May 17, 1932. C. A. FROST 1,858,991

DECORATIVE BALLOON

Filed Jan. 24, 1930

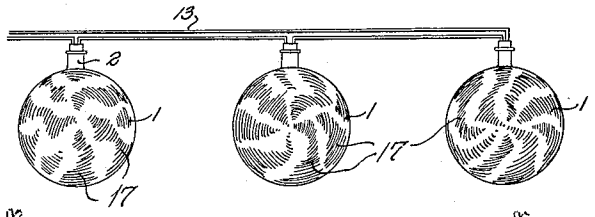


Fig. 1.

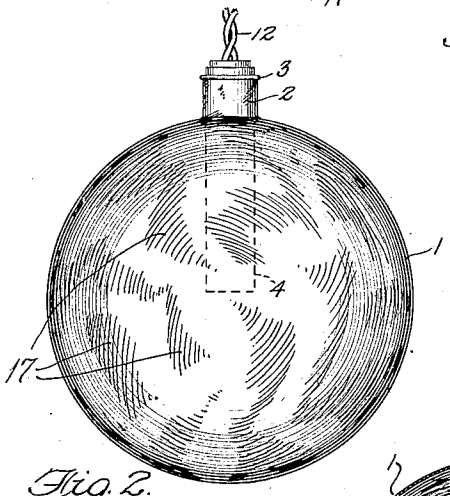


Fig. 2.

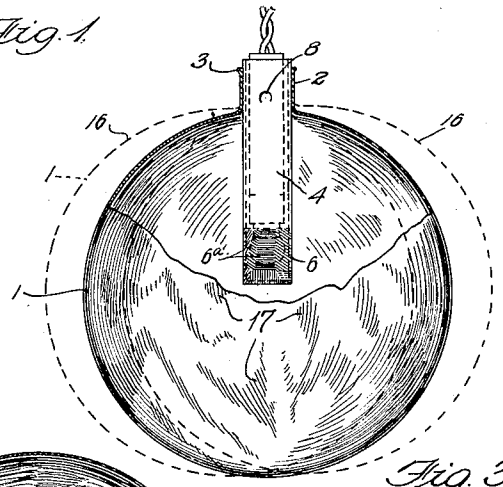


Fig. 3.

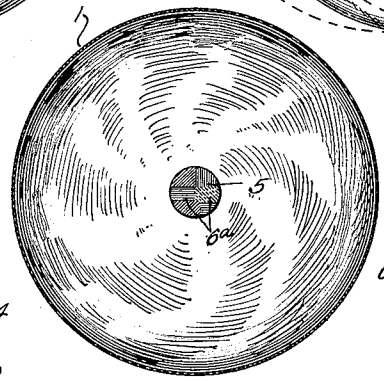


Fig. 4.

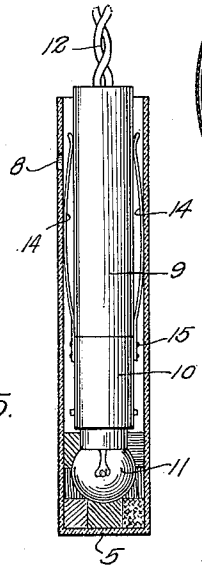


Fig. 5.

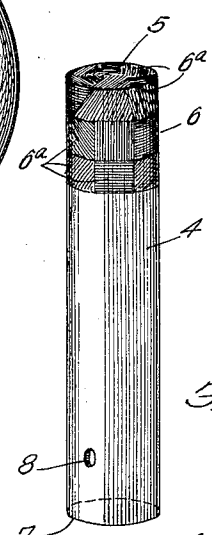


Fig. 6.

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UNITED STATES PATENT OFFICE

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DECORATIVE BALLOON

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The invention relates to a decorative article or device and more particularly to a translucent inflatable balloon having internal illuminating means so designed and disposed as to reproduce on the walls of the balloon multi-colored decorations of a highly attractive and ornamental nature.

The invention is especially adaptable for parties, dinners, dances and other social functions involving the presence of a number of people where it is desired to provide attractive decoration and illumination for the hall, room or auditorium.

The individual balloons constituting the invention are so designed as to be arranged singly or in groups, clusters or festoons, depending upon individual tastes and the size and character of the hall. In their preferred embodiment the balloons are designed for illumination by electrical means and for this purpose either batteries or the usual house current may constitute the electrical power source. For this purpose each balloon has its individual wires which are suitably connected to the power line in such manner that the groups or clusters of balloons are connected in series or series parallel as may be desired, and each balloon receives its own supply of electrical energy.

In addition to providing an ornamental and attractive colored decoration for the hall, the complete assembly of balloons may constitute the means for illuminating the premises with a soft and subdued light which is often found desirable at various gatherings. Should natural or artificial means be employed for swaying or agitating the balloon, for example by a blast of air from one or more electric fans, this results in an oscillating or swaying of the balloon walls relative to their internal illuminating means, which results in movements, changes and contractions and enlargements of the multi-colored decorations reproduced on the translucent balloon walls, all of which give a pleasing ornamental reaction to the eye.

The invention further contemplates means for effectively and conveniently inflating and deflating each individual balloon, as well as maintaining the same in inflated condition for indefinite periods, which may be desired, for example in the interior decoration of cafés and the like.

A further object of the invention is to provide an article or device of the character described which may be conveniently assembled and dismantled.

With such objects in view as well as other advantages which may be incident to the use of the improvements, the invention consists in the parts and combinations thereof hereinafter set forth and claimed, with the understanding that the several necessary elements constituting the same may be varied in proportions and arrangement without departing from the nature and scope of the invention.

In order to make the invention more clearly understood there are shown in the accompanying drawings means for carrying the same into practical effect, without limiting the improvements, in their useful applications, to the particular constructions which, for the purpose of explanation, have been made the subject of illustration.

In said drawings,

Fig. 1 is a view of three of the translucent inflatable balloons of the character contemplated by the invention, said balloons being illustrated as arranged in series and connected to a suitable power source, it being understood that the said individual illuminated balloons may be arranged in a variety of groups, clusters or festoons, depending upon individual taste.

Fig. 2 is a side elevation of one of the translucent balloons or lights.

Fig. 3 is a similar view, partially broken away, to show the internal assembly, and in which view the oscillating or swaying movements of the balloon wall relative to the illuminating means is indicated by dotted lines.

Fig. 4 is a horizontal section through the center of a balloon, and showing a part of the illuminating means in end elevation.

Fig. 5 is an enlarged central vertical section through the illuminating means or element.

Fig. 6 is a perspective view of the outer translucent tube, shell or casing constituting

a part of the illuminating means for the interior of the balloon.

Referring to the drawings, 1 indicates the translucent inflatable balloon member, which is of usual construction and is formed for example of thin rubber or other resilient and expansible material. Each balloon member is provided with the usual integral restricted neck portion 2 terminating in a circumferential enlargement or reinforcing bead 3. The balloon is designed to be inflated and deflated through the restricted neck portion.

The means for effectively and ornamentally illuminating the interior of the balloon, as well as preventing the escape of air or gas therefrom when inflated, consists of a translucent tube or casing 4, formed preferably of glass and consisting of a smooth surfaced hollow cylinder closed at its inner or lower end only as shown at 5. The glass tube or cylinder 4 is provided preferably adjacent its closed end and over the end wall with a color decoration shown generally at 6 and consisting if desired of a series of sections or areas of different colors which for convenience of illustration are shown as squares 6*a*. This colored portion of the tube should be understood as consisting of one color alone or of different colors arranged in any desired manner or shapes, for example of juxtaposed lines or circles, etc.

The translucent tube member is further provided at its open end 7 with an orifice or aperture 8 to provide a means of conveniently inflating the balloon, either by lung power or from a suitable air or fluid pressure source. It will be noted that the air orifice 8 is disposed at a point on the tube where it is normally effectively closed by the contracting action of the restricted neck portion 2 of the balloon, as shown in Fig. 3. The contracting neck portion 2 fits closely and firmly against the glass surface of the tube and constiutes the sole means for retaining the balloon in inflated position, thereby dispensing with the necessity for separate or auxiliary valves for this purpose.

The tube or cylinder 4 is designed to receive and house an elongated cylindrical plug member 9 constituting a known and commercially obtainable insulated electrical connection having a metallic socket portion 10 for the reception of an electric light bulb 11. The plug member 9 has the usual electrical connection or wires 12 communicating in turn with the source of electrical energy indicated at 13 in Fig. 1. The plug member 9 is further provided with one or more elongated leaf spring members 14 suitably secured at one end as at 15 to the socket portion of the plug and bowed at their centers to provide a yieldable means for retaining the plug within the tube 4. This prevents inadvertent or accidental displacement of the parts when the devices are assembled and the balloon is disposed in depending position as illustrated. When the described elements are assembled it will be observed that the electric light bulb is contained within the translucent tube 4 adjacent its closed end and within the color decorated portion of the tube.

Upon closing the circuit the bulb 11 is illuminated and in turn illuminates brightly the color decoration area 6 of the translucent tube, and this decoration is magnified and reproduced by the light rays on the walls of the balloon member. The latter being thin and translucent results in the color decoration being visible with pleasing effect on the outer wall of the balloon. When the balloon or a plurality of the same are agitated by natural or artificial air currents, the thin flexible walls of the same oscillate or sway laterally and relative to the tube 4 and its internally contained illuminating means, as indicated by the dotted lines 16 in Fig. 3. This produces diversified changes, movements and expansions of the reproduced ornamental lighting effect visible to the observer on the balloon walls, with resulting phenomena pleasing to the eye and of a highly ornamental and decorative nature.

In assembling the parts the tube member 4 is inserted or projected with its closed end innermost into the interior of the balloon, the restricted neck portion 2 of the latter being widened or distended for this purpose. The insertion is preferably carried out until the aperture 8 is projected within the neck portion 2, at which time the body portion of the balloon may be inflated to the desired degree by blowing through the open end of the tube, as will be understood. For this purpose either the human lungs may be employed or any suitable source of air pressure. After the balloon is inflated the tube 4 is retracted slightly until the contracting neck portion 2 is substantially in alignment with the air aperture 8 at which time the contracting tendency of the neck portion serves to effectually seal the tube against the egress of air. The plug 9 with its electric light bulb 11 is next inserted into the open end of the tube and is yieldably maintained in adjusted position therein by means of the flexible leaf spring member or members as shown in Fig. 5. The device is completely ready for service when the electric circuit communicating with the bulb 11 is closed.

By extending the color or decorated portion of the tube over the closed end 5 thereof a maximum area of reproduced surface decoration is imparted to the translucent balloon walls as will be apparent. It will be understood that the color decoration portion 6 may be disposed at various portions of the tube if desired, but the embodiment described and illustrated has been found to produce desirable and attractive results. The invention further contemplates the use of other

known means of illuminating the interior of the translucent tube 4, although electrical energy has been found to be well suited for the purpose. It is further possible to inflate the balloon member when the aperture 8 is encircled by the neck portion 2 of the balloon, especially when mechanical air pressure means are employed. The neck 2 of the balloon yields sufficiently to permit the interior of the body to be inflated and immediately contracts to effectually close the aperture 8 when the pressure is relieved. In assembled condition one or a plurality of balloons have been found to maintain their inflated state indefinitely without any substantial or appreciable loss of their air content.

The reproduced and if desirable vari-colored effects on the walls of the balloon, and which enlarge or contract with the swaying movement of the walls relative to the illuminated tube, are indicated on the drawings at 17.

I claim:—

1. In a decorative light the combination of a translucent inflatable balloon, a translucent member inserted into the interior of the balloon and having a decorated portion, and illuminating means inserted into said member within said decorated portion, whereby the transmitted light from the illuminating means will reproduce the decoration on the balloon, said balloon being supported so that the swaying of the latter relative to the illuminant will cause movements and changes of the decoration on the balloon.

2. In a decorative light the combination of a translucent inflatable balloon member, a glass tube inserted into the interior of the balloon and having its inner end decorated with colors, and illuminating means inserted into said tube within said colored end, whereby the transmitted light from the illuminating means will reproduce the said colors on the balloon walls, said balloon being supported so that the swaying of the latter relative to the illuminating means will cause movements and changes of the vari-colored design visible on the translucent walls of the balloon.

3. In a decorative light the combination of a translucent inflatable balloon having a resilient neck portion, a translucent member closed at its inner end and open at its outer end and inserted into the contracted neck of the balloon, and adapted to receive a lighting element, said tube having a normally unobstructed air opening at its side for inflating the balloon, said opening being closed against the escape of air by the contracted neck of the ballon after inflation of the latter.

In testimony whereof I affix my signature.

CARL A. FROST.