M. R. HULL.

VENTILATOR FOR CLOSED VEHICLE BODIES.

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1,154,399. Patented Sept. 21, 1915.

Fig. 1.

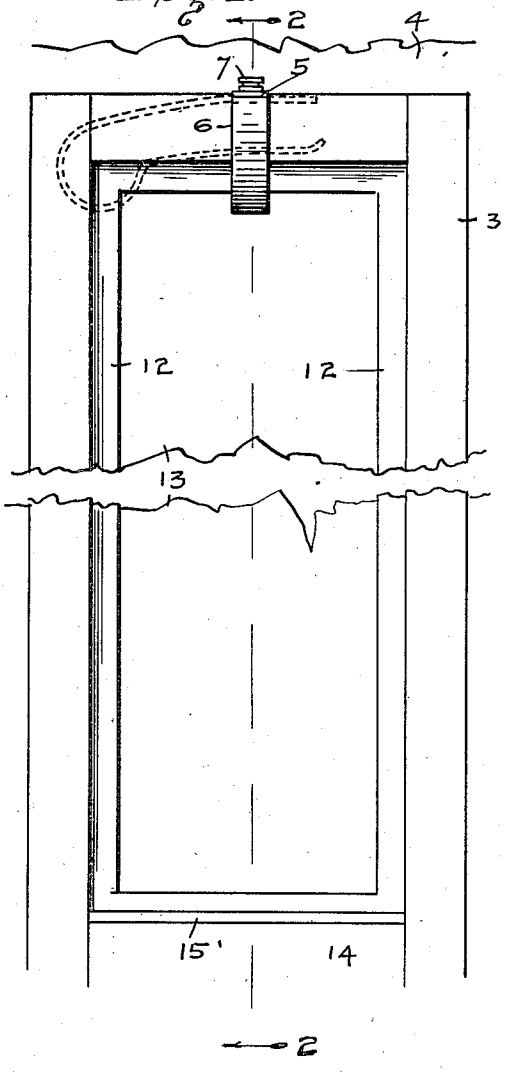
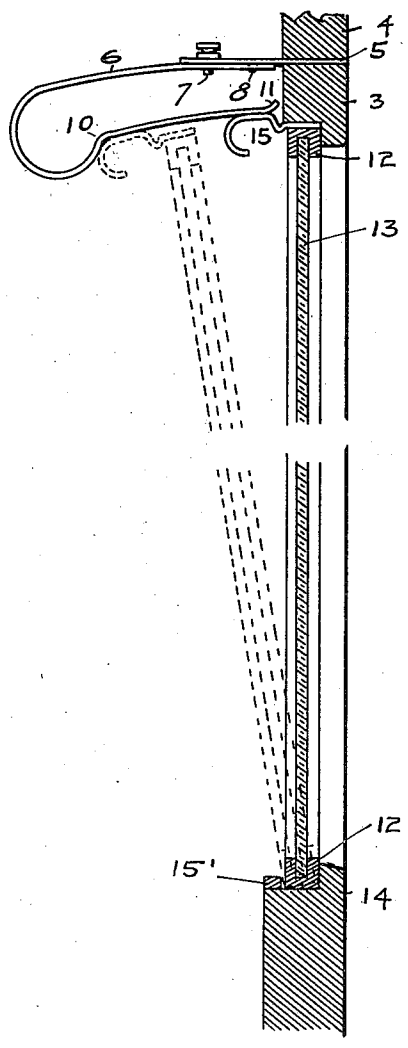


Fig. 2.



WITNESSES;

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UNITED STATES PATENT OFFICE.

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VENTILATOR FOR CLOSED-VEHICLE BODIES.

1,154,399. Specification of Letters Patent. Patented Sept. 21, 1915.

Application filed June 21, 1915. Serial No. 35,417.

To all whom it may concern:

Be it known that I, MATTHEW R. HULL, a citizen of the United States, residing at Connersville, in the county of Fayette and State of Indiana, have invented certain new and useful Improvements in Ventilators for Closed-Vehicle Bodies, of which the following is a specification.

This invention relates to the ventilation of closed vehicles through side windows, and the object is to provide means for opening the windows a regulated distance and for holding them open or closed without rattling.

A further object is to provide means for the ready removal of the windows when the maximum opening for ventilation is desired.

Referring to the accompanying drawings wherein like characters of reference indicate like parts, Figure 1 is an elevation of a window viewed from the inside of the vehicle body embodying my invention, and Fig. 2 is a vertical section on the line 2—2 of Fig. 1.

The window frame 3 is mounted in any suitable manner in the vehicle body 4, and fastened to the top of the frame is a metal strap 5, the end of which projects inwardly from the frame for several inches, or far enough to afford room for the attachment to it of a spring sash stop 6. The latter is of strap metal, spring tempered, of substantially U-shape, one stem of which contacts the under side of the projecting strap 5, to which it is drawn by a set screw 7. A pin 8 is seated in the strap 5 and depends between the frame 3 and the screw. This pin enters a suitable hole in the stem of the spring stop 6, holding the latter in alinement with the strap 5 under normal conditions of use, but also permitting the member 6 to be turned at right angles to the position shown in dotted lines in Fig. 1. The bend connecting the two stems of the U-shaped stop 6 is more than semi-circular to form a shoulder 10 where the lower stem begins, and the inner end of the lower stem is bent inwardly at 11.

A window sash 12 having a glass 13 rests in the frame 3 on a sill 14 in the customary rabbet, and the sash swings on its lower end to the position shown by dotted lines in Fig. 2,—the removal of the lower end being restrained by a strip 15′ in the bottom rabbet of the frame 3.

Fastened to the top of the sash 12 is a strap-metal pull 15 which projects inwardly of the vehicle in the form of a hook, as shown. It projects upwardly of the sash and forms a bearing for the spring stop 6, at all times while the sash is in its frame.

In the operation of my device, the window is held in its closed position against rattling by the pressure of the stop 6 against the pull 15, and when it is desired to partially open the window for ventilation the sash may be swung about its lower end to the position shown by the dotted lines in Fig. 2, by pulling on the member 15. This opening movement is limited by the contact of the pull 15 against the shoulder 10 of stop 6, and the resiliency of the latter will insure pressure and friction against the pull 15 to hold the window sash open without rattling.

By loosening the set screw 7 the upper stem of stop 6 may be disengaged from pin 8 which will permit the stop to be turned to the position shown by dotted lines in Fig. 1, the lower stem thus relieved from the pull will swing down which leaves the pull 15 unhampered by the stop. The top of the sash may then be swung out to clear the top of the frame, whereupon the sash in its entirety may be lifted out of the frame, making the full opening available for the circulation of air.

Having thus fully described my invention what I claim as new and wish to secure by Letters Patent of the United States, is—

1. In a ventilator, a frame, a sash mounted therein to swing on its lower end, and a spring stop secured to the frame at the upper end of the sash, said stop limiting the opening of the sash and pressing against it to eliminate looseness and rattle in closed and open positions.

2. In a ventilator, a frame, a sash mounted in the frame to swing on its lower end, a spring stop secured to the frame at the upper end of the sash said stop limiting the opening of the sash and pressing against it to eliminate looseness and rattle in closed and open positions and means for adjusting the stop out of the way of the sash for the removal of the latter from the frame.

3. In a ventilator, a frame, a sash mounted in the frame to swing on its lower end and having an inwardly projecting pull at its upper end, a U-shaped spring stop secured by one stem and having its other stem bearing elastically against said sash pull

and means on the stop to limit the swing of the sash while maintaining said elastic bearing.

4. In a ventilator, a frame, a sash mounted in the frame to swing on its lower end and having a projecting pull at its upper end, a U-shaped spring stop secured by one stem and having its other stem bearing against said sash pull, means on the stop to limit the swing of the sash and means for adjusting the stop out of interference with the sash pull.

In witness whereof, I have hereunto set my hand and seal at Connersville, Indiana, this 14th day of June, A. D. one thousand nine hundred and fifteen.

MATTHEW R. HULL. [L. S.]

Witnesses:

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