United States Patent

[11] 3,588,491

[72] Inventor Charles Franc
1501 First Ave., New York, N.Y. 10021

[21] Appl. No. 864,467
[22] Filed Oct. 7, 1969
Division of Ser. No. 671,330, Sept. 28, 1967, Patent No. 3,522,426
[45] Patented June 28, 1971

[54] **ILLUMINATION UNIT**
5 Claims, 4 Drawing Figs.

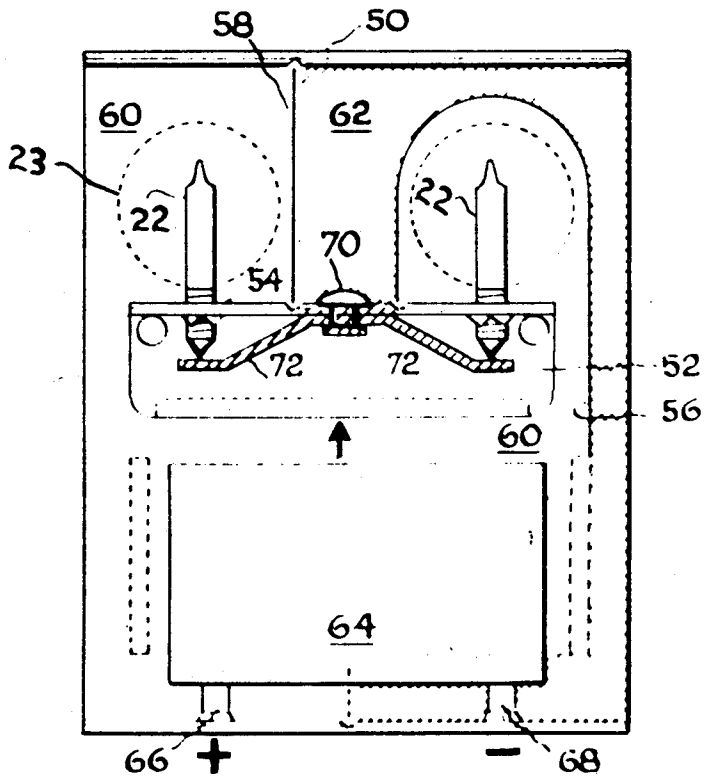
[52] U.S. Cl. 240/6.4, 40/152.2, 240/10, 240/10.5, 240/10.65
[51] Int. Cl. F21v 33/00, G09f 13/00
[50] Field of Search ..... 240/52.5, 10, 6.4, 2 (AD), 2 (AT), 2 (P), 10.5, 10.61, 10.65; 40/132, 152.2

[56] References Cited
UNITED STATES PATENTS

2,262,040	11/1941	Van Dyne Pell	40/132(X)
2,477,984	8/1949	Jackson	240/6.4(X)
2,522,660	9/1950	Bledsoe, Jr.	240/10.61(X)
2,607,145	8/1952	Pope	240/6.4(X)
3,454,873	7/1969	Abrahams	240/10.61(X)
3,463,918	8/1969	Franc	240/10

Primary Examiner—Samuel S. Matthews
Assistant Examiner—Robert P. Greiner
Attorney—Allison C. Collard

ABSTRACT: A disposable power source adapted to be detachably secured to a support such as a greeting card with an area or section through which light can shine or be directed, said source including a lamp for producing the light and a self-contained battery for the lamp.



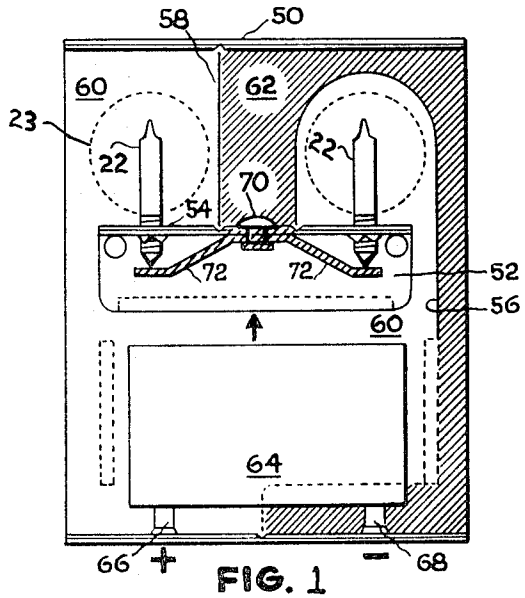


FIG. 1

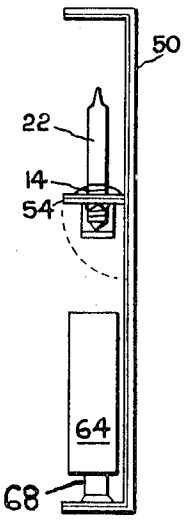


FIG. 2

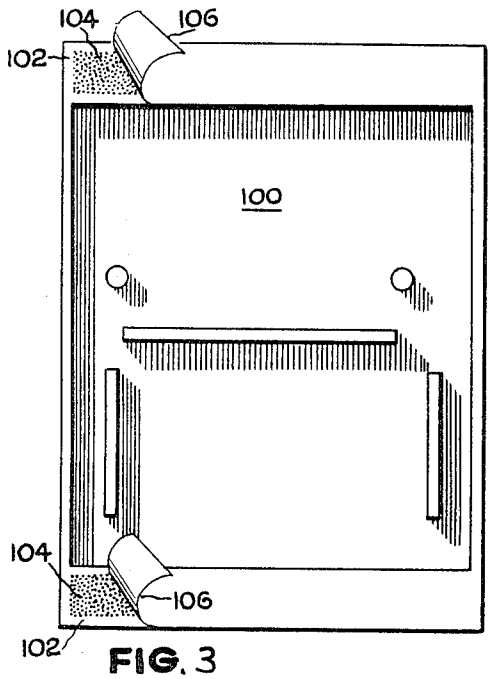


FIG. 3

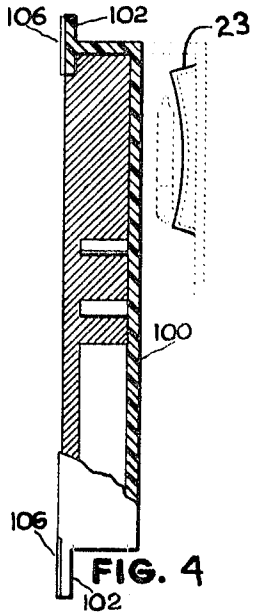


FIG. 4

INVENTOR.

CHARLES FRANC.

BY

ATTORNEY

ILLUMINATION UNIT

This is a divisional application of application Ser. No. 671,330 filed on Sept. 28, 1967 and now U.S. Pat. No. 3,522,426, issued Aug. 4, 1970.

SUMMARY OF THE INVENTION

In accordance with my invention, my unit comprises a lamp socket having first and second terminals, a lamp in the lamp socket, and a flat battery having first and second terminals. Means connect one battery terminal to one socket terminal. A connector for the battery and socket connects the other socket terminal to the other socket terminal when in one position and disconnects these other terminals when in another position.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings:

FIGS. 1 and 2 are respectively front and side views of an embodiment of my invention; and

FIGS. 3 and 4 are respectively front and side views of a structure which can be used with the embodiment described above.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Referring now to FIGS. 1—4, a flat vertical sheet **50** having cut out portions **52** and a section **54** which can be swung out horizontally has one surface (except for cut outs) coated with a conductive layer or film. The scoring lines **56** and **58** divide this layer into two electrically separate conductive areas identified at **60** and **62** (slanted line shading). A battery **64** is supported on the sheet with its positive terminal **66** connected to area **60** and its negative terminal **68** connected to area **62**. Battery **64** can be slid forward or backward to close or open the circuit. Section **54** has two holes supporting sockets **14**, one terminal of each socket being connected via area **60** to terminal **66** and the center portion of **54** being connected both by area **62** to terminal **68** and by fastener **70** to a conductive clip **72** having ends disposed below the other (bottom) terminals of the sockets. When the fastener **70** is secured, clip **72** completes the circuit and energizes the lamps.

FIGS. 3 and 4 show a hollow container **100** having a peripheral lip **102** with an adhesive coating **104** with a removable protective strip **106**. The container has compartments which can be shaped to receive the unit described above. Then the strips can be removed and the entire container with inserted unit can be secured to a card, ornament or package for use. Tilting the card vertically will cause battery **64** to slide downward to engage contacts **66** and **68** to light up the unit. Likewise, tilting the card back will turn off the light. Other securing means, pins and the like can be used instead of coating **104**.

In the FIGS., the dotted circle indicates a reflector **23** which can be used. The batteries shown can be used to operate more than two lamps if desired, and all supports can be modified to accommodate more than two lamps.

While I have described my invention with particular reference to the drawings, my protection is to be limited only by the terms of the claims which follow.

I claim:

1. A disposable illumination apparatus for detachable securement upon a surface, such as a card and the like, having an aperture through which light may radiate comprising;

a housing;

lamp socket means secured to said housing having at least one terminal;

at least one miniature bulb detachably secured in said socket means;

a flat battery having two exposed terminals of opposite polarity;

a first conductive layer disposed on the inside surface of said housing for electrically coupling one of said battery terminals to said lamp socket means; and

a second conductive layer disposed adjacent to and electrically insulated from said first conductive layer for electrically coupling to said other battery terminal so that by slidably positioning said battery against said conductive layers, current is caused to flow in said miniature lamp.

2. The illumination apparatus as recited in claim **1**, wherein said lamp socket means comprises an elongated flat bracket secured to said housing and electrically conductive with said first and second conductive layers.

3. The illumination unit as recited in claim **1** additionally comprising lamp reflectors secured to said housing adjacent to each of said lamps.

4. The illumination unit as recited in claim **1** additionally comprising;

a hollow container having a compartment for receiving said housing, and

means disposed on said container for securing the container and housing to a flat surface.

5. The illumination unit as recited in claim **4** wherein said securing means comprises a pressure sensitive adhesive.