D M. HARTSOUGH.

SHADE SUPPORTER.

APPLICATION FILED JUNE 30, 1910.

1,003,045. Patented Sept. 12, 1911.

Fig. 1.

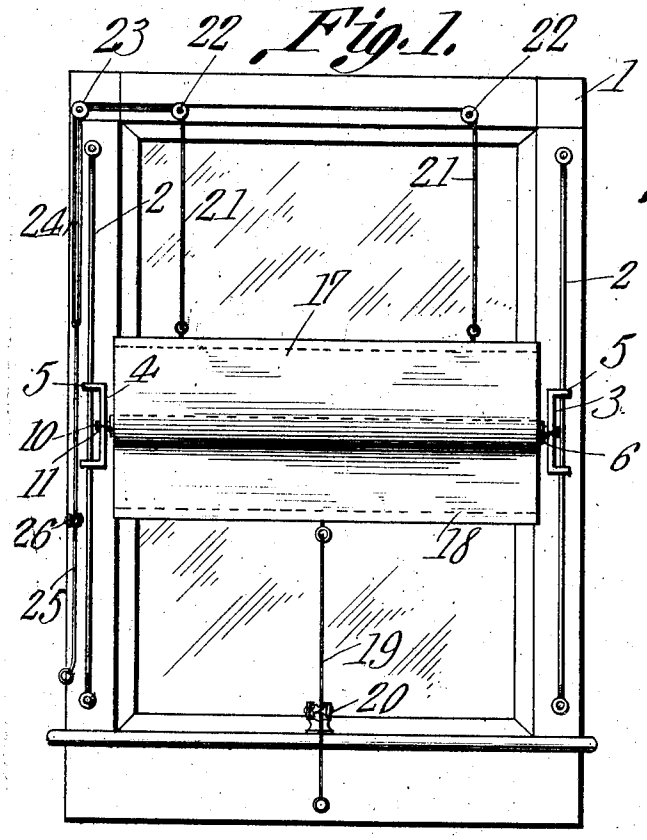


Fig. 2.

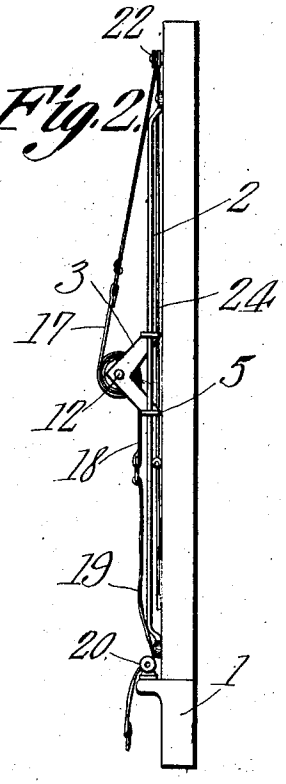
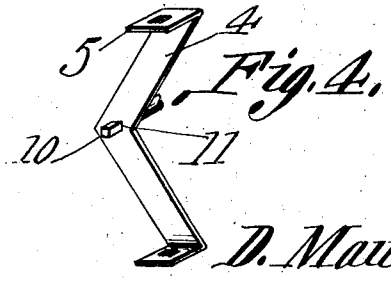


Fig. 3.

Fig. 4.



Witnesses

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SHADE-SUPPORTER.

1,003,045. Specification of Letters Patent. Patented Sept. 12, 1911.

Application filed June 30, 1910. Serial No. 569,725.

To all whom it may concern:

Be it known that I, D MAURICE HARTSOUGH, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented a new and useful Shade-Supporter, of which the following is a specification.

It is the object of this invention to provide a curtain-carrying roller which is slidably mounted, and held under constant tension, so as to be effective to roll the ends of a curtain, the intermediate portion of which is secured to the roller.

Another object of the invention is to provide a curtain-carrying roller which may be raised or lowered to any desired point, and there manipulated to unroll the curtain in opposite directions.

In the drawings,—Figure 1 is a front elevation; Fig. 2 is a side elevation; Fig. 3 is a longitudinal section of the curtain roller, parts being shown in elevation; and Fig. 4 is a detail perspective of one of the travelers.

In the drawings, the frame of a window is shown, and denoted generally by the numeral 1. Secured to the sides of the window frame, and spaced therefrom, are guides 2, upon which the travelers 3 and 4 are adapted to reciprocate vertically. The ends of the travelers 3 and 4 are bent laterally, as denoted by the numeral 5, and are provided with suitable openings through which the guides 2 may be inserted. The invention further includes a tubular roller, denoted generally by the numeral 6, as seen to best advantage in Fig. 3. This roller 3 may be provided, at its ends, with blocks 7 and 8, secured in place within the roller. A shaft 9 is extended through the block 8, and is rotatably mounted therein, the protruding end of the shaft 9 being squared, as shown at 10, to fit in a square opening 11 in the traveler 4. The shaft 12 is thrust through the block 7, and secured in place therein, the protruding end of the shaft 12 being circular in cross section, and being mounted for rotation in the traveler 3, as seen to best advantage in Fig. 2. Located within the roller 6, is a helical spring 14, one end of which is secured, as at 15, to the roller 6, the block 7 being, if desired, employed as the element whereby one end of the spring 14 may be secured to the roller. The other end of the spring 14 is secured at 16 to the rotatably mounted shaft 9.

The intermediate portion of a curtain is secured in any desired manner to the tubular shaft 6, longitudinally of the same. One end of the curtain is extended upwardly, as denoted by the numeral 17, the other end thereof being extended downwardly as denoted by the numeral 18, It will be seen that when the curtain roller 6 is rotated, both of these ends 17 and 18 of the curtain will be rolled simultaneously upon the roller.

A flexible element 19 is secured to the lower end of the portion 18 of the curtain, this flexible element 19 being carried through a jamb pulley 20, secured to the window sill. This jamb pulley is so constructed that the element 19 may move freely therethrough; however, by manipulating the flexible member 19, the jamb pulley may be made to engage and to hold the same. These jamb pulleys are common articles of shelf hardware, and merit no further description. If desired, any other suitable means may be employed for securing the end of the flexible element 19. Another cord is looped upon itself, as shown at 24 and is extended over a pulley 23 mounted upon the frame 1 adjacent one corner thereof. One end 21 of the cord is carried over the pulley 22 and united with the end of the portion 17 of the curtain, the other end of the cord, denoted by a similar numeral, being carried over another pulley 22 and likewise connected with the upper edge of the portion 17 of the curtain. Another cord denoted by the numeral 25 is connected with the looped portion 24, and carried downwardly through another jamb pulley 26, located upon one side of the window frame, and similar in construction to the jamb pulley 20.

It is to be noted that there is no pawl and ratchet mechanism in the roller 6. Thus the roller 6 is held for continual, uninterrupted rotary tension by the spring 14. Thus, when the device is positioned as shown in Fig. 1, it will be seen that the portions 17 and 18 of the curtain will be drawn taut, and thus held, so that the curtain cannot flap about in the wind.

Presupposing that the curtain is disposed as shown in Fig. 1, when it is desired to raise the curtain, the cord 24 may be slacked away, whereupon the spring 14 will cause both the portions 17 and 18 to be rolled simultaneously upon the member 6. The curtain roller will by this operation, move

upwardly toward the top of the window frame. If desired, the cord 25 may be slacked away, instead of the cord 19, whereupon, the parts 17 and 18 of the curtain will be rolled upon the element 6, the element 6, however, moving downwardly toward the bottom of the window. Obviously, by loosening both of the elements 19 and 25, the roller 6 may be raised or lowered to the desired elevation, whereupon one of the elements 19 and 25 may be secured, and the other of said elements may be employed to roll and unroll the curtain.

It will be seen that by the foregoing construction, the curtain is held under constant tension so that it cannot flap about, and, moreover, as soon as one of the elements 25 or 19 is loosened, both of the portions 17 and 18 will be rolled upon the member 6, the member 6 moving upwardly and downwardly, depending upon which of the parts 19 or 25 has been loosened.

The device is so constructed that any given zone of a window may be covered by the curtain, without obstructing the remaining portions of the window.

The guides 2 are preferably polygonal in cross section, the openings in the portions 5 of the travelers 3 and 4, being of similar contour. By reason of this construction, the travelers are prevented from oscillating transversely of the guides 2, and thus interfering with the proper movement of the roller.

Having thus described the invention, what is claimed is:—

In a device of the class described, a roller, a curtain secured in its intermediate portion to the roller and having its ends extended in opposite directions, means supporting the roller for sliding movement and for rotation, means for imparting continual uninterrupted rotary tension to the roller, means for adjustably securing the ends of the curtain, said means comprising a flexible connection having its ends connected to the upper end of the curtain, one adjacent each side thereof, pulleys over which the double portion of said flexible connection are trained, another flexible connection secured between the ends of the first mentioned flexible connection, a third flexible connection secured to the lower end of the curtain intermediate of the sides thereof, means for binding the double portions of the first flexible connection, and means for binding the second flexible connection.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

D MAURICE HARTSOUGH.

Witnesses:
LEWIS J. VAN FOSSEN,
ETHEL BABCOCK.