

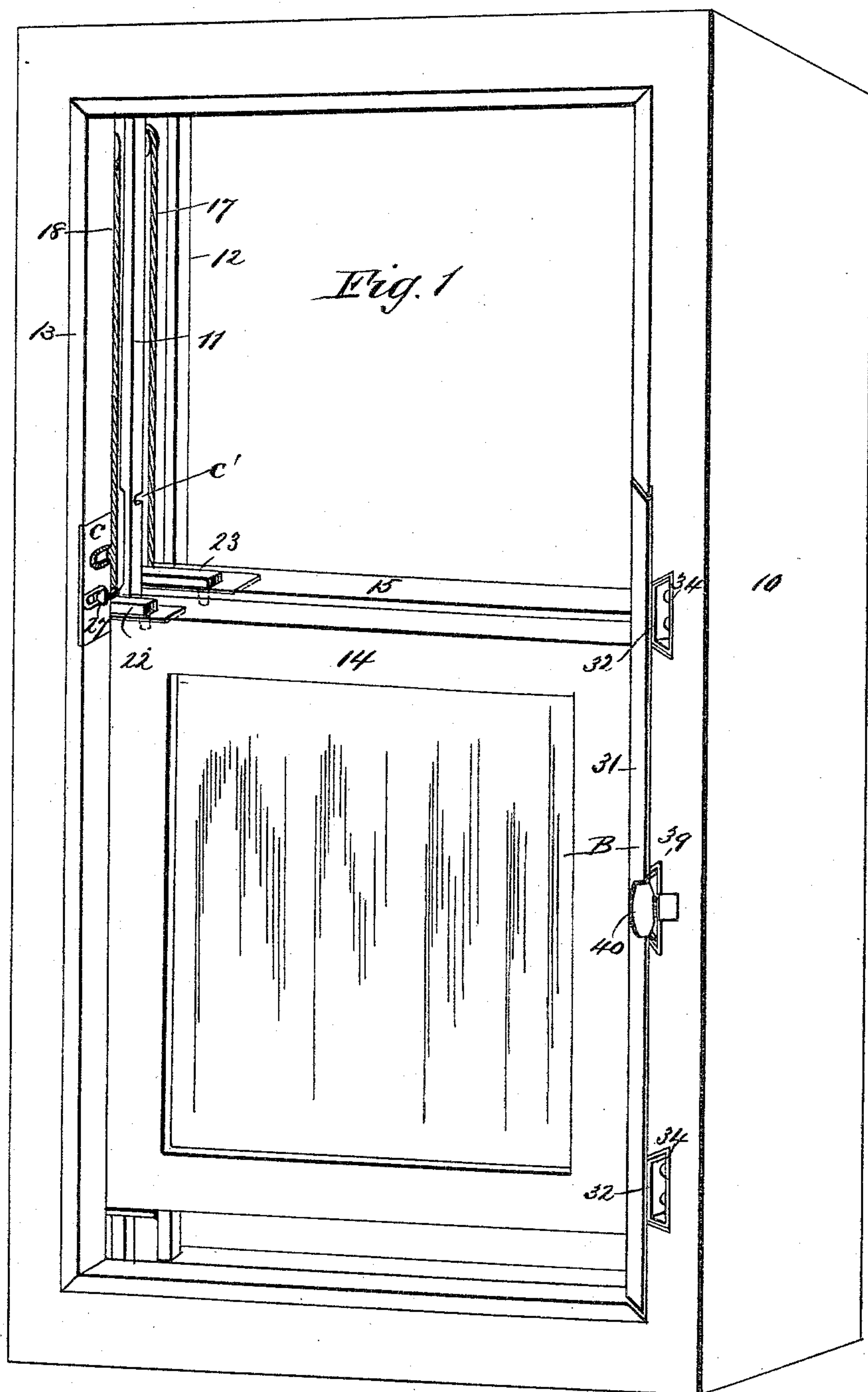
(No Model.)

4 Sheets—Sheet 1.

J. E. ROEDER.  
WINDOW.

No. 411,615.

Patented Sept. 24, 1889.



WITNESSES:

*Francis McArdle.*  
*C. Sedgwick*

INVENTOR:

*J. E. Roeder*  
BY *Munn & Co.*  
ATTORNEYS.

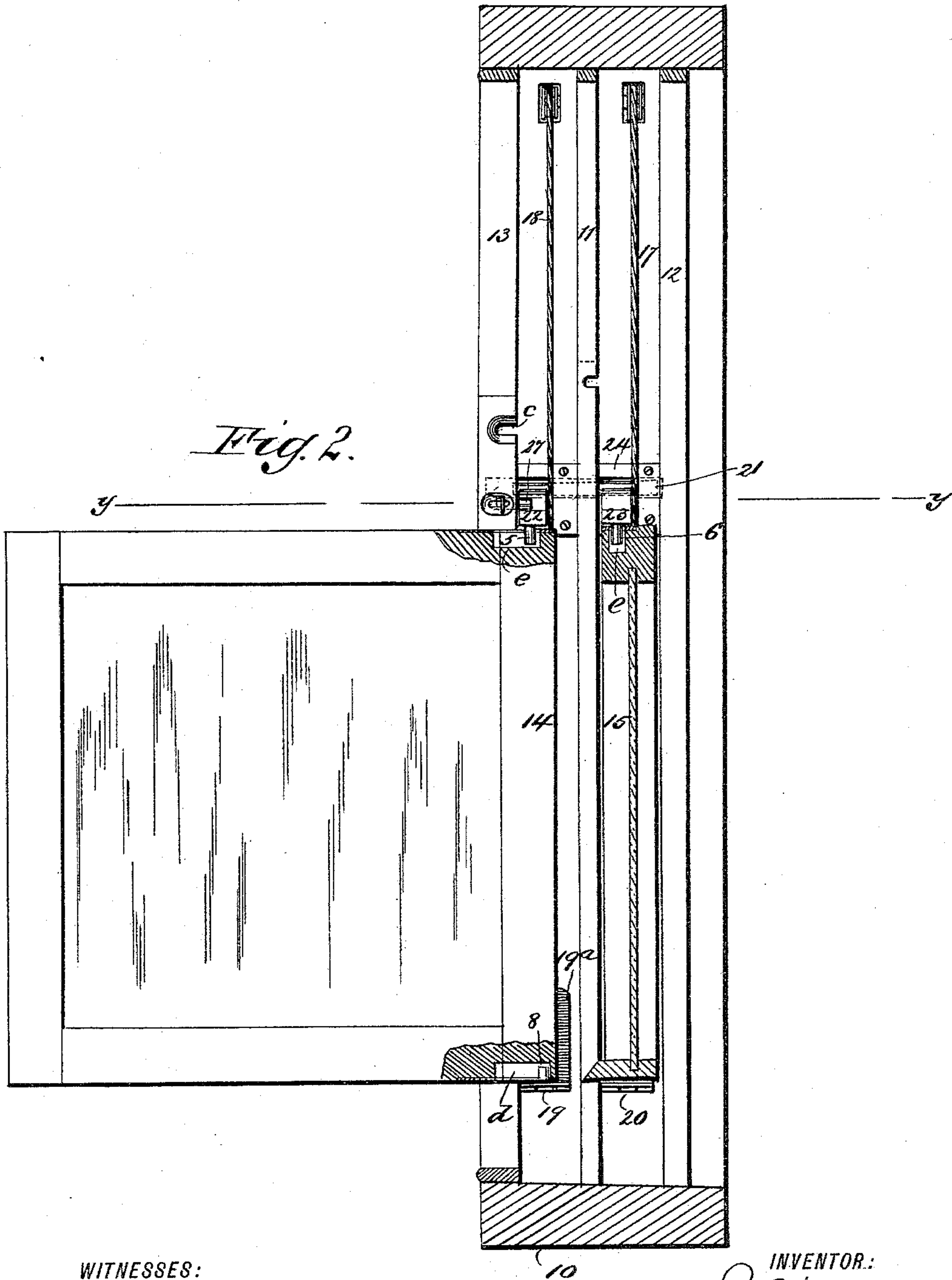
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4 Sheets—Sheet 2.

J. E. ROEDER.  
WINDOW.

No. 411,615.

Patented Sept. 24, 1889.



WITNESSES:  
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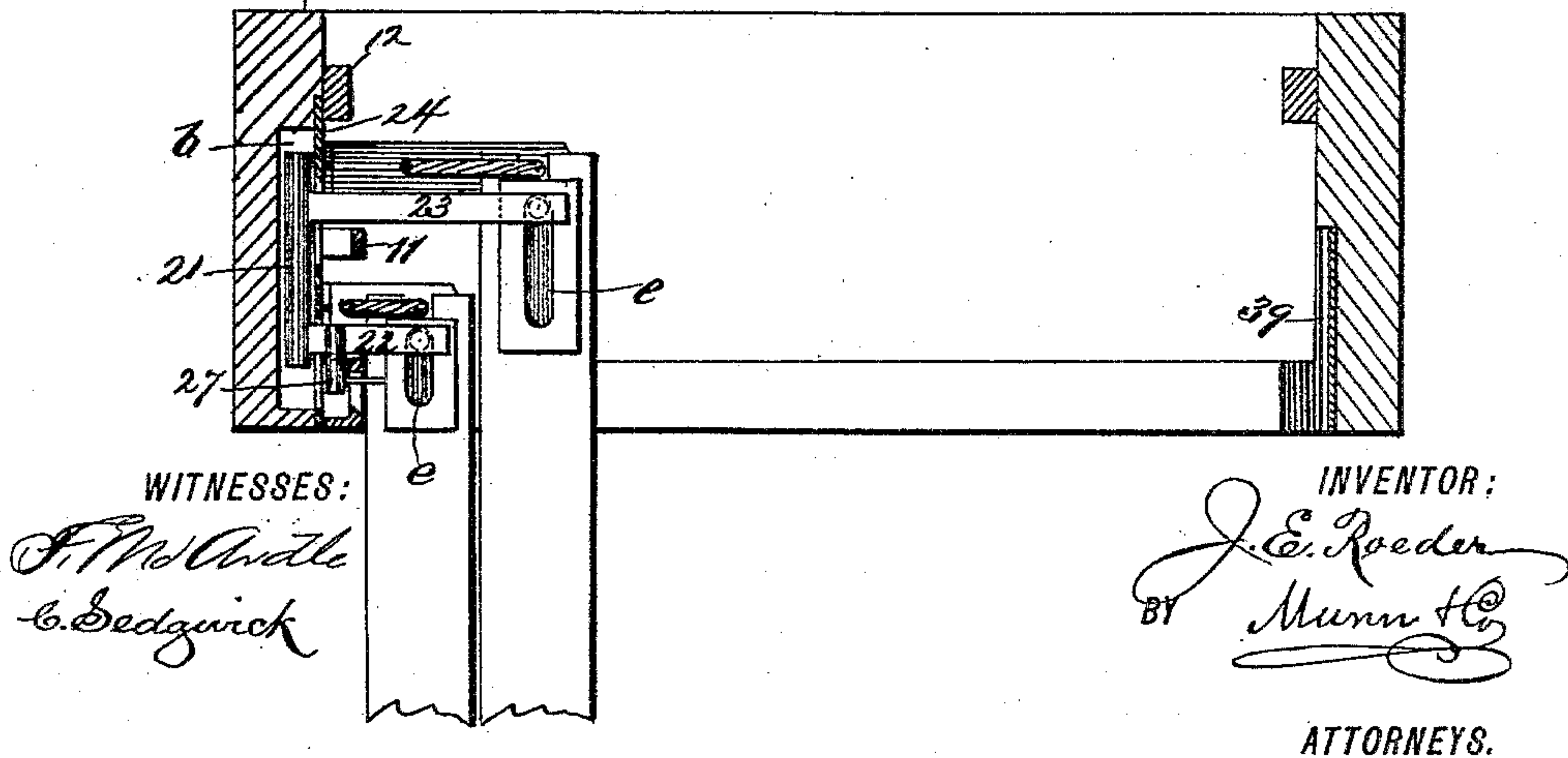
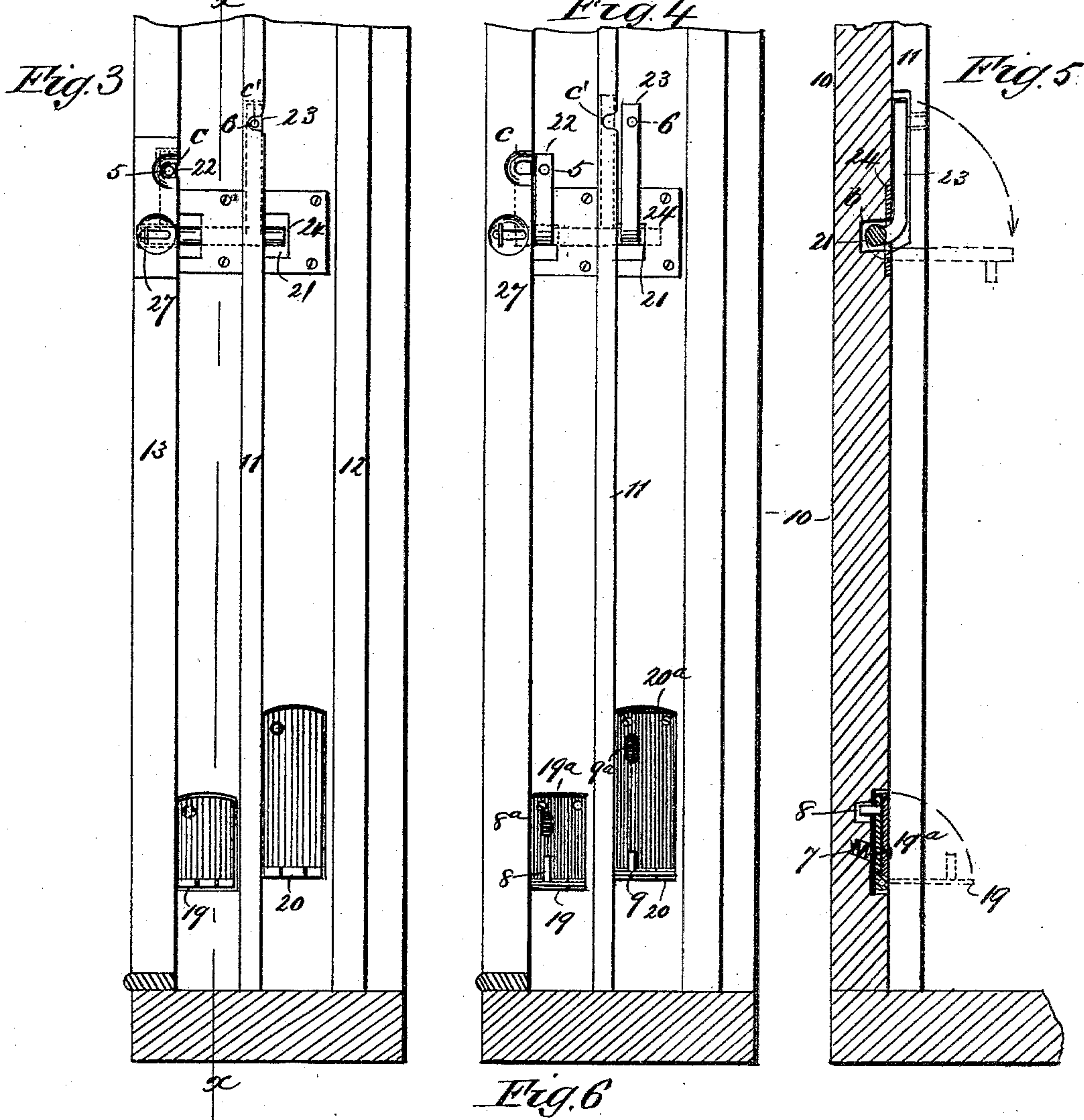
(No Model.)

4 Sheets—Sheet 3.

J. E. ROEDER.  
WINDOW.

No. 411,615.

Patented Sept. 24, 1889.



WITNESSES:  
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INVENTOR:  
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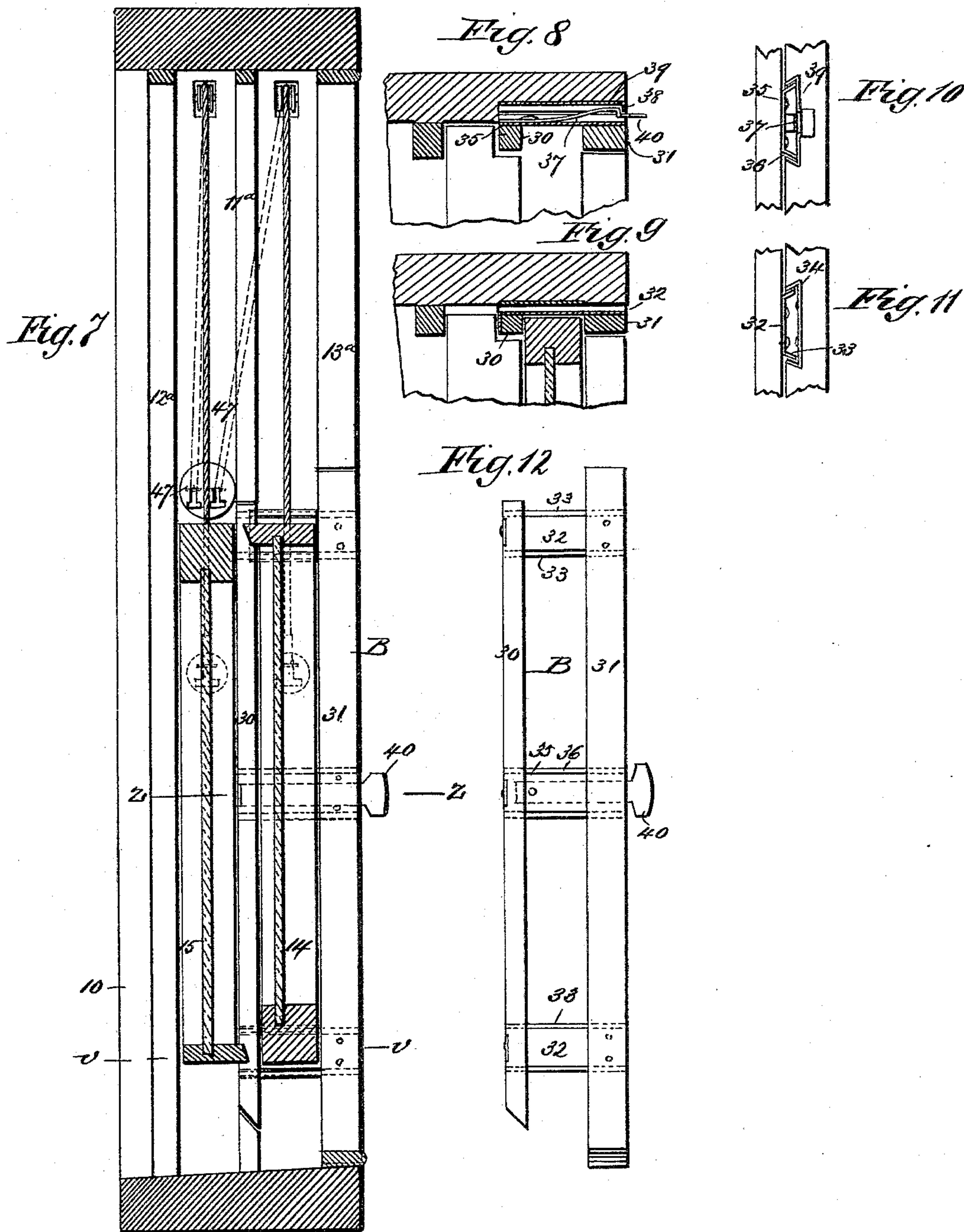
(No Model.)

4 Sheets—Sheet 4.

J. E. ROEDER.  
WINDOW.

No. 411,615.

Patented Sept. 24, 1889.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JONAS E. ROEDER, OF PHILADELPHIA, PENNSYLVANIA.

## WINDOW.

SPECIFICATION forming part of Letters Patent No. 411,615, dated September 24, 1889.

Application filed October 31, 1888. Serial No. 289,638. (No model.)

*To all whom it may concern:*

Be it known that I, JONAS E. ROEDER, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Window, of which the following is a full, clear, and exact description.

In the ordinary form of sliding-sash window great inconvenience and considerable danger are experienced in cleaning the outer face of the glass, and it is to overcome these difficulties that I have designed the window forming the subject-matter of this application, wherein the sashes are mounted so that they will slide vertically, but may be brought into engagement with pintles upon which they may be swung inward, thus permitting the operator to cleanse both sides of the glass while standing upon the floor of the apartment in connection with which the window is arranged.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a view of the inner side of a window-frame, representing the same as it appears when constructed in accordance with the terms of my invention, the sashes being shown as they appear after having been brought into engagement with the pintles upon which they are swung inward. Fig. 2 is a central cross-sectional elevation, parts being broken away and the lower sash being shown as it appears when swung inward. Fig. 3 is a view of the left-hand side of the window-casing, the pintle-carrying plates and arms being shown as they appear when moved to a position such that the sashes may be moved upward and downward in their runs. Fig. 4 is a view similar to Fig. 3, except that the lower set of pintle-carrying plates are shown as they appear when lowered. Fig. 5 is a sectional view on line *x x* of Fig. 3. Fig. 6 is a sectional plan view on line *y y* of Fig. 2. Fig. 7 is a central cross-sectional elevation of the window. Fig. 8 is a detail sectional view on line *z z* of Fig. 7. Fig. 9 is a detail sectional view on line *v v* of Fig. 7. Fig. 10 is a face view of the construction shown in Fig. 8. Fig. 11 is a similar view of the construction

shown in Fig. 9. Fig. 12 is a view of the removable section of the window-casing.

Referring now to the construction illustrated in the drawings, 10 is the main frame of the window-casing, which, as usual, is provided at the left-hand side with a parting-strip 11 and guiding-strips 12 and 13, the lower sash 14 and the upper sash 15 being supported by weight-cords 17 and 18 in the usual manner or any suitable manner.

Just above the sill and at the left-hand side of the frame 10 I mount the folding arms 19 and 20 in the runways of the lower and upper sashes, respectively, the arm 20 being considerably longer than the arm 19 to permit the sashes to lie in parallel planes when swung inward, as shown in Fig. 6. The arms 19 and 20 are provided with pintles 8 and 9 and are hinged to plates 19<sup>a</sup> and 20<sup>a</sup>, respectively, which plates are secured within recesses formed in the runways of the sashes, the plates being apertured at 8<sup>a</sup> and 9<sup>a</sup>, as shown, so that when the arms 19 and 20 are folded up their pintles will enter the recesses in the plates. In order that the plates 19<sup>a</sup> and 20<sup>a</sup> may be normally held within the face of the casing, I connect a spring, as 7, with each of the plates.

In order that the pintles and sockets may register as described, the folding arms are spaced apart a distance equal to the height of the sash.

Above the pintle-carrying plates just described I arrange a short shaft 21, which is provided with a short arm 22 and a long arm 23, said arms having pintles 5 and 6, the shaft 21 being held within a recess *b*, formed in the frame 10, by a plate 24, the arms 22 and 23 extending outward through apertures formed in the plate. Just above the shaft 21 the parting-strip 11 and the guiding-strip 13 are longitudinally recessed, in order that the arms 22 and 23 may be drawn within said recesses, as is shown in Fig. 3, transverse recesses *c* and *c'* being provided for the reception of the pintles 5 and 6.

From the construction described it will be seen that if the shaft 21 be pushed to the position in which it is shown in Fig. 4 the arm may then be turned down to the position indicated by dotted lines in Fig. 5 and in full



lines in Figs. 1, 2, and 6, all upward movement of the arms being prevented by a bolt 27, that is arranged as shown in the drawings.

At the right-hand side of the frame I arrange an outer guiding-strip 12<sup>a</sup> and a parting-strip 11<sup>a</sup>, which, however, extends only from the top of the casing to a point somewhat above the top of the lower sash when said sash is closed, the inner guiding-strip 13<sup>a</sup> being also cut short, and the space beneath the strips 11<sup>a</sup> and 13<sup>a</sup> being filled by a frame B, consisting of a parting-strip section 30 and a guiding-strip section 31, the two being united by metallic plates 32, formed with outwardly-extending flanges 33, which said flanges are adapted to enter undercut grooves formed in the casing, said undercut grooves being preferably protected by shields 34.

Any proper catch might be employed for holding the frame B in the position in which it is shown in Figs. 1 and 7; but I prefer to provide a plate, as 35, having flaring sides 36, which said plate is provided with a spring-tongue 37, that is adapted to engage with a flange 38, formed upon a shield 39, that is fitted within the casing 10 in proper position to be engaged by the flange of the plate 35. The spring-tongue 37 is provided with a thumb-piece 40, through the medium of which the tongue may be thrown out of engagement with the flange 38.

With such a window as the one above described, if the arms 19 and 20 and the arms 22 and 23 be adjusted to the position in which they are shown in Fig. 3, and if the frame B be placed as shown in Fig. 1, the sashes may be moved freely either upward or downward within their runways; but if it should be desired to clean the outer face of the glass the arms 19 and 20 are turned down to the position in which they are shown in Fig. 4. The sashes are then lowered until said pintles enter slots formed in the under sides of the lower cross-bar of the sash, such slots being shown at *d* in Fig. 2. The sashes having been so brought into engagement with the pintles 8 and 9, the shaft 21 and its arms 22 and 23 are moved to the position in which they are shown in Fig. 4 by the hand of the operator or in any other way, and then the arms are turned downward until their pintles 5 and 6 enter slots *e*, formed in the upper faces of the upper-sash cross-bars. Then the thumb-piece 40 is moved so as to bring the tongue 37 out of engagement with the flange 38, and the sashes are swung to the position in which the lower sash is shown in Fig. 2, the frame B being removed when the sashes have been swung inward. To return the sashes, the frame B is adjusted upon the lower sash so that its flanged connecting-plates will register with the undercut recesses formed in the casing. The sashes are then swung inward, the arms 22 and 23 and the plates 19 and 20 returned to their housings.

In order that the sashes may be perfectly

free to swing upon their pivotal connection with the window-casing, I prefer to detachably connect the right-hand weight-ropes, and this I do in any well-known manner.

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

1. The combination, with a window-frame having opposite sashways, one of which is provided with vertically-folding arms having pintles and the other with a movable bead or strip, of a vertically-sliding sash having sockets in its top and bottom at one side, the said folding arms being spaced apart a distance equal to the height of the sash, whereby the sash may be supported on the two pintles while held in its ways, substantially as set forth.

2. The combination, with the window-frame having opposite sashways, one of which has an outwardly-movable strip or bead, and upper and lower vertically-swinging arms in the sashway provided with pintles, of a sash movable vertically in said ways and provided on its top and bottom at one side with elongated sockets, the swinging arms being spaced apart a distance equal to the height of the sash, substantially as set forth.

3. The combination, with a window-frame having opposite sashways for the upper and lower sashes, each provided at one side with upper and lower vertically-swinging arms having pintles, and the opposite sashways having the parting bead or strip, and the inner strip connected and mounted to slide inwardly on the sash-frame, of vertically-movable sashes having sockets in their tops and bottoms at one side to engage said pintles, the swinging arms in both sashways being spaced apart a distance equal to the height of the sash they are to support, substantially as set forth.

4. The combination, with a window-frame, of folding plates arranged in the sash-runways at one side of the case, folding arms arranged above the plates, pintles carried by the plates and arms, a bolt arranged in connection with the folding arms, window-sash provided with sockets adapted to receive the pintles, a detachable frame B, and a means for connecting said frame to the case, substantially as described.

5. The combination, with a window-frame provided with a recessed parting-strip, as 11, and a recessed guiding-strip 13, of a shaft mounted in a recess formed in the window-frame, arms 22 and 23, carried by said shaft, pintles carried by the arms, said arms being arranged to enter the recesses in the guiding-strip and parting-strip, folding plates or arms 19 and 20, arranged beneath the arms 22 and 23, pintles carried by said plates, a window-sash provided with recesses adapted to receive the pintles, and a detachable frame arranged at the opposite side of the sash, substantially as described.

6. The combination, with a sash arranged for pivotal connection with the case, of a



frame B, provided with flanged plates 32, that are adapted to enter undercut recesses formed in the window-case, substantially as described.

7. The combination, with a sash arranged for pivotal connection with the case, of a frame B, provided with flanged plates 32, that are adapted to enter undercut recesses formed in the window-case, and a spring-tongue connected to the frame and arranged to engage a flanged plate, substantially as described.

8. In a window, the combination, with a frame provided with a recessed parting-strip 11 and a recessed guiding-strip 13, of a shaft mounted in a recess formed in the window-frame, arms 22 and 23, carried by said shaft, pintles carried by the arms, said arms being arranged to enter the recesses in the guiding and parting strips, respectively, folding supports carrying pintles arranged below shaft and arms, and a window-sash having recesses

upon its upper and lower sides adapted to receive the pintles of the upper and lower supporting-arms, substantially as shown and described.

9. In a window, the combination, with a frame, of the pintles 19<sup>a</sup> and 20<sup>a</sup>, mounted within the runways, of the lower and upper sashes, respectively, the arms 19 and 20, hinged to the plates 19<sup>a</sup> and 20<sup>a</sup> and carrying the pintles 8 and 9, the spring 7, supporting-arms having pintles arranged above the arms 19 and 20, and a window-sash having recesses upon its upper and lower sides adapted to receive the pintles of the upper and lower supporting-arms, substantially as and for the purpose described.

JONAS E. ROEDER.

Witnesses:

JOHN CARSON,  
GEO. W. CARSON.