United States Patent

[11] 3,594,934

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[54] **ROTATING ORNAMENT**
13 Claims, 10 Drawing Figs.

[52] **U.S. Cl.** **40/33**
[51] **Int. Cl.** **G09f 11/10**
[50] **Field of Search** 40/33, 34; 272/31, 36

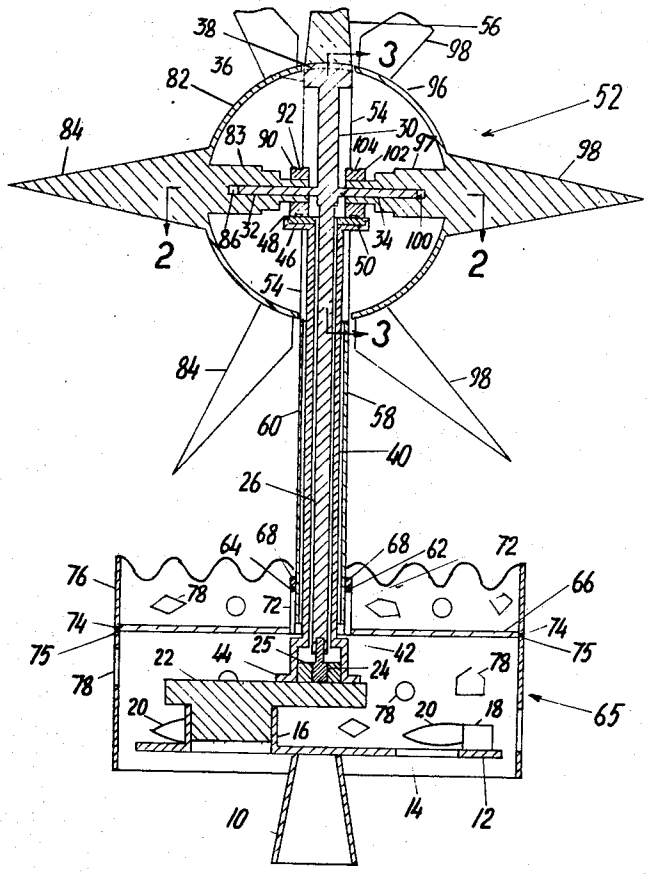
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Primary Examiner—Lawrence Charles
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ABSTRACT: A rotating ornament has a vertically extending shaft, and display member mounted thereon having a central section fixed on said shaft and horizontally rotatable therewith, and two side sections each carrying a wheel and being vertically rotatable independently of said central section. Two oppositely and laterally extending axles are fixed on said shaft on which said two side sections are rotatably mounted. Said wheels cause said side sections to rotate vertically as they travel on a track when said display member is rotated.



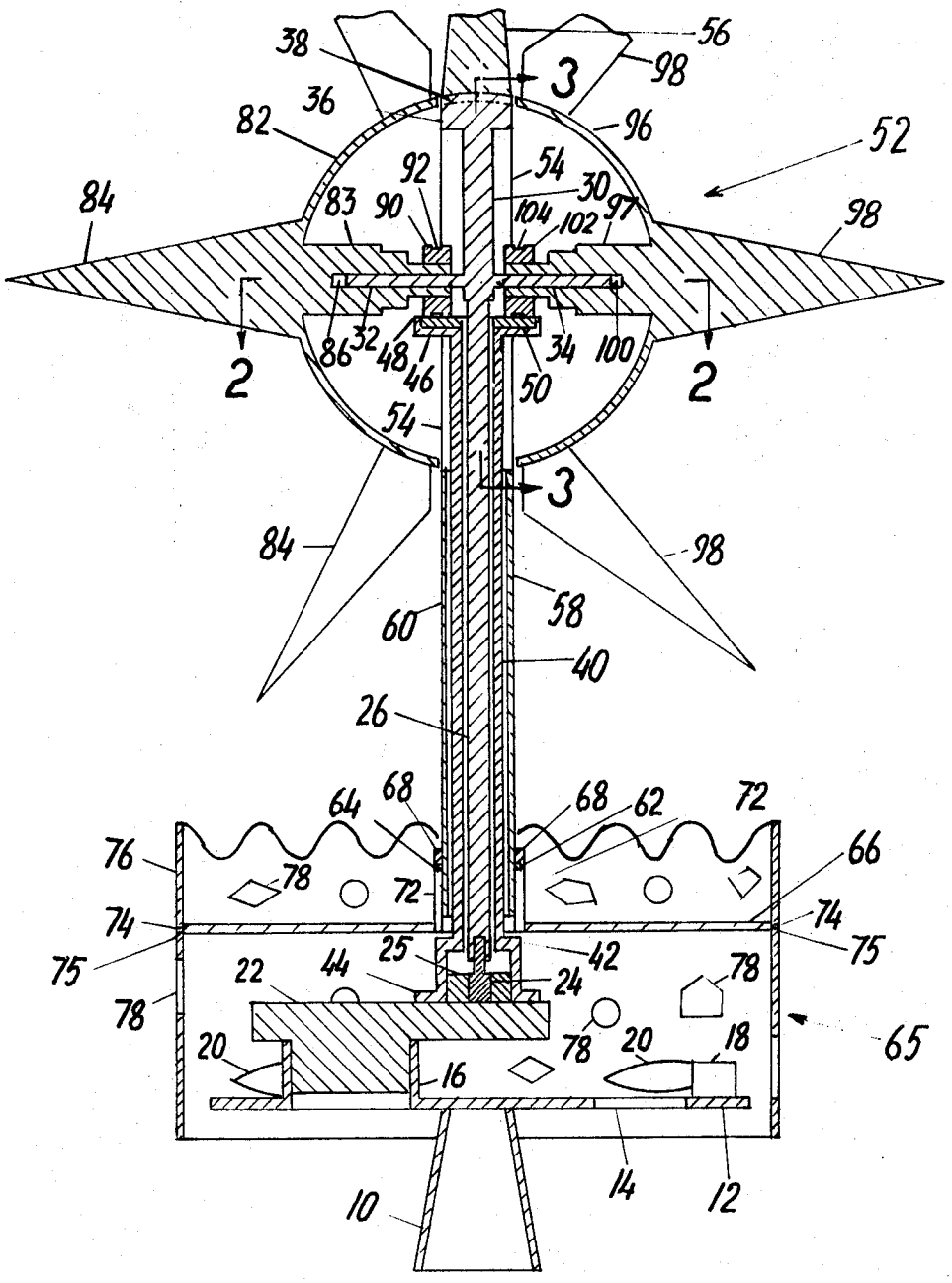


FIG. 1

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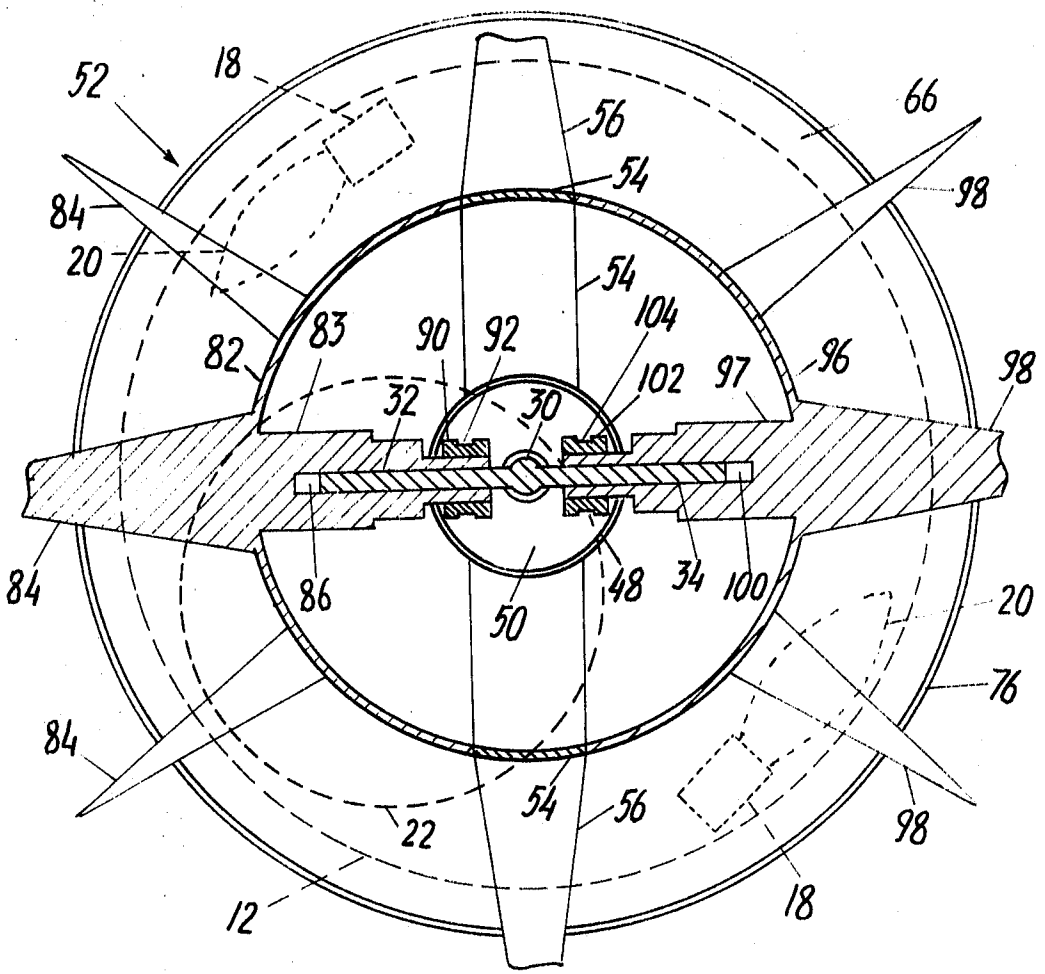


FIG. 2

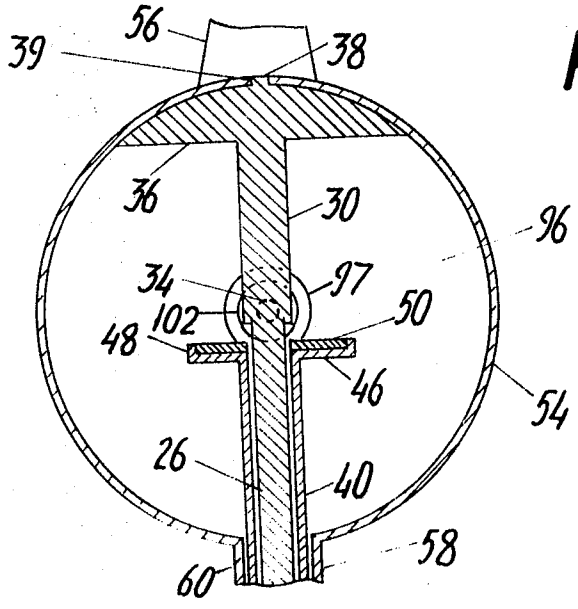


FIG. 3

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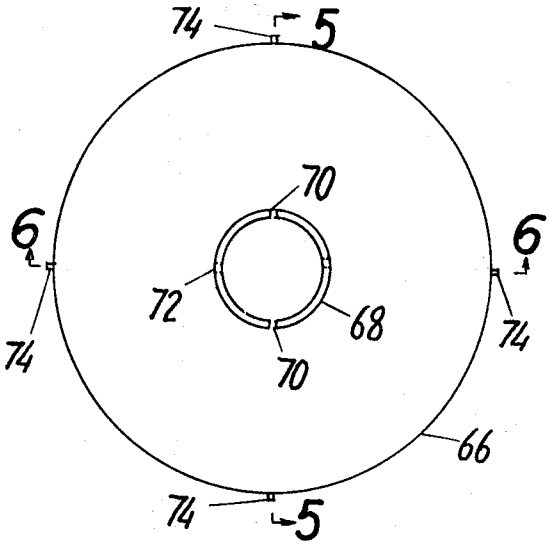


FIG. 4

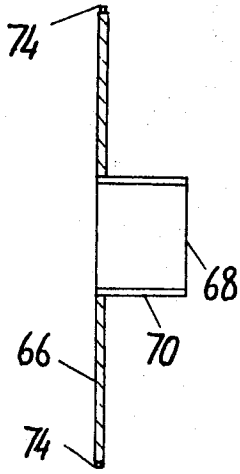


FIG. 5

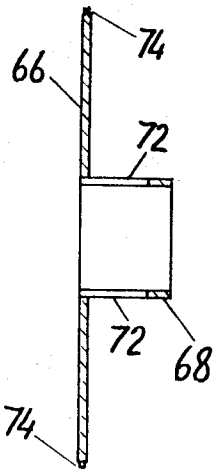


FIG. 6

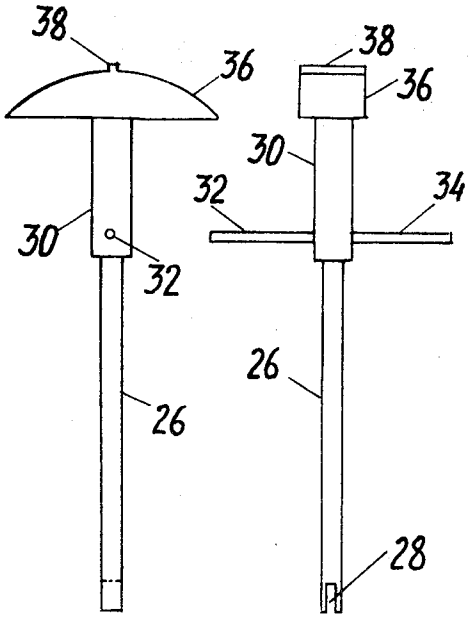


FIG. 7 FIG. 8

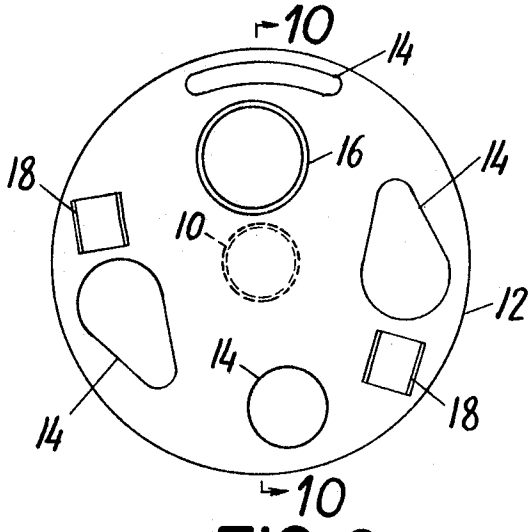


FIG. 9

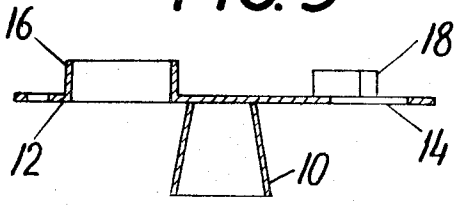


FIG. 10

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ROTATING ORNAMENT

The principal object of my invention is to provide an ornament for the top of a Christmas tree or to rest on a table top and the like, that has a star-pointed display member, the whole of which rotates horizontally while two side sections also rotate vertically in opposite directions.

Another object is to provide very simple means to effect the vertical rotation of said side sections, using only two small wheels attached to said sections and a fixed track on which they travel, which wheels respond to the horizontal rotative movement of said display member caused by the motor shaft.

The foregoing and other objects which will appear as the nature of the invention is better understood, may be accomplished by a construction, combination and operative arrangement of parts such as is disclosed by the drawings. The nature of the invention is such as to render it susceptible to various changes and modifications, and therefore, I am not to be limited to the construction disclosed by the drawings, nor to the particular parts described in the specification; but am entitled to all such changes therefrom as fall within the scope of my invention.

In the drawings:

FIG. 1 is a longitudinal sectional view of my ornament.

FIG. 2 is an enlarged, sectional view taken on the line 2–2 of FIG. 1.

FIG. 3 is an enlarged, sectional view taken on the line 3–3 of FIG. 1.

FIG. 4 is a plan view of the circular supporting disc within the crown member.

FIG. 5 is a sectional view taken on the line 5–5 of FIG. 4.

FIG. 6 is a sectional view taken on the line 6–6 of FIG. 4.

FIG. 7 is a front elevational view of the motor extension shaft.

FIG. 8 is a similar view of said extension shaft taken at a right angle to FIG. 7.

FIG. 9 is a plan view of the platform that supports my motor.

FIG. 10 is a sectional view taken on the line 10–10 of FIG. 9.

As illustrated, my ornament has a hollow base of support 10 on which is a disc-shaped platform 12 having air holes 14 therethrough. A collar 16 extends upwardly from said platform. At opposite sides of, and on, the latter are electric light bulb holders 18 in which bulbs 20 are set which extend horizontally lengthwise.

A clock motor 22 extends into said collar 16 and is retained thereby, and it has a vertical shaft 24 having a bearing 25 and which has an extension 26 that is slotted at the bottom as at 28 to connect with said shaft 24 and which widens as at 30. Extending laterally from opposite sides of and fixed to said shaft 26 are left and right arms 32 and 34 respectively, which serve as fixed axles as later explained. Above said axles is an outwardly curved top 36 having a short extension or shaft connector 38 at its extremity that snugly fits into a slot 39 in a display member center section 54 later referred to.

A tubular cover 40 enclosed most of said shaft extension 26 and rests on top of said motor 22, terminating in a lower widened portion 42 having a bottom 44 resting on said motor 22. Above the latter said tube 40 has a widened, circular retainer 46 with an upstanding side or rim 48 on which rests a track member 50 that provides a traveling surface and is within said rim 48. This track member 50 is preferably formed of yieldable material having a nonslip surface, such as sponge rubber, thus providing an upper, nonsmooth surface.

A display member 52 shown, in the form of a star, has a center star section 54 with outwardly extending, star point extensions 56. This section 54 has an integral, hollow, split leg member 58 extending downwardly and having an outer connecting extension 62 at a lower half portion. Said leg 58 is joined to another and separate, split leg member 60 having an outer connecting extension 64, and which provides a complete hollow leg when together with said leg 58.

A cylindrical crown member 65 is supported by supporting means having a circular disc 66 with an upstanding collar 68 having two vertical, open slots 70 that permit entry of said lugs 62 and 64. Said collar 68 also has two supporting slots 72 that extend from the bottom thereof to a point spaced from the top and parallel with said vertical slots 70. Said leg extensions 62 and 64 enter said slots 70 and and then said legs 58 and 60 as a unit are rotated slightly, when low enough, to enable said extensions to enter said slots 72 thus locking them in said collar 68. At the periphery of said disc 66 are small lugs 74 that extend into slots 75 formed in the peripheral edge of said crown member 65 to thus retain said disc there. Said crown member 65 has opening 78 of various shapes such as shown in FIG. 1 of the drawings, and which may be covered with colored glass to enchance the beauty thereof.

Said display member 52 has a left star section 82 having a shank 83 and integral star points 84 extending outwardly therefrom. An elongate opening 86 in said shank 83 receives, and rotates on, said axle 32. Said left section 82 is closely adjacent; but is rotatable vertically, like a windmill, so moving independently of said center section 54.

A small disc or wheel 90 forms a fixed part of said left section 82. It may be made of hard rubber or other material firmer and less resilient than the surface portion of said track 50 and having good traction qualities. It has an intermediate groove 92 extending from the tread surface inwardly to provide better traction as it rotatably travels in frictional engagement on said track member 50 when said motor shaft 24 and extension 26 rotate. This wheel 90 is pressed on said shank 83 and rotates with said section 82, traveling circularly as said wheel 90 grips the surface of said track 50 and travels around the latter, causing vertical rotation of said left section 82. Said track rim 48 keeps said wheel 90 on said track surface under all conditions since the wheel compresses the material forming said track slightly downward so that the wheel tread sinks slightly lower than the top of said rim 48 as it travels.

Said display member 52 preferably has a right star section 96 which rotates vertically similarly to said left section 82, but necessarily in an opposite direction. It has a shank portion 97 and integral star points 98 therewith. An elongate opening 100 in said shank 97 receives said axle 34 on which said section 96 rotates.

A small wheel 102 similar to wheel 90, having a groove 104, also rotatably travels on said track member 50. It is pressed on said shank 97 and rotatably travels along with said right section 96, causing vertical, circular movement of the latter similar to that of section 82 as long as said motor shaft 24 rotates.

Thus the whole display member 52 rotates horizontally due to the connection of said motor shaft to said central section 54 by means of said extension connector 38, and the connection of said outer leg portions 58 and 60 to said collar 68. Likewise the rotation of said crown member 65 is effected by the connection of said collar 68 to said disc 66 and the latter's entry into said holes 75 in said crown member. Simultaneously the two side sections 82 and 96 rotate vertically; but in two opposite (clockwise and anticlockwise) directions independently of each other, being actuated by said wheels 90 and 102, which respond to the rotation of said central section 54.

What I claim is:

1. An ornament comprising a support, actuating means supported thereby embodying a motor, a shaft extending upwardly therefrom and having an axle extending laterally therefrom, and a flat track extending around said shaft, a display member fixedly mounted on said rotatable shaft and rotatable therewith and having a first section fixed to said shaft, and another section rotatably adjacent said first section and rotatably mounted on said axle, and a wheel attached to said other section and rotatable therewith and so positioned that it contacts and travels on the surface of said track thereby causing said other section to rotate vertically.

2. An ornament as set forth in claim 1, said shaft having another axle extending laterally opposite to said first-men-

tioned axle, said display member having a third section rotatably adjacent said first section and rotatably mounted on said other axle, and another wheel attached to said third section and rotatable therewith and so positioned that it travels on the surface of said track thereby causing said third section to rotate vertically.

3. An ornament as set forth in claim 1, and a cylindrical crown member fixedly supported by said shaft at a point below said display member, and supporting means for said crown member supported by said support and embodying a disc attached to said crown member, said shaft extending through said disc.

4. An ornament as set forth in claim 3, said shaft having a tubular outer cover, a hollow leg portion extending from said first section and outside of said cover, said disc having an upstanding, hollow neck, said leg portion extending into said neck.

5. An ornament as set forth in claim 1, an outer tubular cover around a portion of said shaft, a retainer at the upper part of and supported by said cover, said track being supported by said retainer.

6. An ornament as set forth in claim 1, said shaft having an outer tubular cover having a widened portion at the lower end thereof below said disc and resting directly on said motor.

7. An ornament as of claim 1, for a Christmas tree a tubular cover extending around a portion of said shaft and fixedly attached to said display member and supported by said motor, a cylindrical crown member having a neck extending upwardly fixedly connected to said tubular member, and a disc within said crown member fixedly connected to said neck and to and fixedly connected with said crown member at the periphery thereof.

8. An ornament as set forth in claim 7, said neck extending into the interior of said crown member, and said disc being intermediate the top and bottom of the latter.

9. An ornament as set forth in claim 7, and electrical lighting means supported by said support and positioned within said crown member.

10. An ornament as set forth in claim 7, said neck having a first slot extending from the outer end inwardly and another slot extending parallel to and communicating with said first slot and spaced from the outer end, said hollow leg portion having a laterally extending extension adapted to enter said first slot and then enter said other slot.

11. An ornament comprising a support, actuating means supported thereby embodying a motor, a rotatable shaft extending upwardly therefrom and having an axle extending laterally therefrom, and a track extending around said shaft, a display member fixedly mounted on said shaft and rotatable therewith and having a first section fixed to said shaft, and another secton rotatably adjacent said first section and rotatably mounted on said axle, and a wheel attached to said other section and rotatable therewith and so positioned that it contacts and travels on the surface of said track thereby causing said other section to rotate vertically, said track having a yieldable surface.

12. An ornament as set forth in claim 11, said wheel having a tread surface firmer than said track surface and adapted to press said yieldable surface inwardly as it travels.

13. An ornament as set forth in claim 11, and a flat retainer for said track supported by said motor and having an upstanding rim, said wheel normally traveling within said rim and having a tread surface that is firmer than said track surface and adapted to press said yieldable surface inwardly as it travels and to a point lower than the top of said rim.