

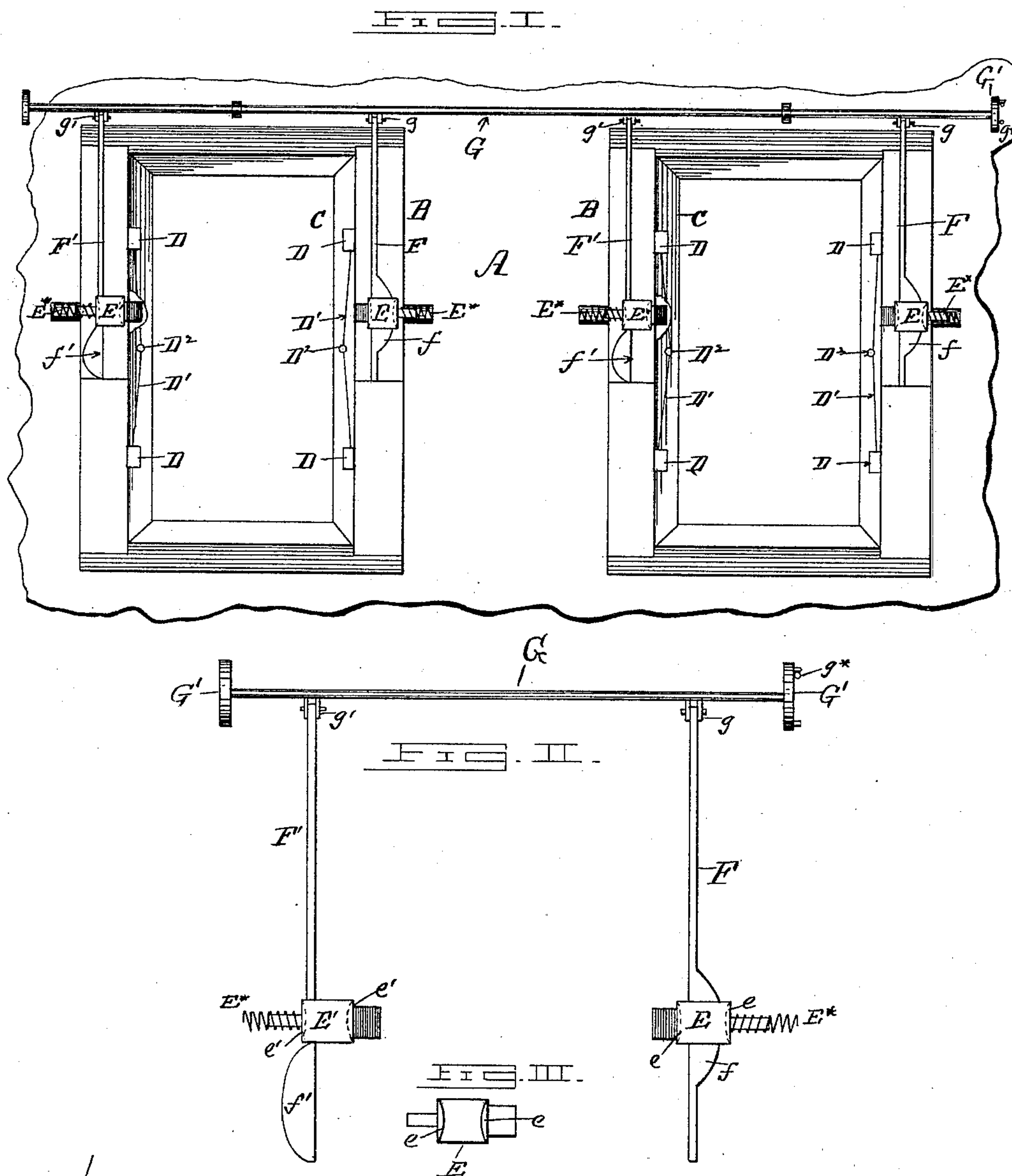
(No Model.)

2 Sheets—Sheet 1.

E. E. DE KALB.  
SWINGING WINDOW.

No. 409,634.

Patented Aug. 20, 1889.



Witnesses:  
 Al. Bulman.  
 Jas. H. Stowe.

Inventor  
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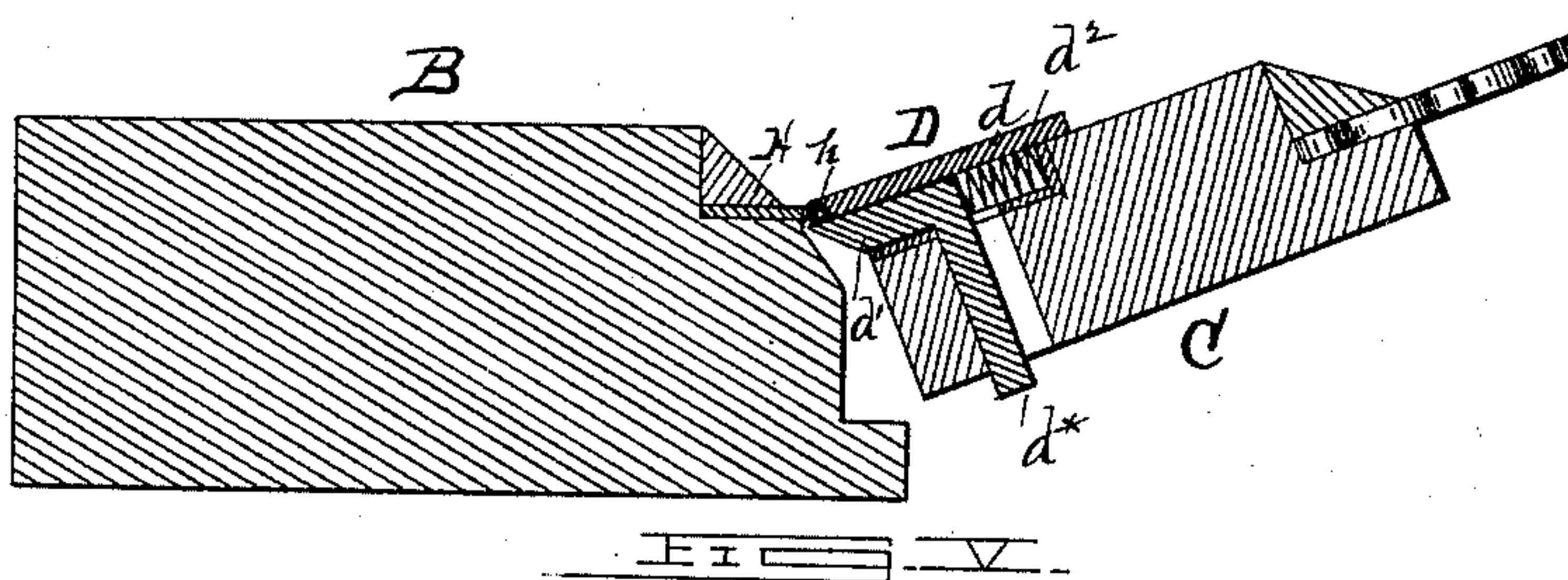
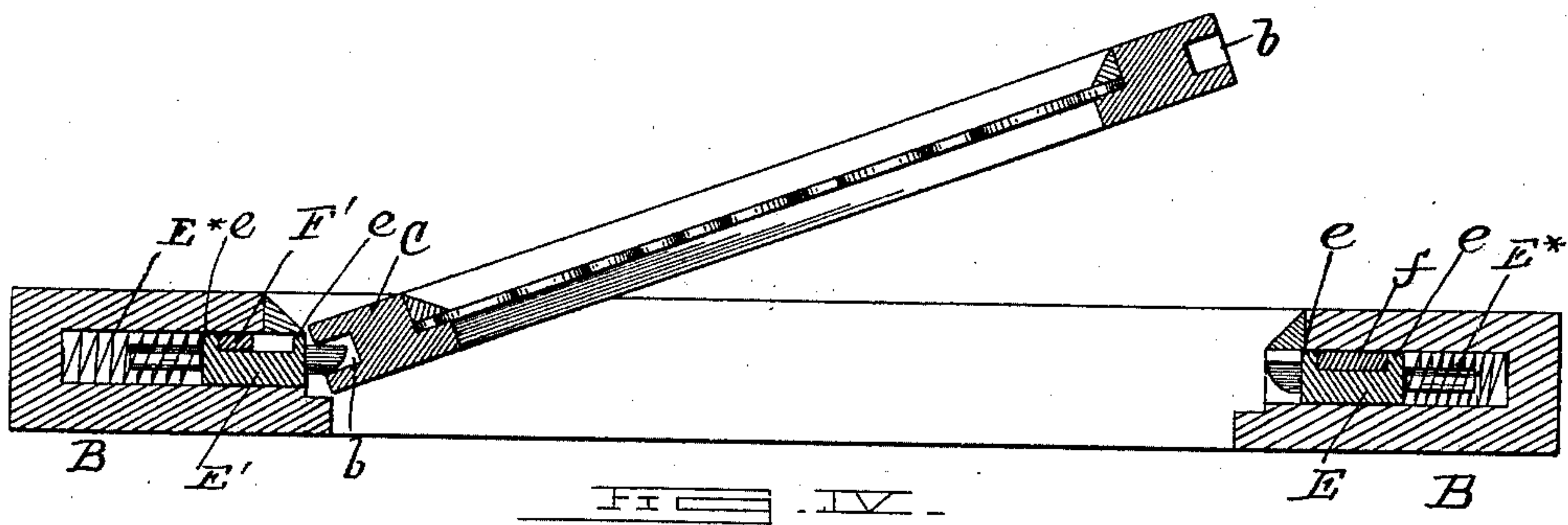
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Witnesses:-  
Al. Kuhman.  
Jno. H. Stone.

Inventor  
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# UNITED STATES PATENT OFFICE.

ENOCHE E. DE KALB, OF SYRACUSE, NEW, YORK.

## SWINGING WINDOW.

SPECIFICATION forming part of Letters Patent No. 409,634, dated August 20, 1889.

Application filed August 30, 1888. Serial No. 284,118. (No model.)

*To all whom it may concern:*

Be it known that I, ENOCHE E. DE KALB, a citizen of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Locking Devices for Swinging Windows, &c.; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to locking devices for double-hinged windows or doors, and has particular reference to the provision of a device especially adapted for use in railway-trains and other situations where my improved latch-hinge is used upon the windows or other parts so that the window may be opened in either direction.

The object of the invention is to place the manipulation of the window or door or other part under the direct control of the trainmen or other authorized persons, so that when the car is running in one direction the window can be opened on one side only, and when the car is run in the opposite direction without being turned round the lock can be reversed and the window opened from the opposite side only.

The latch-hinge for which I filed an application for patent on the 21st day of December, 1886, Serial No. 222,220, is peculiarly adapted for use in cars and other situations where the window or part is to be opened from either side, and this present invention is especially designed for use with that hinge, although it may be used in connection with other forms of hinge, and I would not be understood as limiting myself to its use in the connection named.

The following detailed description will more fully disclose the nature and use of my said invention.

The accompanying drawings illustrate what I consider the best means for carrying my invention into practice.

Figure 1 is a front elevation of two win-

dows with my appliance attached, a part of the frames of the window being removed to show the locking devices. Fig. 2 is a view of the devices covered by this application detached. Fig. 3 is a reverse view of the spring-lock. Fig. 4 is a horizontal section of one of the windows and a portion of the frame, taken through the locks, showing the window open on one side. Fig. 5 is a similar section of one side, taken through one of the latch-hinges.

Similar letters of reference indicate corresponding parts in all the figures where they occur.

A is the wall of a car or other part.

B B are window-frames, and C C are window-sashes.

D D are latch-hinges, two of which on each side of the sash are operated by suitable rods, as D' D' and knobs D<sup>2</sup>, by means of levers or cams, as fully set forth in my before-named application. By means of these latch-hinges the windows may be opened from either side.

E E' are the locking-slides, which are mounted in seats in the window-frames, and are normally protruded by springs E\* to engage openings b b in the sides of the window-sash. The slides E E' are provided with lugs e e on one vertical face. F F' are rods which carry cams f f', which slide in ways in the parts E E' between the lugs e e'.

G is a rod supported above the window-frame and having cranks g g' or other suitable means for operating the cam-rods.

The cams f f' are placed at such relative heights on the slides E E' at different times to withdraw them from engagement with the sash, so that when one slide is withdrawn by reason of the cam (as f', for instance) lying in the way between the lugs e' e' the other cam, as f, will be dropped below the slide E', and the spring E\* will cause this slide to engage the sash, as shown in Figs. 1, 2, and 4. As thus conditioned, the window can be opened from the side on which the slide E is placed, as will be shown in Fig. 4, while the side on which slide E' is placed will be locked by the engagement of the slide with the sash, as is also seen in said figure. If, now, the window be closed on both sides and the rod G turned to reverse the position of the slides—



that is, as illustrated in the drawings—if the rods  $F F'$  be raised, the cam  $f'$  will engage slide  $E'$ , and cam  $f$  will be raised above slide  $E$ . Slide  $E'$  will therefore be withdrawn from engagement with the sash, and slide  $E$  will, by its spring  $E^*$ , be caused to engage the sash, and the sash can be opened on the side from which slide  $E'$  is withdrawn. By means of the rod  $G$  being under the control of the conductor, brakeman, or other authorized person, the windows will be capable of being opened on one side only, and that will be the same side for all the windows, so that if the rod  $G$  be turned so that the windows of a car can be opened on the rear side only there will be no chance for the ingress of drafts or dust. Then when the car is run with its opposite end foremost the rod  $G$  will be manipulated to lock the side formerly opened and permit the opposite (now rear) side of all the windows to be opened. The rod  $G$  is provided with hand wheels or handles  $G' G'$ , by which it may be manipulated, and suitable stops, as  $g^*$ , may be provided to regulate the amount of revolution of the rod  $G$  to cause the cams to act in the proper manner.

It is apparent that any other form of handle or stop could be used.

The latch-hinge consists of a fixed side or plate, as  $d$ , which has a groove in its inner face near the outer end to receive the pintle  $h$ , which is on the leaf  $H$  of the hinge which is fixed to the window-frame, and a sliding side or plate  $d'$ , which is held in a case  $d^2$ , and is forced forward by a spring  $d^3$  to cause it to close over the pintle  $h$  when it is in place. The forward end of the sliding part  $d'$  is beveled or chamfered off, so that it will yield

when it strikes the pintle and allow the pintle to seat itself in the groove in part  $d'$  when the spring  $d^3$  will force part  $d'$  over the pintle. The part  $d'$  is provided with an arm or extension  $d^*$ , which projects through an enlarged opening in the window-sash, and is operated to withdraw the part  $d'$  when it is desired to open the window by means of a rod or connection  $D$ , which is attached to a turn button or knob  $D^2$  which is taken hold of by the hand to operate the latch-hinge. A rod or connection  $D'$  connects each of the hinges on the same side of the window to the knob.

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

1. The combination, with locking-slides on the opposite sides of a window or other part, of rods for operating said slides alternately, and a horizontal rocking rod, to which the first-named rods are connected above the window or other part, substantially as set forth.

2. The combination, with locking-slides having projections on opposite sides of a window or other part, of rods having cams arranged to operate alternately upon the projections of the slides, and a rod for operating the cams, as set forth.

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

ENOCH E. DE KALB.

Witnesses:

GABRIEL A. MORRIS,  
ORSON COVILLE.