March 14, 1950 W. R. KOPP 2,500,364

LAMP BULB HOLDER

Filed Oct. 8, 1946

Fig. 1.

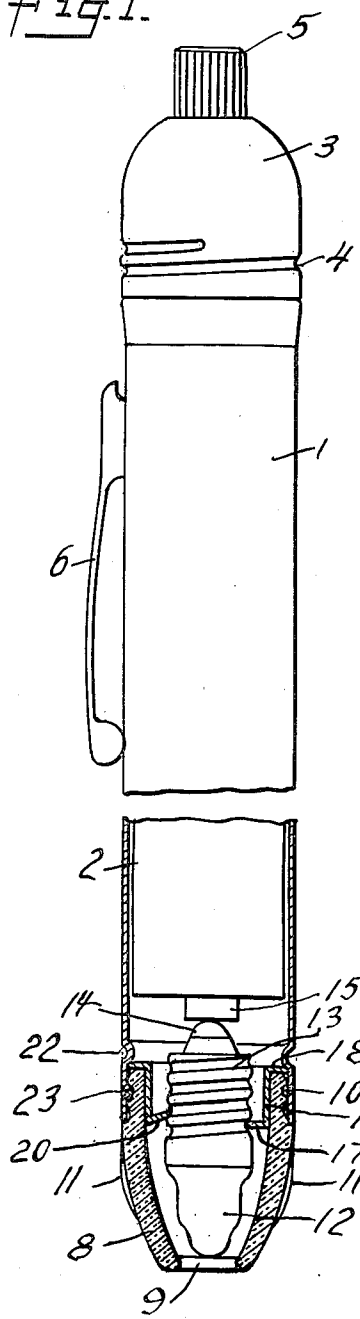


Fig. 2.

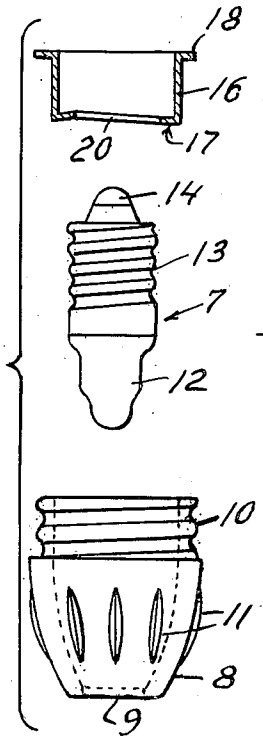


Fig. 4.

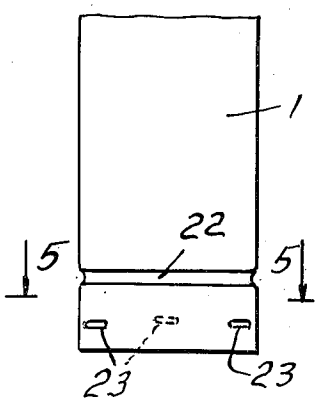


Fig. 5.

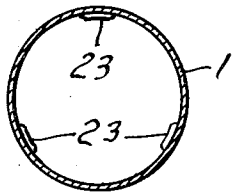
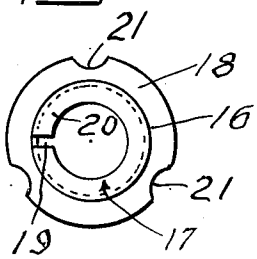


Fig. 3.



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LAMP BULB HOLDER

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2 Claims. (Cl. 240—10.66)

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This invention relates to improvements in hand lamps and more particularly to an improved bulb holder for a miniature hand lamp.

In the conventional construction of miniature hand lamps, the lamp bulb is held in position at the upper end of the casing by a glass head or lens, which is arranged on the end of the casing. This construction is open to the objection that a hand lamp is frequently handled roughly and any blow struck on the head is transmitted to the bulb.

In the present invention I provide a mounting or holder for the lamp bulb of a miniature hand lamp in which the bulb is held out of contact with the head. I accomplish this by means of a simple adapter which is provided with a thread to engage the threads of a lamp bulb and is further provided with a flange at its base which is clamped between the bottom of the head and an internal rib formed on the casing. This so positions the bulb that its base terminal is in engagement with the contact cap of the upper cell of the battery and retains it out of contact with the head.

In the accompanying drawing I have shown one embodiment of the invention. In this showing:

Fig. 1 is an elevation of a miniature hand lamp, parts being shown in section, showing the invention applied;

Fig. 2 is an exploded view of the adapter, bulb and head, the adapter being shown in section;

Fig. 3 is a bottom plan view of the adapter;

Fig. 4 is an elevation of the end of the casing; and

Fig. 5 is a sectional view on line 5—5 of Fig. 4.

Referring to the drawing, the reference numeral 1 designates generally a casing of a miniature hand lamp which is preferably circular in cross section and of a length to receive two dry cells, one of which is shown at 2. The lower end of the casing is closed by an end cap 3 which is threaded on the casing as at 4 and which houses a suitable switch construction, the actuating member of which projects through an opening in the bottom of the end cap as indicated at 5. The lamp may be provided with a suitable clip 6 to permit it to be carried in the user's pocket. A lamp bulb 7 is arranged at the upper end of the casing and the bulb is covered by a head 8. The head 8 diffuses the light from the bulb. It is preferably made of glass or a translucent plastic and is provided with an opening 9 in its outer end. The lower end, which is circular and of an external diameter substantially equal to the internal diameter of the casing, is threaded as at 10. The curved portion of the head may be provided with a series of ribs 11.

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The bulb is of usual construction consisting of the glass bulb proper 12 in which the filament (not shown) is arranged, a threaded stem portion 13 and a base terminal 14. In hand lamps the base terminal is retained in contact with the central electrode 15 of the upper cell and an electric circuit is completed to the terminal in engagement with the threaded stem 13 through the hand lamp casing, if the casing is made of metal, or by a conducting strip arranged on the inside of the casing and extending from the upper end to the end cap, if the casing is made of a non-conductive material.

The holder or adapter which I employ for the purpose of supporting the bulb in its proper position, out of contact with the head, and completing the circuit from the outer terminal of the lamp to the casing, is shown in position in Fig. 1 of the drawing and is shown in detail in Figs. 2 and 3 of the drawing. As shown, the adapter consists of a cylindrical body portion 16 having an inwardly extending flange 17 at its upper end and an outwardly extending flange 18 at its lower end. The flange 17 is notched as at 19 and slightly offset as at 20 to form a thread to engage the threads 13 on the stem of the lamp. The flange 18 is provided with a series of recesses or notches 21 to permit assembly of the device in the end of the hand lamp casing. As shown in Fig. 4 of the drawing, the casing is provided with a groove adjacent its top forming an internal rib 22. It is also provided with a series of spaced indentations 23 between the rib and the end of the casing which serve as threads.

In assembling the lamp holder, the bulb is first screwed into the holder until the thread on the flange 17 reaches the end of the thread 13. The holder is then placed in the casing with the recesses or notches 21 passing over the indentations 23 until the flange 18 is seated on the rib 22. By slightly turning the holder to bring the notches 21 and indentations 23 out of alignment, accidental displacement of the bulb and holder at a time when the head is removed is prevented. The head is then threaded into the end of the casing. When the head is in place, its lower edge engages flange 18 (see Fig. 1) and the flange is clamped between the head and the rib 22. The dimensions of the parts are such that the head is spaced from the lamp bulb, as shown in Fig. 1, and shocks received by the head are thus not directly transmitted to the bulb.

The construction not only provides a very simple means for holding the lamp bulb in place out of contact with the head but it also provides a construction in which access to the casing may be obtained at either end. In the conventional hand lamp construction, the bulb holder is permanently mounted in the upper end of the casing and access to the casing, for removal of cells, etc., can only be obtained by removing the end cap. However, the lamp holder may be readily removed when the head is removed and the casing may, therefore, be opened at either end for removal of batteries.

I claim:

1. In a hand lamp, a casing, a head adapted to be arranged on the end of the casing, the head being externally threaded, the casing being provided with interrupted threads to engage the threads of the head and being further provided with an internal rib below the threads, a lamp bulb within the head, and a holder for the lamp bulb, the holder comprising a cylindrical body portion having means for engaging the threads on the stem of the lamp bulb and having an external flange adapted to be clamped between the internal rib of the casing and the bottom of the head, the external flange on the bottom of the bulb holder being provided with recesses spaced from each other corresponding to the spaces between the interrupted threads on the casing.

2. In a hand lamp, a casing having an open end, means adjacent said open end to prevent exit of a battery from the casing and forming a bulb holder abutment, spaced spirally inclined indents located on the casing midway of the open end and said abutment, a threaded head engageable with said spaced indents, a lamp bulb located within said head, and a bulb holder for said lamp bulb comprising a cylindrical body portion having means for engaging the threads on the stem of the bulb and having an externally extending flange member of greater diameter than the internal diameter of the spaced indents or abutment for clamping engagement between said abutment and the end of said head, the flange member being provided with notches in registry with said indents on the casing for inserting the bulb holder flange against the abutment.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,524,205	Papke	Jan. 27, 1925
2,164,148	Swanson	June 27, 1939
2,340,062	Kulka	Jan. 25, 1944
2,420,152	Sherwood et al.	May 6, 1947