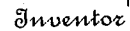


APPLICATION FILED APR. 29, 1911.

2 SHEETS--SHEET 1.

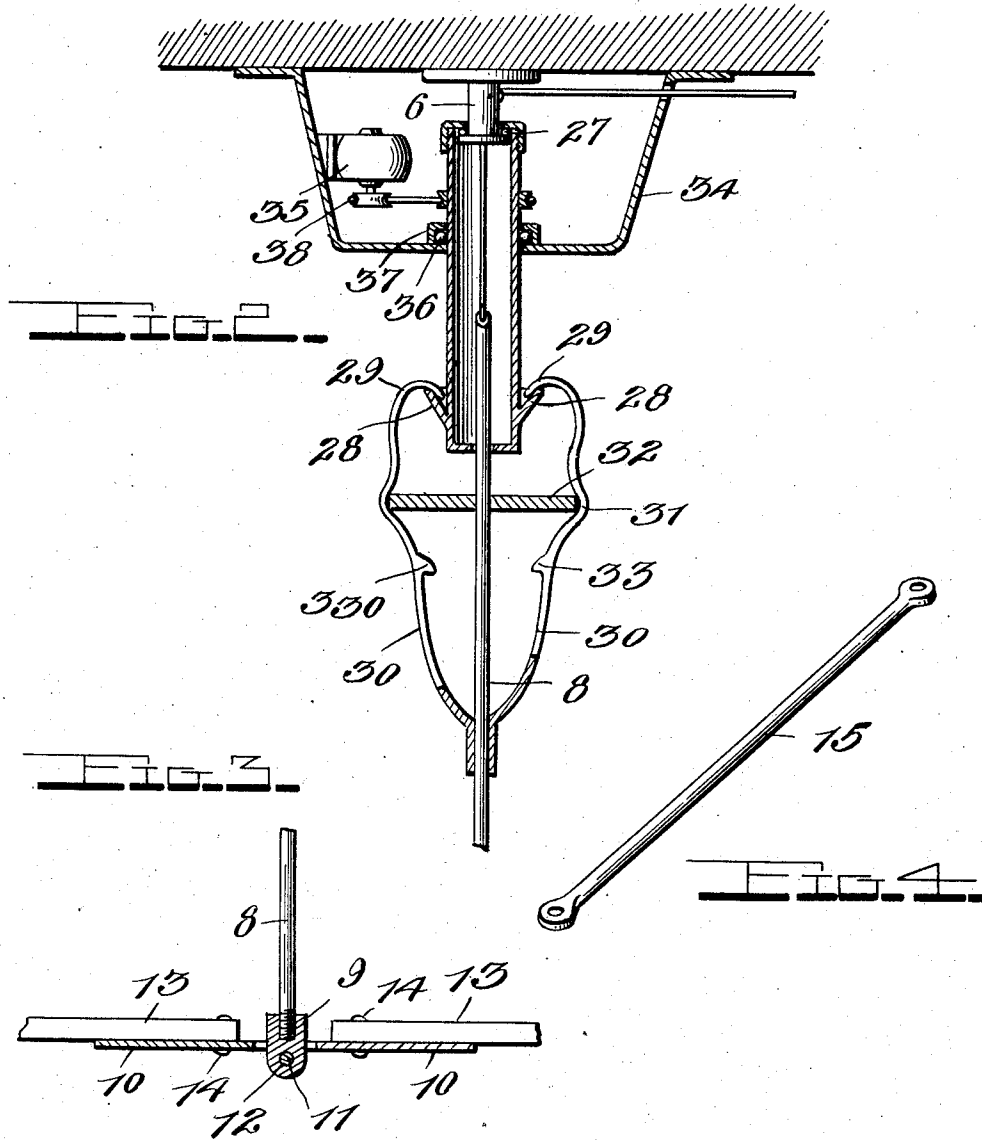


Attorney

S. M. TAYLOR.
 DISPLAY RACK.
 APPLICATION FILED APR. 29, 1911.

997,518.

Patented July 11, 1911.
 2 SHEETS—SHEET 2.



Witnesses

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UNITED STATES PATENT OFFICE.

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DISPLAY-RACK.

997,518.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, SAMUEL M. TAYLOR, a citizen of the United States, residing at Truckee, in the county of Nevada and State of California, have invented certain new and useful Improvements in Display-Racks, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to new and useful improvements in display racks and more particularly to hanging display racks and has for its object to produce a rack to be suspended from the ceiling and can be easily raised and lowered by hand.

Another object is to provide a rack that when made in large proportions can be run by an electric motor inclosed in a casing, secured to the ceiling around the upper end of the rack.

A further object is to provide a rack of this character which will possess advantages in points of efficiency, durability, is inexpensive of manufacture and at the same time being simple in construction and operation.

With the above and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view showing my invention secured to the ceiling, parts being broken away and in section; Fig. 2 is a detail sectional view showing a modified form; Fig. 3 is a detail section view; and Fig. 4 is a detail perspective view of one of the spacing rods.

Referring more particularly to the drawing 1 indicates the ceiling to which is secured the attaching plate 2, said plate being secured to the ceiling by the screw bolts 3. The lower side of the attaching plate 2 is provided with a flange 4 having ball bearings 5 mounted therein. A sleeve 6 is provided, having an annular flange 7 secured thereon and adapted to engage over the ball bearings on the flange 4. The lower end of this sleeve is provided with a rectangular opening 7' adapted to receive the upper end of the supporting rod 8 having an enlarged head portion 9.

A hinged plate 10 is secured to the head 9

by having the pintle rod 11 of the plate 10 passing through an opening 12 in the head 9. Secured to the plate 10 are the display arms 13, having one end pivoted to the plate at 14 and the outer ends of said arms are spaced an equal distance apart by means of the hinged spacing rods 15, said rods having one end pivoted to the outer end of the arms 13 as indicated at 16 and their free ends pivoted together as shown at 17 so that they can swing inwardly between the arm 13 or swing outwardly and fold.

Secured on the supporting rod 8 is a flange 18 having the supporting hooks 19 mounted thereon and adapted to engage in the eye screws 20 secured in the supporting arms 13 and disposed on each side of the hinge in the plate 10 to hold the display arms in the required position.

The rack can be raised or lowered by means of the rope or cord 21 having one end secured to the upper end of the rod 8 and disposed through the sleeve 6 and over a small pulley 23 mounted in the attaching plate 2, it is then passed through a small pulley 24 secured to the ceiling near the side wall and then down around a small winding drum 25 secured to the side wall near the floor so that the rack can be readily and easily raised or lowered, and a ratchet 26 is placed on the drum to hold the rack at any desired height.

In Fig. 2 the rack is shown with an electric motor in connection which necessitates a slight change in construction. Formed on the lower end of the sleeve 6 is a flange 27 having an inclined surface 28 adapted to receive the engaging hooks 29 formed on the upper end of the resilient arms 30 which are secured to the upper end of the rod 8, said arms being bent near their central portion to form a seat 31. Slidably mounted on the rod 8 is a releasing plate 32 engaging in the seats 31. When it is desired to release the hooks 29 from the flange 27 the rod 8 is pulled upwardly until the plate 32 engages the lower end of the sleeve 6 and forces it down until it is engaged under the lugs 33 formed on the arms, thus holding the arms 30 apart until the rack is lowered. A casing 34 is provided, adapted to be secured to the ceiling and inclose the upper end of the sleeve 6, and to support the electric motor 35 which is provided to rotate the rack.

The sleeve 6 is adapted to rotate in the ball bearings 36 mounted in a casing 37 secured to the inner side of the casing 34 and encircling the sleeve 6. The electric motor 35 is connected to the sleeve 6 by means of a belt 38. This form of rack can be raised or lowered in the same manner as the rack shown in Fig. 1.

While I have shown and described the preferred form of my invention it will be obvious that various changes in the details of construction and in the proportions may be resorted to for successfully carrying the invention into practice without sacrificing any of the novel features or departing from the scope thereof.

I claim:

1. In a device of the character described, the combination of an attaching plate, a sleeve mounted on a flange formed on the lower side of said plate, a supporting rod disposed in the lower end of said sleeve, a hinged plate secured to the lower end of said rod, display arms pivotally mounted on said plate and adapted to be brought together in compact form and means secured to said supporting rod for raising and lowering said arms to any desired height.

2. In a device of the character described, the combination of a plate secured to the ceiling, a sleeve mounted for rotation on the lower side thereof, a supporting rod having one end disposed in said sleeve, a head formed on the lower end, a hinged plate secured thereto and carrying display arms, said arms having one end pivoted to the plate and the outer ends having spacing rods pivoted thereto and adapted to fold and means secured to the said supporting rod and to a winding drum for raising and lowering the arms to any desired height.

3. In a device of the character described, the combination of a plate secured to the ceiling, a sleeve secured on the lower side thereof for rotation, a supporting rod having one end disposed in said sleeve and a head formed on the lower end, a hinged plate secured to said head, display arms pivoted to said plate and adapted to fold, a flange formed on the upper end of said supporting rod and supporting hooks secured thereto and engaging eye screws, secured to the display arms on each side of the hinge in the plate.

4. In a device of the character described, the combination of an attaching plate, a flange secured on the lower side thereof having ball bearings mounted therein, a sleeve having an inner flange secured thereon adapted to engage over the first mentioned flange, a supporting rod carrying display arms disposed in the lower end of said sleeve, and a rope having one end secured to the upper end of the supporting rod and disposed through said sleeve and attaching

plate and the other end secured to a winding drum for raising and lowering the display arms to any desired height.

5. In a device of the character described, the combination of an attaching plate, a sleeve secured for rotation on the lower side of said plate, a flange formed on the lower end of said sleeve having an inclined surface, a supporting rod having one end adapted to engage in the lower end of said sleeve and display arms secured to the other end of said rod, resilient arms secured to the upper end of said rod, a releasing plate slidably mounted on said rod, having each end engaging said arms, and hooks formed on the upper end of said arms for engaging the flange formed on the sleeve.

6. In a display rack, the combination of an attaching plate, means secured thereto for carrying folding display arms, a casing secured to the ceiling and inclosing said plate, means mounted in the casing for rotating said display arms, and means secured to said display arms for raising and lowering them to any desired height.

7. In a display rack, the combination of an attaching plate, a sleeve secured to the lower side thereof for rotation, a flange formed on the lower end of said sleeve, a supporting rod carrying display arms, having one end adapted to engage in the lower end of said sleeve, resilient arms secured on said rod, having hooks formed on their free ends adapted to engage said flange, a releasing plate slidably mounted on said rod, a seat formed in said resilient arms adapted to receive each end of the releasing plate, lugs formed on said resilient arms to hold said releasing plate when forced down by the lower end of the sleeve to disengage the hook from the flange and means secured to said rod and disposed in said sleeve for raising and lowering said display arms.

8. In a device of the character described, the combination of an attaching plate, a sleeve secured for rotation on the lower side thereof, a supporting rod carrying folding display arms and having one end adapted to be disposed in the lower end of said sleeve, a flange formed on the lower end of said sleeve, resilient arms secured to said supporting rod engaging hooks formed on the upper end of said rod and adapted to engage said flange, means slidably mounted on said shaft for releasing said hooks, and means secured to the upper end of said supporting rod and disposed through the sleeve and attaching plate and the other end secured to a winding drum for raising and lowering said display arms to any desired height.

9. In a display rack, the combination of an attaching plate, a sleeve secured to the lower side thereof for rotation, a flange formed on the lower end of said sleeve, a

supporting rod carrying display arms having one end disposed in the lower end of said sleeve, resilient arms secured on said rod, having hooks formed on their free ends adapted to engage said flange, means for releasing said arms from the flange when it is desired to lower the display arms, and means for raising and lowering the display arms to any desired height.

10 10. In a device of the character described, the combination of an attaching plate, a sleeve secured for rotation on the lower side of said plate, a flange formed on the lower end of said sleeve having an inclined sur-

face, a supporting rod having one end adapted to be disposed in the lower end of said sleeve, folding display arms secured to the other end of said rod, means for detachably securing said rod to said sleeve, and means for raising and lowering said display arms to any desired height.

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

SAMUEL M. TAYLOR.

Witnesses:

I. PASINETTI,

G. WALDO BRYANT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."