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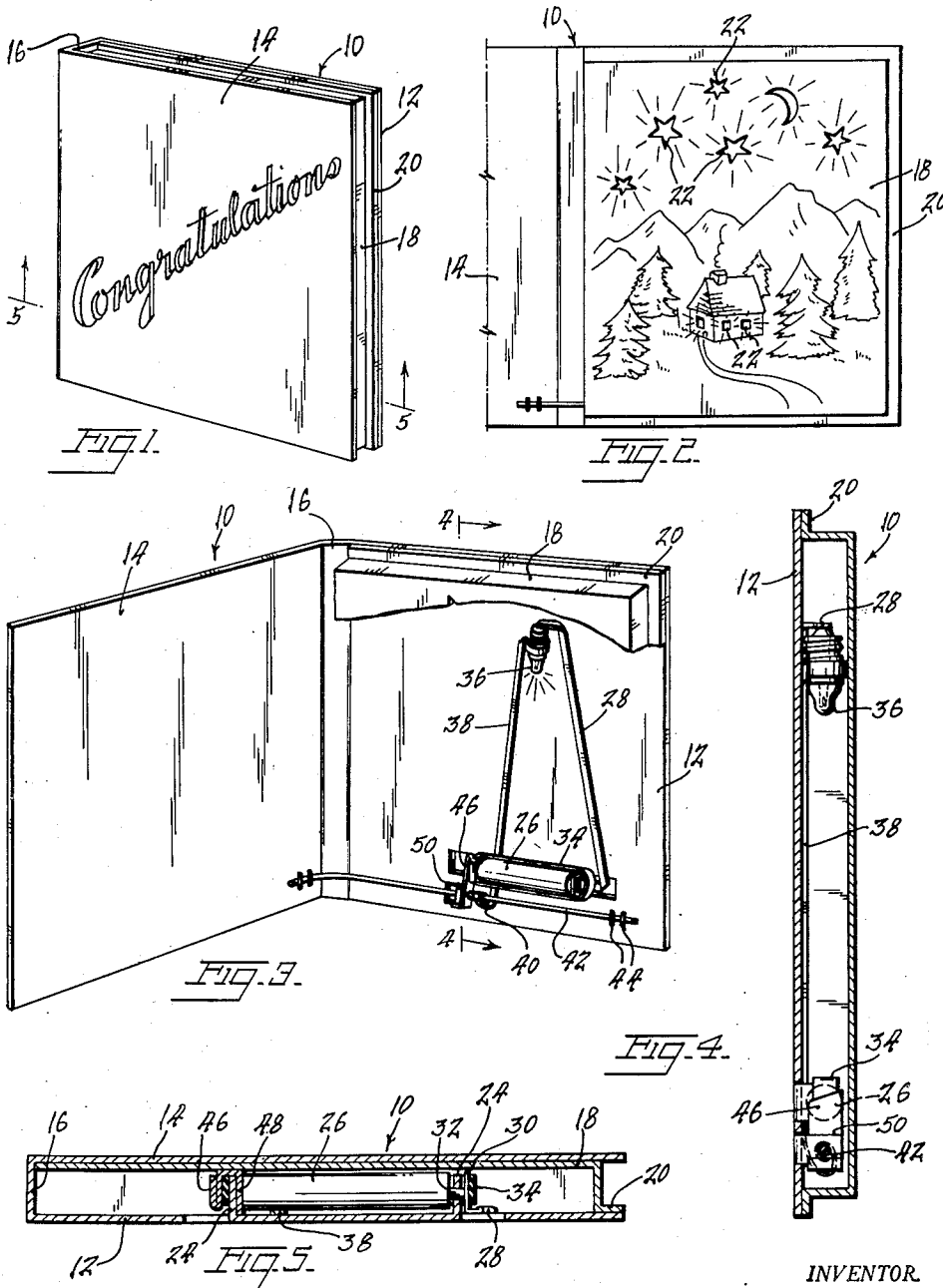
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ILLUMINATED GREETING CARDS

Filed Nov. 27, 1953

2 Sheets-Sheet 1



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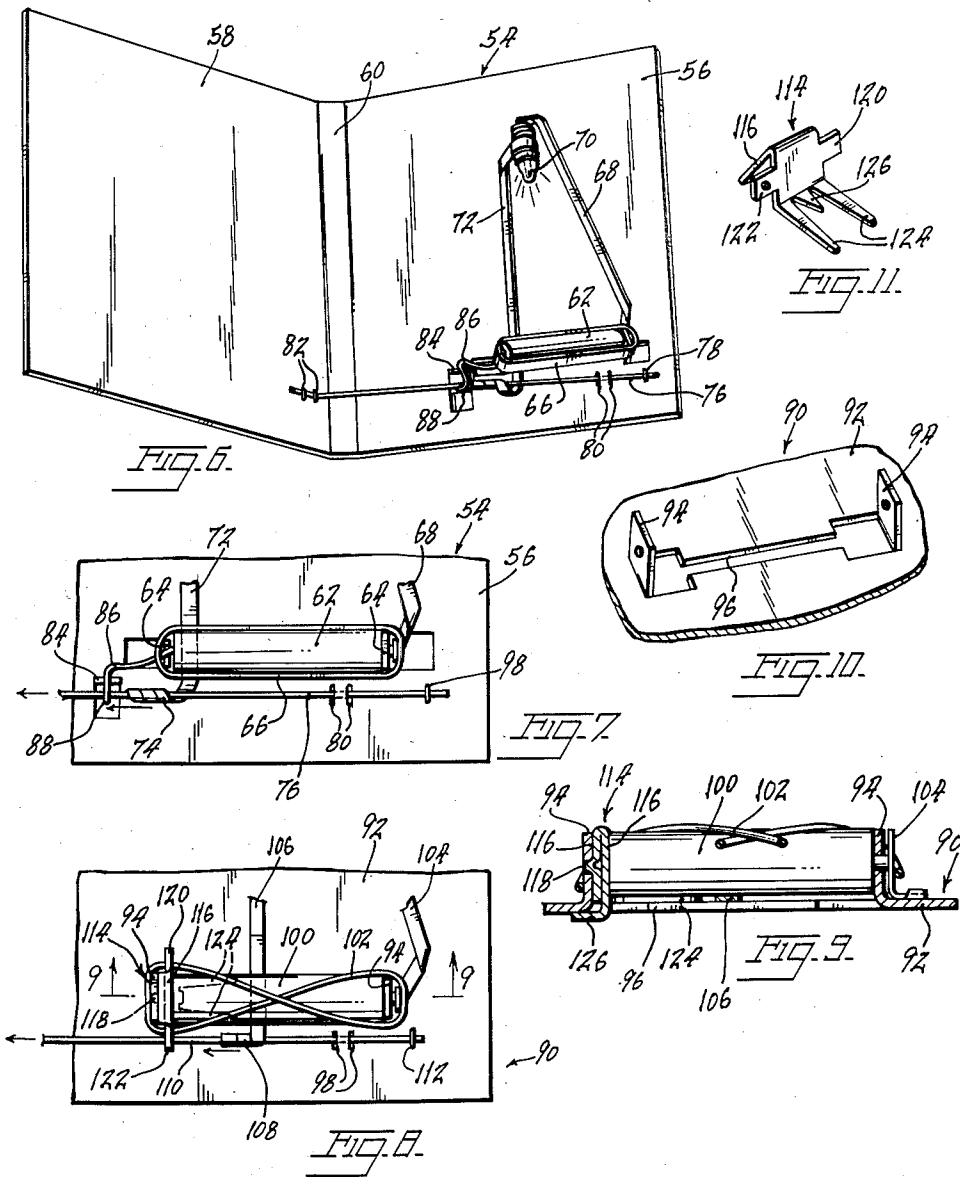
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ILLUMINATED GREETING CARDS

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1 Claim. (Cl. 40—152.2)

This invention relates to illuminated greeting cards, and has for its main object the provision of a generally improved card of this type.

Among the objects of the invention are to make the greeting card as compact and thin as possible; provide an improved means for closing a circuit through the lamp bulb thereof responsive to opening of the card; promote certainty of operation on each occasion on which the card is opened; and, as one of the most important objects, reduce to a minimum the overall cost of manufacture of the card.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claim in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a perspective view of a greeting card according to the invention.

Fig. 2 is a fragmentary elevational view of the card opened.

Fig. 3 is a perspective view of the opened card in which part has been broken away.

Fig. 4 is an enlarged sectional view on line 4—4 of Fig. 3.

Fig. 5 is an enlarged sectional view on line 5—5 of Fig. 1.

Fig. 6 is a perspective view of a modification, the card being opened and the housing removed.

Fig. 7 is a fragmentary plan view showing the battery and switch device of the form of Fig. 6.

Fig. 8 is a view like Fig. 7 showing another modification.

Fig. 9 is a sectional view on line 9—9 of Fig. 8.

Fig. 10 is a fragmentary plan view of the back panel of the Fig. 8 form.

Fig. 11 is a perspective view of the contact element of the form of Fig. 8.

In Figs. 1-5, the card 10 includes a rectangular, flat back panel 12 of cardboard or other electrically insulative material integrally hinged to a similarly dimensioned front panel 14 by a web part 16. A rectangular, shallow housing 18 overlies the back panel and has a peripheral flange 20 adhesively or otherwise secured to the top, bottom, and outer side edge portion of the back panel, said housing being open along its inner side edge (Fig. 5) for dissipation of heat emanating from the illuminated lamp bulb of the device. A suitable picture or other representation is delineated on the housing, and has apertures 22 shaped as stars, house windows, or as any other part of the pictorial representation which one may desire to illuminate.

Adjacent the lower edge of the back panel, spaced tabs 24 are struck therefrom, and are engaged with opposite ends of a miniature battery 26. A first conductive strip 28 of thin copper leaf or the like is adhesively secured to the back panel and has one end 30 pressed

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against the post 32 of the battery by a rubber band 34 tensioned about the battery and tabs, the post extending through an aperture in the adjacent tab (Fig. 5).

The other end of the strip is engaged against the base terminal of a flashlight bulb 36 secured to the back panel, and wrapped about the conductive side wall of the bulb is one end of a second conductive strip 38. Strip 38 is also adhesively secured to the back panel and has its other end extended under the battery (it being understood that the battery has the usual electrically insulative wrapping), said other end of strip 38 being tightly wrapped as at 40 about the intermediate portion of an elongated, non-conductive elastic member 42 such as a broken rubber band.

The member 42 extends in parallelism with the lower edge of the back panel in closely spaced relation thereto, and at one end is anchored to the back panel by staples 44 or equivalent means.

An electrically conductive contact element 46, formed from a small blank of inexpensive sheet metal material, is formed integrally at one end with a clip 48 of inverted U-shape straddling that tab 24 remote from post 32 of the battery. As shown in Fig. 5, the rubber band 34 holds one leg of the clip against the end of the conductive battery casing, that is, against the other post of the battery, said leg being interposed between the adjacent tab 24 and the battery end.

Contact element 46 extends laterally of the battery, and at its free end is apertured for extension of the elastic member 42 therethrough, thus providing a guide for the elastic member. Registering with the guide aperture is the guide opening of a guide tab 50 struck from the material of the back panel, the elastic member also extending through said guide opening.

The other end of the elastic member 42 is anchored to the front panel by staples 52, and when the card is closed, the member 42 will not be under tension. In this condition of the parts, the member 42 will contract to hold the end 40 of conductive strip 38 out of contact with contact element 46, and as a result, the bulb will not be energized.

When, however, the front panel is swung open, pull will be exerted on the elastic member 42, placing the same under tension and shifting strip end 40 into engagement with contact element 46. A circuit will thus be closed through the lamp bulb, causing the pictorial representation to be illuminated responsive to opening of the card, and to remain illuminated until the card is closed.

In Figs. 6 and 7, a modified card 54 has a back panel 56 integrally hinged to a front panel 58 by a web part 60, the panels and web being non-conductive. A battery 62 is engaged between struck out tabs 64 of the back panel by a rubber band 66 circumposed thereabout. A first conductive strip 68 has one end pressed against one post of the battery by the rubber band, and is adhesively secured to the back panel, the other end of strip 68 being engaged with the base terminal of a lamp bulb 70. A second conductive strip 72 has one end wrapped about the side of the bulb, and has its other end extended under the battery and tightly wrapped as at 74 about the mid-length portion of an elastic member 76 anchored at one end by a staple 78 to the back panel. A pair of slits 80 formed in the back panel define a guide bridging the intermediate portion of the elastic member, and anchoring the other end of said member to the front panel are staples 82. Slits 80 could, if desired, be utilized also in the first form.

A tab 84 is struck out of the back panel adjacent end 74 of strip 72, and has an aperture receiving a contact element 86 formed from a short length of conductive wire material. Element 86, at that end thereof supported by tab 84, is formed with an eye 88 through which is loosely

positioned the elastic member 76, it being understood that member 76 is of non-electrically-conductive material. The eye is so proportioned as to be smaller than the enlargement defined by the wrapped end 74 of the strip 72. As a result, when the card is opened, end 74 will be shifted into engagement with the eye 88 to make electrical contact therewith.

The other end of the contact element 86 is engaged between the other post or side of the battery and the adjacent tab 64, by pressure exerted through the tensioned rubber band 66. When, accordingly, the card is opened, a circuit will be closed to illuminate the lamp bulb, said circuit being closed as long as the card remains open, and being opened when the card is closed. The card 54 will of course have a housing 18 on which a suitable pictorial representation is provided.

In Figs. 8-11, another modified card 90 has a back panel, front panel, and web part similar to those of the forms hereinbefore described. The back panel has here been designated 92, and struck therefrom are apertured tabs 94 (Fig. 10), a slot 96 extending between the openings defined by striking out the tabs, to provide a seat for the battery. Further, slits 98 analogous to the slits 80 are formed in the back panel.

The battery 100 is engaged between tabs 94 by pressure exerted through a rubber band 102, this being twisted in a "figure eight" form to exert downward pressure on the battery tending to hold the same in its seat. Band 102 presses one end of a conductive strip 104 against one post of the battery, the strip leading to one side of a lamp bulb, from the other side of which extends a conductive strip 106. Strip 106 extends under battery 100, and is wrapped tightly at 108 about an elastic member 110 anchored at one end, as at 112, to the back panel.

A contact element 114 (Fig. 11) is formed from a thin sheet metal blank and shaped to include a clip 116 of inverted V shape the legs of which are tensioned to spring outwardly from one another. In one of said legs, as shown in Fig. 9, a node 118 is struck out to engage in the aperture of the adjacent tab 94. The legs of the clip are pressed together, both being engaged between tab 94 and the adjacent end of the battery by the pressure of the rubber band 102.

Formed on the other leg, at opposite sides thereof, are outwardly projecting ears 120, 122, ear 122 being apertured. On the lower end of the same leg are formed transversely spaced, elongated, tapered prongs 124 between which is provided a pointed lug 126 bendable under the back panel (Fig. 9) to secure the contact element in place. Prongs 124 extend under the battery and are normally closely spaced from the conductive strip 106, when the card is closed.

When the card is opened, the elastic member will be stretched to shift that portion of strip 106 that extends

under battery 100, against prongs 124, closing a circuit and illuminating the card.

The purpose of ears 120, 122 is to provide projections under which the rubber band 102 is extended (Fig. 8). Further, ear 122, being apertured for extension of member 110 therethrough, provides a guide for said member 110.

It is to be understood that in place of conventional wiring a printed foil circuit or metalized paper may be used for making contacts for illumination of light bulb.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claim.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

In a folder type greeting card having a pair of hinged folds with a pictorial representation carried on one of the folds, an electric battery and a lamp bulb interposed between the folds adapted to illuminate said pictorial representation, an electric switch for closing the electric circuit through said lamp bulb upon hinging movement of one of the folds relative to the other, said switch including an elongated stretchable actuating member anchored at its ends to the folds and spanning the hinge juncture therebetween, flexible conductive strips connected at one end of the terminals of the lamp bulb, the other end of one of said strips being connected to one terminal of the battery, the other end of the other conductive strip encircling end constituting a movable switch member, a conducting clip on said other end of the battery in the path of movement of said encircling end of the conductive strip whereby upon manually opening said folds relative to each other the actuating member will stretch and carry said encircling end of the conductive strip into contact with said conducting clip for closing the circuit through the lamp bulb to light the bulb, said stretchable member serving to close the folds and open said circuit when the folds are manually released, so that the light bulb is automatically extinguished.

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