

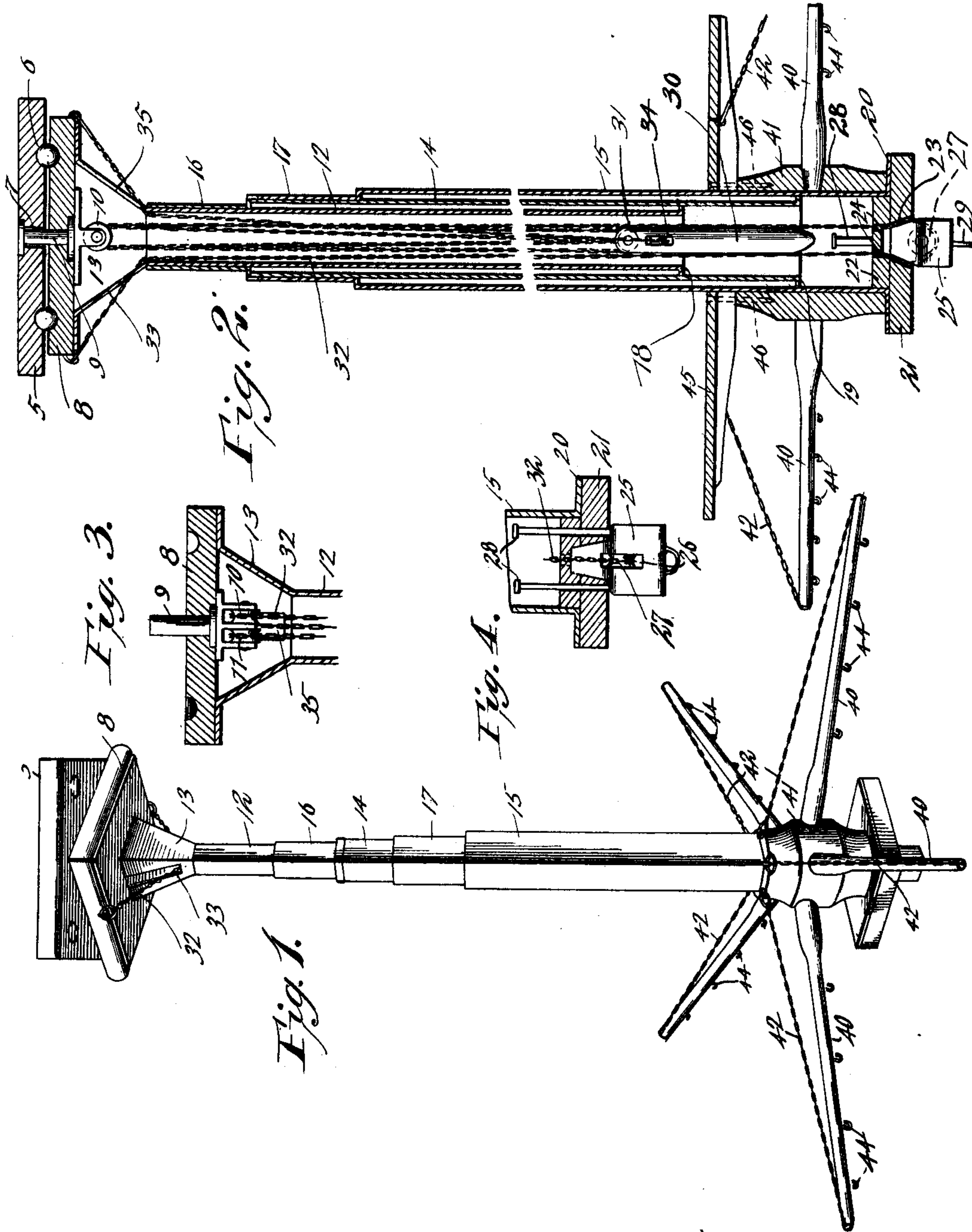
No. 675,861.

Patented June 4, 1901.

F. MARQUART.
CEILING DISPLAY RACK.

(Application filed June 11, 1900.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

FRED MARQUART, OF SANDUSKY, OHIO.

CEILING DISPLAY-RACK.

SPECIFICATION forming part of Letters Patent No. 675,861, dated June 4, 1901.

Application filed June 11, 1900. Serial No. 19,934. (No model.)

To all whom it may concern:

Be it known that I, FRED MARQUART, a citizen of the United States, residing at Sandusky, in the county of Erie and State of Ohio, have invented a new and useful Ceiling Display-Rack, of which the following is a specification.

This invention relates to display-racks in general, and more particularly to that class adapted for use in suspending articles to be displayed from the ceiling, one object of the invention being to provide a simple and efficient construction including telescoping parts which permit the rack proper to be raised and lowered, a further object of the invention being to so form the apparatus that the counterbalance will be contained therein and in which the rack will be effectively supported in any of its adjusted positions.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a perspective view showing the complete apparatus. Fig. 2 is an enlarged vertical section of the rack, showing portions broken away to permit of a representation on a larger scale. Fig. 3 is a detail section of the upper end of the stem or casing of the rack. Fig. 4 is a sectional view of the mechanism for clutching the cord.

Referring now to the drawings, this rack comprises a ceiling-plate 5, which is secured against the ceiling of a room by means of screws or in any other suitable manner and which plate has an annular race 6 in its lower face and a central perforation 7. The base-block 8 of the rack is pivotally connected with the ceiling-block 5 by means of the stem 9 of a double pulley comprising pulley-wheels 10 and 11 upon a common axis. Secured to the plate 8 is the upper telescopic member 12 of the stem of the rack, this member being rectangular in form and having a pyramidal upper end 13, which is secured directly to the plate 8 and incloses the pulley-wheels above referred to. Slidably connected with the member 12 is a second member, 14, while a third member, 15, is slidably connected with the member 14. The member 14 is itself separated from the member 12 by a slight interspace, said member 14 having a collar 16 secured to its upper end and of less diameter

than said member, this collar 16 being fitted snugly upon the member 12. Similarly the member 15 is separated by a slight interspace from the member 14 and has a collar 17 at its upper end which closely encircles the member 14, the members 12 and 14 having outwardly-directed flanges 18 and 19 at their lower ends, which lie against the inner surfaces of the members 14 and 15, respectively, to make close joints.

The lower end of the member 15 is provided with an outwardly-directed flange 20, which rests upon and is secured to a cap-plate 21, having a central box 22 on its upper face which fits into the lower end of the member 15. In the body of the plate 21 is formed an upwardly-tapered opening 23, leading from the upper end of which are two parallel perforations 24. The opening 23 is adapted to receive the upper tapered end of a block 25, having a transverse slot 26, in which is rotatably mounted a pulley-wheel 27. The block 25 has guide-rods 28 engaged therewith and passed slidably through perforations in the plate 21, whereby the block may be raised and lowered into and out of engagement with the recess or opening 23 in the plate 21. A handle 29 is provided upon the block to facilitate this manipulation.

A counterbalance-weight 30 is provided and has a pulley-wheel 31 at its upper end, this weight being supported or suspended from a cord or chain 32, which is attached at one end to the plate 8, then taken through a slot 33 in the side of the base of the member 12, then downwardly and around the pulley-wheel 27, then upwardly and over pulley-wheel 10, then downwardly and around the pulley-wheel 31 in the weight, then upwardly and over the pulley-wheel 11, then downwardly and around a second pulley-wheel, 34, in the weight in a plane at right angles to the plane of the wheel 31, and then upwardly and out through a slot 35 in the base of the member 12, where it is attached to the plate 8. With this construction it will be noted that the weight of the stem or casing of the rack causes it to tend to drop and that this tendency draws the block 25 upwardly and into the recess or opening 23 in the plate 21, causing the sides of the tapered block to impinge the cord or chain and clamp it against the corresponding

sides of the opening, thus holding the apparatus from moving downwardly. Thus the device is held positively in its adjusted positions, and if it be desired to raise it it is only
 5 necessary to first draw downwardly upon the block 25, and then push upwardly on the plate 21, and the stem or casing will telescope, the weight taking up the slack of the chain or cord. In point of fact the weight
 10 does not necessarily have to be of sufficient specific gravity to counterbalance the parts, but only heavy enough to take up the slack. When the device is to be lowered, if the weight of the device is greater than the counterbal-
 15 ancing-weight, it is only necessary to draw downwardly upon the block 25. Otherwise the block is first drawn down to release the cord, and the plate 21 is then grasped and drawn down. When the block is released, it
 20 reassumes its clutching position.

As shown in the drawings, the articles to be exhibited are supported directly from arms 40, which form the radial spokes of a hub 41, which is slipped over the member 15 of the
 25 stem or casing, the outer ends of the arms having chains 42 connected therewith and attached at their opposite ends to the upper end of the hub. The arms 40 are provided with hooks 44 for attachment of articles to be sus-
 30 pended, or such articles may be thrown over the arms as desired.

It will be understood that in practice various modifications of the structure shown may be made and that any suitable materials and
 35 proportions may be used.

It will be noted that in Fig. 2 of the drawings there is shown a modification in which an additional element is used, this additional element consisting of a platform 45, which is
 40 disposed directly upon the upper end of the hub 41 and has downwardly-extending pins 46, which engage perforations or recesses in the hub to hold the platform in place. When this platform is used, the suspending-chains
 45 42 are engaged with the under side of the platform, as shown, instead of with the upper end of the hub. This platform serves to support such articles as cannot be hung from the hooks.

50 What is claimed is—

1. A ceiling-rack comprising a stem including telescopic sections, one of which is adapted for attachment to a ceiling and one of the sections carrying clutching-faces, a block for
 55 engagement with the clutch-faces, and a suspending-cord having one end fixed with respect to the section that is adapted for attachment to the ceiling, said cord being passed between the block and clutch-faces for en-
 60 gagement thereby to hold the members in their adjusted positions.

2. A ceiling display-rack comprising telescopic sections of which the uppermost section is adapted for attachment to a ceiling, clutch-faces carried by the lowermost section, 65 a clutch-block for engagement with the clutch-faces, guide-pulleys carried by the uppermost section, and a chain or cord connected with the uppermost section, said chain or cord being disposed in engagement with the pulleys 70 and clutch-block and passed between said block and the clutch-faces, and a weight slidably connected with the bight of the chain or cord to take up the slack thereof.

3. A ceiling-rack comprising telescopic sections, the uppermost section being adapted for connection with a ceiling and the lowermost section having a cap-plate provided with clutch-faces, a clutch-block adapted to engage the clutch-faces, guide-pulleys car- 80 ried by the uppermost section, and a flexible member slidably engaged with the block and guide-pulleys and passed between the block and the clutch-faces, said flexible member being fixed at its ends with respect to the up- 85 permost section and having a weight connected at the opposite side of the connection with the clutch-block to take up the slack of the cord, whereby the block will be held normally in clutching position. 90

4. A ceiling-rack comprising telescopic sections, the uppermost section being fixed and the lowermost section having clutch-faces, a clutch-block disposed for coöperation with the clutch-faces, pulleys at the upper end of 95 the uppermost member, a weight, and a flexible member having one end fixed, said member being then passed between the clutch faces and block and slidably engaged with the latter, then upwardly and over a pulley, 100 then downwardly and loosely through the weight, then upwardly and over a second pulley, then downwardly and slidably through the weight, and then upwardly and having its second end fixed. 105

5. A ceiling-rack comprising telescopic members, a flexible suspending connection fixed with respect to the rack and adapted to hold the rack at different elevations, a clutch suspended from the connection for engage- 110 ment with the connection to hold the rack in its different positions, and a weight disposed to take up the slack of the connection and to hold the clutch normally operative.

In testimony that I claim the foregoing as 115 my own I have hereto affixed my signature in the presence of two witnesses.

FRED MARQUART.

Witnesses:

FRANK DOERFLINGER,
 JOHN MARQUART.