shell, a closure for one end thereof, a hinged cover for the other end thereof, means for permitting the closing of said hinged cover only when a flashlight is contained within the container and for preventing the closing of said hinged cover in the absence of said flashlight from the container, and further means for holding the unclosed cover in a projecting position so it will thereby form an unmistakable signal.

2. A flashlight container comprising a tubular casing part adapted to receive a flashlight therein, a head closing one end of said tubular casing part, a hinged door or cover for the other end of said tubular casing part, automatically acting means for moving said door to the open position, a catch device for holding said door closed in opposition to its automatic tendency to open, and abutment means within the container operative to prevent the closing and latching of the door when the container is empty but adapted to be operated by a flashlight within the container so as to permit the door to be closed and latched.

3. The invention claimed in claim 2 in which said abutment means include a slidable spring-pressed rod extending longitudinally of the tubular casing part and adapted to project from the front of the container in the path of the door in its closing movement, and a movable abutment in the path of said rod and adapted to be moved out of the path of said rod by a flashlight inserted into the container.

4. A flashlight container comprising a tubular shell or casing part, a head closing one end thereof, a door or cover for the other end of the tubular casing shell hinged thereto and including automatically acting means for moving the door to a conspicuously open position, a latch device for locking the door in the closed position, an abutment rod slidable longitudinally within the tubular casing part and adapted to project from the front end thereof in the path of the door as the latter is closed, and means within the container for preventing said sliding rod from being pushed in by the door, said means being operable by a flashlight within

the container to disengage and release said sliding rod for permitting the door to be closed and latched.

5. A flashlight container comprising a tubular casing part, a head closing one end thereof, a hinged door for closing the other end thereof, automatically acting means for moving the door to a conspicuously open position, a catch for locking the door in the closed position, a rod slidable longitudinally within the tubular casing part and adapted to project from the front end thereof in the path of the door as the latter is closed, a spring tending to push said slidable rod forward to its projecting door-engaging position, and a movable member adjacent to said head adapted to form an abutment in the path of the inner end of said rod and adapted to be disengaged from said rod by the advancing end of a flashlight as the latter is pushed into the container.

6. A flashlight container comprising a tubular casing part or shell, a head closing one end thereof, a hinged cover or door for closing the other end thereof, a slidable abutment rod guided in and extending longitudinally of said tubular casing part and adapted to project therefrom in the path of the door in its closing movement, a spring tending to push said abutment rod to its projecting door-intercepting position, a pivoted pawl within the container adjacent to said head and adapted to form an abutment for the inner end of the said abutment rod, said pivoted pawl having a lever arm projecting into the path of a flashlight to be engaged by the inner advancing end of the flashlight for holding said pawl out of the path of said abutment rod, whereby the door may be closed when a flashlight is inserted into the container and whereby the door is prevented from being closed in the absence of said flashlight from the container.

7. The invention claimed in claim 6 in combination with a door-opening spring for holding the door open at a conspicuous angle, and a latch for locking the door in the closed position.

8. The invention claimed in claim 6 in which the casing shell is of a length as compared with the length of the flashlight to be received therein so that the hinged door in its closing movement will push the flashlight backward therein sufficiently to cause the rear end of the flashlight to move the pivoted pawl to the disengaging position in reference to said slidable abutment rod.

9. The invention claimed in claim 8 in combination with a support within the container for the flashlight, and a spring for pressing upon said flashlight to hold it upon its support.

10. The invention claimed in claim 9 in combination with a socket provided on the lever arm of the pivoted pawl for receiving and holding in place the rear or inner end of the flashlight.

11. The invention claimed in claim 6 in combination with a spring for pressing the pivoted pawl to its engaging position.

In testimony whereof I have affixed my signature.

GEORGE W. WACKER.

Witnesses:
W. WALLER,
J. W. VOORHIS.

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