No. 827,778. PATENTED AUG. 7, 1906.

W. H. BARRIERE.

WINDOW.

APPLICATION FILED DEC. 4, 1905.

Fig. 6.

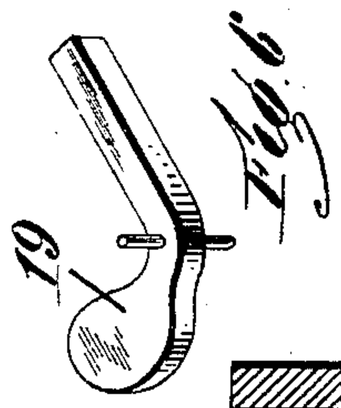

Fig. 4.

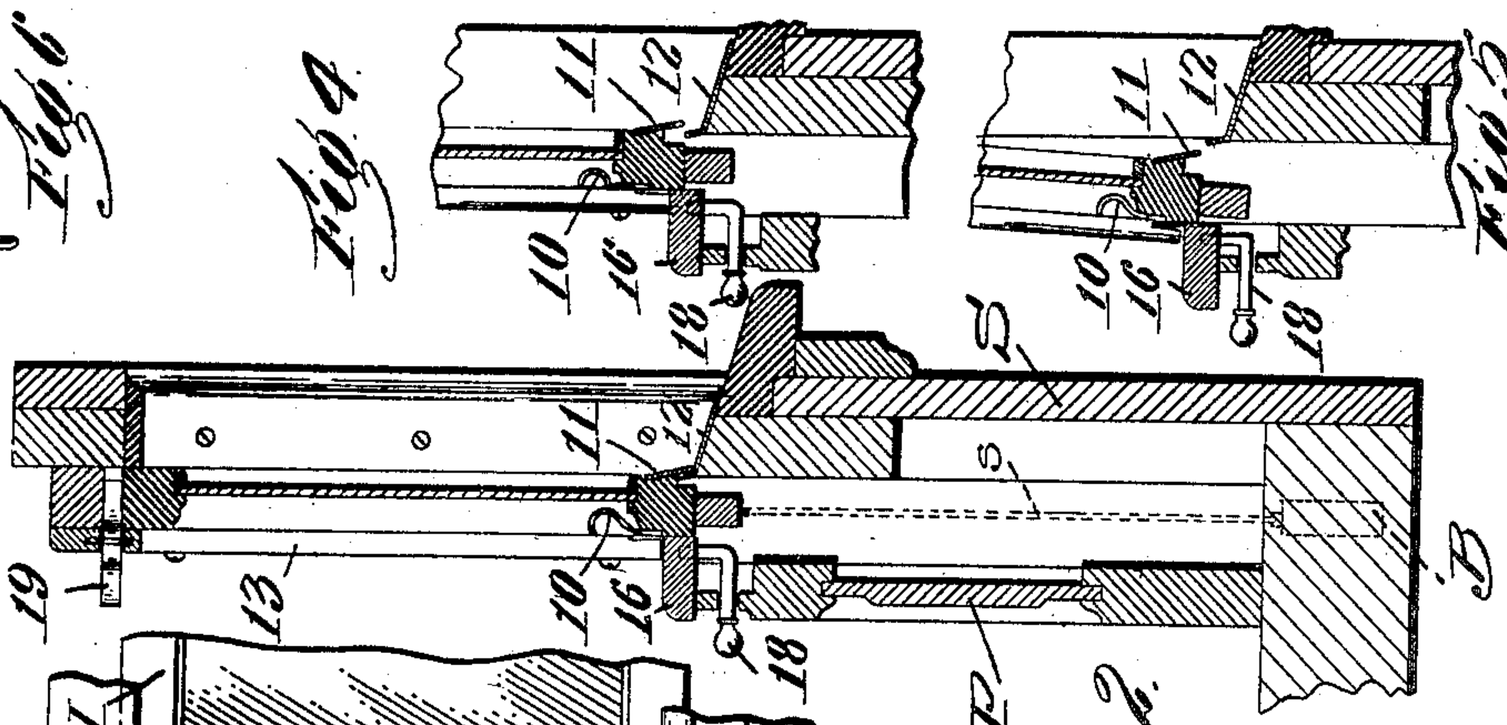

Fig. 5.

Fig. 3.

Fig. 2.

Fig. 1.

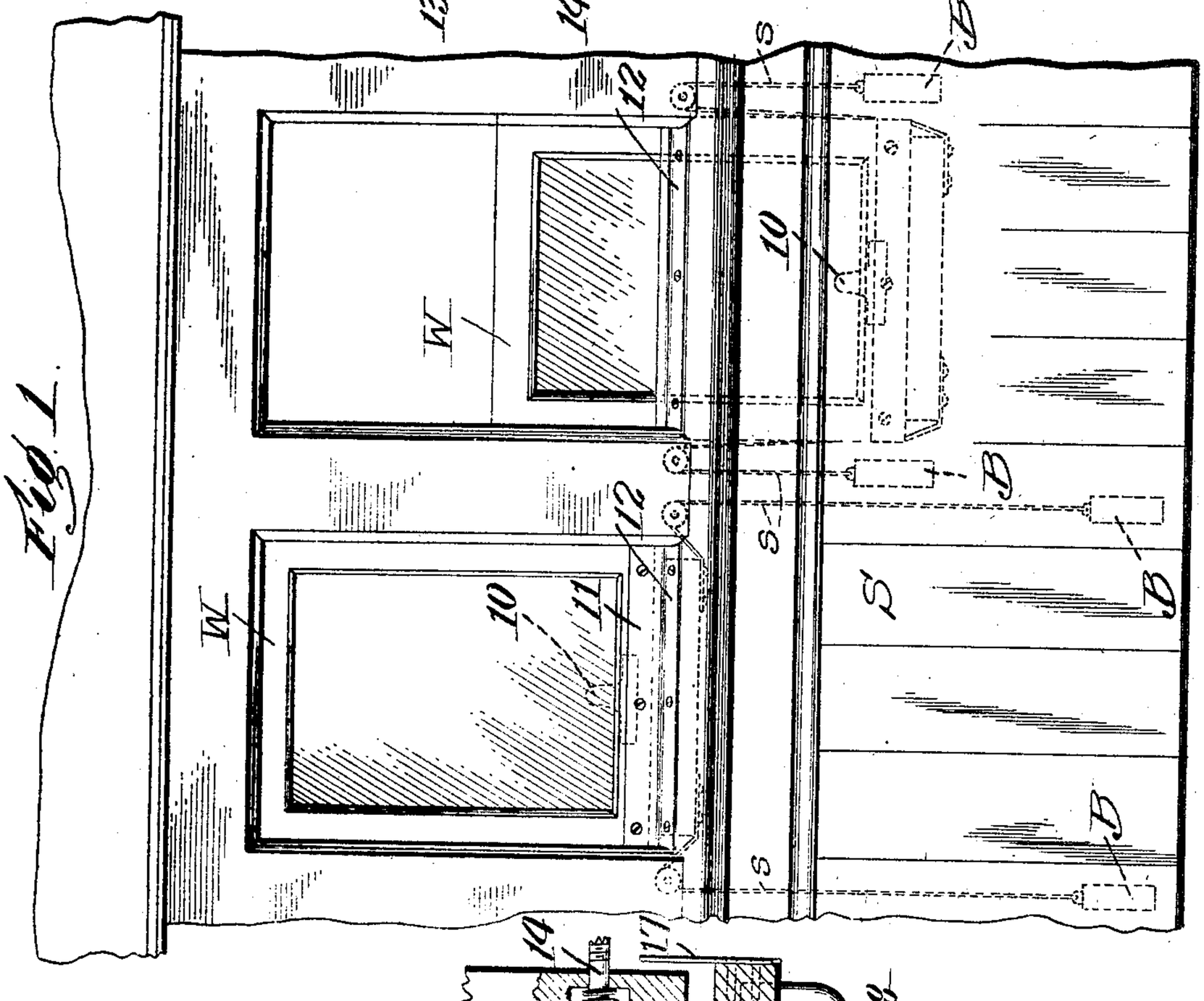

Fig. 7.

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UNITED STATES PATENT OFFICE.

WILFRID H. BARRIERE, OF WORCESTER, MASSACHUSETTS.

WINDOW.

No. 827,778. Specification of Letters Patent. Patented Aug. 7, 1906.

Application filed December 4, 1905. Serial No. 290,184.

To all whom it may concern:

Be it known that I, WILFRID H. BARRIERE, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Window, of which the following is a specification.

This invention relates to an improved construction for mounting a vertically-movable window-sash, so that it can be raised or lowered and can be swung laterally to lock the same in its closed position and in which tight joints with the window-sash will be maintained at all times.

Windows constructed according to this invention are especially designed for use in electric or railway cars and have been used in practice in the construction of lunch-wagons. These windows are also adapted for use in any ordinary building constructions.

In the accompanying drawings, Figure 1 is a side view of sufficient parts of a car to show the application of two window-sashes thereto according to this invention. Fig. 2 is a transverse sectional view thereof. Fig. 3 is a detail view showing the spring-guide strip for holding a sash in place. Fig. 4 is a fragmentary view similar to Fig. 2, showing the sash raised from locked position. Fig. 5 is a view similar to Fig. 4, showing the sash drawn inward, so that it can be lowered. Fig. 6 is a detail view of the top snap for locking the window-sash, and Fig. 7 is a fragmentary view showing one of the springs for holding the guide-pieces and bottom strip in contact with the window-sash.

In a window constructed according to this invention the sash is vertically movable and is held in its raised position by the engagement of a sheet-metal holding-strip near the bottom of the window-sash with a stationary ledge. The holding-strip carried by the window-sash is comparatively narrow and can be hooked over the ledge or part which coöperates therewith by a comparatively slight lateral movement of the window-sash. In practice the sash-holding devices are preferably on the outside of the window, and the guide-strips on the inside are held into engagement with the sash by spring-pressure, so that tight joints will be maintained not only when the sash is raised and lowered, but also when the same is moved outwardly to hook the holding-strip over its ledge. When the window is closed, it can be locked, if desired, by a top snap which will prevent the window from being raised to disengage the holding devices.

Referring to the accompanying drawings, in which I have illustrated the application of my windows to a car simply for the purpose of illustration, I have shown the side of a car consisting of the outside sheathing S and the inside panel-work P, said sheathing and inside panels being separated far enough to form the pockets for receiving the window-sashes W when the same are lowered.

As shown by dotted lines in Fig. 1, the window-sashes W are counterweighted by means of cords *s* and counterbalances B, two counterbalances being used for each sash. In practice and particularly in carwork I have not always found it necessary to counterbalance the windows.

Each window-sash W may be provided with a finger-hook or hand-piece 10, by means of which the sash can be raised and also drawn inward when it is to be lowered, as shown in Fig. 5.

To hold each of the window-sashes in its closed position, each window-sash is provided with a metal holding-strip 11, which is outside of the lower part of the window-sash. The holding-strip 11 is preferably rabbeted in place, so as to extend outwardly at a slight angle, and the lower edge of each holding-strip 11 can be hooked over a coöperating upturned edge of a lock-strip 12, secured to the window-sill.

By utilizing the two coöperating strips 11 and 12 for holding each window-sash closed I have provided a construction in which the locking and unlocking of the window can be accomplished by moving the window-sash in or out comparatively small distances. For example, as shown in Fig. 2, the window-sash W is closed and supported in its closed position. When the sash is raised, as shown in Fig. 4, the strips 11 and 12 are disengaged, and by thus drawing in the window-sash, as shown in Fig. 5, the same is free to be lowered or dropped down into the pocket between the sheathing and inside paneling of the car.

To lock each of the windows when desired, so that the same cannot be opened, I may provide each window-casing with a substantially L-shaped top snap 19, as shown in Figs. 2 and 6. When the top snap is swung so that its tongue projects in above the top of the window-sash it will prevent the window-sash from being lifted high enough to

disengage its lock-strip 11, so that when the parts are in the position illustrated in Fig. 2 the window will be securely locked and cannot be opened from the outside.

The guide-strips which coöperate with the window-sash are preferably held into engagement with the window-sash by spring-pressure, so as to maintain tight joints, not only while the windows are being raised and lowered, but also when the same are swung laterally. As shown in Figs. 2 and 7, the side strips 13 are mounted on screws 14, carrying small coiled springs 15, normally holding the side strips 13 into engagement with the window-sash. The bottom strip 16, which forms the inside sill of the window, is also preferably movably mounted and is provided with end fingers 17, extending up behind the side strips 13, so that the springs 15 will also serve to hold the bottom strip into engagement with the window-sash when closed. The inside sill or bottom strip 16 is also preferably provided with a bent rod 18, which extends forward through the paneling P, and is provided with a knob or handle, which may be used in addition to the sash-handle 10 when it is desired to swing the window-sash laterally to unlock its holding-strips and permit the window to be opened.

In a complete window constructed according to this invention it will be seen that the parts are combined so that the window will be efficiently locked in raised position and that the holding-strips may be disengaged by a comparatively slight lateral movement of the window and at the same time that by the use of spring guide-strips tight joints with the window-sash will be maintained in all positions.

Having thus fully described this invention and the way the same is to be applied to one particular type of window, what is claimed as new, and sought to be secured by Letters Patent of the United States, is—

1. The combination of a vertically-movable window-sash, a spring-pressed guide-piece on each side thereof, and a movable bottom strip or sill having end fingers extending beyond the guide-piece for moving them with the sill.

2. The combination of a vertically-movable window-sash, a spring-pressed guide-piece on each side thereof, and a movable bottom strip or sill having end fingers extending beyond the guide-piece for moving them with the sill, said bottom piece having a rigidly-mounted knob or handle extending through a panel of the window-casing for drawing the spring-pressed guide-piece when the sash is to be unlocked.

3. The combination of a vertically-movable window-sash, a holding-strip secured to the lower cross-bar of the window-sash and having a downwardly-extending edge, a stationary strip having an upwardly-extending edge forming a locking-ledge for receiving the holding-strip, an inside guide-piece comprising a spring-pressed guide-piece and a bottom strip or sill having end fingers connecting with the side pieces, said bottom piece having a knob or handle for drawing the spring-pressed guide-strips inward when the sash is to be unlocked.

4. The combination of a vertically and laterally movable window-sash, means for preventing lateral motion thereof in advance of a slight upward motion, and a lock comprising a bar at the top of the window and having a portion adapted to be inserted between the top of the window and the casing to prevent said slight upward motion.

5. The combination of a vertically and laterally movable window-sash, means for preventing lateral motion thereof in advance of a slight upward motion, and a lock comprising an L-shaped snap pivoted to the top the window, the toe of the snap being adapted to move between the top of the window and casing to prevent said slight upward motion.

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

WILFRID H. BARRIERE.

Witnesses:

PHILIP W. SOUTHGATE,

MARY E. REGAN.