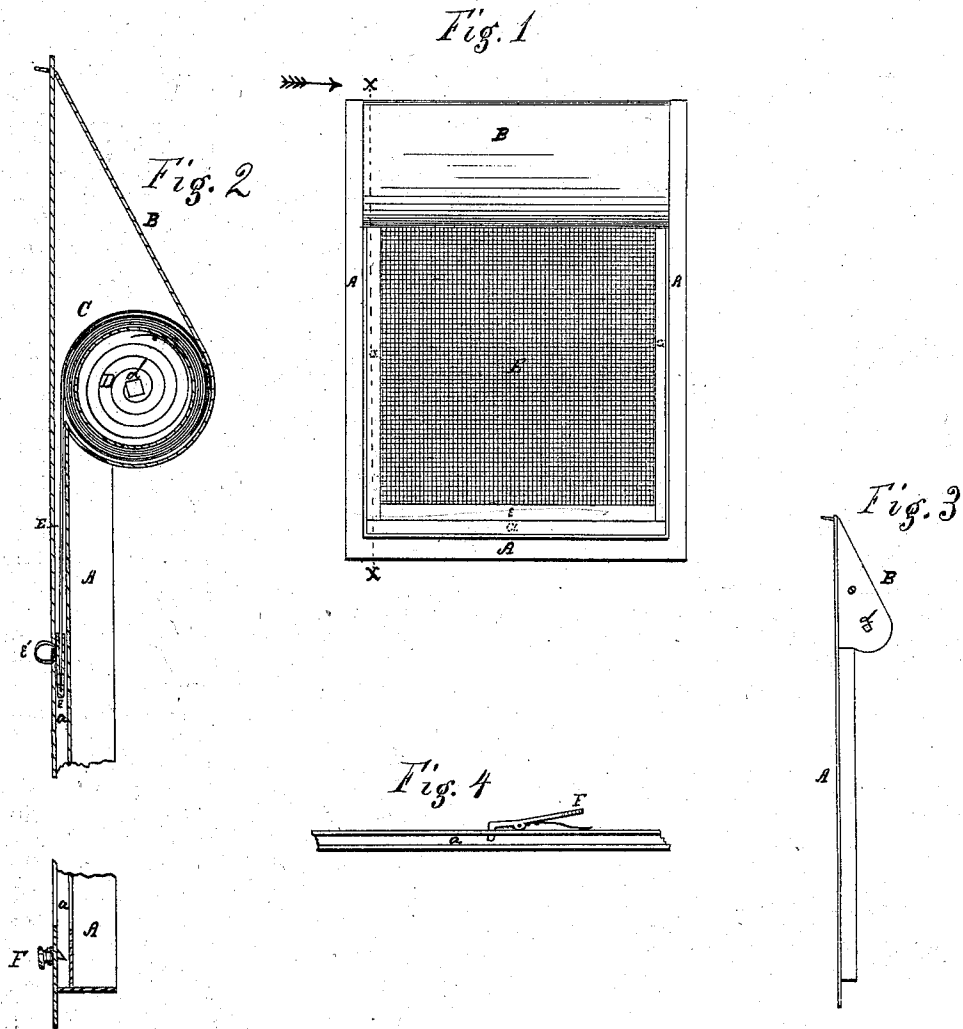


C. W. FOWLER.

Window-Screens.

No. 135,901.

Patented Feb. 18, 1873.



Witnesses
F. F. Warner
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CHARLES W. FOWLER, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN WINDOW-SCREENS.

Specification forming part of Letters Patent No. 135,901, dated February 18, 1873.

To all whom it may concern:

Be it known that I, CHARLES W. FOWLER, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Railway - Car Window-Screens; of which the following is a full, clear, and exact description, which will enable others skilled in the art to which my invention appertains to make and use the same, reference being had, in so doing, to the accompanying drawing forming a part of this specification, and in which—

Figure 1 represents a front elevation of my improved screen; Fig. 2, a vertical cross-section of the same in the plane of the line *xx* of Fig. 1, and viewed in the direction indicated by the arrow there placed; Fig. 3, an end elevation; and Fig. 4 represents the construction and arrangement of the catch-spring.

Like letters of reference indicate like parts.

My invention relates to that class of screens which are employed for the purpose of preventing dust from entering windows without shutting out the air and light, and for similar purposes. The object of my invention is to improve the construction and operation of devices of this class; and it consists in certain novel features relating to their construction, and hereinafter described and set forth.

In the drawing, A represents the frame. A groove is sunken into the inner face of the sides and bottom of the frame, as shown at *a*. B is an apron rigidly attached to the frame. The apron B projects horizontally and rearward from the top of the frame, and extends downward and forward, and is then turned back against the frame, as shown. The chamber formed by this apron is closed at each end, and the part which incloses one end is removable, as shown in Fig. 3. C is a roller, having bearings in the end walls of the chamber inclosed by the apron B. D is a spiral spring, arranged in a barrel rigidly attached to one end of the roller C. *d* is a rod having free bearings in the ends of the spring-barrel. One end of the spring D is attached to its barrel, and the other end to the rod *d*. The outer end of the rod *d* is made square, and enters a corresponding perforation in one of the end walls of the chamber containing the roller C. The opposite end of the roller C is provided with an ordinary spindle, which has

a bearing in the other end wall of the roller-chamber. The roller C and its attachments are thus covered and protected by the apron B. E is a screen or curtain, made of any suitable material through which air and light will pass, preferably wire-gauze, and which will form a barrier to floating particles of dust. This screen is rolled upon the roller when the spring D is unwound, or nearly so. *e* is a clasp across the lower end of the screen, and *e'* is a ring or thumb-piece on the clasp *e*. The screen is long enough to fill up the open space surrounded by the frame and admit the clasp *e* in the groove *a* in the bottom of the frame, and it is wide enough to extend into the grooves *a* in the sides of the frame. F is a spring-catch arranged upon the inner side of the lower cross-bar of the frame; and the end of this catch enters the groove *a* in said bar through a perforation therein, as shown in Figs. 2 and 4. The point of the catch F is beveled off in the manner shown in Fig. 2; and the clasp *e* is provided with a perforation so that when it strikes the catch F the latter will engage the said clasp by entering its perforation.

Instead of the catch F and perforated clasp *e* any suitable stop device may be employed to retain the screen in any desired position.

The clasp *e* is prevented from being drawn upon the roller by reason of the contact of the piece *e'* against a rear cross-bar of the frame.

It will be observed from the foregoing description that the action of the spring D will keep the screen rolled up when the latter is released, and that it may be drawn down by means of the piece *e'*, and there retained by the catch F. A pressure upon the heel of the spring F will release the screen, and it will then be drawn upon the roller by the action of the spring D.

All the parts which work in contact with each other are made to fit together as closely as possible without preventing their proper action.

The device is attached upon the outside of the car, so as to inclose the window without interfering with the operation of the window or its blind. A shallow groove is sunken into the car above the window, so as to admit the rearward horizontal projection of the apron B. By this means the apron will shed the rain from the window.

The advantages of my improved device are, that the car-window may be left open to admit air, and cinders and particles of dust will be prevented from entering without shutting out the light. The device is readily removable, durable, simple in its construction and operation, readily repaired, of great convenience, and prevents much of the wear and tear of the cushions and furniture now occasioned on account of the dust and cinders which enter through open windows.

It will also be observed that my improved device may be employed for similar purposes upon other windows.

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

1. The grooved frame A provided with the covering or apron B, in combination with the roller C, provided with a curtain or screen, E, and operated by means of the spring D, substantially as described.

2. In combination, the grooved frame A, provided with the covering or apron B, the roller C, provided with the curtain or screen E, and operated by means of the spring D, the spring-catch F, piece *e'*, and perforated clasp *e*, substantially as and for the purposes specified.

CHARLES W. FOWLER.

Witnesses:

F. F. WARNER,

F. H. BROWN.