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M. SCHWARTZ

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FLASH LIGHT EQUIPMENT

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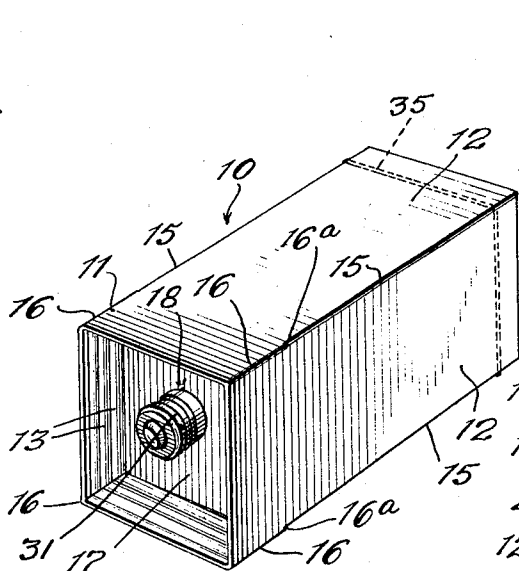


Fig. 1.

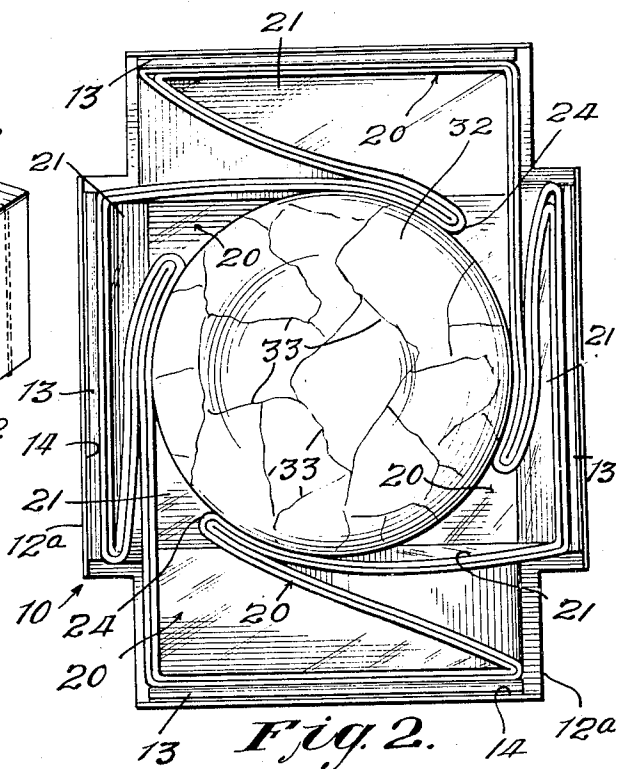


Fig. 2.

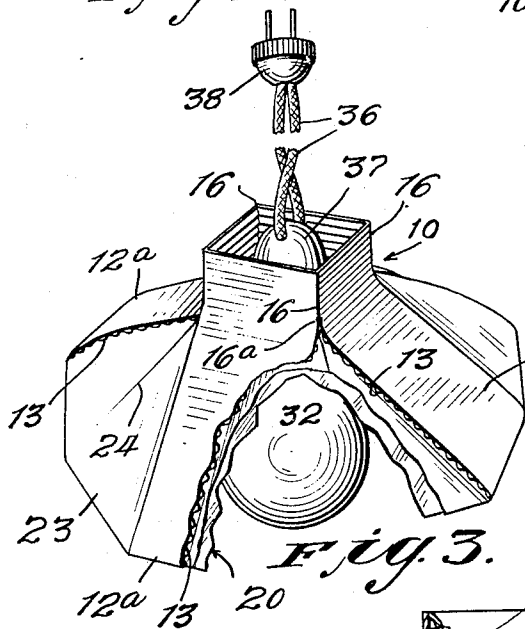


Fig. 3.

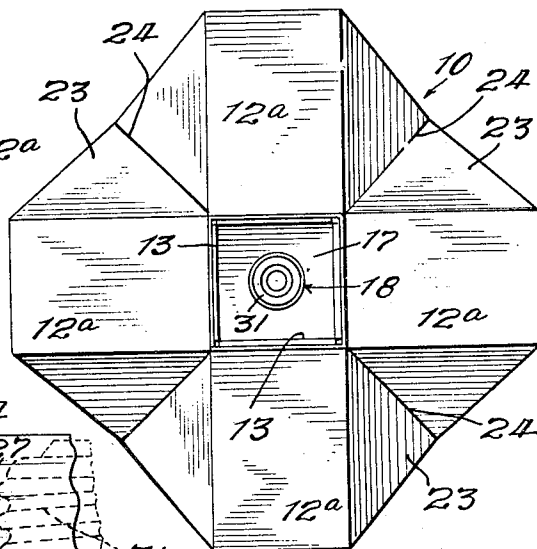


Fig. 4.

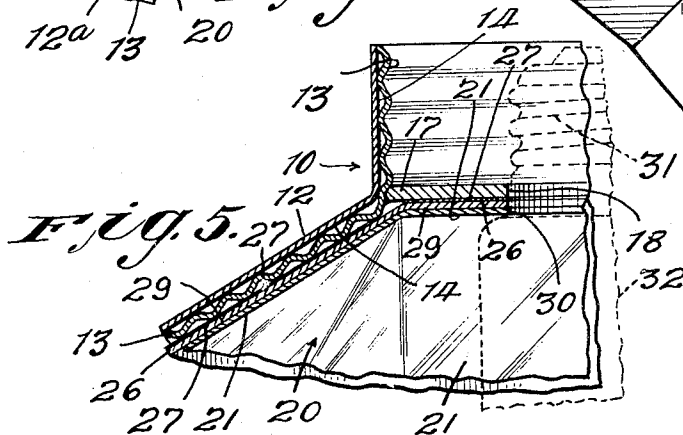


Fig. 5.

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1,959,931

FLASH LIGHT EQUIPMENT

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13 Claims. (Cl. 240—103)

My invention relates to flashlight equipment and the like articles, and is particularly directed to apparatus used in connection with an electric, photographic flash lamp.

5 The flash lamps now on the market simulate the ordinary electric incandescent lamps and have material on the bulb portions thereof adapted to be ignited for a single burning to give a flashlight for photographic and the like
10 purposes. These flash lamps are ordinarily packed in tubular paper board containers of square cross-section, open at both ends, and provided with corrugations on the inner surface thereof, for retaining the lamp therein. The containers
15 are ordinarily packed into a case or carton for shipping and storing purposes. In ordinary use, the bulb has heretofore been removed from the container and used either with or without a rigid reflector made of metal or other stiff
20 material. Ordinarily, the flashlamp is attached to a screw socket connected to a source of electric energy, and upon closing the switch, the material within the bulb is instantaneously ignited for a single burning to produce a bright light,
25 known as a flashlight, for photographic purposes. After use, the bulbs ordinarily have heretofore been removed from the reflectors. Since photographic work is to a large extent done outside of the studio, the reflectors must be transported
30 to the place where the picture is to be taken.

It is an object of my invention to obviate the necessity for transporting and handling the heavy and bulky rigid reflectors, provision being made in accordance with this invention to produce
35 an extremely simple and cheap foldable, flexible reflector for the flash lamps which may be incorporated into the container used for shipping and storing said lamps, my improved reflector further serving as a container for the used
40 bulbs, thus rendering it unnecessary to remove the bulb from the reflector after use.

A further object of my invention is to provide a combination container and reflector which shall be flexible to permit shaping of the re-
45 flector, whereby the latter may be quickly and readily formed to suit the conditions under which the photograph is to be taken.

A still further object of my invention is to provide flashlight equipment of the character described, which shall be extremely simple to
50 manipulate and use, which may be made so cheap as to permit the use of the reflector even with only a single flashlamp for a single flashlight operation, and which shall yet be practical
55 and efficient to a high degree.

Other objects of my invention will in part be obvious and in part hereinafter pointed out.

My invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts which will be exemplified in the construction hereinafter described, and of which the scope of application will be indicated in the following claims.

In the accompanying drawing, in which is shown one of the various possible illustrative
65 embodiments of this invention.

Fig. 1 is a rear perspective view of an article embodying the invention, showing the same in folded condition, as for example when storing
70 or shipping the same;

Fig. 2 is a front view of the device shown in Fig. 1 slightly open to show the manner in which the container and reflector is folded for shipping purposes;

Fig. 3 is a rear, perspective view of the device
75 shown in Fig. 1 in position for use, and with an electric cord attached to the lamp for supplying electricity thereto, parts being broken away to show the interior construction;

Fig. 4 is a plan view of the outside of the re-
80 flector with the lamp removed, showing the reflector in open or unfolded position and ready for use; and

Fig. 5 is a partial, transverse, cross-sectional view of the combination container and reflector.
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Referring now in detail to the drawing, 10 designates a combination lamp container and reflector embodying the invention, here shown in the form of a device having the characteristics and advantages of both a container for
90 packing and storing electric lamps, such as flash lamps for photography, and a flexible reflector for use in connection with the lamp.

The device 10 comprises a member 11 formed of paper board or any other suitable material
95 and having four sides or panels 12 of substantially similar dimensions to form a tubular container of substantially square cross-section. A corrugated paper board lining 13 may be glued or otherwise adhered to the inner surface 14
100 of the outer members or panels 12. A similar length of each of the four corners 15 of the tubular member 11 is slit or perforated to permit similar portions 12a of the member 12 forming
105 flaps, to be spread apart or unfolded in the manner of a flower.

It will be noted that a short portion 16 of each corner is not slit or perforated, so that the rear of the box remains tubular after the
110 flaps 12a are opened as shown in Fig. 3 of the

drawing. A transverse sheet member or partition 17 made of cardboard or the like material fits within the tubular member adjacent to the points 16a where the slits 15 begin, said member 17 being provided with a central opening 18 for the purpose hereinafter appearing. Attached to the inner surfaces of the flaps 12a and to the partition 17, is a reflector 20 preferably made of flexible material in the manner hereinafter described.

The reflector 20 comprises portions 21, superimposed over the inner surface of the flaps 12 and the partition 17, and interconnecting web portions 23 foldable along a creased radial midline 24 to permit the flaps to be folded inwardly in the manner shown in Fig. 2, so that the web portions 23 extending from one of the flaps 12a may be folded and placed against the inner face of the next adjacent flap 12a. The reflector member 20 may be made of paper backing 26 glued, as at 27, to the corrugated members 13, and an outer sheet 29 of polished foil glued to the inner surface of the paper backing 26. Obviously, any other suitable reflector having a polished surface may be substituted for the reflector 20. For example, the reflector may comprise a sheet sprayed with material giving the same a polished reflected surface.

The reflector member 20 is formed with a central opening 30 registering with the opening 18 in the partition 17. Extending through the openings 18 and 30 is a screw threaded base 31 of a lamp 32, here shown in the form of a flash lamp having material 33 in the bulb portion thereof adapted to be ignited for instantaneous burning and flashing. The flash lamps 32 are of well-known construction, and as is well-known in the art, these lamps may be used only once and then discarded. These lamps are usually shipped in tubular cardboard containers open at both ends, a plurality of said containers being placed in a case for shipment. In use, the lamps are usually removed from the containers and mounted on a reflector for directing the light towards the object to be photographed. Heretofore, only rigid, heavy, bulky and comparatively expensive reflectors have been used, and since a large number of the flash lamps are often used for a single photograph, and since the lamps are usually carried by the photographer out of the studio to the place where the picture is to be taken, the use of the rigid reflectors involves considerable difficulty and expense. With my combination container and reflector, these difficulties are obviated, since the containers are light and it is easy to carry the lamp therein. Furthermore, the foil and paper reflector is comparatively inexpensive to manufacture, making it practical to use the reflector even for a single flash with a single lamp. Moreover, whereas the rigid reflectors cannot be shaped by the photographer to throw the light over a particular area, with my construction, the flexible reflector may be shaped easily and readily with the hands so as to assume a wide variety of shapes. The device 10 further serves as a container for the used lamps.

A rubber band 35 may be used for retaining the flaps 12a in folded condition. Instead of the corners 15 being slit, a tab may be pasted to adjacent corner portions of the flaps for retaining the device in folded condition, and said tabs removed when it is desired to unfold the containers. Furthermore, the corners 15 may

be scored so as to permit an instrument or the finger nail to be passed along the corner for separating the flaps 12 to permit unfolding thereof.

For the purpose of illustration only, Fig. 4 shows the reflector as of substantially octagonal shape. However, the reflector may be of any suitable shape, such as square or the like, and the web portions formed between the flaps 12 folded in any suitable manner on the inside of the device, and around the lamp 32.

As shown in Fig. 3, an ordinary electric cord or duplex cable 36 may be employed for connecting the bulb to an electric power source. The cord 36 is provided with a socket 37 adapted for attachment to the lamp base 31 and with a plug 38 for connection to a suitable receptacle.

Although the device 10 has been described in connection with a flash bulb, it will be readily understood that the same may be used with any electric lamp or lighting unit as a container and/or reflector therefor.

It will thus be seen that I have provided a device in which the several objects of this invention are achieved, and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawing, is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. As an article of manufacture, a tubular shipping container of uniform square cross-section throughout for housing a single lamp, and flexible means at the inside of said container adapted to be spread apart, to serve as a reflector for said lamp.

2. As an article of manufacture, a tubular shipping container of substantially uniform cross-section throughout for housing a lamp, said container being adapted to slidably receive and frictionally grip the bulb portion of said lamp, and flexible unfoldable means on the inside of said container adapted to be spread open, to serve as a reflector for said lamp.

3. A device of the character described, comprising a tubular member made of flexible material and formed with a plurality of spaced slits to permit portions of said member to be bent back and a reflector attached to the inner surface of said portions.

4. A device of the character described, comprising a tubular member formed with a plurality of spaced slits to permit portions of said member to be spread, and a reflector attached to the inner surface of said portions, said reflector comprising flexible web portions interconnecting said portions.

5. As an article of manufacture, a tubular member of substantially non-circular cross-section adapted to receive a lamp and frictionally grip the bulb portion thereof, outwardly unfoldable means associated with said member, to serve as a reflector for said lamp, and a transverse member within said tubular portion having an opening for receiving the base of said lamp.

6. As an article of manufacture, a member having a tubular portion and portions extending therefrom adapted to be spread apart, said mem-

ber being adapted to receive a lamp having a bulb portion and a base for said bulb portion, means associated with said member serving as a reflector for said lamp, and a transverse member fitted within said tubular portion having an opening therein adapted to receive the base portion of said lamp for supporting the same.

7. As an article of manufacture, a member adapted to receive a lamp having a bulb portion and a base for said bulb portion, said member having a tubular portion and portions adapted to be spread apart, a transverse member fitted within said tubular portion having an opening therein adapted to receive the base portion of said lamp for supporting the same, and a reflector secured to the inner surfaces of said spreadable portions and to the adjacent surface of said transverse member, said reflector having web portions interconnecting said spreadable portions, said web portions being folded against said spreadable portions.

8. In combination with a lamp having a bulb portion and a lamp base, a tubular container for said lamp having walls frictionally gripping the bulb for retaining the lamp therein, and means within said container and disposed between said bulb and inner surfaces of said container serving as a reflector for said lamp, portions of said container being adapted to be spread apart, said reflecting means comprising flexible portions interconnecting said spreading portions.

9. In combination with an electric flash lamp, a shipping container therefor, said container being of uniform transverse cross-section and frictionally gripping the bulb portion of said flash lamp, and reflecting means for said flash lamp within said container, said reflecting means being folded and flexible.

10. In combination, a lamp having a bulb portion, a tubular shipping container for said lamp slidably receiving and gripping the bulb portion of said lamp, and reflecting means on said container comprising flat unfoldable portions adapted to be spread apart, and web portions interconnecting said flat portions.

11. In combination, a lamp having a bulb portion, a tubular member gripping said bulb portion, and reflecting means associated with said member, said means comprising portions adapted to be spread apart, and web portions interconnecting said first portions.

12. In combination with a lamp having a bulb portion, and a lamp base, a tubular container of substantially square cross-section throughout having walls slidably receiving and frictionally gripping the bulb portion of said lamp for retaining the lamp therein, and means associated with the interior of the container serving as a reflector for said lamp, said means comprising folded and flexible portions disposed between said bulb and said container and adapted to be spread apart.

13. In combination with a lamp having a bulb portion, and a lamp base, a tubular container of substantially square cross-section throughout having walls slidably receiving and frictionally gripping the bulb portion of said lamp for retaining the lamp therein, and means associated with the interior of the container serving as a reflector for said lamp, said means comprising folded and flexible portions disposed between said bulb and said container and adapted to be spread apart, and web portions interconnecting said spread apart portions.

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