July 7, 1953 J. W. JOHNSON 2,644,936

GUN-TYPE FLASHLIGHT HOLDER

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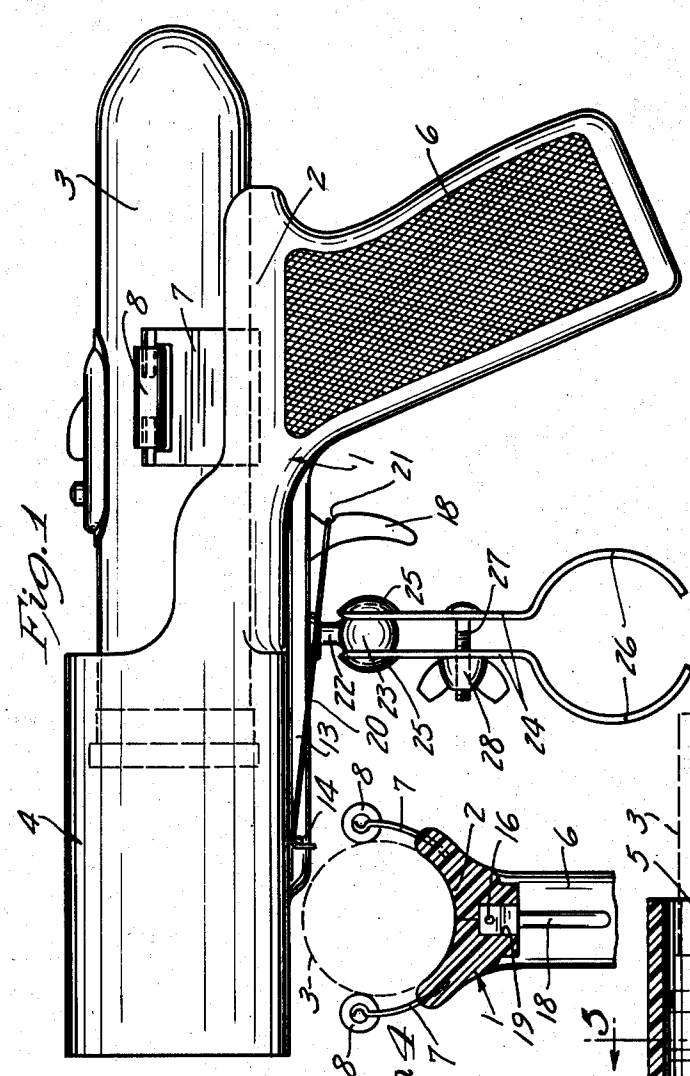


Fig. 1

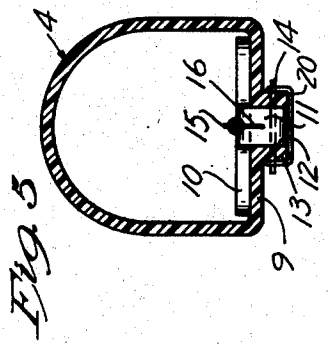


Fig. 5

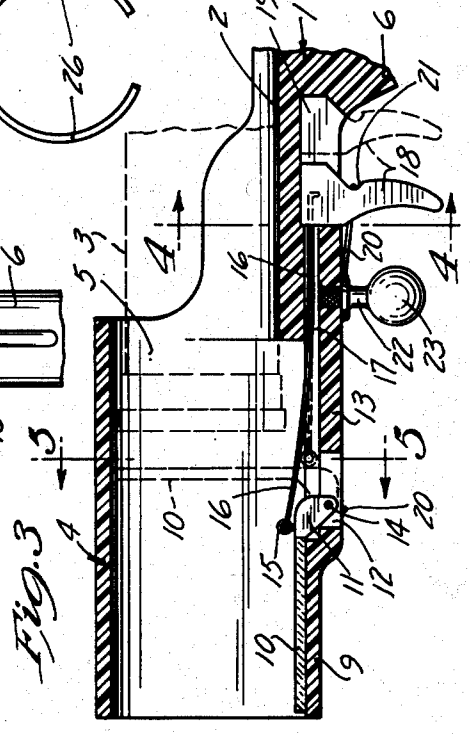


Fig. 3

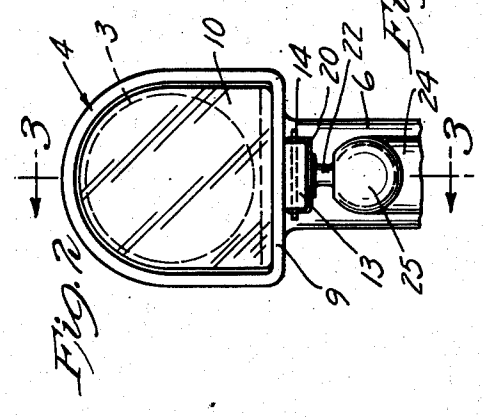


Fig. 2



Fig. 4

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GUN-TYPE FLASHLIGHT HOLDER

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8 Claims. (Cl. 340—321)

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My invention relates generally to flashlight mounting devices, and more particularly to a combination flashlight holder and signalling device.

More particularly, my invention is in the nature of a flashlight holder and signalling device which may be carried about in the hand or mounted on a suitable portion of a vehicle, such as the handlebar of a bicycle, and the like.

An important object of my invention is the provision of a flashlight holder which may be used, when desired, as a signalling device of the blinker type, and which at the same time may serve as a warning signal for pedestrian travel at night.

Another object of my invention is the provision of a combination flashlight holder and signalling device which may be held comfortably in one hand and which may be manipulated by the user with a minimum of effort. To this end, I provide a cradle in which a flashlight may be detachably secured, said cradle having a tubular head at one end into which the head of the flashlight projects, and a pistol grip handle adjacent its other end. A shutter is mounted within the head for pivotal movements toward and away from an operative position in front of the flashlight lens, and is operated by manipulation of a trigger mounted on the cradle forwardly of the depending handle thereof, and of easy access to the trigger finger of the user.

Another object of my invention is the provision of means whereby the flashlight may be quickly and easily attached to or detached from the cradle of my device.

A still further object of my invention is the provision of a flashlight holder and signalling device having a tubular translucent head through the side walls of which at least a portion of the light from the flashlight may be seen at a safe distance, and an opaque shutter movable into and out of an operative position, wherein the normal light beam projecting through the front end of the head may be cut off entirely.

Still another object of my invention is the provision of a flashlight holder, as set forth, which may be quickly and easily attached to or detached from a base of support, such as the handlebar of a bicycle, and the like.

Another object of my invention is the provision of a gun-type flashlight holder and signalling device which is simple and inexpensive to manufacture, which is efficient in operation, and

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which is rugged in construction and durable in use.

The above and other highly important objects and advantages of my invention will become apparent from the following detailed specification, appended claims and attached drawings.

Referring to the drawings which illustrate the invention and in which like characters indicate like parts throughout the several views:

Fig. 1 is a view in side elevation of a gun-type flashlight holder and signalling device made in accordance with my invention.

Fig. 2 is a fragmentary front elevational view of the structure of Fig. 1.

Fig. 3 is a fragmentary longitudinal section taken substantially on the line 3—3 of Fig. 2. some parts being removed.

Fig. 4 is a fragmentary transverse section taken substantially on the line 4—4 of Fig. 3.

Fig. 5 is a transverse section taken on the line 5—5 of Fig. 3.

Referring with greater detail to the drawings, numeral 1 indicates a cradle or base having an upwardly opening notch or trough 2 to receive the barrel of a tubular type flashlight 3. The front end of the cradle 1 is formed to provide an open-ended tubular head 4, the rear end portion 5 of which is adapted to contain the head or lens of the flashlight 3. At its rear end portion, the cradle 1 is formed with a depending handle 6 which preferably, and as shown, is shaped in the manner of a pistol grip. The cradle 1, together with the head 4 and handle 6 are preferably formed as a monolithic structure molded from a suitable synthetic resin, or the like. It is also preferred that the tubular head 4 be translucent in nature and red in color, so that at least a portion of the light emanating from the flashlight 3 will shine therethrough, for a purpose which will hereinafter become apparent.

Means for detachably securing the flashlight 3 in the cradle 1 comprises a pair of opposed resilient arms 7 projecting upwardly from opposite sides of the cradle 1, and having at their upper ends cushioning devices in the nature of rubber tubing or the like 8. As clearly shown in Figs. 1 and 4, the cushioning members 8 are disposed well above the axis of the flashlight 3, so that the flashlight is firmly held seated in the trough 2. The resilient arms 7 exert a yielding bias toward each other and are moved laterally outwardly from their normal positions when the flashlight 3 is placed in the cradle. From the above, it should be obvious that placing the

flashlight in the cradle, or removing the same therefrom, requires but a few seconds time, so that the flashlight is always ready for conventional use apart from the cradle, if desired.

As clearly shown in Figs. 2 and 5, the tubular head 4 is formed to provide a relatively flat bottom portion 9. A shutter 10 made of flat opaque material is contained within the head 4, and normally lies flat against the flat bottom wall 9 thereof. At its rear end, the shutter 10 is provided with a hinge lug 11 which extends rearwardly and downwardly into an opening 12 which extends downwardly through the portion 13 of the bottom wall 9. A hinge pin 14 extends laterally through the reduced portion 13 and through the hinge element 11, whereby to mount the shutter 10 for swinging movements from its inoperative position adjacent the lower wall 9, as indicated by full lines in Figs. 3 and 5, to its operative position, wherein said shutter extends transversely of the tubular head 4, as indicated by full lines in Fig. 2, and by dotted lines in Fig. 3. With further reference to Fig. 3, it will be seen that, in its operative position, the shutter 10 is in forwardly spaced relation to the head or lens of the flashlight 3, so that, while cutting off the beam of light which normally extends longitudinally through the head 4 and outwardly therefrom, the shutter permits sufficient light to shine through the walls of the translucent head to make the same visible at night from an appreciable distance. A pivotal connection, in the nature of an eye bolt or the like 15, is rigidly secured to the hinge lug 11 in laterally offset relation to the hinge pin 14, and has pivotally secured thereto one end of a relatively rigid, but somewhat resilient, actuating rod 16 that extends rearwardly from the eyelet 15 through a longitudinal passage 17 in the cradle 1. The rear end of the actuating rod 16 is rigidly secured to a trigger 18 which is mounted for movements longitudinal of the cradle in a recess 19 therein forwardly of the handle 6. It will be seen, by reference to Fig. 1 and 3, that the trigger 18 is positioned so as to be easily engaged by the forefinger of the operator when the handle 6 is held in the same manner as a pistol. Yielding means in the nature of an endless band 20 of elastic material, such as rubber or the like, is looped about the upper end portion of the trigger 18, wherein a band-receiving notch is indicated at 21, and extended end portions of the pivot pin 14, see particularly Fig. 1. The band 20 is under tension to yieldingly bias the trigger 18 toward its full line, shutter-inoperative position of Fig. 3. Obviously, movement of the trigger 18 rearwardly toward its dotted line position of Fig. 3, will cause corresponding rearward movement of the actuator rod 16 and upward swinging movement of the shutter 10 toward its operative dotted line position of Fig. 3. Thus, the trigger 18 may be manipulated to operate the shutter 10 in the manner of a blinker signal, so that messages in code may be transmitted thereby in darkened rooms, or out of doors at night. Although the shutter 10 is preferably made from opaque material, the same may, if desired, be made from a translucent material of a color in contrast with that of the head 4.

My improved light-supporting and signalling device is extremely well adapted to be held in the hand for prolonged periods of time without undue fatigue or discomfort to the user. I further provide means for quickly and easily attaching the device to a suitable base of support, such

as the handlebar or frame of a bicycle, the gunwale of a boat, or the like. A shank 22 is rigidly secured to the cradle 1 forwardly of the trigger 18 and extends downwardly therefrom, terminating in a ball element 23, a pair of opposed identical clamping arms 24, having their upper ends formed to provide socket portions 25 which embrace opposed side portions of the wall element 23. At their lower end portions, the clamping arms 24 are bowed outwardly, as indicated at 26, whereby to partially encompass a suitable base of support, not shown. Intermediate their ends, the arms 24 are provided with aligned apertures through which extends a clamping screw 27 on one end of which is screw-threaded a clamping wing nut 28. The above arrangement permits my novel device to be quickly and easily attached on the base of support, and permits universal swinging movements of the cradle and parts carried thereby with respect to said base of support.

My invention has been thoroughly tested and found to be completely satisfactory for the accomplishment of the objectives set forth; and while I have shown and described a commercial embodiment of my novel flashlight holder, it will be understood that the same is capable of modification without departure from the spirit and scope of the invention as defined in the claims.

What I claim is:

1. In a device of the class described, a cradle for the reception of a tubular type flashlight, a tubular head on the forward end of said cradle for reception of the front end portion of said flashlight, a depending handle on the rear end portion of said cradle, means for yieldably holding said flashlight seated in the cradle, a shutter, and means mounting said shutter for pivotal movements in said head from a normal inoperative position adjacent one side of the head to an operative position transversely of said head forwardly of the front end of said flashlight.

2. In a device of the class described, a cradle for the reception of a tubular type flashlight, a tubular head on the forward end of said cradle for reception of the front end portion of said flashlight, a depending handle on the rear end portion of said cradle, means for yieldably holding said flashlight seated in the cradle, a shutter, means mounting said shutter for pivotal movements in said head from a normal inoperative position adjacent one side of the head to an operative position transversely of said head forwardly of the front end of said flashlight, yielding means biasing said shutter toward one limit of its pivotal movement, and manually-operated means for moving said shutter toward its opposite limit of movement against the bias of said yielding means.

3. In a device of the class described, a cradle for the reception of a tubular type flashlight, a tubular head on the forward end of said cradle for reception of the front end portion of said flashlight, a depending handle on the rear end portion of said cradle, means for yieldably holding said flashlight seated in the cradle, a shutter, means mounting said shutter for pivotal movements in said head from a normal inoperative position adjacent one side of the head to an operative position transversely of said head forwardly of the front end of said flashlight, yielding means biasing said shutter toward its normal inoperative position, and manually operated means for moving said shutter toward its operative position

against the bias of said yielding means, said manually operated means including a trigger adjacent said handle and operating connections between said trigger and said shutter.

4. The structure defined in claim 1, in which said head forwardly of the front end of the flashlight is translucent and in which said shutter is opaque, whereby when said shutter is moved to its upward position, light emanating from the flashlight will be cut off thereby.

5. In a device of the class described, a cradle for the reception of a tubular type flashlight, a translucent tubular head on the forward end of said cradle for the reception of the front end portion of said flashlight, a depending handle on the rear end portion of said cradle, spring clip means for yieldably holding said flashlight seated in the cradle, an opaque shutter, hinge means mounting said shutter for pivotal movements within said head from a normal inoperative position adjacent one side of the head to an operative position transversely of said head in forwardly spaced relation to the front end of said flashlight, whereby to block the light beam of the flashlight from the open front end of said head, yielding means biasing the shutter toward its normal inoperative position, a trigger mounted in said cradle forwardly of said handle for movements toward and away from said handle, and an operating connection between said trigger and said shutter, movement of said trigger toward the handle causing swinging movement of the shutter toward its operative position against bias of said yielding means.

6. The structure defined in claim 3, in which said operating connection comprises an actuating rod extending forwardly from said trigger and is pivotally connected to the shutter in offset relation to the axis of pivotal movement thereof.

7. The structure defined in claim 1, in further combination with means for mounting said cradle to a base of support, said means comprising a pair of clamping elements having ball and socket connection with said cradle and screw means for moving said clamping elements together whereby to simultaneously tighten said clamping elements against the supporting base and to tighten said ball and socket connection.

8. The structure defined in claim 1, in which said yielding means biases said shutter toward its normal inoperative position through said trigger and the operating connections therebetween and the shutter, said yielding means comprising an endless elastic band looped about a portion of said trigger and a portion of the shutter mounting means.

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References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,613,203	Shannon	June 4, 1927
2,017,849	Blee et al.	Oct. 22, 1935
2,070,472	Criswell	Feb. 9, 1937
2,085,020	Harding	June 29, 1937
2,273,026	Dircksen	Feb. 17, 1942