

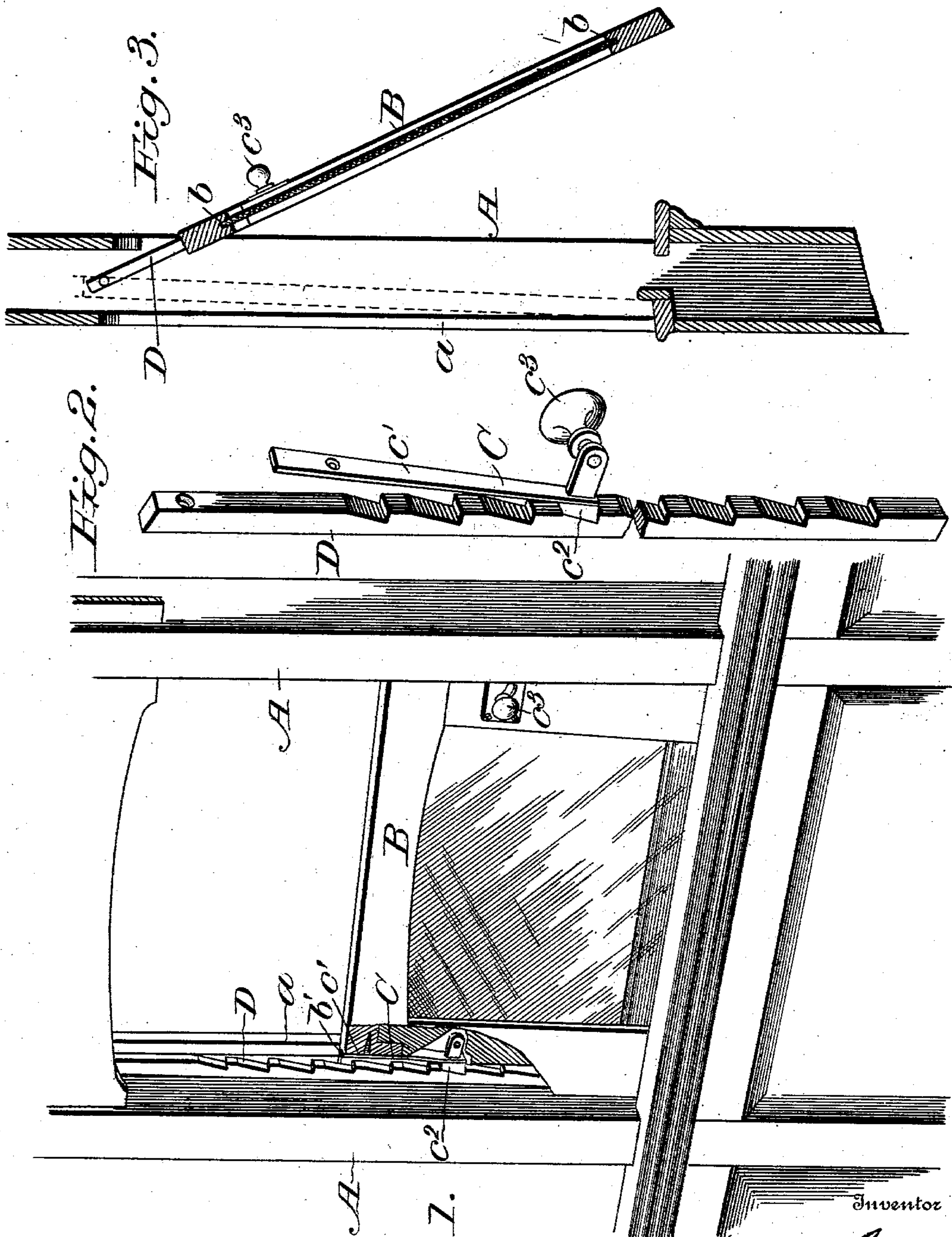
No. 743,633.

PATENTED NOV. 10, 1903.

C. E. GALE.
CAR WINDOW.

APPLICATION FILED APR. 21, 1903.

NO MODEL.



Witnesses

C. H. Walker
J. M. Moore.

Fig. 1.

By

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UNITED STATES PATENT OFFICE.

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CAR-WINDOW.

SPECIFICATION forming part of Letters Patent No. 743,633, dated November 10, 1903.

Application filed April 21, 1903. Serial No. 153,632. (No model.)

To all whom it may concern:

Be it known that I, CHARLES EDISON GALE, a citizen of the United States, residing at Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Car-Windows, of which the following is a specification.

This invention appertains to improvements in car-windows, the object being to provide a sliding and removable sash which is so attached to the window-casing that it may be maintained at any desired elevation, and the construction of the parts is such that when the sash is in place the supporting means therefor not only serve to hold the sash at the elevation where placed, but will by bearing upon a ratchet-bar make a tight joint between the frame and sash. The ratchet-bars, which form a part of the supporting means, being pivoted to the window frame or casing permits the sash to be swung therewith inward for the purpose of removing the sash from the sash-frame when desired.

The invention consists in the construction and combination of the parts, as will be hereinafter set forth, and specifically pointed out in the claims.

In the accompanying drawings, which form a part of this specification, Figure 1 is a perspective view looking toward the frame and sash from the interior of a car, the sash being partly lowered and broken away near its upper corner. Fig. 2 is a perspective view of the sash-holder and a ratchet-bar detached, and Fig. 3 is a vertical section showing the ratchet-bars and sash in position to be removed from the casing in full lines and in position to close the window-opening in dotted lines.

The window-casing A is constructed or made up generally in the usual manner, being provided about each side and top with projecting strips or outside beads *a a*, and at the bottom of the window-opening there is a ledge upon which the lower edge of the sash rests when it is fully raised. The lower part of the window frame or casing has a pocket for the reception of the sash when lowered, such pocket being made up in the usual manner. The sash-frame B is provided with re-

cesses *b b* to receive and retain the glass. The sash B in each of its vertical sides has recesses *b' b'*, which are deepened to receive sash-holders C C, each of the holders comprising flat spring-bars *c'*, having at their upper ends perforations through which pass screws which attach the spring-bar to the sash, so that its lower end will spring outward toward the sides of the casing. The springs have attached at their lower ends catches *c²* and inward-projecting portions, to which knobs *c³* are attached, the stems of the knobs being passed through slotted plates and openings in the sash which intersect the recesses, so that by moving the knobs toward each other the projecting portions *c²* of the sash-holder will be moved beyond the side recesses *b'*.

To each side of the casing or window-frame there are pivoted ratchet-bars D D, having inwardly-projecting teeth with inclined portions below the horizontal portions thereof, and when the catches of the sash-holder engage the ratchet-teeth they will hold the sash against downward movement. It will be noted that the sash-holders are located near the upper portion of the sash and when not restrained bear with considerable force against the ratchet-bars and press said bars against the casing, which results in forming a tight joint and prevents rattling of the sash in its frame, the construction shown providing means for holding the sash in the frame so that it will not bind, and when the holders are moved inward the sash may be lowered and held at any desired elevation.

To remove the sash from the casing, it is raised above the ledge, upon which it rests when the window-opening is closed. It is then swung inward, and when the holders are pressed out of line with the ratchet-teeth the sash may be removed from the casing. In ordinary use when the sash is lowered a part thereof drops into the usual pocket made for the reception therefor in the car-body.

A sash and holder made in accord with my invention can readily be applied to car or other windows as now constructed, and the many advantages accruing from the use of the construction shown are obvious.

The ratchet-bars, which are pivoted to the casing at their upper ends, may have a slight play inward and outward on their pivots and are forced against the casing by the spring-
5 holders.

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

1. In a car-window, the combination with a
10 window-casing and its sash-pocket, of ratchet-bars pivoted to the sides of the casing, a sash having recesses in its sides and sash-holders held by spring-pressure in engagement with the ratchet-bars, substantially as set forth.

15 2. In combination with a window frame or casing having ratchet-bars pivoted at their upper ends to the sides of the casing so that the parts of the ratchet-bars below the pivots may swing inward, of a sash having side re-

cesses and spring-actuated holders for en- 20
gagement with the ratchet-bars.

3. In combination with a window frame or casing of sash-guides comprising ratchet-bars pivoted at their upper ends to the casing, a
25 sash having side recesses, and spring-actuated holders for engagement with the ratchet-bars, the parts being constructed so that the ratchet-bars and sash held thereby may be swung inward to remove the sash from the casing substantially as set forth. 30

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CHARLES E. GALE.

Witnesses:

CLARENCE N. WALKER,
EUGENE W. JOHNSON.