May 25, 1943. K. A. McCONAUGHY 2,320,151

ROTARY ADVERTISING DISPLAY DEVICE

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FIG. 1.

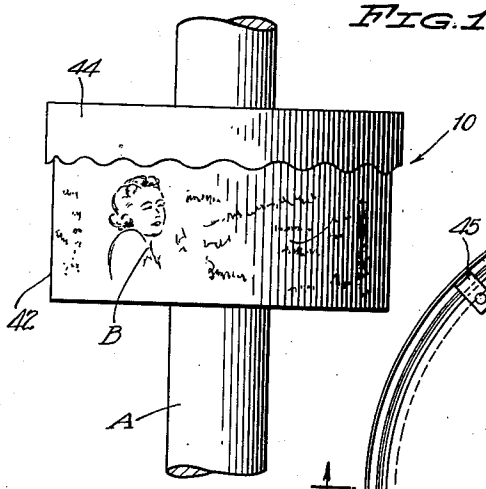


FIG. 2.

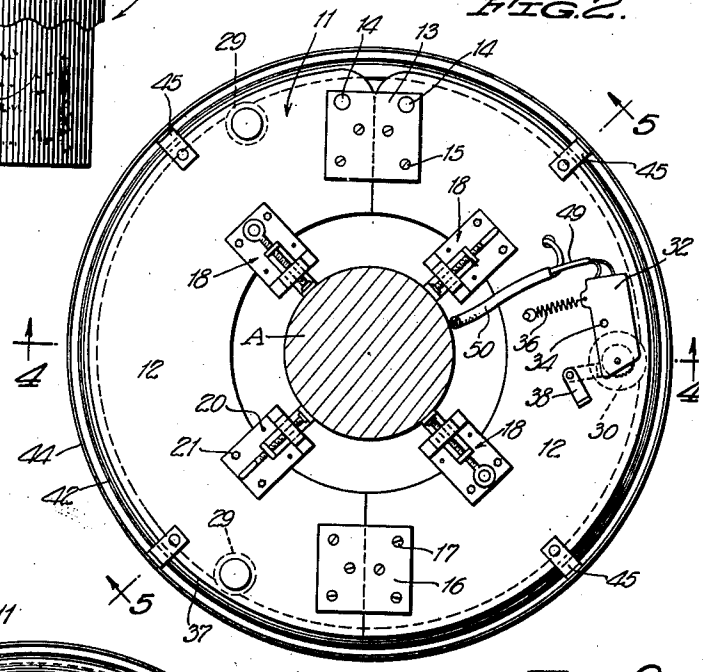


FIG. 3.

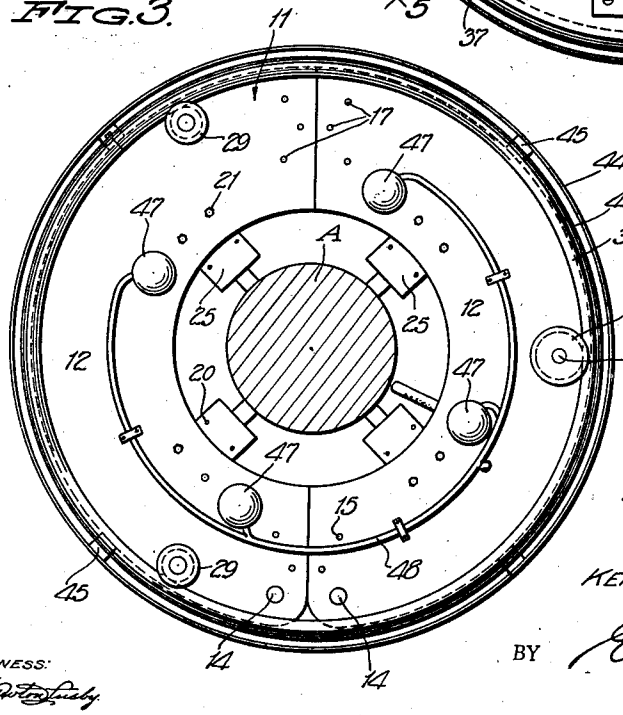
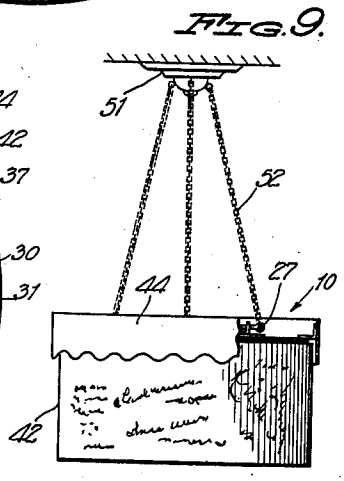


FIG. 9.



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FIG. 4.

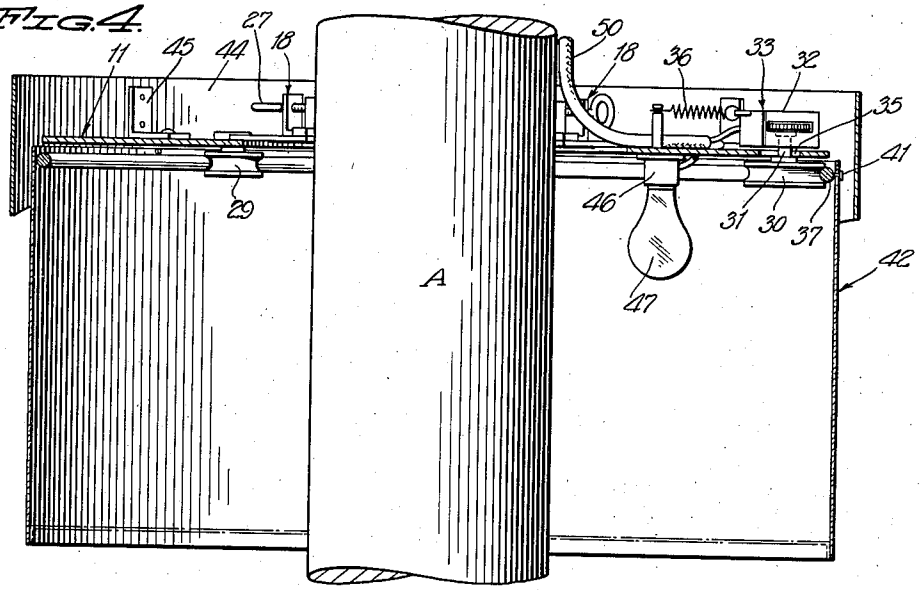


FIG. 5.

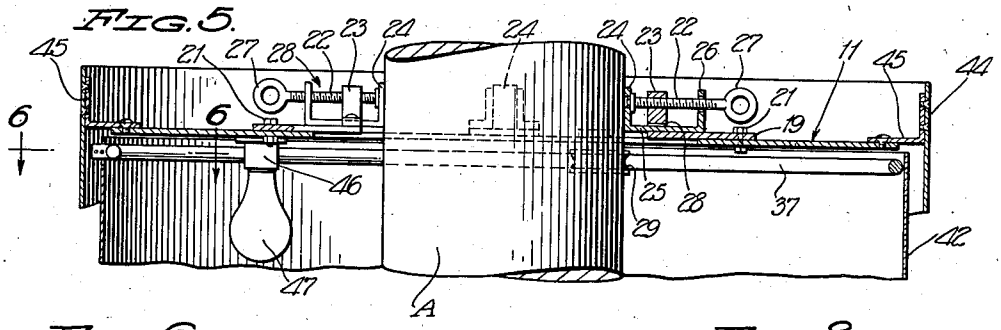


FIG. 6.

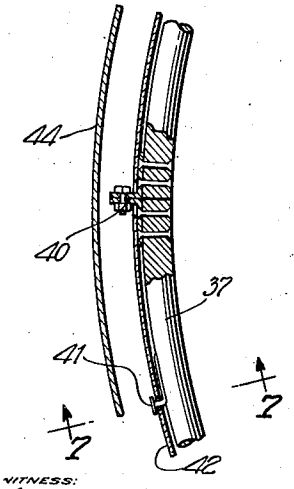


FIG. 7.

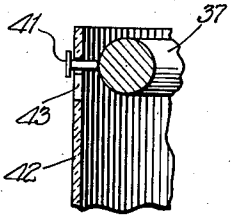
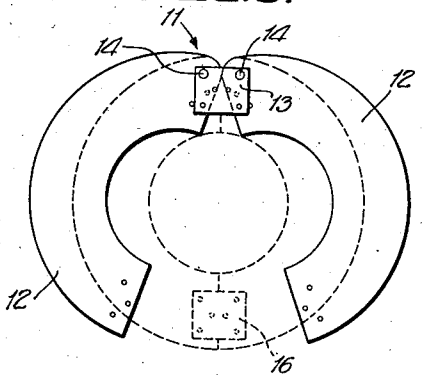


FIG. 8.



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ROTARY ADVERTISING DISPLAY DEVICE

Kenneth A. McConaughy, New York, N. Y.

Application September 20, 1941, Serial No. 411,636

10 Claims. (Cl. 40—33)

This invention relates to improvements in advertising display devices, and has particular reference to an illuminated rotary display device primarily adapted for use in stores to advertise articles of merchandise sold thereby, although the device may be made weatherproof for outdoor advertising if so desired.

One of the important objects of the invention is to provide an attractive rotary advertising display device which is displayed in an elevated position to be seen at a distance above counters and floor displays, and to which the attention of prospective purchasers is attracted by reason of the rotation of the screen on which advertising indicia appears.

Another feature of the invention resides in a rotary advertising display device which has a wide range of adjustability to enable the same to be attached to posts or columns of different diameters.

A further feature of the invention is the provision of a rotary advertising device in which the circular advertising screen may be readily removed for the display of a new substitute display screen without disturbing the attaching means by which the device is secured in an elevated display position.

Other novel features of the invention is to provide an illuminated rotary display device which is simple and inexpensive of construction, quick and easy to attach to a column or post, and inexpensive to maintain in use.

Other features of the invention will appear as the following specification is read in conjunction with the accompanying drawings, in which:

Figure 1 is a side elevational view of the display device mounted in position upon a post or column.

Figure 2 is a top plan view of the display device with the post shown in section.

Figure 3 is a bottom plan view of the display device with the post shown in section.

Figure 4 is an enlarged vertical sectional view on the line 4—4 of Figure 2.

Figure 5 is an enlarged vertical sectional view on the line 5—5 of Figure 2.

Figure 6 is an enlarged detail sectional view on the line 6—6 of Figure 5.

Figure 7 is an enlarged detail vertical sectional view on the line 7—7 of Figure 6.

Figure 8 is a detail top plan view of the split ring plate, the sections being illustrated in open spread apart position in full lines and in closed position in dotted lines.

Figure 9 is a side elevational view with parts broken away of the display device suspended from an overhead chandelier.

Referring to the drawings by reference characters, the numeral 10 designates my improved rotary advertising display device in its entirety, and which includes an annular base plate 11 which is constructed of two semi-circular shaped plate sections 12—12, the same being hingedly connected at two of their adjacent meeting ends by a hinge plate 13, the pivots of the hinge plate being designated 14—14. The plate 13 is provided with screw openings for the passage of fastening screws 15 to secure the hinge ends of the plate sections against movement. The other two adjacent ends of the semi-circular shaped plate sections 12—12 are fixedly secured together by a bridge plate 16, the same having openings therein for the passage of fastening screws 17. The screws 17 and the plate 16 are removed as are the screws 15 when it is desired to swing the plate sections 12—12 to an open position as illustrated in Figure 8 in order to effect the attachment of the device to a post or column A in instances where the column or post extends from the floor to the ceiling of a store. After the plate sections 12—12 are opened and fitted about the column A, the screws 15 and 17 are replaced in order to effect a fixed closing of the angular plate 11.

Fixedly secured to the upper side of the annular plate 11 and arranged in equidistantly spaced radial positions are screw clamps 18, four of which have been shown in the drawings. Each of the screw clamps 18 comprises an L-shaped base 19 having two sets of holes 20 therein for the passage of a pair of fastening bolts 21. In the drawings, the clamping screws are shown as fixedly secured at their maximum inwardly extending positions, but by removing the bolts 21 and shifting the face members 19 outwardly, the bolts may be inserted into the outermost set of openings 20 when it is desired to attach the device to a column of relatively large diameter. A threaded screw shank 22 is threaded into the upstanding bearing 23 of the base member 19 and the inner end of the screw shank is swivelly mounted in the upstanding arm 24 of a U-shaped bracket 25, the other arm 26 of the bracket having an opening therein for the free passage of the shank 22. The outer end of the screw shank 22 is provided with an eye 27 which serves as a manipulating element for facilitating the turning of the screw shank in order to effect a clamp-

ing adjustment. The bight portion of the U-shaped bracket 25 passes through a slot 28 provided in the upstanding bearing 23. By reference to Figures 2 and 5, it will be clearly seen that by the turning of the screw shanks 22, the upstanding arms 24 of the U-shaped brackets may be clampingly engaged with the sides of the column A. The arm 24 of the bracket 25 acts in the capacity of clamping jaws. When the clamping devices 18 are properly adjusted, the annular plate 11 is fixedly mounted in concentric relation with respect to the post A.

Rotatably supported by the annular plate 11 and disposed on the underside thereof, are grooved guide rollers 29, two of which have been shown in the drawings, and which are disposed on the same horizontal and circumferential plane. Also disposed on the underside of the annular plate 11 and disposed in the same horizontal plane as the guide rollers 29, is a grooved drive roller 30, the same being fixed to the lower end of a stub shaft 31 depending downwardly from the casing 32 of an electric motor 33. The upper end of the shaft 31 is connected by gearing to the armature shaft of the motor 33, whereby operation of the motor will impart a turning movement to the drive roller 30. The motor casing is pivoted on a vertical axis 34 in order that it may have a limited horizontal pivotal movement and the annular plate 11 is provided with a slot 35 to facilitate a limited movement of the shaft 31 when the motor is moved about its pivot. The drive roller 30 is urged in an outwardly direction by a contractile spring 36 which has one of its ends connected to the motor casing 32 and its other end fixedly secured to the annular plate 11. The purpose of the pivoting of the motor and the action of the spring 36 is to cause the drive roller 30 to frictionally and drivingly engage an annular rail 37 which is seated in the grooves of the guide rollers 29 and the drive roller 30. A pivoted latch member 38 is mounted on the upper side of the plate 11 and wedgingly engages the inner side wall of the motor casing 32 when it is desired to lock the drive roller 30 with the rail 37, such as when the device is being shipped and installed. In Figure 2 of the drawings, the latch 38 is shown in operative position in dotted lines, and in inoperative position in full lines.

The annular rail 37 is constructed of a single length of metal which is round in cross section, the same being bent to annular shape and having its ends fixedly secured together by a connecting joint designated 40 in Figure 6.

The annular rail 37 is provided at suitably spaced distances apart with headed studs 41, the same extending outwardly from the rail as shown in detail in Figure 6. The headed studs 41 removably support a rotatable advertising display screen 42. The screen 42 is annular in configuration, and may be formed of a single sheet of translucent material such as parchment, Cellophane, paper, fabric, or the like, the single strip having its meeting edges connected in any suitable manner so as to provide a continuous uninterrupted display screen on which advertising indicia such as shown at B in Figure 1 may be provided. In instances where the screen 42 is constructed of relatively stiff material, the upper end of the same is provided with key-hole shaped slots 42' into which the heads of the studs 41 are inserted in order that the shanks of the studs may fit into the restricted portion of the key-hole slots as best illustrated in Figure 7. It will thus be seen that the display screen 42 may be removed from its supporting rail 37 by merely unhooking the same from the headed studs 41, whereupon a new advertising display screen may be substituted without disturbing other parts of the device.

In order to conceal the top of the annular screen 42 and to hide the motor 33 and the other parts supported by the annular plate 11, there is provided an annular shield member 44, the same being of a diameter greater than that of the screen 42 and the annular plate 11. L-shaped brackets 45 have their respective angular legs fixedly secured to the inner side of the shield 44 and to the upper face of the annular plate 11. The shield member 44 is supported on a plane to lap the top edge of the screen 42 and conceal the same together with the parts supported by the base plate 11. If desired, the bottom edge of the shield member 44 may be scalloped as illustrated in Figure 1, or may be of any other fanciful design.

Fixedly mounted on the under side of the face plate 11 and suitably arranged in radial arrangement are electric sockets 46 which respectively receive electric lamps 47, the same depending from the annular plate 11 in order to illuminate the display screen 42. The electric wires 48 which lead to the lamp sockets 46 pass over the hinge connection between the plate sections 12—12 so that when the sections 12—12 are spread apart, there is no danger of breaking the wires nor interfering with the opening of the plate sections. The wires 48 of the lamp sockets and the wires 49 leading to the electric motor 33 pass through a single cable 50 which may be led vertically up the post A to a source of electric supply.

From the foregoing description, it will be seen that when the advertising display device 10 is fixedly mounted upon a post or column A, and the motor 33 is turned on, the said motor will impart a driving rotation to the driver roller 30, and the said roller 30 will impart a driving rotation to the annular rail 37, thus causing rotation to be imparted to the advertising display screen 42. When the electric lamps 47 are lighted, the advertising indicia present on the annular screen 42 will be clearly and attractively displayed. If desired, various colored electric lamps 47 may be used for imparting an artistic and attractive lighting effects to the display.

In Figure 9 of the drawings, the rotating advertising display device 10 is shown as being suspended from a ceiling fixture 51 by chains 52, the lower ends of said chain being engaged in the eyes 27 of the screw clamps 18. The operation of the device 10 when associated with a ceiling fixture is the same as that previously explained, and a further description is not thought necessary.

While I have shown and described what I consider to be the most practical embodiment of my invention, I wish it to be understood that such changes in construction and design as come within the scope of the appended claims may be resorted to if desired.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. An advertising device comprising in combination, an annular member, means for supporting said member in a horizontal elevated position, an annular rail, grooved rollers carried by said member in frictional engagement with the inner periphery of said rail, an annular advertising screen secured to and depending from

said rail, and a motor driven means operatively connected to one of said rollers for imparting driving rotation thereto to cause rotation of said advertising screen.

2. An advertising device as set forth in claim 1, including an annular shield member of a diameter greater than that of the annular member and the screen, and means fixedly supporting the screen to said member in a position to overlap the plane of the member and the top edge of said screen to conceal the same from view.

3. An advertising device as set forth in claim 1, in which the advertising screen is constructed of translucent material, and illuminating means supported by the fixed annular member and disposed behind the screen to effect an illumination thereof.

4. An advertising device comprising in combination, an annular plate, attaching screw clamps radially arranged about the inner periphery of the annular plate and fixedly carried thereby, a plurality of grooved rollers carried by the underside of said plate and radially arranged therearound, an annular rail seated in the grooves of said grooved rollers and rotatably supported thereby, an annular advertising screen supported by and depending from said rail, an electric motor carried by said plate, and a driving connection between said motor and one of said rollers for imparting driving rotation thereto to cause rotation of said annular screen.

5. An advertising device as set forth in claim 4, in which the annular plate comprises two semicircular plate sections to facilitate the fitting of the plate horizontally about a post or column, and fastening means for securing the meeting ends of said plate sections together.

6. An advertising device for attachment to posts or columns comprising in combination, an annular plate composed of two semi-circular plate sections, hinge means connecting two adjacent ends of the plate sections together whereby the plate sections may be spread apart to horizontally fit about a post or column, fastening means for securing the other two meeting ends of the plate sections together, a plurality of screw clamps mounted on one side of the annular plate in spaced radial arrangement and extending inwardly of the plane of the inner periphery thereof, an annular advertising screen, means for rotatably suspending said screen from said annular plate, and motor driven means supported by said plate for imparting a driving rotation to said screen.

7. An advertising device comprising in combination, an annular plate adapted to encircle a post or column, attaching means carried by said plate for fixedly securing the same to a post or column, a grooved drive roller mounted on said plate and disposed horizontally at the underside thereof, a plurality of grooved guide rollers mounted on the underside of said plate, said guide rollers and drive roller being on the same horizontal and circumferential planes, an electric motor mounted on the top of said plate, a drive connection between said motor and the drive roller, an annular rail seated in the grooves of the drive and guide rollers, and an annular advertising display screen fixedly attached to said rail and depending therefrom, whereby operation of said motor will cause said drive roller to impart rotation to said rail and screen.

8. An advertising device as set forth in claim 7, including an annular shield member of a diameter greater than the annular plate and the annular screen, and means fixedly securing the shield member to said annular plate in concentric relation to the plate and screen and in overlapping relation to the top of the screen and said plate to conceal the same.

9. In an advertising display device, a fixed annular plate, guide grooved rollers mounted on the underside of said plate and arranged in the same horizontal and circumferential plane, an electric motor pivoted on a vertical axis on the upper side of said plate and having a vertical driven shaft depending therefrom, said plate having a slot therein, said driven shaft freely passing through said slot, a drive groove roller fixed to said shaft and disposed on the same horizontal plane as the guide rollers, an annular rail seated in the guide and drive grooved rollers, spring means acting upon the motor to forcibly press the drive groove roller into driving frictional engagement with said annular rail, and an annular advertising display screen attached to said annular track for rotation therewith upon operation of the drive roller.

10. An advertising device comprising in combination, a supporting member, means for supporting said member in a horizontal elevated position, an annular rail, a plurality of rollers carried by said supporting member in spaced circumferential relation and disposed in frictional engagement with said rail, interengaging means between the rollers and said rail for supporting the latter, one of said rollers constituting a drive roller and the others guide rollers, a continuous screen secured to and depending from said rail, and a motor driven means connected to the drive roller for imparting driving rotation thereto to cause rotation of said screen.

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