Oct. 25, 1960 J. A. SOPRANI 2,957,978

ILLUMINATED DISPLAY DEVICES

Filed Feb. 5, 1958

Fig. 1.

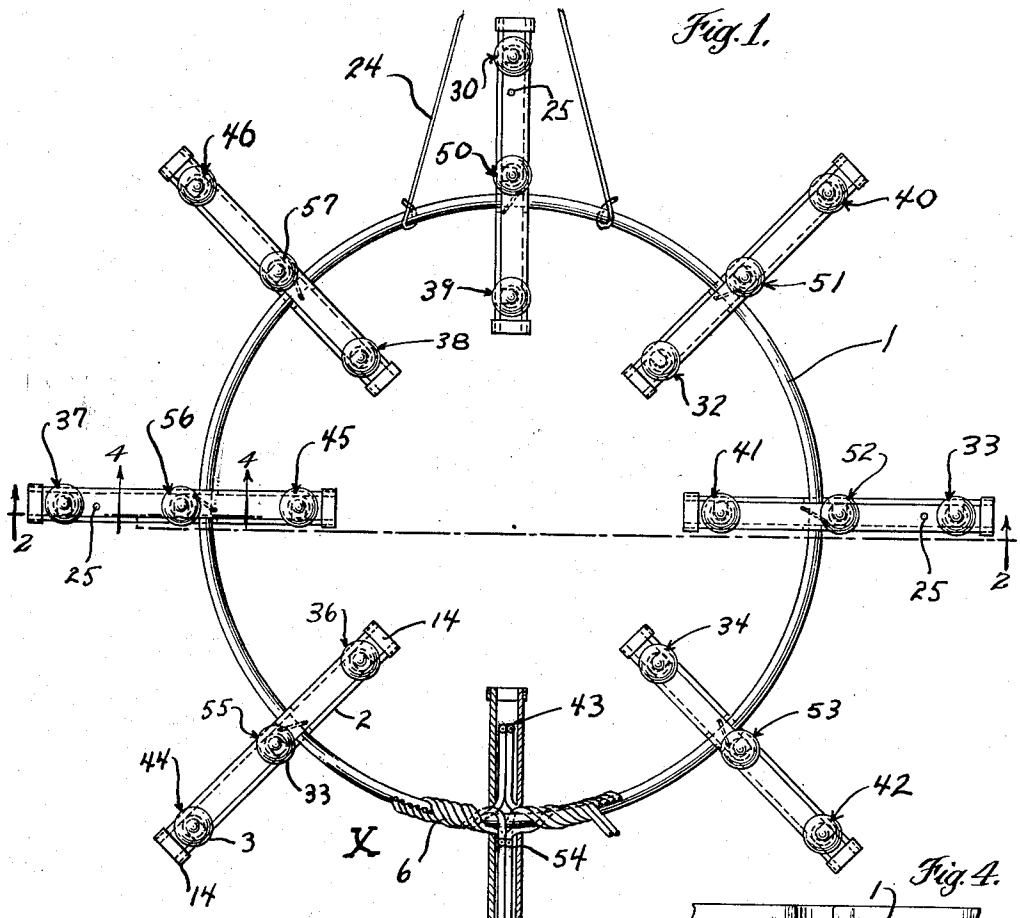


Fig. 4.

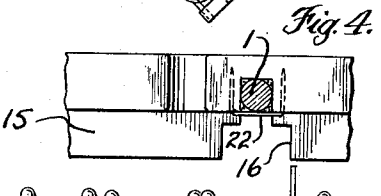


Fig. 2.

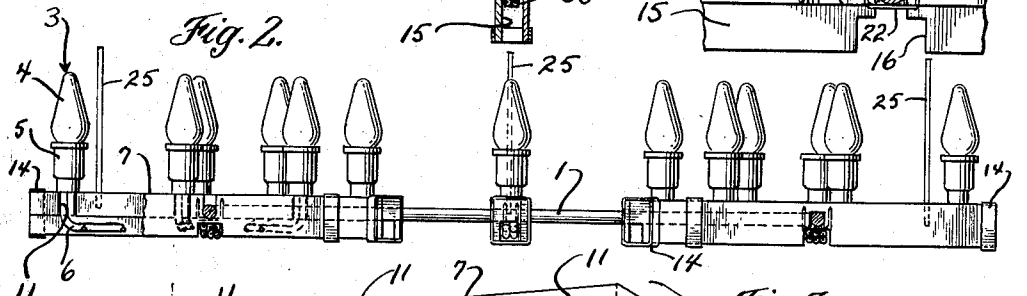
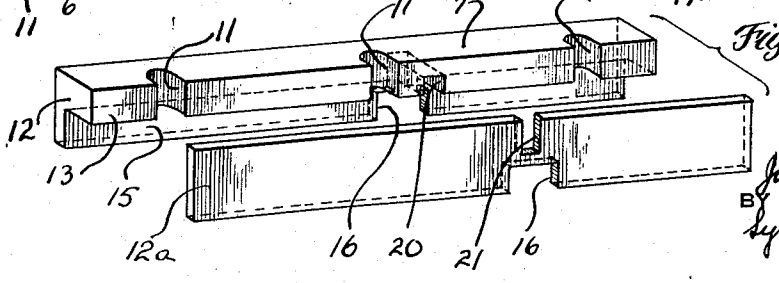


Fig. 3.



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ILLUMINATED DISPLAY DEVICES

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1 Claim. (Cl. 240—10)

This invention relates in general to illuminated display devices and, in particular, relates to a display device which is especially suitable for display at Christmas time. Devices of the kind in question are commonly called Christmas wreaths and will be referred to in that manner hereinafter.

One object of the invention is to provide an illuminated Christmas wreath which is simple to manufacture, low in cost and convenient to operate.

Another object of the invention is to provide a Christmas wreath having illuminating means which are arranged generally radially or in the manner of the spokes of a wheel to provide a highly pleasing and decorative effect.

Another object of the invention is to provide an illuminated Christmas wreath which is particularly suitable for mounting in a window.

Another object of the invention is to provide in a Christmas wreath a supporting member arranged in the form of a ring and having thereon a plurality of elongated light assembly members which are disposed in a radial fashion.

Another object of the invention is to provide a Christmas wreath having a supporting member in the form of a ring together with a plurality of radially extending light assembly holders, each capable of supporting a plurality of light assemblies oriented in a manner generally perpendicular to the plane of the ring.

Another object of the invention is to provide an illuminated Christmas wreath having a supporting member generally in the form of a ring and mounting a plurality of holders, each holder being adapted to support a light assembly by means of the assembly wires or conductors.

Another object of the invention is to provide, for an illuminated Christmas wreath, a light assembly holder which in cross-section is generally U-shaped and having a plurality of apertures extending through the bottom of the U.

Another object of the invention is to provide, for an illuminated Christmas wreath, an elongated two-part light assembly holder which in cross-section is generally U-shaped.

Another object of the invention is to provide, for an illuminated Christmas wreath, an elongated light assembly holder made from two component parts which provide for easy and convenient assembly of the assemblies thereto.

Another object of the invention is to provide, for an illuminated Christmas wreath, means for suspending the wreath consisting preferably of a wire or string attached to the supporting ring.

Another object of the invention is to provide, for an illuminated Christmas wreath, a bracing means comprising rods extending outwardly from the wreath to bear against a window when the wreath is suspended adjacent thereto.

A preferred form of the invention which attains the aforementioned objects and features, together with other

objects and features, is disclosed in the specification to follow taken in conjunction with the drawings wherein:

Figure 1 is a front elevation of a wreath constructed in accordance with the invention with one light assembly holder shown in section;

Figure 2 is a view taken along the line 2—2 of Figure 1;

Figure 4 is an enlarged fragmentary view taken along the line 4—4 of Figure 1; and

Figure 3 is an enlarged exploded view of a holder constructed in accordance with the invention.

In Figure 1 the wreath comprises a supporting member 1 which is arranged in generally ring-like form. On the ring are secured a plurality of elongated light assembly holders 2 which, it will be seen, are generally radially oriented. In the embodiment shown, each of the holders supports a plurality of light assemblies 3 which are preferably the conventional so-called Christmas tree lights. As best seen in Figure 2, each of the assemblies comprises a light or bulb 4 and a base 5, together with electrical conductors or wires 6, the base 5 being flush with the front face 7 of the holder.

As is well known, Christmas tree lights are manufactured with the lights arranged in series or in parallel and either type may be used herein. However, in the particular embodiment shown, a series arrangement is used. Further, the lights may be the indoor or outdoor type.

It is possible to use either one long string of lights or a plurality of strings of lights. The latter is described herein as it is believed to be the more practical in two respects. First, short strings of lights are more readily available and, second, the use of one long string would necessitate an awkward amount of overlapping winding which would result in a more bulky product.

The structure of each of the holders above-mentioned is identical, all being the same as the holder shown in the exploded view of Figure 3. For reasons which will become apparent later, it is preferable that the holder be constructed of two parts, for example, the L-shaped part 12 and the flat part 12*a*. In the actual assembly, of course, the parts 12 and 12*a* are close together with the part 12*a* butting up against the surface 13 of the part 12. The two parts 12 and 12*a* are desirably held together by means of tape 14 which is wound around the opposite edges. It will be apparent that the holder shown is generally U-shaped in cross-section and that the apertures 11 extend from the front face 7, through the portion 12 to the channel 15. The purpose of the apertures 11 and the channel 15 is to support and/or mount the wires for the various light assemblies. The manner in which this is done is best shown in Figure 2 wherein it will be apparent that each base 5 has wires 6 extending therefrom through the apertures 11 and thence into the channel 15. The wires run along the channel between each base 5 and the ring 1.

As best illustrated in Figures 3 and 4, the sides of the channel 15 are provided with cut-outs 16. As the holder is mounted on the ring these cut-outs are adjacent the ring and the wires running through the channel are conveyed outwardly through the cut-outs where they may be wrapped around the ring as illustrated in Figure 1. In mounting the light assemblies on the holders the wires running down through the apertures and through the channel out to the ring are made taut so that the lower portion of the base 5 is flush up against the face 7 of the holder. This construction provides a simple and convenient means for securing the assemblies to the holder without any accessory equipment.

The preferred manner of securing the holders to the ring will next be explained. The portions 12 and 12*a*

of the holder are provided with mating transverse slots 20 and 21 which are formed so as to accept the ring 1 as indicated in Figure 4. When the ring is in the slot 20 of the part 12, a staple 22 is used to secure the holder in position.

For suspending the wreath, say in a window, a string or wire 24 is connected to the ring 1 and preferably formed into a loop. However, two non-converging strings or wires can be employed if the location of the object or objects from which the wreath is to be suspended requires such an arrangement.

The bracing sticks 25, as shown in Figures 1 and 2, are mounted on the holders and extend generally in a perpendicular direction from the faces of several of the holders. These sticks prevent the bulbs from contacting the window when the wreath is suspended adjacent to a window with the bulbs facing it. The sticks, in conjunction with the suspending means, also serve to keep the wreath from twisting.

Having described the various parts of the invention, the preferred manner of assembling the wreath will next be explained. First, however, it is desired to point out that the embodiment described herein utilizes three strings of series-arranged lights, each string having eight light assemblies with the usual end connectors. The bulbs of each assembly may be of the same color or of different colors and the assemblies may be secured to the several holders in a manner which, in cooperation with the bulbs of the other string and/or their location on the other holders, enables a wide diversity in appealing visual effects when the bulbs are illuminated. The preferred arrangement of the assemblies is described.

The part 12 of each holder is stapled on the ring in the manner described, being appropriately spaced apart, and oriented as shown in Figure 1; then the strings of light assemblies are secured on the holders and ring as follows.

The ring, with the holders secured thereto, is set up in a horizontal position with the channels 15 facing upwardly. Preferably the ring is placed on a jig or the like so that there is sufficient area below the same to receive the light assemblies. The assemblies of the first string are then placed at the positions indicated at 54, 53, 52, 51, 50, 57, 56 and 55 with the two wires leading to the electrical connector being in the position generally indicated by the letter X. Each of the assemblies is then arranged so that the base is adjacent the mouth of the aperture 11 (the assembly faces downwardly) and the conductor passes through the aperture, through the channel and thence toward the ring.

Then the light assemblies of the second string are disposed at the positions indicated at 35, 34, 33, 32, 30, 38, 37 and 36. The wires leading to the electrical connector are also disposed generally in the position indicated at X. Each of the light assemblies is then arranged so that the base is adjacent the mouth of the aperture 11 (the assembly faces downwardly) and the conductor runs through the aperture, through the channel toward the ring. Then the light assemblies of the third string are similarly disposed at the positions indicated at 43, 42, 41, 40, 39, 46, 45 and 44. The wires leading to the electrical connector are also arranged so as to be disposed generally in the position indicated at X.

After the foregoing has been done, each holder is completely assembled by adding the part 12*a* which is secured to the part 12 by means of the tape 14. The slack in the wires between the light assemblies is then taken up as follows.

First, the slack between the assemblies at 54 and 53 is taken up and this is done by merely wrapping the wire around the ring making sure that the same is taut so that the assemblies at 54 and 53 are pulled up tightly against the holder. This procedure is repeated for the slack between the assemblies at 53—52, etc. The slack between the assemblies of the second string is then taken up. This is done by winding the slack wire between the assembly at 35 and 34 around the ring 1 making sure that the wires to the two light assemblies are taut so that the same are pulled up tight against the holder and that the wires run down through the respective channels 15. The same is repeated for the slack between the assemblies at 34, 33, etc. The slack between the assemblies of the third string is then taken up in a manner described. In winding the wires around the ring, small bits of tape may be used so as to hold the same in place.

After the foregoing has been accomplished, the slack in the wires of the three strings leading to the respective connectors is then taken up by winding the slack wire around the ring leaving an appropriate amount of wire free so that the connectors can be placed in a receptacle.

In making up the strings of lights for the wreath, each wire between adjacent light assemblies is made a length so that there will be some slack when the assemblies are disposed as described, the slack being taken up in the manner indicated.

In the above assembly if the bulbs located at 30, 32—38 are of one color, the bulbs located at 39—46 another color, and the bulbs located at 50—57 are still another color, a pattern effect comprising two vary-colored stars, together with a central ring-like effect, is attained. It will be appreciated that other pattern effects are possible.

From the above description it will be noted that the light assemblies are arranged in three concentric rings, the outermost assemblies (30, 40, 33, 42, 35, 44, 37 and 46) form an outer ring, the innermost assemblies (50—57) an inner ring, and an intermediate ring formed by the intermediate assemblies (39, 32, 41, 34, 43, 36, 45 and 38). By making the bulbs in the three rings a different color, a multi-color ring effect is obtained.

I claim:

A Christmas wreath comprising: a supporting ring; a plurality of elongated light assembly holders, each holder having a pair of members fastened together and forming a channel and each of the members of each holder being formed with mating transverse openings constituting a slot running transverse its channel and located centrally of the holder, the slot containing part of said ring and one of the members of each holder being formed with a plurality of apertures extending from the channel to one face of the holder; for each holder, securing means to hold the ring in the slot, the securing means and the slot cooperating to provide for the holder to extend radially of the ring and the slot location providing for the holder to have a portion within the confines of the ring and a portion outside the confines of the ring; a plurality of light assemblies, each assembly including a base and a bulb, there being one assembly for each aperture and each assembly being disposed adjacent the aperture; and electrical conductors for each assembly which respectively extend from the base of the assembly through the corresponding aperture and thence through the corresponding channel toward said ring and being wound around the same, the conductors of each assembly being taut and operating to hold the assembly upright on its holder.

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