GEORGE K. RUSSELL, OF NEW YORK, N. Y.

AUTOMATIC WINDOW FOR BANKS.

No. 830,928.


To whom it may concern:

Be it known that I, GEORGE K. RUSSELL, a citizen of the United States, residing at New York, county of New York and State of New York, have invented a certain new and useful Improvement in Automatic Windows for Banks and the like, of which the following is a specification.

My invention relates to a new and useful improvement in automatic windows for banks and the like, and has for its object to provide a simple and effective mechanism for raising and lowering the grating of a cashier’s window and locking the same when in its normally lowered position.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction in detail, referring by letter to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a sectional view showing my improved mechanism connected with the grating of a cashier’s window; Fig. 2, a plan view of the same.

In carrying out my invention as here embodied, A represents the window, to which is fitted the grating B, so as to slide vertically between the side rails of said window, and to this grating are secured the two rack-bars C, projecting downward below the shelf or counter D.

E represents two gear-wheels secured upon opposite ends of the shaft F and meshing with the rack-bars C, so as to raise said bars, and consequently the grating from which said bars depend. The shaft F has also secured thereon the pinion G, which meshes with the gear-wheel H, the latter being secured upon the shaft I, and this shaft also has secured thereon the pinion J, which meshes with the rack-bar K, said rack-bar being fitted to slide upon the rod K’. This rack-bar has projecting therefrom the lug a, upon which the lever M rests, this lever being pivoted at b, its forward end having a footrest or treadle Q for convenience in operating the same.

N is a pinion journaled upon the lever M, and to this lever is secured a ratchet-wheel N’, the spring-actuated pawl n engaging with the ratchet-wheel so as to prevent its backward rotation.

The result of this construction is that when the lever M is depressed by the foot of the operator the rack-bar K will be forced downward, thereby revolving the train of gears and raising the window-grating B, it being understood that the pinion N will be carried out of engagement with the gear-wheel H by this downward movement of the lever. Upon the release of the lever M the weight of the rack-bars C will reverse the movement of the train of gears, permitting the grating to fall and again elevating the rack-bar K. When the lever M reaches the limit of its forward movement, the pinion N will again enter into engagement with the gear-wheel H, and the pawl will prevent the pinion from revolving, and consequently lock the train of gears, so that the window cannot be raised except by the depression of the lever. From this description it will be seen that the window-grating will always remain closed, so that persons from the outside cannot have access to the counter should the cashier be temporarily absent, and yet the cashier may at any time raise the window by simply depressing the lever so as to receive or pass out moneys or other articles.

The rack-bars C may have weights attached thereto for accelerating their downward movement, and the lever M may have a spring M’ attached thereto for returning it to its normally elevated position.

Having thus fully described my invention, I claim as new and useful is—

1. The herein-described combination of a sliding grating, rack-bars depending therefrom, gear-wheels meshing with said rack-bars, a shaft upon which said gear-wheels are secured, a pinion also secured upon said shaft, a second gear-wheel meshing with said pinion, a second shaft upon which the last-named gear-wheel is secured, a second pinion secured upon this last-named shaft, a rack-bar meshing with the last-named pinion, a foot-lever adapted to engage a lug upon the last-named rack-bar whereby the latter may be depressed, a rod upon which the last-named rack-bar is adapted to slide, a pinion N journaled upon the foot-lever and adapted to pass into and out of mesh with the last-named gear-wheel, a ratchet secured to the foot-lever and a pawl.
carried by the pinion N adapted to engage the ratchet and prevent the movement of said pinion in one direction, as specified.

2. In combination with a sliding window-grating, two rack-bars C depending therefrom, two gear-wheels E meshing with said rack-bars, a shaft F upon which the gear-wheels are secured, a pinion G secured upon the shaft F, a gear-wheel H meshing with the pinion G, a shaft I upon which the gear-wheel H is secured, a pinion J secured upon the shaft I, a rack-bar K with which the pinion J meshes, a rod upon which the rack-bar K slides, a foot-lever M, a lug projecting from the rack-bar K with which said lever engages, a pinion journaled upon the lever, a ratchet-wheel N' secured to said lever, a pawl n carried by the pinion N engaging the ratchet-wheel to prevent its rotation in one direction and a spring M' attached to the lever M for normally holding it in an elevated position, as and for the purpose set forth.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

GEORGE K. RUSSELL.

Witnesses:

I. L. WOLDENBERRY,

JOHN J. HAYDEN.