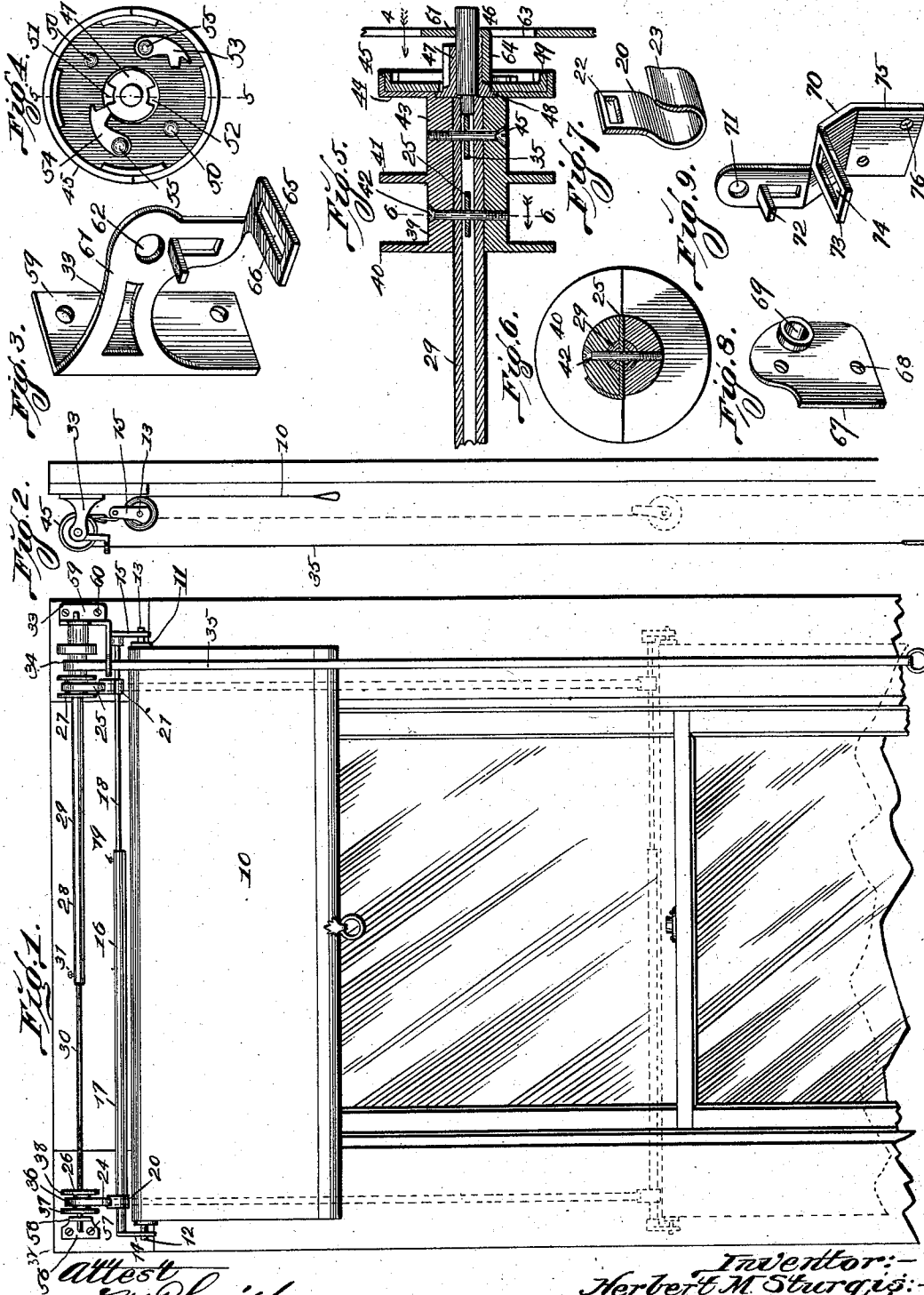


(No Model.)

H. M. STURGIS.
WINDOW SHADE ADJUSTER.

No. 576,001.

Patented Jan. 26, 1897.



Attest
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UNITED STATES PATENT OFFICE.

HERBERT M. STURGIS, OF ST. LOUIS, MISSOURI.

WINDOW-SHADE ADJUSTER.

SPECIFICATION forming part of Letters Patent No. 576,001, dated January 26, 1897.

Application filed October 6, 1896. Serial No. 608,002. (No model.)

To all whom it may concern:

Be it known that I, HERBERT M. STURGIS, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Window-Shade Adjusters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to window-shade adjusters; and it consists in the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

Figure 1 is a front elevation of a window fitted up in accordance with the principles of my invention. Fig. 2 is a side elevation of the parts shown in Fig. 1. Fig. 3 is a view in perspective of a bracket of which I make use. Fig. 4 is a view in elevation of the parts shown in Fig. 5 and looking in the direction indicated by the arrow with the bracket removed. Fig. 5 is a vertical sectional view taken on the line 5 5 of Fig. 4. Fig. 6 is a vertical sectional view taken approximately on the line 6 6 of Fig. 5. Fig. 7 is a view in perspective of one of the hooks of which I make use. Figs. 8 and 9 are views in perspective of modified forms of bearings, said bearings being designed to take the place of the brackets shown in Fig. 1 in cases where the use of said brackets is impracticable.

The object of my invention is to adjust a shade-roller up and down relative to a window, thus making it possible to adjust a shade from the top as well as the bottom.

Referring by numerals to the drawings, 10 is an ordinary shade or curtain, and 11 is the roller, upon which it is wound. The roller 11 is operated by a spring to wind the shade up in the ordinary way. The spindles 12 and 13 of the roller 11 are mounted in brackets 14 and 15, which brackets are connected at their upper ends by the adjustable rod 16. The rod 16 is made in two pieces, the portion 17 being a pipe, within which the portion 18, which is a rod, is slidingly mounted, and the parts 17 and 18 are held in the desired position relative to each other by means of the set-screw 19, thus making the rod 16 readily adjustable as to length. The brackets 14 and 15 are readily fixed in position upon their respective ends of the adjustable rod 16. The adjustable rod 16 is supported by the hooks

20 and 21, one of which is shown in perspective in Fig. 1. The hooks 20 and 21 are essentially alike, and each consists of the strip of sheet metal having the rectangular aperture 22 formed in its upper end, and its lower end 23 is bent into a circular loop of a size suitable to receive and hold the rod. The tapes 24 and 25 are attached to the hooks 20 and 21, respectively, by having their lower ends passed through the apertures 22 and sewed to themselves, and the upper ends of said tapes are attached to the pulleys 26 and 27, which pulleys are carried by the adjustable rod 28.

The adjustable rod 28 consists of two parts, the portion 29 being a pipe, within which the portion 30 is slidingly mounted, and the parts are held in position relative to each other by means of the set-screw 31, thus making said rod readily adjustable as to length. The adjustable rod 28 is supported by the brackets 32 and 33, which brackets are attached to the casing of the window.

Attached to the outer side of the pulley 27 is a pulley 34, to which the tape 35 is attached, and said tape hangs downwardly in position to be manually engaged when it is desired to adjust the shade.

The pulleys 26 and 27 are essentially alike, with the exception that the pulley 34 is formed integral with the pulley 27. The pulley 26 consists of the central cylindrical portion 36, upon which the tape 24 is wound, and the flanges 37 and 38, formed integral with said central portion. The pulley thus constructed is made in two pieces, the dividing-line being on a line with the rod 30. The upper end of the tape 24 is passed between the two parts composing the cylindrical portion 36 and through a slot in the end of the rod 30, and a screw is inserted through said parts, through said rod, and through said tape at right angles to said tape, thus clamping the parts together. This construction is shown in detail in Figs. 5 and 6, Figs. 5 and 6 being described with reference to the pulley 27 and with the understanding that the pulley 26 is the same in construction so far as it goes.

The pulley 27 consists of the central cylindrical portion 39 and the flanges 40 and 41. The pulley is constructed in two pieces and is divided upon the line of the portion 29 of

the rod, as shown in Fig. 6. The upper end of the tape 25 is passed between the two portions composing the cylindrical part 39 of the pulley and through a slot in the portion 29 of the rod, and a screw 42 is inserted through one of said portions, then through said rod and the tape, and a screw seated in the other one of said portions, thus holding the parts securely together.

In the construction of the pulley 34 a central cylindrical portion 43 is employed, which is identical with the cylindrical portion 39. The flange 41 is used for one side of said pulley and the flange 44 is added to the other end of the pulley to complete it. The upper end of the tape 35 is inserted between the parts composing the cylindrical portion 43 and through a slot in the portion 29 of the rod, and the screw 45 is inserted through one of the portions composing the cylindrical portion 43, then through the rod and tape, and is screw-seated in the other one of said portions, thus holding the parts securely together.

A flange 45 projects outwardly from the edge of the flange 44. A pin 46 is inserted in the end of the pipe 29 and forms one of the spindles upon which the parts turn. A collar 47 is placed loosely upon the pin 46 and has upon its inner end a flange 48, which flange operates loosely in a circular recess formed in the outer face of the pulley 34. A disk 49 is inserted within the recess formed by the flange 45 and against the outer face of the flange 44. An opening through the center of said disk 49 is of such a size that the collar 47 will readily pass through said opening, but the flange 48 will not pass through said opening and the collar 47 is held in the desired position upon the pin 46 by means of the disk 49 engaging the outer face of the flange 48. The disk 49 is connected to the flange 44 by means of the rivets 50. Slots 51 and 52 are formed upon opposite sides of the collar 47 and extend longitudinally of said collar. Gravity-pawls 53 and 54 are pivotally attached to the outer face of the disk 49 by means of the pins 55, with their free ends in position to engage the slots 51 or 52, as the case may be.

The bracket 32 is formed of sheet metal and consists of the portion 56, which is attached to the casing by means of the screws 57, and the portion 58, which is bent outwardly at right angles to the portion 56 and has a bearing to receive the outer end of the rod 30.

The bracket 33 is formed of sheet metal and consists of the portion 59, which is attached to the window-casing by means of the screws 60, and the portion 61, which extends outwardly from the inner edge of the portion 59 and at right angles thereto. In the outer end of the portion 61 is an aperture 62, which forms a bearing for the pin 46. Below the aperture 62 is formed a rectangular aperture 63, and in forming said aperture 63 the metal

is cut upon the sides and lower end, and the tongue 64 thus formed is bent at right angles to the metal from which it is cut and in position to engage the lower one of the slots in the collar 47, as shown in Fig. 5, thus preventing said collar from rotating by the rotation of the spindle 46. From the lower front end of the bracket 61 the portion 65 extends in position parallel with the tongue 64, and a rectangular aperture 66 is formed through said portion, and the tape 35 operates in said aperture.

When the window-casing is so constructed so that the brackets 32 and 33 cannot conveniently be used, a bracket, such as shown in Figs. 8 and 9, may be substituted.

The bracket 67 (shown in Fig. 8) consists of a plate of sheet metal having the apertures 68 and the bearing 69. Screws are inserted through the apertures 68 to hold the plate in position, and the end of the rod 28 operates in the bearing 69.

The bracket 70 (shown in Fig. 9) takes the place of the bracket 33 and is formed of a piece of sheet metal having the apertures 71 to receive the spindle 46 and the tongue 72, corresponding to the tongue 64, and the arm 73, having the rectangular aperture 74, which arm takes the place of the arm 65. The portion 75 extends downwardly from the outer end of the arm 73 and has apertures 76, through which screws are inserted to hold the bracket in position.

The operation of raising and lowering the shade-roller is practically the same as the operation of raising and lowering the lower edge of a shade. The operator pulls the tape 35 until the shade-roller has been elevated to any desired position. Then one of the pawls 53 or 54 will engage the upper one of the slots in the collar 47 and hold said shade-roller. When it is desired to lower the shade-roller, the operator pulls downwardly on the tape 35 until the pawls have been raised out of the slots. Then by releasing the tape 35 the roller may be lowered to the desired position and the pawls will again engage the collar and hold it in that position.

I claim—

1. In a window-shade adjuster, the combination with a spring-actuated roller carrying a shade, of movable brackets engaging the spindles of said roller, an adjustable extension-rod connecting said brackets, brackets attached to the window-casing, a rod rotatably mounted in said fixed brackets, the pulley 27 and the pulley 34 formed integral side by side and fixed upon the last-mentioned rod, the spindle 46 inserted in the end of said rod, the collar 47 loosely mounted upon said spindle, means of holding said collar from rotation, the disk 49 attached to the outer face of said pulley 34 and holding said collar in position, the gravity-pawls 53 and 54 attached to said disk in position to engage the notches in said collar, a pulley upon the opposite end of said rod and corresponding to

the pulley 27, tapes connecting said pulleys to said extension-rod and a tape attached to said pulley 34, substantially as specified.

2. In a window-shade adjuster, a spring-actuated roller carrying a window-shade, movable brackets engaging the spindles of said roller, a suitable connection between said movable brackets, fixed brackets attached to the framework of the window, the extension-rod 28 having the tubular section 29, the pulley 27 and the pulley 34 formed integral side by side and fixed upon the outer end of said tubular section 29, the spindle 46 inserted in the end of said tubular section, the collar 47 loosely mounted upon said spindle, means of holding said collar from rotation, the disk 49 attached to the outer face of said pulley 34 and holding said collar in position, the gravity-pawls 53 and 54 attached to said disk in position to engage the notches in said collar, the pulley 26 upon the opposite end of said extension-rod 28 from the pulley 27, tapes connecting said pulleys 26 and 27 with the curtain-roller and a tape attached to said pulley 34, substantially as specified.

3. In a window-shade adjuster, the pulley 27 and the pulley 34 formed integral side by side, the tubular section 29 supporting said

pulleys, the spindle 46 inserted in the end of said tubular section, the collar 47 loosely mounted upon said spindle, the disk 49 attached to the outer face of said pulley 34 and holding said collar in position, and the gravity-pawls 53 and 54 attached to said disk in position to engage the notches in said collar, substantially as specified.

4. In a window-shade adjuster, the pulley 27 and the pulley 34 formed integral side by side, the tubular section 29 supporting said pulleys, the spindle 46 inserted in the end of said tubular section, the collar 47 loosely mounted upon said spindle, the disk 49 attached to the outer face of said pulley 34 and holding said collar in position, the gravity-pawls 53 and 54 attached to said disk in position to engage the notches in said collar, and the tongue 64 projecting from the bracket 33 and engaging one of the slots in said collar 47, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

HERBERT M. STURGIS.

Witnesses:

S. G. WELLS,
MAUD GRIFFIN.