3 Sheets—Sheet 1.

H. A. MORGAN & D. J. GILLELAND.

Dust-Deflector for Cars.

No. 209,066. **Patented Oct. 15, 1878.**

Fig. 1.

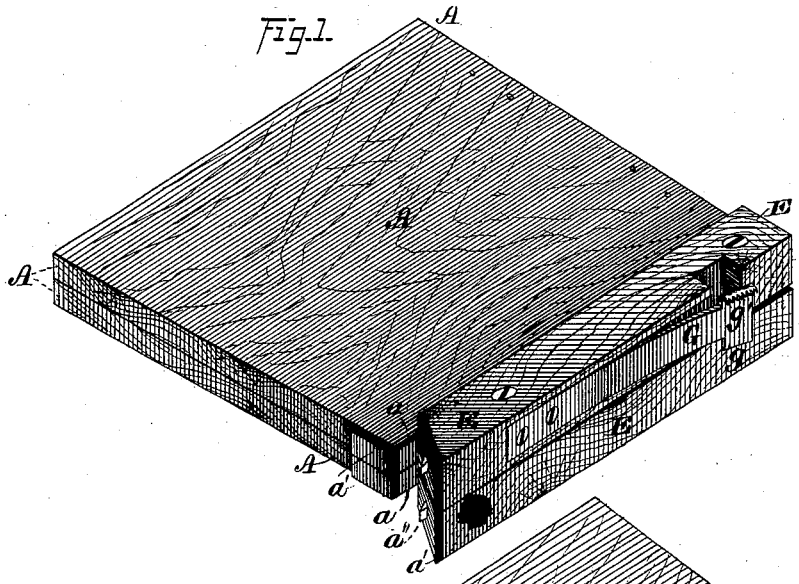
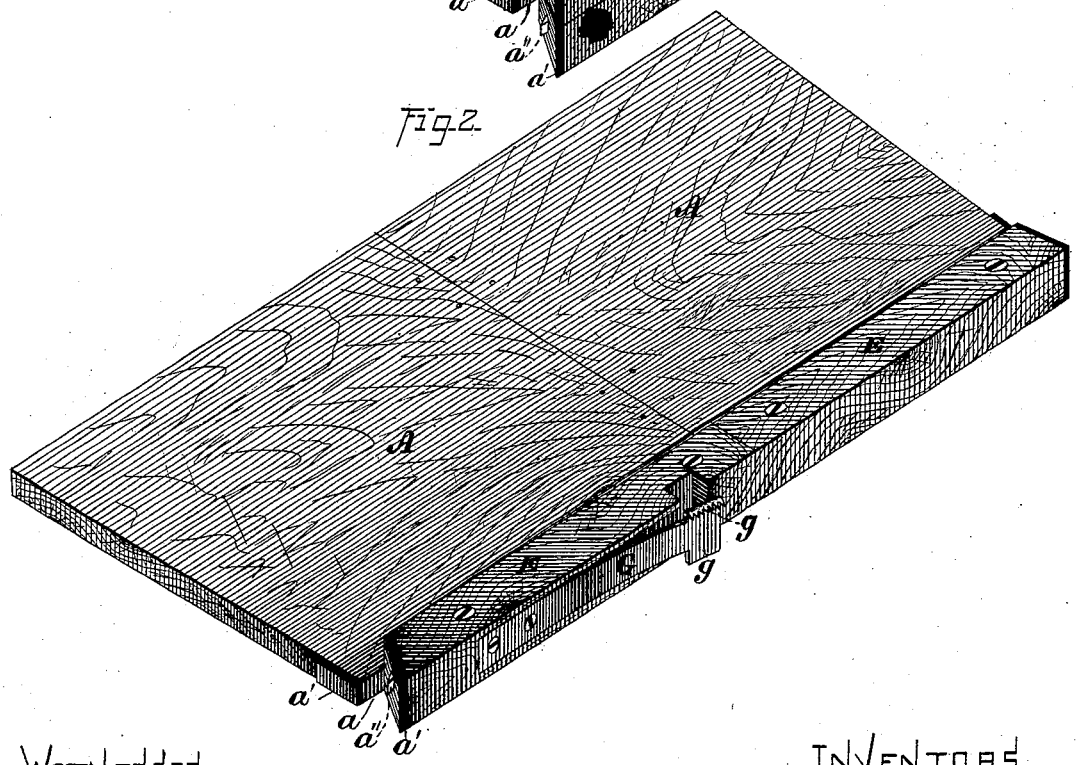


Fig. 2.



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3 Sheets—Sheet 2.

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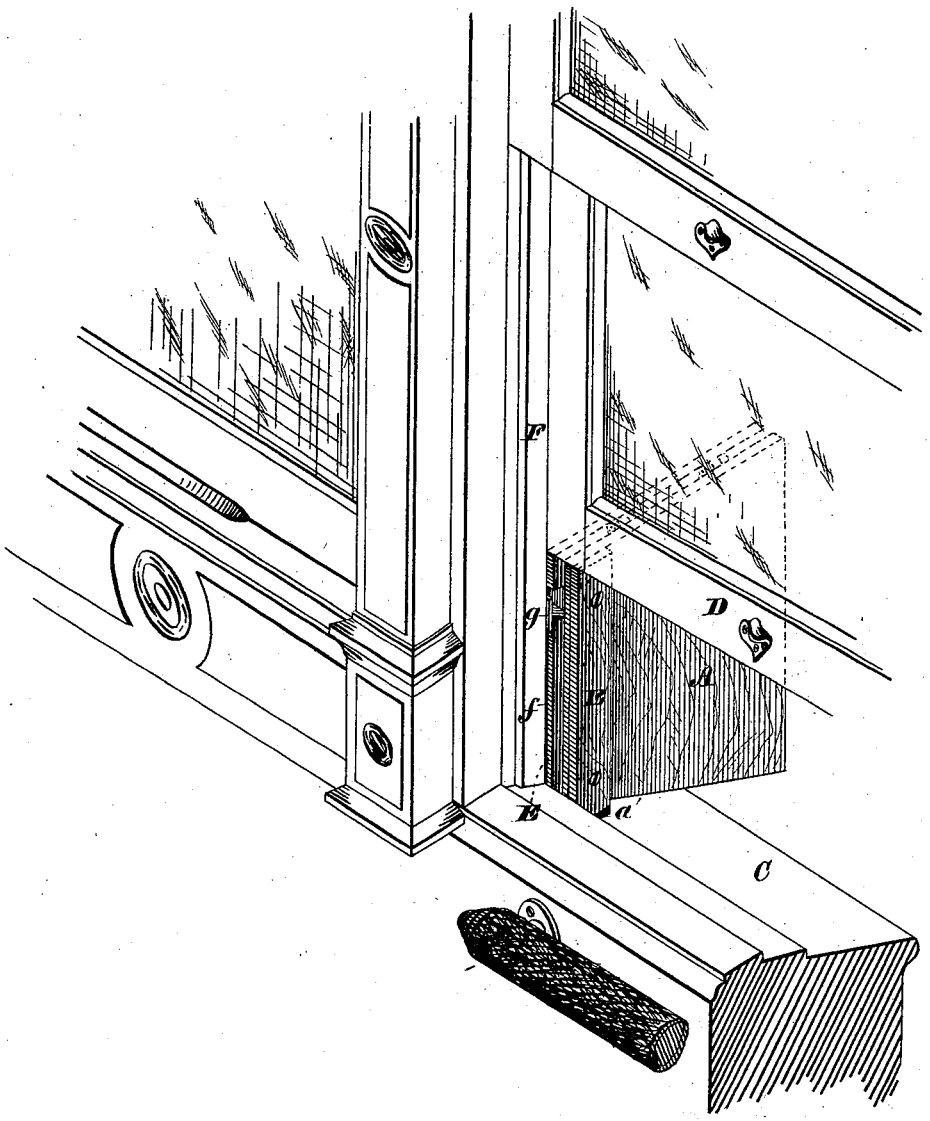
Fig. 3.



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3 Sheets—Sheet 3.

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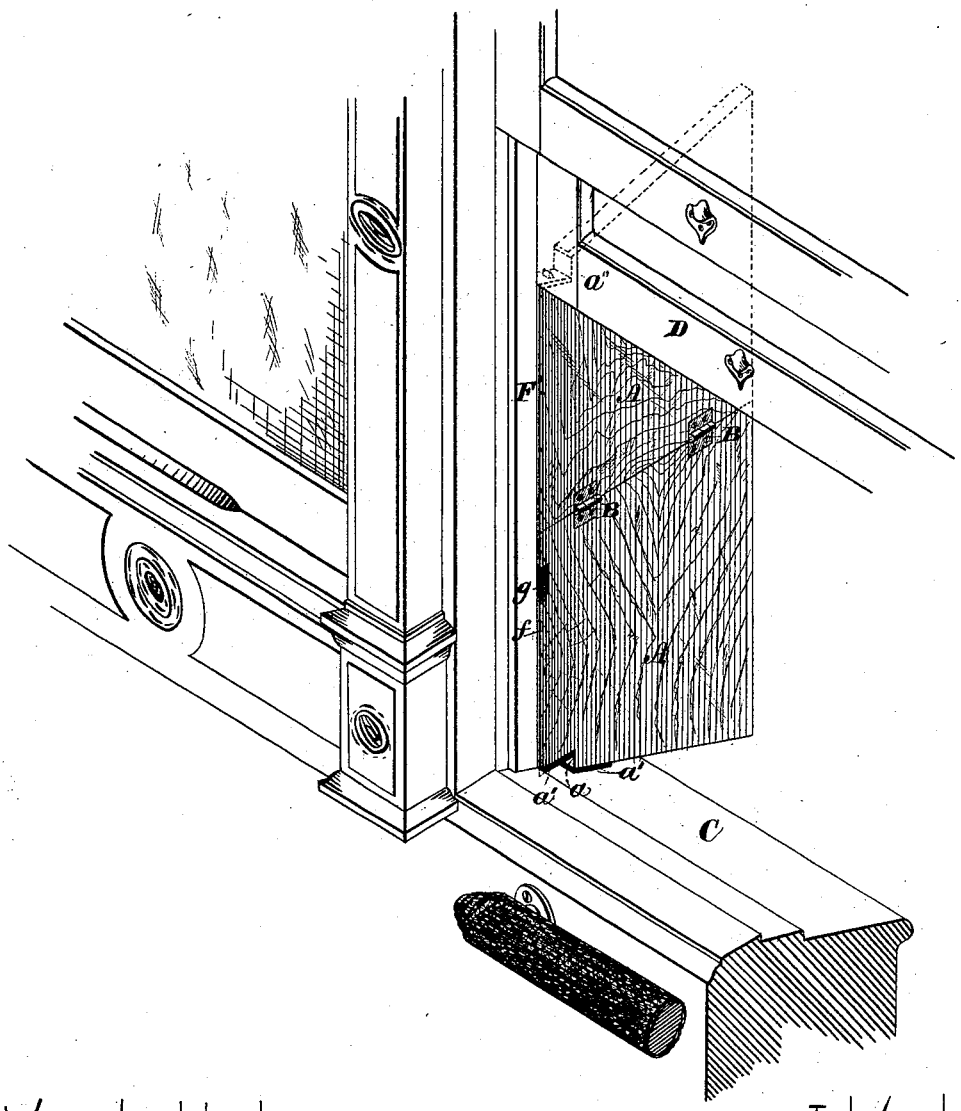
Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HORACE A. MORGAN AND DELOS J. GILLELAND, OF DECATUR, ILLINOIS.

IMPROVEMENT IN DUST-DEFLECTORS FOR CARS.

Specification forming part of Letters Patent No. **209,066,** dated October 15, 1878; application filed September 4 1878.

To all whom it may concern:

Be it known that we, HORACE A. MORGAN and D. J. GILLELAND, of Decatur, in the county of Macon, and in the State of Illinois, have invented certain new and useful Improvements in Dust-Deflectors for Railroad-Cars; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of our improved device folded together and arranged for storage. Fig. 2 is a like view of the same opened out and ready for use. Fig. 3 is a side elevation of said device folded and applied to a car-window. Fig. 4 is a like view of the same opened and in position within a car-window.

Letters of like name and kind refer to like parts in each of the figures.

The design of our invention is to furnish an efficient and easily-applied means for preventing cinders from entering the open window of a car; to enable the same to be fitted to two different widths of window-openings, and to enable it to occupy a minimum of space when stored; to which end it consists, principally, in a dust-deflector provided at its longitudinal center with a joint, whereby its length can be reduced one-half, and arranged to engage with and be held in position beneath a car-window, whether extended or folded together, substantially as and for the purpose hereinafter specified.

It consists, further, in the means employed for securing the deflector in position beneath the sash, substantially as and for the purpose hereinafter shown.

It consists, finally, in the device as a whole, its several parts being constructed and combined to operate in the manner and for the purpose substantially as hereinafter set forth.

In the annexed drawings, A and A represent two sections of our deflector, which sections have the same shape in plan view, and at their contiguous ends are connected by hinges B, so as to permit of being folded together, as shown in Figs. 1 and 3.

The outer end of each section A is formed upon an angle which coincides with the usual slope of the outer sill, C, of a car-window, while at the inner edge of each section is provided a notch, *a*, that has a relatively opposite angle, and corresponds in width to the thickness of an ordinary car-sash, D.

The inclined face of each notch *a* and the contiguous portion of the oppositely-inclined end of each section A are covered with rubber *a'*, while within said inclined face is provided a metal stud, *a''*, which is pointed and extends outward for about one-sixteenth of an inch in a line with the length of the deflector.

Upon one side of each section, at its inner edge, is secured a strip, E, which, in cross-section, corresponds to the general dimensions and shape of the groove *f* in the window-jamb F, while within a recess in the inner edge of said section is secured a flat spring, G, that at its free end has a lateral enlargement, *g*, which extends in one direction beyond the rear face of said section and forms a thumb-piece for operating said spring, and in an opposite direction extends to the face of said strip E, and at the latter point is turned toward the interior of the car, and is provided with teeth *g'*.

The deflector is now complete, and is used as follows: When it is desired to have the sash D raised to the full length of the deflector the latter is opened outward, as seen in Fig. 2, and placed under said sash against the jamb F nearest the front of the car, the strip E being contained within the groove *f*, the inclined end of the lower end of said deflector resting upon the sill C, and the lower edge of said sash being contained within the notch *a* at the upper end of said deflector.

The spring G must be pressed back into its recess when the deflector is placed in position and afterward released, when it will be found that the teeth *g'* will engage with the inner side of the groove *f*, and prevent the withdrawal of said deflector until said spring is released from engagement.

When it is desired that the sash D shall be raised to but one-half its usual height, the deflector is folded together and placed in position with either end uppermost, it being necessary that the spring-catch G should engage.

The deflector described is easily and readily applied, is efficient, and when folded together

occupies so little space as to be easily carried in a hand-satchel.

Dust-deflectors capable of being reduced in length to enable them to be stored in less space have before been used, and such construction is not herein claimed broadly.

Having thus fully set forth the nature and merits of our invention, what we claim as new is—

1. A dust-deflector provided at its longitudinal center with a joint, whereby its length can be reduced one-half, and arranged to engage with and be held in position beneath a car-window, whether extended or folded together, substantially as and for the purpose specified.

2. As a means for securing the dust-deflector in position within a car-window, the strip E, secured upon the side of said deflector and fitting into the sash-groove *f*, and the spring-catch G *g'*, arranged to engage with the inner face of said groove, substantially as and for the purpose shown.

3. The hereinbefore-described dust-deflector, consisting of the hinged sections A and A, provided with the notches *a*, studs *a'*, and strips E, and having the spring-catch G *g g'* attached to its inner edge, all constructed and combined in the manner and for the purpose substantially as set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 30th day of August, 1878.

HORACE A. MORGAN.
DELOS J. GILLELAND.

Witnesses:
JEROME R. GORIN,
CHAS. C. CARTER.