(No Model.)

Z. J. GOODWIN.

DUST OR CINDER PROTECTOR.

No. 444,749. Patented Jan. 13, 1891.

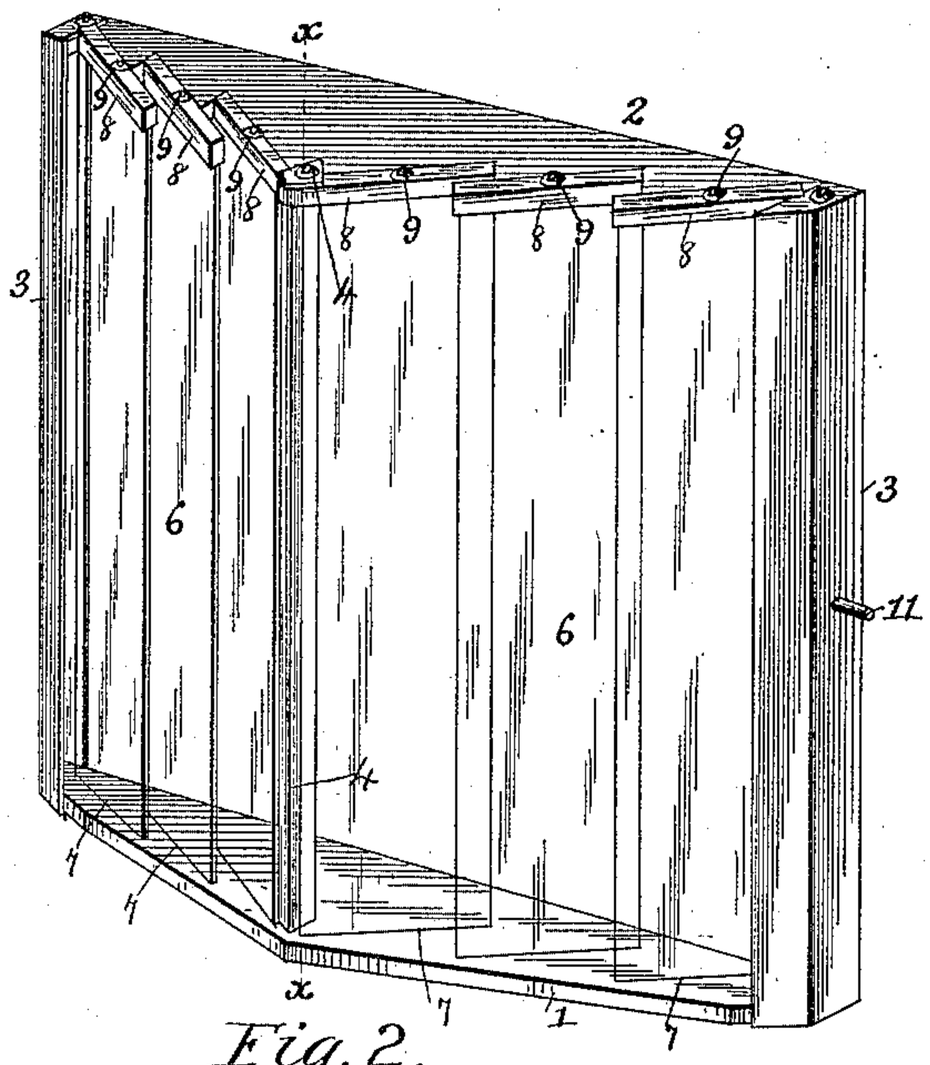


Fig. 1.

Fig. 2.

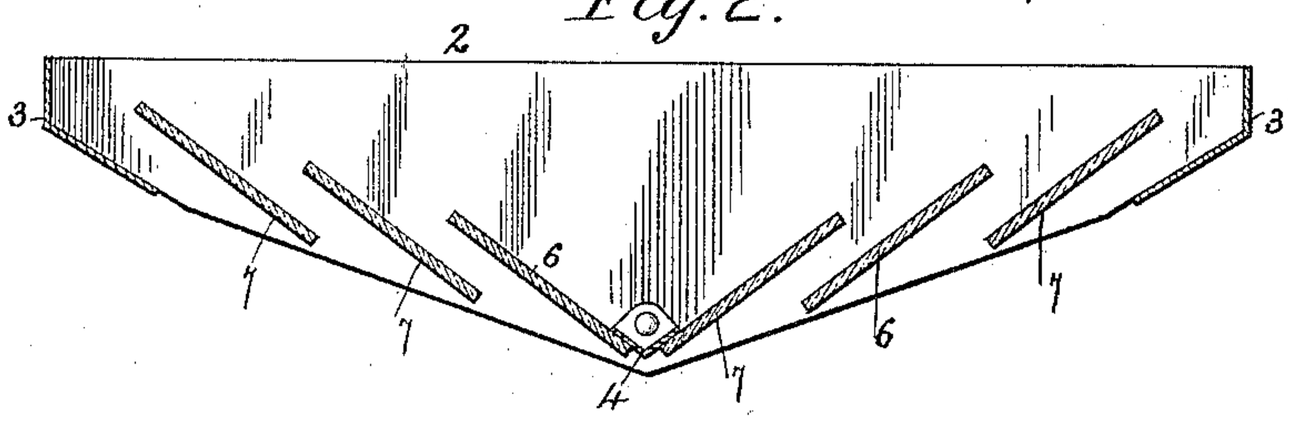
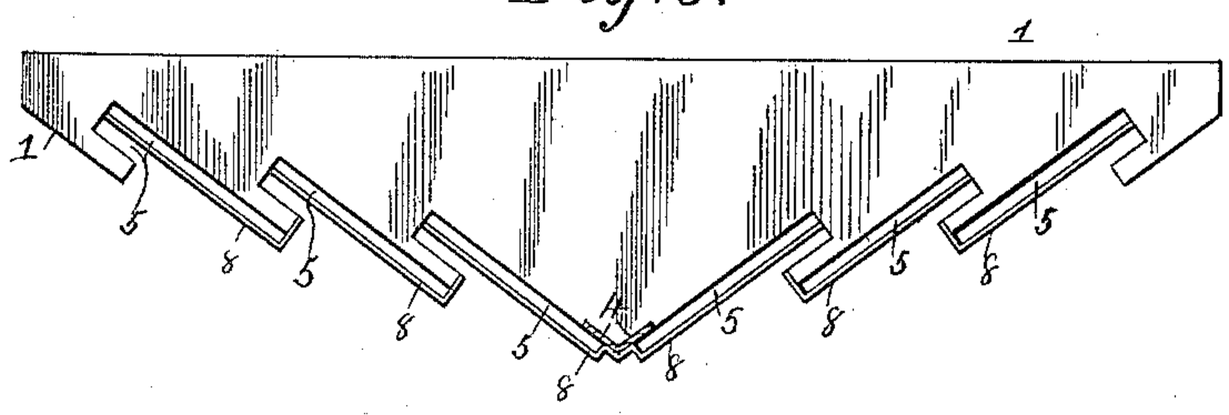


Fig. 3.



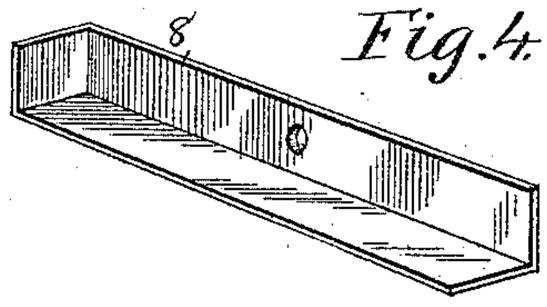
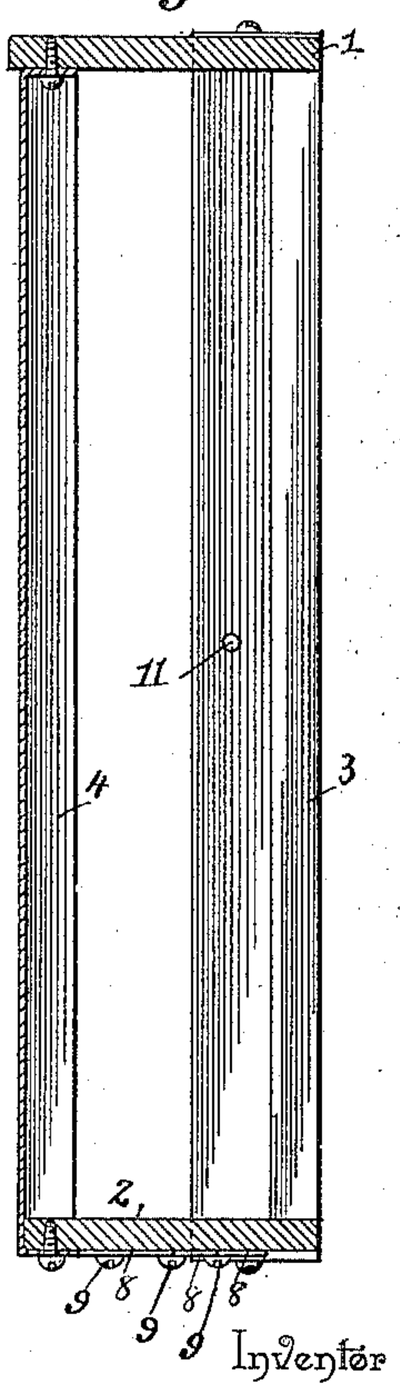


Fig. 4.

Fig. 5.



Witnesses:

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DUST AND CINDER PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 444,749, dated January 13, 1891.

Application filed August 22, 1890. Serial No. 362,748. (No model.)

To all whom it may concern:

Be it known that I, ZACHARY J. GOODWIN, a citizen of the United States, residing at Memphis, in the county of Shelby and State of Tennessee, have invented a new and useful Dust and Cinder Protector, of which the following is a specification.

This invention has relation to a combined cinder-guard and ventilator for use at the windows of railway-coaches, at the upper ventilating-openings in the roof of the same, or in refrigerator-cars, and, in fact, in any position upon a railroad-train wherein it is desirable to prevent the entrance of smoke, cinders, and dust, and yet at the same time not to obstruct the vision or prevent a free circulation of pure air.

Various objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a guard constructed in accordance with my invention, the same being inverted. Fig. 2 is a transverse section of the same. Fig. 3 is a detail in plan of the lower transverse bar, and Fig. 4 a detail in perspective of one of the glass-supporting sockets. Fig. 5 is a vertical section on the line *x x* in Fig. 1.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing my invention I employ an upper transverse wooden strip 1 and a lower transverse wooden strip 2, of equal proportions, and both of which have their front edges oppositely inclined or converged toward their center, as shown. The opposite ends of the upper and lower transverse wooden strips 1 and 2 are connected by opposite vertical sheet-metal side pieces 3, and said strips are at their centers connected by a central vertical strip 4, A-shaped in cross-section, so as to form oppositely-inclined sides or faces. The upper strip upon its under side is provided with a series of shallow recesses or grooves 5, which are arranged at an acute angle to a transverse line drawn through the upper strip 1, and in said recesses terminate the upper ends of a series of glass slats 6. At each side of the center of the strip 1 and the central vertical strip 4 the said grooves are disposed in contrary directions, as are also the glass slats, so that the slats are adapted to shed dust, cinders, and smoke when coming from either direction, and yet by reason of being spaced apart will permit of a constant and thorough ventilation. The lower strip 2 is provided with a series of kerfs 7, which are opposite the grooves 5 of the strip 1 and agree in their disposition therewith.

8 designates a series of L-shaped sockets formed of sheet metal, which are secured to the under side of the strip 2 and embrace the strip at each kerf, and, being arranged a slight distance from the edges of the kerfs, are designed to receive the lower ends of the glass panels or slats. Each of the sockets is secured in position by means of a screw 9, so that if a slat becomes broken it may be readily removed and replaced without disturbing the remainder of the series of slats.

In operation the protector thus described is placed in a window or other opening of a railroad-car, and if in the window of a passenger-coach is held removably in position by means of a pair of opposite spring-bolts 11, projecting outwardly from the side pieces 2 and adapted to take removably into openings formed in the sash, as will be readily apparent. It will observed that in whichever direction the train is traveling the sparks, cinders, and dust will strike the slanting transparent panels and be deflected, while the series of panels at the rear side are out of line with the direction from which the smoke and cinders are coming and take in nothing but pure fresh air, whereby a thorough ventilation is obtained.

Having described my invention, what I claim is—

1. The combined dust and cinder guard and ventilator, consisting of a frame adapted to be applied to a car-window and comprising upper and lower transverse strips, said strips being each provided upon its inner side and along its outer edge with fixed seats or sockets having their outer ends disposed toward the centers of said strips, and transparent removable panels rigidly mounted in the sockets, substantially as specified.

2. The herein-described guard and venti-

lator, consisting of a rectangular frame comprising upper and lower transverse strips, the upper strip being provided upon its under side with a series of grooves arranged at an angle to each other and to the strip, the lower strip having a series of kerfs agreeing with the grooves, sheet-metal sockets removably secured to each kerf, and a series of panels formed of glass and having their upper ends resting in the grooves and their lower ends in the sheet-metal sockets, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ZACHARY J. GOODWIN.

Witnesses:
T. J. COLE,
ED. KATHRINER.