No. 897,994. PATENTED SEPT. 8, 1908.

J. S. McKENZIE.

DUST AND CINDER SHIELD AND GUARD FOR CAR WINDOWS.

APPLICATION FILED APR. 5, 1906. RENEWED FEB. 5, 1908.

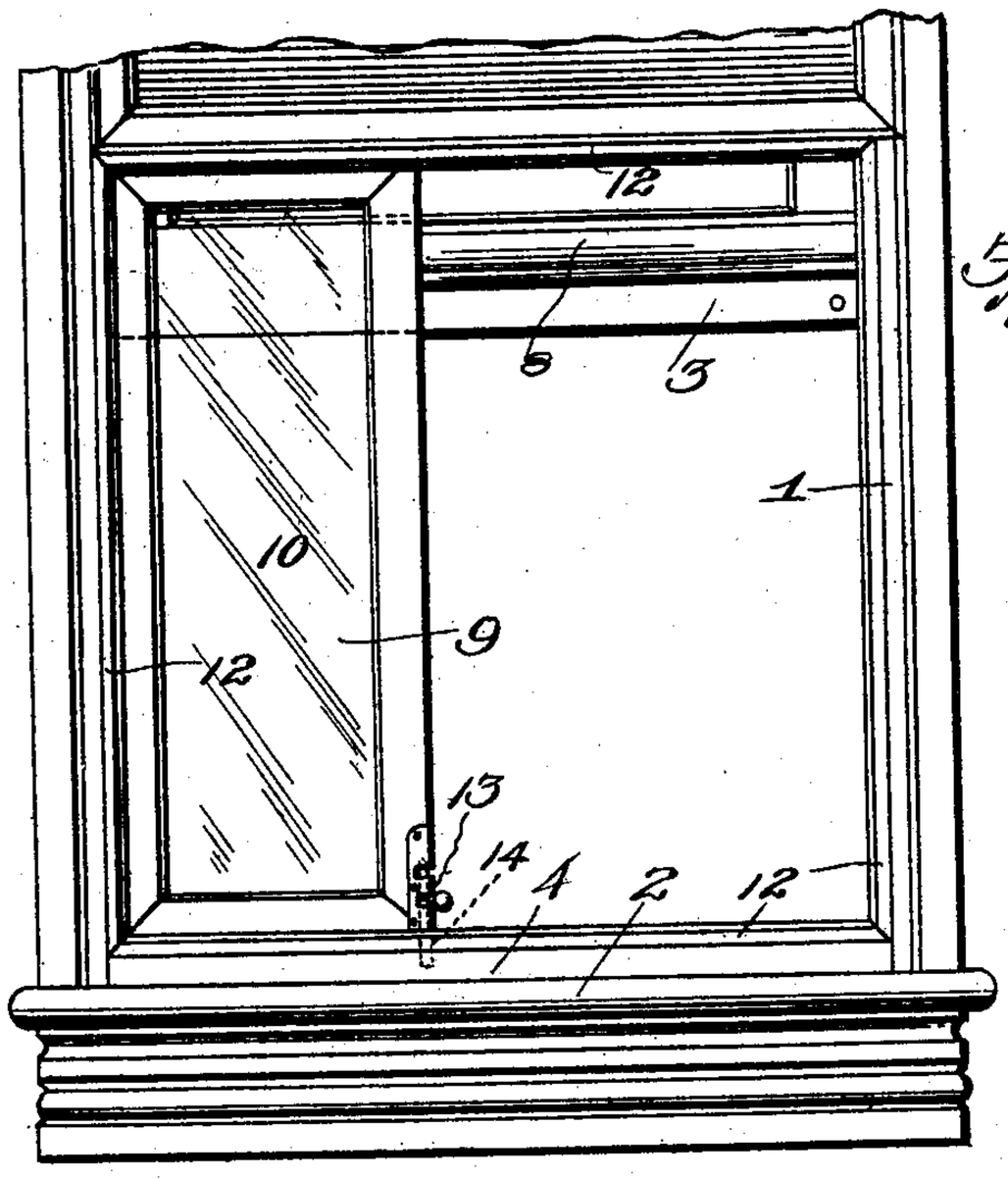

Fig. 1.

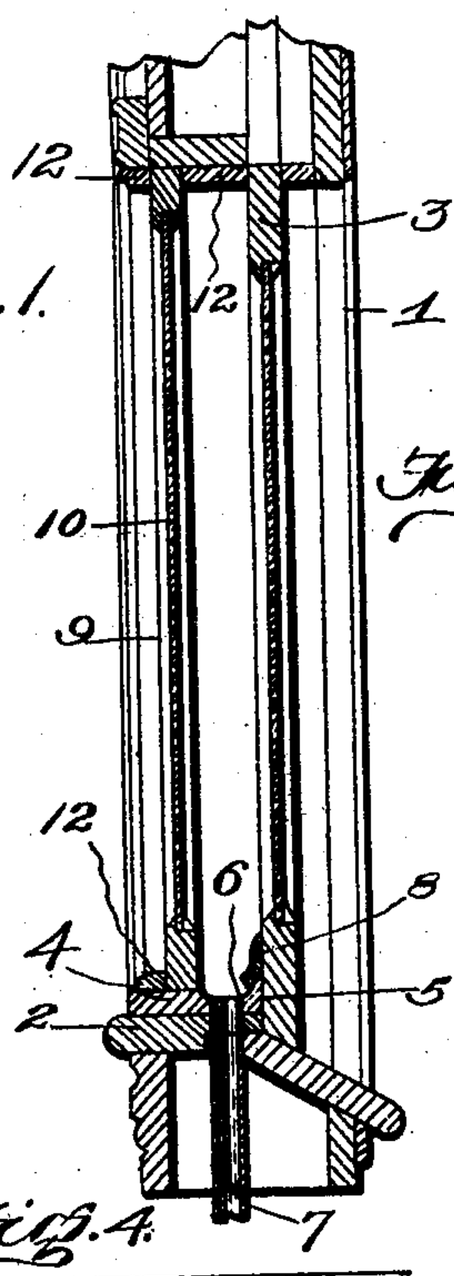

Fig. 2.

Fig. 4.

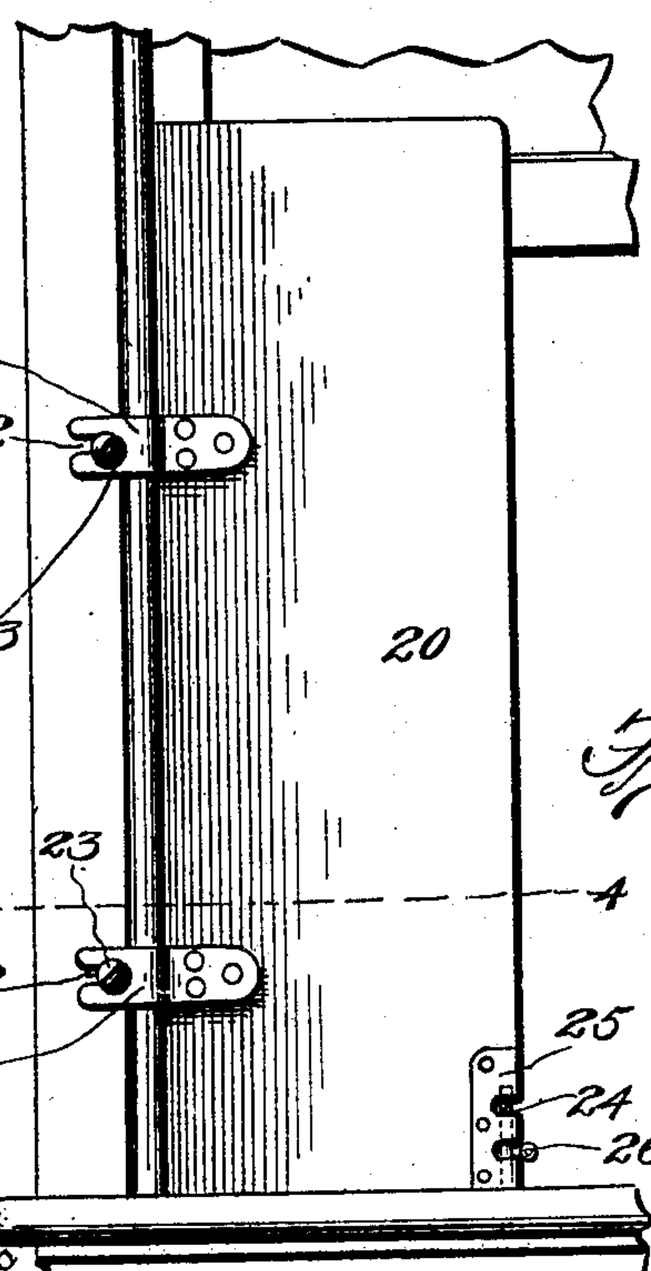

Fig. 3.

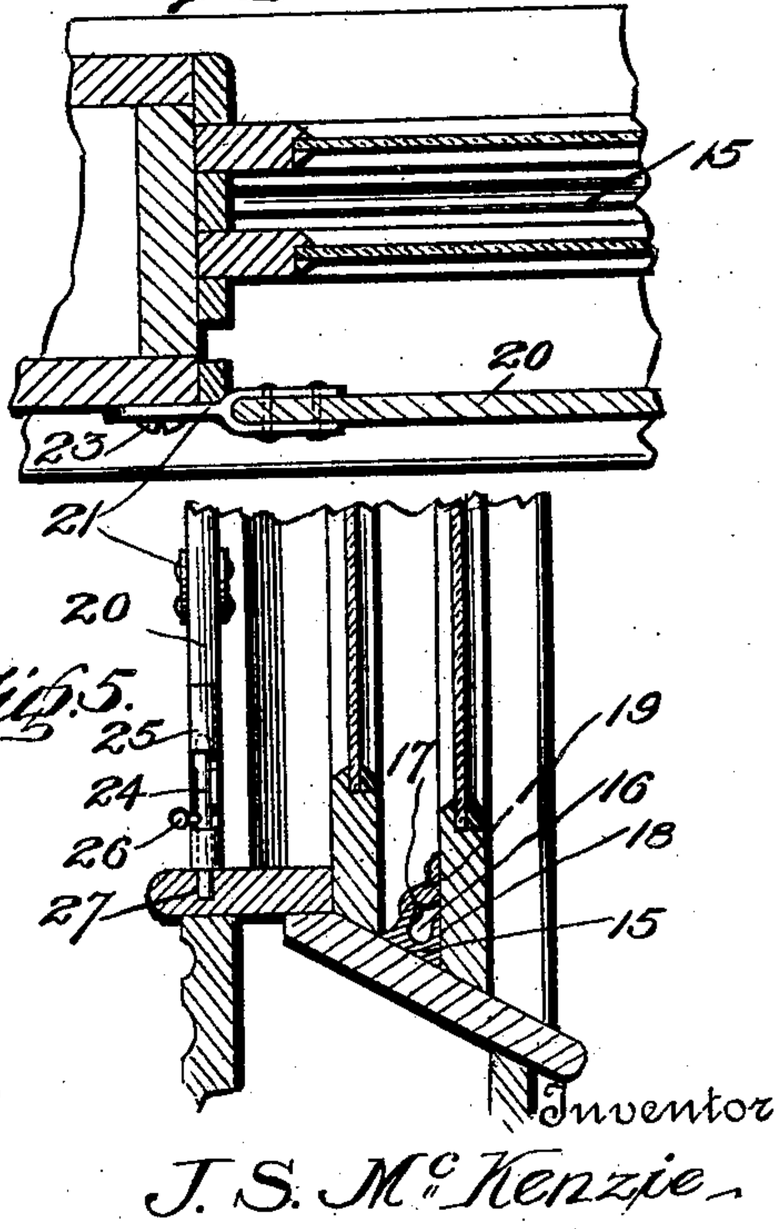

Fig. 5.

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DUST AND CINDER SHIELD AND GUARD FOR CAR-WINDOWS.

No. 897,994. Specification of Letters Patent. Patented Sept. 8, 1908.

Application filed April 5, 1906, Serial No. 310,193. Renewed February 5, 1908. Serial No. 414,448.

To all whom it may concern:

Be it known that I, JAMES S. McKENZIE, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Dust and Cinder Shields and Guards for Car-Windows; and I 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.

This invention relates to improvements in dust and cinder shields and guards for car windows.

The object of the invention is to provide a shield and guard of this character adapted to be applied to car windows either in the course of construction or which are already built, whereby dust and cinders will be prevented from entering the windows when the sash is either in an open or closed position.

A further object is to provide means whereby the shield may be secured to and readily removed from one side of the window to the other, and which may be used in connection with single or double sash windows.

With the above and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings:—Figure 1 is a side view of a car window and a portion of the frame thereof, showing the manner in which the shield is applied thereto in the construction of the car; Fig. 2 is a vertical sectional view through the same, showing the arrangement of the guard and cinder trough employed when applied to cars in the course of construction; Fig. 3 is a side view of a portion of a car window, showing the manner of applying the invention to cars already built; Fig. 4 is a horizontal sectional view on the line 4—4 of Fig. 3; Fig. 5 is a vertical sectional view through the sill, showing the arrangement of the guard used in connection with the shield shown in Fig. 3 and as applied to a window having a double sash.

Referring more particularly to Figs. 1 and 2 of the drawings, 1 denotes the window frame, 2 denotes the window sill, and 3 denotes the sash. These parts may be of the usual or any suitable construction. Resting upon the sill 2 of the window frame and forming a part of said frame is a trough strip 4, said strip extending across the width of the sill and has formed on its outer edge a vertical face 5 which is adapted to closely engage the inner side of the lower rail of the sash when the latter is in a closed position. In the trough strip 4 adjacent to the sash engaging edge thereof is formed a longitudinally disposed channel or trough 6, with which is connected a discharge tube 7, the lower end of which projects through the sill supporting frame of the car, as shown.

Secured to the inner side of the lower cross strip of the sash is a longitudinally disposed cap strip 8, which when the sash is closed is adapted to engage the upper outer edge of the trough strip, thereby forming a dust and cinder proof closure at the lower edge of the sash, whereby when the window is closed no dust or cinders will be permitted to pass between the edge of the lower strip of the sash and the adjacent vertical face 5 of the trough strip. Any dust or cinders which may work in through other parts of the sash will drop into the trough and be carried off through the discharge tube 7, as will be understood.

Adapted to be used in connection with the guard and trough is a shield 9 adapted to be arranged inside the window sash, said shield being constructed in any suitable manner, but is here shown as consisting of an open frame having arranged therein a glass panel 10. As shown in Figs. 1 and 2, the shield 9 is removably held in place in the window frame by means of inner and outer stop strips 12 which are secured to the window frame at the sides and across the top and form a part of the same. In the inner edge of the shield frame at the lower end of the same is mounted a sliding bolt 13, which is adapted to be pushed downwardly into a hole or recess 14 formed in the trough strip 4, as shown, thereby securely holding the shield in position. By arranging the shield in the window frame as above described, said shield may be readily transferred from one side of the window frame to the other, so that when the sash is opened the cinders will be prevented from being blown into the car when the train is moved in either direction and being arranged on the inside of the trough, deflects the cinders blown thereagainst into said trough.

In Figs. 3, 4 and 5 of the drawings is shown a similar guard and shield adapted to be applied to windows and cars already con-

structed, the windows being provided with either double or single sashes. In this instance the guard consists of a strip 15 adapted to be secured to the outer portion of the window sill between the sashes. The guard strip is formed with a longitudinally disposed trough or channel 16 and an upwardly projecting flange 17 arranged at the inner side of the trough, as shown. The strip 15 is provided on its outer edge with a vertically disposed sash engaging surface 18, with which the inner side of the lower rail of the outer sash is adapted to be engaged when the sash is in closed position. Secured to the inner side of the lower strip of the sash is an inwardly projecting cap strip 19, which when the sash is brought to a closed position is adapted to engage and to fit over the upper edge of the flange 17 formed on said guard strip, as shown. It is obvious that while I have shown the guard strip and cap applied to a double sash, the same may also be readily applied to a single sash.

Adapted to be used in connection with the guard strip 15 and cap 19 is a shield 20, said shield being shown in the present instance in the form of a solid board or panel, which may be constructed of any suitable material. On the outer edge of the shield 20 are secured outwardly-projecting spaced fastening plates 21, said plates being provided in their outer ends with recesses or notches 22, by means of which they are engaged with headed screws 23 driven into the side of the window frame, as shown. The shield 20 is provided on its inner edge adjacent to the lower end thereof with a slidably mounted fastening bolt 24, which is secured in a suitable casing 25 and is provided with a handle or knob 26 by which said bolt may be projected into or retracted from a recess or hole 27 formed in the window sill, whereby said shield is removably held in place at one side or the other of the window frame.

By providing a shield constructed as herein shown and described, the window of the car may be opened without danger of cinders blowing into the car, said cinders striking the shield and being thereby thrown outwardly or caused to drop into the channel of the trough strip arranged at the lower edge of the sash, as hereinbefore described.

Having thus described my invention, what I claim as new and desire to secure by Letters-Patent, is:—

A cinder guard and shield for car windows comprising in combination with a window sash a trough strip secured to the window sill, said strip having formed therein a longitudinally disposed trough or channel, a vertical engaging surface formed on the outer edge of the strip to engage the inner side of the lower rail of the sash when the latter is in a closed position, means to discharge cinders from said trough, a cap strip secured to the inner side of the lower rail of said sash to engage said trough strip when the sash is in a closed position, and means for deflecting cinders into said trough comprising a removable shield adapted to be arranged in either side of the window to deflect the cinders into the trough and prevent their entrance into the car when the sash is raised, laterally-projecting notched or recessed fastening plates secured to the side of and projecting from the outer edge of said shield, headed screws arranged on the adjacent side of the window frame to receive the notched outer ends of said fastening plates, thereby removably holding the shield in engagement with the window casing, and a slidably mounted bolt arranged on the lower inner corner of the shield and adapted to be engaged with the recess in the sill to hold said shield in place, substantially as described.

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

JAMES S. McKENZIE.

Witnesses:
R. M. Williams,
R.. I. O'Kelly.