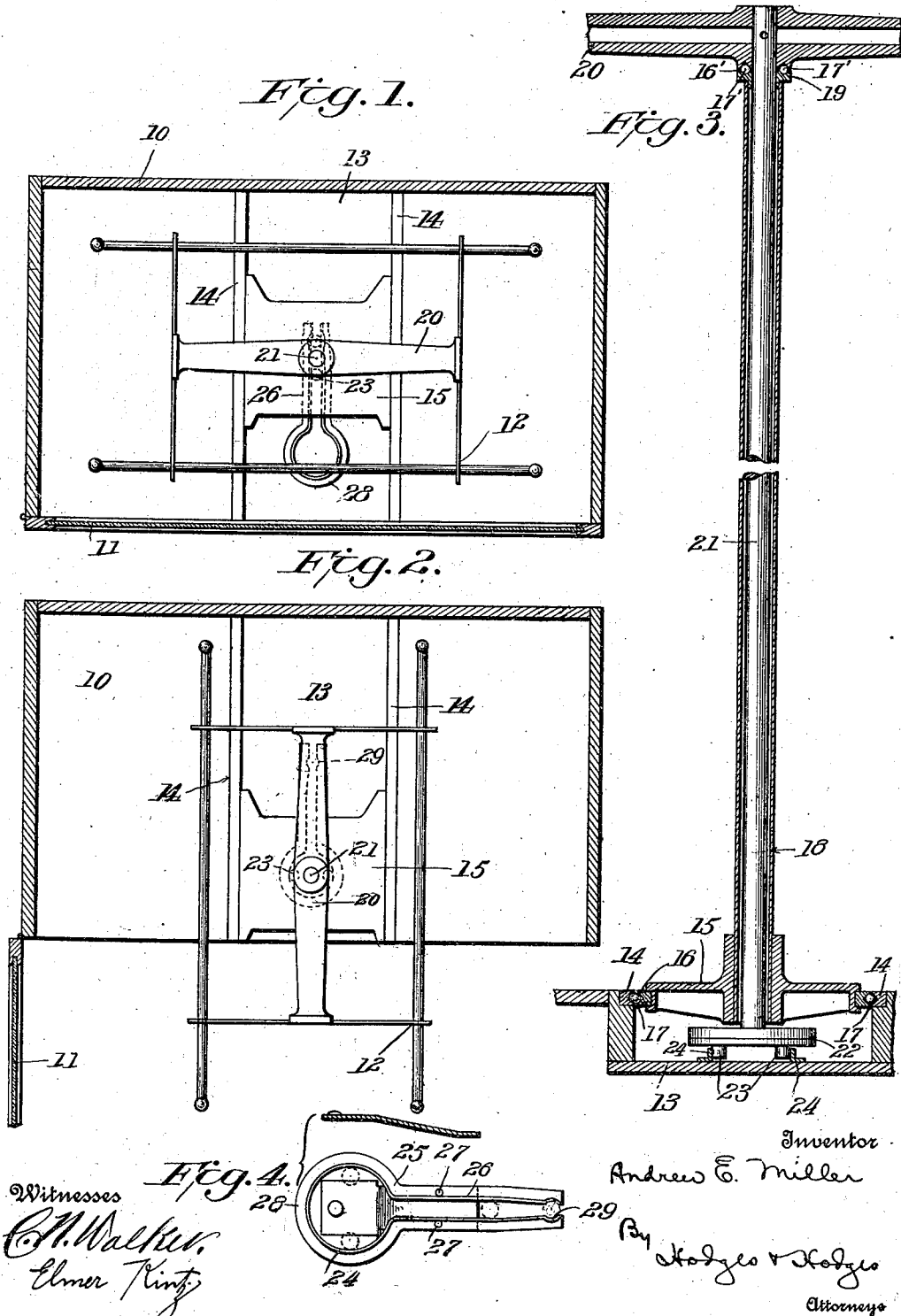


A. E. MILLER.
 DISPLAY BACK.
 APPLICATION FILED OCT. 15, 1910.

991,164.

Patented May 2, 1911.



UNITED STATES PATENT OFFICE.

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DISPLAY-RACK.

991,164.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ANDREW E. MILLER, a subject of the King of Great Britain, residing at Baltimore, in the State of Maryland, have invented new and useful Improvements in Display-Racks, of which the following is a specification.

This invention relates to certain new and useful improvements in display racks for garments and the like.

The invention has for its object the provision of improved means whereby the garments may be conveniently and compactly stored in dust proof cases and yet be readily accessible for exhibition to a customer by a salesman.

A further object is to provide an improved rack capable of being readily removed from the case and which may be readily revolved when so removed to display the goods supported thereby.

A further object is to provide improved locking means for preventing rotation of the rack while in the case and which is constructed to automatically permit rotation of the rack when withdrawn from the case.

The invention will be hereinafter fully set forth and particularly pointed out in the claims.

Of the accompanying drawing:—Figure 1 is a plan view illustrating a case containing my improved display rack, the top of the case being removed, the rack being within the case. Fig. 2 is a similar view with the rack withdrawn from the case. Fig. 3 is a longitudinal sectional view illustrating details of construction of the rack, parts being broken away. Fig. 4 is a detail illustrating the locking device.

Referring to the drawing, 10 designates a case of any suitable or preferred construction, that shown being provided with front sections 11 capable of being removed to permit the withdrawal of the display rack, indicated as a whole by the numeral 12. The bottom of said case is provided with a channel 13 the upper edges of which are provided with guides 14 between which the carriage 15 of the display rack 12 is mounted to reciprocate. It will be noted that the guides 14 and carriage 15 are provided with complemental shoulders 16 arranged at right angles to receive antifriction balls 17. Said carriage 15 supports a hollow column 18 provided with a bearing 19 which serves to support the head 20 of the rack. The

bearing 19 and head 20 are also provided with angular complemental surfaces 16' to receive anti-friction balls 17'. Secured to the head 20 and suspended therefrom is a vertical shaft 21 extending downwardly through the column 18 and provided at its lower end with a disk 22 provided on its under side with depending rollers 23. Said rollers are adapted to engage shoulders 24 formed by the sides of a locking guide 25 secured to the bottom of the channel 13. The guide 25 is formed of a strip of suitable material having parallel arms 26 pivoted at 27 and enlarged at 28 to form a circular bow. The free ends of arms 26 are notched at 29.

In practice when the rack 12 is within the case the rollers 23 are located between the arms 26, thereby preventing rotation of disk 22 and the head 20, one of the rolls 23 being engaged by the notches 29 to prevent the rack from accidentally moving out of the case. When it is desired to display the goods supported by the rack the front sections of the case are removed and a slight pull on the rack will disengage the roller 23 from notches 29. The arms 26 will thereupon guide the rack, through the medium of rollers 23 and disk 22 until said rollers pass out from between said arms into the space formed by the enlargement 28. As soon as both of the rollers reach this space the head 20 can be rotated at will. In order to control the rotation of head 20 a brake spring 30 is placed in the enlargement 28, the same having a frictional engagement with the lower ends of rollers 23. In this manner free rotation of said head is prevented and the latter is held in any position to which it may be turned. When it is desired to return the rack to the case the rollers 23 are brought into alinement with the space between the arms 26 and the rack then pushed inward, whereupon said arms will engage the rollers 23 to prevent rotation and will spring over the innermost roll to lock the rack in position as above described. In this connection it will be noted that by arranging the angular faces 16 and 16' in the manner illustrated I am enabled to compensate for inequalities in the weight on opposite sides of the rack for the reason that no matter which side is the heavier the angular surfaces always present directly opposing abutments which have a direct bearing upon the anti-friction balls. In this way binding of the parts is prevented.

Having thus explained the nature of my invention, and described an operative manner of constructing and using the same, although without attempting to set forth all of the forms in which it may be made, or all of the forms of its use, what I claim is:—

1. In a display rack, the combination with a case, of a rack mounted to reciprocate therein and provided with a rotatable member, and a guide engaging said rotatable member and normally preventing rotation thereof, said guide being enlarged at its outer end to engage said rotatable member when the rack reaches the outer limit of its movement, whereby the rack is permitted to rotate and is guided in its rotation.

2. In a display rack, the combination with a case, of a rack mounted to reciprocate therein and provided with a rotatable member, and a guide engaging said rotatable member and normally preventing rotation thereof, said guide being enlarged at its outer end to engage said rotatable member when the rack reaches the outer limit of its movement, whereby the rack is permitted to rotate and is guided in its rotation, said guide being also provided with means for locking said rack against reciprocation.

3. In a display rack, the combination with a case, of a rack mounted to reciprocate therein and provided with a rotatable member, a guide provided with parallel arms and a circular enlargement, and means carried by said rotatable member for engaging said guide.

4. In a display rack, the combination with a case, of a rack mounted to reciprocate therein and provided with a rotatable member, a guide provided with parallel pivoted arms and a circular enlargement, and means carried by said rotatable member for engaging said guide, the free ends of said arms being provided with means for locking said rack against movement.

5. In a display rack, the combination with a case, of a rack mounted to reciprocate therein and provided with a rotatable member, a guide provided with parallel pivoted arms and a circular enlargement, and means carried by said rotatable member for engaging said guide, the free ends of said arms being provided with oppositely disposed locking notches.

6. In a display rack, the combination with a case, of a rack mounted to reciprocate therein and provided with a rotatable member, depending guide members carried by said rotatable member, and a guide provided with parallel arms and a circular enlargement to engage said depending guide members.

7. In a display rack, the combination with a case provided with a channel, a carriage mounted to reciprocate in said channel and provided with a depending rotatable member, a guide in said channel engaging said rotatable member to normally prevent rotation thereof, said guide being enlarged at its outer end and adapted to engage said rotatable member when the rack reaches the outer limit of its movement, whereby said rack is permitted to rotate and is guided in its rotation.

8. In a display rack, the combination with a case provided with a channel the edges of which are provided with guide bars, a carriage located in said channel and provided with guide bars, the guide bars of said carriage and channel being provided with opposed complemental angular faces, anti-friction balls mounted between said guide bars, and a guide mounted in said channel and engaging said rotatable member to normally prevent rotation thereof, said guide being shaped to permit rotation of said member when the carriage reaches the outer limit of its movement.

9. In a display rack the combination with a case, a carriage mounted to reciprocate therein, a head supported by said carriage and provided with a depending shaft, a disk secured to and rotatable with said shaft, and provided with depending guide members, and a guide engaging said members to normally prevent rotation of said shaft, said guide being enlarged at its outer end to permit rotation of said disk when the carriage reaches the outer limit of its movement, said guide members engaging the enlarged portion of said guide during the rotation of said shaft.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ANDREW E. MILLER.

Witnesses:

SOLOMON HIMMEL,
CURTIS O. LYON.