Oct. 31, 1950

R. SIEBENKITTEL

2,527,969

NOVELTY TURNTABLE

Filed July 24, 1946

3 Sheets-Sheet 1

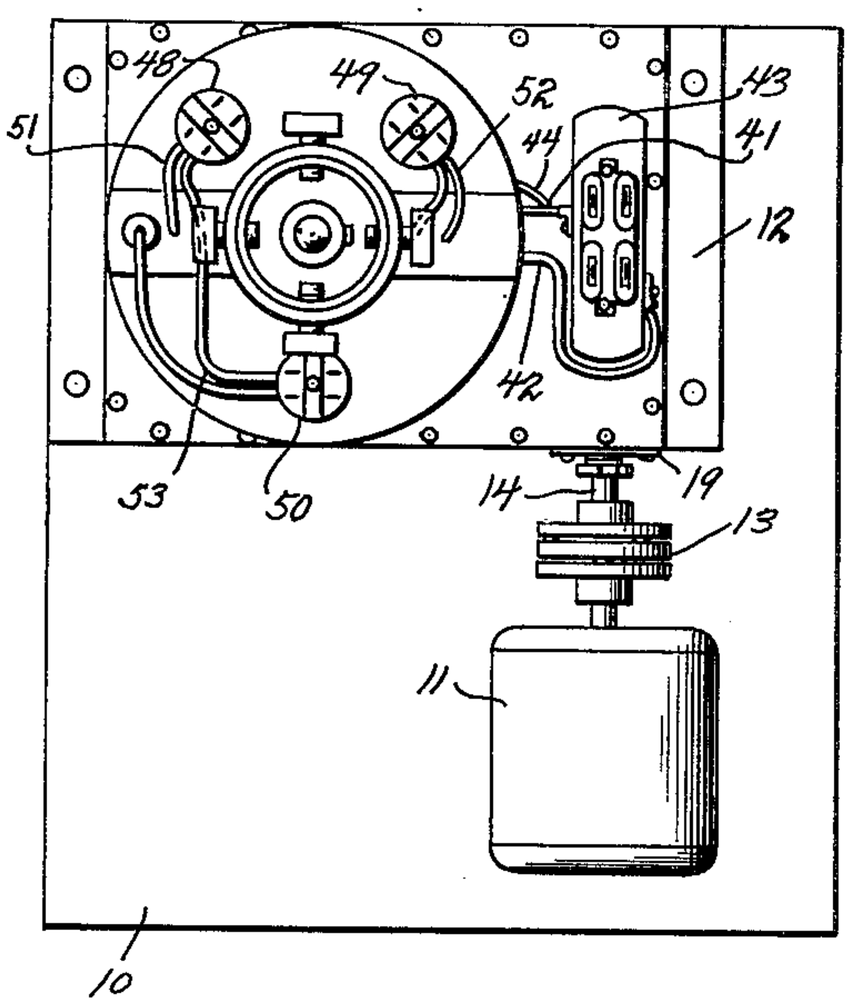


Fig. 1

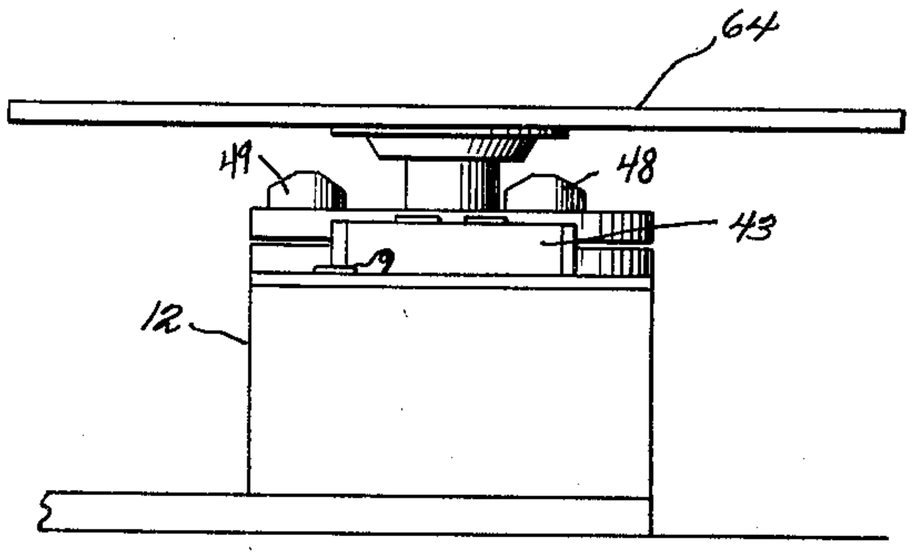


Fig. 4

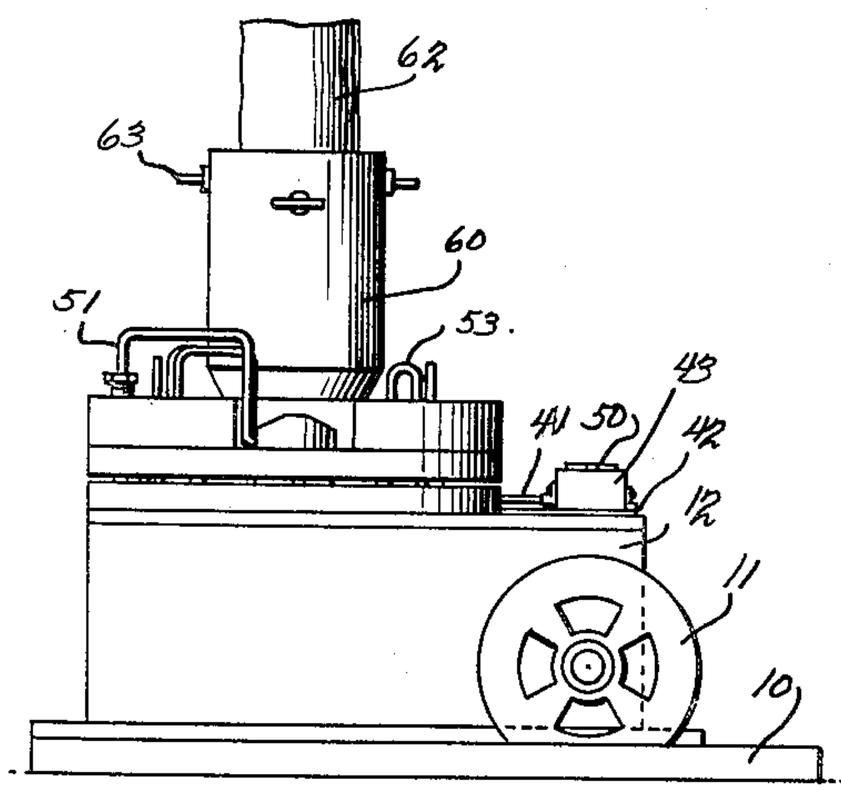


Fig. 2

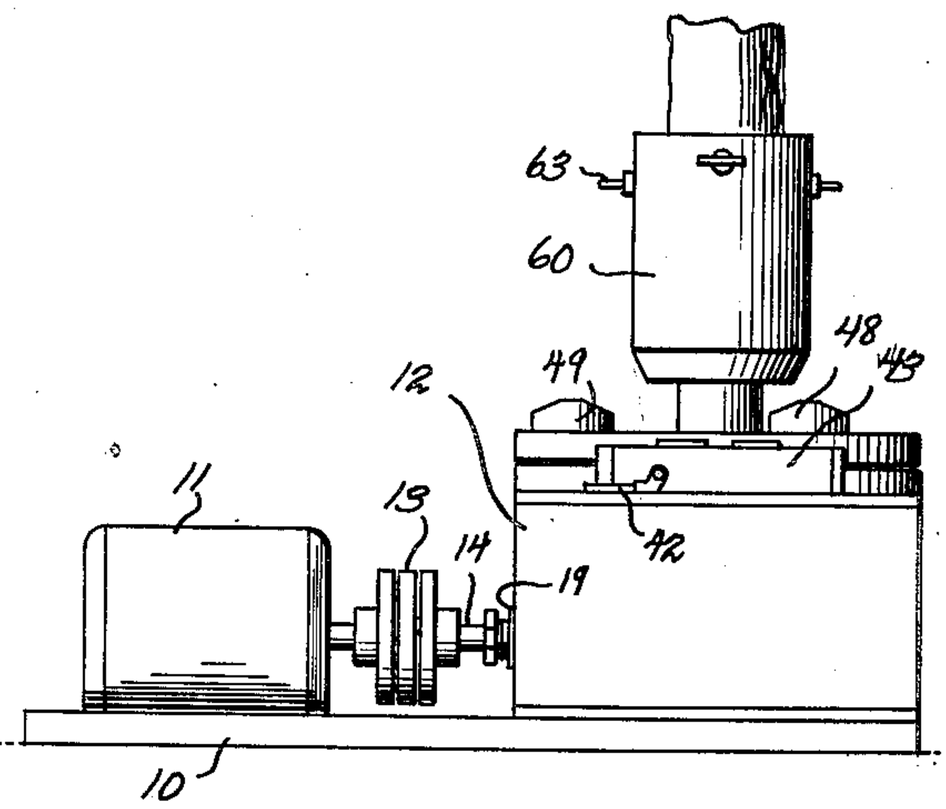


Fig. 3

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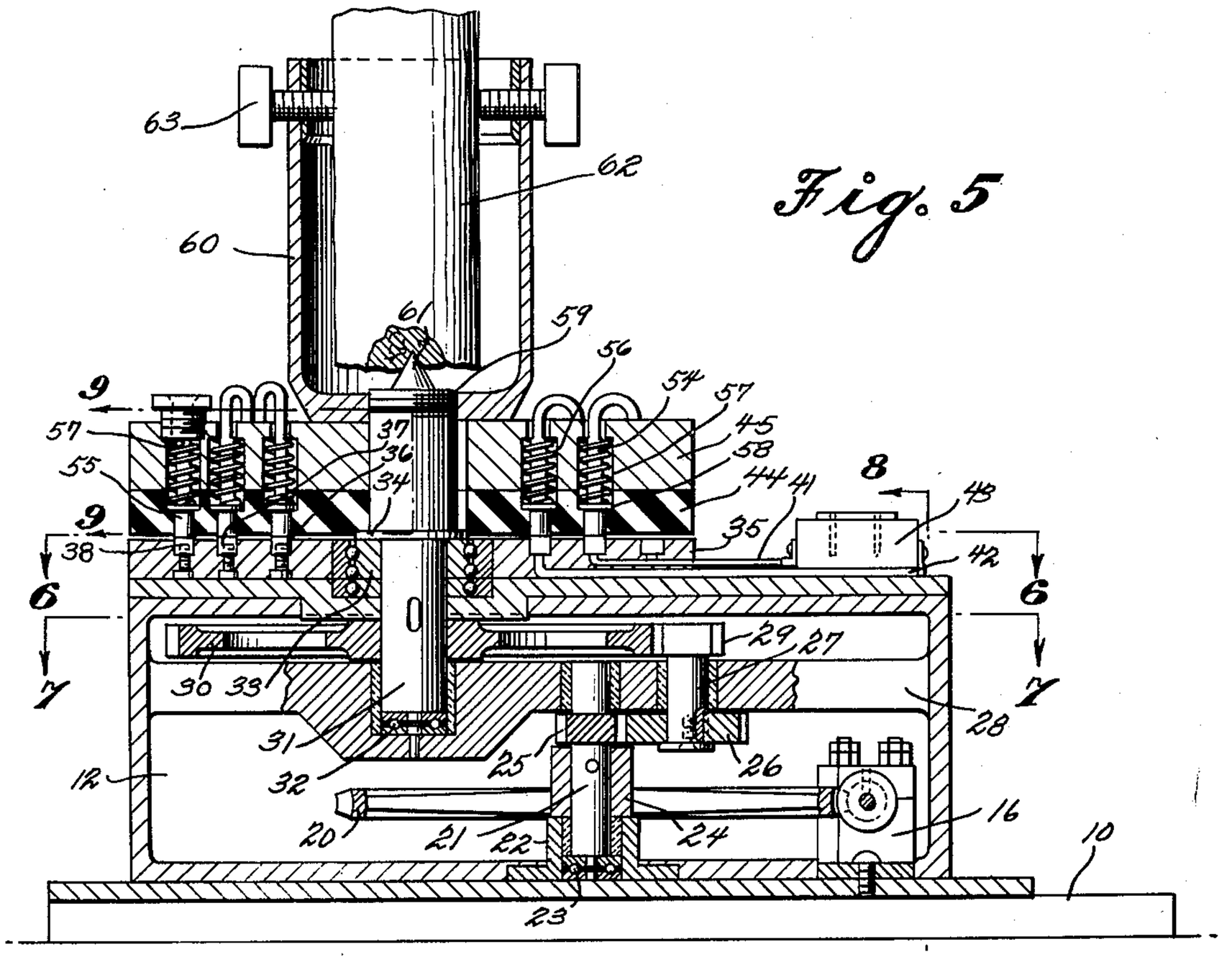


Fig. 5

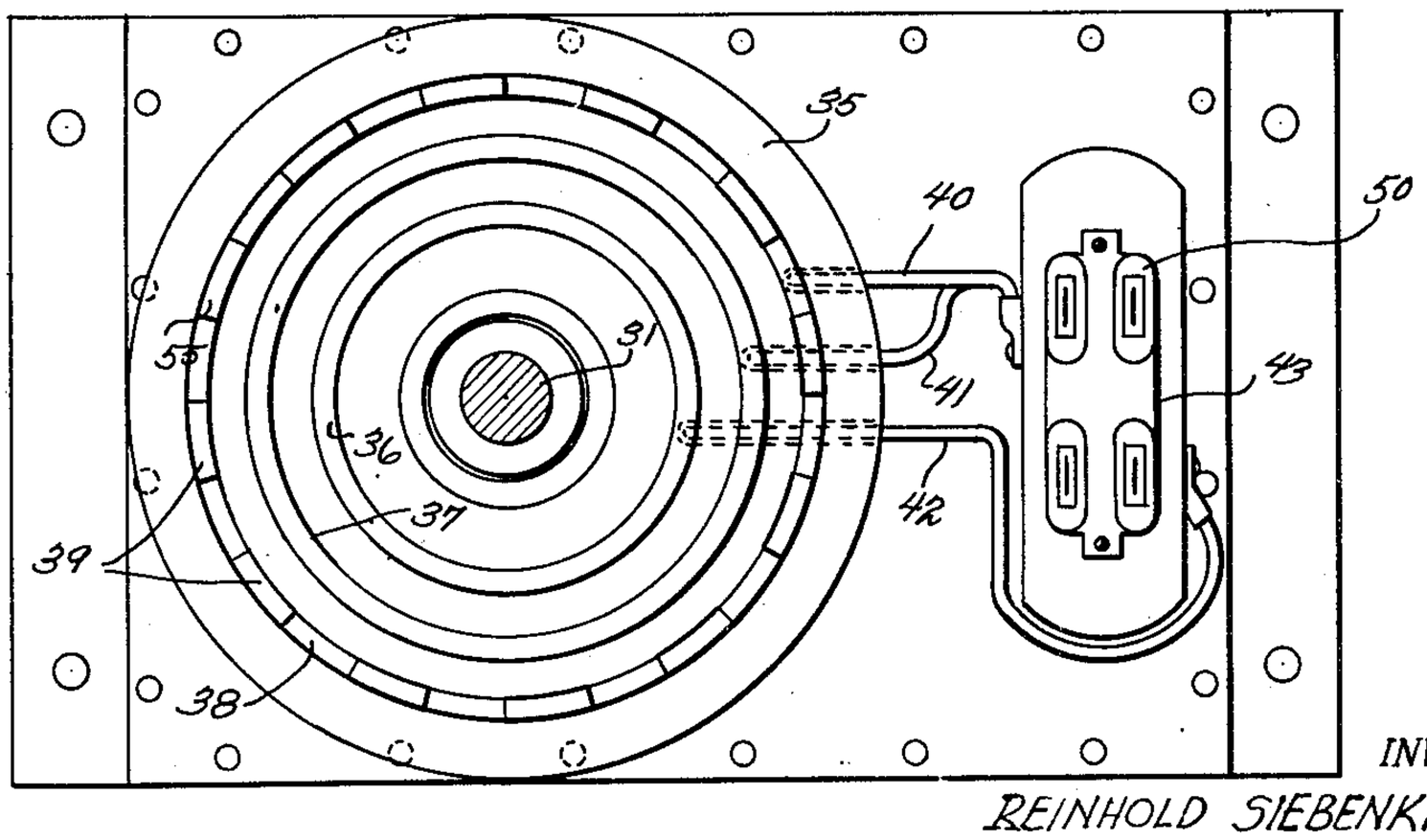


Fig. 6

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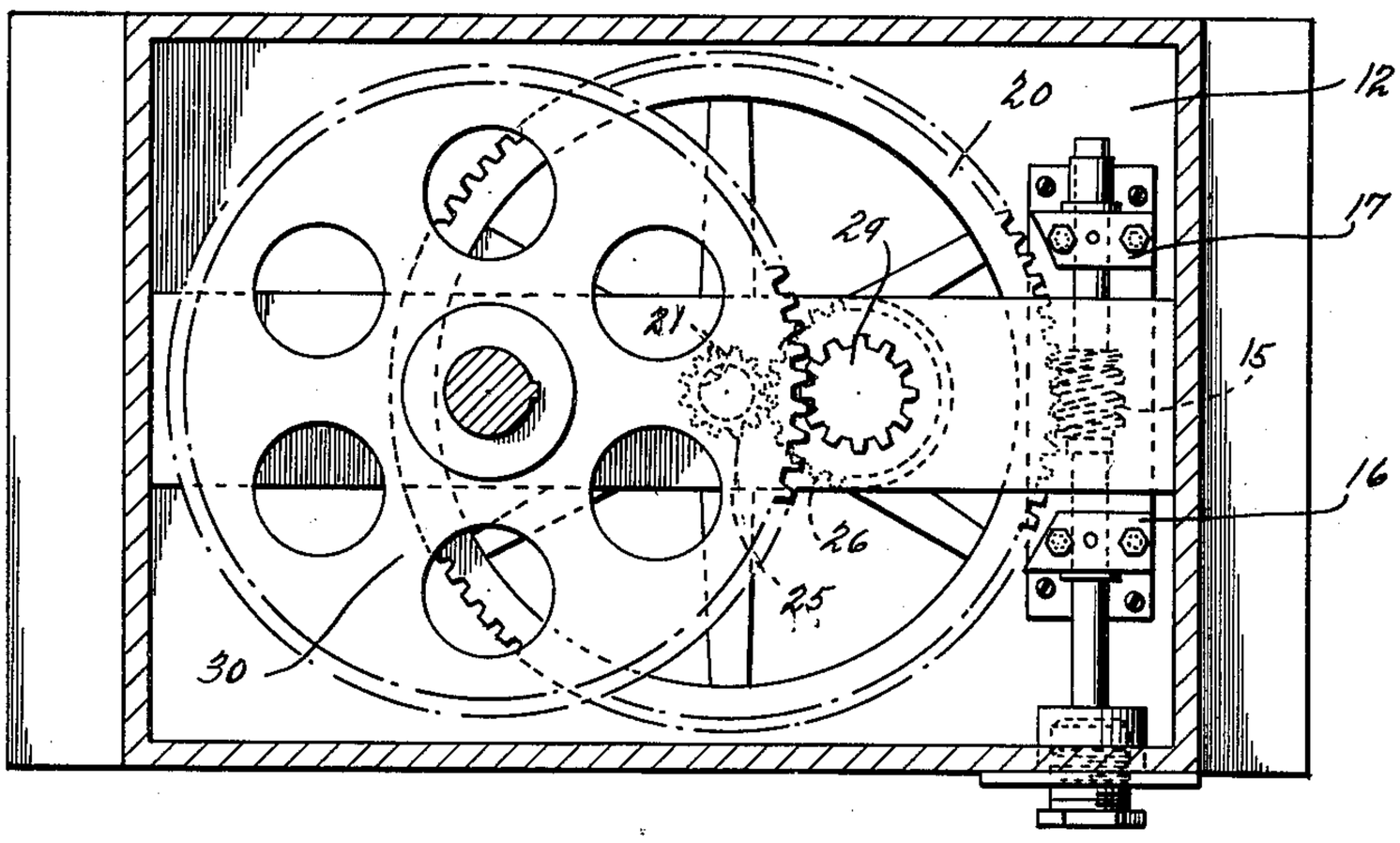


Fig 7

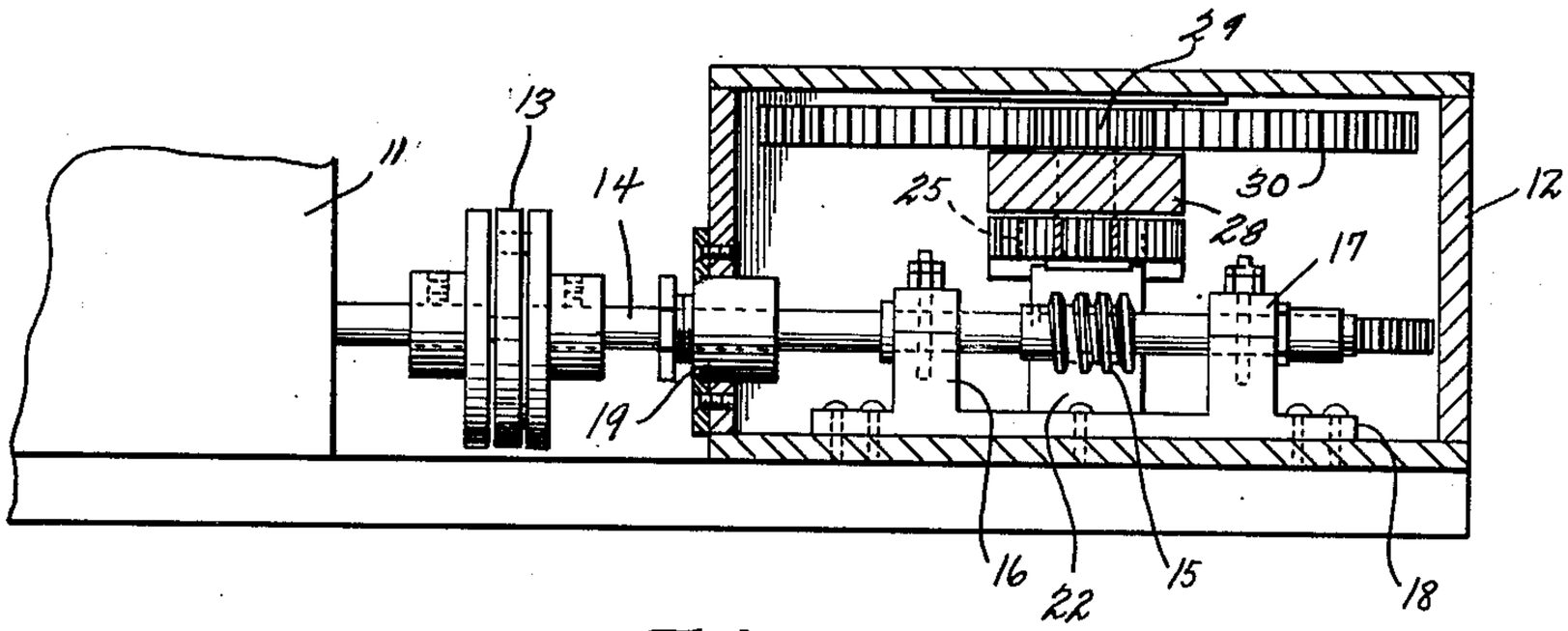


Fig. 8

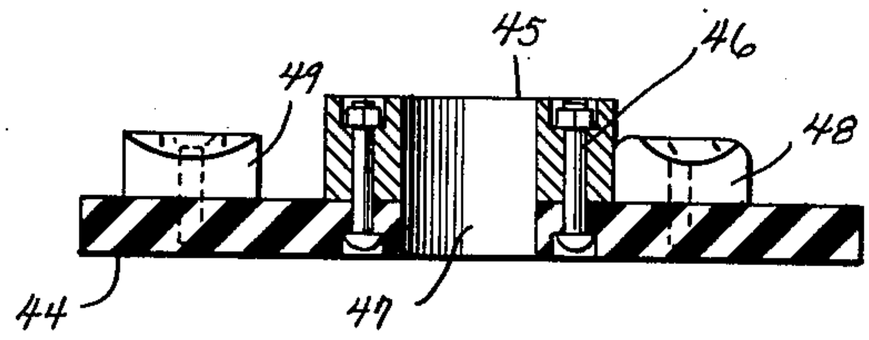


Fig. 9

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# UNITED STATES PATENT OFFICE

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## NOVELTY TURNTABLE

Reinhold Siebenkittel, New Orleans, La.

Application July 24, 1946, Serial No. 685,875

4 Claims. (Cl. 248—45)

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The present invention relates to improvements in novelty turntables and more particularly to a turntable and mechanism for rotating the same upon which a Christmas tree or a display supporting table may be mounted for rotary motion to better exhibit the ornaments or display merchandise thereon.

An object of the invention is to provide an improved novelty turntable with a source of constant illumination directed upon the ornaments of the tree and a separate source of intermittent illumination so that flashing light may be also played upon the ornaments as a rotary motion is imparted to the tree.

Another object of the invention resides in providing an improved novelty turntable in which the assembly is characterized by simplicity in design, few moving parts, and with all moving parts running in a bath of oil to the end that the device provides an improved safety factor particularly in relation to children playing round the tree.

A further object of the invention is to provide an improved turntable in which all of the parts are enclosed and completely protected and in which no belts or pulleys are involved and wherein the device is driven by an electric motor externally mounted but connected by a flexible coupling to appropriate gearing in an enclosed gear box.

A still further object of the invention is to provide an improved rotary turntable involving a spindle carrying a point on which the tree is adapted to rest while being centralized by a series of concentric thumb screws mounted in a socket designed to receive the butt end of the tree which accordingly need not be sharpened to a point.

A still further object of the invention is to provide an improved rotary turntable which is small in design, compact and strong and which may be manufactured and sold at low cost so as to make its availability substantially universal.

With the foregoing and other objects in view, the invention will be hereinafter more fully described and more particularly pointed out in the appended claims.

In the drawings, in which the same parts are denoted by the same reference numerals throughout the several views,

Figure 1 is a top plan view of an improved novelty turntable constructed in accordance with the present invention.

Figure 2 is an end elevation of the same.

Figure 3 is a side elevational view of the improved turntable.

Figure 4 is a fragmentary side elevational view showing the tree socket replaced by a display table.

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Figure 5 is a vertical, longitudinal section taken on an enlarged scale centrally through the gear box and its associated parts.

Figure 6 is a horizontal section taken on the line 6—6 in Figure 5.

Figure 7 is also a horizontal section taken on the line 7—7 in Figure 5.

Figure 8 is a vertical section taken on the line 8—8 in Figure 5.

Figure 9 is a longitudinal section taken through the revolving arm and its supporting plate.

Referring more particularly to the drawings 10 designates a platform or stage erected upon a suitable supporting structure and having installed thereon an electric motor 11 and a gear box or transmission case 12.

The motor 11 is preferably external of the gear box 12 as is also a flexible coupling 13 by which the armature shaft of the motor is connected to the worm shaft 14, which latter extends into the gear box 12 wherein it has affixed thereto a worm 15 meshing with a worm wheel 20.

The worm shaft 14 is journaled in bearings 16 and 17 of brass or other appropriate material which bearings may be carried as a unit upon a base plate 18 secured by appropriate fastenings to the bottom of the gear box 12.

A stuffing box 19 surrounds the worm shaft 14 at the point where it passes through the side wall of the gear box 12 to prevent leakage of the lubricant with which the gear box 12 is substantially filled. This lubricant may be of a liquid variety.

The worm wheel 20 rotates on a substantially vertical axis in the gear box 12 upon a shaft 21 which is mounted in a pedestal or other form of bearing 22 carried in the lower portion of the gear box 12 and having therein a ball or other bearing 23 which supports the worm wheel shaft 21 and on which the latter freely rotates, it being understood that the hub 24 of the worm wheel 20 may be pinned or otherwise affixed to such vertical shaft 21.

The shaft 21 extends upwardly above hub 24 and has fixed thereon a spur pinion 25 disposed in mesh with a spur gear 26 made fast to the lower end of a vertical stud or counter shaft 27. This counter shaft 27 and the upper end of the vertical worm shaft 21 may both be journaled in appropriate bearings carried by a horizontal beam 28. The counter shaft 27 projects up above the beam 28 where it carries a spur pinion 29 disposed in mesh with a spur gear

30 affixed to a driving spindle 31 which is supported for free rotation upon the ball or other bearing 32 supported in the horizontal beam 28.

The driving spindle projects upwardly through the top of the gear case 12 at which point it is journaled in appropriate ball or roller bearings 33 carried by the top of the gear box and acting as a thrust bearing due to the fact that a shoulder 34 of the spindle 31 rests upon such bearing 33.

Fixed upon the top of the gear box 12 is a stationary insulating plate of fiber or other appropriate material having a number of copper or other electrical conducting rings embedded therein. In the single embodiment of the invention illustrated in the drawings, three such conducting rings 36, 37 and 38 are illustrated. The rings 36 and 37 may be continuous circularly while the outermost ring 38 has insulating segments 39 of fiber or other appropriate material separating annularly exposed conducting portions of said ring 38 for the purpose of creating a flashing illuminating effect.

These rings are connected by leads 40, 41 and 42 to a double receptacle 43 for receiving the cables from the house current or other sources of electricity.

Above the stationary insulating plate is a rotary insulating plate 44 carrying fixedly thereon a revolving arm 45. This plate 44 and arm 45 are more particularly shown in Figure 9 in which bolts or other fastenings 46 connect the revolving arm 45 fixedly to the rotary insulating plate 44. Both the plate and the arm have an opening 47 to receive therethrough the upper portion of the vertical driving spindle 31 to which such rotary insulating plate 44 and revolving arm 45 are keyed or affixed and from which they receive rotation in a substantially horizontal plane.

As shown more particularly in Figures 1 and 9, receptacles 48, 49 and 50 for light bulbs are carried fixedly upon the upper side of the rotary insulating plate 44 and are exposed so that appropriate lamps may be placed therein. The bulbs are connected by leads 51, 52 and 53 with the upper ends of the shanks 54 of the plungers 55 the lower ends of which project downwardly flush or through the bottom surface of the rotary insulating plate 44 into contact with the conducting rings 36, 37 and 38. The plungers are biased to a yieldable downwardly projected position by coil springs 56 which abut against the upper ends of the recesses 57 made in the revolving arm 45 and the rotary insulating plate 44. The other ends of the coil springs 56 are arranged to abut flanges 58 on the plungers 55. These flanges engage the bottom walls of the recesses 57 to limit the downward movements of the plungers 55.

A threaded section 59 on the driving spindle 31 is adapted to receive an internally threaded opening at the base of the tree socket 60. A point or cone 61 on the upper end of the driving spindle projects into the tree socket 60 and is adapted to receive the lower end of the tree 62. The tree socket 60 has a number of concentrically arranged set screws or thumbscrews 63 adapted to take into the sides of the tree trunk 62 at a point above its lower end which is engaged by the point 61.

It will be noted from Figure 5 that the lower or butt end of the tree trunk 62 is not necessarily sharpened or pointed.

By removing the tree socket 60 from the



threaded section 59 of the driving spindle, a display table 64 (Figure 4) may be threaded upon the threaded section 59 and caused to rotate with the driving spindle.

The motor 11 drives the worm 15 through the flexible coupling 13 and thereby sets the gear train in operation by which the turntable is rotated. The gear train is a reducer. The reducing movement may, for example, be from 1750 R. P. M. to 1 R. P. M. The motor may, for example, be ⅓ H. P., 110 volts, 60 cycle.

The gear box 12 is filled with oil which completely covers all of the moving parts.

The parts may be made from appropriate material. For example, aluminum or plastic material may form the stock out of which the case, platform, etc., are made while the driving spindle is preferably of steel and the insulating parts of micata. All wires and connections are preferably soldered and provided with suitable insulation by which the same are protected. The display table 64 may, for example, be 18 inches in diameter.

As the motor and gear train rotate, the rotary plate 57 and revolving arm 45 turn slowly, carrying around with them the tree 62 and the light bulbs. The two light bulbs 48 and 49 may be illuminated continuously from the conductor rings 36 and 37 while the receptacle 50 may be connected with the interrupted conducting ring 38 whereby the lamp in this socket will be a flasher.

It will be appreciated from the foregoing that an attractive display is made by the rotation of the ornamented and illuminated Christmas tree in that all sides are successively presented to the beholder. This is accomplished by the exceedingly compact and strong turntable and its actuating mechanism. In practice, a tree 7 feet in height has been easily carried in the rotary socket 60 with sixty stationary and twenty flashlights running for long continuous periods during the day and night.

The device is readily placeable in a room or apartment in a suitable location for the erection of a Christmas tree and for connection to the device of the house current cables. The device is also accessible readily as to all of its parts and is so constructed and arranged so as to enable the device to be assembled easily and quickly. The parts moreover have a special relation to one another and are so coordinated to resist getting out of order.

Although I have illustrated and described herein a form of the invention best known to me at the present time, it is understood that only one embodiment of which the invention is susceptible is disclosed, and I reserve the right to make all such changes and modifications as come within the scope of the following claims.

I claim:

1. A novelty turntable comprising a rotary turntable, a tree holder on said turntable, a plurality of lamps and lamp receptacles carried by said turntable in position to direct illumination upon the ornaments of a tree in said holder, a revolving arm carried by and separable from said turntable and having recesses therein, reciprocating plungers in said recesses spring-biased to a projecting position and connected in circuit with the several lamp receptacles, and a stationary insulating plate adjacent said turntable having conducting rings embedded therein engaged by said plungers and connected with an external circuit supply, one of said rings having alternate conducting and dead spots.

2. A novelty turntable comprising a rotary platform, an arm carried by said platform for rotation therewith, a tree holder on said platform, a plurality of lamps carried by said platform, a stationary plate having conducting rings thereon and connected with a circuit supply, said arm and platform having registering recesses provided with top and bottom walls, plungers disposed within said recesses provided with flanges and electrically connected to said lamps, and springs engaging the top walls of said recesses and said flanges for urging the plungers into contact with said conducting rings.

3. A novelty turntable as claimed in claim 2 characterized by the fact that the flanges engage said bottom walls of the recesses for limiting the downward movements of the plungers.

4. A novelty turntable comprising a rotary platform, a tree holder on said platform, a plurality of lamps carried by said platform in position to direct illumination upon the ornaments on a tree, an arm carried by the rotary platform and having recesses therein, a stationary insulating plate, conducting rings mounted thereon and connected with a source of electrical energy, and reciprocating plungers received by said recesses and spring-biased into contact with the conducting rings, the plungers being electrically connected to the lamps.

REINHOLD SIEBENKITTEL.



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