

No. 710,079.

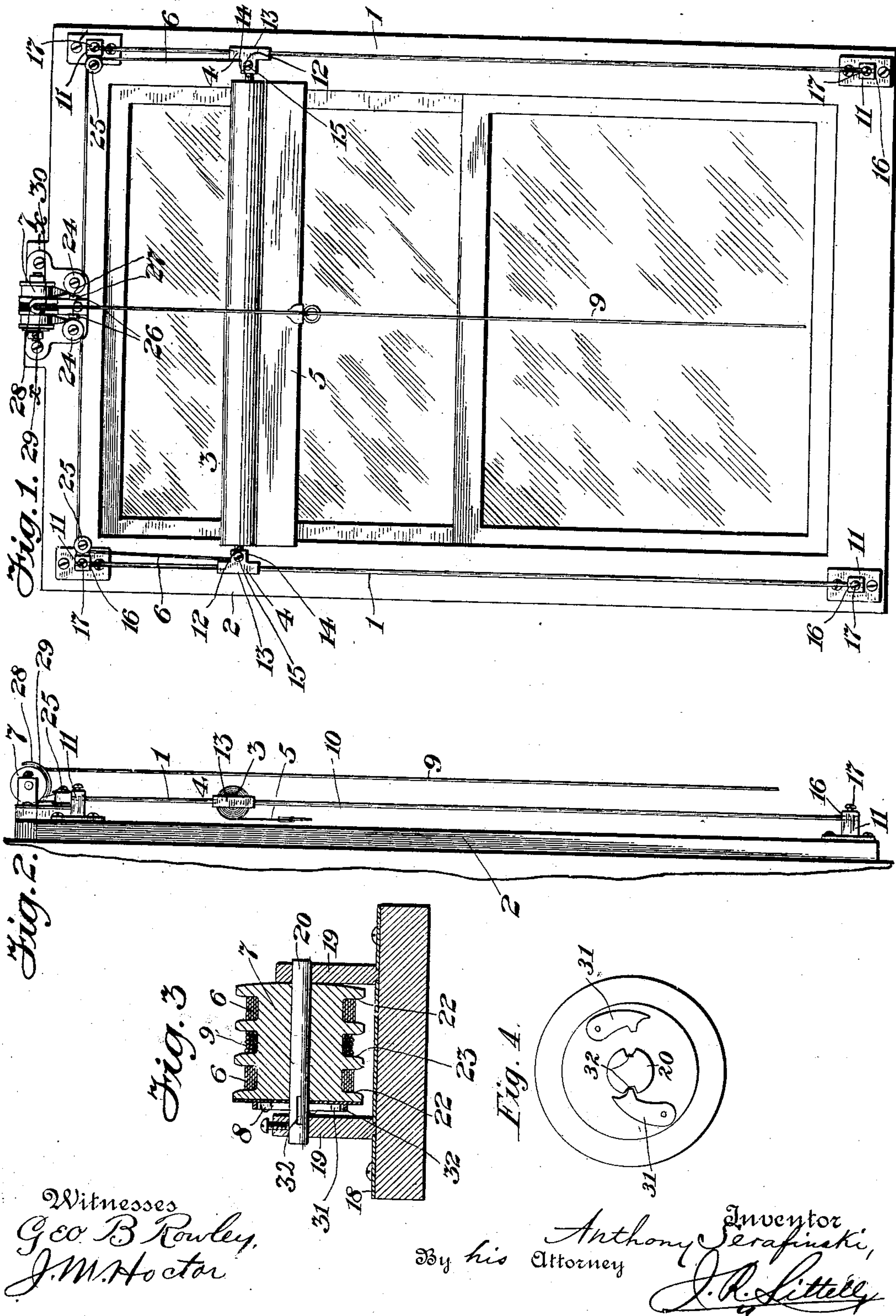
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MEANS FOR SUSTAINING AND ADJUSTING WINDOW SHADES.

(Application filed June 13, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

ANTHONY SERAFINSKI, OF JERSEY CITY, NEW JERSEY.

MEANS FOR SUSTAINING AND ADJUSTING WINDOW-SHADES.

SPECIFICATION forming part of Letters Patent No. 710,079, dated September 30, 1902.

Application filed June 13, 1901. Serial No. 64,451. (No model.)

To all whom it may concern:

Be it known that I, ANTHONY SERAFINSKI, a subject of the Emperor of Russia, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Means for Sustaining and Adjusting Window-Shades, of which the following is a specification.

This invention relates to means for sustaining and adjusting window-shades; and it has for its object to provide an improved device of this class whereby a window-shade may be bodily adjusted vertically of the window-frame and may be maintained positively in position of vertical adjustment and against lateral and forward and backward movement.

By means of my improvements the window-shade may be brought into any desired position with relation to the area of the window, and the shade proper may be raised or lowered in the customary manner by rolling or unrolling the same from the roller.

In the drawings, Figure 1 is an inside elevation of the window-frame provided with a window-shade and with the improved features constituting my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a detail horizontal sectional view taken upon the line $x x$, Fig. 1. Fig. 4 shows an end elevation of the windlass or pulley.

Corresponding parts in all the figures are denoted by the same reference characters.

Referring to the drawings, in carrying out my invention I provide vertical tracks or guides 1, which are arranged at either side of the window-frame 2 and with which the ends of the shade-roller 3 are slidably connected, as at 4, permitting the raising and lowering of the shade-roller and the shade proper, 5, which is wound upon the same in the customary manner. The shade-roller 3 may be of the common "Hartshorn" or similar type, which enables the shade proper to automatically maintain any desired rolled or unrolled condition and to be automatically wound upon the roller. The window-shade is directly supported by means of flexible devices 6, each of which connects at one end with the shade-roller and at the other with a windlass or pulley 7, upon which said flexible devices may be wound and which embodies means 8 for automatically locking the windlass or pulley

against rotation to maintain the roller 3 in position of vertical adjustment. The windlass or pulley 7 is also provided with a supplemental flexible device 9, whereby said windlass or pulley may be operated to raise the shade-roller or permit the same to be lowered. The windlass 7 is preferably mounted upon the window-frame at the top of the same, as illustrated.

In the preferred form of construction the guide devices 1 consist each of a vertically-arranged rod or wire, the ends of which are clamped in brackets 11, secured, respectively, at the top and at the bottom of the window-frame and at one side of the same. The roller 3 is provided with the customary end bearings 12, which are fitted in brackets 13, which are slidably mounted upon the rods or wires 1, so that the roller 3 is only permitted a vertical movement and is prevented from displacement or swinging movement laterally and toward and away from the window-frame. The brackets 13 are provided with inwardly-projecting sockets 14, in which the end bearings 12 of the roller fit, and said sockets 14 embody binding-screws 15, whereby said end bearings may be firmly connected with the brackets 13. The brackets 11 also embody sockets 16, in which the ends of the wires or rods 1 are secured by means of binding-screws 17.

The windlass 7 is provided with a base-plate 18, which may be readily secured to the top of the window-frame, and two spaced arms or brackets 19 project outwardly from said base-plate and carry a shaft 20, upon which the pulley or windlass body 7 is rotatably mounted. The pulley 7 is provided with three annular peripheral grooves, in the endmost of which, 22, the flexible devices 6 are adapted to be wound and in the intermediate of which grooves 23 the flexible device 9 is adapted to be wound. From the pulley 7 the flexible devices 6 pass each about a guide-pulley 24, which guide-pulleys are arranged in spaced relation at the bottom of the base-plate 19, and thence pass about guide-pulleys 25, which are carried by the brackets 11 at the inner sides of the same. A guard 26 is provided for each of the guide-pulleys 24, and each of said guards 26 consists of an outwardly-projecting finger 27,

which is secured to the base-plate 18 and between which and the respective pulley the flexible device 6 passes. The lower end of each of the flexible devices 6 is directly connected with one of the brackets 13, and the flexible devices 6 are of proper length and are properly wound upon the pulley 7 to maintain the roller 3 in horizontal position. I also provide a guard 28 for the flexible device 9 to prevent the same from running out of the intermediate grooves of the pulley, and said guard consists of a curved arm 29, which is slightly spaced from the lower peripheral portions of the pulley 7 and is provided with an elongated slot 30, through which the flexible device 9 passes.

The means 8 for locking the pulley 7 of the windlass to prevent the lowering of the window-shade consist of a plurality of pivoted dogs 31, which are carried at one end of the pulley 21 and are adapted to take into a notch 32, formed in the shaft 20, by gravity when the pulley 7 is slowly revolved, but which dogs by their centrifugal force will be prevented from engagement with said notch when the pulley 21 is speedily revolved.

The operation and advantages of my improved means for sustaining and adjusting window-shades will be readily understood. The shade, consisting of the shade proper and the shade-roller, may be adjusted to any desired height upon the window-frame along the guides 1 by means of the flexible device 9, the locking means of the pulley 21 serving to lock the shade in desired position. The shade may be released from locked position by pulling violently upon the flexible device 9 and then allowing the shade to instantly fall, so that the dogs upon the pulley are by centrifugal force maintained out of engagement with the notch in the shaft of the pulley. The operative area of the shade proper, 5, may be regulated by unrolling the shade proper from the roller or rolling the same thereon in the customary manner, and it is thus possible to provide any portion of the window with the desired area of shade proper to suit all conditions of passage of light and air through the window.

The flexible devices 6 are guided and retained in their movement by the guide-pulleys 24 and 25 and the guards 26, and the flexible device 9 is prevented from displacement from its groove in the pulley 21 by the guard 28.

The entire device may be readily attached to a window-frame and is very simple in construction and is operated entirely by the flexible device 9 and by a curtain-cord or other device such as customarily employed.

I do not desire to be understood as limiting myself to the details of construction and arrangement as herein described and illustrated, as it is manifest that variations and modifications may be made in the features of construction and arrangement in the adaptation of the device to various conditions of use

without departing from the spirit and scope of my invention and improvements. I therefore reserve the right to all such variation and modification as properly fall within the scope of my invention and the terms of the following claims.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. Improved means of the class described, comprising vertical guides secured at the sides of the window and embodying sockets provided with set-screws at the top and bottom of the window-frame, those at the top provided at one side with pulleys and rods having their ends secured in said sockets, sleeves slidable on said guides and provided at one side with sockets, a shade-roller carried by said sockets, a windlass mounted at the top of the window and provided with three annular peripheral grooves, said windlass having on one of its heads pivoted dogs adapted normally to engage sockets in the windlass-spindle, flexible devices connected with the slidable sockets and extending over pulleys to and winding around the end grooves in the windlass and a flexible device wound around the middle groove of the windlass.

2. Improved means of the class described, comprising vertical guides secured at the sides of the window-frame and embodying sockets provided with set-screws at the top and bottom of the window-frame, those at the top provided at one side with pulleys and rods having their ends secured in said sockets, a shade-roller, sockets adapted to receive the ends of the roller and provided at one side with a vertical opening through which the guides pass, a windlass mounted at the top of the window-frame and provided with three annular peripheral grooves, said windlass having on one of its heads pivoted dogs adapted normally to engage sockets in the windlass-spindle, flexible devices each connected at one end with one of the sockets and at the other end with one of the end grooves of the windlass, a flexible device connected at one end with the middle groove of the windlass, and guards whereby such flexible devices are prevented from displacement upon the windlass and pulleys.

3. Improved means of the class described, comprising vertical guides adapted to be detachably secured at the sides of the window-frame and embodying sockets provided with set-screws at the top and bottom of the window-frame, those at the top provided at one side with pulleys and rods having their ends secured in said sockets, sleeves slidable on said guides and provided at one side with sockets, a shade-roller having its ends secured in said sockets, a windlass mounted at the top of the window-frame and provided with three annular peripheral grooves, said windlass having on one of its heads pivoted dogs adapted normally to engage sockets in the windlass-spindle, flexible devices each con-

connected at one end with one of the sockets and at the other end with one of the end grooves of the windlass, a flexible device connected at one end with the middle groove of said windlass, and guards whereby such flexible devices are prevented from displacement upon the windlass.

4. Improved means of the class described, comprising vertical guides secured at the sides of the window-frame and embodying sockets provided with set-screws at the top and bottom of the window-frame, those at the top provided at one side with pulleys and rods having their ends secured in said sockets, sleeves slidable on said guides and provided at one side with sockets, a shade-roller carried by said sockets, a windlass mounted at the top of the window-frame and provided with three annular peripheral grooves, said windlass having on one of its heads pivoted dogs adapted normally to engage sockets in the windlass-spindle, flexible devices each connected at one end with one of the sockets and at the other end with one of the end grooves of the windlass, a flexible device connected at one end with the middle groove of the windlass, and guards whereby such flexible devices are prevented from displacement upon the windlass.

5. Improved means of the class described, comprising brackets mounted on each side of the window-frame at the top and bottom and provided with sockets, the upper brackets being also provided with pulleys; guide-rods secured in the opposing sockets; sleeves slidable on the rods and provided at one side with sockets; a shade-roller having its ends secured in the sliding sockets; a windlass mounted at the top of the window and provided with three annular peripheral grooves, said windlass having on one of its heads pivoted dogs adapted normally to engage sockets in the windlass-spindle; flexible devices connected with the sliding sockets and passing over pulleys and the grooves in the windlass, a flexible device adapted to wind around the middle groove of the windlass, and guards slightly spaced from the pulleys and windlass and the middle one provided with an elongated slot to prevent displacement of the flexible devices.

In testimony whereof I have signed my name in the presence of the subscribing witnesses.

ANTHONY SERAFINSKI.

Witnesses:

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