No. 844,645. PATENTED FEB. 19, 1907.

M. V. AYRES.

WINDOW.

APPLICATION FILED APR. 28, 1906.

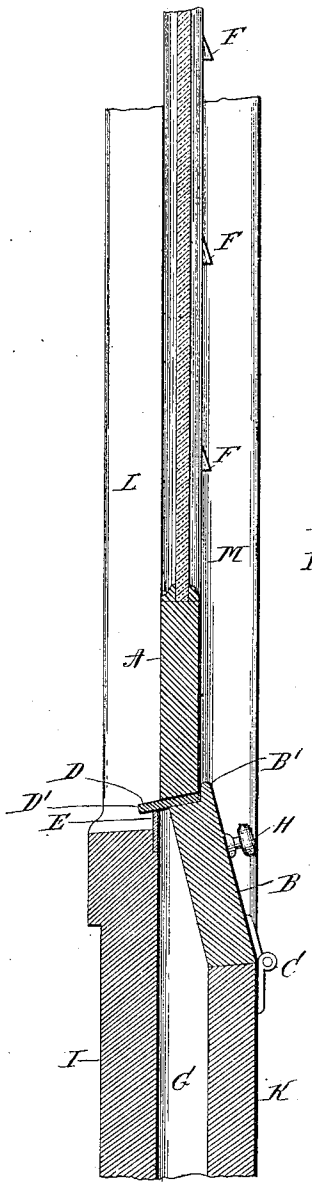


Fig. 1.

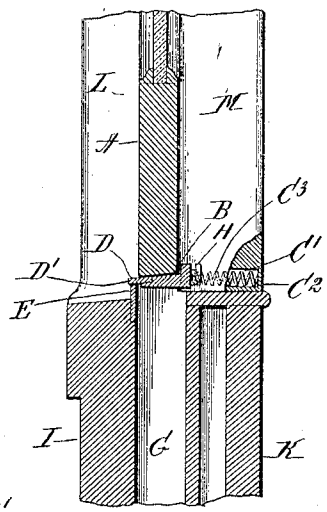


Fig. 3.

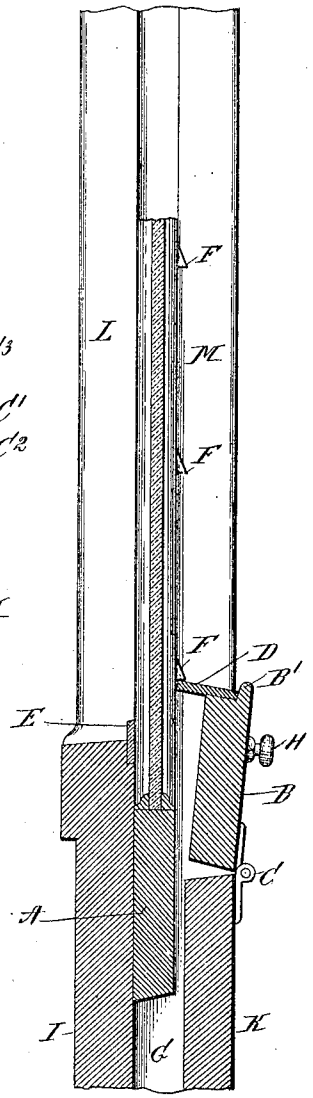


Fig. 2.

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MILAN V. AYRES, OF NEWTON HIGHLANDS, MASSACHUSETTS.

WINDOW.

No. 844,645. Specification of Letters Patent. Patented Feb. 19, 1907.

Application filed April 28, 1906. Serial No. 314,193.

To all whom it may concern:

Be it known that I, MILAN V. AYRES, a citizen of the United States, and a resident of Newton Highlands, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Windows, of which the following is a specification.

My invention relates to the arrangement and manipulation of car-windows, more particularly of that class in which the window-sash is moved into a pocket or receptacle in the side of the car. These windows may be either side windows or vestibule-windows and heretofore have been usually arranged to open by dropping the sash into the pocket. When these windows are closed, the usual practice has been to push forward the lower edge of the sash, which was arranged to swing for this purpose, and then drop the same over a ledge, which serves to hold the sash in position and to keep out wind and rain. This construction involves the guiding of the sash by a very wide groove, which will permit the backward and forward movement of the sash. The width of this groove or guide is in itself detrimental, as it deprives the sash of lateral support and often allows it to bend inward under the influence of strong wind, especially a head-wind in the case of vestibule-windows. This arrangement also permits disagreeable rattling of the window, and the admission of rain and wind around the edges. Moreover, unless special arrangements are provided for this purpose, the construction alluded to leaves the pocket open so that it frequently forms a receptacle for objectionable matter and refuse disposed of by the passengers. I am informed that constructions have been contrived involving the use of covers for sash-pockets of this general character; but in such instances as have come to my attention the disadvantages due to the wide groove and swinging-sash construction have not been overcome.

In the drawings hereto annexed, which illustrate an embodiment of my invention and improvements, Figure 1 is a vertical section of a car-window sash and adjacent portions of the frame of the car, the sash being shown herein as raised and the window closed. Fig. 2 is a similar view showing the sash partly inclosed within the sash-pocket. Fig. 3 is a similar view showing a modification.

A is the window-sash, which slides in grooves or guideways between the upright frame portions L and M. The guideway extends or is continued downward into the sash-pocket G between the outer shell I of the car and the inner partition K. These guideways are so proportioned as to make a fairly close sliding fit with the sash A and may, if desired, be provided with weather-strips, just like the windows of an ordinary dwelling. The only movement of the sash A is directly up and down in these guideways, there being, as usual, a guideway at each side of the sash.

On the inside of the car I provide the pocket-cover B, which is movable transversely over the pocket G, across the guideways and the window-opening, and extends from guideway to guideway. The cover B is provided with a top strip D, which is of proper width and shape to support the sash A when the latter is raised, the sash bearing directly upon the top strip D of the pocket-cover. The cover B is, in the instance shown in Figs. 1 and 2 of the drawings, hinged to the partition K at C, the hinge C being preferably a spring-hinge, which normally urges the pocket-cover toward the closed position shown in Fig. 1. A handle H, secured to the pocket-cover B, assists in manipulating the same, and a bead B′ along the upper edge of the pocket-cover assists in making a close and sightly joint between the cover B and the sash A. I form the sash-supporting strip D with an outwardly-protruding lip D′, which overhangs the ledge E when the pocket-cover is in its outermost and sash-supporting position. This arrangement of lip D′ and ledge E, the sash-support D being preferably inclined downwardly and outward, causes rain-water to be properly shed and excluded from the interior of the car. When it is desired to open the car-window, the pocket-cover B is swung inwardly to the position shown in Fig. 2, its lip D′ resting against the inner side of the sash A and being held in contact therewith by the spring-hinge C. If it be desired to provide for partial opening of the window, the sash A is furnished with means, such as the projections F, to coact with the lip D′ of the pocket-cover, after the manner of a ratchet and pawl, and thus the window may be held in any desired position while partly inclosed in the sash-pocket between the outer casing I and partition K. All of the detrimental features inci-

dental to the heretofore used swinging-sash constructions are eliminated by the arrangement above described.

Many forms of sash-supporting pocket-cover may be devised by the mechanics skilled in the art of car construction which will serve the purposes above indicated and embody the ideas therein expressed. The specific constructions, therefore, shown in Figs. 1 and 2 are intended by me merely as illustrating what I believe to be the best mode of carrying my invention into effect, the invention itself, however, being not limited to such specific construction. In Fig. 3 the cover B is shown as a sliding sill, which works back and forth in the grooves C^3 in the frame M, pockets C^2 being provided for the reception of springs C′, which urge the cover B into the position shown in Fig. 3.

What I claim, and desire to secure by Letters Patent, is—

1. The combination of a sash, guideways therefor, extending into a sash-pocket, the pocket, a pocket-cover extending from guideway to guideway and movable transversely thereto, said cover provided with a downwardly and outwardly inclined sash-support, terminating in a lip, a ledge, said ledge supporting the cover-lip and said lip overhanging the ledge, when the cover is in sash-supporting position.

2. The combination of a sash, guideways therefor extending into a sash-pocket, the pocket, a hinged pocket-cover extending from guideway to guideway and movable transversely thereto, said hinged cover provided with a downwardly and outwardly inclined sash-support, terminating in a lip, a ledge, said ledge supporting the cover-lip and said lip overhanging the ledge, when the cover is in sash-supporting position.

Signed by me at Boston, Massachusetts, this 27th day of April, 1906.

MILAN V. AYRES.

Witnesses:
ODIN ROBERTS,
JOSEPH T. BRENNAN.