2 Sheets--Sheet 2.

# W. H. FLETCHER.

## Combined Blind and Screen for Railroad Cars.

No. 165,812. Patented July 20, 1875.

Fig. 3.

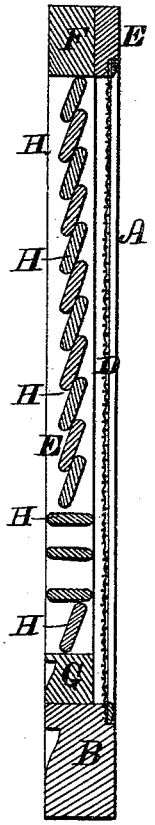



Fig. 4.

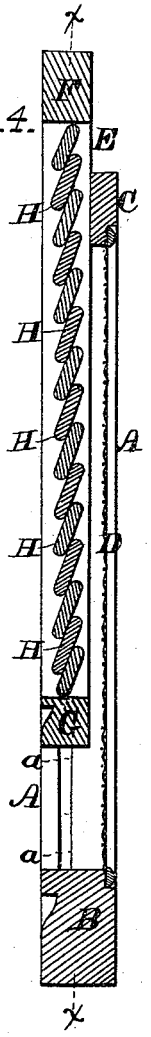
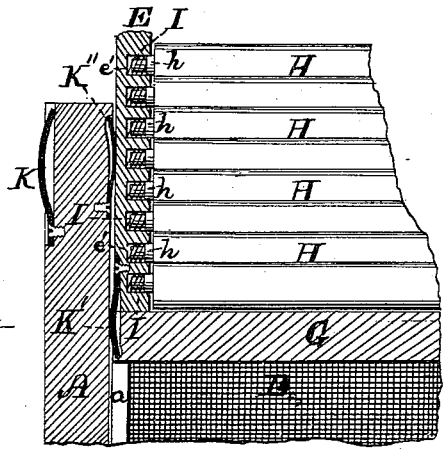



Fig. 5.




WITNESSES:

Jas. E. Hutchinson

John R. Young

INVENTOR.

Wm. H. Fletcher, by Prindle and Co, his attorneys.

# UNITED STATES PATENT OFFICE.

WILLIAM H. FLETCHER, OF WASHINGTON, DISTRICT OF COLUMBIA.

## IMPROVEMENT IN COMBINED BLINDS AND SCREENS FOR RAILROAD-CARS.

Specification forming part of Letters Patent No. **165,812**, dated July 20, 1875; application filed June 16, 1875.

*To all whom it may concern:*

Be it known that I, WILLIAM H. FLETCHER, of Washington, in the county of Washington and in the District of Columbia, have invented certain new and useful Improvements in Means for Excluding Cinders and Light from Railway-Cars; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a perspective view of the inner side of my combined blind and screen, showing the former closed. Fig. 2 is a like view of the same, said blind being partially raised. Figs. 3 and 4 are, respectively, vertical central sections of Figs. 1 and 2, and Fig. 5 is a vertical section upon line *x x* of Fig. 4.

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

The design of my invention is to enable light and cinders to be excluded from the windows of a railroad-car without interference with the free admission of air; to which end it consists, principally, in a slatted blind and a cinder-screen, combined together within a window-opening, and capable of an independent or combined movement therein, so as to inclose or uncover said opening, substantially as and for the purpose hereinafter specified. It consists, further, in the means employed for preventing vertical motion of the blind when adjusted to position, substantially as is hereinafter set forth.

In the annexed drawings, A and A represent the side rails, B the bottom rail, and C the top rail of a sash-screen, the latter of which rails, C, is wholly upon the outer face of said frame, and has but about one-fourth the horizontal dimensions of the other rails.

The frame thus constructed is covered upon its outer face with wire cloth, D, has such dimensions as to enable it to fit into an ordinary car-window, inside of the usual sash, and is arranged to slide vertically within the window-frame, so as to inclose or uncover the opening, as may be desired.

Within the inner edge of each rail A is formed a vertical groove, *a*, that receives the corresponding tongue *e* of a rail, E, which latter rail is connected with a second similar rail, E, by means of a top and a bottom rail, F and G, respectively, the whole forming a second frame that just fills the space within the screen-frame, and is capable of vertical motion within the latter, as is said screen-frame within the window-frame.

Within the side rails E and E are pivoted a series of blind-slats, H and H, which are of ordinary form, but are disconnected, so that each has an independent movement upon and around its own pivots *h* and *h*.

In order that each slat H may be held in position and prevented from turning when adjusted to position, a spiral spring, I, is placed between the end of its pivot *h* and the inner end of its bearing *e'*, which spring causes sufficient friction upon said pivot to prevent said slat from being turned, except by the hand. If desired, springs may be placed at the end of each pivot, but it is thought that but one to each slat will be required.

The screen-frame is held in vertical position by means of two half-elliptical springs, K and K, which are secured to the outer edge of each side rail A and bear against the window-jamb, while the vertical position of the blind-frame is insured by one of said springs, K', that is attached to each side rail E near its lower end, and a second spring, K'', which is attached to said rail A within and near the upper end of the groove *a*.

The device is now complete, and operates as follows: When it is desired to exclude both cinders and light, the screen-sash is moved downward to the window-sill, and the blind-sash in like manner moved to the limit of its downward motion, after which the slats are all closed. As thus arranged, (the glazed sash being of course raised,) air will be admitted through the screen and through the contiguous edges of the blind slats, but cinders will be entirely excluded, and the light substantially prevented from obtaining admission.

If more light is required, any desired number of the blind-slats may be turned so as to afford access to the same, and, if still insufficient, the blind-sash may be partially or entirely raised.

When not in use, the combined screen and

# D. FOERSTER.

## Device for Glazing Crackers.

No. 165,813. Patented July 20, 1875.

FIG. 1.

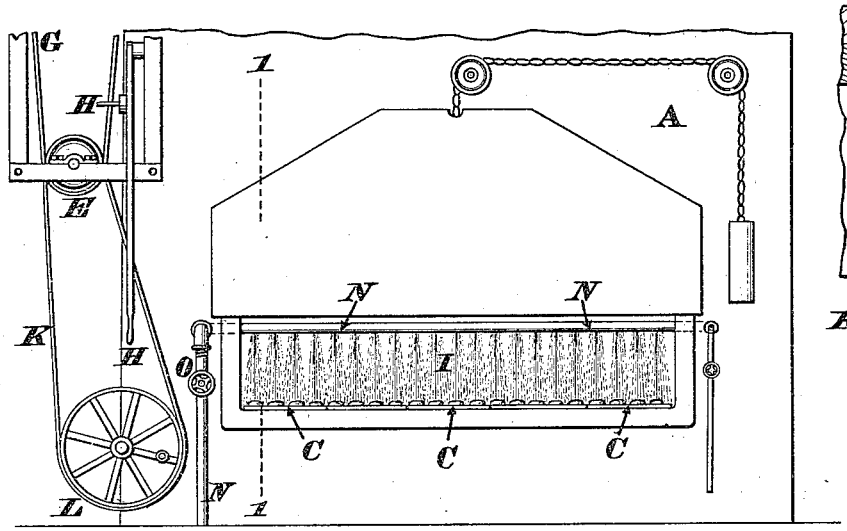



FIG. 3.

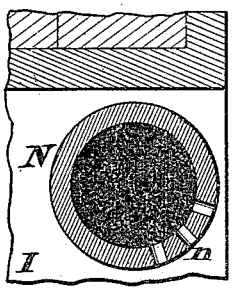



FIG. 4.

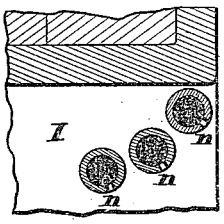



FIG. 2.

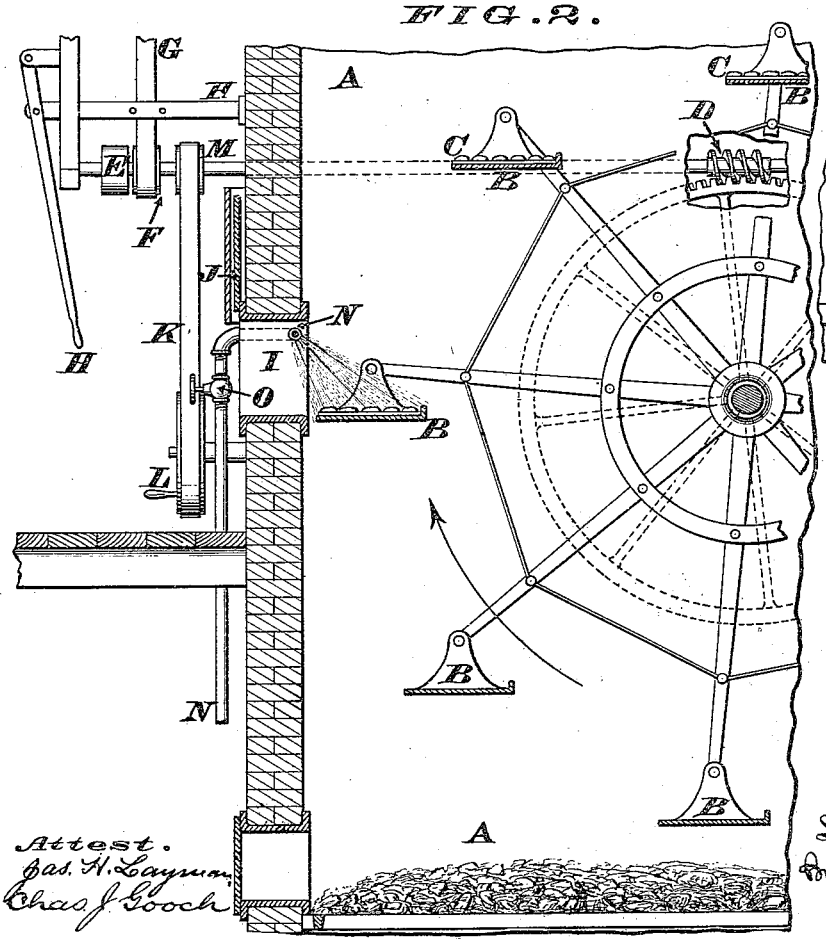



FIG. 5.

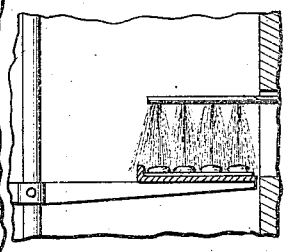
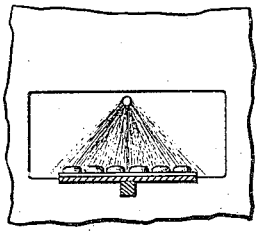


FIG. 6.



Attest.
Jas. H. Layman.
Chas. J. Cooch

David Foerster
by Knight Bros:
Attys