(No Model.) 2 Sheets—Sheet 1.

E. F. WALLER & O. A. CARLSTEDT.

SMOKE AND DUST FENDER FOR CAR WINDOWS.

No. 405,060. Patented June 11, 1889.

Fig. 1.

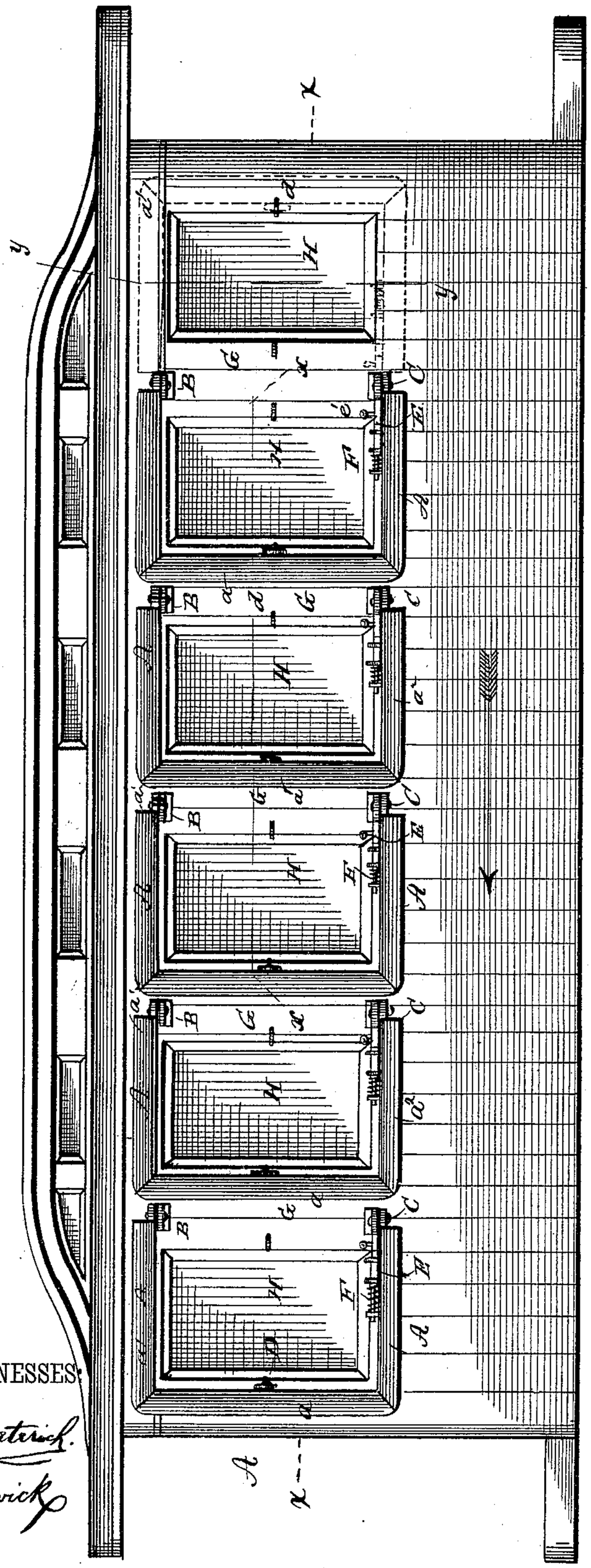
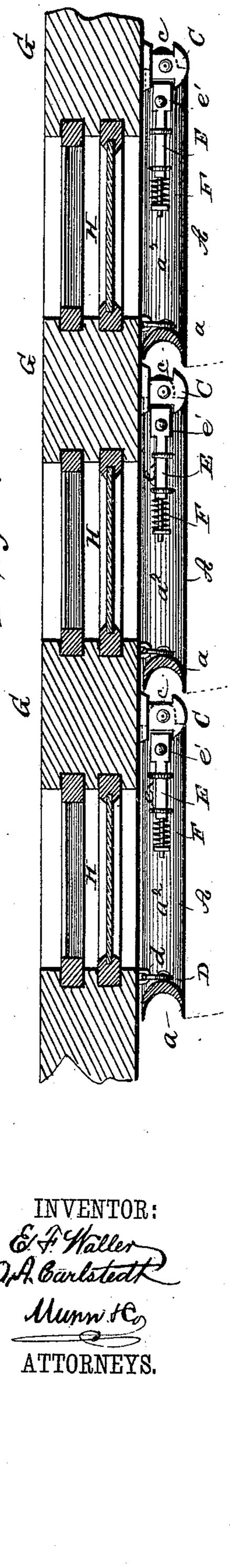


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

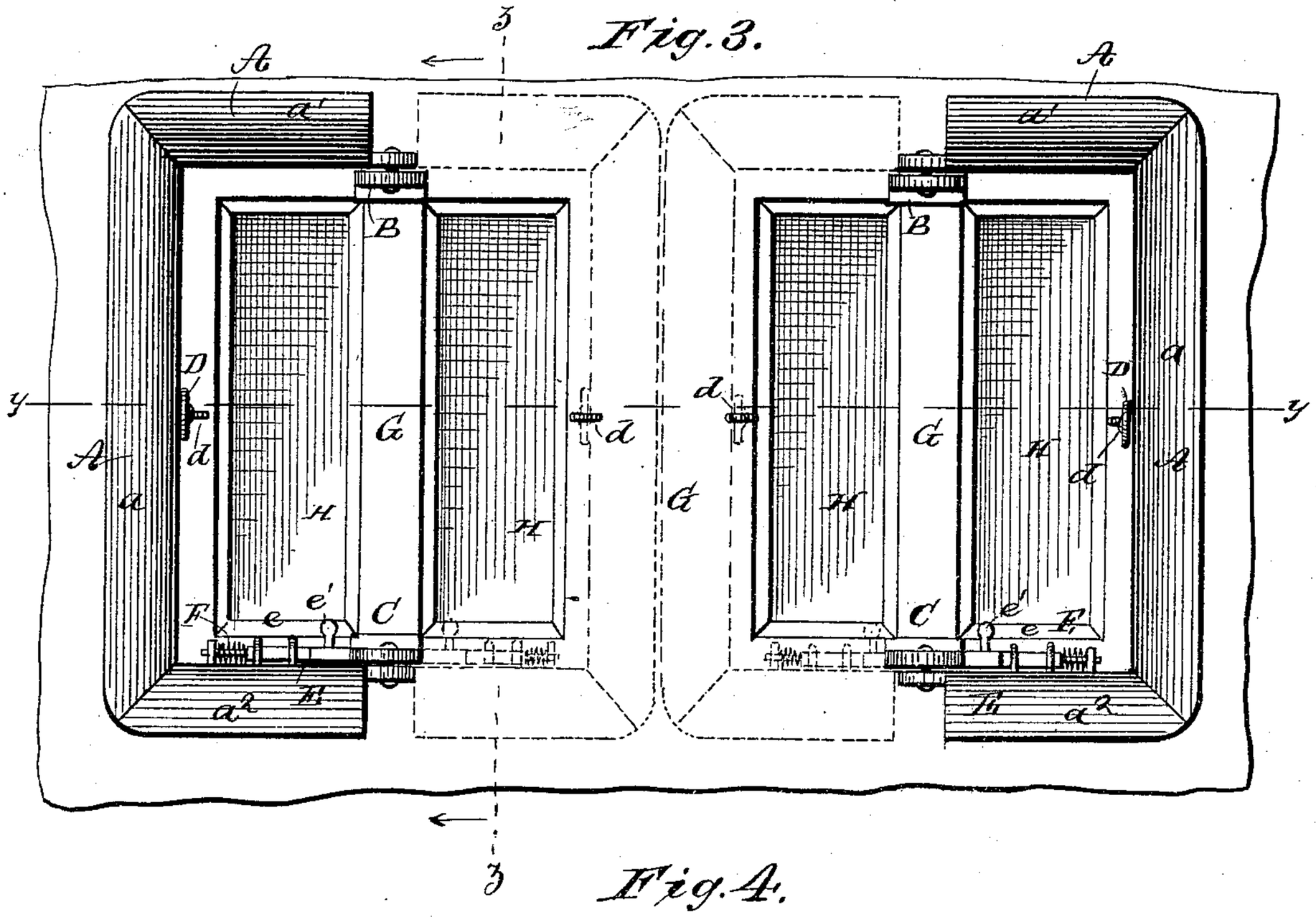


Fig. 4.

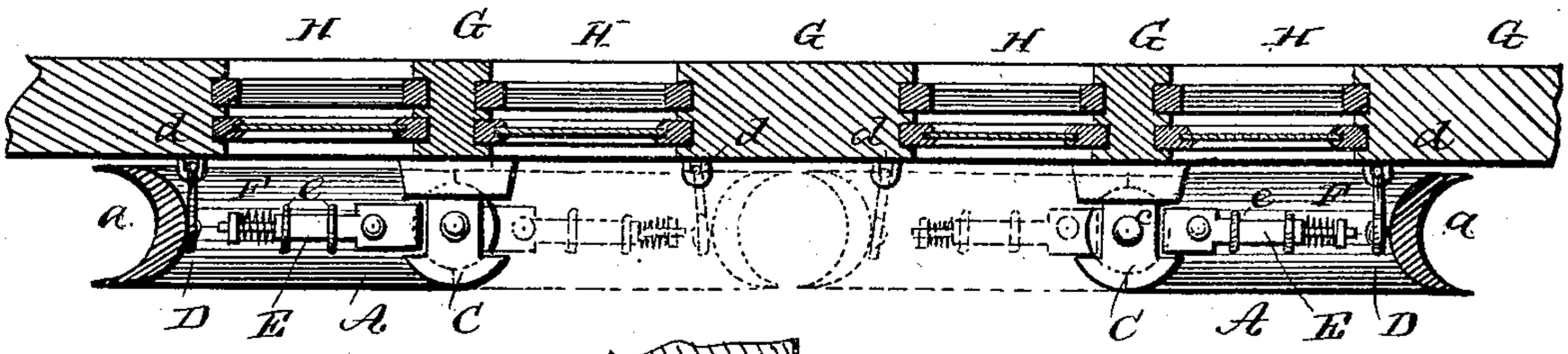


Fig. 5.

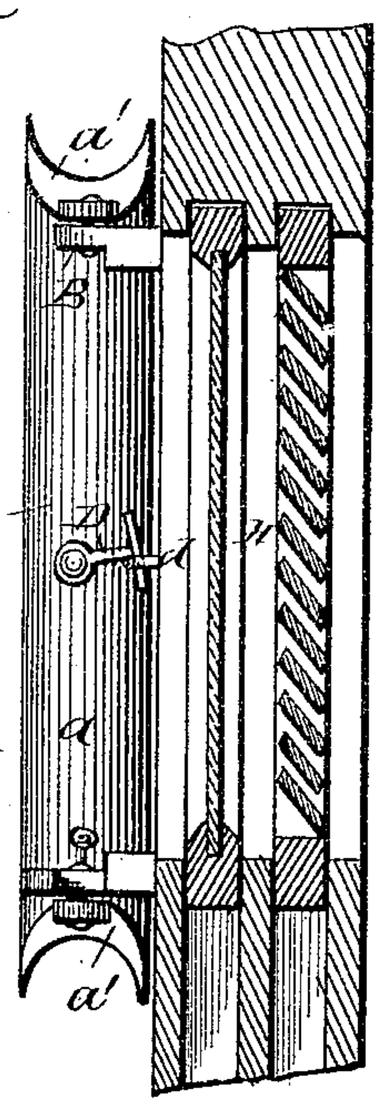
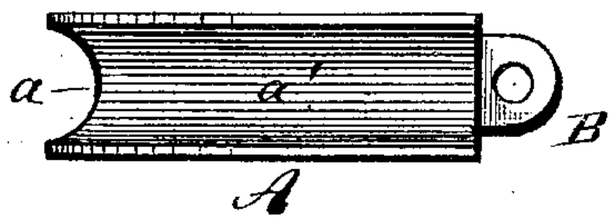


Fig. 6.



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UNITED STATES PATENT OFFICE.

ELIJAH FRANK WALLER, OF HANSON, KENTUCKY, AND OTTO AUGUST CARLSTEDT, OF EVANSVILLE, INDIANA.

SMOKE AND DUST FENDER FOR CAR-WINDOWS.

SPECIFICATION forming part of Letters Patent No. 405,060, dated June 11, 1889.

Application filed November 25, 1887. Serial No. 256,111. (No model.)

To all whom it may concern:

Be it known that we, ELIJAH FRANK WALLER, of Hanson, in the county of Hopkins and State of Kentucky, and OTTO AUGUST CARLSTEDT, of Evansville, in the county of Vanderburg and State of Indiana, have invented a new and Improved Smoke and Dust Fender for Car-Windows, of which the following is a full, clear, and exact description.

Our invention relates to fenders for guarding railway-car or vehicle windows from smoke, cinders, or dust, and has for its object to provide a simple, inexpensive, and efficient device of this character.

The invention consists in certain novel features of construction of the fender, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a car-body, with our improved smoke and dust fenders applied at the car-windows. Fig. 2 is an enlarged detail plan view in horizontal section on the line *x x*, Fig. 1. Fig. 3 is a side elevation of a portion of a car-body, showing two pairs of windows separated by wide and narrow upright panels. Fig. 4 is a sectional plan view taken on the line *y y*, Fig. 3. Fig. 5 is a vertical section through the car-window on the line *z z*, Fig. 3, and shows the fender in rear view; and Fig. 6 is a top view of the fender.

The smoke and dust fender consists, principally, of a plate conforming in shape to the top, one side, and bottom outlines of the car-window which it is to protect. The drawings show windows of rectangular general form and fenders made of a side and top and bottom fitted against the car-body and ranging around one side and the top and bottom of the windows.

We prefer to make the fenders A of metal or other suitable material and in concavo-convex cross-sectional form at their side, top, and bottom; but in so far as some features of our invention are concerned the fenders may be formed of a flat plate bent twice and applied around or to the window.

Each fender is hinged at top and bottom by pairs of hinge-lugs B C, fixed to the fender and the car-body, respectively, and pins passed through these lugs, said hinges B C being arranged at the center of the panel between two of the car-windows, thus allowing the same fender to be swung around on the hinges to guard either of the two windows from smoke and dust, and the opposite edges of the fender may be locked closely to the side of the car-body by a hook D, connected to the inner face of the fender and engaging a staple or eye *d*, fixed to the body of the car. The lower hinge-lug C, which is fixed to the car-body, is provided at its front and rear edges with opposite sockets or recesses *c c*, into either of which a bolt E, held to the lower part or arm of the fender, may pass, according to which side of a pair of windows the fender may be adjusted. The bolt E is guided in staples *e e*, fixed to the fender, and at its rear end has a stem, on which is placed a spiral spring F, the outer end of which is fixed to the fender, while its inner end bears on a shoulder of the bolt to normally throw the bolt forward into one of the hinge-recesses *c*. A knob or button *e'* on the bolt provides for conveniently withdrawing the bolt when it is desired to swing the fender from one side of one window to the opposite side of the next window. The bolt would alone suffice to hold the fender in either of its two positions; but the hooks and staples D *d* assure a close fit of the upper part of the fender against the car-body at the side and top of the window; hence the use of both the bolt and hook and staple are preferred in practice.

It will be noticed that the hinging of the fenders at the panels G of the car-body and between the car-windows H is very advantageous, as it allows the same fender to be used to guard two windows when the car is moving in opposite directions. For instance, when the car is moving in direction of the arrow 1 in Fig. 1 of the drawings the upright or side portion *a* of the fender will be swung over forward or in front of the window, and when the car is moving in the other direction the fender will be swung over at the other side of the next window, as indicated in dotted lines at the right-hand end window in Fig. 1 of the

drawings, this reverse movement of the fenders being also indicated in dotted lines in Figs. 3 and 4 of the drawings.

The herein-described fender is adapted for use on cars having windows H spaced like distances apart by panels G of the same width, as shown in Figs. 1 and 2 of the drawings, and on cars having windows H arranged in pairs or separated by alternate wide and narrow panels, as shown in Figs. 3 and 4 of the drawings.

It is obvious that fenders embodying the novel principles of construction herein described and claimed may have any required form corresponding with the form of the window, whether it be arched-topped or oval or other shape.

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

1. A smoke and dust fender for car-windows, consisting of a guard-plate extended around the side, top, and bottom of a window and hinged to the car-body between two windows, substantially as shown and described, whereby the same fender may be used for either of the two windows and will guard either window at the side, top, and bottom, as and for the purposes herein set forth.

2. A smoke and dust fender for car-windows, consisting of a guard-plate extended around the side, top, and bottom of a window and hinged to the car-body between two windows to serve for either of them, and latch devices locking the fender at either window, substantially as herein set forth.

E. FRANK WALLER.
OTTO AUGUST CARLSTEDT.

Witnesses:
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K. W. COFFMAN.