

T. J. COPE.  
WINDOW-SCREENS.

No. 183,142.

Patented Oct. 10, 1876.

Fig. 1.

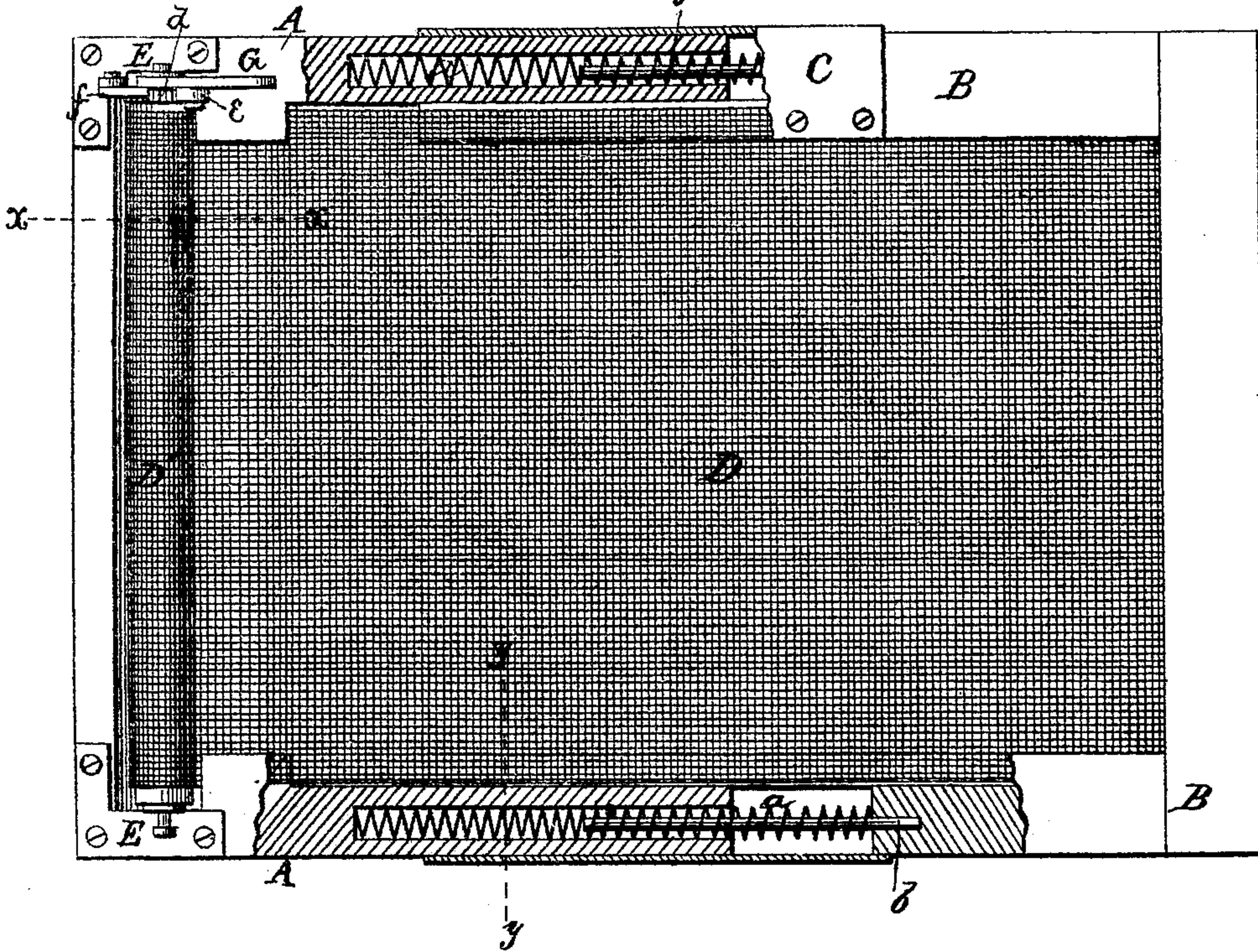


Fig. 2.

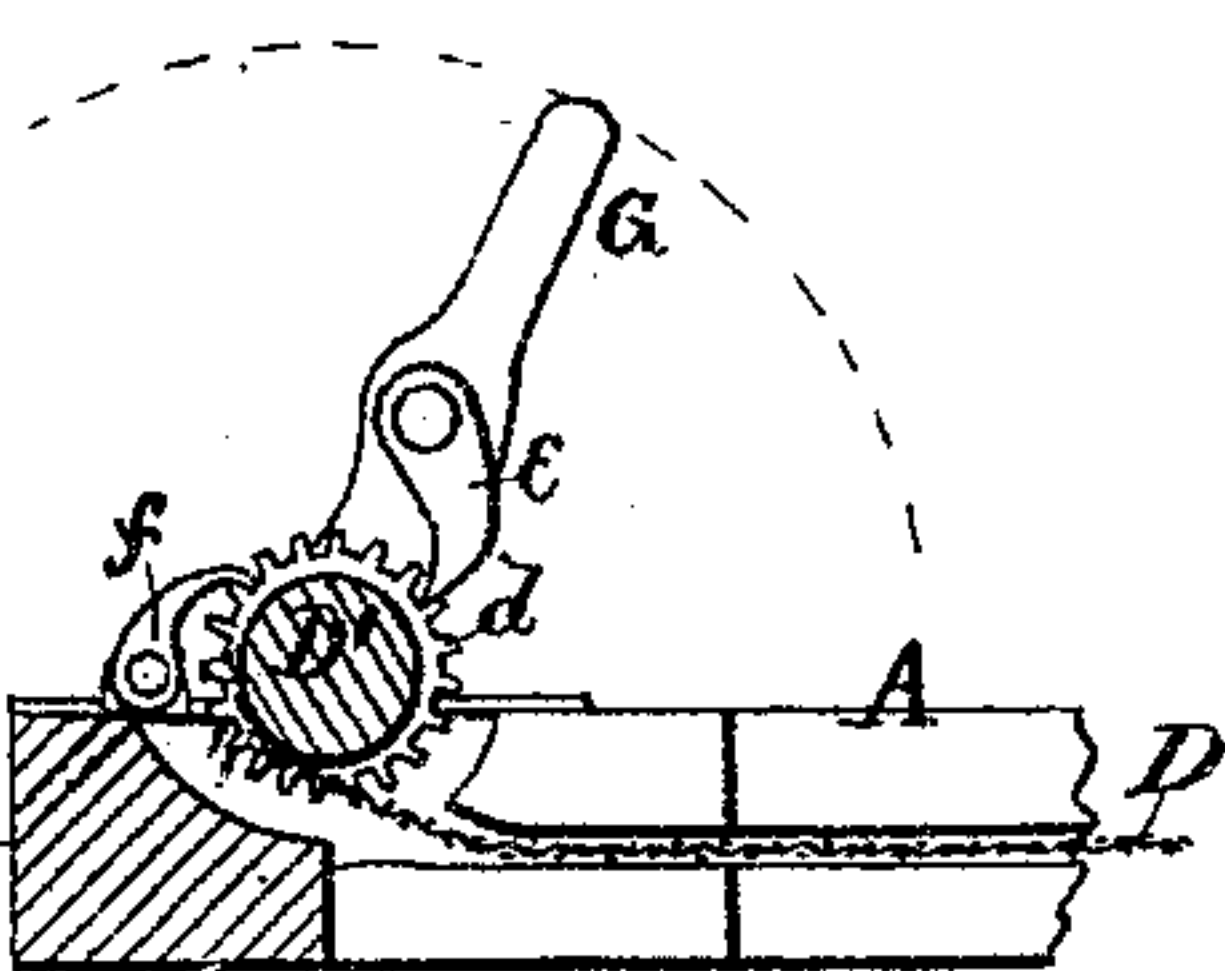


Fig. 3.



WITNESSES

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## IMPROVEMENT IN WINDOW-SCREENS.

Specification forming part of Letters Patent No. **183,142**, dated October 10, 1876; application filed July 13, 1876.

### *To all whom it may concern:*

Be it known that I, THOS. J. COPE, of Philadelphia, in the county of Philadelphia, and in the State of Pennsylvania, have invented certain new and useful Improvements in Extension Window-Screens; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of an extension window-screen, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a front elevation of my invention. Figs. 2 and 3 are sections, respectively, through the lines *x x* and *y y*, Fig. 1.

The frame of my window-screen is made in two parts, A and B, each part forming three sides, and when put together the top and bottom sides overlap each other, they being cut down so as to present smooth surfaces. The joints are covered by metallic casings C C, as shown. The top and bottom side pieces of the frame A are bored out longitudinally, to receive a spiral spring, *a*, which is guided by means of a pin, *b*, secured in the frame B. D represents the wire-netting, which is secured to the frame B its entire length, and then runs in grooves in the frame A, and secured to a roller, D', in the end of said latter frame

A. This roller is mounted in brackets E E, secured to the frame A, and at one end the roller is provided with a ratchet-wheel, *d*. On the journal at that end of the roller is placed a loose lever, G, to which is pivoted a pawl, *e*, for taking into the ratchet-wheel *d*. This lever and pawl are used for winding up the netting on the roller, and thereby contract the frame, being then held by another pawl, *f*, pivoted to the bracket and taking into the ratchet-wheel. If this pawl is thrown out, the springs *a a* at once extend the frame, so that the screen may be used in windows of different widths.

This screen can easily be inserted in a window-frame directly under the sash, as it can be contracted by means of the lever G and pawl *e*, and then, when it is in its place, by letting go of the lever, the springs expand the frame, and hold the frame firmly in place in the window.

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

The combination of the two frames A and B, arranged as described, with concealed springs *a a*, to extend the same, the wire-netting D, roller D', with ratchet-wheel *d*, lever G, and pawls *e f*, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 12th day of July, 1876.

T. J. COPE.

Witnesses:

M. L. STOWELL,  
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