No. 620,991. Patented Mar. 14, 1899.

H. M. STURGIS.

WINDOW SHADE ADJUSTER.

(Application filed Feb. 14, 1898.)

(No Model.)

Fig. 1.

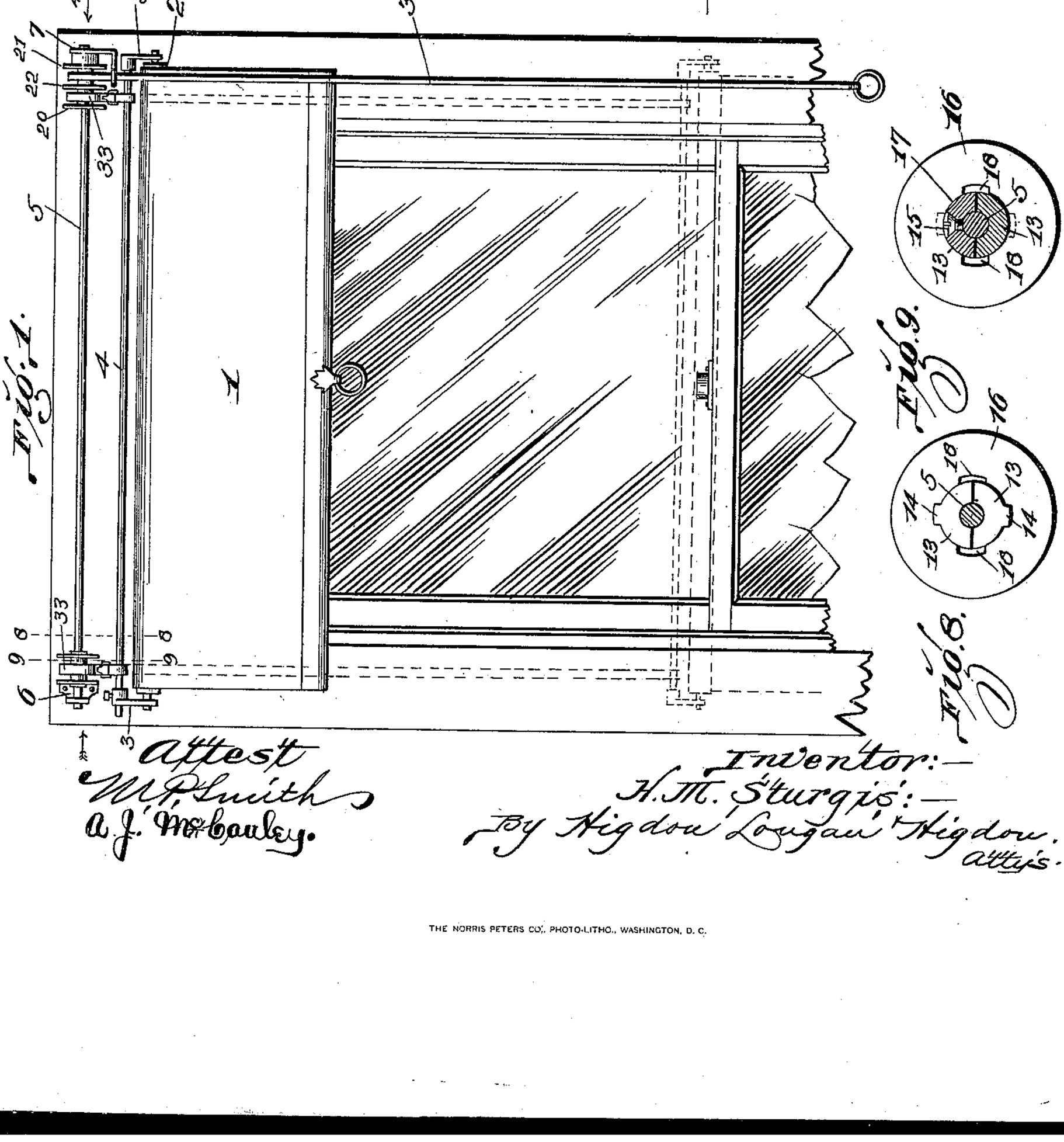

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

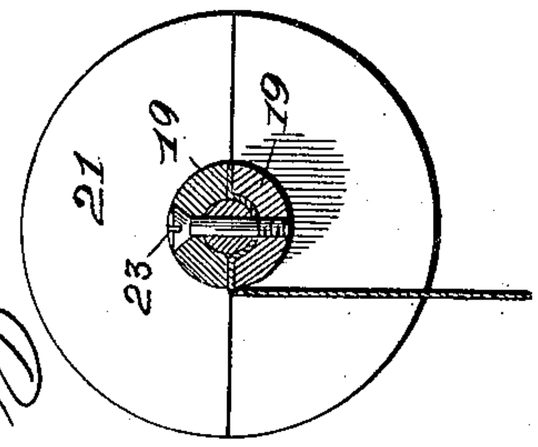

Fig. 7.

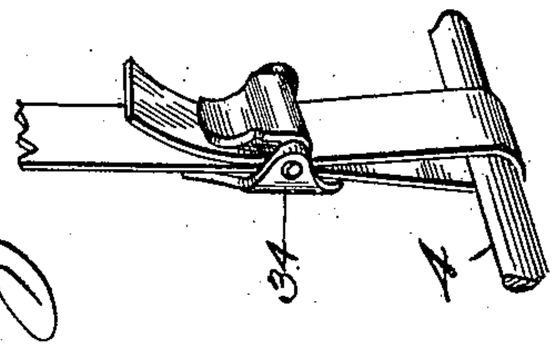

Fig. 8.

Fig. 9.

Attest
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UNITED STATES PATENT OFFICE.

HERBERT M. STURGIS, OF KANSAS CITY, MISSOURI.

WINDOW-SHADE ADJUSTER.

SPECIFICATION forming part of Letters Patent No. 620,991, dated March 14, 1899.

Application filed February 14, 1898. Serial No. 670,285. (No model.)

To all whom it may concern:

Be it known that I, HERBERT M. STURGIS, of Kansas City, Jackson county, 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 thereof.

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

Figure 1 is a front elevation of my improved window-shade adjuster, the same being applied to a window. Fig. 2 is a side elevation of the window and adjuster. Fig. 3 is a view in perspective of a bracket made use of in fixing the adjuster to the window-casing. Fig. 4 is an end elevation of the parts of the adjuster, seen looking in the direction indicated by the arrow 4, Fig. 1. Fig. 5 is a vertical sectional view taken approximately on the line 5 5 of Fig. 4. Fig. 6 is a vertical cross-sectional view taken approximately on the line 6 6 of Fig. 5. Fig. 7 is a view in perspective of a clamp made use of in carrying out my invention. Fig. 8 is a cross-sectional view taken approximately on the line 8 8 of Fig. 1. Fig. 9 is a cross-sectional view taken approximately on the line 9 9 of Fig. 1.

Referring by numerals to the accompanying drawings, 1 indicates the shade, the same being wound upon an ordinary spring shade-roller 2, which shade-roller is carried by the depending fingers 3, which fingers are adjustably mounted upon the rod 4. A rod 5 is rotatably mounted in the brackets 6 and 7, said brackets being secured in horizontal alinement to the top of the window-frame. The left-hand bracket 6 is of any ordinary well-known form, while the right-hand bracket 7 is seen in perspective in Fig. 3, said bracket 7 consisting of the base-plate 8, which is seated against the face of the window-frame, and projecting outwardly from the upper end of said plate is an arm 9, in the outer end of which is formed a rectangular notch 10. An arm 11 projects downwardly from the outer end of the arm 9, and the lower end of said arm 11 is turned inwardly at right angles to the body portion of said arm, and a transverse slot 12 is formed in this inwardly-turned end.

Located upon the left-hand end of the rod 5 is a pair of mating semicylindrical blocks 13, each being provided on their ends with the retaining-lips 14, and passing through one of said blocks 13 is a set-screw 15. A pair of disks 16, provided in their centers with the apertures 17 and with the oppositely-arranged notches 18, communicating with said apertures, combine with the blocks 13 in forming the tape-winding drum at the left-hand end of the rod 5. To mount said drum upon the rod 5, the mating blocks 13 are positioned on said rod, after which the disks 16 are passed over the mating blocks, during which movement the retaining-lips 14 pass through the notches 18 in said disks 16, and after said disks are arranged upon the ends of the mating blocks and turned so as to bring the notches 18 at points at right angles to the retaining-lips 14 the set-screw 15 is tightened against the rod 5. This operation tends to press the blocks 13 apart, and thus exert a pressure against the disks 16, and in this manner the various parts of the drum so formed are very rigidly held and said drum itself is rigidly located at the desired point on the rod 5.

The double tape-winding drum at the right-hand end of the rod 5 comprises the mating semicylindrical blocks 19, which are identical in form and construction, said blocks 19 being provided on their ends with the integral semicircular flanges 20 and 21 and at their centers with the integral semicircular flanges 22. When the blocks 19 are properly located upon the rod 5 and the screws 23 are passed through said mating blocks and through the end of the rod 5, the pairs of semicircular flanges 20, 21, and 22 will unite in forming the adjacent tape-winding drum. Before the semicylindrical blocks 19 are locked upon the rod 5, the ends of the tapes that wind upon the mating drums are inserted between the mating halves of said drums and held therein when said mating halves are clamped together, this construction being clearly illustrated in Fig. 6. Formed integral with the face of the mating flanges 21 and extending laterally therefrom are the semicircular flanges 24, and a plate 25 is located in the circular recess formed by the mating flanges 24, said plate being held in

position by allowing the ears 26, which are formed integral with the periphery of said plate, to pass through suitable apertures formed in the meeting edges of the mating flanges 24.

Arranged for rotation upon the end of the rod 5 that projects beyond the double winding-drums is a ratchet 27, the same being composed of a circular block, in the periphery of which is a pair of oppositely-arranged notches 28, and the opposite faces of the outer end of this block are flattened, as indicated by the numeral 29, and said block 27 is held to rotate upon the rod 5, for the reason that the end 30 of said rod is slightly enlarged or riveted out, so as to retain said block.

Pivoted to the face of the plate 25 is a pair of pawls 31, the same being so positioned as that their teeth 32 will at certain points in their rotation engage in the notches 28 of the ratchet 27. When the rod 5 is positioned in the brackets 6 and 7, the outer end of the ratchet 27, which is provided with the flattened faces 29, rests in the notch 10 in the bracket 7.

A pair of tapes 33 are wound, one upon the drum at the left-hand end of the rod 5, and one upon the left-hand one of the pair of drums at the right-hand end of the rod 5, in such a manner as that their outer ends depend from the rear sides of said drums, and said outer free ends are looped around the rod 4, and suitable adjustable clamps 34 connect said free ends with the body portions of the tapes.

A tape or cord 35 is wound upon the right-hand one of the pair of drums at the right-hand end of the rod 5 in such a manner as that its free outer end extends downwardly in front of the drum, and said free end is passed through the slot 12 in the lower end of the arm 11, and to the end of said tape or cord is affixed a ring or like device.

The shade of my improved device is manipulated in the usual manner. When it is desired to adjust said shade up or down, the operator manipulates the cord or tape 35. Should the shade be at the top of the window, as shown in solid lines in Fig. 1, and it is desired to locate the shade over the lower half of the window, as indicated by dotted lines in the same figure, the operator engages the tape 35 and gives the same a quick downward movement and by so doing disengages the tooth 32 of the pawl 31, that has been resting in the top one of the notches 28 of the ratchet 27. By their own weight the shade 1, roller 2, rod 4, and depending fingers 3 will pass downwardly to the desired position, during which movement the operator allows the cord or tape 35 to pass freely through the hand. As said shade descends the tapes 33 will unwind and the rod 5 will necessarily rotate rapidly, and as the pawls 31 rotate with said rod 5 they will be held out of engagement with the notches of the ratchet 27 by the well-known action of centrifugal force, the tape 35 being wound upon its drum in an opposite direction to the winding of the tapes 33. Said tape 35 will during this movement be wound upon its drum. When the shade has been adjusted relative to the window, said shade itself may be manipulated up or down upon its roller 2. When it is desired to again elevate the shade and roller, the operator only has to pull downwardly upon the tape 35 and in so doing unwinds said tape and rewinds the tapes 33.

A device of my improved construction is simple, inexpensive, may be located upon any window, and by its use a window-shade and roller may be adjusted to any desired point upon a window.

I claim—

1. In a window-shade adjuster, a drum constructed with a pair of mating semicylindrical blocks, ears formed integral with the ends of said blocks, a set-screw passing through one of said blocks, and a pair of disks adapted to be located upon the ends of said mating blocks, which disks are provided with notches through which the ears pass when locating said disks on the blocks, substantially as specified.

2. In a window-shade adjuster, a rod rotatably mounted, a pair of semicylindrical blocks adjustably located upon one end of said rod, ears formed integral with said blocks, a set-screw passing through one of said blocks, a pair of disks arranged upon the ends of the mating blocks and locked thereon by the action of the set-screw, a pair of winding-drums located upon the opposite end of the rod, a ratchet loosely mounted upon the end of the rod adjacent the double winding-drum, a sustaining-bracket engaging said ratchet and holding the same against rotation, and pawls carried by the double winding-drum, the points of which pawls are adapted to engage the upper notch of the ratchet, substantially as specified.

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

HERBERT M. STURGIS.

Witnesses:
EDWARD E. LONGAN,
M. P. SMITH.