March 4, 1947. W. A. ROUNG 2,416,802

CHRISTMAS TREE HOLDER AND DISPLAY DEVICE

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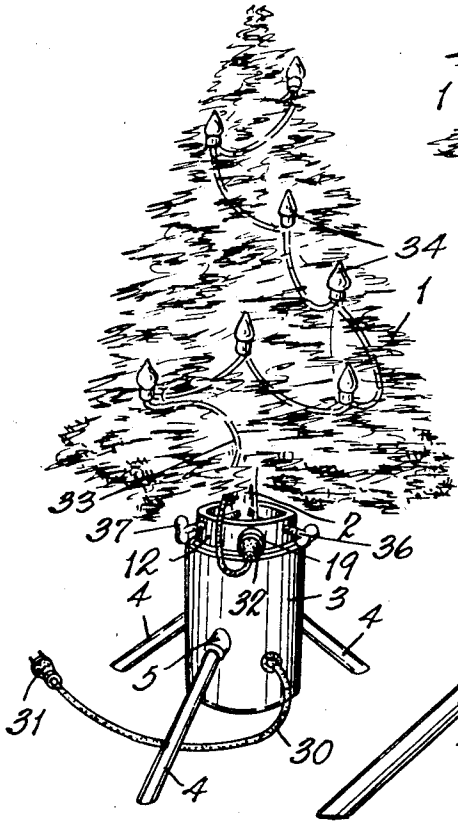


FIG. 1

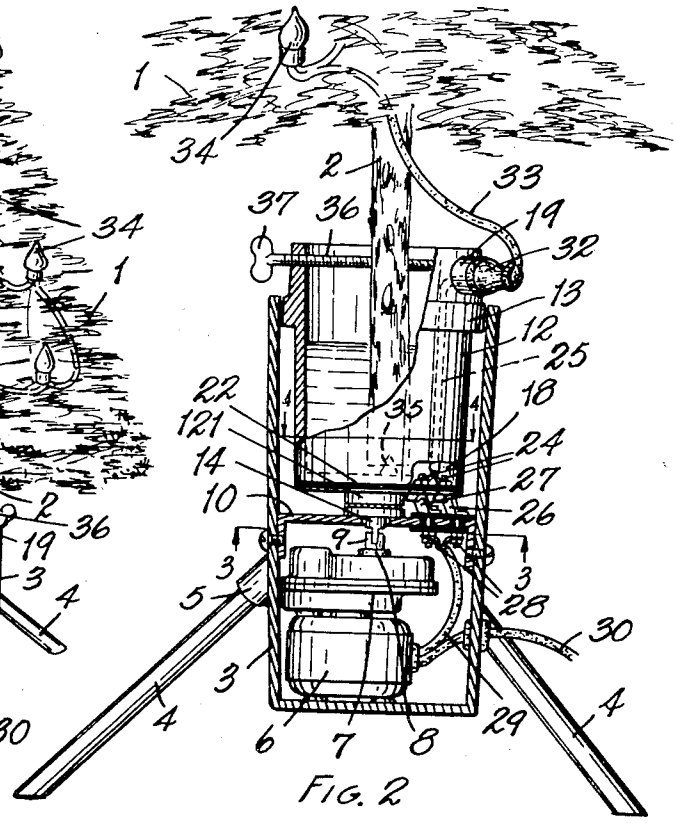


FIG. 2

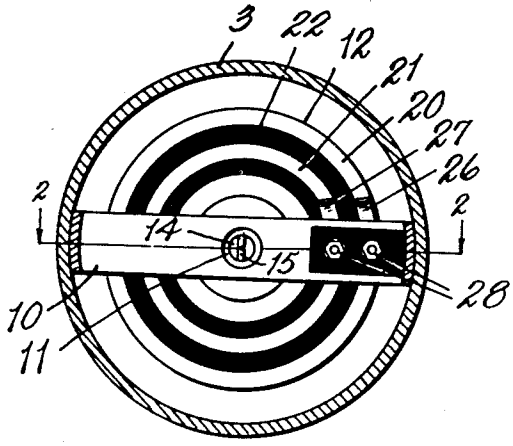


FIG. 3

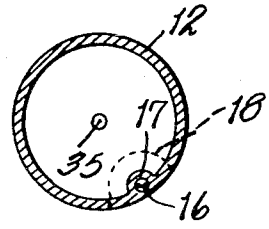


FIG. 4

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CHRISTMAS TREE HOLDER AND DISPLAY DEVICE

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5 Claims. (Cl. 248—45)

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This invention relates to improvements in Christmas tree holder and display device.

The main objects of this invention are:

First, to provide a display device for Christmas trees and other objects which it is desired to illuminate and to rotatably support for adding to the attractiveness thereof or for displaying objects mounted thereon.

Second, to provide a display device or apparatus which is adapted to support an object such as a tree, plant or the like in upright position and in water, thereby prolonging the attractiveness of the tree, plant or object displayed.

Third, to provide a structure having these advantages which is very attractive in appearance and at the same time relatively simple in structure.

Objects pertaining to details and economies of the invention will definitely appear from the description to follow. The invention is defined in the claims.

A structure which embodies the features of the invention is clearly illustrated in the accompanying drawing, in which:

Fig. 1 is a perspective view of a display device or apparatus embodying my invention with a Christmas tree provided with illuminating lamps supported therein, the Christmas tree being conventionally illustrated.

Fig. 2 is a fragmentary view partially in vertical section on line 2—2 of Fig. 3.

Fig. 3 is a horizontal section on line 3—3 of Fig. 2.

Fig. 4 is a horizontal section through the holder on line 4—4 of Fig. 2.

In the accompanying drawing, 1 represents a tree and 2 the stem or trunk thereof. My improved display device comprises a receptacle-like casing 3 having downwardly diverging legs 4 detachably engaged with sockets 5 provided on the wall of the casing adjacent the lower end thereof. The electric motor 6 is mounted on the bottom of the casing and provided with a reducing speed transmission unit designated generally by the numeral 7. This transmission unit has an upwardly projecting driven shaft 8 provided with a coupling member 9, that illustrated being of the jaw type. A cross piece 10 is mounted within the casing above the motor and its transmission unit, and has a central opening 11 alined with the driven shaft 8.

I provide a receptacle-like holder member 12 having an annular rib 13 adjacent its upper end, this rib lying within the casing and in effect constituting a closure for the space between the wall of the casing and the holder when the holder is in position as shown in Fig. 2. The holder is provided with a downwardly projecting stub shaft 14 having a coupling jaw 15 engageable with the coupling member 9, the stub shaft projecting

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through the hole in the cross piece when the parts are in assembled relation. Referring to Figs. 2 and 3 it will be noted that the coupling members 9 and 15 are shaped to facilitate ready coupling engagement and disengagement thereof upon insertion and removal of the holder 12 into and from the casing 3; also these couplings may slide vertically relative to each other while being drivingly connected to permit the weight of the holder being taken off the driven shaft 8 and supported entirely by the thrust bearing 121 on the cross piece 10. The cross piece carries a thrust bearing 121 for the holder, that illustrated being of the ball type.

The holder has a conduit 16 in the wall thereof, the wall being provided with an internal rib or being thickened at 17 to accommodate the conduit. The bottom of the holder has a recess 18 at the lower end of the conduit. The socket 19 is mounted on the side of the holder at the upper end of the conduit.

Contact rings 20 and 21 are mounted on the bottom of the holder and suitably insulated therefrom, the insulation being shown at 22. These contact rings have binding posts 24 which are connected by the circuit wires 25 to the socket 19. Brushes 26 and 27 are mounted on the cross piece 10 to coact with the contact rings 20 and 21 as is clearly shown in Figs. 2 and 3. The contact rings 20 and 21 being mounted upon the underside of the bottom wall of the holder 12, and the brushes 26 and 27 being mounted on the cross piece 10 facilitate ready assembly of the parts of the display device, it being only necessary to insert the holder 12 into the casing 3 to effect contact of the ring with the brushes. These brushes have binding posts 28 which are connected by the circuit wires 29 to the motor. The details of the wiring in the motor are not illustrated. The line circuit cord is shown at 30 and is provided with a suitable plug 31. The plug 32 is adapted to be plugged into the socket 19 to connect the wire or cable 33 to the current supply, this line or cable 33 having a plurality of lamps 34 connected thereto in series. The lamps may be arranged on the tree or object to be displayed as indicated in Figs. 1 and 2.

The holder is provided with an upwardly projecting tapered pin 35 adapted to engage the butt or lower end of the trunk of the tree or other object to be supported. The clamping screws 36 are provided with winged finger pieces 37 at their outer ends, these clamping screws being threaded into the wall of the holder above the casing and adjustable to securely clamp the object to be displayed and to accommodate various sized tree trunks or various sizes of objects to be displayed.

The embodiment of the invention illustrated is well adapted for supporting and displaying Christmas trees, although it is also well adapted

for supporting and displaying various objects which it may be desired to rotate and at the same time illuminate or provide with an ornamental arrangement of lamps.

I have illustrated and described the invention in a very practical embodiment. I have not attempted to illustrate or describe other modifications and adaptations as it is believed this disclosure will enable those skilled in the art to embody or adapt the invention as may be desired.

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

1. In a Christmas tree holder, the combination of an upright receptacle-like casing open at the top, a cross piece vertically spaced from the bottom of said casing and having a central opening therein, an electric motor arranged in said casing below said cross piece and provided with a speed reducing transmission unit having a driven shaft disposed centrally of said casing in alinement with said opening in said cross piece and provided with an upwardly facing coupling member, a receptacle-like holder arranged in said casing to project therefrom and provided with a downwardly projecting stub shaft releasably engageable with said coupling member and projecting through said opening in said cross piece said coupling permitting of relative vertical movement of said coupling and stub shaft while drivingly connected to each other, said holder having a conduit in the side wall thereof and a recess in the wall thereof at the lower end of said conduit, a thrust supporting bearing for said holder carried by said cross piece, means for supporting a Christmas tree or the like in an upright position within said holder, contact rings mounted on the underside of the bottom wall of said holder and provided with binding posts projecting into said recess in said holder, brushes mounted on said cross piece to coact with said contact rings, a socket arranged in said conduit and mounted on the side of said holder above said casing, and electrical connections for said brushes and from said contact ring binding posts to said socket.

2. In a display device, the combination of an upright receptacle-like casing open at the top, a cross piece vertically spaced from the bottom of said casing, an electric motor arranged in said casing below said cross piece and provided with a speed reducing transmission unit having a driven shaft disposed centrally of said casing, a rotatably mounted receptacle-like holder arranged in said casing to project therefrom and adapted to contain water and provided with a downwardly projecting stub shaft releasably and drivingly engageable with said driven shaft, said holder having a conduit in the side wall thereof and a recess in the wall thereof at the lower end of said conduit, means for supporting an object to be displayed in said holder, contact rings mounted within the receptacle-like casing and on the underside of the bottom wall of said holder and provided with binding posts projecting into said recess in said holder, brushes mounted on said cross piece to coact with said contact rings, a socket arranged in said conduit and mounted on the side of said holder above said casing, and electrical circuit connections for said brushes and from said contact ring binding posts to said socket.

3. In an apparatus of the class described, the combination of an upright receptacle-like casing open at the top, a cross piece vertically spaced from the bottom of said casing and having an opening therethrough, an electric motor arranged in said casing below said cross piece and provided with a speed reducing transmission unit having a driven shaft disposed centrally of said casing in alinement with said opening in said cross piece, a receptacle-like holder arranged in said casing to project therefrom and provided with a downwardly projecting stub shaft extending through said opening and drivingly engageable with said driven shaft, said driven and stub shafts having means associated therewith permitting of relative vertical movement of said shafts while drivingly connected to each other, a thrust supporting bearing for said holder carried by said cross piece and encircling said stub shaft, means for supporting an object to be displayed and adapted to be illuminated in an upright position within said holder, contact rings carried by said holder and provided with binding posts, brushes mounted on said cross piece to coact with said contact rings, a socket on said holder above said casing, and electrical circuit connections for said brushes and from said contact ring binding posts to said socket.

4. In an apparatus of the class described, the combination of an upright receptacle-like casing open at the top, a cross piece vertically spaced from the bottom of said casing and having an opening therethrough, an electric motor arranged in said casing below said cross piece and provided with a speed reducing transmission unit having a driven shaft disposed centrally of said casing in alinement with said opening in said cross piece, a receptacle-like holder arranged in said casing to project therefrom and provided with a downwardly projecting stub shaft extending through said opening and drivingly engageable with said driven shaft, said driven and stub shafts having means associated therewith permitting of relative vertical movement of said shafts while drivingly connected to each other, said cross piece supporting said receptacle-like holder against downward thrust for supporting an object to be displayed and adapted to be illuminated in an upright position within said holder, a socket on said holder above said casing, means for conveying current to said socket, said means including a ring and a coacting brush, said ring being rotatable with said holder.

5. In a display apparatus, the combination of an upright receptacle-like casing open at the top, an electric motor arranged in said casing, a holder arranged in said casing above said motor and having driving connection therewith, said holder projecting from said casing, means for supporting an object to be displayed in an upright position in said holder, a socket carried by said holder and accessible when the holder is in position within said casing, and means for conveying current to said socket including concentric contact rings on the under side of the bottom wall of said holder and coacting brushes engageable with said rings and supportingly mounted on and within said casing.

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