May 22, 1962 C. R. FREEMAN 3,035,708

ADJUSTABLE STANCHION

Filed Oct. 12, 1959

Fig. 1

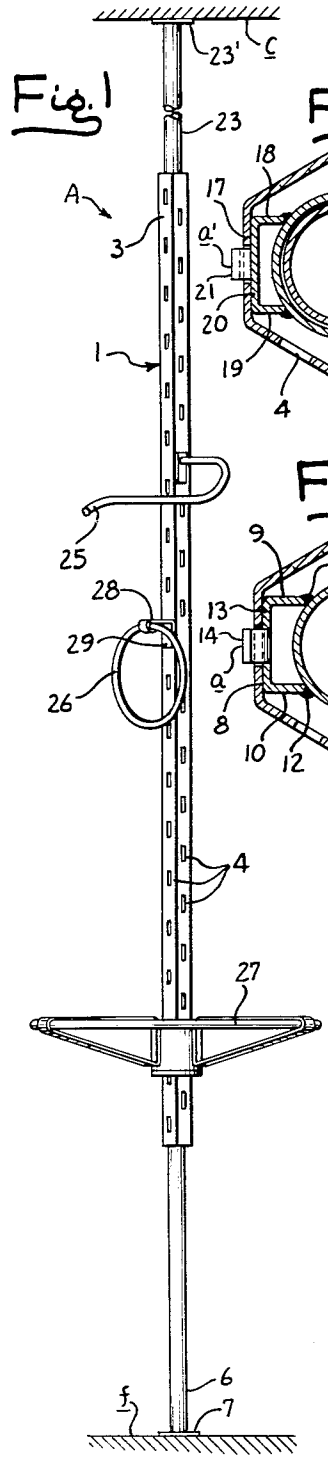


Fig. 3

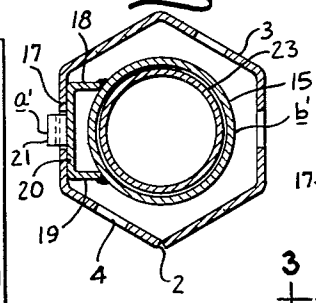


Fig. 4

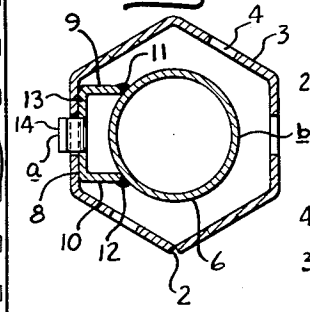


Fig. 2

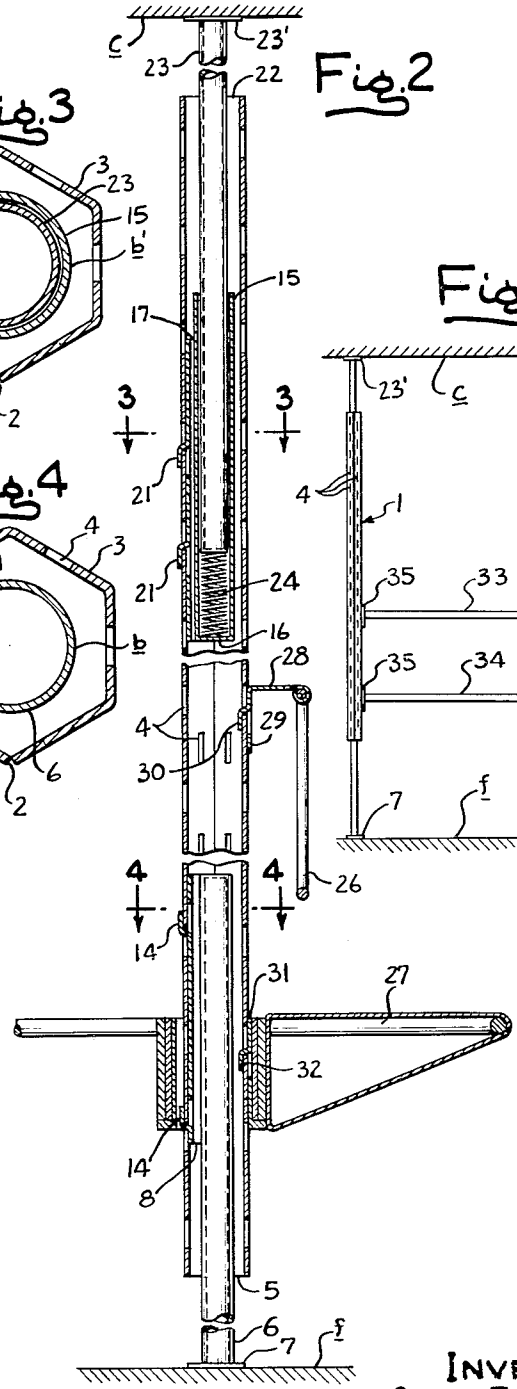


Fig. 5

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ADJUSTABLE STANCHION

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This invention relates in general to supports and, more particularly, to an adjustable stanchion.

It is an object of the present invention to provide a stanchion for use in holding towel rings, clothes hooks, and other accessories, which stanchion can be mounted in a room to extend from floor to ceiling therein with the opposite ends of the stanchion abutting both floor and ceiling and is adjustable in accordance with the room height.

It is also an object of the present invention to provide a stanchion of the type stated including an outer sleeve of polygonal cross-section having slots along the length thereof so that towel rings or the like can be removably clipped to the sleeve at any desired position thereon.

It is a further object of the present invention to provide a stanchion of the type stated in which rod members are telescoped with the sleeve and project outwardly from opposite ends thereof to support the sleeve in spaced relation to the floor and ceiling, the rod members being secured within the sleeve in spaced relation to the walls thereof to allow clearance for the towel ring clip which projects through one of the slots in the sleeve.

It is an additional object of the present invention to provide a stanchion of the type stated wherein the rod members can be quickly and easily attached to the sleeve at the slots therein in a number of selected positions, enabling the stanchion to be readily assembled to a selected height without the use of any tools.

It is another object of the present invention to provide a stanchion of the type stated which can be mounted almost anywhere in a room and occupy a minimum of space therein.

The attainment of the above and further objects of the present invention will be apparent from the following specification taken in conjunction with the accompanying drawing forming a part thereof.

In the drawing:

FIG. 1 is an elevational view of an adjustable stanchion constructed in accordance with and embodying the present invention;

FIG. 2 is a longitudinal sectional view thereof;

FIGS. 3 and 4 are sectional views taken along lines 3—3 and 4—4 of FIG. 2; and

FIG. 5 is an elevational view and showing the manner in which two stanchions are used to support shelves therebetween.

Like reference numerals designate like parts throughout the drawings.

Referring now in more detail to the drawing which illustrates a preferred embodiment of the present invention, A designates a stanchion comprising a sleeve 1 of heavy gauge sheet metal formed into polygonal cross-section by bending the metal so that the opposite longitudinal edges abut each other in the provision of seam 2. In the present embodiment of the invention the sleeve 1 is of regular hexagonal cross-section with sides 3. Each of the six sides 3 is punched along the length thereof to provide equally spaced slots 4, the slots 4 in the adjacent sides 3 being staggered or offset from each other as best seen in FIG. 1.

Provided for removable insertion within one open end 5 of the sleeve 1 is a rod 6 one end of which has an enlarged pad 7 for contacting a floor surface *f*. The rod 6 is of a diameter substantially smaller than that of the distance between opposed sides 3 of the sleeve 1 so that

when the rod 6 is coaxial with the sleeve 1 there will be clearance space therebetween. A U-shaped channel 8 is used for securing the rod 6 within the sleeve 1. This channel 8 has spaced parallel legs 9, 10 the edges of which are welded as at 11, 12 to the outer surface of the rod 6 and the channel 8 extends from the inner end of the rod along a small portion of the length thereof. The channel 8 also has a bight 13 from which are outwardly struck a pair of clips 14 adapted to project through two of the slots 4 on one of the sides 3 and be flush against the outer surface of the side 3. The distance between the outer edges of the clips 14 and the remote edge of the rod 6 (i.e. the distance from "*a*" to "*b*," FIG. 4) is less than the distance between two opposite sides 3 so that when the clips 14 are withdrawn from the slots 4 there will be sufficient clearance for the rod 6 and channel 8 to move freely within the sleeve 1.

Also within the sleeve 3 but spaced from the rod 6 is a cylindrical socket 15 having an end wall 16. The socket 15 has a channel 17 running lengthwise therealong and welded thereto at the legs 18, 19 in the same manner as are the legs 9, 10 welded to the rod 6. Similarly, the bight 20 of the channel 17 is struck outwardly to form spaced clips 21, similar to the clips 14, 14 previously described, and are also adapted to project through a pair of slots 4 in one of the sides 3. The bight 20 fits flush against the inside surface of the side 3 upon which it is mounted, and the clips 21 are disposed flush against the outside surface of the side 3. The socket 15 is thus held in spaced relation to the sides 3. The distance between the outer edges of the clips 21 and remote surface of the socket 15 (i.e. the distance from "*a*" to "*b*," FIG. 3) is less than the distance between a pair of opposed sides 3. Therefore, when the clips 21 are withdrawn from the slots 4 there will be sufficient clearance between the channel 17 and socket 15 to permit these parts to be withdrawn from or inserted into the open end 22 of the sleeve 1.

Slidably mounted within the socket 15 and projected outwardly through the open end 22 is a rod 23 having a pad 23' at one end thereof for contacting the room ceiling *c*. The end of the rod within the socket 15 bears against a cool compression spring 24 which rests on the end wall 16 and biases the rod 23 outwardly toward the ceiling *c*. The force of the spring 24 is sufficiently great to urge the pads 7, 23' into firm contact with the floor *f* and ceiling *c* respectively, so that the entire stanchion A is sturdy and immobile.

The stanchion A is generally shipped in a "knocked-down" condition with the sleeve 1 separate from the rod 6, socket 15 and rod 23. However, in assembling the stanchion A the spring 24 may be placed within the socket 15, whereupon the rod 23 is fitted within the socket 15. When the rod 23 is placed within the socket 15 the two are then placed through the open end 22 of the sleeve 1, this operation preferably being done with the sleeve 1 substantially horizontal. The rod 23 is used to move the sleeve 15 with the channel 17 thereon to a desired position depending upon the distance between the floor *f* and ceiling *c*, whereupon the channel bight 20 is pushed against the inside of one of the sides 3. Upon further axial movement of the rod 22 the clips 21 will pass through a pair of spaced slots 4 and lock the channel 17 to the sleeve 1.

The rod 6 with the channel 8 is then placed through the open end 5 of the sleeve 1 until the pad 7 is at a desired distance outwardly from the open end 5. At this place the bight 13 is moved against one of the sides 3 and the rod 6 shifted axially upwardly until the clips 14 project through a pair of spaced slots 4. The sleeve 1 may then be grasped with one hand and the rod 6 with the other, and the stanchion A swung to a nearly vertical

position so that the pad 23' touches the ceiling *c*. An upward force may then be applied to compress the spring 24 and permit the stanchion A to be shifted to a truly vertical position with the pad 7 clearing the floor *f* a small distance. The upward force on the stanchion A may then be released, lowering the sleeve 1 and allowing the pad 7 to contact the floor *f* firmly. If, when the spring 24 is compressed its full amount, the pad 7 is extended out too far from the sleeve 1 to permit the stanchion A to be shifted to a truly vertical position, then it is merely necessary to withdraw the rod 6 axially along the sleeve 1 until the clips 14 are free of the slots 4, whereupon the clips 14 may be reinserted in another pair of slots 4 to shorten the amount the rod 6 extends outwardly from the open end 5 of the sleeve 1. On the other hand, if the spring 24 exerts insufficient force on the rod 23 to hold the stanchion rigidly between the floor *f* and ceiling *c*, the stanchion A may be swung downwardly to a position in which the open end 5 is at a slightly higher elevation than the open end 21, whereupon the clips 21 can be withdrawn from the slots 4 and the channel 17 and socket 15 moved to a position closer to the open end 21. Then the clips 21 may be reinserted into another pair of slots 4. The rod 23 may then be moved axially to compress the spring 24 so that the stanchion can be shifted to a vertical position whereupon the rod 23 may be released allowing the pad 23' to bear snugly against the ceiling *c*.

When the stanchion is in the mounted position shown a towel bar 25, towel ring 26 or towel ring 27 may be mounted upon the sleeve 1 in any vertical position thereon and upon any side 3. For example, as shown in FIG. 2, the towel ring 26 has a bracket 28 with a depending flange 29, the latter being adapted to fit flush against any one of the sides 3. The flange 29 is struck outwardly to form a clip 30 which projects through one of the slots 4 and lies along the inside surface of the side 3. The towel ring 27 may also be clipped to the sleeve 1 and in the same manner as is the towel ring 27. Thus, the towel ring 27 is mounted on a cylindrical sleeve 31 which is struck inwardly to form a clip 32 which projects through any one of the slots 4. The towel bar 25 is similarly clipped in place. Consequently, the towel bars or rings 25, 26, 27 may be mounted on the sleeve 1 any convenient height above the floor *f* and on any of the sides 3. By reason of the fact that the rod 6, sleeve 15 and rod 23 are spaced from the sides 3, there is ample room for the clips 30, 32, irrespective of where the towel rings 26, 27 or towel bar 25 are mounted on the sleeve 1, except in the region wherein the bight 8, 17 are flush against a side 3. Furthermore, a polygonal shape of the sleeve 1 forms flat surfaces which provide a firm support for the flanges 29 of the bracket 28 and brackets similar thereto.

FIG. 5 shows a pair of stanchions of the present invention each being used to support the opposite ends of adjustable shelves 33, 34 and to form a room divider. Each of the shelves 33, 34 have flanges 35 at their opposite ends, and the flanges may each be formed with spring clips such as that shown at 30 and 32. Consequently, the shelves 33, 34 can be supported at any convenient height above the floor *f*.

It will be apparent that the stanchion of the present invention may be used as a support for a wide variety of objects. For example, lamps, mirrors, shelves, planters, and the like may be clipped onto the sleeve 1 in the same manner as are the towel rings 26, 27.

In compliance with the requirements of the patent statutes I have herein shown and described a preferred embodiment of the invention. It is, however, to be understood that the invention is not limited to the precise construction herein shown, the same being merely illustrative of the principles of the invention. What is considered new and desired to be secured by Letters Patent is:

1. A stanchion comprising a sleeve open at its opposite ends and having a plurality of perforations spaced along the length thereof for receiving supports which are adapted to be carried by the sleeve, a rod within said sleeve and projecting outwardly through one end thereof, means for securing the rod to the sleeve to hold the rod in spaced relation to the sleeve, a socket-forming member within the sleeve adjacent the other end thereof, means projecting through a pair of longitudinally spaced perforations for securing the socket-forming member in the sleeve in spaced relation thereto, a rod slidable within said socket-forming member, and spring means within said socket-forming member for biasing said last mentioned rod outwardly through the other open end of the sleeve.

2. A stanchion comprising a sleeve polygonal in cross-section and open at its opposite ends, said sleeve having means on the sides thereof and spaced along the length of the sleeve for receiving supports which are adapted to be carried by the sleeve, elongated means within the sleeve and projecting outwardly one through each open end of the sleeve, each said elongated means being spaced from the walls of said sleeve, and means connected to each elongated means and the sleeve and in locking relationship with the means on the sides of the sleeve for securing the elongated means in fixed position within the sleeve, one of said elongated means having the part thereof which extends outwardly through the open end adjustable to vary the overall height of the stanchion.

3. A stanchion comprising a sleeve polygonal in cross-section and open at its opposite ends, said sleeve having means on the sides thereof and spaced along the length of the sleeve for receiving supports which are adapted to be carried by the sleeve, elongated means within the sleeve and projecting outwardly one through each open end of the sleeve, each said elongated means being spaced from the walls of said sleeve, and means attached to the elongated means and fitting flush against the inside of one wall of the sleeve and projecting through openings in the sleeve for securing the elongated means in position within the sleeve.

4. A stanchion according to claim 2 wherein the means for receiving the supports on one side of the sleeve are staggered with respect to the means on the adjacent side.

5. A stanchion comprising a sleeve polygonal in cross-section and open at its opposite ends, said sleeve having perforations on the sides thereof and spaced along the length of the sleeve for receiving supports which are adapted to be carried by the sleeve, a rod within the sleeve and projecting outwardly through one open end thereof, said rod clearing the walls of the sleeve, means connected to the rod and projecting through some of the perforations in said sleeve for securing the rod in fixed position within the sleeve, a socket within the sleeve adjacent the other end thereof, means connected to the socket and projecting through some of the perforations in the sleeve for securing the socket in fixed position within the sleeve, a rod telescoped within the socket, and spring means for biasing the last-mentioned rod outwardly through said other open end of the sleeve.

6. A stanchion according to claim 5 wherein each of the means projects through the sleeve at a selected pair of spaced perforations whereby the fixed positions of the rod and socket within the sleeve can be adjusted.

7. A stanchion adapted to extend from a floor to a ceiling, said stanchion comprising a tubular metallic sleeve having a plurality of circumferentially spaced rows of holes on its outer periphery with the holes of each row being spaced along the length of said sleeve for selectively receiving supports to be carried by said sleeve, an elongated member telescoped within the sleeve and having a part thereof projecting outwardly from one end of the sleeve, said member being shiftable axially within said tubular sleeve, means for initially adjusting the position of said member within the sleeve to select initially the length of said part thereof which projects outwardly from said one end, said adjusting means comprising means in the sleeve supporting the elongated member and having elements projecting through a plurality of the holes

in the sleeve, said last mentioned plurality of holes being spaced apart along the length of said sleeve, a pad connected to said elongated member at the end thereof remote from said sleeve, means projecting outwardly the other end of said tubular sleeve and having a pad, said pads serving to contact the floor and ceiling respectively, and spring means within said sleeve for biasing the elongated member in a direction outwardly from said one open end and transmitting pressure to said pads to hold them firmly against the floor and ceiling.

8. In combination, a stanchion adapted to extend from a floor to a ceiling, said stanchion comprising a tubular metallic sleeve having a plurality of circumferentially spaced rows of holes on its outer periphery with the holes of each row being spaced along the length of said sleeve for selectively receiving supports to be carried by said sleeve, an elongated member telescoped within the sleeve and having a part thereof projecting outwardly from one end of the sleeve, said member being shiftable axially within said tubular sleeve, means for initially adjusting the poistion of said member within the sleeve to select initially the length of said part thereof which projects outwardly from said one end, said adjusting means comprising means in the sleeve supporting the elongated member and having elements projecting through a plurality of the holes in the sleeve, said last mentioned plurality of holes being spaced apart along the length of said sleeve, a pad connected to said elongated member at the end thereof remote from said sleeve, means projecting outwardly the other end of said tubular sleeve and having a pad, said pads serving to contact the floor and ceiling, spring means within said sleeve for biasing the elongated member in a direction outwardly from said one open end and transmitting pressure to said pads to hold them firmly against the floor and ceiling, and a bracket having a part thereof projecting through one of said holes and another part thereof extending radially outwardly of said sleeve to constitute an article support, said bracket being removably mounted on said sleeve.

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