Feb. 27, 1940. H. C. HANSEN 2,192,038

ADJUSTABLE CLOTHES POLE

Filed Oct. 28, 1938

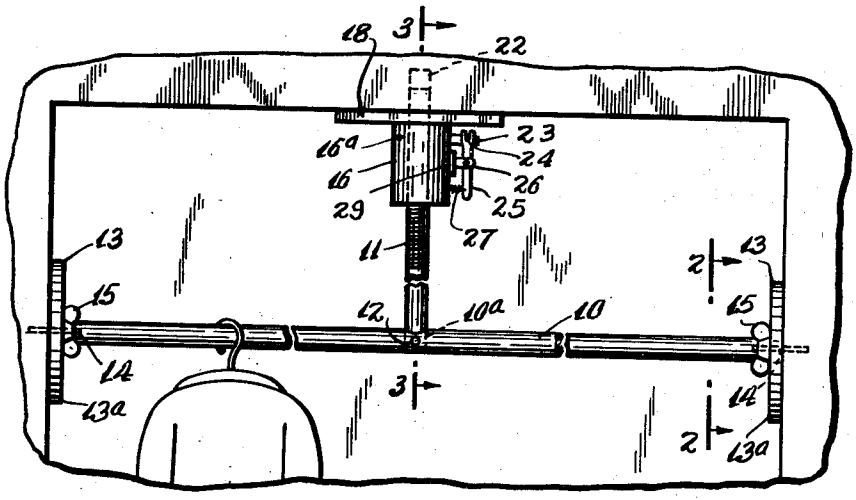


Fig. 1.

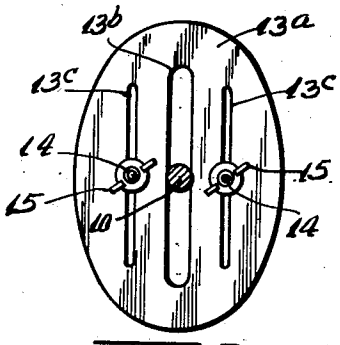


Fig. 2.

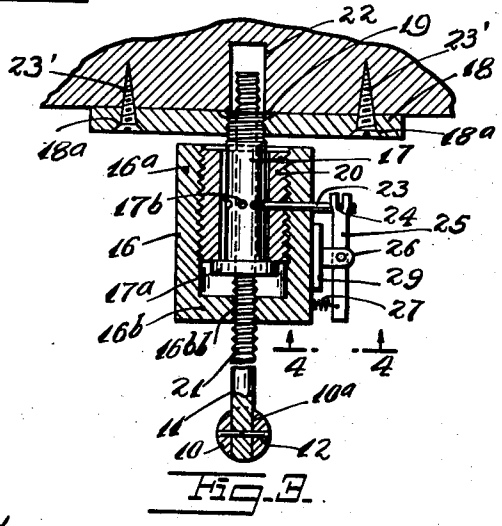


Fig. 3.

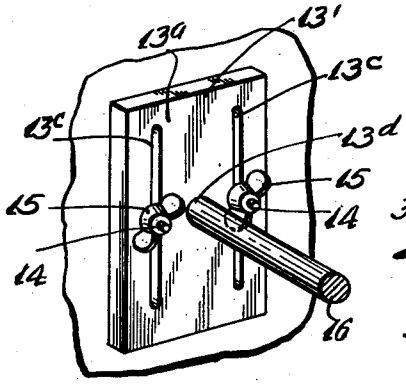


Fig. 6.

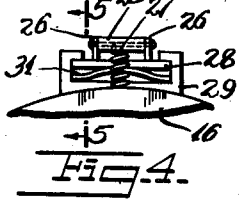


Fig. 4.

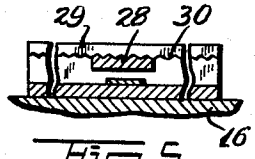


Fig. 5.

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ADJUSTABLE CLOTHES POLE

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2 Claims. (Cl. 211—123)

This invention relates to new and useful improvements in an adjustable clothes pole.

The invention has for an object the construction of an adjustable clothes pole characterized by a horizontal pole adjustably attached to the ceiling of a closet or other similar enclosure in a manner to be moved vertically upwards and downwards to various adjusted positions.

Still further the invention contemplates the provision of a vertical stem having one of its ends attached to the center of said horizontal pole and the other of its ends connected with a turnable coupling attached to the ceiling in a manner to permit said coupling to be rotated for retracting or extending said stem to raise and lower said horizontal clothes pole.

Another object of this invention is the provision of wall brackets for engaging the ends of said pole to prevent said pole from rotating about said turnable coupling.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawing, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawing forming a material part of this disclosure—

Fig. 1 is an elevational view of an adjustable clothes pole constructed according to this invention.

Fig. 2 is a view looking in the direction of the line 2—2 of Fig. 1.

Fig. 3 is an enlarged sectional view on the line 3—3 of Fig. 1.

Fig. 4 is a view looking in the direction of the line 4—4 of Fig. 3.

Fig. 5 is a sectional view on the line 5—5 of Fig. 4.

Fig. 6 is a perspective view similar to Fig. 2 but illustrating a modification of the invention.

The adjustable clothes pole, according to this invention, includes a horizontal clothes pole 10 constructed of metal or other material. A vertical stem 11 has its lower end extended into an opening 10a formed in the center of the horizontal pole 10. A pin 12 is engaged through the interengaged portions of the stem 11 and the pole 10 for locking these portions together into a single unit.

Wall brackets 13 are positioned upon the side walls of a closet or other similar enclosure and engage the ends of the pole 10 in a manner to permit vertical movement thereof and prevent rotative movement thereof.

Each of the wall brackets 13 comprises a bracket body 13a having a centrally disposed vertical elongated slot 13b into which one end of the horizontal clothes pole 10 is adapted to be engaged. Each bracket body 13a is formed with a narrow vertical elongated slot 13c on either side of the slot 13b. The slots 13c run parallel to the slot 13b. Screws 14 extend from the walls of the closet and freely pass through the slots 13c. Thumb nuts 15 are threadedly engaged upon the extended ends of the screws 14 and are used for rigidly clamping the bracket bodies 13a in position against the walls of the closet. This construction permits the bracket bodies 13a to be vertically adjusted with relation to the walls of the closet and also permits the horizontal clothes pole 10 to be vertically adjusted with relation to the bracket bodies 13a.

A turnable coupling is rotatively positioned and axially threaded engages the stem 11 for adjustably supporting the stem so that when said coupling is rotated said stem will move vertically upwards or downwards to correspondingly move the horizontal clothes pole 10. The turnable coupling comprises a tubular member 16 having a skirt portion 16a and an end wall portion 16b. A sleeve 17 has one of its ends threadedly engaged through a plate 18 and provided with punch marks 19 for securely maintaining the sleeve 17 in position with relation to the plate 18. A bushing 20 is freely engaged upon the sleeve 17 and is threadedly engaged into the skirt wall portion 16a of the tubular member 16. The bottom end of the sleeve 17 is formed with an outwardly extending flange 17a upon which the bottom end of the bushing 20 normally rests for preventing the bushing from falling off the end of the sleeve 17.

In constructing the device the sleeve 17 is first passed through the bushing 20. The sleeve 17 is then threadedly engaged through the plate 18 and fixedly held in position by means of the punch marks 19. The bushing 20 is then threadedly engaged into the skirt portion 16a. The upper end of the stem 11 is formed with threads 21 which threadedly engage an opening 16bb formed in the end wall 16b of the tubular member 16. This end of the stem 11 is adapted to freely pass through the sleeve 17 and into an enlarged opening 22 formed in the ceiling of the closet or other enclosure. The plate 18 is adapted to be attached to the ceiling of the closet by means of a plurality of screws 23' which freely pass through openings 18a formed

in the plate 18 and threadedly engaged into the ceiling of the closet.

A latch element is provided for locking the tubular member 16 to the bushing 20 in a manner to cause the stem 11 to be extended or retracted when the bushing and tubular member are rotated about the sleeve 17. This latch element comprises an inwardly extending pin 23 which extends through aligned openings formed in the skirt portion 16a of the tubular member 16 and the bushing 20. The outer end of the pin 23 is formed with a radially extending peg 24. A lever 25 is pivoted intermediate of its ends between a pair of lugs 26. One end of the lever 25 is bifurcated and is adapted to engage the peg 24 so that when the other end of the lever 24 is pressed towards the tubular member 16 it will cause the pin 23 to be slightly ejected.

From an inspection of Fig. 3 it will be noted that the inner end of the pin 23 is adapted to be engaged into one of the plurality of depressions 17b formed in the sleeve 17 for also locking the tubular member 16 and the bushing 20 to the sleeve when it is not desired to rotate the bushing and tubular member for extending the stem. It is therefore necessary to slightly eject the pin 23 to disengage the inner end thereof from the depression 17b into which it is extending for freeing the bushing 20 from the sleeve 17. A spring 27 operates between the tubular member 16 and the free end of the lever 25 for urging the lever 25 into a position in which the inner end of the pin 23 will engage one of the depressions 17b.

A means is provided for vertically adjustably supporting the lever 25 so that the bifurcated end thereof may be completely disconnected from the peg 24 to permit the pin 23 to be entirely removed from the aligned openings in the tubular member 16 and the sleeve 20 to permit the tubular member to be removed from the sleeve to disconnect these parts when so desired. This means comprises a plate 28 upon which the lugs 26 are mounted. This plate 28 is normally disposed within a channel member 29 which is securely attached to one side of the tubular member 16. The adjacent faces of the plate 28 and the channel member 29, adjacent the open side of the channel member, are formed with inter-engaging serrations 30 which are adapted to be engaged for rigidly maintaining the plate 28 in fixed position with relation to the channel shaped member 29. A strong leaf spring 31 operates between the base wall of the channel shaped member 29 and the adjacent face of the plate 28 on the side opposed to the lugs 26 for causing the serrations 30 to be inter-engaged.

To move the lever 25 downwards it is merely necessary to press inwards thereon to disengage the serrations 30 against the holding action of the spring 31 and to slide the plate 28 downwards to correspondingly move the lever 25 and disconnect the bifurcated end of the lever from the peg 24.

The operation of this form of the invention is as follows:

The plate 18 is securely attached to the ceiling of the closet or other enclosure and the wall brackets 13 are positioned on the side walls of the closet with the ends of the rod 10 engaging the vertical slots 13b. To move the horizontal clothes pole 10 upwards or downwards to any desired adjusted position it is merely necessary to compress the spring 27 by pressing the free end of the lever 25 which will cause the pin 23 to be slightly ejected to disengage its inner end from the depression 17b into which it was extending.

This movement of the pin 23 frees the bushing 20 from the sleeve 17 but rigidly maintains the sleeve 20 and the tubular member 16 together as a unit.

The sleeve 20 and the tubular member 16 are now free to be rotated, which rotation will cause the stem 10 to move upwards or downwards depending upon the direction in which the tubular member 16 is rotated to correspondingly move the horizontal clothes pole 10. Since the clothes pole is prevented from rotating by its engagement with the wall brackets 13 it must move up and down when the tubular member 16 is rotated. The upper end of the stem 10 freely passes through the sleeve 17 (there being no threaded connection between these parts) which permits the stem 11 to move up and down and into the opening 22 when moved upwards.

When the horizontal clothes pole reaches the desired elevation the lever 25 is again released to permit the spring 27 to urge the lever 25 into a position in which the inner end of the pin 23 will engage one of the depressions 17b for holding the bushing 20 in a fixed position with relation to the sleeve 17 so that vibrations thereof will not cause these parts to be disengaged.

According to the modification shown in Fig. 6, the construction of the horizontal clothes pole 10, the vertical stem 11 and the turnable coupling is the same as that described in the previous form of this invention. This modification merely differs in the construction of the wall brackets 13'. The wall brackets 13' have centrally disposed openings 13c into which ends of the pole 10 engage for preventing vertical movement of the pole 10 with relation to the bracket body 13a. However, the bracket body 13a is provided with the vertical slots 13c similar to that described in the previous form of the invention to permit vertical adjustment of the bracket body 13a with relation to the side walls of the closet or other enclosure. In other respects this form of the invention is similar to the previous form.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

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

1. In an adjustable clothes pole, a horizontal clothes pole, a vertical stem fixedly attached to said pole at the center thereof for supporting said pole, a turnable coupling rotatively supported and axially threadedly engaging said stem for adjustably supporting the same to cause said stem to move upwards and downwards as said coupling is turned to similarly move said pole, brackets mounted on the wall adjacent the ends of said pole and having vertically arranged elongated slots into which the ends of said pole engage for holding said stem and pole from rotating with said coupling but leaving the same free to move vertically upwards and downwards, and means for supporting said wall brackets in a manner to permit the same to be moved in the direction in which said pole is being adjusted when it strikes the ends of said slots for increasing the distance

through which said pole may be adjusted either up or down.

2. In an adjustable clothes pole, a horizontal clothes pole, a vertical stem fixedly attached to said pole at the center thereof for supporting said pole, a turnable coupling rotatively supported and axially threadedly engaging said stem for adjustably supporting the same to cause said stem to move upwards and downwards as said coupling is turned to similarly move said pole, brackets mounted on the wall adjacent the ends of said pole and having vertically arranged elongated slots into which the ends of said pole engage for holding said stem and pole from rotating with said coupling but leaving the same free to move vertically upwards and downwards, and means for supporting said wall brackets in a manner to permit the same to be moved in the direction in which said pole is being adjusted when it strikes the ends of said slots for increasing the distance through which said pole may be adjusted either up or down, comprising screws extending from said wall and passing through elongated slots formed in said brackets and thumb nuts and the extended ends of said screws and engageable against the face of said brackets for clamping the same in various adjusted positions on said wall.

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