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3,392,275

ILLUMINATED ARTICLE OF JEWELRY

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Fig. 1.

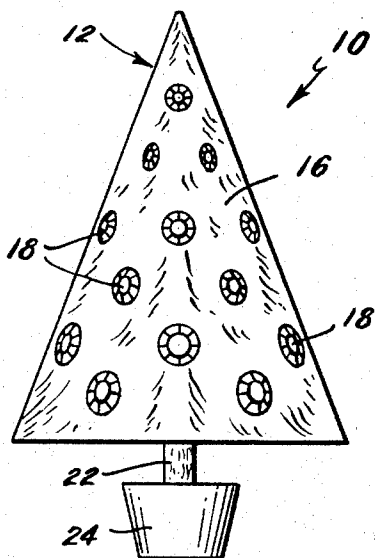


Fig. 2.

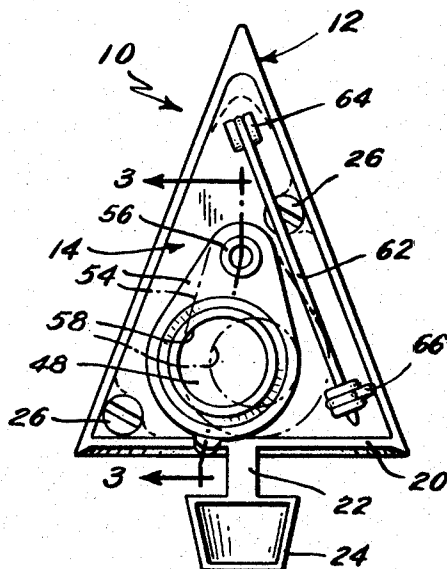


Fig. 3.

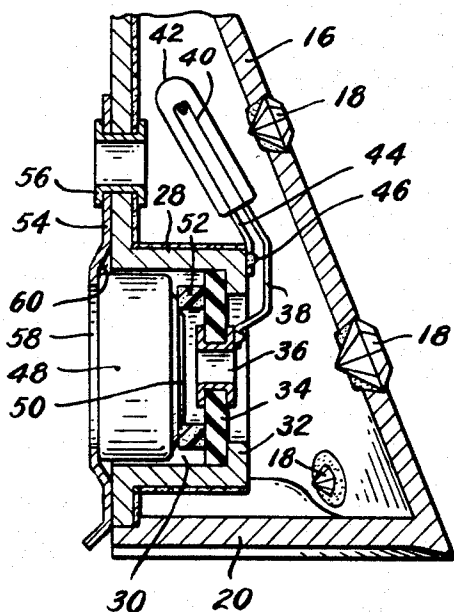
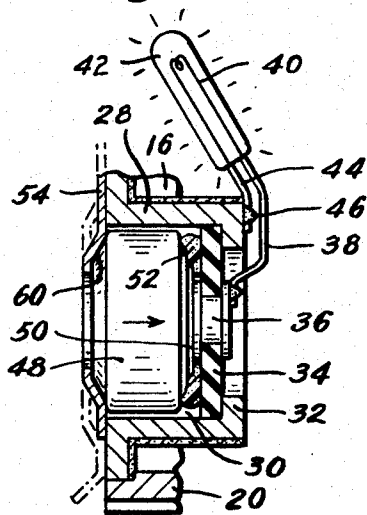


Fig. 4.



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1

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ILLUMINATED ARTICLE OF JEWELRY

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ABSTRACT OF THE DISCLOSURE

An ornamental article having a hollow body to which a rear plate is secured, a battery being mounted on the plate and being electrically connectable to a lamp that is secured to the plate and that is located inwardly of the body. The battery is selectively operated to establish electrical communication with the lamp for illuminating the interior of the body. The body has means formed in the walls thereof through which the light therein is visible exteriorly for creating an interesting ornamental effect.

The present invention relates to an illuminated article of jewelry and, more particularly, relates to an article of jewelry having a hollow body, in at least one wall of which light is externally visible, a battery and lamp being secured in said body and being electrically interconnected by a switch member for illuminating the interior of the body.

The present invention is directed to an article of jewelry that is adapted to be worn on the clothing of a user. For this purpose, the article of jewelry is defined by an ornamental body portion that is generally hollow in configuration. Secured to the body portion is a plate in which a chamber is formed for receiving a miniature battery, a lamp being further secured to the plate and being adapted to be electrically interconnected to the battery. The lamp is disposed within the body portion and is adapted to illuminate the interior thereof, the body portion being constructed such that illumination of the interior thereof is externally visible. The battery is normally disposed out of engagement with a terminal for electrically interconnecting the lamp to the battery, a resilient member maintaining the battery in the nonconducting position. A switch member mounted on the plate is movable into positive engagement with the battery for depressing the battery into electrical connection with the terminal for completing a circuit to the lamp and thereby illuminating the interior of the body portion.

Accordingly, it is an object of the present invention to provide an article of jewelry that includes a body portion, the interior of which may be illuminated to present an interesting ornamental effect.

Another object of the invention is to provide an illuminated article of jewelry having a pivotal switch member secured thereon that is selectively moved for energizing a lamp within the body for illuminating the interior thereof.

Still another object is to provide an article of jewelry in which a lamp is located, a battery being selectively moved into electrical interconnection with the lamp for illuminating the interior of the article of jewelry.

Other objects, features and advantages of the invention will become apparent as the description thereof proceeds when considered in connection with the accompanying illustrative drawings.

In the drawings which illustrate the best made presently contemplated for carrying out the present invention:

FIG. 1 is a front elevational view of the illuminated article of jewelry embodied in the present invention;

FIG. 2 is a rear elevational view of the article of jewelry illustrated in FIG. 1;

2

FIG. 3 is a sectional view taken along lines 3—3 in FIG. 2; and

FIG. 4 is a view similar to FIG. 3 showing the battery and lamp in the electrically interconnected position.

Referring now to the drawings and particularly to FIGS. 1 and 2, the illuminated article of jewelry embodied in the present invention is generally indicated at 10 and includes a body portion generally indicated at 12, to the rear of which a plate member generally indicated at 14 is secured. As shown, the body portion 12 has a semipyramidal construction defined by a circular wall 16 and simulates a Christmas-tree ornament. For this purpose, the body portion 12 has formed in the outer circular wall 16 thereof a plurality of openings in which simulated gems indicated at 18 are secured. It is understood that the simulated gems 18 are normally formed of a glass material and will admit light therethrough, thereby providing an ornamental effect as light from the illuminated interior of the body portion reflects therethrough. It is further seen that the gems 18 may be formed in various colors so as to enhance the ornamental effect produced. The body portion further includes a lower wall 20, to which a stem 22 is joined having a simulated box element 24 connected thereto. Thus, as seen in FIGS. 1 and 2, the article of jewelry 10 simulates a Christmas-tree ornament, wherein the gems 18 are intended to produce the effect of a lighted Christmas tree. Although a Christmas-tree ornament is illustrated and described herein, it will be understood that the concept of the invention may be embodied in other forms of jewelry articles as required.

Referring now to FIGS. 2 and 3, the body portion 12 is shown being formed in a hollow configuration defining an interior chamber that is closed by the rear plate 14, the plate 14 having a generally triangular configuration that conforms to the outline of the body portion 12. Screws 26 extend through appropriate openings located in the plate 14 and are received in threaded openings formed in the body portion 12 for securing the plate 14 thereto. As shown in FIG. 3, the inner surface of the plate 14 is formed with an inwardly extending annular wall 28 and an inner peripheral edge 32 that define an interior chamber 30 which when the plate 14 is mounted on the body portion 12, extends within the interior of the body portion 14, as indicated in FIG. 3.

Located within the chamber 30 and in engagement with the inner peripheral edge 32 is a nonconducting disc 34. Fixed centrally of the disc is a contact 36 to which a lead 38 is connected, the lead 38 being joined to a filament 40 of an incandescent lamp 42. A lead 44 is also joined to the filament 40 of the lamp 42 and is fixed to the peripheral edge 32 of the annular wall 28 by a solder connection indicated at 46. The plate 14, including the annular wall 28 and the peripheral edge 32 are all formed of a metallic conducting material, the exposed portion of the peripheral edge 32 being free of any coating material to insure a proper electrical connection at 46.

Located within the chamber 30 is a miniature battery 48 that is generally cylindrical in configuration and is of that type that is normally employed in articles such as hearing aids. The inner endmost edge 50 of the battery 48 defines a terminal therefor and is spaced from the contact 36 by a resilient pad 52. The outer end of the battery 48 defines the other terminal therefor and, as will be described, is adapted to complete a circuit to the lead 44 so that when the terminal 50 engages the contact 36, a circuit will be completed through the battery 48 and the filament 40 of the lamp 42 for illuminating the lamp.

The chamber 30 for receiving the battery 48 is of such a dimension that the sides of the battery will normally

contact the annular wall 28 if a slight sidewise movement is applied to the battery on the depressing thereof. Thus, if the terminal 50 is brought into engagement with the contact 36 and the battery engages the side wall 28, a circuit will be completed through the battery to the leads 38 and 44 of the lamp 42. A further circuit is defined through the plate 14 by way of the annular wall 28 and a switch member 54 as illustrated in FIGS. 3 and 4. The switch member 54 has a generally plate-like configuration and is mounted for slidable pivotal movement on the plate 14 by means of a rivet connection 56. The switch member 54 has an opening 58 formed therein around which an annular recess 60 is formed, the annular recess 60 accommodating the battery 48 therein without pressure being applied thereto by the switch member when the switch member 54 is located in overlying relation with respect to the battery (see FIG. 3).

Since the switch member 54 engages the outer end or one terminal of the battery 48, a complete circuit to the lamp 42 will be obtained when the battery 48 is forced inwardly in the chamber 30 into engagement with the contact 36. In order to energize the lamp 42, the switch member 54 is pivoted about the connection 56, wherein the axis of the opening 58 and recess 60 is moved relative to the axis of the battery 48. The outer peripheral edge of the switch member 54 is thus dragged into engagement with the rear surface of the battery 48 and forces the battery 48 inwardly against the action of the resilient pad 52 to place the terminal 50 into engagement with the contact 36. The circuit is then completed to the lamp 42 through the lead 38, lamp filament 40, lead 44, the annular wall 28, rivet connection 56, and switch member 54. As previously described, since the diameter of the chamber 30 is only slightly greater than that of the battery 48, inner movement of the battery 48 will normally effect a sidewise movement of the battery and will force the side walls of the battery into engagement with the annular wall 28. This will also complete the circuit to the lamp 40 by way of the leads 38 and 44 and the engagement of the contact 36 with the terminal 50 of the battery.

In use of the article of jewelry 10, a pin 62 is pivotally connected to the rear wall of the plate 14 at a pivotal connection 64, the pin being adapted to be engaged in a guard 66 in the well-known manner. Thus, the ornament 10 may be secured to the clothing of the user in any position as desired. With the article 10 mounted on the clothing of the user, the lamp 42 may be energized at will by shifting the switch member 54 relative to the plate 14 in either direction so as to cause the peripheral edge of the switch member 54 to urge the battery 48 inwardly against the action of the pad 52 and into engagement with the contact 36 (FIG. 4). Since the switch member 54 makes positive contact with the battery 48, it may be left in engagement therewith so as to continuously energize the lamp 42. With the lamp 42 energized, the interior of the body portion 12 is illuminated, this illumination being visible through the varied colored simulated gems 18. A decorative and ornamental effect is thus produced by the light reflecting through the simulated gems 18; and in the form of the invention as illustrated herein, the article appears to have the appearance of a lighted Christmas tree. The lamp 42 is deenergized by pivotally moving the switch member 54 to the overlying position with respect to the battery 48 wherein the outer end of the battery 48 is then received within the recess 60 and the pressure thereon is removed so that the pad 52 urges the battery 48 outwardly to disengage the terminal 50 from the terminal 36 (FIG. 3).

It is seen that an unusually interesting and ornamental article is defined by the present invention and that the interior of the body portion 12 may be illuminated as desired. If the user so requires, a flickering action may be obtained by intermittently pressing the battery 48 that is accessible through the opening 58 in the switch member

54. Thus, upon depressing of the battery 48, the side walls thereof will engage the annular wall 28 and the lamp 42 will be energized. The user may then intermittently energize the lamp 42 by alternately pressing the battery 48 and relieving the pressure therefrom with his finger.

While there is shown and described herein certain specific structure embodying the invention, it will be manifest to those skilled in the art that various modifications and rearrangements of the parts may be made without departing from the spirit and scope of the underlying inventive concept and that the same is not limited to the particular forms herein shown and described except insofar as indicated by the scope of the appended claims.

What is claimed is:

1. In an ornamental article, a hollow body, a rear plate secured to said body and having a battery removably mounted thereon, a lamp secured to said plate and being located inwardly of said body, a switch member mounted on said plate and being movable to electrically interconnect said lamp to said battery for illuminating the interior of said body, means in said body through which the light therein is visible exteriorly thereof, thereby creating an interesting ornamental effect, said plate having a chamber formed therein in which said battery is received, the walls of said chamber extending inwardly of said body when said plate is mounted thereon, said switch member being pivotally mounted on said plate and being movable into engagement with said battery for causing said battery to engage a contact that is disposed within said chamber for completing the circuit between said battery and lamp, said plate and the walls that define said chamber being formed of a conducting material, said lamp having electrical leads interconnected thereto, one of said electrical leads of said lamp being connected to a terminal that is normally insulated from said battery, and resilient means engaging said battery for normally retaining said battery out of engagement with said terminal and being responsive to exterior pressure exerted on said battery by said switch member to permit said battery to make contact with said terminal for completing the circuit from said battery to said lamp.

2. In an ornamental article as set forth in claim 1, said pivotally mounted switch member being plate-like in construction and having an annular recess formed therein, that is adapted to overlie said battery so that said switch member does not apply pressure to said battery when disposed directly thereover, said switch member being pivotally movable from the overlying position to locate a peripheral edge thereof in engagement with said battery for forcing said battery into engagement with said terminal.

3. In an ornamental article, a hollow body, a rear plate secured to said body and having a battery removably mounted thereon, a lamp secured to said plate and being located inwardly of said body, a switch member mounted on said plate and being movable to electrically interconnect said lamp to said battery for illuminating the interior of said body, means in said body through which the light therein is visible exteriorly thereof, thereby creating an interesting ornamental effect, said plate being formed of a conducting material and being electrically interconnected to a lead of said lamp, and a contact interconnected to another lead of said lamp and being electrically engageable by said battery to complete the circuit between said lamp and battery when said switch member is movable to an actuating position, said switch member being pivotally mounted on said plate and being movable for engaging said battery for urging said battery into engagement with a terminal that electrically interconnects said battery to said lamp for completing a circuit therebetween, said plate having a chamber formed therein for receiving said battery, said contact being fixed in said chamber, and resilient means located in said chamber and normally spacing said battery from said

5

contact, said switch member being movable into positive engagement with said battery to urge said battery into engagement with said contact for completing the circuit between said battery and lamp.

4. In an ornamental article as set forth in claim 3, said switch member being plate-like in configuration and having an annular recess formed therein, said switch members normally located over said battery so that the battery is received in said recess without the switch member exerting pressure on the battery, said switch member being pivotally movable so that a peripheral edge thereof positively engages said battery for urging said battery into engagement with said contact and against the action of said resilient member.

5. In an ornamental article, a hollow body, a rear plate secured to said body and having a chamber formed therein in which a battery is received, said plate and the walls that define said chamber being formed of a conducting material, a lamp secured to said plate and being located inwardly of said body, one of said electrical leads of said lamp being connected to a terminal that is normally insulated from said battery, resilient means engaging said battery for normally retaining said battery out of engagement with said terminal and being responsive to exterior pressure exerted on said battery to permit said battery to make contact with said terminal for completing the circuit from said battery to said lamp for illuminating the interior of said body, and means in said body through which the light therein is visible exteriorly thereof, thereby creating an interesting ornamental effect.

6

6. In an ornamental article as set forth in claim 5, a switch member mounted on said plate and being movable relative thereto into positive engagement with said battery to electrically interconnect said lamp to said battery.

7. In an ornamental article as set forth in claim 6, the walls of said chamber extending inwardly of said body when said plate is mounted thereon, wherein the exposed surface of said battery as located in said chamber is substantially conterminous with the outer surface of said plate.

8. In an ornamental article as set forth in claim 7, said switch member being pivotally secured to said plate and being generally parallel with respect thereto, wherein pivotal movement of said switch member moves it into and out of sliding engaging relation with the exposed surface of said battery.

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