

(No Model.)

A. M. BERGNER.
SHADE HANGER.

No. 523,452.

Patented July 24, 1894.

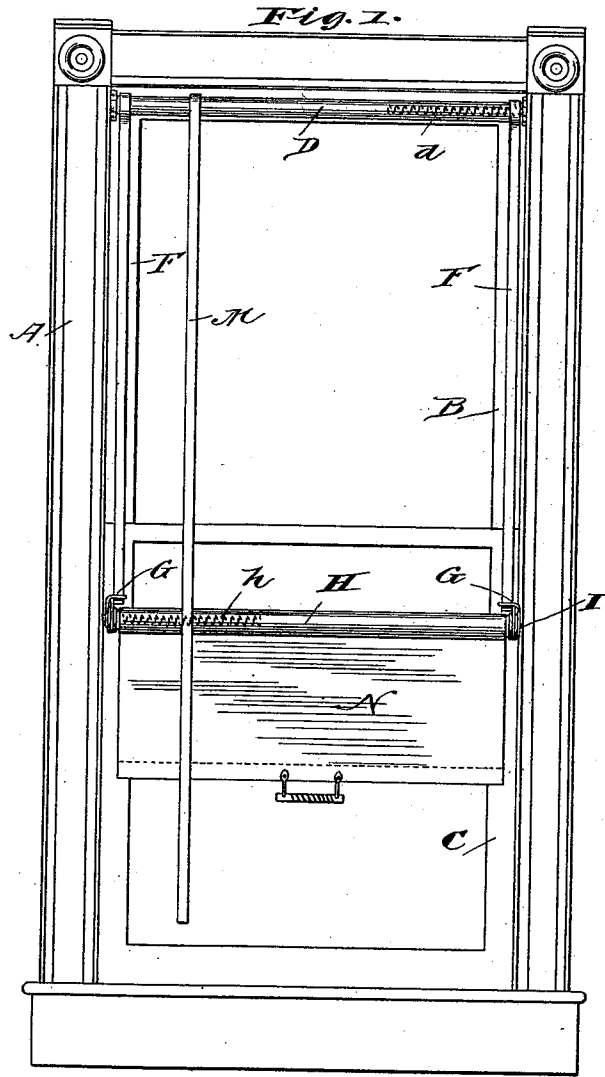


Fig. 2.

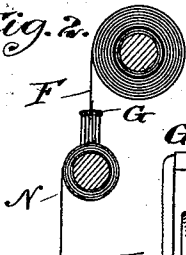


Fig. 3.

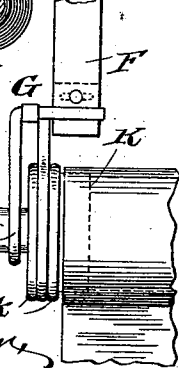


Fig. 4.

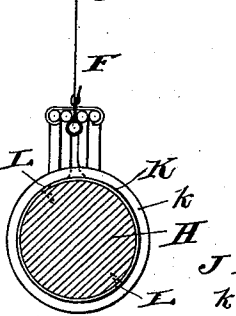


Fig. 5.

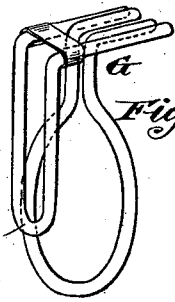
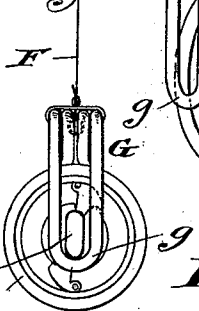


Fig. 6.

Witnesses,

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UNITED STATES PATENT OFFICE.

ADOLF M. BERGNER, OF CHICAGO, ILLINOIS.

SHADE-HANGER.

SPECIFICATION forming part of Letters Patent No. 523,452, dated July 24, 1894.

Application filed November 20, 1893, Serial No. 491,450. (No model.)

To all whom it may concern:

Be it known that I, ADOLF M. BERGNER, of Chicago, Illinois, have invented certain new and useful Improvements in Shade-Hangers, of which the following is a specification.

The object of my invention is to provide a shade hanger whereby the shade and the spring roller whereon it is held, may be adjusted vertically so as to cover any portion of the window. The construction is such that the shade may be rolled independently of its adjustment so that a greater or less portion thereof may be exposed, while, as above stated, its position with reference to the height of the window may be varied by the vertical adjustment. The construction is such that no fastenings are required save simple supports for one of the rollers, which may be attached to the window frame at or near its top.

In carrying out my invention I employ two spring shade rollers, one of which, hereinafter called the upper roller, is mounted in fixed brackets or otherwise operatively secured to the window frame at or near its top, and the other, or lower roller, is suspended from the upper by ribbons or tapes. The upper roller is provided with an operating tape which is adapted to wind upon the roller in the opposite direction to that in which the suspending tapes wind. The arrangement is such that by a sharp pull or jerk upon the operating tape the catch on the upper roller is released thus allowing the lower roller to descend, unwinding the suspending tapes and winding the operating tape upon the upper roller; and when the operating tape is pulled or unwound manually the upper roller is revolved so as to wind the suspending tapes and raise the lower roller. The spring of the upper roller is tensioned as the lower roller descends, and the recoil of said spring assists the operator in raising the lower roller. The shade can be extended or rolled in the same manner as though it were attached to the window, and its operation does not in any manner affect the upper roller, the vertical adjustment being made solely by means of the operating tape. The suspending tapes pass over the upper roller from the rear side while the operating tape passes over the roller from the front, or in other words, the suspending and operating tapes are connected to the upper roller respectively in such

manner that when the suspending tapes wind the operating tape unwinds, or vice versa.

In the accompanying drawings, Figure 1 is a representation of a window frame with sliding sash and showing my shade hanger applied. Fig. 2 is a sectional view through the rollers showing the lower roller raised, the suspension tapes wound upon the upper roller and the shade partially unrolled, its lower portion broken away. Fig. 3 is a detail view of one end of the lower roller and tape showing a bracket hanger and a collar with stops thereon. Fig. 4 is a sectional view through the roller showing the bracket and collar in side elevation. Fig. 5 is an elevation of the opposite or spring end of the lower roller showing the bracket adapted to hold the spring rod against rotation; and Fig. 6 is a perspective view of one of the brackets.

In the drawings, A represents the window frame, B, C the upper and lower sash respectively.

D represents the upper spring roller which may be of the usual construction and mounted in fixed brackets attached to the window casing or frame at or near its top. *d* shows its spring.

F represents tapes, ribbons or equivalent suspending devices, preferably tapes, and which are secured at their upper ends to the roller D and at the lower ends to brackets G. Said brackets may be conveniently formed from wire bent to provide a circular portion to surround the lower shade roller H and also to provide a loop *g*. The lower shade roller H is also of the usual construction. It is provided with the spring *h* and has at one end the fixed journal I which is usually round and which will turn in the loop of the bracket.

J represents the flattened end of the spring rod which is embraced in the correspondingly formed loop of the bracket as shown in Fig. 5, whereby said spring rod is held against rotation.

K represents a collar which serves the double purpose of forming a suitable bearing for and of holding the brackets upon the rollers. The collar may be made from sheet metal and is provided with stops *k* which embrace the circular portion of the bracket and prevent it from working off the roller. These stops may be wire rings soldered to the collar,

or the stops may be formed by turning up lugs out of the sheet of which the collar is made. The collar or clamping ring may be secured by the tacks L driven into the roller.

5 M represents an operating tape, ribbon, cord or chain which has one end secured to the upper spring roller D, while its opposite end depends freely.

10 It will be observed that the rollers D, H have their spring ends respectively at opposite sides of the window, the result of which arrangement is that the springs *d, h* wind in opposite directions, and the release of the catch of roller D by a sharp jerk on the curtain N will not release the catch of roller H.

15 In operation when the lower roller is brought to the desired position, the shade N may be drawn down or adjusted so as to cover a greater or less part of the window. When it is desired to raise the lower roller and shade bodily, the catch on the upper roller will be disengaged by means of the operating tape, and then a pull upon the tape, assisted by the spring of the upper roller, will turn the latter thus winding the tapes upon it and raising the lower roller and shade. This arrangement of the tapes and rollers, so that the recoil of the spring of the upper roller may be made to assist in raising the shade bodily, 30 makes the device easy of operation and permits the use of the ordinary construction of spring rollers.

I claim—

35 1. A shade hanger comprising in combination two spring rollers, tapes for suspending the lower roller from the upper roller, brackets in which the lower roller is mounted and to which the suspension tapes are connected and an operating tape having one end at- 40 tached to the upper roller and adapted to

wind thereon and its other end depending, the suspension and operating tapes being adapted to wind alternately and oppositely on the upper roller, and the spring of the upper roller being tensioned by the unwinding 45 of the suspension tapes substantially as described.

2. In a shade hanger, the combination with upper and lower rollers and the suspension and operating tapes, of two brackets one for 50 each end of the lower roller, said brackets each having a portion adapted to encircle the body of the lower roller and a loop, the loop of one of said brackets being adapted to form a bearing for the journal of the shade roller 55 and the loop of the other bracket being adapted to clamp the spring rod of the roller, substantially as described.

3. A suspension bracket for a shade roller having a part adapted to encircle the roller 60 and in which it may turn, a collar or clamping ring also encircling the shade roller and forming a bearing and fastening for the bracket, substantially as described.

4. A bracket for a suspending shade roller 65 composed of wire bent between its ends into circular form to embrace the roller and a loop portion disposed parallel to the circular portion to receive the part carried by the roller, the ends of the loop and circular portion being disposed in the same plane, in combina- 70 tion with a collar constructed from a strip of sheet metal to be secured to the shade roller, and said collar having stops to engage the circular portion of the bracket, substantially 75 as described.

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Witnesses:

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