

(No Model.)

E. S. HUTCHINSON.

CAR WINDOW SCREEN.

No. 405,669.

Patented June 18, 1889.

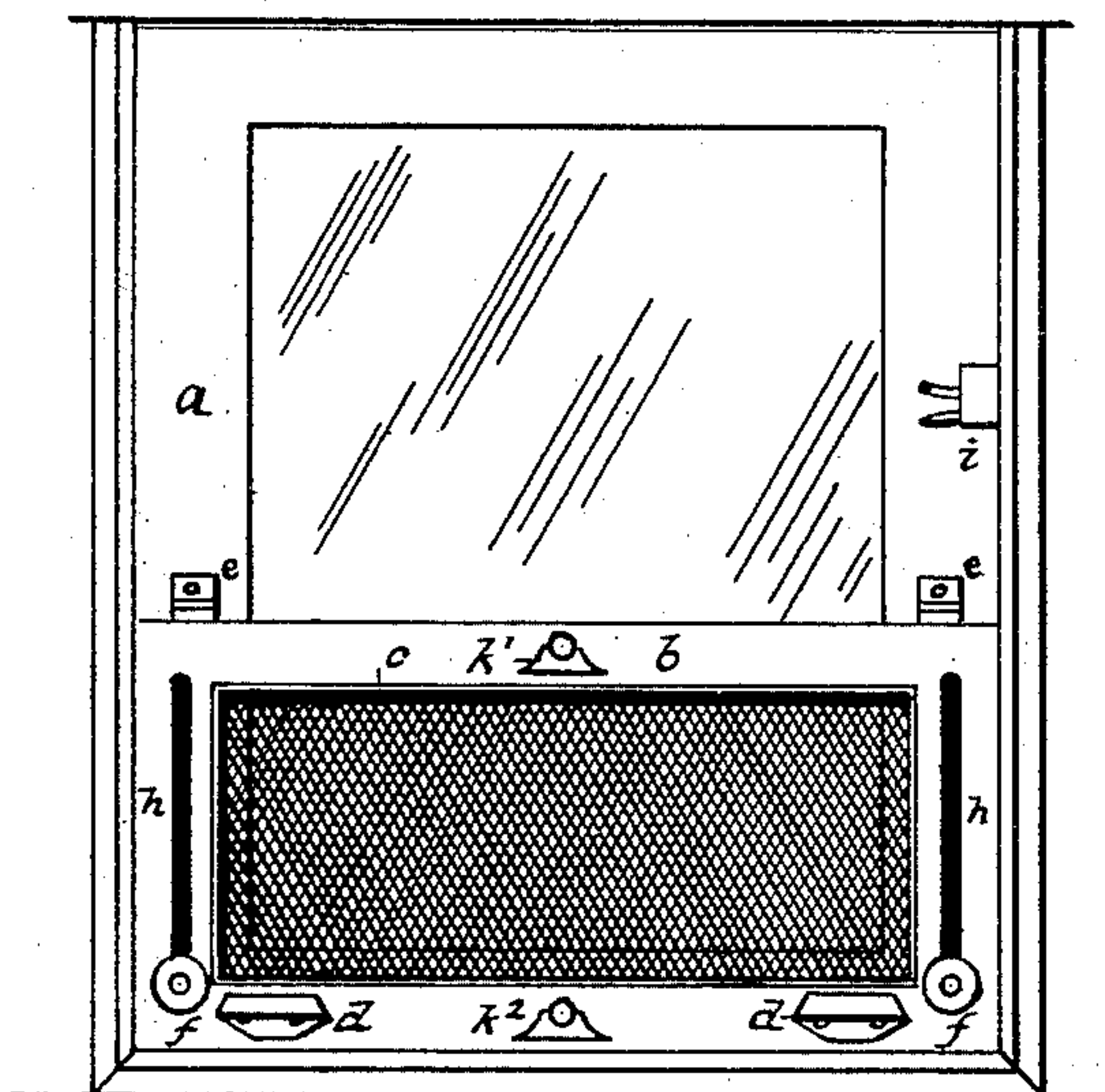


Fig. 1

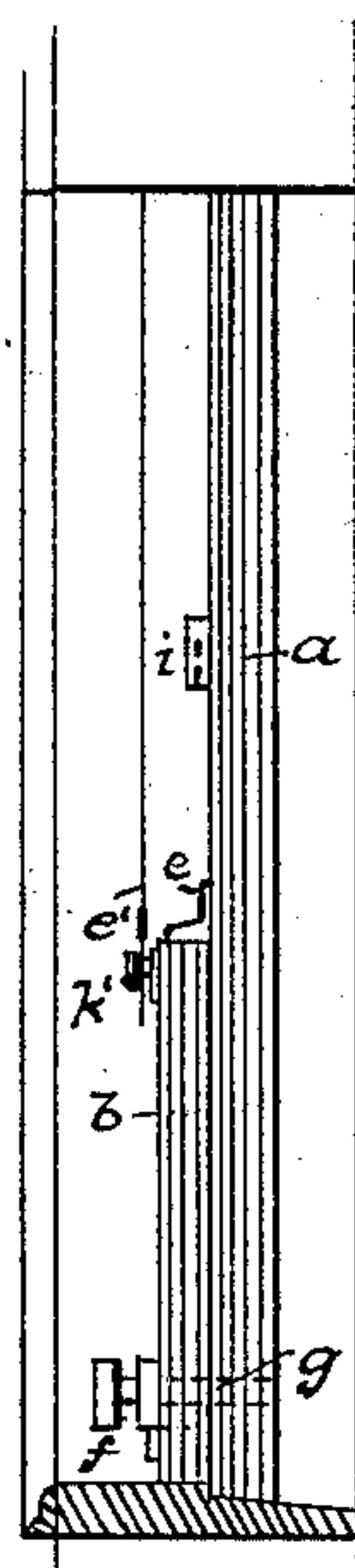


Fig. 2

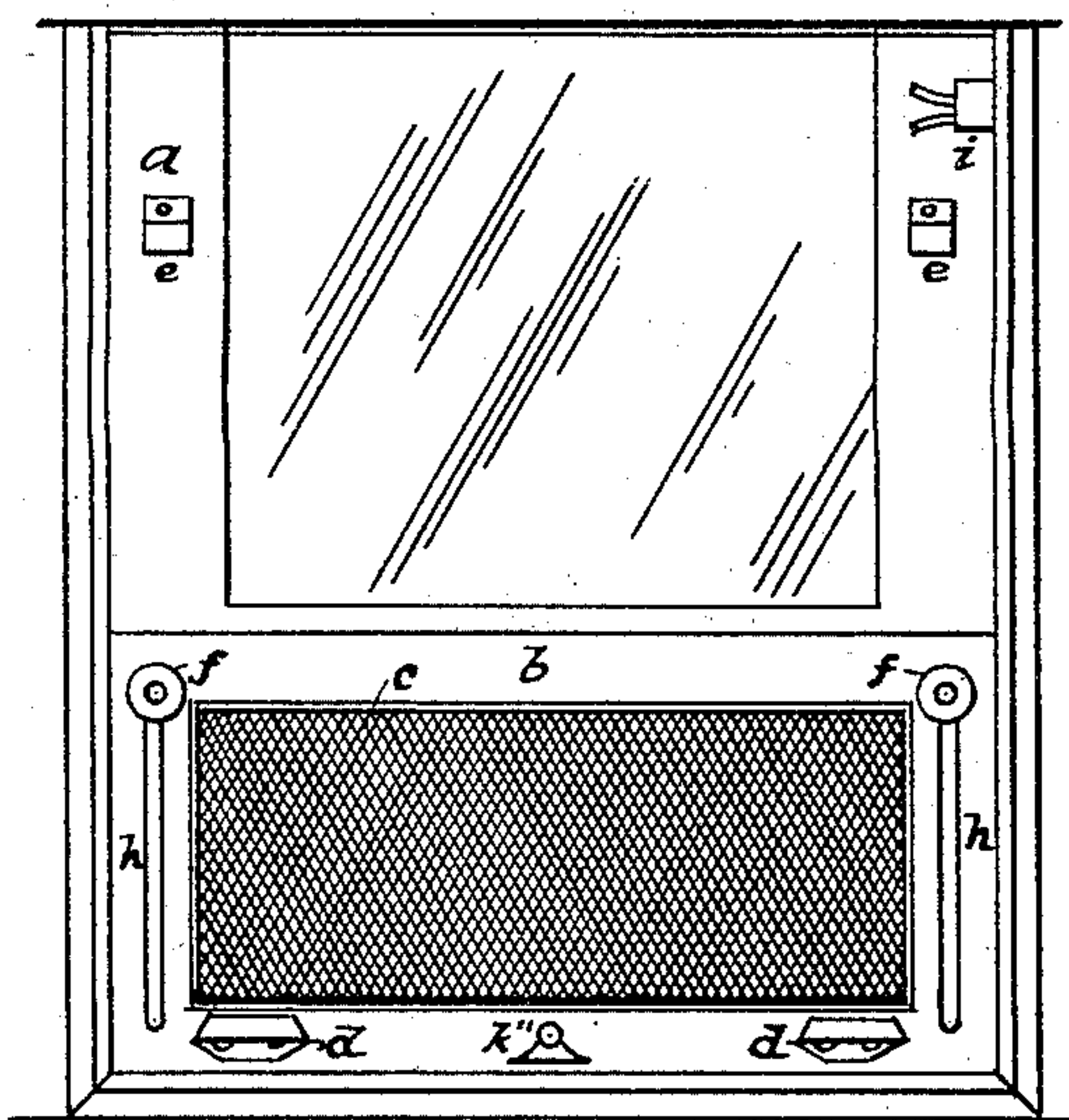


Fig. 3

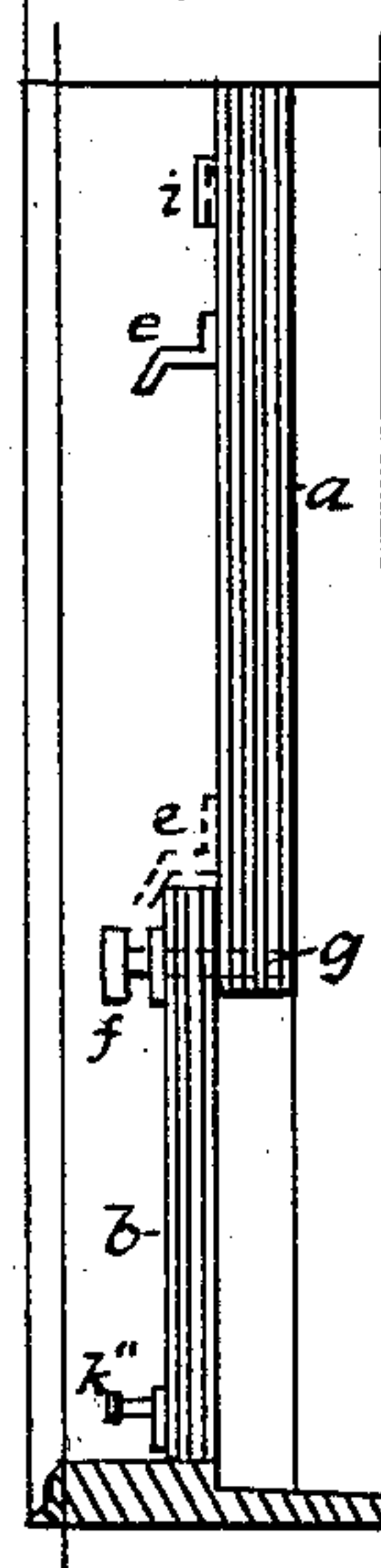


Fig. 4

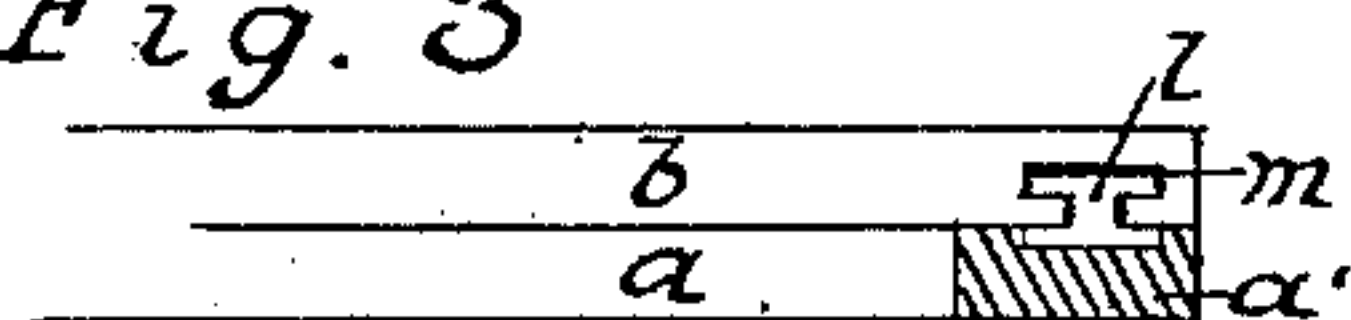


Fig. 5

Witnesses:  
Apel H. Westerdahl  
Lutty & Anderson

Inventor.  
Emily S. Hutchinson  
By H. Anderson  
Att'y.



# UNITED STATES PATENT OFFICE.

EMILY S. HUTCHINSON, OF PEEKSKILL, NEW YORK.

## CAR-WINDOW SCREEN.

SPECIFICATION forming part of Letters Patent No. 405,669, dated June 18, 1889.

Application filed December 11, 1888. Serial No. 293,306. (No model.)

*To all whom it may concern:*

Be it known that I, EMILY S. HUTCHINSON, a citizen of the United States, residing at Peekskill, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Car-Window Screens; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of this invention is to apply a screen to a window-sash that shall be a permanent fixture thereto, and while it is designed for application to railway-cars, and more particularly those cars in which the window-sash are adapted to be raised only a few inches, it will be obvious that the device is applicable to windows generally.

The objects of my invention are attained by the means set forth in the accompanying drawings, which form a part of this specification.

Figure 1 represents a face view of the screen in position when the window is closed. Fig. 2 is a side elevation of the same. Fig. 3 shows a face view of the screen when the window is open, and Fig. 4 is its side elevation. Fig. 5 is a view of details to be described.

*a* represents the sash of a car-window, *b* the frame of the screen, to which the wire-cloth *c* is secured. The handles *d d* are those usually placed on the bottom rail of a car-window sash; but in my device they are placed on the top rail or on the bottom rail, as may be preferred, of the screen-frame, as shown.

*e e* are stops placed on the side rails of the window-sash, and as they rest upon the upper edge of the screen when the window is closed they serve to carry the sash upward when the screen is lifted.

Stud-bolts *g*, Fig. 2, are secured to the sides of the sash and project forward through the slots *h*. (Shown in the side rails of the screen.) The nuts or knobs *f*, being screwed or otherwise fastened to the projecting ends of the studs, keep the screen-frame against the sash closely, yet allow the screen to slide freely on the studs when the window-sash is raised.

The operation of the device is as follows: By means of the handles *d d* the window sash and screen are raised together to the proper

height for the closing of the catch *i*, which secures the sash in the usual manner. The hands now being removed from the said handles, the screen *b* drops by its own weight until it rests on the bottom of the window-sill, as shown in Fig. 3, effectually closing the opening with the wire screen *c*. The bottom rail of the sash and the top rail of the screen are to be held sufficiently close by the knobs *f f* to prevent the ingress of dust between them. As the slots *h* are designed to be narrow, their vertical position and their situation with respect to the window-frame will obviate any possibility of their admitting dust.

To effectually secure the steadiness of the screen in its place and to prevent any noisy rattling, by reason of its not being securely held by the knobs *f*, I purpose making the stops *e* with a projecting lip, as indicated in Fig. 4, said lip having an inward-sloped bevel which will catch over the edge of the screen and draw it close to the sash. By further making the knob *f* screw onto the stud *g* by screwing up the knobs by giving them a partial turn the screen may be fastened to the sash, whether in a raised or lowered position.

It is plain that the stops *e* may be omitted altogether by allowing the studs *g* to act as stops as well as guides; but the additional strain thus put upon the studs would be objectionable.

On some railroads it is now the practice to substitute spring-roller shades for the customary blinds. When the shades are used, they are sometimes provided with a slit at the bottom to button over a knob or hook fixed on the bottom rail of the sash. I purpose providing a similar hook on both the top and bottom rails of the screen-frame, as *k'* and *k''*, so that either may be used, as the comfort of the passenger requires. Strong light may be shut out by buttoning the shade to the upper hook *k'* without restricting the circulation of air through the screen, or it may be buttoned to the lower hook *k''*, shutting out the light and still affording some ventilation around the edges of the curtain or shade *e'*. Fig. 2 represents a shade hooked to knob *k'*.

While the method of attaching the screen to the sash which I have shown is one well adapted for application to windows already in



place with little additional trouble or expense, it is obvious that the same results—*i. e.*, the free lifting and dropping of the screen—may be obtained by well-known means other than the slots *h* and studs *g*, as shown and described. 5  
A dovetailed tenon may be made upon the reverse side of the end rails of the screen, and a stud to fit and slide therein may be attached to the window-sash in place of the stud *g*, when 10  
the dovetailed parts would answer the same purpose as the slot *h* and stud *g*, as indicated in Fig. 5, in which *a* represents the sash, *a'* the end rail of the sash in section, having the metal hook *l* attached thereto, and *b* represents the 15  
screen-frame having the dovetailed mortise *m* in its vertical length.

While I retain the principles of my invention in my manner of making the screens, I do not wish to be restricted to the specific forms 20  
and construction herein shown.

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

1. The combination, with a window-sash, of 25  
a sliding screen attached thereto by means of guiding-studs placed on the lower part of the window-sash and operating in slots provided in the screen-frame, substantially as described, the handles for raising the window 30  
placed on the screen-frame, whereby the sash

and screen are raised together, the screen, when released by the hands, dropping below the sash, substantially as herein described.

2. In a window-screen, the combination, with the window-sash, of a screen-frame attached 35  
to the sash by means of guiding-studs on the lower part of the sash, projecting through slots provided in the screen-frame, the studs having knobs on their outer ends to keep the screen against the sash, the handles for rais- 40  
ing the window placed on the screen-frame, and the window-sash being provided with stops to limit the upward movement of the screen, substantially as herein shown and de- 45  
scribed.

3. In combination with a sliding screen attached to a window-sash, substantially as described, stops *e*, located on the window-sash the height of the screen above the bottom of the window-sash, the stops having beveled 50  
overhanging lips, substantially as shown, for the purpose of securing the screen-frame from rattling when both sash and screen are lowered.

In testimony whereof I affix my signature in 55  
presence of two witnesses.

EMILY S. HUTCHINSON.

Witnesses:

ELIHU B. FROST,

JENNY F. HUTCHINSON.