

(No Model.)

J. P. TIERNEY.
TRANSOM VENTILATOR.

No. 358,089.

Patented Feb. 22, 1887.

Fig. 1.

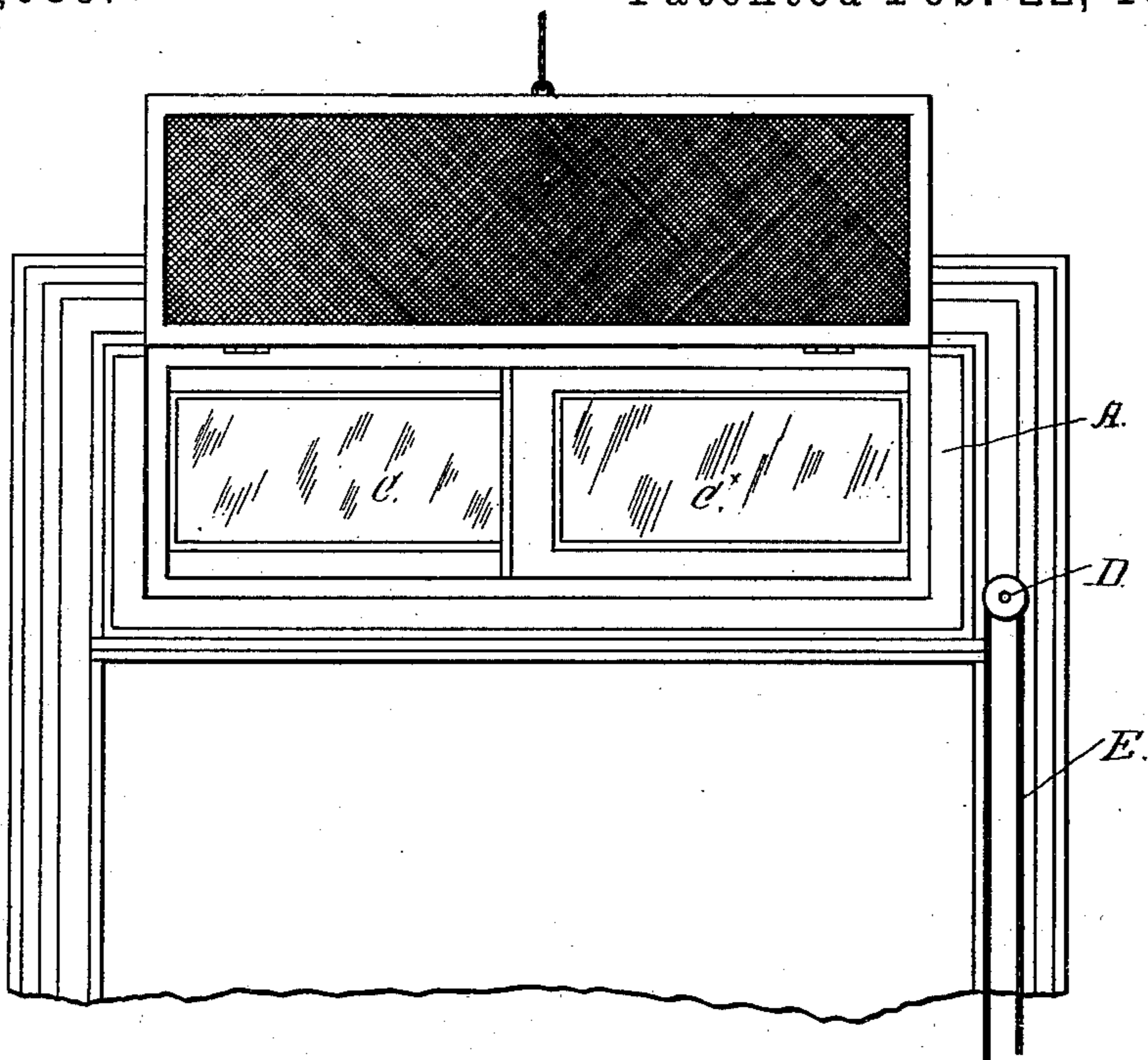
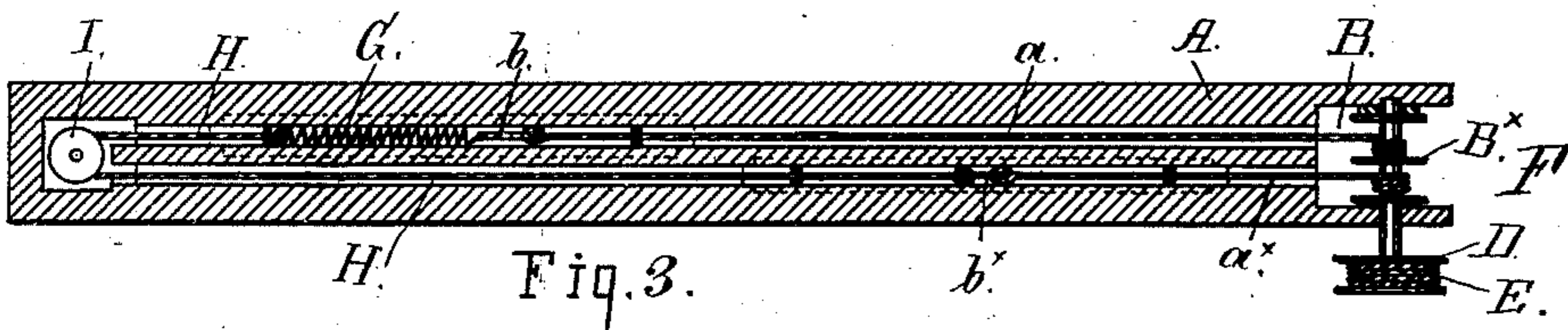
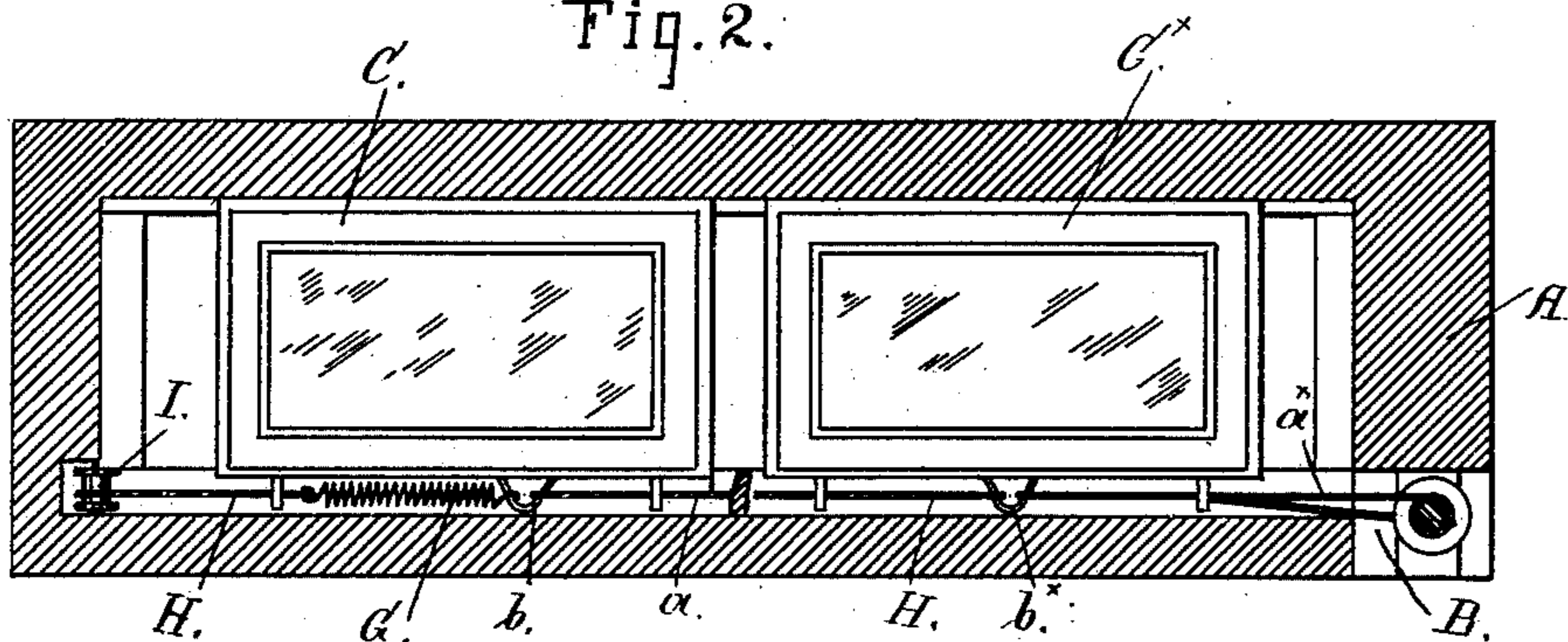


Fig. 2.



Witnesses:

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By

UNITED STATES PATENT OFFICE.

JOHN P. TIERNEY, OF OAKLAND, CALIFORNIA.

TRANSOM-VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 358,089, dated February 22, 1887.

Application filed October 4, 1886. Serial No. 215,329. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. TIERNEY, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented a new and useful Device for Operating Transom-Ventilators, of which the following is a specification.

The object of my invention is to provide a means for operating transom-ventilators of that class for which Letters Patent of the United States were granted and issued to me on the 15th day of June, 1886. I accomplish this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a view in elevation of a transom-ventilator, showing the end of the pulley and operating-cord. Fig. 2 is a longitudinal section through the transom-casing. Fig. 3 is a longitudinal section through the casing below the movable windows.

In constructing my device for operating twin sashes of transom-ventilators the right-hand corner of the lower rail of the sash or frame A is mortised or cut away, as at B, to provide sufficient space for the introduction and movements of a spool which carries the operating-cords. The spool is divided centrally by a disk or rim, B^x, so that two annular spaces or grooves are formed, within which the two operating-cords *a a*^x wind and unwind.

To the outer end of the spool-carrying spindle is connected a pulley, D. This pulley extends beyond the face of the sash, and is provided with an endless cord, E, passing over a grooved pulley (not shown) and connected to the door-frame or other convenient location, as in operating the ordinary window-curtain. The spindle has its bearings in the sides of the mortised opening, and a notch, F, is cut in one side of the frame for convenience in placing the spool in position.

In my former device I described two springs

coiled upon runners or wires for operating the twin sashes; but in my present device only one spring, G, upon sash C is employed, the inner end of which is connected to a staple, *b*, while the cord H connects with the opposite end of this spring, and, passing over the pulley I and through an eyelet, connects with staple *b*^x upon sash C^x. From the staples *b* and *b*^x the respective cords *a a*^x, which operate the twin sashes, extend outwardly and connect with the spindle in each groove forming the double spool in such a manner that when the spindle is turned in either direction the cord will coil upon one groove and uncoil or unwind from the other or opposite groove. At the same time one strand of the endless cord upon the fixed pulley will unwind and the other strand wind in either direction as the pulley is moved, and thus operating the twin sashes.

It is evident from this description that a crank or key may be made to connect with the end of the spindle, to operate the double spool, in place of the pulley and endless cord.

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

The combination of the frame A, having a mortise at B, the twin sashes C and C^x, said sash C having a staple, *b*, and said sash C^x having a staple, *b*^x, the spindle journaled in the mortise B and provided with a disk, B^x, to enable it to serve as a double spool, the spring G, pulley I, cord H, attached to the spring G, passing over pulley I and fastened to sash C^x, and the operating-cords *a* and *a*^x, all arranged substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

JOHN P. TIERNEY. [L. S.]

Witnesses:

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