

(No Model.)

H. PANNILL.

COMBINED SCREEN AND DUST GUARD FOR CAR WINDOWS.

No. 579,365.

Patented Mar. 23, 1897.

Fig. 1.

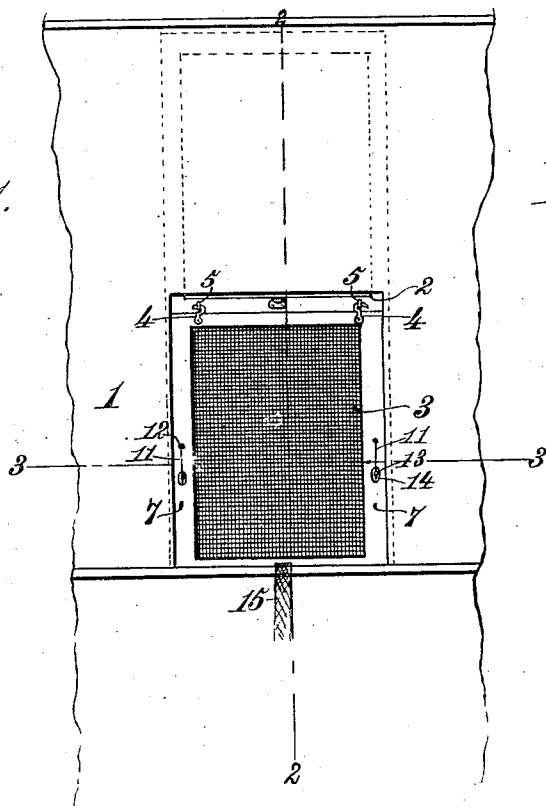


Fig. 2.

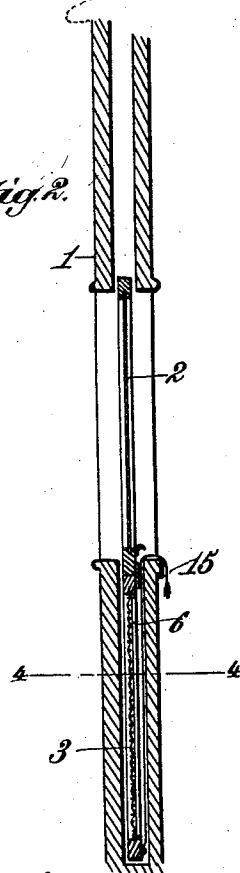


Fig. 3.

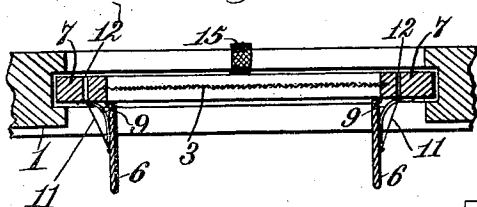


Fig. 4.

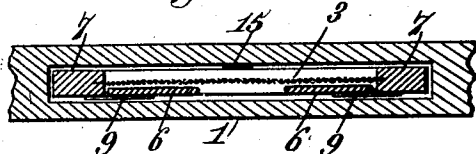
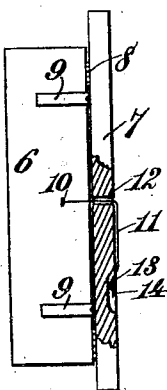


Fig. 5.



Witnesses:
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UNITED STATES PATENT OFFICE.

HENRY PANNILL, OF PETERSBURG, VIRGINIA, ASSIGNOR OF ONE-HALF TO
BERNARD MANN, OF SAME PLACE.

COMBINED SCREEN AND DUST-GUARD FOR CAR-WINDOWS.

SPECIFICATION forming part of Letters Patent No. 579,365, dated March 23, 1897.

Application filed July 20, 1896. Serial No. 599,859. (No model.)

To all whom it may concern:

Be it known that I, HENRY PANNILL, a citizen of the United States, residing at Petersburg, in the county of Dinwiddie and State of Virginia, have invented new and useful Improvements in a Combined Screen and Dust-Guard for Car-Windows, of which the following is a specification.

This invention relates to combined screens and dust-guards for car-windows; and it has for its object to provide a vertically-movable car-window screen with folding dust-guards, which when the screen is raised may be thrown into operative position to intercept dust and cinders and prevent the entrance thereof through the screen or from clogging up the meshes of the latter, and which may be folded flat against the screen when it is desired to lower the latter.

It also has for its object to provide means which may be operated from the inside of the car for throwing the dust-guards into operative position.

It has for a further object to provide means for automatically folding the dust-guards against the screen when it is desired to lower the screen.

Finally, it has for its object to combine the improved screen and dust-guard with a car-window in such manner that the window and the screen with its dust-guards may be operated conjointly.

To these ends my invention consists in the features and in the construction, arrangement, or combination of parts hereinafter described, and particularly pointed out in the claims following the description, reference being had to the accompanying drawings, forming a part of this specification, wherein—

Figure 1 is a view in elevation of my combined screen and dust-guard in operative position. Fig. 2 is a vertical sectional view taken on the line 2 2 of Fig. 1, showing the screen lowered. Fig. 3 is a horizontal sectional view taken on the line 3 3 of Fig. 1, showing the dust-guards in operative position. Fig. 4 is a similar view taken on the line 4 4 of Fig. 2, showing the dust-guards folded against the screen; and Fig. 5 is a detail view of one of the dust-guards and a

portion of the screen-frame, illustrating the means for swinging open the dust-guards.

Referring to the drawings, the numeral 1 indicates the frame of a car-window, in which is fitted a window 2, adapted to slide in suitable grooves formed in each side of the frame and to be raised up into a recess formed in the body of the car above the window-frame in the usual manner. In the same grooves in which the window travels is fitted to slide a screen 3, constructed in the usual manner, and this screen is adapted to be lowered into a recess formed in the car-body beneath the window-frame in a well-known manner.

To the upper rail of the screen 3 are pivoted hooks 4, which are adapted to engage eyes 5, attached to the lower rail of the window-sash. When the hooks are in engagement with the eyes, the window and screen move in unison, so that if the window be raised the screen will at the same time be raised and occupy the position previously occupied by the window, and when the screen is lowered into its recess the window will be lowered into place by the same operation. By disengaging the hooks from the eyes the screen may be lowered into its recess, and the window may then be raised and lowered independently of the screen.

The dust-guards, two of which are provided for each window, each consist of a rectangular strip 6, of wood or other suitable material, somewhat less in width than one-half the width of the screen 3 and preferably of a length to neatly fit between the upper and lower rails of the screen-frame. The guards 6 are attached to the side rails 7 of the screen-frame by means of hinges 8, so that the guards may be folded flat against the screen or turned out at right angles thereto. Springs 9 are employed for normally holding the dust-guards folded flat against the screen, each of said springs preferably consisting of a leaf-spring, formed of flat resilient metal, as shown, and attached at one end to the side rail 8 and at its free end bearing against the outer face of the dust-guard. In practice I prefer to employ two springs for each dust-guard, one being arranged in proximity to each hinge. It will be readily understood

that the free ends of the springs, bearing against the faces of the dust-guards, will constantly exert their force to fold the dust-guards flat against the screen and hold them in this position. To swing the dust-guards out at right angles to the screen to their operative positions, I attach to each dust-guard, by means of a staple 10 or other suitable fastening, one end of a wire, cord, or flexible connection of any approved or suitable description, as 11, and pass said wire through an aperture 12, formed in the side rail 8 of the screen, to the interior of the car. To the free end of the wire 11 is attached a ring 13, that is adapted when the dust-guard is in operative position to be hooked over a pin or hook 14, attached to the inner side of the screen-frame. To swing the guard open into operative position, it is only necessary to pull upon the wire 11 with sufficient force to overcome the tension of the springs 9 until the guard is thrown out to a right angle to the screen, when the ring 13 may be slipped over the pin or hook 14 and thus hold the guard in proper position.

From the foregoing description the operation of my combined screen and dust-guard will be readily understood.

Let it be assumed that the screen and window are connected by the hooks and eyes and that the window is lowered and the screen is in the recess beneath the window-sash. If the window be raised up into the recess above the sash the screen will be raised with it and will occupy the space formerly occupied by the window. After the screen is in place, by drawing upon the wires 11 the dust-guards are swung out into position and held by slipping the rings 13 over their pins or hooks 14. The dust-guards will then operate, in the same manner as the ordinary and well-known fixed guards, to intercept dust and cinders and prevent the passage of the same through the screen or from clogging up the meshes of the latter. When it is desired to close the window, it is only necessary to disengage the rings from their pins or hooks, when the springs 9 will fold the dust-guards flat against the screen, after which the screen may be lowered into its recess, thus lowering the window. By disengaging the hooks 4 from the eyes 5 the window may be raised and lowered independently of the screen.

For the purpose of raising and lowering the screen when it is detached from the window I attach one end of a strap 15 to the lower end of the screen-frame, the other or free end of the strap hanging over the sill of the window-frame on the inside of the car. The

screen may be raised and lowered by means 60 of the strap in an obvious and well-known manner.

Having described my invention, what I claim is—

1. The combination with a window-frame 65 and a screen vertically movable therein and arranged to slide into a recess formed beneath said frame, of dust-guards hinged at their vertical edges to the edges of the screen and adapted to fold flat against the screen 70 when the latter is lowered into said recess and be thrown outward at right angles thereto when the screen is raised in the window-frame, and springs operating to normally hold said guards folded against the screen, substantially as described. 75

2. The combination with a window-frame 80 and a screen vertically movable therein and arranged to slide into a recess formed beneath said frame, of dust-guards hinged at their vertical edges to the edges of the screen and adapted to fold flat against the screen 85 when the latter is lowered into said recess and be thrown outward at right angles thereto when the screen is raised in the window-frame, springs normally holding said dust-guards folded flat against the screen to permit the latter to be lowered into the recess, and means arranged for operation from the interior of the car for throwing the dust-guards outward when the screen is raised in the window-frame, substantially as described. 90

3. The combination with a window-frame 95 and a screen vertically movable therein and arranged to slide into a recess formed beneath said frame, of dust-guards hinged at their vertical edges to the edges of the screen and adapted to fold flat against the screen 100 when the latter is lowered into said recess and be thrown outward at right angles thereto when the screen is raised in the window-frame, springs normally holding said dust-guards folded flat against the screen to permit the latter to be lowered into the recess, flexible connections attached to the outer 105 faces of the guards and passing through the screen-frame, and means for fastening the inner ends of the flexible connections, substantially as described and for the purpose specified. 110

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

HENRY PANNILL.

Witnesses:

M. B. COGBILL,
V. M. CAMPBELL.