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A. FISCHER
FLASH BULB UNIT
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2,876,337

Fig. 1

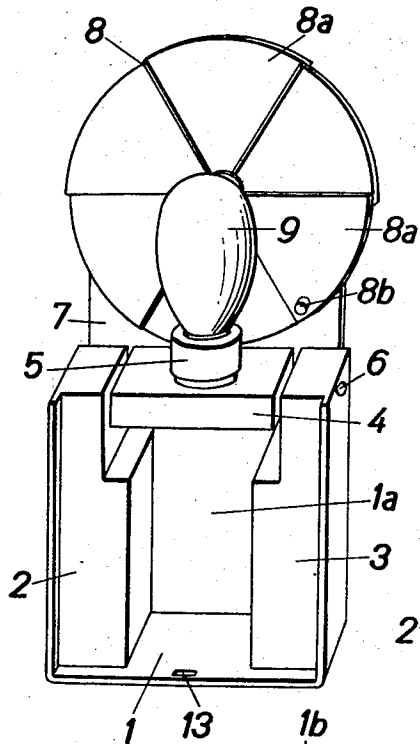


Fig. 2

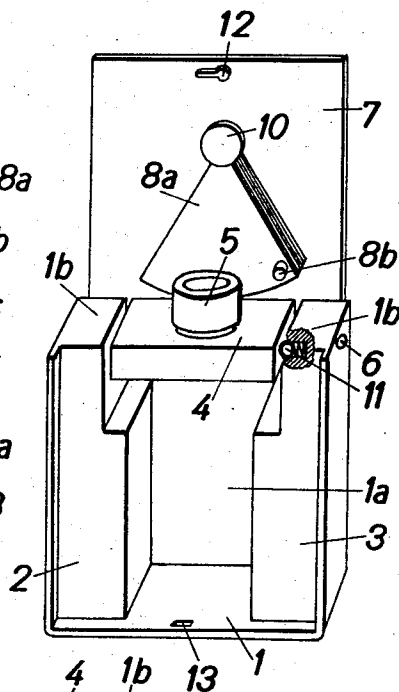
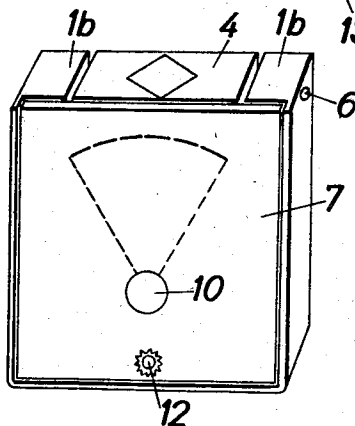


Fig. 3



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1

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FLASH BULB UNIT

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3 Claims. (Cl. 240—1.3)

This invention relates to a flash bulb unit for photographic apparatus, and particularly relates to a flash bulb unit including a reflector which is foldable into compact arrangement with the electrical power unit.

The flash bulb units which have heretofore been in general use have consisted of a bulky casing for the battery and other electrical components from which extended a fixed bulb and reflector unit which, in combination with the electrical component casing, formed a relatively massive and ungainly piece of apparatus, which made the entire assembly difficult to carry and to handle when not in use.

It is an object of the present invention to provide a flash bulb unit which can be folded into a relatively compact and easily manipulated unit when not in use.

Another object of the present invention is to provide a flash bulb unit which consists of relatively few parts and which is relatively easy and inexpensive to make, while at the same time not being subject to easy breakage.

Other and distinct objects of the present invention will become apparent from the description and claims which follow, and in which:

Fig. 1 is a front perspective view of a flash bulb unit embodying the present invention and showing the unit in operative position,

Fig. 2 is a front view, partly in perspective and partly in section, showing the unit in partially folded position,

Fig. 3 is a perspective view showing the device in fully folded position.

Referring now in greater detail to figures of the drawing wherein similar reference characters refer to similar parts, there is shown a casing 1, which is provided with three side walls and a bottom wall fixed in position and with an open front. Within the casing 1 there is shown a pair of oppositely positioned spaced compartments 2 and 3, one of which may hold an electrical battery and the other of which may hold the condenser, resistor, and the like. The space between the compartments is indicated at 1a. Each compartment is provided with a cut-out portion at the top section thereof forming an inwardly extending shoulder on each of the compartments. These shoulders define what may be considered, in effect, a counterbore to the space 1a.

An elongated member 4 is pivotally positioned between the topmost portions 1b of the compartments 2 and 3 within the counterbore by means of a hollow pivot shaft 6. A bulb socket 5 is provided on the top surface of the elongated member 4 and is connected to the electrical components by suitable wiring, not shown. These wires are preferably led through the hollow pivot shaft 6.

Fixedly connected to one edge of the elongated member 4 is a plate 7. This plate 7 extends upwardly from elongated member 4, as shown in Figs. 1 and 2, and is provided on the inner surface thereof with a foldable reflector unit 8 comprising a plurality of rotatably foldable sectors 8a, each of which extends radially outwardly from a pivotal axis 10. A knob 8b is adapted to be manually grasped and rotated to move each of the segments 8a, each

2

of said segments being in a different plane from the other segments, into a folded position, one above the other, as shown in Fig. 2.

A spring-pressed ball lock 11 is positioned in a groove at the top portion of the compartment 3, and is adapted to automatically lock into a corresponding notch on the adjacent edge of the elongated member 4 to releasably maintain the elongated member 4 in its uppermost position, as shown in Figs. 1 and 2. This uppermost position is the operative position in which, when there is a bulb 9 fitted in the socket 5 and when the reflector is in open position, as in Fig. 1, the unit is ready for use.

When the unit is not being used and it is desired to conveniently carry or handle it, the reflector unit 8 is folded in the manner shown in Fig. 2, and the elongated member 4 is grasped and rotated on the pivot shaft 6. This automatically releases the ball lock 11, and at the same time, actuates a switch, not shown, to disconnect the bulb unit from the electrical circuit. As the elongated member 4 is turned 180° within the counterbore between the portions 1b of the compartments 2 and 3, the plate 7 is rotated around until it closes the open front face of the casing 1 in the manner shown in Fig. 3. The open front face of the casing is provided with a recess which is effected by positioning the compartments 2 and 3 back from the edge defining the front opening so that a flange or rim extends out around the two sides and bottom of the front opening. When in closed position, the plate 7 fits snugly within the front recess and forms a compact unit, such as shown in Fig. 3.

In order to secure the plate 7 in its closed position, a pivoted latch member 12 is turned by means of a knob on the reverse face of the plate 7 until it engages within a notch 13 in the bottom wall of the casing 1.

The above-described apparatus may be constructed of any desirable material such as metal, ceramic, plastic, or the like. The casing can furthermore be either rectangular, as shown in the drawings, or can be made curved or of any configuration desired. The unit illustrated is, for example, adapted to permit the bulb 9 to remain in place when the apparatus is in folded position because of the existence of the space 1a which can accommodate the bulb 9.

As many apparently widely different embodiments of this invention may be made without departing from the spirit and scope hereof, it is to be understood that this invention is not limited to the specific embodiments, except as defined in the appended claims.

What is claimed is:

1. A compact flash bulb unit for photographic exposures comprising a housing; said housing providing means for holding electrical power components and including a pair of wall members spaced from each other to form a central recess; a side of said housing adjacent said central recess being open and the opposite side being closed; a cover unit including a plate, an elongated member, reflector segments and a flash bulb socket having an opening for receiving a flash bulb; said elongated member being rotatably mounted between said wall members and having said plate attached thereto; said socket being mounted upon said elongated member with said opening disposed in front of said reflector segments to permit said socket and said segments to be optionally positioned inside and outside of said recess; a motion-permitting mounting means movably securing said segments upon said cover unit to permit said segments to be spread out to form a reflector of extended area in back of a bulb engaged in said socket for directing the light emitted by said bulb toward a subject being photographed when said cover unit is pivoted to position said socket and said reflector segments outside of said recess and to permit said segments to be folded into a compact form which is en-

tirely received within said recess when said cover unit is pivoted to place said socket and said segments inside of said recess; and said plate closing said opening in the side of said housing when said flash bulb socket and segments are disposed inside of said recess.

2. A flashbulb unit as set forth in claim 1 wherein releasable locking means connects said elongated member with said housing to maintain said elongated member and attached components supported in their open and closed positions.

3. The unit of claim 1 wherein each of said segments is positioned in a different plane from the other of said segments.

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