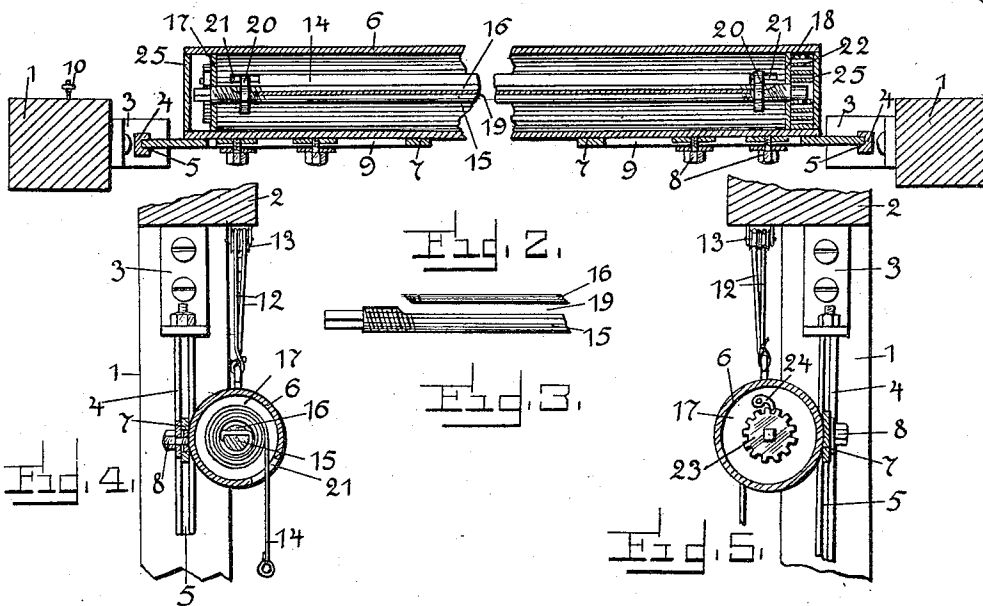
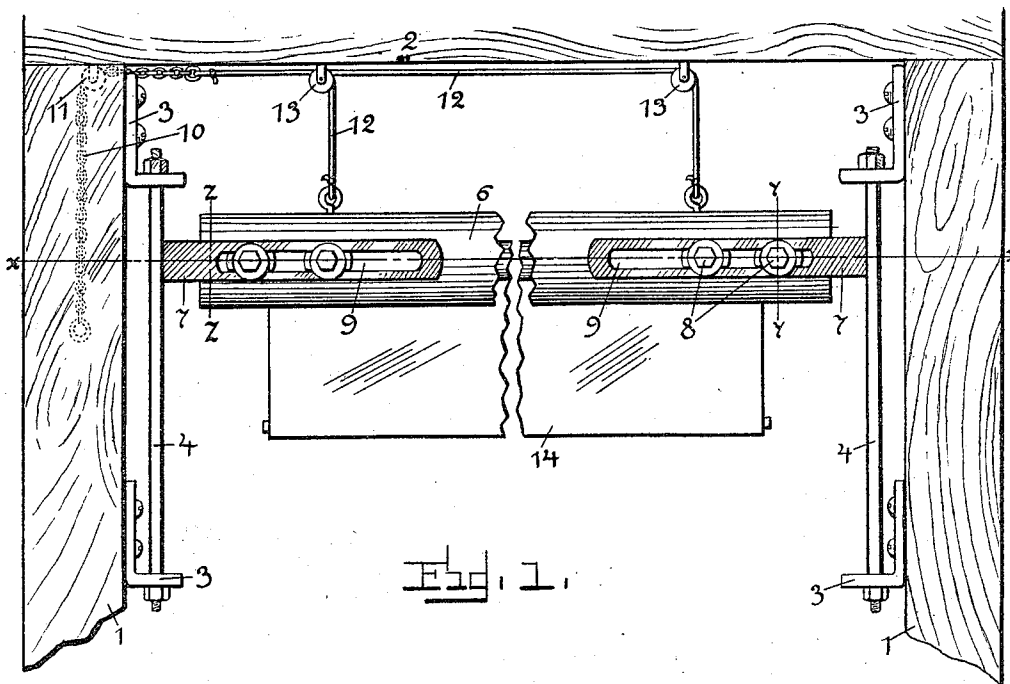


E. F. SCHINDLER.
 WINDOW SHADE ROLLER.
 APPLICATION FILED FEB. 21, 1911.

1,069,584.

Patented Aug. 5, 1913.



Emil F. Schindler,
 INVENTOR

WITNESSES:

W. B. Champlin, Jr.
A. Druecker.

John W. Mellman,
 ATTORNEY

UNITED STATES PATENT OFFICE.

EMIL F. SCHINDLER, OF DALLAS, TEXAS.

WINDOW-SHADE ROLLER.

1,069,584.

Specification of Letters Patent.

Patented Aug. 5, 1913.

Application filed February 21, 1911. Serial No. 609,886.

To all whom it may concern:

Be it known that I, EMIL F. SCHINDLER, a citizen of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented certain new and useful Improvements in Window-Shade Rollers, of which the following is a specification.

My invention relates to new and useful improvements in window shade rollers, and relates more particularly to such rollers of this class as have spring acting mechanisms to raise the window shade.

The object of my invention is to provide a spring acting window shade roller that will operate to raise the shade to any desired position, and that will permit the shade to work up or down without wear or unnecessary friction.

Another object is to provide a window shade roller that will be adjustable in its distance from the top of the window, so that the amount of light entering a room above the shade can be regulated as well as the light entering below the shade.

A still further object is to provide a suitable cylindrical casing, in which the roller will operate, thus protecting the shade from dust, dirt and discoloration when in its rolled up condition.

Finally the object of the invention is to provide a device of the character described that will be strong, durable, simple and efficient, and comparatively easy to construct, and also one that will not be likely to get out of working order.

With these and various other objects in view, my invention has relation to certain novel features of the construction and operation, an example of which is described in the following specification and illustrated in the accompanying drawing, wherein:

Figure 1 is an outside view of the upper portion of a window, the window sash not being shown, showing the herein described window shade roller mounted upon the frame of the window. Fig. 2 is a horizontal sectional view taken on the line $x-x$ of Fig. 1. Fig. 3 is a detail view of the rod or spindle upon which the window shade is wound, the two-part construction of this rod being made clear in this view. Fig. 4 is a vertical sectional view taken on the line $y-y$ of Fig. 1. Fig. 5 is a vertical sectional view taken on the line $z-z$ of Fig. 1, showing the pawl-and-ratchet mechanism, which con-

trols the position of the window shade, and holds it in adjustment.

Referring now more particularly to drawing, wherein like numerals of reference indicate similar parts in all the figures, the numeral 1 denotes the two side pieces of the window frame, and 2 the top piece of said frame. A pair of brackets 3 are mounted upon each of the side-pieces 1, and serve to rigidly support a vertical rod 4, which has a channel or groove 5 on its inner surface. The grooved rod 4 serves to guide the vertical motion of a cylindrical casing 6, in which the curtain roller is mounted. This result is accomplished by securing horizontal guiding strips 7 to the casing 6 on the side thereof adjacent to the window sash, the extremities of which strips project into the grooves 5 of the rods 4, and hold the casing in its proper position during vertical adjustment. The strips 7 are secured to the casing by means of stud-bolts 8, which project from the casing through slots 9 in the strips. The slots 9 are sufficiently elongated to permit adjustment of the roller to windows of any ordinary sizes, and also make it possible, if so desired, to mount the brackets 3 upon the front of the window frame, instead of upon the inner face thereof as shown in the drawing.

The vertical adjustment of the roller is accomplished by means of a chain 10, which is suspended within easy reach upon the window frame from a roller 11, and has its upper extremity secured to a pair of cords 12, which pass over rollers 13, secured to the top piece 2 of the window, and are attached to the casing 6 at each side thereof. A suitable means may be employed to hold the chain 10 in the desired position of adjustment.

The window shade 14 is adapted to roll up upon a two-part rod, consisting of members 15 and 16, centrally mounted within the casing 6, and having its extremities journaled in partitions 17 and 18 respectively, rigidly mounted in the outermost portions of the casing 6. A slit or aperture 19 is provided between the two rod members to receive the extremity of the window shade. The extremities of the rod are threaded, and are adapted to receive nuts 20, which serve to hold the two rod members firmly together. The extremity of the window shade, after having been passed through the slit 19, may

be turned over upon itself and secured in this position, thus preventing its escape from the rod.

Upon the under side of the casing 6 there is provided a slot 21, through which the window shade passes in winding on or off of the rod 15.

Upon one side of the two-part rod there is mounted a coiled spring, which has one of its extremities attached to the wall of the casing. When the curtain is withdrawn from its rod, the rotation of the latter thus produced, winds up the spring 22 and stores sufficient energy therein to return the window shade to its raised position when released. In order that the shade may be held at any elevation, so as to limit the amount of light entering through the window, a pawl-and-ratchet mechanism is mounted upon the other end of the two-part rod, consisting of a ratchet wheel 23 and a pawl 24. When the window shade is held stationary, the pawl 24 will engage the teeth of the wheel and prevent rotation of the rod. As the window shade is drawn down the pawl will slip over the teeth of the ratchet and will offer no obstruction to the rotation of the wheel. Also if the window shade is allowed to ascend rapidly, the wheel 23 will rotate at such a rate that the pawl cannot engage the teeth thereof, so that there will be no obstruction to the raising of the curtain. But as soon as the upward motion of the curtain is retarded, as when the proper position of adjustment is reached, the pawl will engage the teeth of the wheel 23, and hold the window shade in the desired position. Cap or end pieces 25 may be provided

to close the extremities of the casing, and protect the mechanism from dust and dirt. 40

The above described window shade not only permits regulation of the amount of light entering below the shade, but also permits variation in the light entering above the shade, so that, if desired, the upper half of the window may be left unshielded, while the lower part will be screened, and prevent the public from looking into a room. The casing 6 will serve to prevent dust and dirt settling upon the window shade, and will add to the length of time for which the latter may be used. 45 50

What I claim is:

In a device of the character described, the combination with a window frame, of a vertical channeled rod mounted on each side thereof, a horizontal guiding strip adapted to engage each of said vertical rods and reciprocate in the channels thereof, said guiding strips being each provided with a longitudinal slot, a cylindrical casing carrying a window shade connected to said guiding strips, the connections between said cylindrical casing and said guiding strips being adjustable within said longitudinal slots, and a system of cords and pulleys for raising and lowering the aforesaid cylindrical casing. 55 60 65

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 70

EMIL F. SCHINDLER.

Witnesses:

L. MORRIS,
J. S. MURRAY.