(No Model.)

F. S. GROVES & A. B. WYCKOFF.

CAR WINDOW SCREEN.

No. 363,384. Patented May 24, 1887.

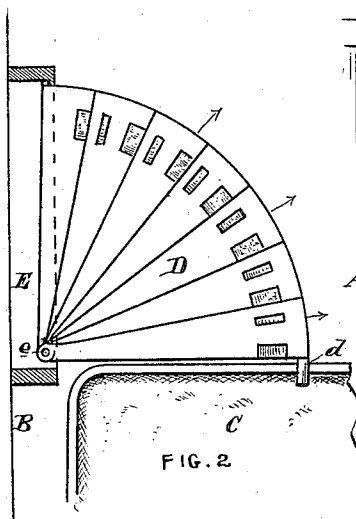


FIG. 2

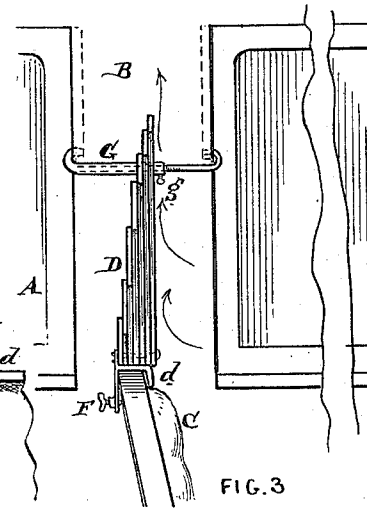


FIG. 3

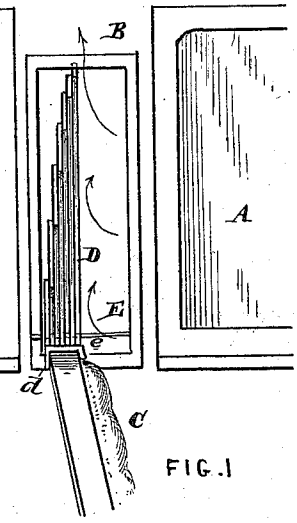


FIG. 1

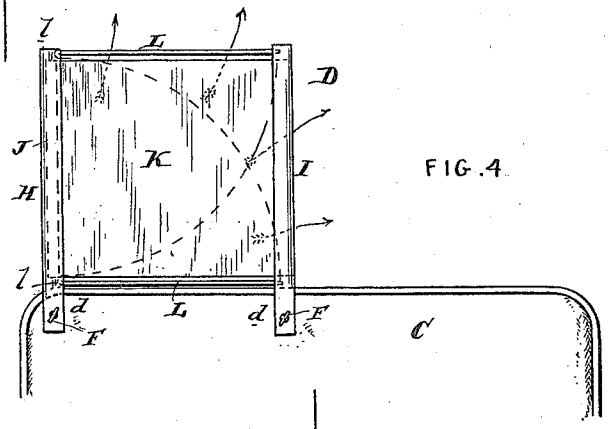


FIG. 4

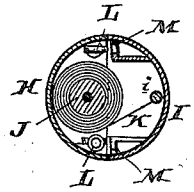


FIG. 5

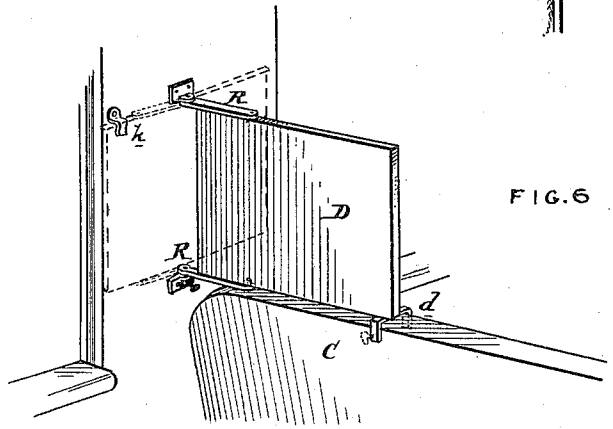


FIG. 6

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FREDERIC S. GROVES AND AMBROSE B. WYCKOFF, OF PHILADELPHIA, PENNSYLVANIA.

CAR-WINDOW SCREEN.

SPECIFICATION forming part of Letters Patent No. 363,384, dated May 24, 1887.

Application filed March 31, 1886. Serial No. 197,288. (No model.)

To all whom it may concern:

Be it known that we, FREDERIC S. GROVES and AMBROSE B. WYCKOFF, of the city and county of Philadelphia, and State of Pennsylvania, have invented an Improvement in Car-Window Screens, of which the following is a specification.

Our invention has reference to window-screens for railway-cars or similar vehicles; and it consists in certain improvements which are fully set forth in the following specification, and shown in the accompanying drawings, which form part thereof.

Every person who has traveled much in a railway-car has experienced the inconvenience arising from open windows, through which a current of cold or damp air and dust or cinders blows directly upon whoever is unfortunate enough to be in a neighboring seat. Now, while we cannot prevent our fellow-passengers from opening windows, we can devise means to do away in a great measure with the unpleasant effects of it, and such is the object of this invention.

It has been proposed (see Patent No. 190,348, of 1877,) to use a pivoted fan-shaped screen pivoted between the seats and windows of the cars, so that it may be opened or closed with respect to the side walls of the car-body, and also capable of being tilted to form an oblique plane to a vertical line. This screen was supposed to be self-supporting, having no connection with the seat-backs. The defect, however, in this construction lies in the fact that the strong drafts of air produced by the rapidity of movement of the train exert so great a pressure upon the free end of the screen that the leverage thereby produced will in a short time greatly injure the support. Our invention is an improvement thereon, we employing the seat-back as a rigid base of support for the screen.

In carrying out our invention we provide peculiarly-arranged screens, the particular form of which is immaterial, as our invention is concerned essentially to their means of application and use. Screens have heretofore been attached to the outside of the window for the purpose of preventing the dust and cinders from being blown into the car; but they only imperfectly accomplish this result and were practically of no avail in keeping out drafts of cold air for the protection of the other passengers of the car. Instead, then, of attaching this screen or board on the outside, I attach it on the inside of the car, between the windows or upon the seat-backs, or both combined. The means of attachment is unimportant, and may be varied in many ways. Thus the screen-supporting device may be fastened to the side of the car between the windows, or the screen may be attached to the back of the seat by clamps, or hinged between the windows so that it may be swung out into place when required for use, or in any other convenient and suitable manner. By putting in place this device, when a fellow-passenger opens his window, we may avoid one of the greatest discomforts of railway travel and save ourselves from the risk of sickness.

In the drawings, Figure 1 is a side elevation of a part of a side of a car and the upper part of a seat-back, showing our improved screen attached thereto. Fig. 2 is a side elevation of same with a part of the case cut away. Fig. 3 is a view similar to Fig. 1, showing a detachable clamping device for securing the screen to the side of the car. Fig. 4 is an elevation showing one form of screen clamped to the back of the seat and independent of the car-walls. Fig. 5 is a top view of the screen shown in Fig. 4 when closed, with the end of the case cut away or removed; and Fig. 6 shows a modified form of screen hinged to the side of the car and supported by the seat-back.

A represents the windows; B, the side of the car between the windows; C, the car-seat back, and D our improved screen. As shown in Figs. 1, 2, and 3, the said screen is made like a fan, and is supported upon a hinge-rod, *e*, in the case E, which case may be secured detachably or positively to the side of the car. This case E, if desired, may be provided with a lid, so that in winter, after the screen has been closed up within the box, it may be secured therein.

When drawn out, the screen is as shown in Fig. 2, and its lower free edge may be provided with a jaw or clamp, *d*, for clamping over the upper edge of the seat-back and preventing lateral displacement.

This screen is, furthermore, preferably made

adjustable in its attachment, so that it may be moved laterally between the two windows, to be exactly over the back of the seat; for, while it is substantially midway between the windows of the car in any case, yet a slight movement to the right or left might be necessary, according to which seat-back it is to be attached to, which of course varies with the direction of the train; hence it is found preferable to make these screens adjustable, to suit the slight variance of the position of the said seat-back. By this means it is seen that if the forward window be opened the air, dust, cinders, &c., will be directed into the body of the car and away from the person sitting back of the screen. If desired, the clamp D may be provided with a clamping-screw, F.

In place of the case E, the screen may be secured to an adjustable clamp, G, which fits around the part B and into the shutter-grooves, being secured in said position by a set-screw, *g*, which clamps the two sliding parts together, as shown in Fig. 3. By this means the traveler may carry his own screen, as it would be readily attached and would form but small bulk.

In the construction shown in Figs. 4 and 5 the screen is adapted to be carried by the passenger and detachably secured (when in use) to the seat-back. It consists of the two plates H I, to one of which is secured a spring-roller, J, upon which the webbing K of the screen D is wound, the other end of said webbing being secured at *i* to the plate I. One or both of these plates H I is provided with rods L, hinged at *l* and adapted to be turned out and fastened in holes M in the opposite plate, holding the screen in an extended condition. In such shape it is then placed over the seat-back and secured in position by clamps *d* and said screws F. When not in use, it may be condensed, as shown in Fig. 5, for convenience for carrying.

In the construction shown in Fig. 6 the screen D is hinged by bars R to the side B of the car-body, and when swung out is retained in position by clamp D spreading over the seat-back.

When not in use, the screen D is swung up against the side of the car, as indicated in dotted lines, and secured there by any suitable clamp, *k*.

We do not limit ourselves to any particular construction of screen, as they may be made of wood, metal, paper, cloth, netting, or wire-screening, and the particular mode of attachment to the car-seat back or its side is immaterial, as our invention comprehends an adjustable screen capable of being placed between the two car-windows, upon the inside of the car, and arranged substantially over and supported by the seat-back.

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

1. The combination of the car-wall between two windows and the seat-back with a screen adapted to be shifted at its lower part to or from either window, whereby it may come in line with the seat-back, an adjustable support for securing said screen to the car-wall and admitting of the aforesaid lateral adjustment at the lower portion thereof, and means to secure the free end of said screen to the seat-back, whereby it is steadied against lateral pressure, substantially as and for the purpose specified.

2. An adjustable screen for attachment to a car between two windows and upon the interior thereof, provided with means, substantially as described, for attachment to the side of the car and means for attachment to the car-seat back, substantially as and for the purpose specified.

3. A fan-shaped or folding screen adapted to be attached to the side of the car between two windows, and provided with means, substantially as described, for attachment to the car-seat back to support it against lateral displacement, substantially as and for the purpose specified.

In testimony of which invention we hereunto set our hands.

FREDERIC S. GROVES.
AMBROSE B. WYCKOFF.

Witnesses:
JAS. S. BREEN,
JOHN F. LEWIS.