(No Model.) 2 Sheets—Sheet 1.

T. S. HAYWARD & F. S. ANDERSON.

TRANSPARENT DUST GUARD AND VENTILATOR.

No. 496,199. Patented Apr. 25, 1893.

Fig. 1.

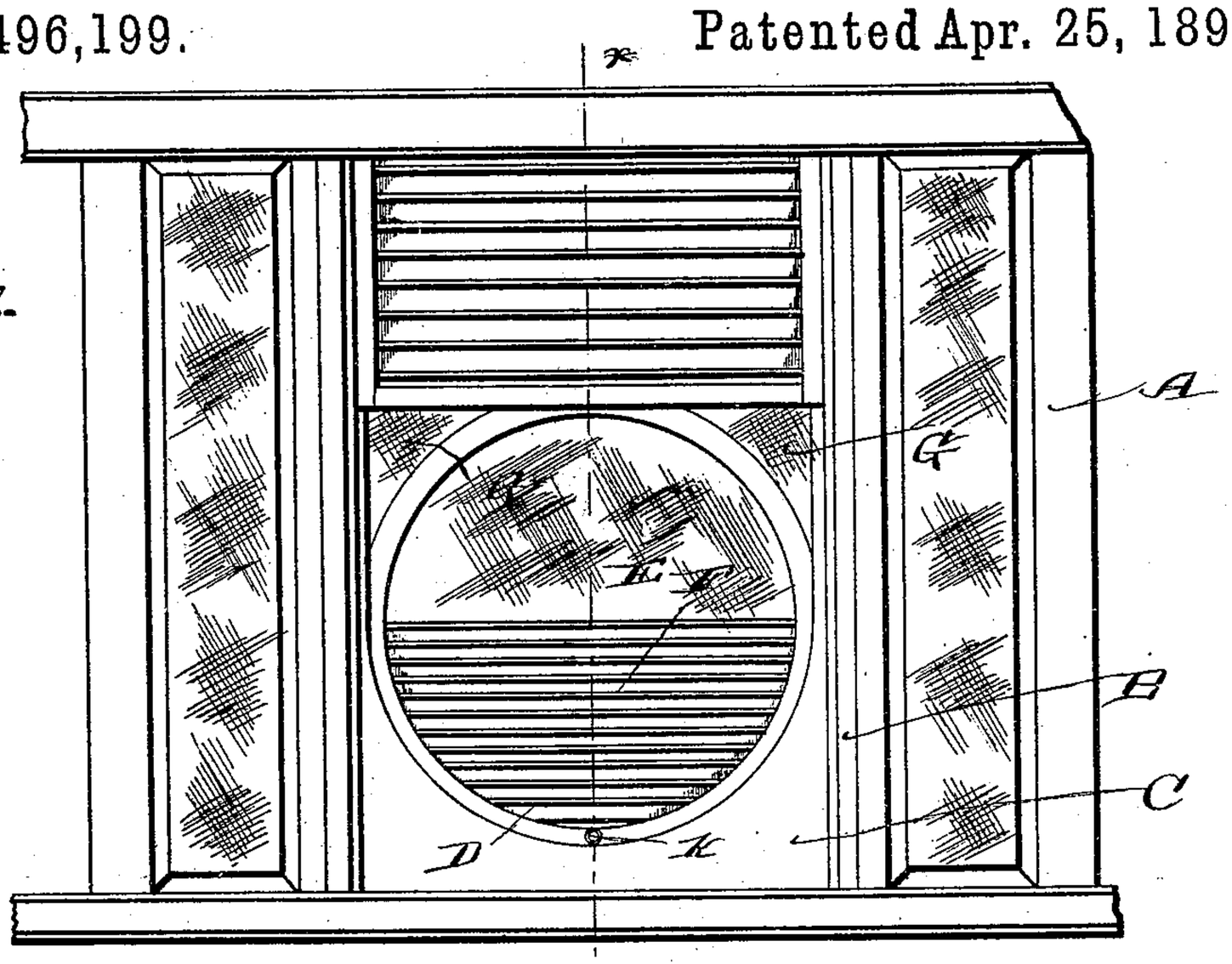


Fig. 2.

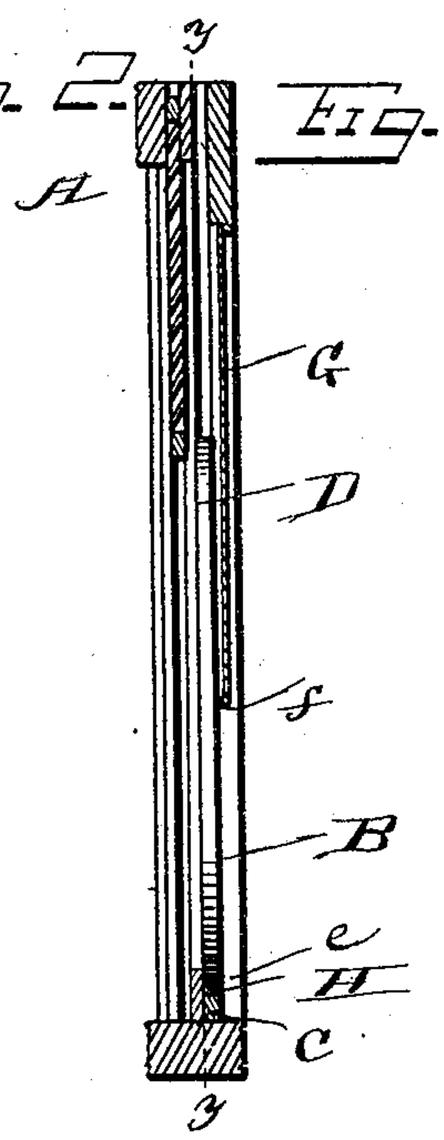
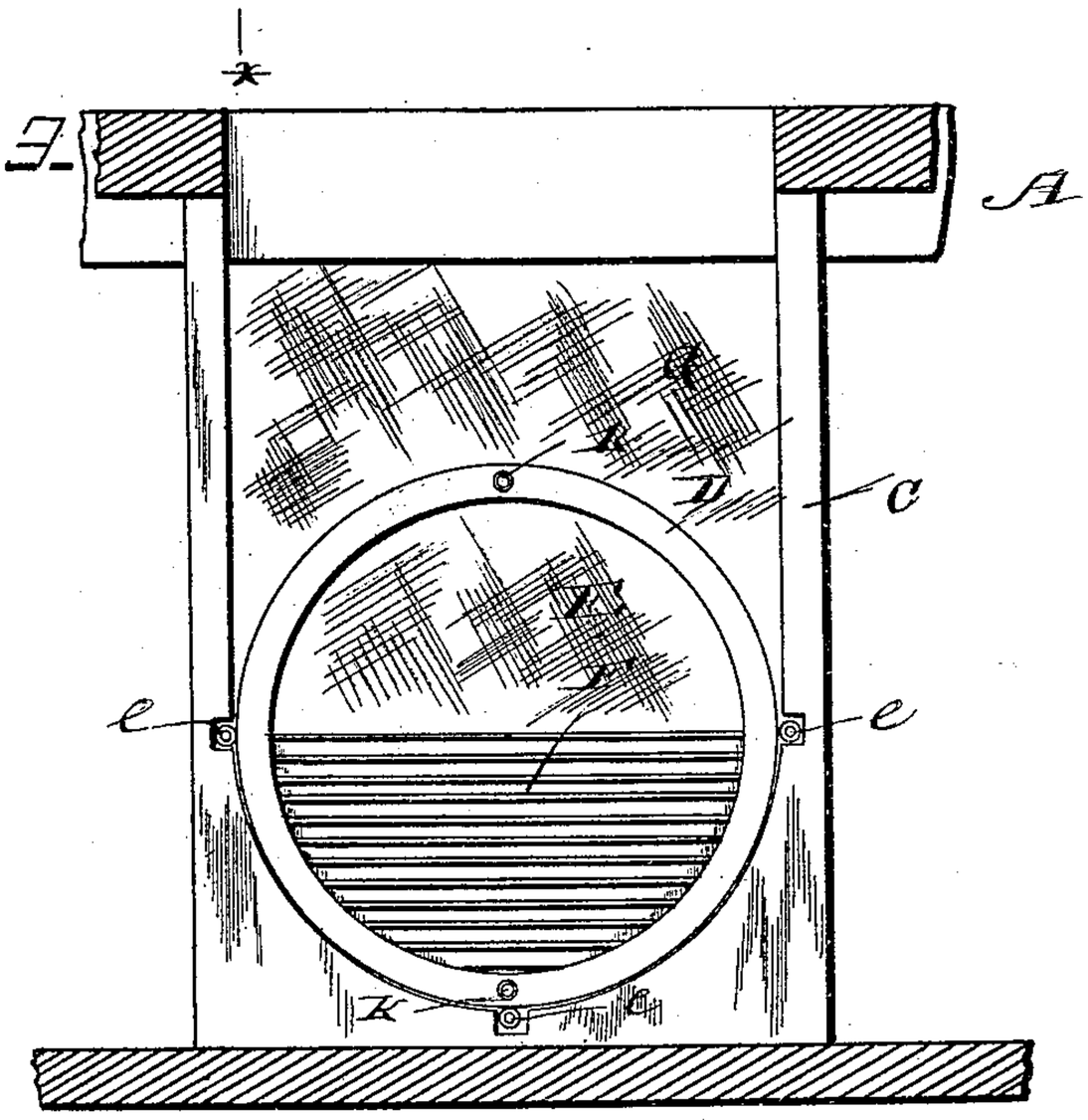


Fig. 3.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 4.

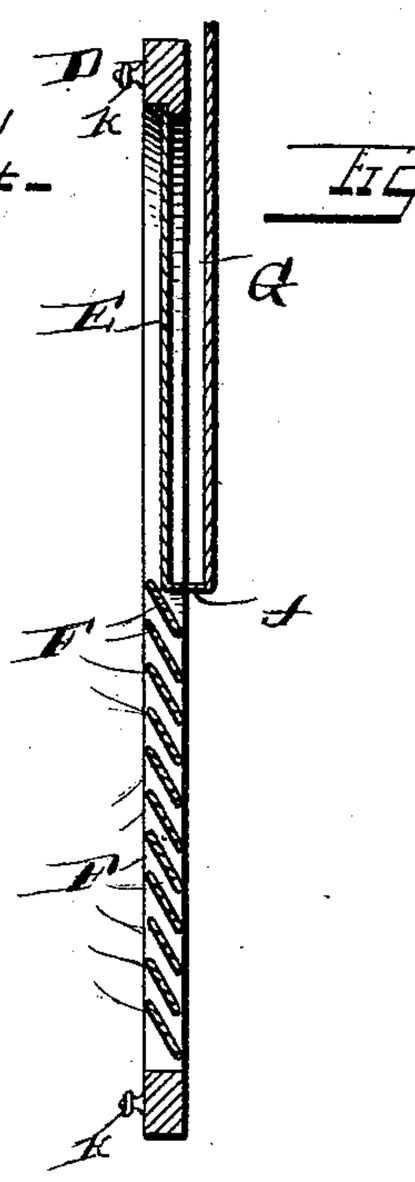


Fig. 5.

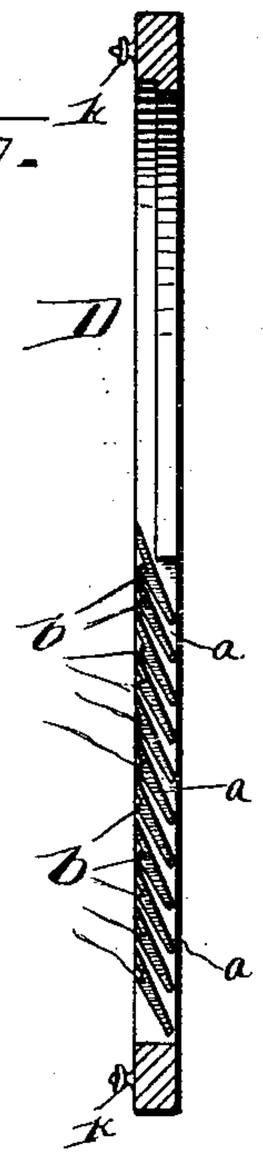


Fig. 6.

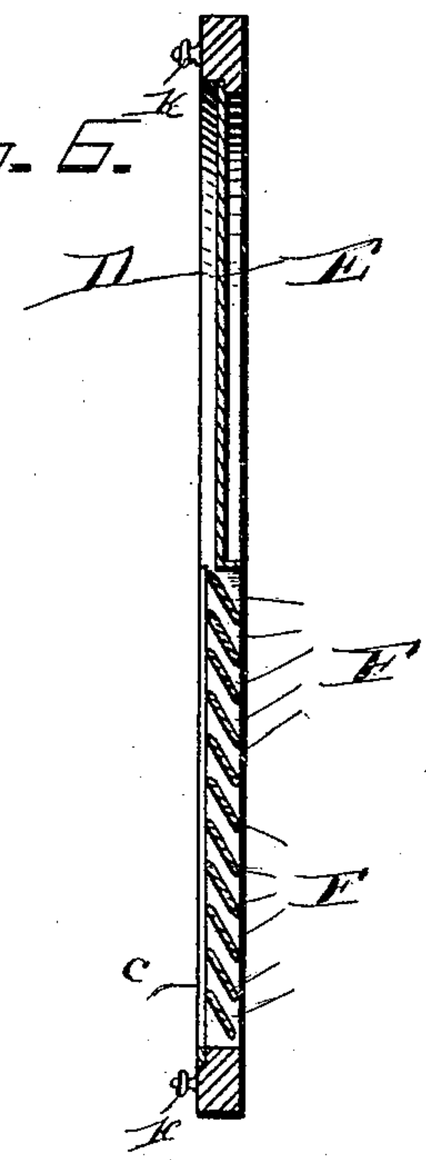
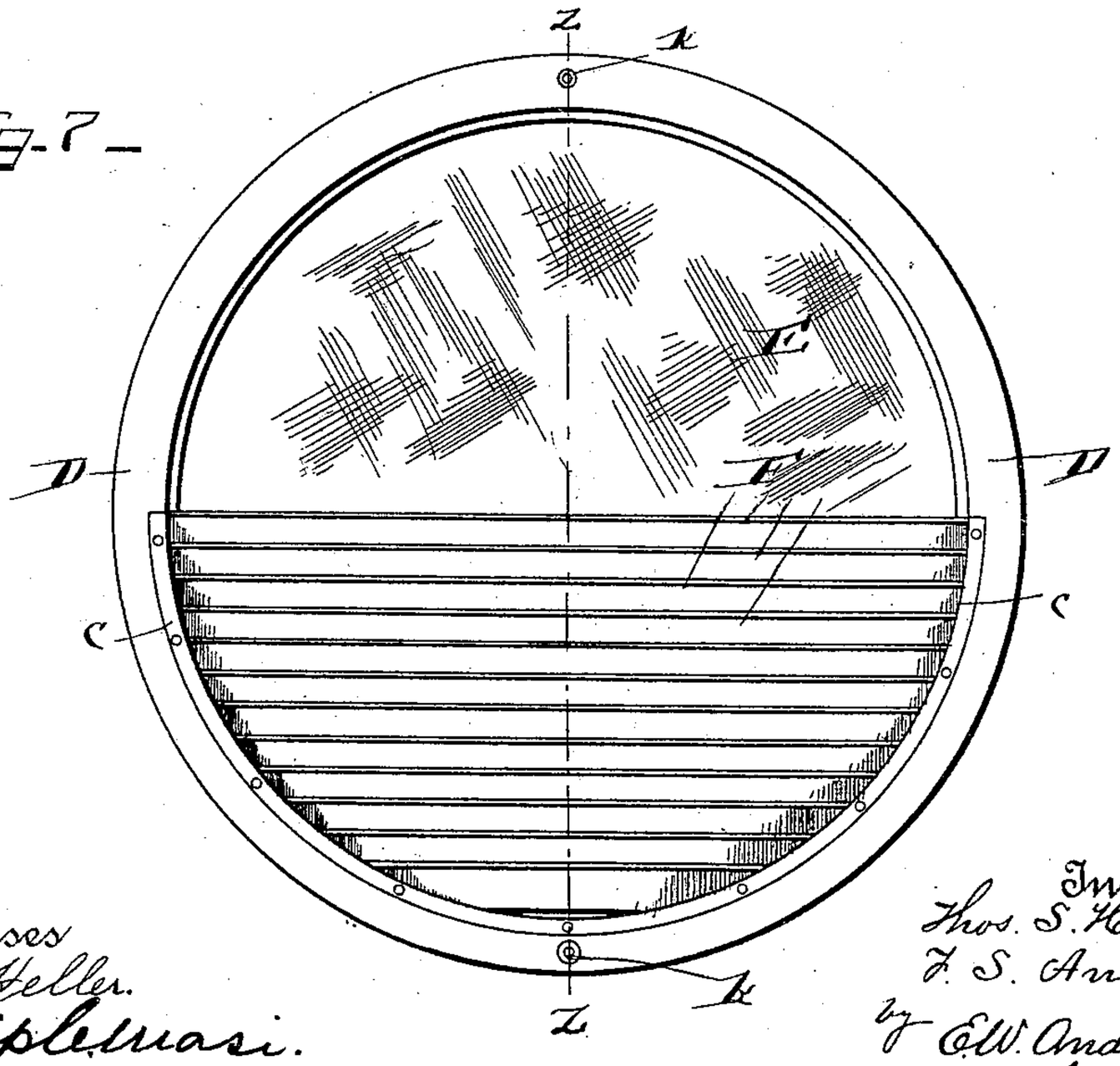


Fig. 7.



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UNITED STATES PATENT OFFICE.

THOMAS S. HAYWARD AND FRANK S. ANDERSON, OF EASTON, MARYLAND.

TRANSPARENT DUST-GUARD AND VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 496,199, dated April 25, 1893.

Application filed March 31, 1892. Serial No. 427,265. (No model.)

To all whom it may concern:

Be it known that we, THOMAS S. HAYWARD and FRANK S. ANDERSON, citizens of the United States, and residents of Easton, in the county of Talbot and State of Maryland, have invented certain new and useful Improvements in Transparent Dust-Guards and Ventilators; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of a front view of this invention. Fig. 2 is a transverse vertical section. Fig. 3 is a longitudinal vertical section. Figs. 4, 5, and 6 are sectional views and Fig. 7 is a detail view.

This invention has relation to certain new and useful improvements in combined dust guards and ventilators for railway cars, and it consists in the novel construction and combination of parts, all as hereinafter specified.

In the accompanying drawings, the letter A designates a portion of one side of an ordinary railway car, having therein a sash frame B and sash C provided with our improved guard and ventilator. Said guard and ventilator comprise a circular rim D, which is preferably of glass, although wood, hard rubber or metal may be employed. In the upper portion of this circular rim is firmly secured a plain semi-circular glass E, while in the lower portion of said rim is a series of transverse slats F. Said slats are usually of glass, and are held at their ends in the oblique grooves or seats *a* in the inner face of the rim. Said grooves or seats are each provided at their inner portions with a deepened portion *b*, into which the ends of the slats fall and are held by means of putty, or in the case of a wooden or metal rim, by a small strip *c* (shown in Fig. 7) secured thereto. Said slats are set with their upper edges presented inwardly at such an angle as to deflect all particles of dust and cinders which strike against them and are separated by interspaces of sufficient size to permit the entrance of air for ventilation.

In the upper portion of the sash frame is secured a stationary glass G, extending down outside of the ventilator and guard to a point corresponding to that of the lower edge of the semi-circular glass E, where it is provided with an inwardly turned horizontal flange *f*, which serves to completely close the space between the two glasses. The rim D at its lower portion or half seats loosely in a semi-circular groove H in the lower portion of the sash frame and is provided with ball bearings *e*, *e*, or anti-friction rollers, whereby the ventilator and guard may be freely rotated therein. For this purpose, said rim is also provided with small knobs *k*. It will therefore be apparent that by rotating the guard and ventilator so as to bring its slatted portion more or less behind the stationary glass G, the amount of ventilation may be regulated as desired. Also that by giving it a complete half revolution so as to bring the slatted portion entirely against the glass G, the semi-circular glass E will completely close the opening in the sash. The semi-circular groove H is extended at both ends in the vertical sides of the frame B, to form guides in which the ventilator and guard may be raised vertically in the manner of an ordinary sash. The slats being made of glass, as may also be the rim, as above stated, offers very little obstruction to the passage of light, and does not interfere with observation through the sash. We do not however wish to limit ourselves entirely to the use of glass in the construction of the device, as it is obvious that it might be advantageous at times to form them of other material. Should one or more of the slats become broken, they may be easily removed and replaced.

Having described this invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination with a sash frame having a semi-circular seat or groove at its lower portion, of a circular frame having bearings in said seat or groove, and rotatable therein, said circular frame having transverse ventilating and dust guard slats therein, said slats being stationary with relation to said circular frame substantially as specified.

2. The combination with a sash frame, and a stationary glass in the upper portion thereof, of a circular frame having bearings in the

lower portion of the sash frame, and having therein a series of transversely and obliquely set transparent slats, substantially as specified.

3. The combination with a sash frame having the stationary glass therein, the semi-circular groove or seat in its lower portion, and the vertical guides in its sides, of the circular transparent ventilator and dust guards revoluble in said seat or groove, and vertically movable in said guides, substantially as specified.

4. The herein described ventilator and dust guard for railway cars, comprising a circular frame having therein a semi-circular plain transparent portion, and a series of angularly disposed transparent slats, substantially as specified.

5. The herein described ventilator and dust guard for railway cars, comprising an annular glass rim having a semi-circular plain glass in one half thereof, and a series of angularly disposed glass slats in the opposite half, said slats being removably secured therein, substantially as specified.

6. A railway car window, comprising the sash frame having the stationary glass in its upper portion, the semi-circular groove or seat in its lower portion, and the vertical guides in its sides, the annular rim seating in said groove, and having anti-frictional bearings on which it rotates, the plain semi-circular glass occupying one half of the interior of said rim, the angularly set transparent slats in the other half, separated from each other by inter-spaces and the operating knobs whereby it may be raised vertically in the guides in the frame, or rotated in its bearings, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

THOMAS S. HAYWARD.
FRANK S. ANDERSON.

Witnesses:
MAGGIE S. WILSON,
JOHN SATTERFIELD.