

No. 697,527.

Patented Apr. 15, 1902.

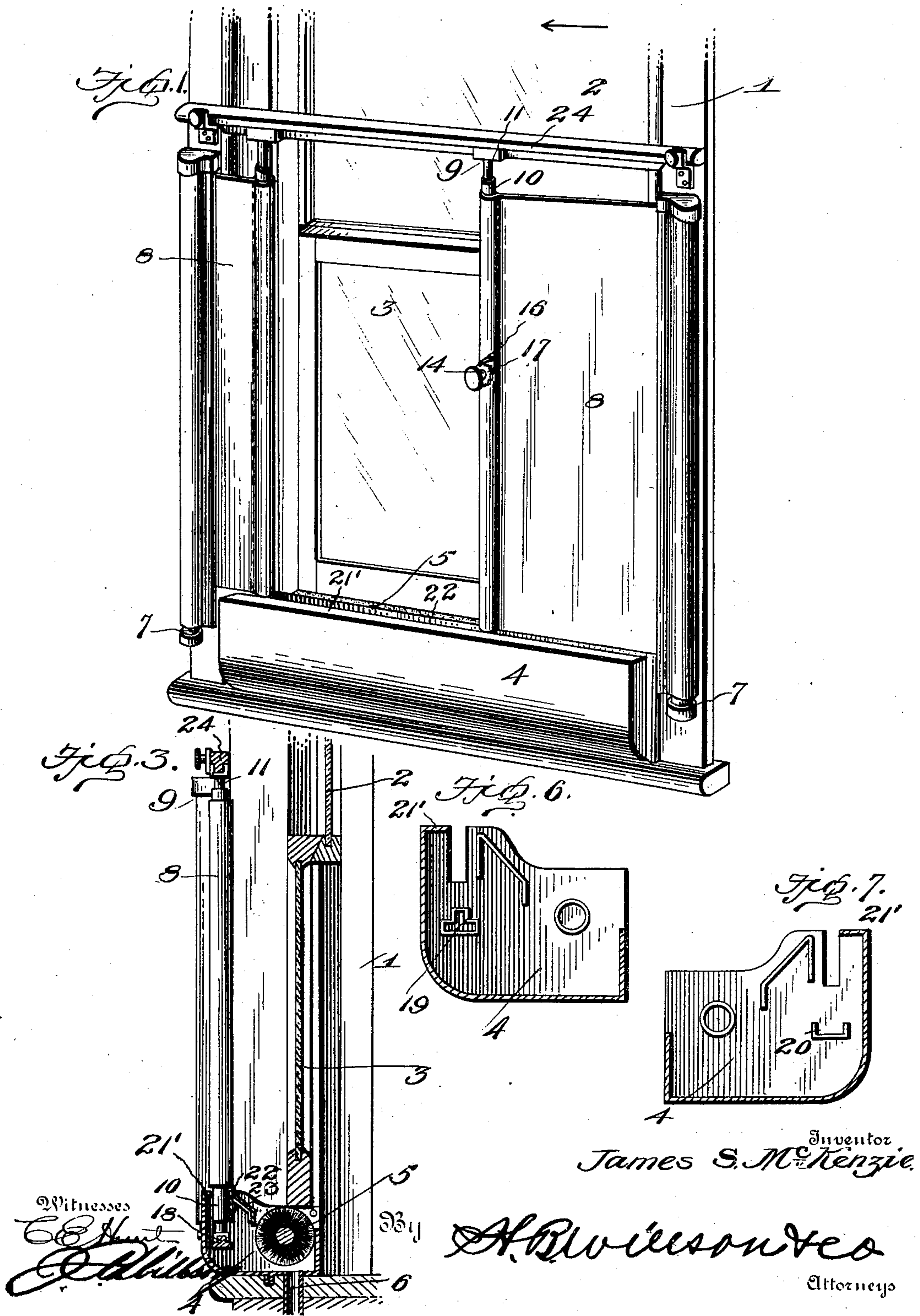
J. S. McKENZIE.

DUST AND CINDER GUARD FOR ALL KINDS OF RAILWAY PASSENGER COACHES.

(Application filed July 2, 1901.)

(No Model.)

2 Sheets—Sheet 1.



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2 Sheets—Sheet 2.

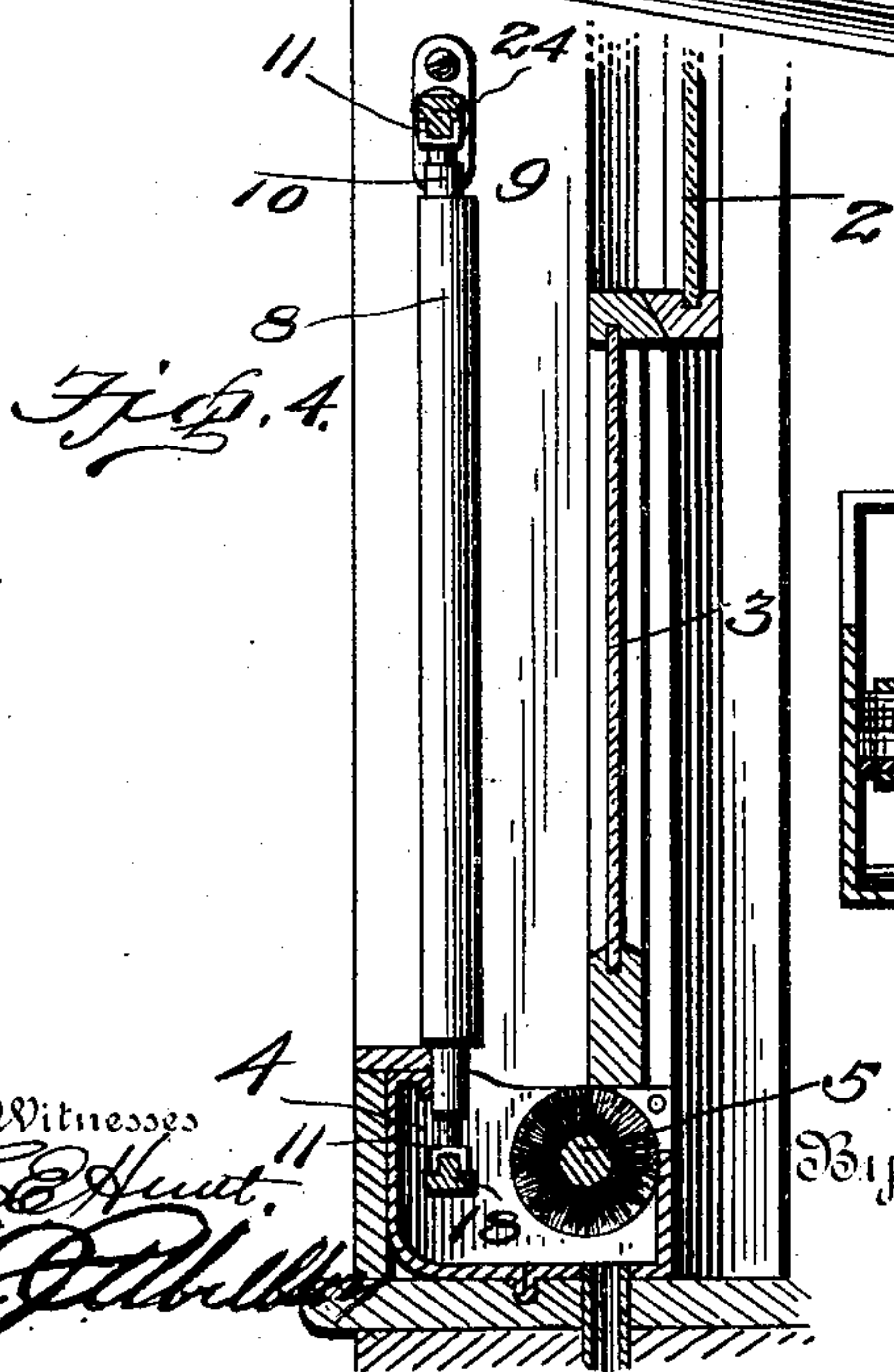
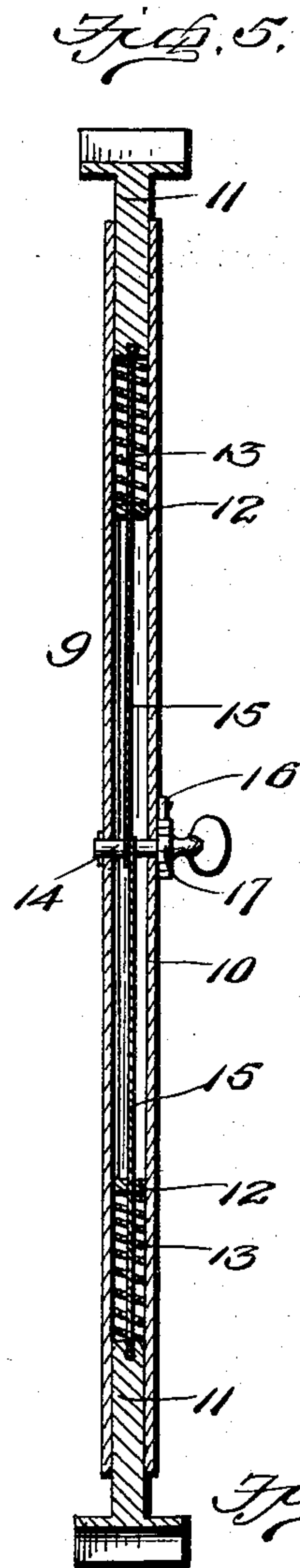
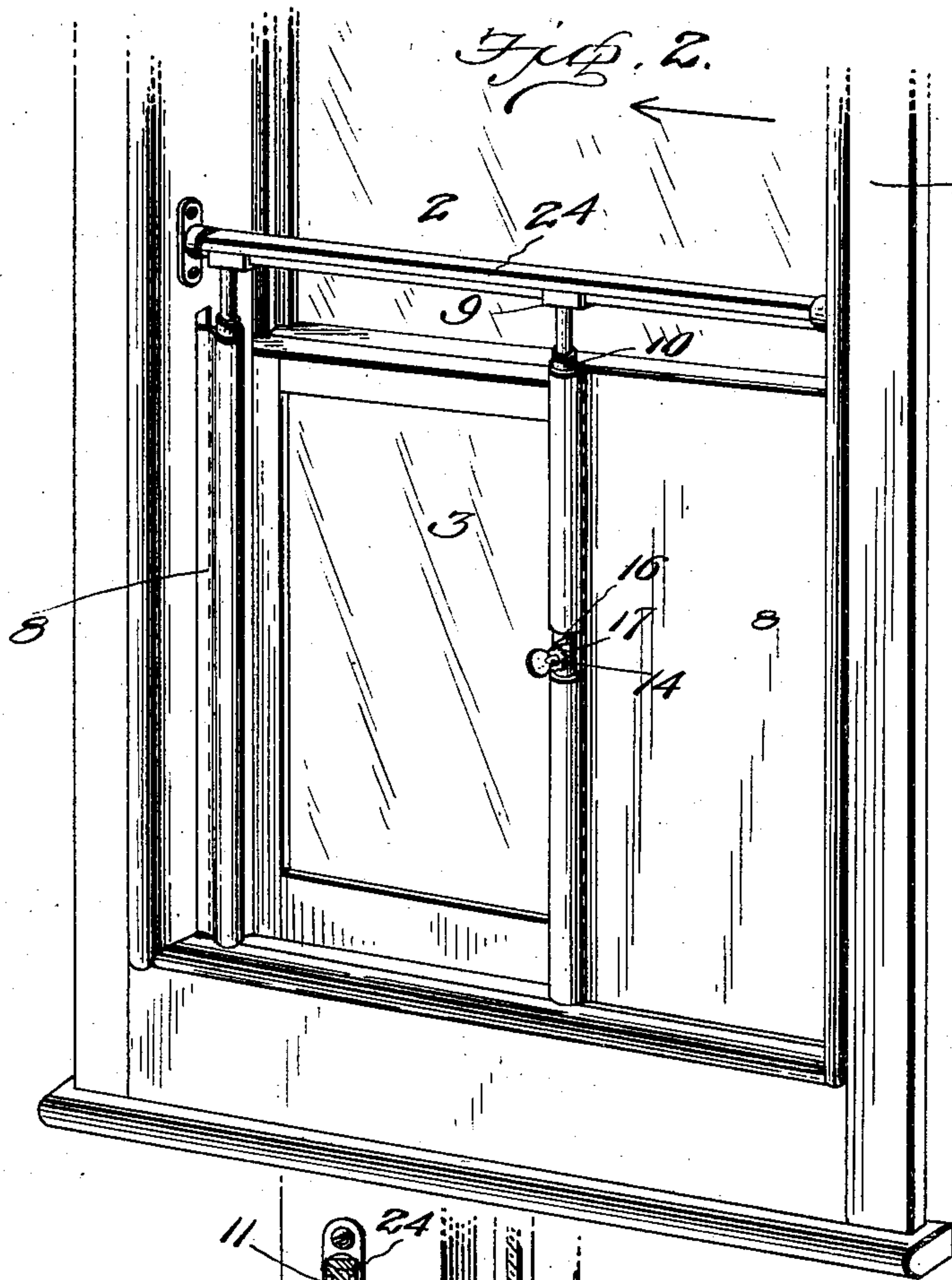


Fig. 8.

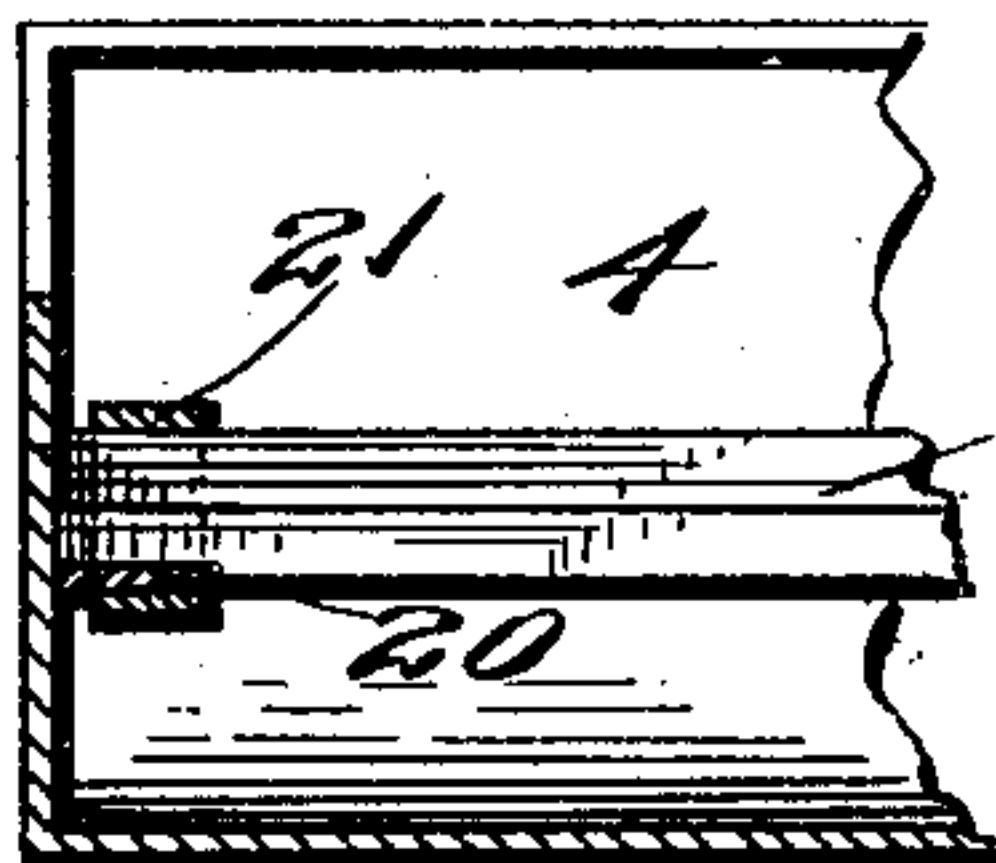
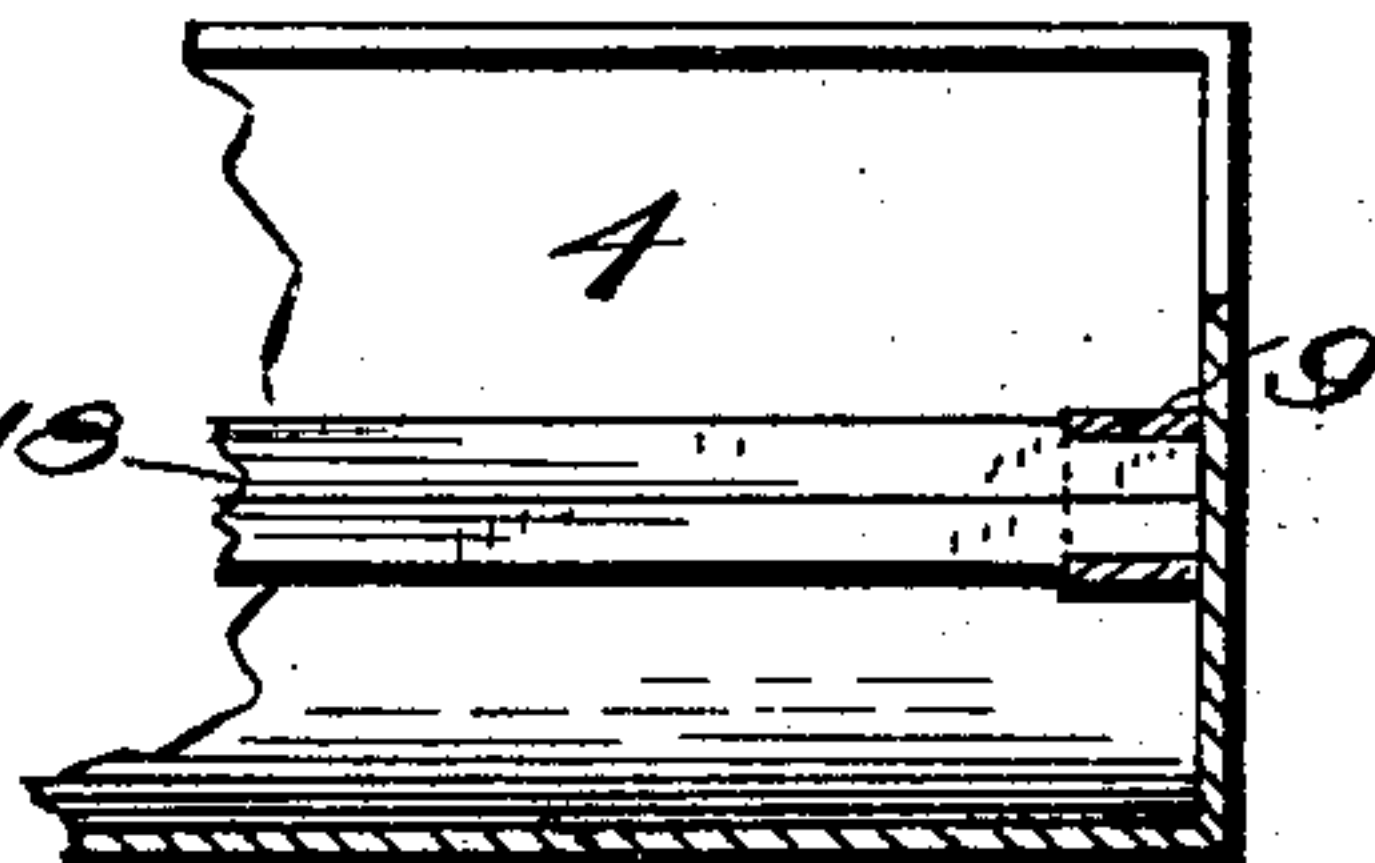


Fig. 9.



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UNITED STATES PATENT OFFICE.

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DUST AND CINDER GUARD FOR ALL KINDS OF RAILWAY PASSENGER-COACHES.

SPECIFICATION forming part of Letters Patent No. 697,527, dated April 15, 1902.

Application filed July 2, 1901. Serial No. 66,821. (No model.)

To all whom it may concern:

Be it known that I, JAMES SOLOMON MCKENZIE, a citizen of the United States, residing at Birmingham, in the county of Jefferson and State of Alabama, have invented certain new and useful Improvements in Dust and Cinder Guards for all Kinds of Railway Passenger-Coaches; 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.

The invention relates to a dust and cinder guard for all forms of railway passenger-coaches.

The object of the invention is to provide a device of this character by means of which the dust and cinders may be caught and be prevented from entering the coach whether the window be opened or closed, thus overcoming a serious objection and annoyance incident to railroad travel.

With this and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, which will be hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a perspective view of a window-casing from within, illustrating my invention when applied to coaches already constructed and showing that curtain-shield which is drawn partially across the window-opening when the train is traveling in the direction indicated by the arrow. Fig. 2 is a similar view when the invention is applied to cars while being constructed, in contradistinction to the application of the invention to cars already completed. Fig. 3 is a vertical sectional view through Fig. 1. Fig. 4 is a similar view through Fig. 2. Fig. 5 is a vertical sectional view through the curtain-fastener. Fig. 6 is a view of the inner face of one end of the cinder-pan. Fig. 7 is a similar view of the other end. Fig. 8 is a fragmentary vertical sectional view of one end of the pan and one end of the bar fitted in the socket carried by said pan; and Fig. 9 is a similar view of the other end of the pan and the other end of said bar, showing the manner of connecting that end of the

bar to the socket secured at that end of the pan.

In the drawings, 1 denotes the window-casing of a railway passenger-coach.

2 denotes the upper outer sash, and 3 the inner lower sash.

4 denotes the cinder or dust pan secured to the window-sill, and 5 denotes a brush extending longitudinally across said pan and adapted to have its fibers come in contact with the lower edge of the lower sash and thereby collect the dust and cinders and allow them to fall to the bottom of said pan and be drawn off therefrom by the air-suction through the pipe 6, as explained in my application for patent filed of even date. This construction, however, does not provide for the collection of cinders when the lower sash is elevated.

To prevent dust and cinders from entering the coach, I provide on each side of the window-casing a curtain-shield, so that when the coach is traveling in the direction indicated by the arrow in Fig. 1 the shield at the rear jamb or side of the window-casing may be pulled partially across the window, so that all dust and ashes striking the rear jamb will be hurled against said curtain-shield, their force retarded and caused to drop in the pan, whence they may be removed by any suitable means. When the coach is moving in the opposite direction, the other shield is partially drawn across the window-opening and acts in the same manner. It will thus be seen that the windows may be opened at will and at the same time the occupant adjacent to the window may have full view of the scenery, and yet the dust and cinders will be prevented from entering the car, for it has been demonstrated that all ashes and dust entering the car do so by reason of first striking the rear jamb of the window-casing and being hurled inwardly.

Any suitable form of curtain may be provided without departing from the spirit of my invention, as I consider the essence of the present invention to reside in the combination, with a dust or cinder pan, of a curtain-shield adapted to be moved crosswise of a window-opening and having its lower end so disposed as to conduct the dust or cinders strik-

ing said curtain-shield directly into the pan, and thus prevent them from entering the coach. Therefore I contemplate the employment of any suitable form of curtain, and will now proceed to describe that shown in the drawings.

7 denotes a spring-roller arranged at each side of the window-casing, as shown in Figs. 1 and 3. Each roller is mounted in a suitable housing. This arrangement is resorted to when the shield is applied to coaches already constructed. As shown in Figs. 2 and 4, each roller is journaled within the window-casing instead of being provided with a protruding shield. It will of course be understood that when my invention is applied to cars already constructed the easiest and best way would be to arrange the parts as shown in Fig. 1. If, however, in the building of the car it be desired to apply the invention, the best way would be to apply it as shown in Fig. 2, and thus do away with the protruding shield.

8 denotes a curtain, one secured to each roller and adapted to be wound thereupon when not in use.

9 denotes any suitable form of fastening means designed for holding the curtain in its adjusted position. In the present instance it consists of a tube 10, secured within the hem at the free end of the curtain and provided at its ends with bolts 11, between the inner ends of which and partitions 12 are interposed coiled springs 13.

14 denotes a winding-drum journaled in the tube and connected to said bolts by cords 15. By rotating the winding-drum the cords will be wound thereupon and the bolts retracted and held in that position by a pawl 16, engaging a ratchet-wheel 17, secured to the winding-drum, or any other suitable means may be provided for holding the bolts retracted. The heads or outer ends of these bolts work, the lower one against a bar 18, arranged longitudinally within the dust or cinder pan and having one end seated in a socket 19, corresponding in shape to the cross-section of said bar and having its other end seated in the socket 20 and held therein by a sliding collar 21. The lower end of said bar slides in a longitudinal slot formed in the upper inner end of said pan. This slot is preferably formed by bending the upper edge of said pan inwardly, as shown at 21', and providing a separate piece 22, which is supported by the end pieces of the pan in any suitable manner and is located a slight distance from the part 21' of the pan and is provided with a downwardly-inclined ledge 23, which leads the dust and cinders arrested by the curtain onto the brush and into the pan. The heads of the upper bolts work against a bar 24, which

is clamped or otherwise secured across the window-casing near its upper end. When the bolts are released from engagement with their bars, the spring-roller will automatically wind up the curtain or curtain-shield.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of my invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

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

1. The combination with the window-casing of a railway passenger-coach, of a dust or cinder pan located at the lower end of the window-casing, a flexible shield movable across the window-opening and having its lower end disposed to conduct dust and cinders, entering the window-opening, into the pan, substantially as set forth.

2. The combination with the window-casing of a railway passenger-coach, of a dust or cinder pan located at the lower end of the window-casing, a spring-actuated flexible shield movable across the window-opening and having its lower end disposed to conduct dust and cinders, entering the window-opening, into the pan, substantially as set forth.

3. The combination with the window-casing of a railway passenger-coach, of a dust or cinder pan located at the lower end of the window-casing, a flexible shield movable across the window-opening and having its lower end disposed to conduct dust and cinders, entering the window-opening, into the pan, and means for holding the shield in its adjusted position across the window-opening, substantially as set forth.

4. The combination with the window-casing of a railway passenger-coach, of a dust or cinder pan located at the lower end of the window-casing, a brush located within said pan, and a flexible shield movable across the window-opening and having its lower end disposed to conduct dust and cinders, entering the window-opening, into the pan, substantially as set forth.

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

JAMES SOLOMON MCKENZIE.

Witnesses:

W. GILMORE SIMMS,
FRANK H. CREECH.