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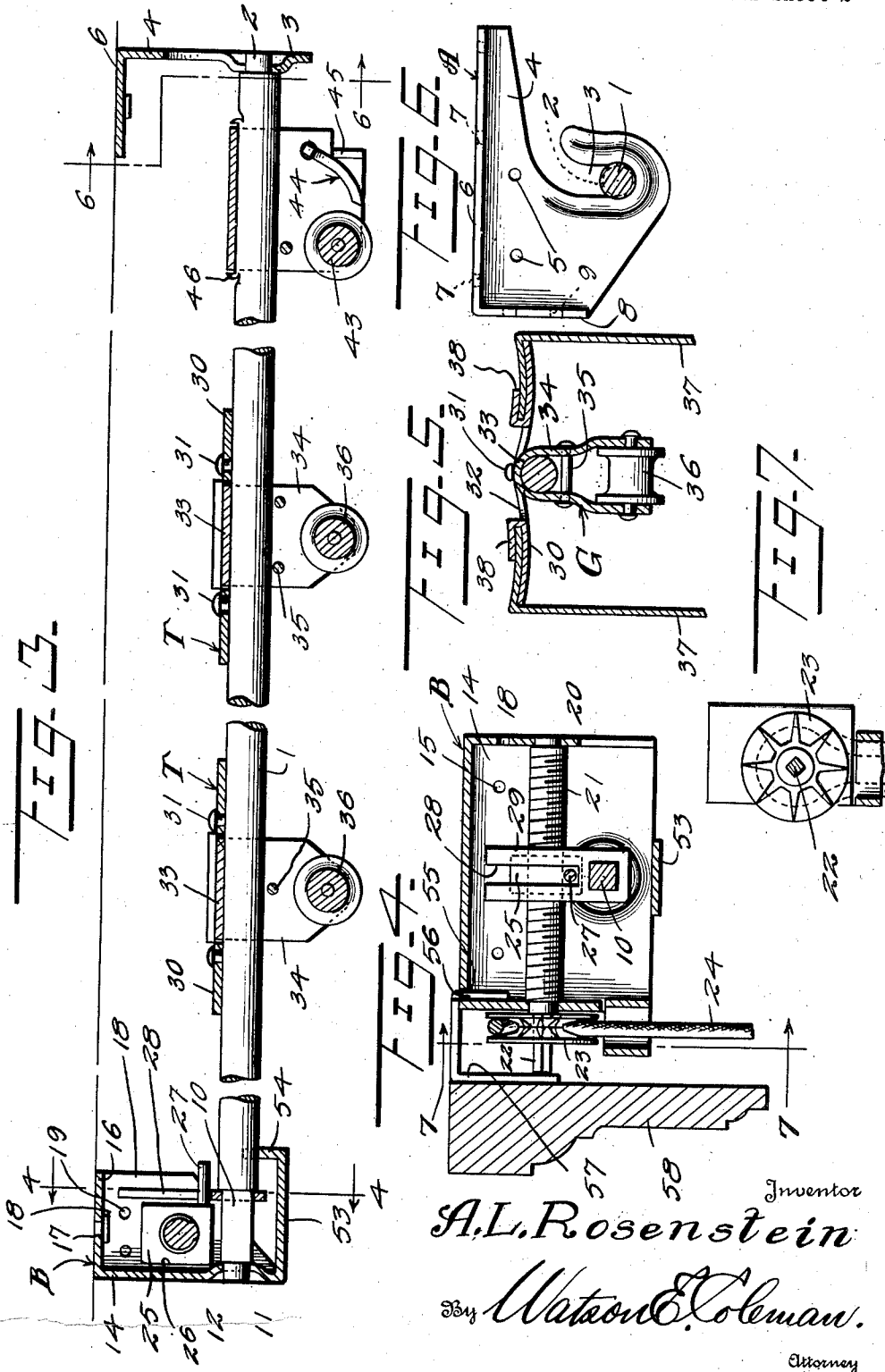
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VENETIAN BLIND EQUIPMENT

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VENETIAN BLIND EQUIPMENT

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1 Claim. (Cl. 156—17)

An object of the invention is to provide an equipment of this kind including a tilt bar together with supporting brackets therefor and wherein one of said brackets is provided with means for coaction with the bar to rock the same in either direction at will.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved Venetian blind equipment whereby certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein:

Figure 1 is a view in top plan of a Venetian blind equipment constructed in accordance with an embodiment of my invention, the blind proper being omitted except a fragmentary illustration of the conventional tapes;

Figure 2 is a view in side elevation of the equipment as illustrated in Figure 1, the various cords being shown in fragment;

Figure 3 is an enlarged view partly in section and partly in elevation illustrating in detail certain of the features of the equipment as herein comprised;

Figure 4 is an enlarged transverse sectional view taken substantially on the line 4—4 of Figure 3;

Figure 5 is an enlarged detailed sectional view taken substantially on the line 5—5 of Figure 1;

Figure 6 is a detailed sectional view taken substantially on the line 6—6 of Figure 3;

Figure 7 is a fragmentary sectional view taken substantially on the line 7—7 of Figure 4.

As disclosed in the accompanying drawings, 1 denotes a tilt bar of desired length and which is reduced at one end to provide a trunnion 2 to engage within the open slot 3 of a bracket A. The portion of the bracket A provided with the slot 3 is inwardly offset so as to permit the desired engagement of the trunnion 2 with said bracket A when the bracket is secured with its flat face against a sash or other surface. In order to allow this bracket A to be secured in its position it is provided in its body plate 4 with suitably positioned openings 5 through which screws or other anchoring members are adapted to be directed in the well known way.

The upper marginal portion of the plate 4 is defined by an inwardly disposed flange 6 provided with suitably spaced openings 7. These openings 7 provide for the passage of screws or kindred fastening means so that the bracket A can be

anchored to the crown or top sill of a window frame. The rear or inner margin of the body plate 4 is also provided with an inwardly disposed flange 8 having the openings 9 therethrough. These openings 9 are for the passage of screws or other fastening means when it is desired to secure the bracket A to the face of the window frame or sash.

The opposite extremity of the tilt bar 1 is formed to provide a portion 10 angular in cross section together with an extended trunnion 11 to engage within suitably positioned openings 12 provided in the body plate 14 of a box-like bracket B. The portion of this plate 14 provided with the opening 12 is also inwardly offset to compensate for the trunnion 11 or, in other words, so that the trunnion 11 will be free to contact with the window frame when the securing members are disposed through this body plate 14. This body plate 14 is provided with suitably positioned openings 15 for the passage of screws or other desired anchoring elements.

The plate 14 at its upper margin is defined by an inwardly disposed flange or wall 16 provided with suitably positioned openings 17 to allow the bracket B to be secured to the top or crown piece of a window frame or sill as is illustrated in Figure 3 of the drawings. The ends of the plate 14 are also defined by the inwardly disposed flanges 18 and the inner flange 18 is also provided with suitably positioned openings 19 to allow the bracket B to be anchored to the outer face of a window frame or sash.

The front and rear flanges 18 are provided with suitably positioned openings 20 which provide mountings for the opposite end portions of the elongated screw 21. The forward end portion of the screw 21 is reduced, as at 22, and extends outwardly beyond the forward flange 18. Fixed to this extended portion 22 for rotation therewith is a pulley 23 around which is disposed an operating cord 24.

The screw 21 threads through a nut or member 25, said nut or member 25 being held against rotation by having a flat face 26 positioned for contact with the plate 14. This nut or member 25 is provided with an outstanding pin 27 disposed in the same general direction as the applied tilt bar 1 and this pin 27 engages within a kerf 28 provided in an upstanding rock arm 29 engaged with the portion 10 of the bar 1 so that said arm 29 and bar 1 have unitary rocking movement. By proper pull on the cord 24 the screw 21 can be rotated in either direction and in accordance with such direction of rotation the member or nut 25 will move lengthwise of the screw 21. This movement of the nut 25 along the screw 21 tilts the bar 1 in desired direction and for a required extent for a purpose to be hereinafter more particularly mentioned.

Fixed to the bar 1 at desired spaced points thereon are the tilt tables T. As herein disclosed, each of these tables T comprises a plate 30 possessing the required strength and rigidity but preferably made of metal. This plate 30 also preferably engages the bar 1 from above and is securely anchored thereto by the rivets 31 although any other means of attachment may be employed which may comply with the requirements.

The central portion of the plate 30 is cut out, as at 32, whereby provision is made for the swivelled mounting upon the bar 1 of a guide pulley G. This guide pulley G, as herein disclosed comprises a substantially U-shaped plate 33 which has direct contact with the bar 1 from above, and the side members 34 of said plate below the bar 1 are tied together by the interposed rivets 35 or the like. These rivets 35 closely approach the bar 1 so that the guide pulley is effectively maintained in desired assembly. It is also to be stated that the plate 33 is of a width substantially equal to the length of the opening 32 so that the guide pulley G is also effectively held against movement lengthwise of the bar 1 and thereby further maintained in desired assembly.

The lower portions of the side members 34 have rotatably supported therebetween in a conventional manner a grooved roller 36 over which passes the operating cord for raising the slats of the blind.

As the construction of a Venetian blind is well known it is not believed necessary to describe the same in detail other than to state that the conventional tapes 37 overlap the end portions of the plate 30 and are effectively held or clamped thereto by the returned portions 38 struck out from the central portion of the plate 30 in the forming of the central opening 32. It is to be stated, however, that if desired other means may be employed for anchoring these upper ends of the tapes although in practice I have found the particular means as herein described and illustrated to be highly efficient and practical.

As illustrated in Figure 2, the cords 39 for raising the blind are two in number as is the general practice although, of course, this number may be increased if the requirements of practice so necessitate and this is also true in connection with the tilt tables T.

The cords 39 are directed to pass over and end guide pulley P which is also swivelled or swingingly engaged with the bar 1. This pulley P includes a plate 40 returned upon itself to provide a sleeve portion 41 to engage around the bar 1 from above and held therein by a cross rivet or pin 42. The inner end portions of the side members 40 of the pulley P have rotatably supported therebetween the grooved roller 43 over which the cords 39 are directed from above. The plates 40 also have pivotally supported therebetween a depending lock plate 44 disposed on a downward and forward incline with its lower free marginal edge beveled. This plate 44 has its downward swinging movement limited by contact with an inwardly disposed lug 45 struck from one of the side plates 40 and this limit of movement is such as to assure the lower free edge of the lock plate 44 being sufficiently close to the cords passing over the pulley 43 to readily engage said cords to hold the slats of the blind in selective raised position. In effecting this lock the cords are first swung by the operator toward the plate 44 to cause the lower free end to slightly impinge the

cords so that upon release of the cords by the operator the weight of the blind proper will cause the plate 44 to swing upwardly and thus bind the cords against the pulley 43.

It is to be particularly pointed out that by having the guide pulley P mounted in swivelled connection upon the tilt bar 1 the same will readily swing to compensate for the different tilting positions into which the slats may have been adjusted so as to allow the desired raising or lowering of the blind proper without restoring the slats to what is known as a horizontal position. A further advantage in the mounting of this pulley P is that a direct down pull is not required but, on the contrary, the pull can be at any angle. The pulley P, as hereindisclosed, is maintained in its desired position upon the bar 1 by the upstanding pots 46 between which the sleeve 41 of the pulley P snugly engages. These lugs 46, as herein disclosed, are struck up from the bar 1 although they may be otherwise provided.

To further support the tilt bar 1 at the end thereof which engages the bracket B, the central portion of the plate 14 of said bracket B is provided with a forwardly extended arm 53. This arm 53 is of a length to terminate beyond the portion 10 of the bar 1 and the outer or free end portion of this arm 53 is formed with an upstanding saddle 54 which engages the bar 1 from below.

The top flange 6 of the bracket A and the top flange 16 of the bracket B adjacent their forward end portions are provided with the openings or slots 55 through each of which is adapted to be inserted from above the depending arm 56 carried by a bracket 57 secured to the rear face of a fascia board or panel 58 of desired design. This board or panel 58 is of such dimension as to substantially conceal the applied equipment yet without the necessity of employing a complete box structure.

From the foregoing description it is thought to be obvious that a Venetian blind equipment constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as hereinafter claimed.

I claim:

Venetian blind equipment comprising a tilt bar, supporting means for the bar including a box-like bracket having its inner face open and having an outer face wall provided with means with which the tilt bar directly engages, an upstanding slotted rock bar carried by the tilt bar and positioned within the box-like bracket, a screw rotatably supported within the box-like bracket and disposed substantially at right angles to the tilt bar, a member in threaded engagement with the screw for movement lengthwise thereof upon rotation of the screw, said member coacting with the outer face wall of the bracket to hold the member against rotation, and a part carried by said member and extending into the slot of the rock bar to rock the tilt bar as said member moves along the screw.

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