

Oct. 15, 1935.

L. PAULERO ET AL

2,017,420

ELECTRIC TURNTABLE

Filed Nov. 28, 1934

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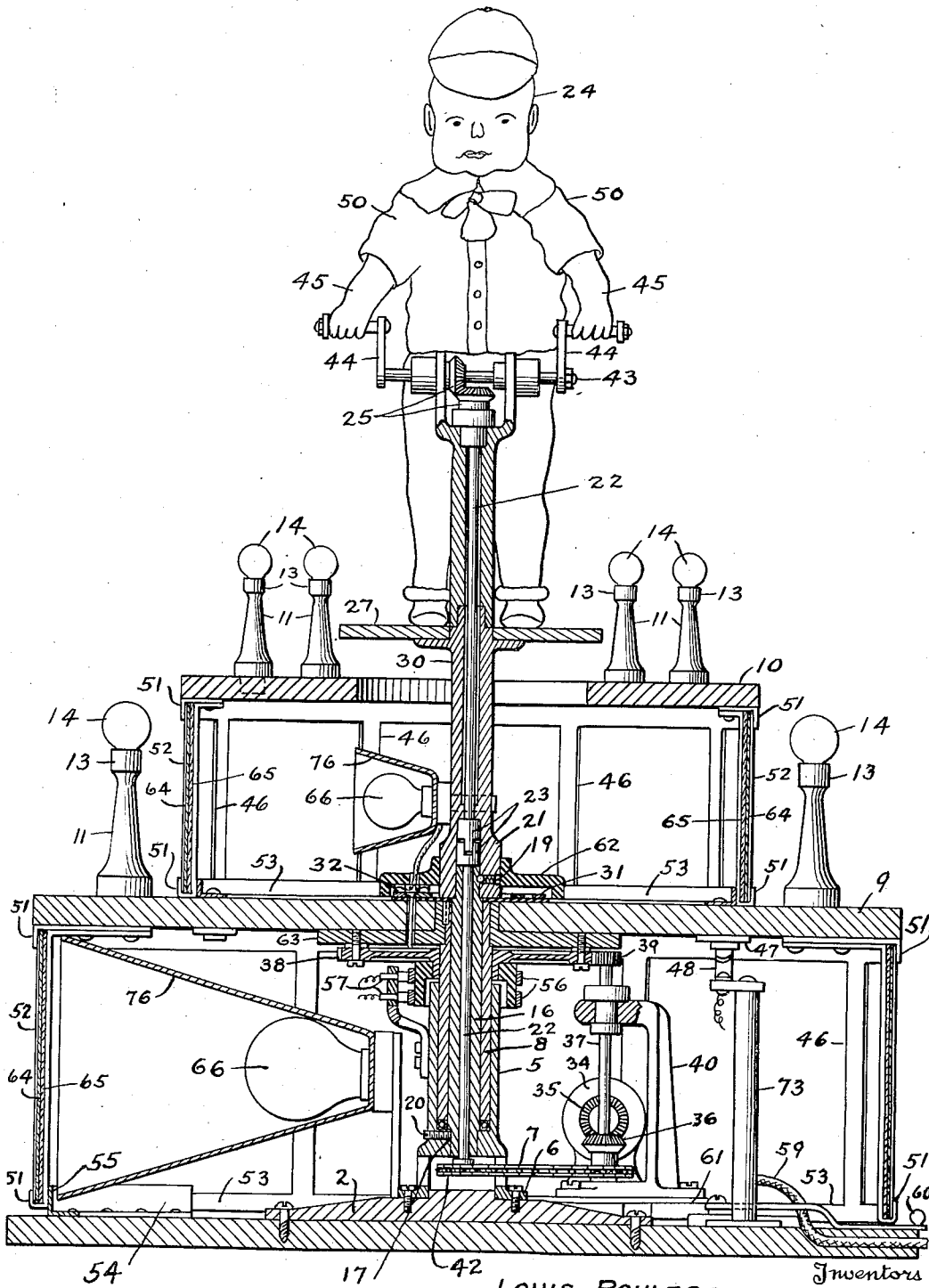


Fig. 1.

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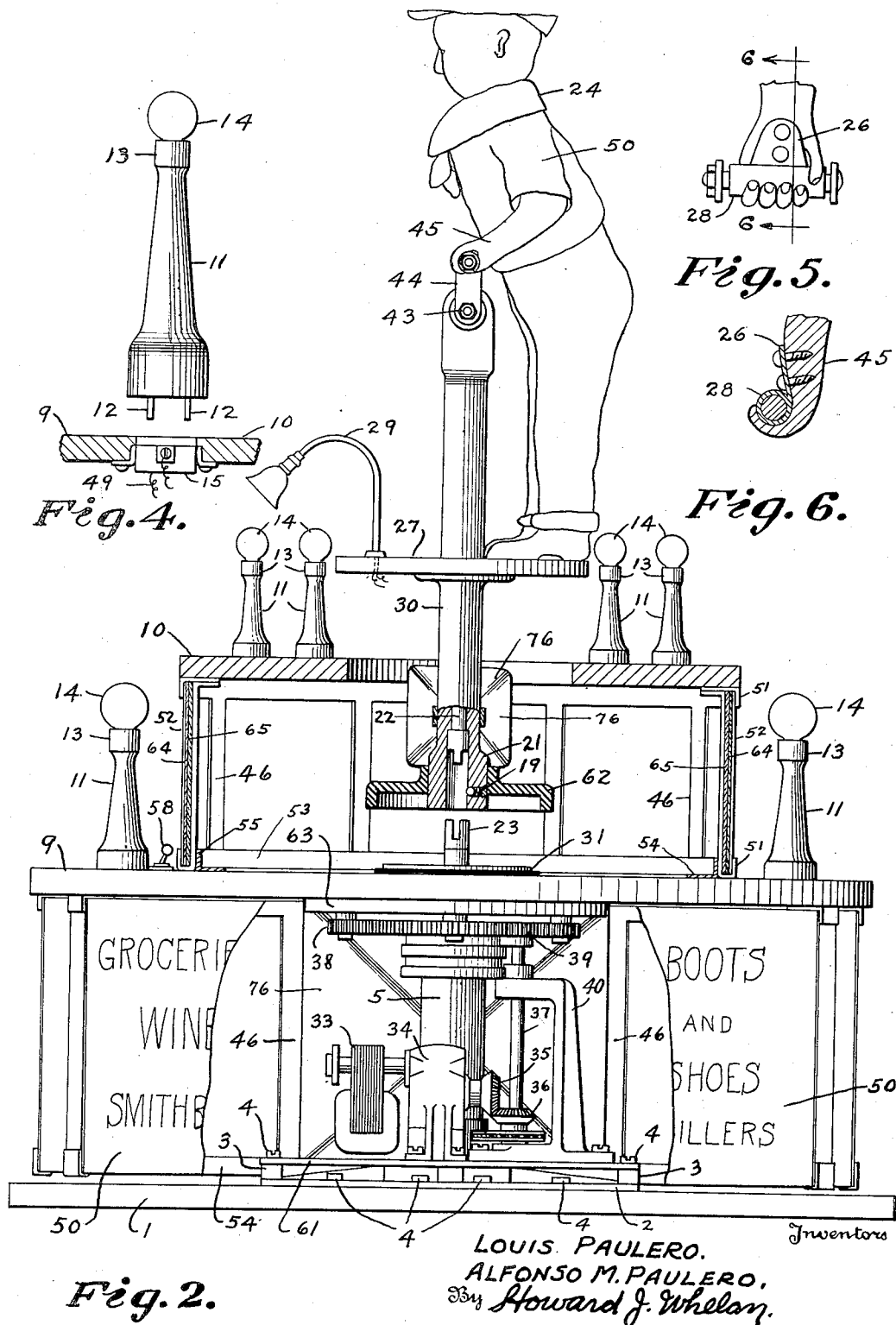
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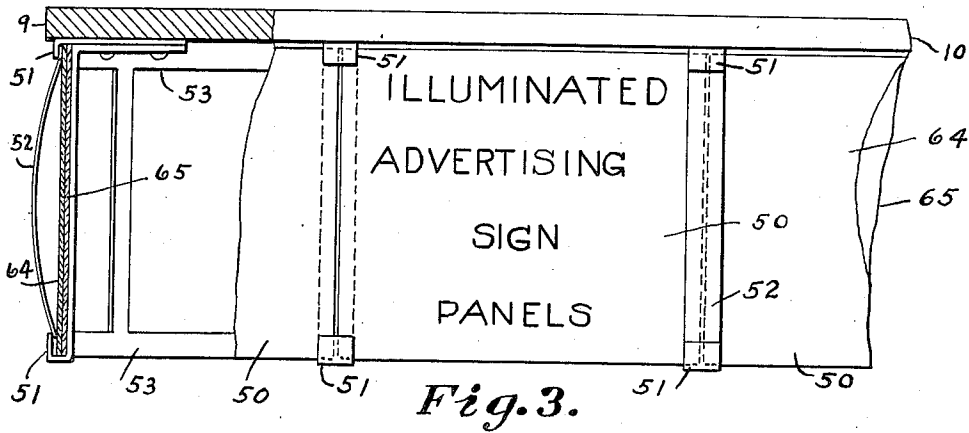


Fig. 3.

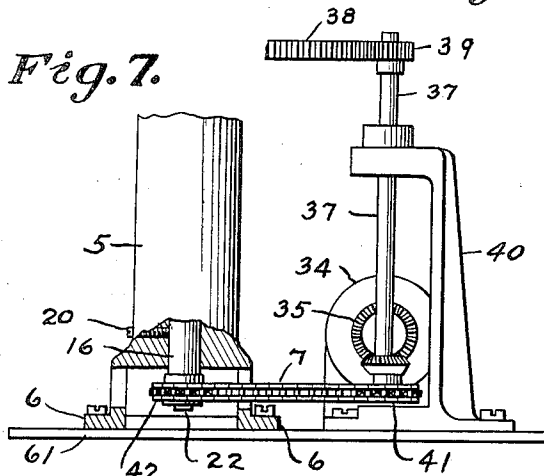


Fig. 7.

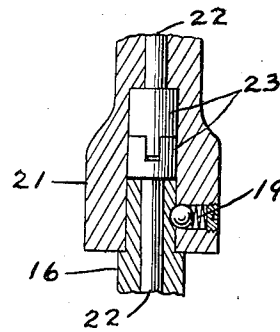


Fig. 8.

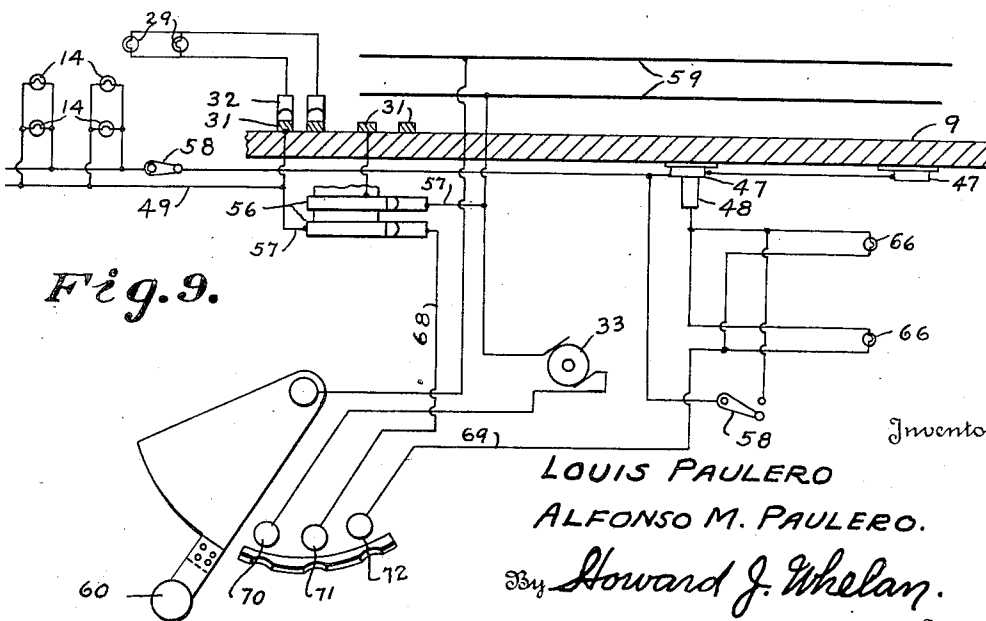


Fig. 9.

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2,017,420

ELECTRIC TURNTABLE

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Application November 28, 1934, Serial No. 755,214

8 Claims. (Cl. 40—33)

This invention refers to operative advertising devices and more particularly to those having manikins and the like for attracting attention to the device and its advertising features. It has among its objects to provide a revolving table or platform, singly or multifarious, on which are mounted lights or illuminating details to attract the eye of the observer, and in addition a supplementary platform or table, stationary in character but having an operating manikin acting upon it. Another object is to provide for the interchangeability or removal of many parts in a quick and convenient manner without spoiling the general appearance or operation of the device. A further object is to provide a system of controls for the convenience of operation and display. Still another object is to arrange the manikin that in its operation stresses means will be provided for to relieve excessive wear and tear on the parts of the same. Another feature is to devise the mechanical parts of the device that its operation may be continuous, without injuring the parts or requiring interruptions in its operation for adjustment, oiling or cooling off. Other objects will become apparent as the invention is more fully set forth.

While operative advertising devices and manikins are well known in the realm of advertising toys and displays, such are usually limited in action and movement to certain well known or expected operations, and the observer takes but a passing interest in them. In this device the operation is one of an unexpected nature and apparently inconsistent with known principles, so that the observer is compelled to watch and study it closely to satisfy, partially or wholly, his curiosity, and in doing so, gets impressed by the general features of the device and its advertising. This operation consists in providing a manikin that seems to operate the device and take on human characteristics and life. The operation of lights on the platform and against the advertising serves to provide for more attracting features, while confusing the method of operation of the manikin and making the latter more mysterious.

In the drawings, which illustrate by way of example, an embodiment of this invention:—

Figure 1 is a sectional elevation of an advertising device embodying this invention.

Figure 2 is also an elevation of Figure 1, taken at right angles to the same, and with portions broken away to show interior construction, and with manikin partly disconnected.

Figure 3 is a detail of the advertising holding

parts pending from the platforms of the device.

Figure 4 is a detail of the illuminated posts used on the platforms and indicating their facile interchangeability.

Figure 5 shows a detail of the hand-attaching sleeve arrangement to provide for the transmission of movement to the manikin and take up wear and strain.

Figure 6 is a sectional side view of Figure 5, along line 6—6.

Figure 7 is a sectional detail of the chain drive and mechanism used for operating several different portions of the device from a single motor.

Figure 8 is a detail of the construction for arranging for the interchangeability of the manikin units in a quick and convenient manner.

Figure 9 is a diagrammatic detail of the electrical circuits and connections of the device.

Similar reference characters refer to similar parts throughout the drawings.

A base 1, preferably circular in form and extending entirely underneath the device provides a firm foundation for the device. A sub-base 2 is mounted on it and provided with spacers 3 that are arranged to resiliently absorb the mechanical noises and movements of the motive mechanism of the device, and have a bed plate 61 situated on the top of them. Suitable bolts or screws 4 attach the sub-base 2 and bed plate 61 to the base 1. The sub-base has a central hollow post 5 attached to it by the spaced feet 6 at its lower end. These spaced feet enable a chain drive 7 to pass through them without obstruction in a manner to be described. Revolving in and on the post 5 is a hollow stub-shaft 8 for revolving tables or platforms 9 and 10 which are preferably circular and flat and have a series of spaced illuminated posts 11 for lights mounted on them. The posts 11 are detailed in Figure 4 and have prongs 12 for electrically connecting the lamp sockets 13 and lamps 14 to the receptacles 15. Inside of the stub-shaft 8 is a hollow stationary standard 16 which is immovably attached to the post 5 at one end 17 by a set screw 20, and to a stationary-platform base 21 by a ball-spring lock 19. A shaft 22 is within the standard 16 and revolves in the same, and has a split-coupling 23 to enable it to be separated, and the upper portion with a manikin 24, and bevel gearing 25, as well as the hand attaching sleeve parts 28 and 26, lifted off.

The stationary-platform base 21 is provided with a platform 27 on which the manikin stands, jumps, dances, etc. as may be required. It is provided with a light (or lights) 29, which is fed

by wiring run along its pedestal 30 in a suitable manner, the latter being fed through collector rings 31 and brushes 32 mounted on insulator ring 62 as indicated in connection with the circuits of the moveable platforms 9 and 10.

The bed plate 61 has a motor 33, a speed changer 34 having a drive bevel gear 35 suitably mounted on it. The gear 35 drives another bevel gear 36 mounted on a shaft 37 that serves to drive a large gear 38 through the pinion gear 39, the shaft being vertically journaled in a bracket 40 also attached to the base plate. A sprocket gear 41 on the shaft 37 through the chain 7 operates the shaft 22 through a sprocket 42 and revolves the same together with the gearing 25 which, in turn, revolves a handle shaft 43, its handles 44 and the arms 45 of the manikin through the sleeve parts 28 and 26. The large gear 38 is suitably attached to a surface plate 63 mounted on the platform 9 and serves to rotate it and the upper platform 10 through the connecting posts 46 attaching and supporting it, when the gear 38 is operated. This gear is also mounted on the stub-shaft 8. A series of collector segments 47 and brushes 48 supported on post 13 serves to provide current to the lamp circuits 49 in the platforms 9 and 10.

The platforms 9 and 10 are provided with pending windows 50 which consist of outer unit transparent panes 64 and inner continuous transparent pane 65 held in place with flat springs 52 and frame construction 53; the springs being held in clips 51 when inserted. The manner in which the advertising is provided on or between the panes of the windows may be to suit the occasion or condition, but is preferably of translucent nature to permit a display light 66 with the assistance of its reflector construction 76, illuminate it from the interior of the platform enclosure. The reflector limits the illumination to one window at a time, the pending windows being divided into suitably sized panes around the cylindrical arrangement provided. This cylindrical arrangement for each moveable platform is so limited in vertical length as to prevent it frictionally striking the platform or base below it. On the base 1 a baffle screen 54 is provided around the peripheral surface of the same with a lip 55 arranged inside the cylindrical arrangement enclosure to prevent the seepage of light from the interior to the outside and vice versa. At various locations lubrication facilities are provided for reducing frictional considerations.

The arrangements for providing electrical facilities to the lamp 66 and the motor 33 and the various lamps are indicated as already noted, at the collector rings 56, brushes 57, switches 58 (which are for special or emergency purposes) the main circuit 59, and the controller switch 60. The latter brings the motor circuit into action first, and then the lamp circuits 68 to the collector rings 56 and circuit 69 to display lights 66, the details of which are made plain in the diagram in Figure 9. It is deemed unnecessary to describe the flow of electricity in the circuits or further details of the operation of the electrical parts.

The general operation of the parts will explain the function of the parts and details of construction not heretofore emphasized. The motor 33 is operated when the controller switch 60 is turned to its first step 70. This in turn, operates the speed changer 34 with its drive gear 35. This gear turns the shaft 37 with its gears 41 and 39 which transmit power to two distinct operative

parts of the whole device, the first being the manikin unit and the second, the movable platforms. The manikin gets its operative power through the gear 41, the drive chain 7, gear 42, shaft 22, the gearing 25, handles 45 on shaft 44, and the arms of the manikin 50. The manikin is shown as a boy but may be of any type, human, animal or otherwise. When the arms move, the body naturally follows the motion, and the manikin has the appearance of turning the handles and indirectly the moveable platform, especially as the platform 27 on which it stands is stationary. The gear 39 in turn rotates the large gear 38 and this in turn revolves the moveable tables or platforms 9 and 10 and their incidental parts, lights, collector rings, etc., as indicated on the drawings. Controller switch 60 is then turned on to its second step 71 and brings in light circuit 68, and thus feeds lights 14 and 29 through the collector ring connections 56. The controller switch 60 is next turned on to the third step 72 and brings in circuit 69 and feeds through to segments 47 and brushes 48 to the display lights 66, and throws the latter lights periodically on and off. The switch 58 may be used for by-passing the circuit 25 so as to make the respective lamps burn continuously. In the revolution of the platforms, the windows and advertising are carried around, and when each respective advertisement comes in front of the lamps 66, it is illuminated and made conspicuous. As the rotation is made relatively slowly through the use of the speed reducer or changer, the post lights 11 on both of the platforms turn with same slowly also and show up distinctly. The light 29 on the stationary platform 27 serves to give an artistic effect.

If it is desired to change the manikin and substitute another for it, the manikin is raised and lifts up with the gearing 25, the platform 27 and the upper portion of the shaft 22 which disconnects or breaks at the coupling 23 because its chisel point lifts out of the slot in which it is engaged, as indicated. This permits the whole manikin unit from the insulator ring member 62 to and including the manikin itself, to be lifted off the device. Then another manikin unit can be substituted for it in its place and be automatically coupled and electrically connected.

The various details of construction of the device are indicated in the drawings which enable it to be made up in small units and put together or taken apart conveniently.

While but one form of the construction of this invention is shown in the drawings, it is not desired to limit this application for patent to this particular construction, or in any other way otherwise than limited by the prior art, as it is appreciated that other forms might be made, using the same principles and coming within the scope of the appended claims.

We claim:—

1. A device of the class described comprising in combination, a base, a sub-base bed plate spaced therefrom but connected thereto, a plurality of platforms adapted to operate together and rotate in the same direction, another platform disposed above the first-mentioned platforms in a stationary position, a manikin mounted above the last mentioned platform and adapted to actuate thereon distinctly from the said first mentioned platforms, a motor on the bed plate, mechanism operated by the motor for operating said first-mentioned platform and manikin, and advertising displays carried by the platforms.

2. A device of the class described comprising

in combination, a base, a sub-base bed plate spaced therefrom but connected thereto, a plurality of platforms adapted to operate together and rotate in the same direction, another platform disposed above the first-mentioned platforms in a stationary position, a manikin mounted above the last mentioned platform and adapted to actuate thereon distinctly from the said first-mentioned platforms, a motor on the bed plate, mechanism operated by the motor for operating said first-mentioned platform and manikin, advertising displays carried by the platforms and means for illuminating the platforms and the said displays.

3. A device of the class described comprising in combination, a base, a sub-base bed plate spaced therefrom but connected thereto, a plurality of platforms adapted to operate together and rotate in the same direction, another platform disposed above the first-mentioned platforms in a stationary position, a manikin mounted above the last mentioned platform and adapted to actuate thereon distinctly from the said first-mentioned platforms, a motor on the bed plate, mechanism operated by the motor for operating said first-mentioned platform and manikin, advertising displays carried by the platforms, means for illuminating the platforms and the said displays, a speed changer for modifying the speed of the motor, means for controlling the operation of the motor, and lighting control arrangements in accordance with a predetermined system.

4. A device of the class described comprising in combination, a base, a sub-base bed plate spaced therefrom but connected thereto, a plurality of platforms adapted to operate together and rotate in the same direction, another platform disposed above the first-mentioned platforms in a stationary position, a manikin mounted above the last mentioned platform and adapted to actuate thereon distinctly from the said first-mentioned platforms, a motor on the bed plate, mechanism operated by the motor for operating said first-mentioned platform and manikin, advertising displays carried by the platforms, means for illuminating the platforms and the said displays, a speed changer for modifying the speed of the motor, means for controlling the operation of the motor, lighting control arrangements in accordance with a predetermined system, and means for providing easy insertion or removal of the lights and of the manikin.

5. A device of the class described comprising in combination a plurality of platforms suitably connected together and adapted to rotate, a member for supporting the platforms and positioning the same, a base having a hollow central post and journalling the said member, a manikin, a shaft passing from the base through the hollow central post through the platforms and connected with the manikin, an operative mechanism for turning the platforms and said shaft and agitating the manikin, display windows pending from the platforms and adapted to rotate therewith, and means arranged to permit the manikin to be easily detached.

6. A device of the class described comprising in

combination a plurality of platforms suitably connected together and adapted to rotate, a member for supporting the platforms and positioning the same, a base having a hollow central post and journalling the said member, a manikin, a shaft passing from the base through the hollow central post through the platforms and connected with the manikin, an operative mechanism for turning the platforms and said shaft and agitating the manikin, display windows pending from the platforms and adapted to rotate therewith, means arranged to permit the manikin to be easily detached, means for illuminating the display windows in accordance with a predetermined system, a platform for providing a footing for the manikin, and means connecting with the mechanism visibly operating with the same adapted to apparently visually indicate the motion of the platforms being directed by said manikin.

7. A device of the class described comprising in combination a plurality of platforms suitably connected together and adapted to rotate, a member for supporting the platforms and positioning the same, a base having a hollow central post and journalling the said member, a manikin, a shaft passing from the base through the hollow central post through the platforms and connected with the manikin, an operative mechanism for turning the platforms and said shaft and agitating the manikin, display windows pending from the platforms and adapted to rotate therewith, means arranged to permit the manikin to be easily detached, means for illuminating the display windows in accordance with a predetermined system, a platform for providing a footing for the manikin, means connecting with the mechanism visibly operating with the same adapted to apparently visually indicate the motion of the platforms being directed by said manikin, means for illuminating portions of the display windows periodically at certain positions of the platforms in their rotations, means for preventing undesirable leakage of the illumination, a plurality of electric lights removably mounted on the platforms, means for enabling electric current to be directed to the illumination means, lights, and motor and through the moving and stationary parts.

8. A toy of the class described, having a base, a sub-base spaced and resiliently mounted thereon, a hollow central post mounted on the sub-base having a plurality of other posts, tubes and shafts therein for attachment to different portions of the device, a motor, mechanism for operating certain of said posts, tubes and shafts, and empowered by said motor, platforms operating certain of said tubes, a manikin mechanism operated by the shaft and adapted to give it an apparently natural motion, pending display windows having plural panes adapted to be removably connected, and translucent in nature, said windows and platforms being constructed to provide floating revolving cages about said base, and means disposed on the base for preventing the leakage of light to or from the bottom of said cages.

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