

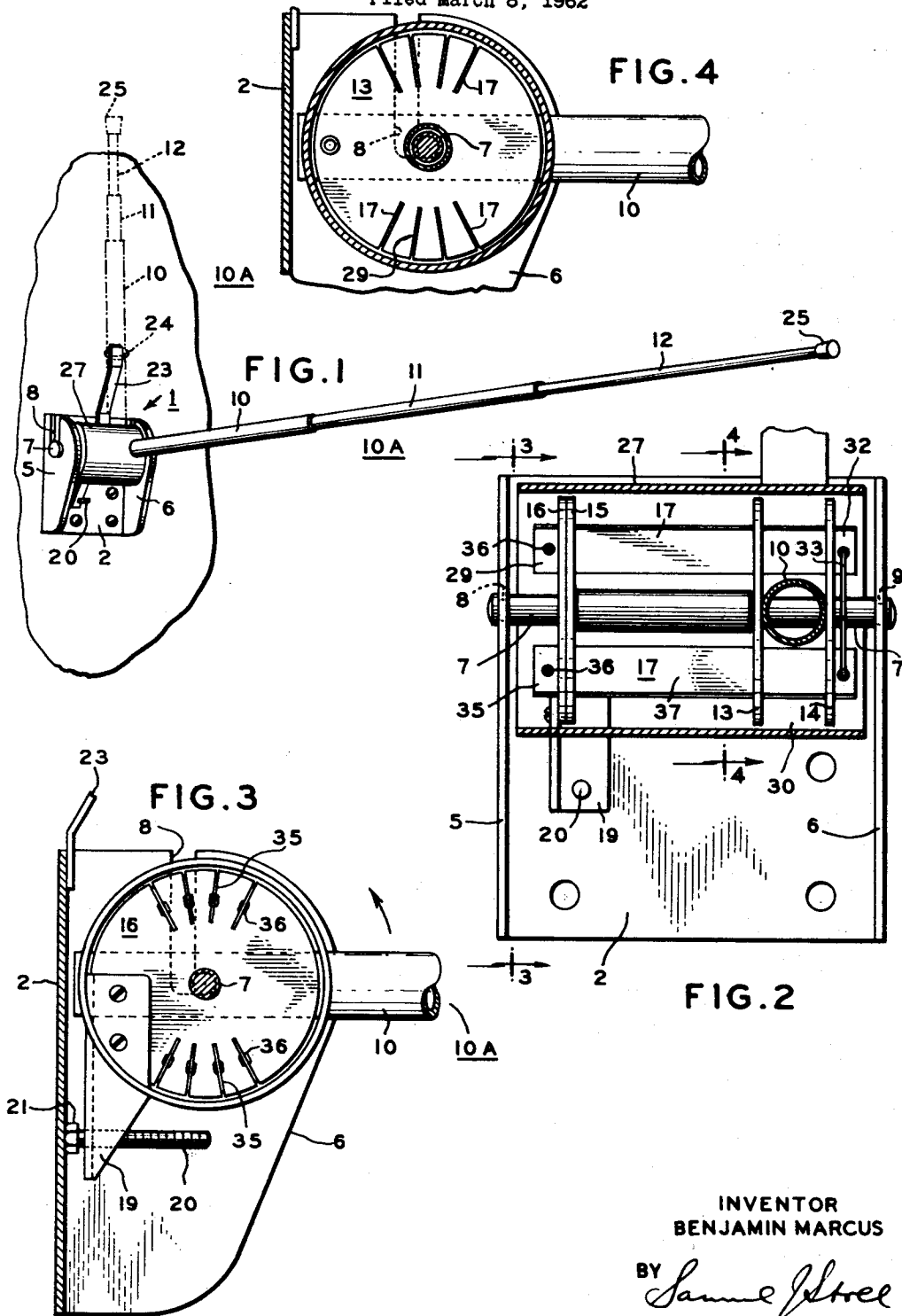
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SUPPORTING BRACKET FOR CURTAIN RODS

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SUPPORTING BRACKET FOR CURTAIN RODS
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1 Claim. (Cl. 211-105.1)

This invention relates to curtain rod supports and more particularly to such supports used with hospital beds or to form room partitions.

An object of the invention is to provide a curtain rod bracket which is mountable on the wall or bedpost, such that a telescoping curtain rod may be rotated either to an operative position or folded back in an upright position.

Another object of the invention is a rotatable curtain rod bracket which can counterbalance flexurally and torsionally the weight of the curtain rod and the hanging curtains.

A feature of the invention is a curtain rod wall bracket having a pivot on which is mounted a plurality of torsion bar springs which can be flexed to counterbalance the weight of the suspended curtain rod and curtain hangings.

Another feature of the invention is a curtain rod bracket which counterbalances the combined weights of a telescoping curtain rod and the curtains by means of torsion bar springs embedded in flat discs pivotally mounted on said bracket.

Another feature of the invention is a counterbalancing curtain rod bracket provided with an adjustable stop for flexing the torsion bars aforementioned which are embedded in the discs.

In the accompanying drawings, which show illustrative embodiments of the invention:

FIGURE 1 is a perspective view of a curtain rod wall bracket and a telescoping curtain rod supported thereby.

FIGURE 2 is an enlarged front view of the bracket shown in FIGURE 1.

FIGURE 3 is a sectional view taken on line 3-3 of FIGURE 2.

FIGURE 4 is a sectional view taken on line 4-4 of FIGURE 2.

Referring to FIGURE 1, the wall bracket 1 which supports an extensible curtain rod 10A, comprises a pair of parallel arms 5-6 and an integral rigid back plate 2, formed of heavy gauge steel or aluminum adapted to be secured to a wall by means of bolts.

The parallel arms 5-6 of the wall bracket 1 support a pivot pin 7 mounted in bayonet slots 8 and 9 having open ends (FIGURE 4) whereby the extensible curtain rod may be rotated from a vertical folded position to a normally horizontal extended position for supporting curtains thereon. The pivot pin 7 is held firmly in the closed ends of the bayonet slots 8, 9. However, it and the curtain rod assembly can be removed from the bracket arms 5, 6 and thereby made interchangeable with other brackets.

The curtain rod 10A consists of a number of cylindrical telescoping rod sections 10-11-12 respectively, rotatable on pivot pin 7 of the bracket 1. Curtain rods of square or oval cross-section may be used if desired, in lieu of the cylindrical rod 10A heretofore shown and described. A universal ball and socket joint 25 or a knuckle joint is attached to the curtain rod section 12 whenever it is desired to swing the telescoping rod 10A around the front of the bed.

When the telescoping rod 10A is swung into the vertical retracted position shown in dotted lines in FIGURE 1, it will be held in the folded back position by a leaf spring 23, whose end is received in a clamping ring 24. The holding spring 23 is mounted on a cylindrical cover 27 which fits over the bracket assembly as illustrated in FIGURE 1.

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In the normal operating position, with a curtain thereon the telescoping curtain rod 10A is rotated about pivot pin 7 into the horizontal position until a limiting stop member 20 bears rigidly against the back plate 2 of bracket 1 as is clearly shown in FIGURES 1, 2 and 3.

Referring to FIGURE 2, there is mounted on the pivot pin 7 a series of parallel torsion bar springs 17 which flex torsionally to counterbalance the weight of the rod 10A in its extended horizontal position.

The parallel torsion bars 17 are formed of thin rectangular leaf springs, embedded in radial slits formed in the circular discs 13-14-15-16.

Circular discs 13 and 14 are parallel to each other and spaced apart. The discs 13, 14 clamp therebetween the end curtain rod section 10, which is rotatably mounted on pivot pin 7 passing transversely therethrough. The other pair of circular discs 15 and 16, which are in flush contact with each other, are provided with radial slits 35 adjacent the periphery through which the torsion bars 17 pass. Similarly, at their opposite ends 32, the torsion springs 17 pass through corresponding radial slits 29 in the parallel discs 13 and 14. In order to prevent the torsion springs 17 from slipping out of position, a circular retaining ring 33 passes through the ends 32 of the torsion bars 17. The eyelets 36 located on the opposite ends of the torsion bars respectively, serve a similar purpose.

The assembly of the torsion springs 17 and the discs 13-14-15-16 as a unit is rotatably mounted on pivot pin 7 passing centrally through the discs, as shown in FIGURE 2.

Referring to FIGURE 3, as the telescoping rod 10A is rotated downwardly toward the horizontal position, the screw head 21 of the screw 20 acts as a limiting stop bearing against plate 2, as shown in FIGURE 3. When the screw head 21 contacts the back plate 2 under increasing downward pressure, the torsion springs 17 flex through their intermediate portions 37 inasmuch as their ends 32-33 are held fixedly by the discs respectively. The flexing and torsional bending of the springs 17 serves to counterbalance the weight of the telescoping rod 10A and its hanging curtains, with limiting stop member 20, 21 bearing rigidly against the back plate 2.

When telescoping curtain rod 10A is rotated upwardly to retract it to a vertical position, the stop 20 is moved away from the back plate 2 and the torsional forces acting on the leaf springs 17 are relieved.

The screw 20 is adjustable in the supporting angle iron plate 19 by means of screw threads to vary the amount of torsion to which leaf springs 17 are subjected. Should any of the individual springs 17 be broken, the applied weight on curtain rod 10A will then be borne by the remaining springs in conjunction with a suitable torsional compensation provided by the adjustment of screw 20.

The weight of the telescope curtain rod 10A and the hanging curtain is thus counterbalanced by the torsional reaction developed in leaf springs 17 as heretofore described. The leaf springs 17, particularly in the intermediate portions 37 thereof, between discs 13 and 14, flex and twist to an extent dependent on the applied weight of the curtain rod 10A and the curtains hanging therefrom.

In lieu of fastening the curtain rod 10A to a wall by means of bracket 1, it may be held on a bedpost by means of a suitable two-part clamp (not shown). When mounted on a bedpost, the bracket 1 is provided with a split clamp capable of adjusting the height of the curtain rod 10A and its telescoping section on the bedpost.

Having thus fully described and set forth an embodiment of my invention, it will be understood by those skilled in the art that the details and the construction may

be varied widely without departing from the spirit and scope of the invention.

What is claimed is:

A curtain rod support comprising a bracket, a horizontal pivot pin mounted thereon, a first plate structure 5 pivotally mounted on said pivot pin, a second plate structure pivotally mounted on said pivot pin, a curtain rod supported by said second plate structure, a plurality of horizontal torsion springs interconnecting said first and 10 said second plate structures, and stop means between said first plate structure and said bracket limiting the pivotal

movement of said first plate structure about said pivot pin.

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