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J. W. CATCHING

2,854,563

ILLUMINATED JEWELRY

Filed June 3, 1955

Fig. 1.

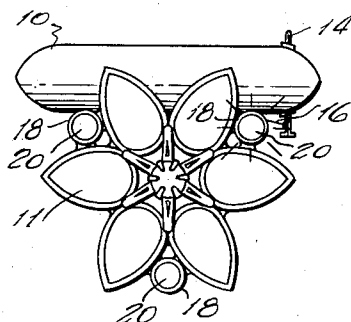


Fig. 2.

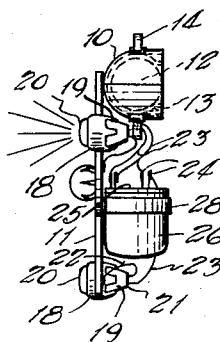


Fig. 3.

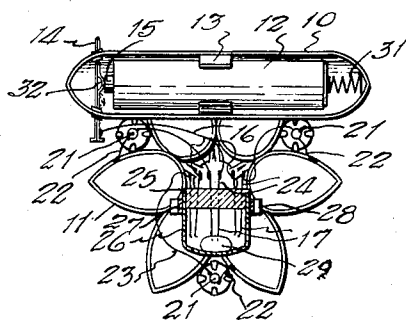


Fig. 4.

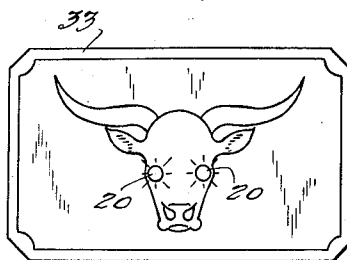
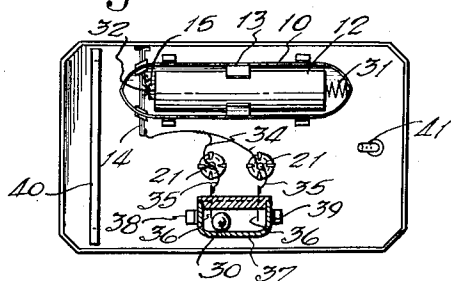


Fig. 5.



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2,854,563

ILLUMINATED JEWELRY

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1 Claim. (Cl. 240—6.4)

This invention relates to illuminating devices for ornamental or costume jewelry, or the like, and it has particular reference to apparatus for electrically producing illumination for simulated gem settings in brooches, belt buckles, millinery and coiffure ornaments, and other similar articles, and its principal object resides in the provision of a novel device by which a plurality of simulated stones or gems can be caused to sparkle in a haphazard or random manner as the wearer moves about, or by the natural movement of the body, as by breathing, or in other relatively slight motions.

An object of the invention is that of providing a simple arrangement of parts by which very small lamps can be arranged in mountings in the face of the ornament and be capable of energization by a small battery, detachably secured to the article, through electrodes engageable by a conductor element movable by the normal body motions of the wearer.

Broadly, the invention contemplates the provision of a unique device by which articles of relatively inexpensive structure and ornamentation can be embellished with a semblance of animation and thus become more attractive in appearance than conventional articles of the character referred to.

While the foregoing objects are paramount, other and lesser objects will become manifest as the description proceeds, taken in connection with the appended drawings wherein:

Figure 1 is a front elevational view of a brooch in which the invention is embodied, showing one way in which the battery case can be attached, and showing the mountings for the illuminating units.

Figure 2 is a side elevational view of the invention illustrating the arrangement of the battery, the lamps, the electrode receptacle and the conductors for the lamps.

Figure 3 is a rear elevational view of the invention, as embodied in the structure shown in Figures 1 and 2, showing the removable battery and showing the electrode case in vertical section to illustrate the arrangement of electrodes therein.

Figure 4 is a front elevational view of a belt buckle in which the invention is embodied, and

Figure 5 is a rear elevational view of the device illustrated in Figure 4 showing the battery, the lamps, and the electrodes therefor arranged in a modified receptacle shown in vertical section.

Accordingly, the invention includes a battery casing 10 which is adapted to be secured in any desired manner to the rear side of an ornamented panel 11 of a piece of costume jewelry, or the like, such as a brooch as illustrated in Figures 1, 2 and 3. A battery 12 is detachably secured in the casing 10 by a clip 13, or other suitable device, and is therefore renewable as desired. A switch 14 is arranged through one end of the casing 10, which is open on its rear side, by which a circuit can be completed through the post 15 of the battery 12 and the conductor 16 connected between the

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switch 14 and each of the paired electrodes 17 which will be presently described.

The panel 11 has a plurality of apertured mountings 18 formed thereon, and situated as desired, in which small lamps 19 are arranged so that a luminous portion 20 thereof is projected through the apertures in the mountings 18 and into the face of the panel 11, as shown in Figures 1 and 2.

The base 21 of each lamp 19 is grounded to the panel 11 as by a conductor 22, or other means, and has a conductor 23 attached thereto which is connected to an electrode of one of each of the several pairs of electrodes 17 arranged through an insulator 25 and extending into an insulated receptacle 26 attached to the rear of the panel 11, as shown in Figures 2 and 3. An electrode 24 of each pair of electrodes 17 is provided for each of the lamps 19.

The receptacle 26 may be of any non-conductive material, such as plastic, or if formed of metal, it can be insulated from the panel 11 as by a band 27 of fiber, or the like, within the supporting ring 28 shown in Figures 2 and 3. The electrodes 24 are arranged in pairs so that their lowermost ends are relatively close together to be connected by a mobile conductor element 29, such as mercury, or a ball 30, as shown in Figure 5, respectively, which is adapted to move about in the limited space within the receptacle 26 momentarily energizing the circuits of the respective lamps 19 to cause them to flash briefly.

The battery 12 is positioned in the casing 10 so that a compression spring 31 in the latter retains its post 15 in firm contact with the contact portion 32 of the switch 14, as shown in Figures 3 and 5. It is obvious that other types of switch elements may be employed if desired.

In Figures 4 and 5 is shown a belt buckle 33 on the face of which is shown the portions 20 of the lamps 19 which project through apertures in the buckle 33 to simulate gems. The rear view of the buckle 33 is shown in Figure 5 and illustrates the bases 21 of the lamps 19 projecting therefrom, each having a conductor 34 attached to the switch 14 and another conductor 35 connected to an electrode of one of two pairs of electrodes 36 in the receptacle 37 which are adapted to be contacted by the ball 30 therein. A pair of electrodes 36 are provided for each of the lamps 19, one of the electrodes 36 of each pair being grounded.

The receptacle 37, while formed differently from the receptacle 26, is of a similar material and has the same function. In Figure 5 the receptacle 37 is shown as mounted by a ring 38 which is insulated therefrom by a band 39. The buckle 33 may be designed with sufficient depth to enclose the battery casing 10 and the receptacle 37, and has a belt loop 40 and a hook 41 thereon for attachment to a belt (not shown).

The structure herein shown and described is intended to be only representative of the variety of articles to which it is designed to be applied and it is manifest that certain changes and modifications may be resorted to from time to time, by persons skilled in the art, without departing from the spirit and intent of the invention or the scope of the appended claim.

What is claimed is:

In combination with an ornamental jewel piece having an ornamented face and having a plurality of apertures therein for simulated stones, a battery illuminated lamp arranged in each of the apertures, a battery case arranged on the rear of the jewel piece, a battery detachably supported in the case, a mercury switch on the rear of the jewel piece having a plurality of pairs of electrodes therein, the several pairs of electrodes being spaced apart from each other and adapted to be selectively connected

at random upon bodily movement of the switch, the electrodes of the several pairs being connected in separate electrical circuits including the battery and the respective lamps.

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