March 8, 1927. 1,620,515

H. F. BUCHHEIT

SHADE ROLLER SUPPORT

Filed Nov. 7, 1924

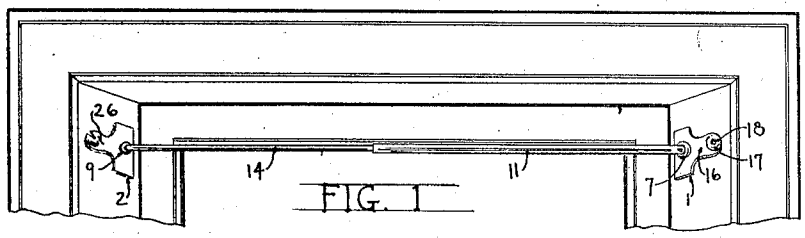

FIG. 1

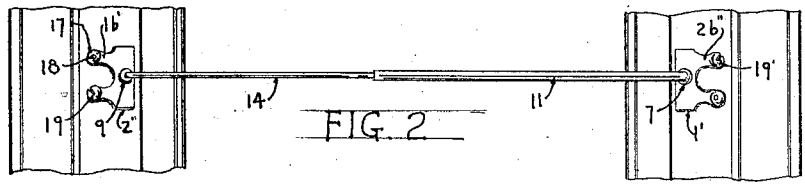

FIG. 2

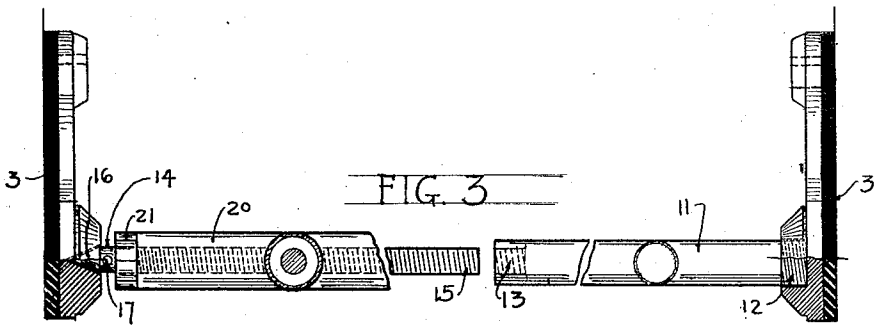

FIG. 3

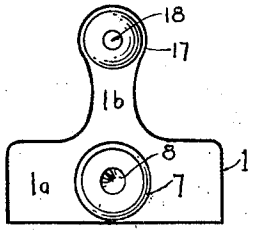

FIG. 4

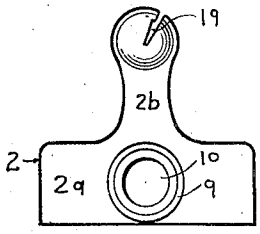

FIG. 5

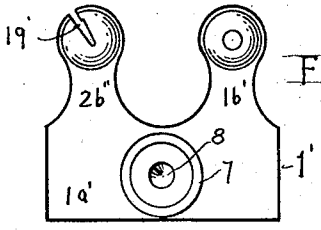

FIG. 6

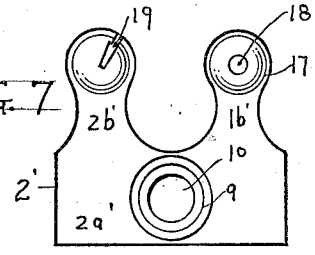

FIG. 7

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UNITED STATES PATENT OFFICE.

HENRY FRANK BUCHHEIT, OF MILWAUKEE, WISCONSIN.

SHADE-ROLLER SUPPORT.

Application filed November 7, 1924. Serial No. 748,348.

My invention relates to improvements in shade roller supports.

The objects of my invention are to provide means for supporting shade rollers from a window frame without marring or injuring the frames; to provide means for detachably mounting shade roller brackets between the side walls or so called jambs of a window frame in such a manner that the brackets will be clamped in frictional contact with the jambs, under pressure sufficient to hold them in position; to provide means whereby frictionally clamped shade roller brackets may be co-operatively held in place; to provide shade roller brackets which will not catch or injure window curtains or other fabrics with which they contact; to provide shade roller supports which can be easily and quickly detached and replaced or shifted to various positions; to provide means for supporting a plurality of shade rollers from a single pair of brackets and allow them to unroll in opposite directions; and to provide a simple, neat and inexpensive shade roller support peculiarly adapted to the requirements of rented apartments where successive tenants desire a re-arrangement of the shades.

In the drawings:

Figure 1 is a perspective view of the upper portion of a window frame to which my invention has been applied.

Figure 2 is a similar view of the middle portion of a window frame, showing an embodiment of my invention in modified form.

Figure 3 is an enlarged view, in elevation, with parts broken away, showing the embodiment of my invention appearing in Figure 1.

Figures 4 and 5 are face views of the respective brackets shown in Figures 1 and 3.

Figures 6 and 7 are face views of the respective brackets shown in Figure 2.

Like parts are identified by the same reference characters throughout the several views.

In the embodiment of my invention shown in Figures 1, 3, 4 and 5 I employ a set of brackets 1 and 2 having flat outer faces provided with a non-metallic covering 3 of high frictional resistance such as rubber, fiber or fabric, and which is preferably coextensive with the area of the bracket, including its metallic clamping body 1^a (Figure 4) or 2^a (Figure 5) and the roller supporting arm 1^b (Figure 4), or 2^b (Figure 5). The body 1^a has a circular projection or boss 7 provided with a centrally disposed conical socket 8 and the body 2^a has a corresponding boss 9 provided with a threaded socket 10.

The brackets 1 and 2 are clamped to the opposing inner faces of the window frame or jamb by an extensible spanner or spreader rod, formed in sections as shown. One section 11 has a reduced threaded end portion 12 which screws into the socket 10. The other end of this section has a socket of considerable depth into which the other section 14 may be adjustably secured. The socket 13 is preferably threaded and the section 14 has a threaded end portion 15 which screws into it, the rod being thereby made adjustable in length to fit windows of differing widths and also to provide means for applying a clamping pressure to the brackets.

The other or outer end 16 of the section 14 is conically tapered to fit, or substantially fit, the socket 8 and by turning the section 14 in a direction to feed it outwardly from the socket 13, the ends of the rod may be forcibly pressed against both brackets to clamp them to the window frame or jamb with sufficient pressure to secure them in position.

The arm 1^b of the bracket 1 has a boss 17 provided with a socket 18 adapted to receive an ordinary shade roller trunnion, and the arm 2^b of the bracket 2 has a similar stud or boss provided with an ordinary notch 19 to receive the winding stem of any ordinary shade roller.

It will be understood that when installing this shade support the bracket 2 will first be applied or adjusted to the jamb at one side of the window. The rod 14 will be screwed into the socket 13 far enough to make the entire rod shorter than the distance between the jambs, and the rod 11 will be screwed into the socket 9 and held in position while the bracket 1 is being adjusted to the opposing jamb and rod 14 unscrewed until its conically tapered end 16 enters the socket 8, whereupon additional rotation of the rod section 14 to unscrew it from the section 11 will extend the rod sufficiently to exert a binding pressure upon the respective brackets 1 and 2. If desired, the rod 14 may be provided with an aperture 17 to receive a nail or other tool to be operated as a wind-

ing stem during the bracket clamping operation.

The construction as shown in Figures 2, 6 and 7 is the same as that disclosed in the other views with the exception that the brackets 1′ and 2′ are each provided with two shade supporting arms. In Figure 6 the bracket 1′ is shown with an arm $1^{b'}$ similar to the arm 1^{b} in Figure 4, but located near one end of the body portion $1^{a'}$ of the bracket. Near the opposite end of the body of the bracket there is a companion arm $2^{b''}$ similar to the arm 2^{b} shown in Figure 5 and having a notch 19′ which is reversed in position but otherwise the same in form as the notch 19 shown in Figure 5.

The bracket 2′ shown in Figure 7 is similar to the bracket 2 shown in Figure 5, with the exception that its socketed arm $1^{b'}$ is similar to the arm 1^{b} shown in Figure 4, and the arm $2^{b'}$ is similar to the arm 2^{b} shown in Figure 5. These two arms are located near the respective ends of the body portion bracket as in Figure 6.

But when when assembled for use, the bracket shown in Figure 7 is adjusted to the window jamb on the left-hand side as shown in Figure 2 with the arm $1^{b'}$ above arm $2^{b'}$. The bracket shown in Figure 6 is adjusted to the right-hand jamb shown in Figure 2 with the arm $2^{b''}$ above arm $1^{b'}$. These brackets are clamped in position between the extensible spanner rod and are adapted to support two shade rollers in reversed positions (i. e. reversed end to end), whereby the upper shades may be drawn upwardly to cover the upper part of the window opening and the lower shade may be drawn downwardly to cover the lower part.

The spanner rod or bracket clamping member composed of the sections 11 and 14 is adapted to serve as a support for a curtain and it is particularly adapted to support a sash curtain. Owing to the fact that each bracket, including its shade supporting arm or arms 1^{a}, 1^{b}, etc., has flat surfaces which fit throughout their area against the window jamb, there is no possibility of any injury to fabric resulting from the presence of these arms within the window frame and inasmuch as each bracket has this flat outer surface padded, it is obvious that no injury can result to the woodwork. The brackets may be removed and replaced as often as desired or adjusted to different positions without affecting the condition or appearance of the woodwork. It is not necessary that any of the sockets should extend entirely through the brackets and the thickness of the brackets may be sufficient in any case to prevent contact of the shade roller trunnion or of its winding stem with the woodwork.

The rod section 14 preferably has its threaded portion 15 concealed by a tubular member 20, secured thereto by a nut 21, which is permanently connected to the member 20 and may be also secured to the rod section 14, either by welding or by a key or cross pin. The tubular member 20 telescopes over the free end of section 11. Where member 20 and nut 21 are used, the nut may be utilized to turn section 14. This tubular member 20 is not relied upon to support the rods and it is therefore secured only to the nut 21 and supported thereby from the rod section 14. The screw threaded portion 15 of the rod 14 engages the internally threaded portion of the rod 11 and forms a substantially rigid connection between the rods. This is important for the reason that if the tubular covering member 20 has a bearing upon the rod 11 the rotation of the member 20 will mar the surface of the rod 11 and such marred surface will be exposed when the members are relatively extended.

Owing to the fact that the end brackets 1 and 2 are provided with rubber or fiber surfaces for frictional engagement with the window casing, thereby dispensing with projecting spurs such as are commonly employed for clamping brackets of the general type to which this invention relates, it is important that the torsional effect of turning the rod 14 be reduced to a minimum in order that the brackets may be permitted to retain their proper positions of support for the shade roller arms. This is accomplished by threading the member 11 into one of the brackets and by providing the point bearing at 16 for the other bracket. This makes it possible to adjust the rods by rotating the rod 14 without transmitting sufficient torsional pressure to the brackets to overcome the frictional resistance of the rubber pads 3 on the window casing.

It is particularly essential with brackets of the type shown in Figures 6 and 7 that such brackets be precisely fixed with reference to the window casing, a rotation of either bracket from the correct position making it impossible to adjust the shades properly.

I claim:

In a shade roller support, a set of brackets each provided on one side with a shade roller socket, one of said brackets having a threaded spreader rod socket and the other having a tapered socket adapted to receive the pointed end of a spreader rod member and a co-operating pair of spreader rod members, one being threaded for engagement in the first mentioned bracket socket and internally threaded at its opposite end, and the other spreader member being tapered at one end and threaded at the other for engagement in the threaded socket of the first mentioned spreader member, said tapered end portion being provided with a

poly-sided operating piece and a tube connected therewith and covering its threaded portion, said tube being adapted to telescope over the first mentioned spreader member to conceal the screw threads and the joints, and said spreader members being adapted to be assembled with the bracket having the threaded socket end positioned on a window casing preparatory to expansion of said tapered end into pressure contact in the socket of the other bracket by rotating said poly-sided member after the parts have been placed.

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