

[54] **INFLATABLE AND ILLUMINABLE FIGURE**

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[51] Int. Cl. **G09f 19/00**

[58] Field of Search **40/130, 126 B, 106.54, 212, 40/214, 106.52; 46/87, 88, 90**

[56] **References Cited**

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Primary Examiner—Robert W. Michell

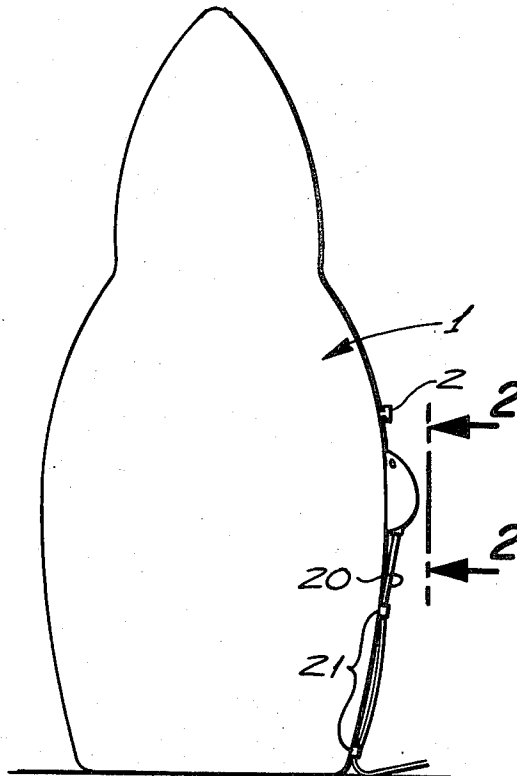
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[57] **ABSTRACT**

An inflatable and illuminable figure in which the figure is provided with a window of transparent plastic material bordered by attachment pockets, and a cell containing a light source and having a convex window is secured to the figure by tabs which are received in the pockets and secured therein by a gripping force created when the figure is inflated.

6 Claims, 7 Drawing Figures



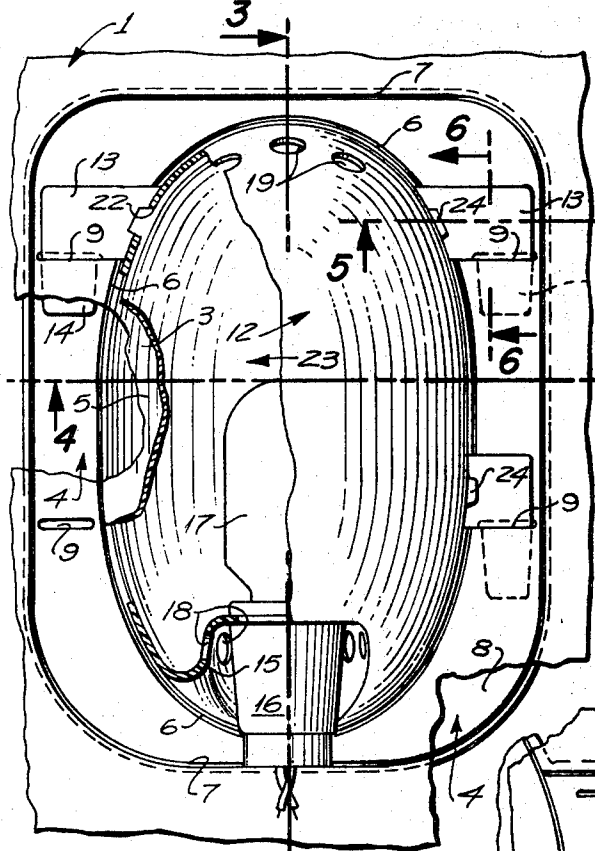
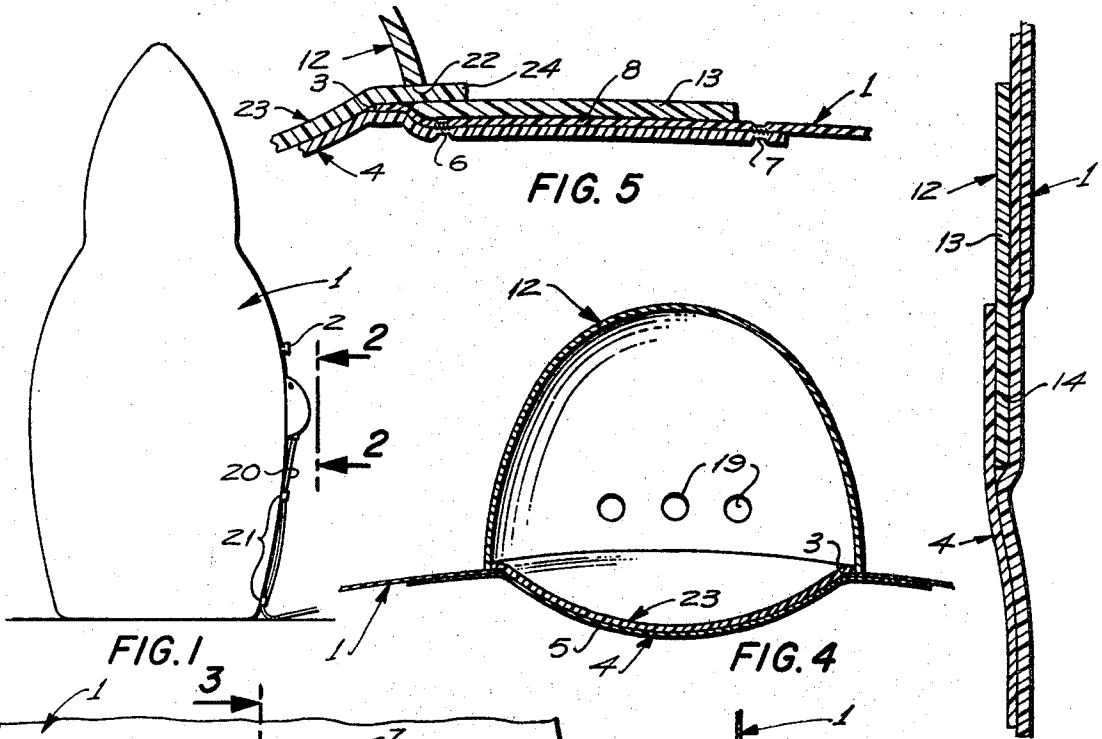


FIG. 2

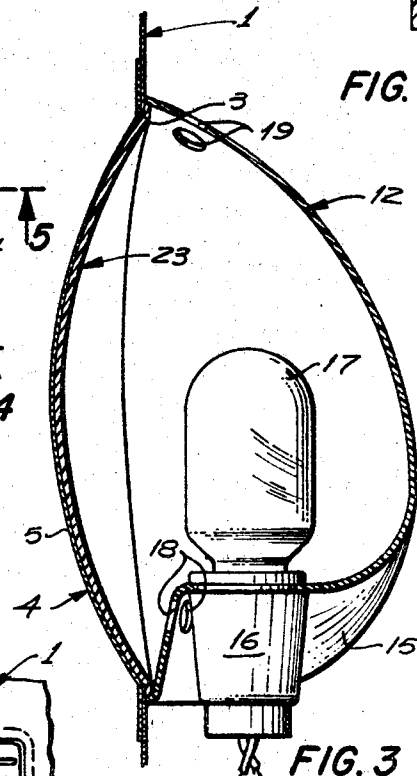


FIG. 3

FIG. 6

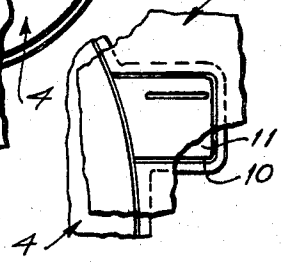


FIG. 7

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INFLATABLE AND ILLUMINABLE FIGURE

BACKGROUND AND SUMMARY OF THE INVENTION

The present invention relates to the type of inflatable and illuminable figures shown in my previous patents, U.S. Pat. No. 2,748,256, issued May 29, 1956; and U.S. Pat. No. 3,363,350, issued Jan. 16, 1968. The illuminating means shown in each of these patents is located entirely within the boundaries of the figure, and while the selection of proper materials and low wattage illumination would reduce the danger of fire resulting from contact between the light source and the walls of the figure, in those cases, some danger might still exist and may raise the question of safety.

The present invention seeks to minimize the danger and to accomplish some other advantages which are summarized in the following objects:

First, to provide an externally mounted and vented light source for inflatable figures which is readily secured to or removed from the figure.

Second, to provide an inflatable and illuminable figure wherein the figure is provided with a sealed transparent window and a cell containing a source of illumination and having a convex transparent side is secured over the window so that essentially the same illuminated effect is obtained as would be obtained were the source of illumination located within the figure.

Third, to provide an inflatable and illuminable figure, as indicated in the preceding object, wherein the figure is provided with tang receiving pockets bordering the transparent window, and the cell is provided with mating tangs to be received in the pockets when the figure is limp, or partially deflated, or completely deflated; then, upon inflating the figure, the region of the figure underlying the cell is pressed against the cell to secure the cell in place.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is an essentially diagrammatical side view at a reduced scale of the inflatable and illuminable figure.

FIG. 2 is an enlarged fragmentary partial sectional, partial side view, taken from 2—2 of FIG. 1.

FIG. 3 is a fragmentary longitudinal sectional view, taken through 3—3 of FIG. 2.

FIG. 4 is a fragmentary transverse sectional view, taken through 4—4 of FIG. 2.

FIG. 5 is a further enlarged fragmentary sectional view, taken through 5—5 of FIG. 2.

FIG. 6 is another further enlarged fragmentary sectional view, taken through 6—6 of FIG. 2.

FIG. 7 is a fragmentary side view, showing a modified form of the mounting means for the illumination cell.

The present invention is incorporated in an inflatable figure or envelope 1, which may take many forms; that is, the envelope may suggest a human figure such as a clown, a decorative figure such as a candle or a commercial figure such as a bottle. The envelope is formed of translucent plastic material and is provided with a filler entrance 2 through which air may be forced and which is provided with a suitable conventional closing means.

In the exercise of the present invention, one side of the figure is provided with a window 3, which may be an opening therein or merely a transparent area. Covering the window either on the inside of the figure or the outside thereof is a flexible lamina or plate 4, having a transparent area 5 registering with the window 3. The window 3 and the transparent area 5 are shown as oval in shape and the lamina is secured to the envelope by an inner heat seal ring 6 adjacent the window and an outer heat seal ring 7 spaced therefrom so as to form therebetween an annular space 8 sealed from the interior of the envelope.

Extending horizontally from opposite sides of the oval window is a set of four slots 9, communicating with the annular space 8 so that below each slot there is formed, in offset, a pocket. If desired, the continuous outer heat seal ring 7 may

be omitted and heat seal loops 10 be provided, as indicated in FIG. 7, which form isolated pockets 11.

A domed cell 12 is provided which is formed of relatively rigid plastic material, or may be formed of metal. The cell 12 is provided with lateral projections 13, each having a depending tang 14, adapted to be received in one of the slots 9. In order to facilitate insertion into the pockets, one pair of tangs may be longer than the other.

The underside of the cell 12 is recessed upwardly to form a lamp socket cavity 15 which receives a lamp base 16, secured in the upper wall of the cavity 15. The lamp base supports within the cell 12 a lamp 17. The cavity 15 is provided with vent holes 18, and the upper portion of the cell 12 is provided with another set of vent holes 19. The lamp base is provided with a lamp cord 20 which extends downward and may be held against the envelope 1 by retainer loops 21.

In the region of each lateral projection 13, the cell is provided immediately outward from each projection 13 with a slot 22. The side of the cell 12 confronting the envelope 1 is provided with a relatively rigid transparent convex cover 23, having tangs 24 which fit into the slots 22. The cover is capable of being moved from the cell to provide access to the lamp 17.

Operation of the inflatable and illuminable figure is as follows:

The cell 12, including the convex cover 23, is fitted on the envelope 1 when the envelope is deflated or partially deflated. This is done by inserting the depending tangs 14 into the slots 9. Upon inflating the envelope, the surfaces of the envelope and the lamina 4 underlying the cell and its convex cover are pressed outwardly thereagainst, firmly securing the cell and its cover in place. In addition, the lateral extensions and tangs may be normally coplanar and caused to conform to the envelope when it is inflated so that a biasing force is applied to the extensions and tangs tending to retain the tangs in the pockets.

The transparent area 5 conforms completely with the convex cover so that the cover establishes a concave region within the envelope so as to ensure adequate distribution of light within the envelope. While the window is referred to as transparent, the window and the cover, or either one, may be slightly translucent. Also, the convex cover or the portions confronting the cover may be coated or impregnated with fluorescent material to increase the effective illumination within the envelope. Still further, the walls of the envelope may be similarly treated.

While particular embodiments of this invention have been shown and described, it is not intended to limit the same to the details of the constructions set forth, but instead, the invention embraces such changes, modifications and equivalents of the various parts and their relationships as come within the purview of the appended claims.

I claim:

1. An inflatable and illuminable figure, comprising:

- a. an inflatable envelope formed of flexible translucent material adapted, when inflated, to form a three dimensional figure and including an essentially transparent flexible window;
- b. a domed cell having a light source therein, and an essentially transparent relatively rigid convex wall dimensioned to overlie and coincide with the window;
- c. means for removably securing the cell to the envelope with the convex wall coinciding with the window; and depressing the window into the figure to distribute light throughout the interior of the figure.

2. A figure, as defined in claim 1, wherein:

- a. the margins of the convex wall are provided with projections and corresponding portions of the cell are provided with slots to removably receive the projections, thereby to permit removal of the convex wall from the cell when the cell is removed from the envelope.

3. A figure, as defined in claim 1, wherein said securing means further comprises:

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- a. two laminations sealed together at the margins of the window to form a set of pockets having entrance slots;
 - b. and a corresponding set of tangs extending from the cell for reception in the pockets.
4. A figure, as defined in claim 1, wherein said securing means comprises:
- a. a pair of lateral projections at each lateral side of the cell, terminating in depending tangs;
 - b. and a pair of laminations sealed together at opposite side margins of the window to form a set of pockets having entrance slots at their upper ends to receive the tangs.
5. An inflatable and illuminable figure, comprising:
- a. an inflatable envelope formed of flexible translucent material adapted, when inflated, to form a three dimensional figure and including an essentially transparent window;
 - b. a lamina for the window and a marginal portion of the en-

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- velope around the window and forming with the envelope a set of pockets having entrance ends facing in the same direction;
 - c. a domed cell having a set of lateral projections and tangs extending therefrom in the same direction for reception in the pockets thereby to position the cell over the window;
 - d. said envelope, on being inflated, producing a binding force between the pockets and the tangs tending to secure the cell on the envelope; and
 - e. a light within the cell exposed to the interior of the envelope through the window.
6. A figure, as defined in claim 5, which further includes:
- a. a transparent convex wall interposed between the cell and the envelope for depressing the window to increase light distribution in the envelope.

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