June 17, 1924.

1,497,825

H. ZAHL

DISPLAY RECEPTACLE

Filed Aug. 7, 1922

Fig. 1.

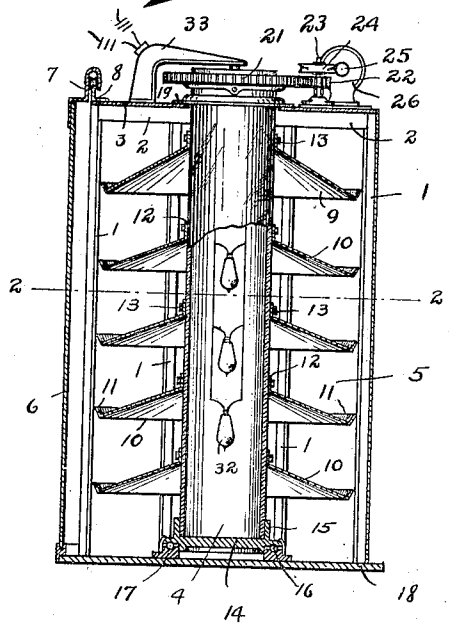
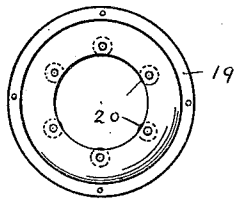


Fig. 3.



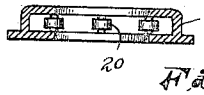


Fig. 4.

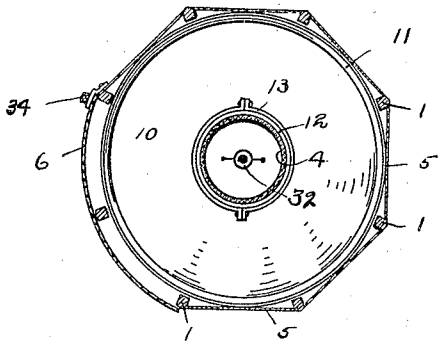


Fig. 2.

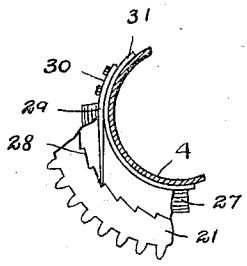


Fig. 5.

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Patented June 17, 1924. 1,497,825

UNITED STATES PATENT OFFICE.

HJALMAR ZAHL, OF DULUTH, MINNESOTA.

DISPLAY RECEPTACLE.

Application filed August 7, 1922. Serial No. 580,104.

To all whom it may concern:

Be it known that I, HJALMAR ZAHL, a citizen of the United States, residing at Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Display Receptacles, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention consists of certain new and useful improvements in display receptacles and relates particularly to such a device, a portion of which being revolvable, for displaying goods that are offered for sale to prospective purchasers.

The principal object of the invention is to produce a device of this character in which a large number of articles, in proportion to the space occupied by the receptacle, may be displayed.

Another object is to provide a novel form of illumination for the articles on display by utilizing the under side of the circular shelves as light reflectors.

Other objects and advantages, such as simplicity of construction, etc., will appear in the further description of the invention.

In the accompanying drawings forming part of this application and in which like reference characters indicate like parts:

Figure 1 is a central vertical section of the illustrated embodiment of my invention,

Figure 2 is a cross-sectional view on the line 2—2, Figure 1,

Figure 3 is an enlarged plan view of the upper roller bearing attachment for the revolvable part of the device,

Figure 4 is a vertical central sectional view of Figure 3, and

Figure 5 is an enlarged fragmental view of a portion of the pawl and ratchet attachment within the driven gear of the revolving part of the device.

The frame work of the housing consists of a plurality of upright members 1, preferably of wood, and arranged radially about a common center, as illustrated in Figure 2. Of these members there are eight illustrated as a convenient number to form in plan view a substantially octagonally shaped device. Any desired number of cross pieces 2, fixed to the upper end of the members 1 of the frame work, may be employed for supporting the deck 3, through which the revolvable axial receptacle 4 extends.

The straight faces intermediate of each pair of upright members are designed to be covered with glass, as indicated at 5, so as to make practically the entire contents of the display rack visible from without. However, two adjacent straight faces are covered with an arcuately shaped door 6 mounted upon suitable wheel hangers 7, traveling upon a rail 8, fixed to the edge of the deck 3, which permits of the door being rolled about to either side of the two faces, over which there is no glass, thus making the interior of the receptacle accessible at any time, and through which the revolving rack may be loaded or unloaded as desired.

The revolvable rack, upon which the goods are carried, comprises the hollow axial receptacle 4 and a plurality of inclined circular shelves, which may be all of one form or of different forms as desired; for example I have shown the upper shelf 9 as having greater inclination than the lower shelves 10. The shelves are all formed with upwardly turned flanged edges 11 to prevent the goods slipping off. The truncated end of the shelves are turned upwardly, forming suitable flanges 12, about which may be clamped a two-part ring 13, for holding the same tightly against the receptacle 4, or they may be fixed in any other desired manner.

The receptacle 4 is mounted within a cast base 14, having an annular flange 15 formed thereabouts, and which rests upon the ball-bearing 16 carried upon the upper face of the ring base 17 resting upon the bottom 18 of the display rack.

The upper end of the axial receptacle 4 is non-frictionally supported within the deck 3 by an annular housing or collar 19 carrying a plurality of pivoted rollers 20, which project slightly within the inner bore of the collar and are designed to engage the surface of the receptacle 4; the collar being suitably fixed to the deck 3 for the purpose. Above the collar 19 is fixed in any desired manner to the upper end of the receptacle 4 a spur gear 21 which meshes with a pinion 22 upon a vertical countershaft 23 carrying a worm gear 24 which meshes with the worm 25 upon any suitable form of motor, as for example, an electric motor illustrated at 26. In this manner the receptacle 4 together with its display shelves may be made to revolve at any desired speed. As a convenient means of attaching the gear 21 to the upper end of the receptacle 4, I have illustrated it

in Figure 5 as being a floating ring gear frictionally resting upon an annular flanged collar 27, rigidly fixed about the receptacle. The inner edge of the floating ring has formed thereon a plurality of equi-distant notches 28, forming a continuous annular rack thereabouts, in which is engaged a suitable spring pall 29, permanently fixed as at 30 to the upwardly extending flange 31 of the collar 27. By this arrangement it is evident that the receptacle 4 carrying the collar 27 may be turned in one direction without affecting the gear 21, as the pall will slip over the notches in the rack without operating the latter. The object of this is to permit an attendant, who wishes to remove from the rack any of the articles on display, that may at the time be opposite the door, access to such object, the same being had by turning the rack manually in the direction opposite to that which will cause the pall 29 to engage the floating ring gear and as soon as released the normal operating mechanism will continue to act.

I have illustrated the receptacle 4 as being made of glass and its upper end open. Into said receptacle is suspended a plurality of electric lights indicated at 32, these being so arranged as to occur one intermediate of each pair of circular shelves. An L-shaped bracket 33 is fixed upon the deck 3 with its free end extending over the center of the receptacle 4, said bracket being for the purpose of supporting the electric wires to which the lights 32 are attached. While I have illustrated the receptacle 4 as being of glass, it is evident that similar results may be accomplished by forming same of lattice-work or wire screen, as preferred The under sides of the shelves 9 and 10 are either polished or painted white so as to reflect the light downwardly upon the goods on the shelf below said lights and preferably arranged so as to not occur in the line of vision of one viewing the rack.

At 34 is illustrated a lock which may be of any desired form so that in the event of the display receptacle being used upon the street or like place the contents thereof may be secure.

From the foregoing it is evident that I have devised a simple and attractive display receptacle which may be used within a store where other goods are on exhibition and sale or may be used as an independent storing and display device from which goods may be sold directly.

It is to be understood that various modifications of details in the construction of the device within the scope of the invention may be resorted to without departing from the spirit thereof.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:

An illuminated rotary display rack of the character described comprising a hollow transparent axial receptacle carrying a plurality of vertically spaced lamps therein, vertically spaced circular inclined shelves carried by the receptacle, said shelves being so positioned in relation to the lamps that the under sides thereof act as reflectors throwing light downwardly upon each succeeding shelf, substantially as described.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

HJALMAR ZAHL.

Witnesses:
S. C. BRONSON,
S. GEO. STEVENS.