June 14, 1966 D. W. GERBER 3,255,890

ROTATABLE DISPLAY DEVICES

Filed Sept. 9, 1964

FIG. 1.

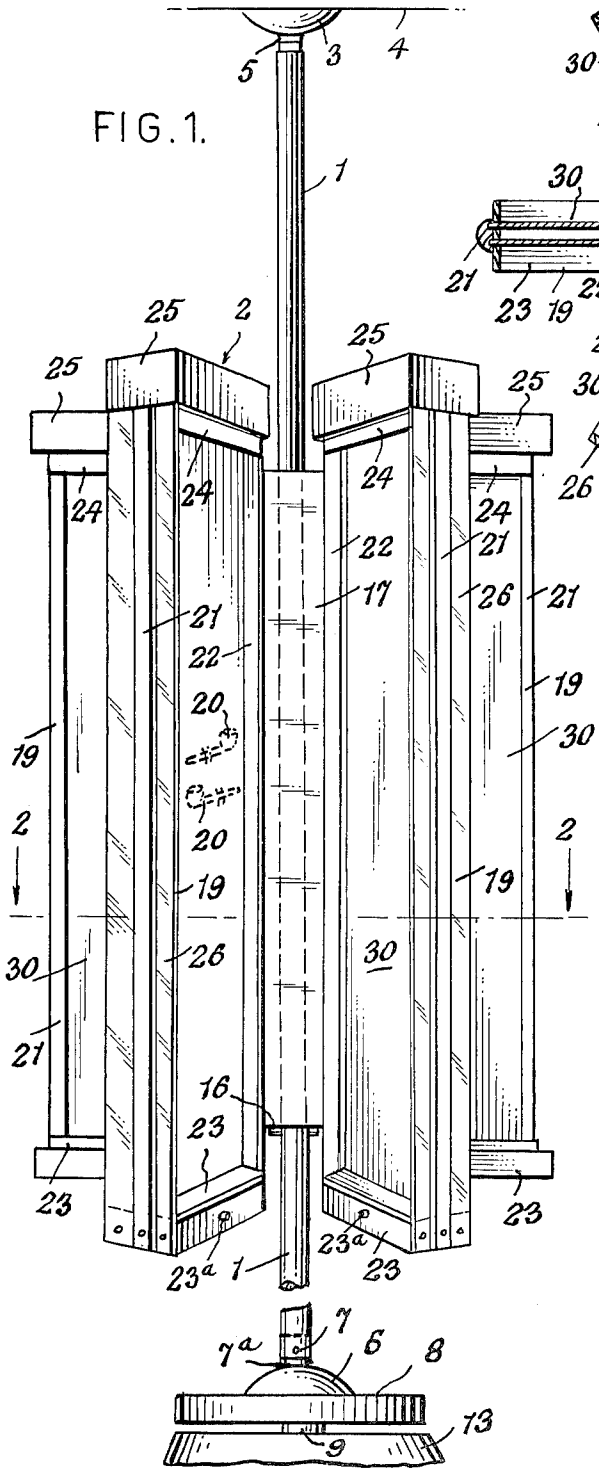


FIG. 2.

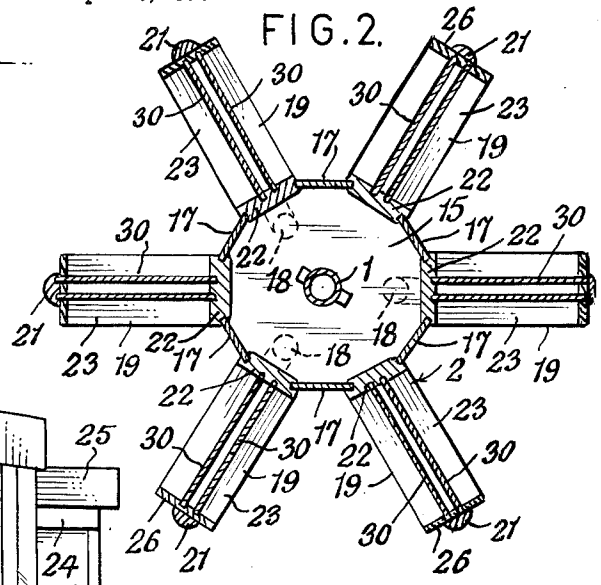


FIG. 3.

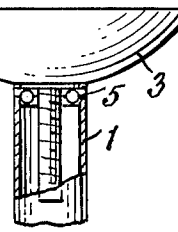
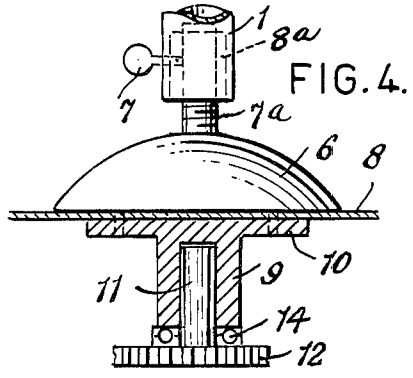


FIG. 4.



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United States Patent Office 3,255,890 Patented June 14, 1966

3,255,890

ROTATABLE DISPLAY DEVICES

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Filed Sept. 9, 1964, Ser. No. 395,174
6 Claims. (Cl. 211—163)

This invention relates to rotatable display devices and particularly to a type in which a plurality of panels holding merchandise or articles for display, radiate from a central rotated supporting post so that upon rotation of the post the goods on the various panels will be brought into view.

It is an object of the invention to provide a display device of this character which will be of relatively simple construction; which will attractively present the goods carried by it; which can be illuminated, and which can be conveniently located at any desired place in a store or other business place, and which will attract attention to the displayed merchandise.

It is an object of the invention to provide a display device which, when continuously rotated, can be halted in its rotation whenever desired without causing the cessation of operation of the driving mechanism and which halt of the device can be done by light manual resistance imposed on one or the other of the panels, whereby the goods on any particular panel can be carefully examined or inspected by a possible purchaser.

More particularly, the invention contemplates the provision of a driving unit coupled to a turntable; of a post or pole having suction cups at its upper and lower ends, one of the cups being adherent to the top of the turntable and the other cup being suctionally attached to the ceiling, to thereby vertically position the post between the turntable and the ceiling. A bearing is interposed between the upper end of the post and the upper suction cup and a similar bearing is interposed between the turntable and a driving element forming part of the rotating unit, this arrangement permitting the rotation of the post and the display panels carried thereby, but permitting the post and the display unit borne by it to be manually halted at any point in its rotation without causing the stoppage of the driving unit.

With these and other objects to be hereinafter set forth in view, I have devised the arrangement of parts to be described and more particularly pointed out in the claims appended hereto.

In the accompanying drawing, wherein an illustrative embodiment of the invention is shown,

FIG. 1 is a perspective view of a rotatable display device constructed according to the invention;

FIG. 2 is a sectional view taken substantially on the line 2—2 of FIG. 1, looking in the direction of the arrows;

FIG. 3 is a vertical sectional view of the upper end of the supporting post or pole showing the suction cup and bearing thereat, and

FIG. 4 is a sectional view of the lower end of the pole showing the coupling means between the turntable and the driving means.

The improved rotatable display device consists primarily of a rotative supporting post or pole **1** and a display unit carried thereby and generally indicated at **2**. The post or pole **1** is of tubular construction and is provided at the top with a suction cup **3** by means of which the pole is detachably secured to the ceiling **4**. To permit rotative movement of the post or pole **1** while the suction cup **3** remains stationary, there is provided between the cup **3** and the upper end of the pole, suitable bearing **5**, or other anti-friction device.

The lower end of the pole is provided with a similar

suction cup **6** having a projecting threaded stud **7***a*, threadably inserted through a bushing **8***a* fitted in the lower end of the pole and the stud is held in position in the bushing by means of a thumb screw **7**. Said suction cup **6** is adapted to be suctionally adherent to the top of a rotating turntable **8**. The turntable **8** is provided on its under surface with a downwardly-extending boss **9**, secured by its flange **10** to the bottom of the turntable. Said boss **9** is adapted to be slip-fitted over an upwardly-projecting spindle **11** carried by a gear **12** which forms part of a known rotating mechanism housed in a casing, a portion of which is disclosed at **13**. Fitted around the spindle **11** is a ball bearing **14** or other suitable anti-friction device.

The above described arrangement is such that the pole, carrying the display unit **2**, has sufficient weight to cause it to be normally rotated by the rotating spindle **11** when the turntable **8** is rotated by its disposition above the spindle and with its boss fitted thereover. However, when it is desired to halt the rotative movement of the display unit, such as for the purpose of closely examining any of the goods displayed on the panels of the unit, this can be done by the imposition of relatively light finger pressure or manual resistance imposed on any one of the display panels of the unit. When the rotative movement of the display unit is thus halted, the rotative movement of the driving means, including the spindle **11**, nevertheless continues its rotation. When the manual pressure on the display unit is discontinued, the rotation of the display unit will be resumed.

The display unit mounted on the post or pole **1** includes a central hollow hub through which the pole **1** axially extends, the hub being suitably fixedly attached to the pole so that when the pole is rotated, the display unit will turn along with it. The hub includes closure disks **15** at its upper and lower ends, and a supporting cross pin **16** passes through the pole below the lower one of said disks. The disks are connected by a plurality of vertical panels in strip form as shown at **17**, such strips being used for bearing advertising or informative matter. These strips are preferably, but not necessarily, composed of a translucent material such as Plexiglas, and they can be illuminated by lamps **18** of the fluorescent type located on the inside of the hub.

The display unit includes a plurality of wings **19** projecting radially from the hub. These wings are distributed uniformly around the hub and while six of them are shown, this number may be increased or decreased as desired. Each of these wings consists of a frame containing display boards or panels **30** on which articles of merchandise, such as for example, the pipes **20** shown in dotted lines in FIG. 1. The goods so displayed can be clipped or otherwise attached to the panels, which can be composed of penetrable material or they may be perforated for the ready affixment of the articles displayed.

The frame of each of the wings **19** consists of vertical side pieces **21** and **22**, connected by upper and lower cross pieces **23** and **24**. At the upper end of each of the wings is provided a box or enclosure which can, if desired, contain suitable lighting elements, such as fluorescent tubes, for illuminating the panels and the goods displayed thereon. The enclosures **25** can contain window type roller blinds provided with clear Mylar shades. These shades can be drawn down over the front of the panels to thereby cover and protect the articles displayed thereon while affording a full view of such articles. When drawn down, each shade can be held in place by its engagement with a pin **23***a*.

The vertical side pieces can if desired, be composed of a translucent plastic material, as can the vertical strips **26** forming parts of the vertical end pieces on each wing **19**.

From the foregoing, the operation of the improved rotatable display device will be apparent. When it is installed as shown in FIG. 1, and with the driving spindle **11** set in operation, the pole or post **1** will be slowly rotated, thereby presenting each of the panels successively into the view of a person standing in front of the device. Should the viewer desire a closer or more leisurely inspection of any of the article displayed on any particular panel, the rotation of the device can be halted by the imposition of light finger pressure applied against any one of the wings **19**. The bearing **5** and **14** will permit the pole **1** to be halted while the spindle continues to rotate so that when the resistance to the rotation of the pole is discontinued, it will at once begin to rotate.

The arrangement described is such that an attractive and convenient rotatable display device is provided and one which has the facility of being halted at any point in its rotation without damage to its operating parts.

Having thus described a single embodiment of the invention, it is obvious that the same is not to be restricted thereto but is broad enough to cover all structures coming within the scope of the annexed claims.

What I claim is:

1. A rotatable display device comprising, a vertical post, a hub mounted thereon, a plurality of display panels projecting radially from the hub, suction cups on the opposite ends of the post, the cup at the upper end of the post adapted to engage a ceiling, the cup at the lower end of the post resting on a turntable, means for rotating the turntable, and bearings at the opposite ends of the post, one of said bearing being interposed between one of the suction cups and one end of the post and the second bearing interposed between the turntable and the turntable rotating means.

2. A rotatable display device as defined in claim **1**, wherein the turntable rotating means has a projecting spindle and the turntable has a boss fitted over the spindle, and the second bearing is positioned below the lower suction cup and between the boss and the rotating means.

3. A rotatable display device comprising, a hub provided with a plurality of display panels projecting radially from it, said panels being spaced apart on the hub to present flat display surfaces between them, a post extending axially through the hub and to which the hub is fastened, a turntable at the lower end of the post, suction means rotatably attaching said end of the post to the turntable, suction means for attaching the upper end of the post to a ceiling, driving means to rotate the turntable and bearings at the opposite ends of the post for permitting the post and the hub and its attached panels to be restrained from rotative movement by relatively light restraining force while the driving means for the turntable continues its rotation.

4. A rotatable display device comprising, a post, a display unit carried thereby, a turntable located below the lower end of the post, suction means rotatably coupling the lower end of the post to the turntable, a driving spindle for the turntable, means for rotating the spindle, suctions means for attaching the upper end of the post to a ceiling, a bearing interposed between the latter suction means and the upper part of the post, and a bearing interposed between the spindle and the turntable permitting the post and the display unit to be restrained from rotative movement while the driving spindle continues its rotation.

5. In a display device as provided for in claim **4**, wherein the spindle is constantly rotated by its rotating means, the spindle having a boss slip-fitted over it, said boss being attached to the turntable, the boss resting on the bearing disposed around the spindle.

6. A rotatable display device comprising, a vertical post, a display fixture fitted thereon and adapted to rotate along with the post, suction cups at the opposite ends of the post, a driven turntable and rotating means therefor, a bearing interposed between the turntable and the rotatting means permitting the display fixture to be held against rotation while the rotating means continues to rotate, one of the suction cups attaching the lower end of the post to the turntable and the other suction cup attaching the upper end of the post to the ceiling, and a bearing interposed between the upper end of the post and the adjacent suction cup to permit rotative movement of the post while the cup remains stationary.

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