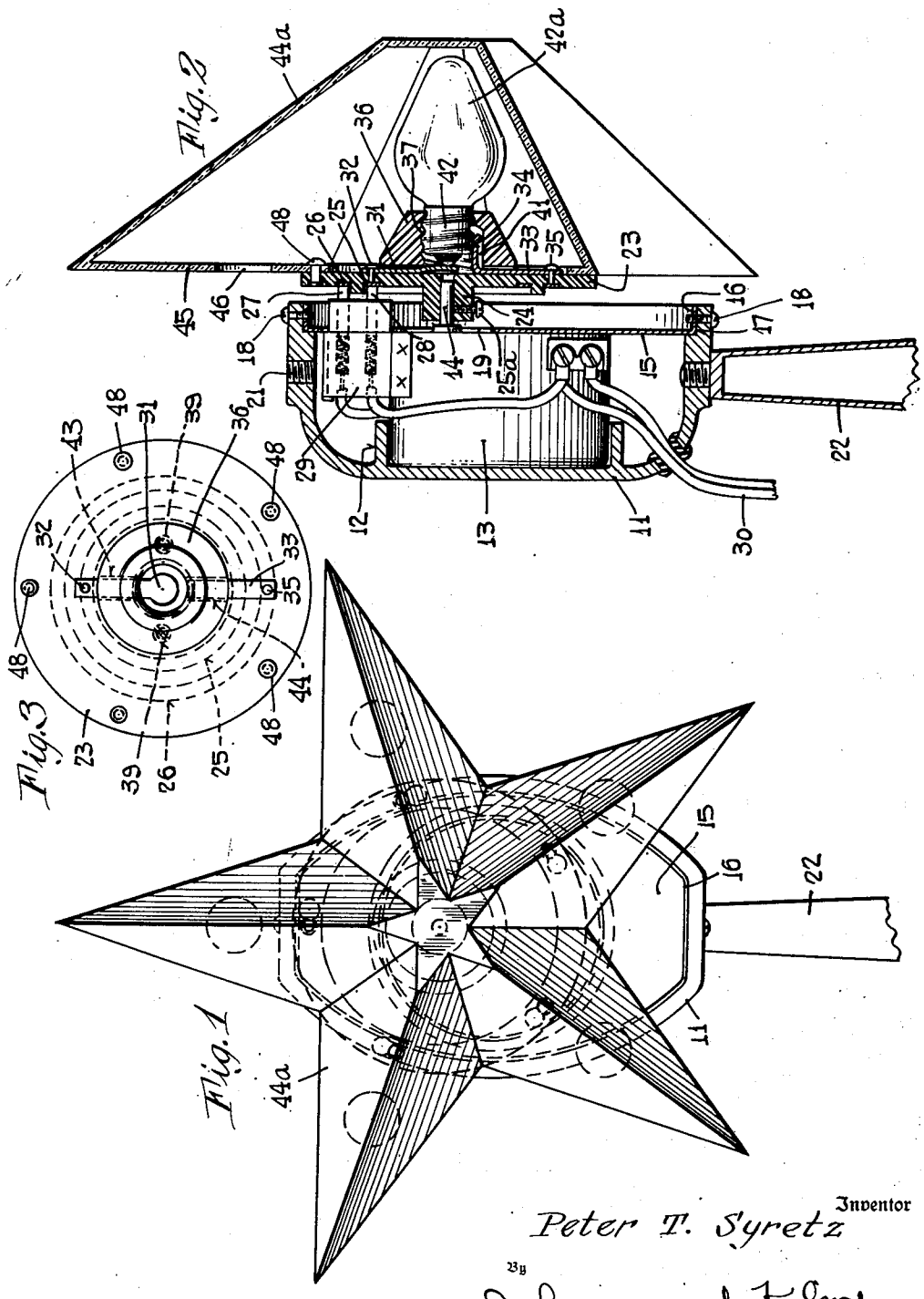
July 29, 1952 P. T. SYRETZ 2,605,386

DECORATIVE ROTATABLE ELECTRICAL DISPLAY

Filed Oct. 11, 1949 2 SHEETS—SHEET 1



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Fig. 4

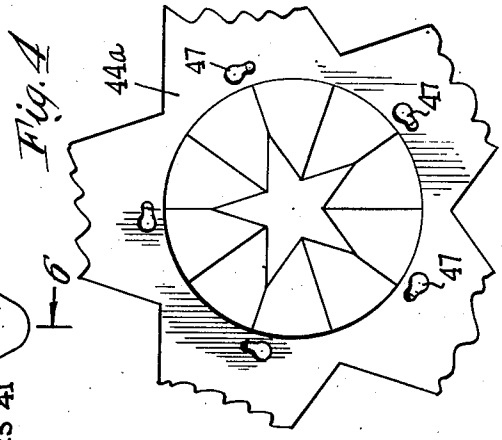
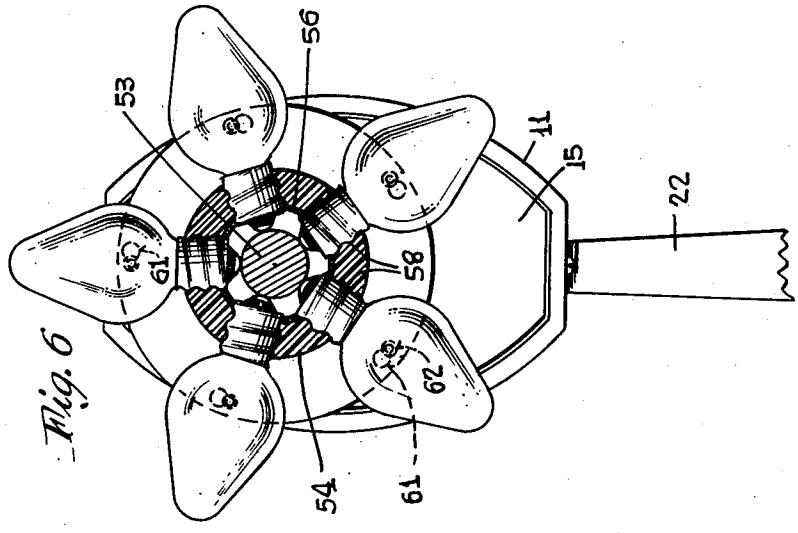


Fig. 5

Fig. 6



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DECORATIVE ROTATABLE ELECTRICAL DISPLAY

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3 Claims. (Cl. 240—10.1)

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This invention relates to decorative and ornamental display devices such, for example, as are adapted for use on Christmas trees, wreaths, etc., as well as in window or street decorations and other places. More particularly it relates to rotating illuminated devices of this type such as stars, light clusters and other decorative items which have both illumination and motion to attract attention and produce a pleasing effect.

A feature of the invention is the provision of a rotatable member constructed and arranged to selectively support any one of a plurality of different ornamental devices which can be detachably connected thereto for rotation and illumination.

A further feature is the provision on such a rotatable member of current-conducting means so constructed that socket members having various arrangements of lamp supporting socket members, both single and multiple sockets, can be secured to the rotatable member and current supplied thereto merely by attaching the selected socket member in place, without having to make any electrical connections other than positioning the socket member in place.

These and other features and advantages are accomplished by the present invention.

In the drawings:

Figure 1 is a front elevation of a display device constructed in accordance with one embodiment of the invention showing the provision of an illuminated rotary star-shaped member illustrating one effect of the invention.

Fig. 2 is a transverse sectional view of the arrangement shown in Fig. 1.

Fig. 3 illustrates certain details of construction.

Fig. 4 is a rear view elevation of the central part of the star-shaped element shown in Figs. 1 and 2.

Fig. 5 is a partial sectional view, similar to Fig. 2, showing an alternative type of decorative and illuminating member, and

Fig. 6 is a partial sectional view on the line 6—6 of Fig. 5 looking in the direction of the arrows.

As illustrated, the invention includes a casing 11 which is shown as provided with a circular inner flange 12 supporting the housing 13 of an electric motor having a shaft 14 projecting outwardly through the open side of the casing. The motor and shaft are secured in place by a cover 15 having a peripheral flange 16 secured in the countersunk edge 17 of the casing by suitable screws 18 or the like. The cover 17 has an opening 19 through which the motor shaft 14 projects.

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The wall of the casing has a plurality of spaced threaded openings 21 for receiving various types of devices such, for example, as the annular cone support 22 shown in the drawings by means of which the device may, for example, be positioned on a tree or other supporting article.

An ornament-supporting disk 23 has a hub 24 secured to the motor shaft 14 by a set screw 25a or the like for rotation therewith. This disk is arranged to support an illuminated device on the front face thereof for rotation therewith. A light-supporting socket member can be detachably mounted on the front face of the disk. Electric contact members are provided which supply current to the lamp bases in such socket members and which make electrical connections therewith, merely as the result of the socket member being secured to the face of the disk without requiring the making of any separate electrical connections. As illustrated, a pair of concentric, current-conducting rings 25, 26 are secured in suitable grooves on the back face of the supporting disk 23 and so located as to be concentric with the motor shaft 14 when the disk is mounted thereon. Brushes 27, 28 supported in a box 29 mounted on the motor casing 13 and projecting through the opening 19 in the cover plate 15 are yieldingly pressed into contact with the conducting rings 25, 26. Electric conductors 30 supply operating current to the motor 13 and supply potential to the brushes 27, 28.

In the embodiment of the invention illustrated in Figs. 1 to 4, a radial, current-conducting strip 31 is mounted on the front face of the disk by means including a conducting rivet 32 extending through the disk and making electric contact with the inner ring 25. The strip 31 extends radially inward past the center of the disk which is in alignment with the motor shaft 14. A second, radial current-conducting strip 33 is secured to the front face of the disk 23 and spaced from the first named strip 31. The strip 33 has an axial extension 34 which projects outwardly from the disk 23 and is spaced a predetermined radial distance from the center thereof. The strip 33 is electrically connected to the outer of the concentric rings 26 by a conducting rivet 35, or the like.

As illustrated in Figs. 1 to 4, a socket member 36 having a single lamp socket 37 is secured to the front face of the supporting disk 23 by any suitable means, such as screws or bolts 39, see Fig. 3. The wall of the lamp socket 37 is formed with an axially extending slot 41 for receiving the axial extension 34 of the radial conducting strip 33,

which thus forms a contact terminal for the side of a lamp base 42 of a lamp 42a positioned in the socket. Likewise, the base of the socket member 36 has slots 43, 44 for receiving respectively, the current-conducting strips 31 and 33. The inner end of the strip 31 may, as shown in Fig. 2, be bent toward the socket member to provide resilience and form a center terminal for the lamp base 42.

Means is provided for supporting a decorative member on the disk 23 around the lamp 42a and the lamp socket for rotation therewith. As illustrated, this is shown in the form of a five-pointed star 44a which is preferably formed of a translucent material, which may, for example, be a thermoplastic compound. This star-shaped member is provided with a back 45 having air openings 46 and key slots 47 adapted to fit over headed studs 48 projecting outwardly from the disk 23, so that it is a simple matter to position the decorative member 44 in place on the disk to surround the illuminating lamp mounted in the socket 37.

When the circuit of the conductors 30 is closed, operating current is delivered to the motor 13, whereby the supporting disk and ornamental star 44a, or similar device are rotated, preferably at a relatively slow speed. Current is also delivered to the lamp 42a through the brushes 27, 28 or the like, concentric-conducting rings 25, 26 and radial strips 31, 33 to the lamp base 42 to illuminate the rotating member. The result is pleasing and attention attracting. The arrangement is such that the socket member 36 can be secured to the supporting disk or removed therefrom without having to make any separate electrical connections or disconnect any such connections. It will be apparent that any shape of decorative device 44a can be employed and that differently shaped devices can be selectively mounted upon the headed studs 48. At the same time, the conical support 22 when used can be employed to support the device upon a Christmas tree or similar type of support, or if desired it can be eliminated and any suitable supporting device be connected to the threaded openings 21 in the casing 11.

In the embodiment illustrated in Figs. 5 and 6, the hub 24 of the disk 23 is provided with a threaded bore 51 in line with the motor shaft 14 and in which is threaded a stud 52 of a cylindrical contact plug 53. In this form, the socket member 54 has a recess 55 adapted to surround the contact plug 53 when the socket member is secured to the disk 23. The recess is lined with a current-conducting liner 56 having openings 57 coinciding with the sockets 58 in the socket member 54. In this form the end of the axial extension 41 of the contact strip 33a is shaped so as to yieldingly engage the inner surface of current-conducting liner 56 in the recess 55 and has an inclined end 59 shaped to ride over the edge of the liner 56 when the socket is applied to the disk. Also, the inner end of the contact strip 31a is perforated to receive the plug-supporting stud 52. With this construction, the socket member can be arranged to support any desired number of radially extending lamps in addition to the axial lamp. The center terminal of each lamp will engage the contact plug 53 when the lamp is threaded into the socket member 54, while the side terminal of the lamp engages the liner 56 which, in effect, forms a part of the wall of each lamp socket.

As illustrated in Figs. 5 and 6, the multi-socket member 54 can be mounted on the disk 23 by key slots 61 engaging headed studs 62 adjacent the periphery of the supporting disk 23, without having to make any separate electrical connections in order to supply current to lamps mounted in the various sockets. Current is supplied through the brushes 27, 28, conducting rings 25, 26, strips 31, 33a to the plug 53 and liner 56 respectively, which supply the lamps in the socket member. Socket members 54 having various arrangements of lamps and the like can be selectively connected to the base 23.

It will be apparent that the invention can be variously modified and adapted and that portions of the improvements can be used without others.

I claim:

1. An article of manufacture, comprising a rotary shaft, a supporting disk secured to said shaft for rotation therewith, current-conducting rings on the back face of said disk, current-conducting brushes engaging said rings, current-conducting strips secured to and overlying the front face of said disk and electrically connected to said current-conducting rings, one of said strips terminating adjacent the center of said disk substantially opposite the end of said rotary shaft, the other of said strips having an axial extension offset from the center of said disk, and a socket member secured to said opposite face of the disk providing a lamp socket in substantial alignment with said shaft whereby said strips operate to supply current to a lamp in said socket.

2. An article of manufacture, comprising a rotary shaft, a supporting disk connected to said shaft for rotation thereby, current-conducting rings on the rear face of said disk, current-conducting brushes engaging said rings, current-conducting strips on the front face of said disk, means electrically connecting one ring to one strip and the other ring to the other strip, one of said strips terminating adjacent the center of said disk substantially opposite the end of said rotary shaft, the other of said strips having an axial extension offset from the center of said disk, a socket member secured to said opposite side of the disk providing a lamp socket in substantial alignment with said shaft with the socket wall adjacent said axial extension whereby said strips operate to supply current to a lamp in said socket, and means for mounting an ornamental device around said socket member to be rotated therewith and illuminated by a lamp in said socket member.

3. An article of manufacture, comprising a rotary shaft, a supporting disk connected to said shaft for rotation thereby, current-conducting rings on the rear face of said disk, current-conducting brushes engaging said rings, current-conducting strips on the front face of said disk electrically connected to said rings, one of said strips terminating at the center of said disk opposite the end of said rotary shaft, the other of said strips having an axial extension offset from the center of said disk, a recessed socket member secured to said front side of the disk for rotation with said disk and having a plurality of lamp sockets therein opening into the recess in said member, a conducting member connected to said first-named strip at the end in alignment with said shaft and extending into said recess in spaced relation to the walls thereof and forming a common base terminal for lamps secured in said sockets, and current-conducting means in said recess carried by the walls thereof and slid-

ably engaging said extension on the second-mentioned strip and forming a side terminal for lamps in said sockets.

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