(No Model.)

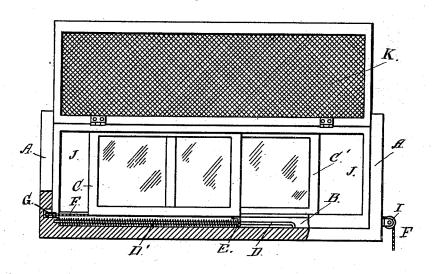
## J. P. TIERNEY.

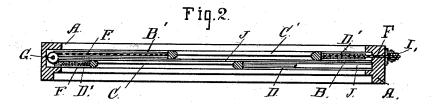
TRANSOM VENTILATOR.

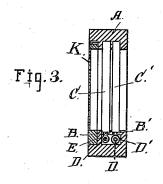
No. 343,781.

Patented June 15, 1886.

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Witnesses:

War Mayer

Ву

Inventor: John Pitrney. Lam Smul Atty.

## UNITED STATES PATENT OFFICE.

JOHN P. TIERNEY, OF OAKLAND, CALIFORNIA.

## TRANSOM-VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 343,781, dated June 15, 1886.

Application filed February 3, 1886. Serial No. 190,734. (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 Transom-Ventilator and Screen Combined, of which the following is a specification.

Referring to the accompanying drawings, forming a part of this specification, Figure 1 10 is a front elevation of my transom-ventilator and screen, partly in section. Fig. 2 is a longitudinal section with the screen removed.

Fig. 3 is a cross-section. The frame A of my ventilator and screen is 15 made double, to form grooves or ways B B' for the two sashes C C'. At opposite ends in the bottom of the ways or grooves is placed a longitudinal rod, D, around which is coiled a spiral spring, D', and over these springs the 2) bottoms of the sashes move in opposite directions, each in its independent and separate groove or way, in which operation the spiral springs are expanded or contracted by means of the clips or lugs E E, attached to opposite 25 ends of the sashes, respectively, which engage the loose ends of the springs and carry them forward with the sashes, in contracting, toward the opposite ends of the casing or frame, and expanding and forcing back the sashes when 30 the latter are released. Both of the sashes are operated simultaneously by means of a cord or wire, F, connected to the ends, which cord passes around a pulley, G, in the head or end of the sash C', passing along the groove of that 35 portion of the frame and out over pulleys I, and from thence to a permanent fastening connected to a casing of a window or the jamb of a door. By drawing the cord F downward the sashes will be moved outward in opposite 40 directions along the ways or grooves of the

frame and the sashes closed against the ends

of the casing or frame.

In operation, when the springs are contracted, the two sashes are parallel or opposite each other, and a space, J, is left for ventilation within the casing at both ends of the sashes.

When the sashes are in the position above described, in order to prevent vermin—such as flies or mosquitoes—from entering the apartment, I connect, by means of hinges, a wire or other screen, K, which shuts up within a ledge or rabbet of the casing or frame, admitting fresh air to the apartment, to the exclusion of all vermin.

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

1. In a ventilator for transoms, the combination, with the twin sashes adapted to move 6 in parallel ways in opposite directions, of means for closing the same, consisting of cord or wire connections and reactionary springs for opening them when the cord connection is released, to provide ventilating spaces at both 6 ends of the sashes, substantially as described.

2. In a transom or other ventilator, the twin sashes moving in ways or grooves in the frame or casing in opposite directions, in combination with cords and pulleys and resilient 7 springs, constructed, arranged, and operating substantially in the manner as set forth and specified.

3. In combination with a transom-ventilator provided with twin sashes adapted to operate 7 as described, the hinged screen shutting within the casing or frame in front of the sashes, in the manner shown and described.

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

have hereunto set my hand and seal.

JOHN P. TIERNEY. [L. s.]

Witnesses:

C. W. M. SMITH, CHAS. E. KELLY.