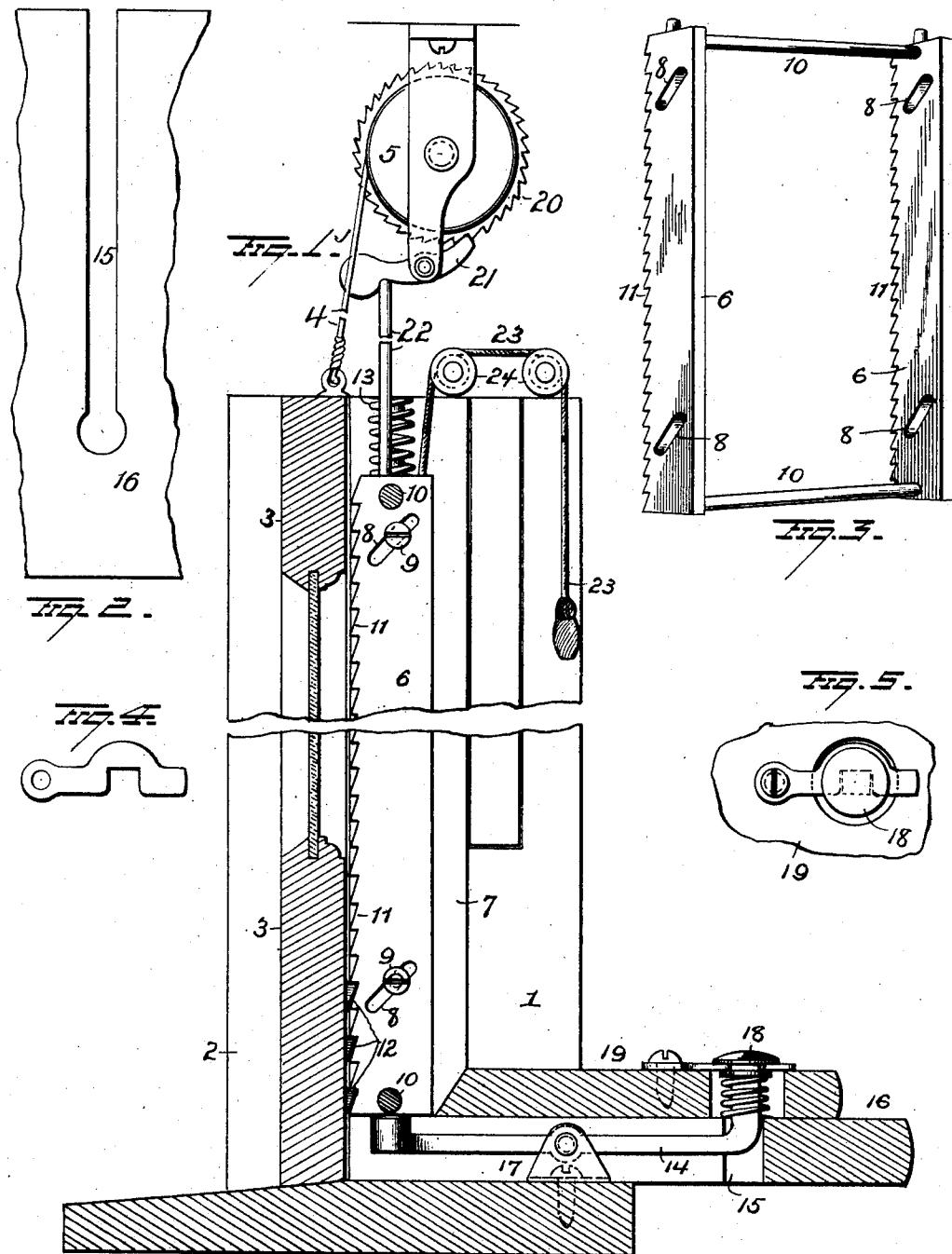


No. 830,604.

PATENTED SEPT. 11, 1906.

J. C. LODOR.
SASH CONTROLLING MECHANISM.
APPLICATION FILED FEB. 23, 1906.



WITNESSES

Ed. Nottingham
G. F. Downing

INVENTOR

J. C. Lodor
By H. A. Seymour
Attorney

UNITED STATES PATENT OFFICE.

JAMES CRAIG LODOR, OF WILMINGTON, NORTH CAROLINA.

SASH-CONTROLLING MECHANISM.

No. 830,604.

Specification of Letters Patent.

Patented Sept. 11, 1906.

Application filed February 28, 1906. Serial No. 302,481.

To all whom it may concern:

Be it known that I, JAMES CRAIG LODOR, a resident of Wilmington, in the county of New Hanover and State of North Carolina, have 5 invented certain new and useful Improvements in Sash-Controlling Mechanism; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art 10 to which it appertains to make and use the same.

My invention relates to improvements in sash-controlling mechanism, the object of the invention being to provide an upwardly 15 spring or balance drawn sash with improved mechanism for stopping and holding the same at any point; and the invention consists in certain novel features of construction and combinations and arrangements of parts, as 20 will be more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in vertical cross-section, illustrating my improvements; and Figs. 2, 3, 4, and 5 are 25 views of various details of construction.

1 represents a window-frame, and 2 the outer guide-strip, against the inner side of which the sash 3 is mounted and connected at its top by a strap or band 4 with a spring- 30 balance wheel 5, and two or more of these spring-balances 5 may be employed to overcome the weight of the sash and raise the same when permitted to do so.

6 represents sash-holding bars, which are 35 located beside the inner sash-guides 7 and provided with diagonal or cam slots 8, in which headed screws or pins 9 are located and secured to the inner guides 7. These bars 6 may be connected by cross-rods 10 to 40 form a rigid frame, compelling the bars 6 at both sides to move simultaneously. Bars 6 are made with ratchet-teeth 11 on their edges adjacent to the sash to receive teeth 12 on the sash and hold the latter against movement, and springs 13 bear downward on the 45 upper ends of bars 6 to hold them in engagement with the sash.

A lever 14 is located in a recess 15 in the sill 16, is pivoted between its ends in a 50 bracket 17, and bears at its inner end against the frame, of which bars 6 form a part. The outer end of lever 14 is made with a knob or button 18, and a false sill 19 covers this lever, but is provided with an opening or pocket for 55 button 18, to permit the latter to be operated.

The spring-balance 5 is provided with a toothed wheel 20, engaged and normally held by a pawl 21, pivoted between its ends, and an upwardly-projecting bar 22 on a bar 6 is 60 adapted to engage this pawl 21 and release it from toothed wheel 20 when the bar 6 is elevated. A cord or chain 23 is secured at one end to a bar 6 or to the frame of which the bars form a part and is passed over pulleys 24 65 and hangs down beside the window in convenient reach of an operator.

The operation of my improvements is as follows: When it is desired to open the sash, either the button 18 is depressed or cord 23 70 pulled down, or both operated, to elevate bars 6. This upward movement of bars 6 by reason of the cam-slots 8 and screws or pins 9 will cause the bars to move away from the sash and release the same, and the bar 22 will 75 engage pawl 21, release the toothed wheel 20, and permit the spring-balance to raise the sash. When the button 18 or cord 23 is released, the springs 13 will force the bars 6 into engagement with the sash and hold the 80 same against further movement.

While my improvements are especially adapted for use on car-windows, they are also well adapted for other windows, and I do not wish to be limited to car-windows. 85

A great many slight changes might be made in the general form and arrangement of the parts described without departing from my invention, and hence I do not restrict myself to the precise details set forth, but 90 consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device of the character described, the combination with a sash, of a bar located beside the sash and having inclined or cam slots, pins or screws in said slots, a spring compelling the bar to move downwardly and against the sash, and means for elevating the bar to release the sash. 100

2. In a device of the character described, the combination with a sash, of a bar located beside the sash having inclined or cam slots, pins or screws in said slots, a toothed rack on the edge of the bar, teeth on the sash to engage the toothed rack, a spring pressing downward on the bar, and means for raising the bar. 110

3. In a device of the character described,

the combination with a sash, of a bar located beside the sash having inclined or cam slots, pins or screws in said slots, a spring exerting downward pressure on the bar and holding the same in engagement with the sash, a spring-balance exerting an upward pull on the sash, a lever to force the bar upward and away from the sash, and a push-button on said lever.

10 4. In a device of the character described, the combination with a sash and a spring-balance exerting an upward pull on the sash, of a toothed wheel on the spring-balance, a pawl engaging the toothed wheel, a frame engaging the sash, a bar on the frame to engage the pawl and release the toothed wheel when the frame is elevated, a lever to engage the frame to elevate the same, and a cord or other flexible device connected with the frame and also adapted to move the frame upward.

15 5. In a device of the character described,

the combination with a sash, and a spring-²⁰
balance exerting an upward pull on the sash, of a toothed wheel on the spring-balance, a pawl engaging the toothed wheel, a frame engaging the sash, a bar on the frame to engage the pawl and release the toothed wheel ²⁵
when the frame is elevated, a lever to engage the frame to elevate the same, and a cord or other flexible device connected with the frame and also adapted to move the frame upward.³⁰

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

JAMES CRAIG LODOR.

Witnesses:

ROBT. C. MERRITT,
S. F. BURBANK.