

No. 706,440.

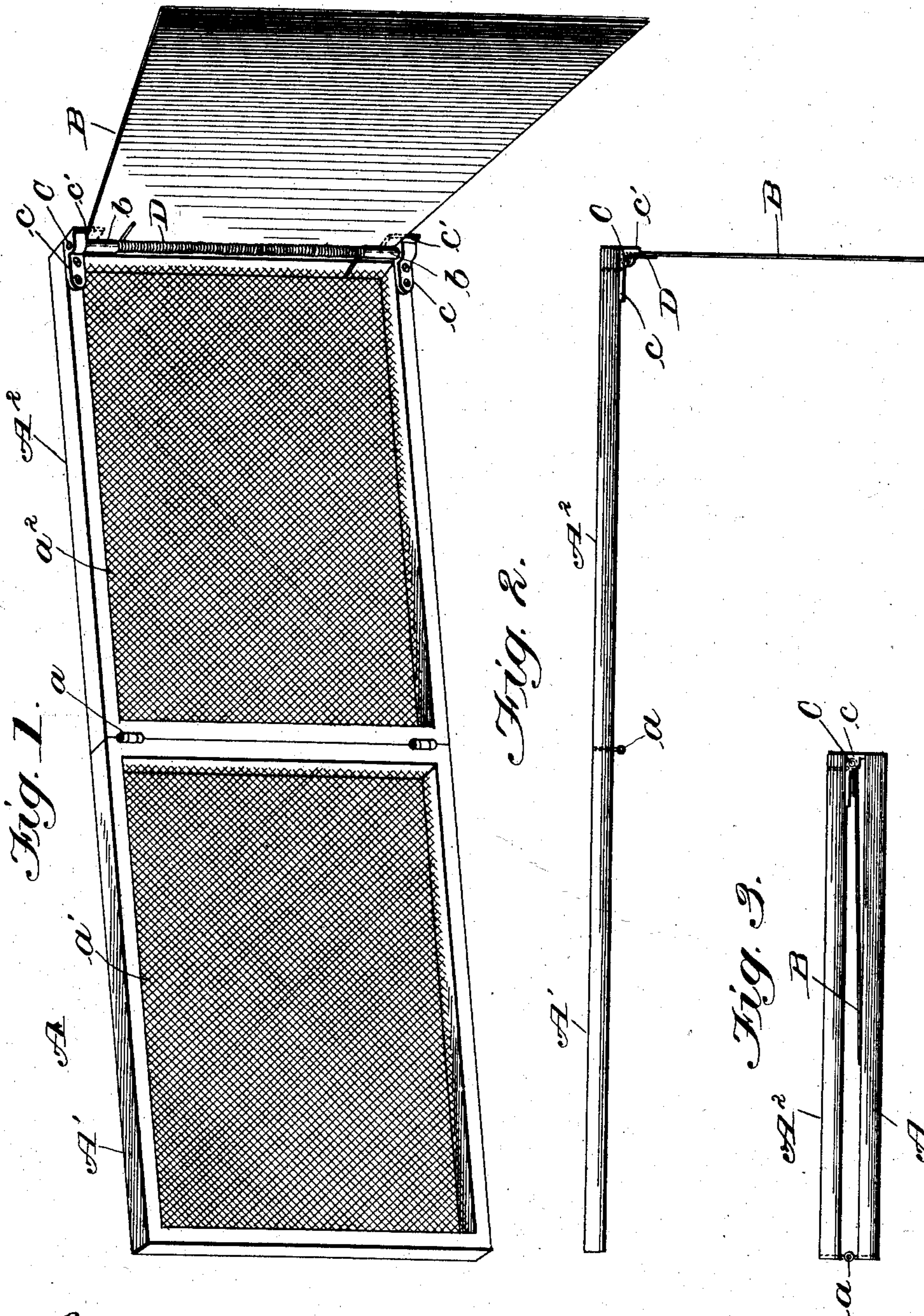
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C. R. McCLUER.

COMBINED DEFLECTOR AND SCREEN.

(Application filed Jan. 13, 1902.)

(No Model.)



Witnesses:

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# UNITED STATES PATENT OFFICE.

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## COMBINED DEFLECTOR AND SCREEN.

SPECIFICATION forming part of Letters Patent No. 706,440, dated August 5, 1902.

Application filed January 13, 1902. Serial No. 89,569. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES R. McCLUER, a citizen of the United States, residing at Chicago, county of Cook, State of Illinois, have  
5 invented a certain new and useful Improvement in a Combined Deflector and Screen; and I declare the following to be a full, clear, and exact description of the invention, such as  
10 it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates in general to a device for preventing the entrance of dust, cinders,  
15 &c., through open car-windows, and more particularly to a combined deflector and screen.

It is customary to provide railroad passenger-cars with deflectors adapted to be removably inserted beneath the sashes of open win-  
20 dows and to project outwardly to intercept cinders and dust and also to provide removable screens to cover the opening beneath the open windows. The deflectors and screens are commonly made separate and are not ordi-  
25 narily both used at once.

The object of my invention is to more fully protect the interior of a car from ingress of cinders and dust than is possible by the separate use of a deflector or screen.

30 My invention, generally stated, consists in a combined deflector and screen adapted for simultaneous use to prevent the entrance of cinders and dust through an open car-window.

35 My invention will be more fully described hereinafter with reference to the accompanying drawings, in which the same is illustrated as embodied in a convenient and practical form, and in which—

40 Figure 1 is a perspective view of my invention; Fig. 2, a plan view thereof, and Fig. 3 a plan view showing the same folded up.

Similar reference characters are used to designate similar parts in the several figures  
45 of the drawings.

Reference-letter A indicates a window-screen of any desired construction—such, for instance, as is commonly used in passenger-cars to prevent the admission of cinders  
50 through the open space below a raised window. The screen is shown as consisting in

two sections A' and A<sup>2</sup>, secured together by hinges *a*. Each section consists in a frame surrounding an open-work material *a'* *a*<sup>2</sup>, usually a fine-mesh wire screen. 55

Even a screen of fine mesh will permit dust to sift through to the interior of a car, owing very largely to the impact of the dust and cinders against the screen coming from the direction of the engine when the car is in motion. In order to prevent the dust and cinders from reaching the outer surface of the screen, I provide a deflector B, which projects at substantially right angles to the path of movement of the car, and consequently intercepts the cinders which come from the locomotive and would otherwise be forced against the exterior of the screen. 60

The deflector B is preferably made of sheet metal, which may be conveniently secured to one end of the screen, so as to project at substantially right angles therefrom, as clearly indicated in Figs. 1 and 2 of the drawings. The deflector may be secured to the screen in any desired manner, preferably, however, by hinges which will permit the deflector to be swung against the adjacent section of the screen when the same is not in use, so that it may be folded into a compact form, as shown in Fig. 3. I have shown the hinges as consisting in brackets *c c*, fastened to the outer surface of the end of one of the sections of the screen and provided with registering openings in which are seated the ends of a rod C. Portions *b b* of the deflector B are bent around the rod C, adjacent to the brackets *c c*, thereby securely but pivotally connecting the deflector to the screen-section A<sup>2</sup>. A spring D, which for convenience is shown as a coil-spring, surrounds the central portion of the rod C and engages at its opposite ends with the deflector B and the frame of the screen A<sup>2</sup>, thereby tending to swing the deflector outwardly with respect to the screen. Lugs *c' c'*, preferably formed integral with the brackets *c c*, extend into the path of movement of the deflector, so as to limit the outward movement of the same when it has reached a position substantially at right angles to the plane of the screen. 75 80 85 90 95 100

The operation and manner of using my invention are as follows: When the window is



raised, the sections of the screen are inserted between the window-sill and the bottom of the window-sash in the usual manner. The end of the screen at which is located the deflector is placed at the side of the window toward the engine, so that the deflector will project outwardly in position to intercept cinders, dust, &c., which approach the screen from the direction in which the car is moving.

The spring D tends to retain the deflector in the position where it engages the lugs *c' c'*, but permits the deflector to be swung toward the screen when it engages an object adjacent to the car and which would otherwise either break or forcibly remove the deflector from the car. When it is desired to lower the window, the screen is removed and folded in the position shown in Fig. 3, which is permitted by swinging the deflector against the adjacent section of the screen, where it is retained by the weight of the other section of the screen when folded back upon the first section.

From the foregoing description it will be observed that I have produced a combined window-screen and deflector which may be readily placed beneath an open window, so as to fully protect the interior of the car from the ingress of cinders and dust, and which when not in use may be folded into a compact and convenient form for storage.

While I have described more or less precisely the details of construction, I do not wish to be understood as limiting myself thereto, as I contemplate changes in form, the proportion of parts, and the substitution of equivalents as circumstances may suggest or render expedient without departing from the spirit of my invention.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a removable window-screen for car-windows, of a deflector pivotally secured thereto at the end thereof toward the direction of movement of the car, and a spring interposed between said screen and said deflector tending to maintain the de-

flector in a plane at substantially right angles to said screen, but permitting said deflector to fold against the screen.

2. The combination with a removable window-screen comprising hinged sections adapted to be folded upon each other when the screen is removed from the window, of a deflector pivotally secured to an end of one section of said screen, and means for normally maintaining said deflector in a plane transverse to that of the screen, said deflector being of a length less than that of the sections of the screen and thereby adapted to lie between said sections when they are removed from the window and folded together.

3. The combination with a removable window-screen for car-windows, of a deflector pivotally secured thereto, lugs projecting from said screen, and a spring interposed between said screen and said deflector tending to retain the deflector in contact with said lugs, but permitting the deflector to fold against the screen.

4. The combination with a removable window-screen, of a deflector, hinges pivotally securing said deflector to said screen, integral lugs on said hinges projecting at substantially right angles to the plane of the screen, and a spring interposed between said screen and said deflector tending to retain the deflector in contact with said lugs, but permitting the deflector to fold against the screen.

5. The combination with a window-screen, of a deflector, brackets secured to said screen, integral lugs projecting from said brackets, a rod supported by said brackets around which portions of the deflector are bent, a spring surrounding said rod and engaging said deflector and said screen whereby the former is maintained in contact with said lugs.

In testimony whereof I sign this specification in the presence of two witnesses.

CHAS. R. McCLUER.

Witnesses:

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