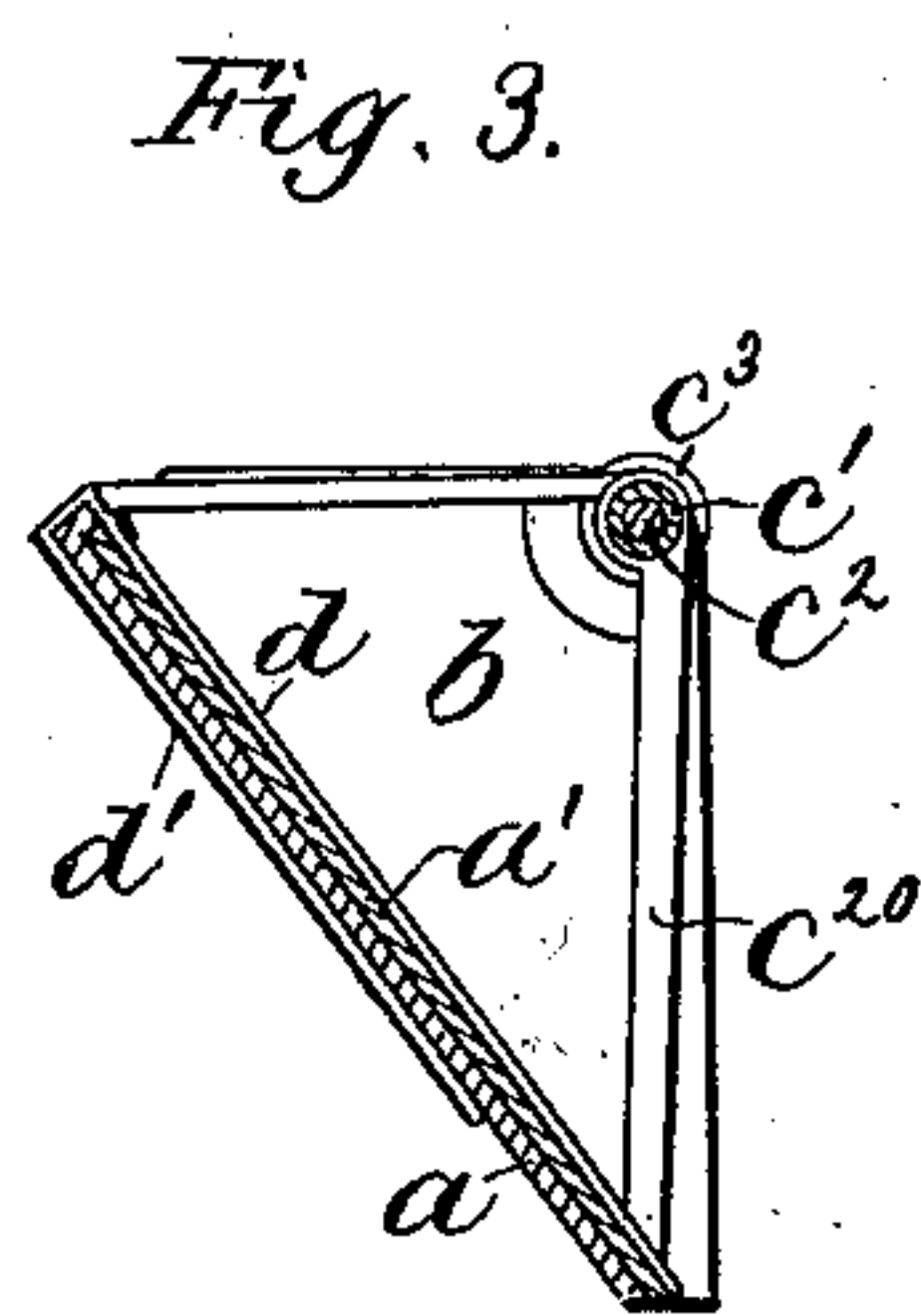
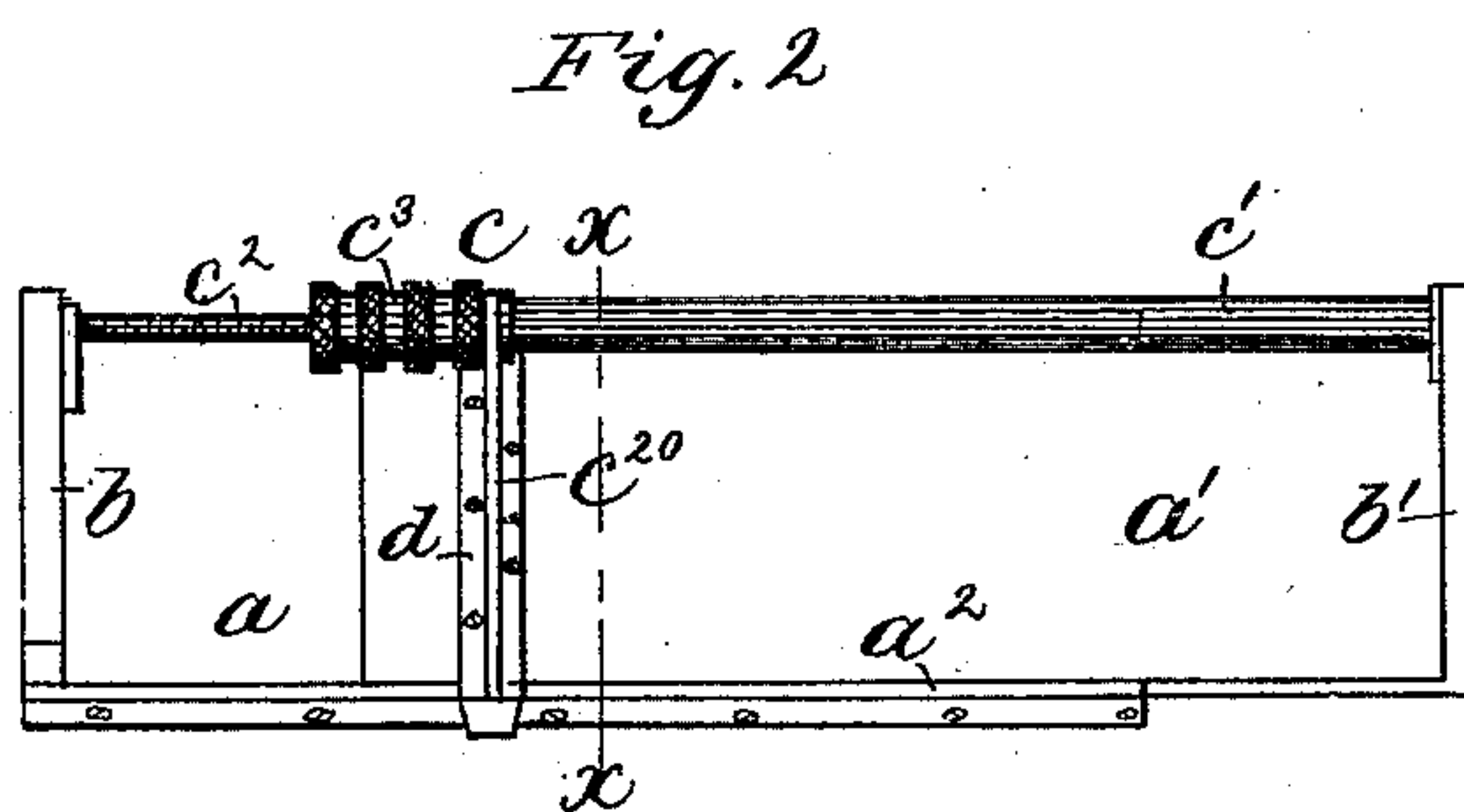
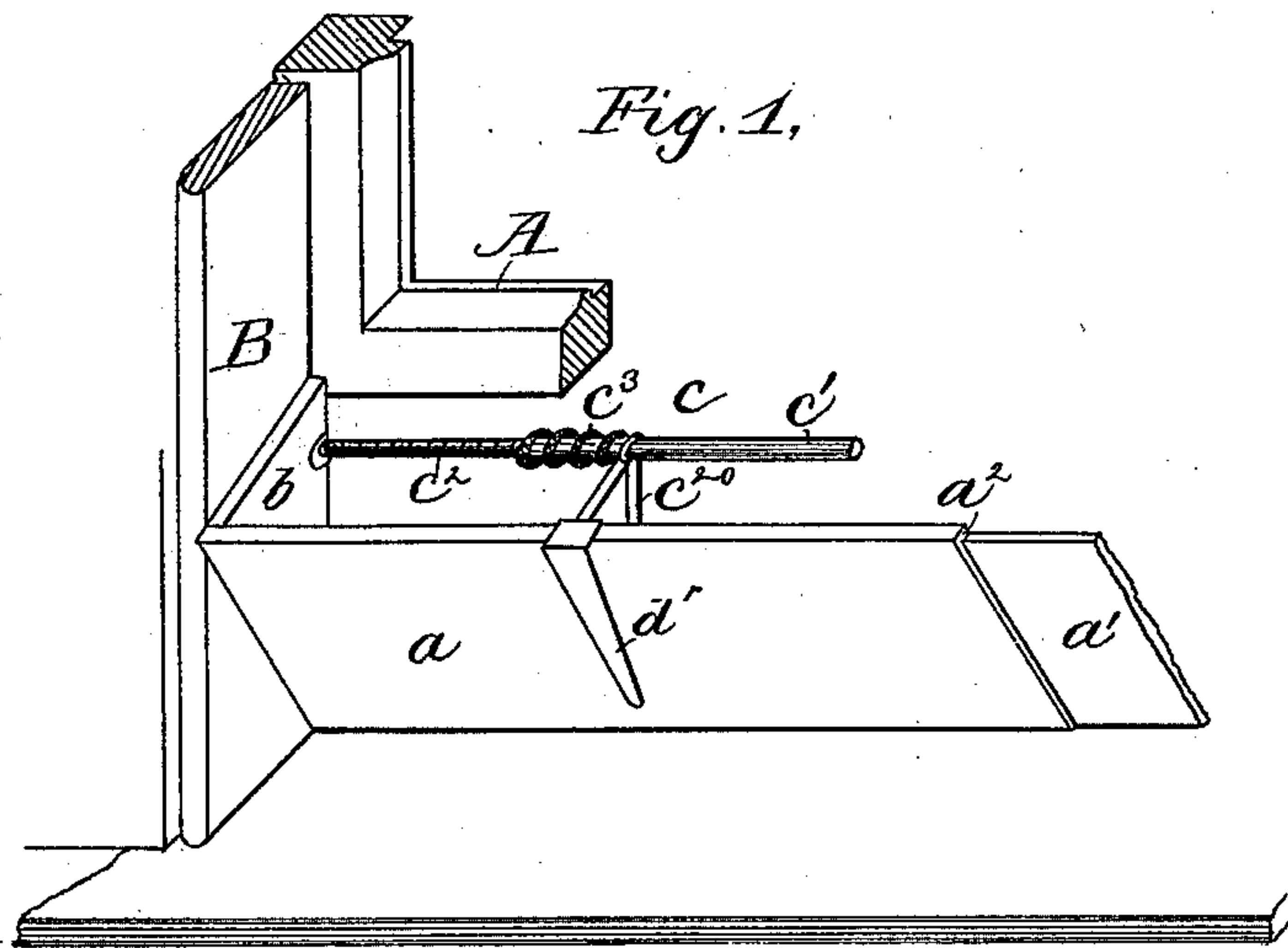


(No Model.)

S. J. SHAW.
WINDOW VENTILATOR.

No. 358,223.

Patented Feb. 22, 1887.



Witnesses.
Jas. J. Maloney.
M. C. Hill

Inventor,
Samuel J. Shaw
by Jos. P. Livermore
Att'y.

UNITED STATES PATENT OFFICE.

SAMUEL J. SHAW, OF BOSTON, MASSACHUSETTS.

WINDOW-VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 358,223, dated February 22, 1887.

Application filed December 23, 1886. Serial No. 222,774. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL J. SHAW, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Window-Ventilators, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My invention relates to a window-ventilator of the kind illustrated in Letters Patent No. 341,695, granted to me May 11, 1886, consisting of a deflector to be placed in the window-frame in such manner as to deflect the air entering below the raised sash upward toward the top of the room.

The present invention consists, mainly, in the means employed for holding the ventilator securely in place in the window-frame in front of the sash, so that the latter may be raised and lowered for the purpose of regulating the amount of air to be admitted to the room.

The invention is embodied in a ventilator composed of a deflecting-plate, the lower edge of which rests on the sill or lower portion of the window-frame, while the said deflector inclines forward and upward, and is provided with end pieces that rest against the sides of the window-frame, the said deflector and end pieces being combined with an expanding device, by which the end pieces are pressed forcibly against the sides of the window-frame to hold the deflector securely therein.

Figure 1 is a perspective view of a portion of a window-frame provided with a ventilator embodying this invention; Fig. 2, a plan view of the ventilator; and Fig. 3, a vertical section thereof on line *x x*, Fig. 2.

The ventilator consists, essentially, of a deflector-plate, *a a'*, intended to stand in an inclined position in front of the lower portion of the window-sash *A*, and having end pieces, *b b'*, intended to engage the jambs *B* of the window-frame, and an expanding device, *c*, by which the said end pieces are forcibly pressed apart and against the jambs *B*, so as to hold the ventilator securely in place, as shown in Fig. 1, it being intended to thus fasten the ventilator in the window-frame wholly in front of the groove in which the sash moves, so that the latter may be moved up and down at the rear of the ventilator and left open to any

height that may be desired, this being an important advantage over ventilators of that class in which the ventilating device is held in place in the sash-groove with the sash resting upon it, and in which kind of apparatus the amount of air to be let in cannot be varied by raising or lowering the window-sash.

The deflecting-plate is preferably made in two or more pieces, *a a'*, as shown, one sliding upon another to vary the length of the ventilator to suit window-frames of different width; and in order to hold the two parts securely together, while permitting one to move along the other, and both to have a close contact with the window-sill, one part is provided with a flange, *a²*, along its upper edge, constituting a rabbet, that embraces the other part, as best shown in Fig. 3, and the other part has attached to it a U-shaped guide-piece, *d d'*, the inner portion of which is fixed to the inner member, *a'*, of the deflector, while the outer portion rests against the outer face of the outer member of the deflector, as shown in Fig. 3, thus holding the two members or parts of the deflector in close contact with one another without making any projection at the lower edge of the deflector to interfere with its fitting tightly on the window-sill.

The expanding device *c* is herein shown as consisting of a tubular guide, *c'*, connected at one end with the end piece, *b'*, of the portion *a'* of the deflector and at its other end with a frame or support, *c²*, connected with the guide-piece *d* at the other end of the same portion, *a'*, of the deflector, while the other portion *a* of the deflector has connected with its end piece, *b*, a threaded rod, *c²*, that works in the tube *c'*, and is provided with a nut, *c³*, that may be turned on the said rod, so as to bear against the end of the tube *c'*, and thus force the rod *c²* out from the tube or expand the ventilator or separate the end pieces thereof, so as to press them forcibly against the jambs of the window-frame in order to hold the deflector tightly in place.

It is obvious that the construction of the expanding device may be modified in various ways without departing from the main feature of the invention, which involves the use of an expanding device such as shown, or its equivalent, for pressing the end pieces of the

deflector against the sides of the window-frame, so as to hold it securely, while having the sash free to rise and fall in its grooves.

I claim—

5 1. In a ventilator of the character described, the combination of a deflector provided with end pieces with the expanding device by which said end pieces may be forcibly pressed apart, substantially as and for the purpose
10 described.

2. In a window-ventilator, the deflector composed of two parts, capable of sliding one upon the other, one of said parts having a flange along its upper edge engaging the edge
15 of the other part, combined with a U-shaped guide-piece, one portion of which is connected with one part of the deflector and the other portion of which extends over the flanged edge and bears upon the other part of the de-
20 flector, holding the two parts in contact with one another, and an expanding device, sub-

stantially as described, by which the two parts of the deflector are forcibly pressed one along the other to lengthen the deflector, substantially as set forth.

25 3. In a window-ventilator, the deflector composed of two parts having a sliding movement with relation to one another and each provided with end pieces combined with a tubular guide connected with one of said parts, 30 and a threaded rod, working in the said tubular guide, connected with the other of said parts, and a nut that turns on said rod and engages the end of said tubular guide, substantially as and for the purpose described. 35

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL J. SHAW.

Witnesses:

JOS. P. LIVERMORE,
JAS. J. MALONEY.