Sept. 4, 1928. 1,682,739

M. F. CLAY

WINDOW VENTILATOR

Filed Dec. 8, 1927

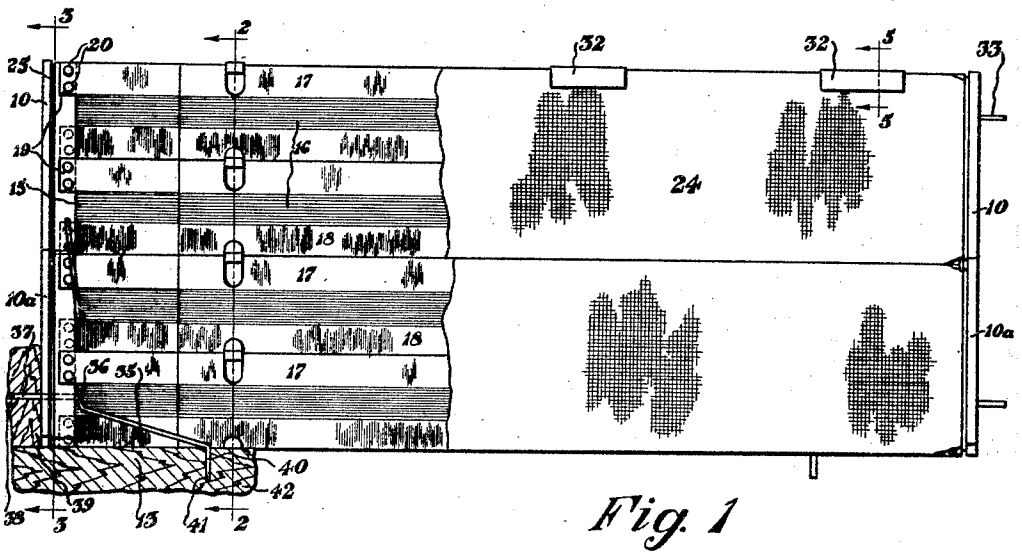

Fig. 1

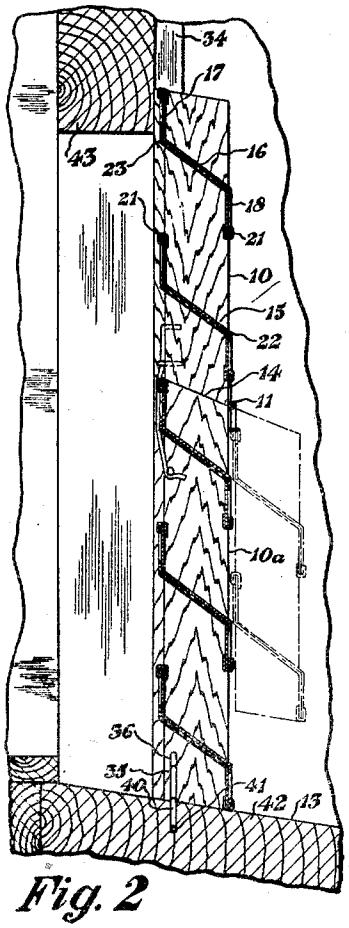

Fig. 2

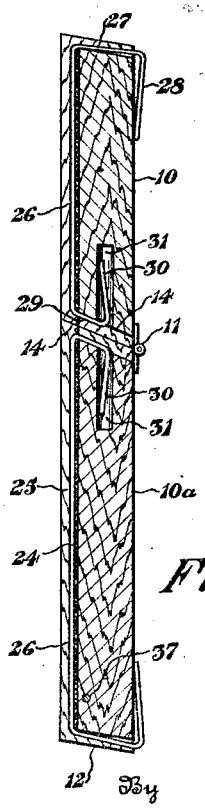

Fig. 3

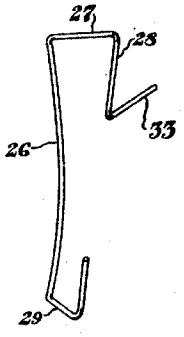

Fig. 4

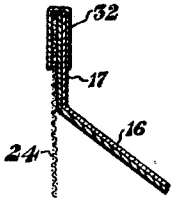

Fig. 5

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Patented Sept. 4, 1928. 1,682,739

UNITED STATES PATENT OFFICE.

MARSHALL F. CLAY, OF CANTON, OHIO.

WINDOW VENTILATOR.

Application filed December 8, 1927. Serial No. 238,583.

The invention relates to ventilators for windows and the like, and more particularly to an adjustable ventilator designed to readily fit windows of various widths.

The object of the improvement is to provide a ventilator of very simple and inexpensive construction, comprising a pair of end pieces to each of which is connected a plurality of sheet metal slats, the slats on each end piece being slidably associated with those upon the other end piece; to form all of the slats alike so that they are readily interchangeable and may be made by the same die; to provide a ventilator which may be easily and readily adjusted to reduce or increase the amount of ventilation and correspondingly decrease or increase the light admitted from the window in which the ventilator is placed; to provide a slat construction which will cause an increased draft of air through the ventilator; and to provide simple spring means for attaching a cheesecloth or the like upon the inside of the ventilator.

The above and other objects may be attained by forming the ventilator of two wooden end pieces, a plurality of spaced sheet metal slats being connected at one end to each end piece, the slats being all of similar design and each having ears for slidably connecting the slats of both sides together; each slat being inclined transversely toward the outer side of the ventilator and having an upturned flange at its inner edge and a similar depending flange at its outer edge, the slats being so positioned with reference to each other that an increased draft of air through the ventilator will be induced, the end pieces being preferably provided with hinged joints whereby the ventilator may be reduced in height to admit more light; springs being provided upon the end pieces for attaching cheesecloth or the like upon the inside of the ventilator to prevent dirt and soot from entering the room.

An embodiment of the invention thus set forth in general terms is illustrated in the accompanying drawings, in which

Figure 1 is an inside elevation of the improved ventilator, a portion of the cheesecloth being removed for the purpose of illustration;

Fig. 2, a vertical section through the ventilator, taken on the line 2—2, Fig. 1;

Fig. 3, a vertical section through one of the end pieces, taken substantially on the line 3—3, Fig. 1;

Fig. 4, a detached, persective view of one of the springs for attaching the cheesecloth upon the inside of the ventilator; and

Fig. 5, an enlarged, detail section through the upper edge of the ventilator, and the attaching clip, taken substantially on the line 5—5, Fig. 1.

Similar numerals refer to similar parts throughout the drawing.

The improved ventilator is provided with end pieces, preferably formed of wood, and in case it is desirable to make the ventilator adjustable as to height, in order to admit more light during the day and more air during the night, each end piece may be made up of two sections 10 and 10^a, hingedly connected together as by the hinge 11.

The bottom end of the lower section 10^a is preferably beveled, as indicated at 12, in order to fit upon the sloping window sill, shown at 13. The meeting ends of the upper and lower sections of each side piece are preferably correspondingly beveled, as indicated at 14, being inclined downward and outward toward the hinge, as illustrated in Fig. 3.

A plurality of sheet metal slats, indicated generally at 15 are connected to each of the end pieces and adapted to be slidably connected to each other in order to permit the ventilator to be adjusted to fit windows of various widths.

Each of these slats preferably comprises the inclined central portion 16 which is inclined downward and outward and provided at its inner edge with the upright flange 17 and at its outer edge with the depending flange 18.

The flanges 17 and 18 may be provided with the ears 19 at the ends adjacent to the end pieces, these ears being connected to the front and back sides of the end pieces as by nails 20 or the like.

Near the free end of each of the slats, tangs 21 are cut from the upper and lower flanges 17 and 18 respectively and bent over and

under the upper and lower edges respectively, of the flanges of the slats carried by the other side piece.

With this construction, the slats carried by each end piece are slidably connected to the slats carried by the other end piece and so arranged that the ventilator may be opened to the maximum and closed to the minimum extent, whereby considerable adjustment of the ventilator is provided for fitting windows of various widths.

As best shown in Fig. 2 of the drawings, the spaces between the lower edge of each depending flange 18 and the corner 22 of the next lower slat, and also the space between the upper edge of each upright flange 17 and the corner 23 of the next upper slat, are greater than the tranverse width of the ventilator.

By thus having the increased inlet and outlet opening for the air, it has been found that an induced draft of air is produced through the ventilator.

If it is desired to cover the ventilator with cheesecloth or the like for the purpose of filtering the air and preventing dust, soot and the like from passing through the same, a piece of cheesecloth as indicated at 24 may be placed upon the inner side of the ventilator, after the same has been adjusted to the proper length to accommodate the window in which it is to be used.

For the purpose of holding this cheesecloth upon the ventilator, each of the end pieces may be provided with a groove around its top, bottom and inner sides as indicated at 25.

A spring wire 26 is adapted to be located in this groove and to clamp the cheesecloth upon the end piece.

As best shown in Fig. 4, this spring wire is normally curved and provided at one end with the forwardly extending portion 27 and angularly disposed portion 28 which is inclined slightly toward the curved body portion 26.

The other end of the wire is bent forwardly as at 29 and terminates in the inclined end 30 adapted to be seated in a socket 31 formed in the top or bottom of the end piece as the case may be.

Since the body portion of this spring wire is normally curved, as shown in Fig. 4, it will be seen that when the same is placed in position upon the end piece, the inclined portions 28 and 30 bearing against the front side of the end piece and the inside of the socket 31 respectively, will hold the spring wire flat against the cheesecloth, tightly clamping the same upon the inner side of the end piece.

If desired, U-shaped clips 32 may be placed over the upper edge of the flange 17 of the topmost slat, holding the upper edge of the cheesecloth against the same.

An angular end 33 may be provided upon the inclined depending portion 28 of the uppermost wire spring to form a stop for engagement with the parting strip 34 of the window frame when it is desired to tilt the ventilator inward to rest the window sash upon the top thereof.

For the purpose of pivoting the ventilator so that it may be thus tilted, a wire 35 may be provided for pivotally connecting the lower end of each end piece to the window frame.

This wire may have an off-set as at 36 and the substantially horizontally disposed end portion 37 is adapted to be inserted into an opening 38 drilled or otherwise provided in the side of the window frame 39.

The opposite end of the wire has a downturned end 40 adapted to be located in an aperture 41 in the window sill 42.

This provides a simple and easy means for attaching the ventilator in the window frame, holding the same in extended position and providing for the pivotal movement thereof in order to tilt the ventilator beneath the bottom of the window sash 43 or in upright position, outside of the path of the window sash as best shown in Fig. 2.

I claim:

1. A ventilator including upright end pieces, a plurality of slats fixed at one end to each end piece, and ears stamped from the other end portion of each slat and bent over and under the top and bottom edges respectively of corresponding slats upon the other end piece, forming a slidable connection whereby the ventilator may be adjusted in length.

2. A ventilator including upright end pieces, a plurality of slats, each slat being inclined downward and outward, a depending flange at the outer edge of each slat, an upright flange at the inner edge of each slat, and extensions upon the ends of the upright flanges forming ears fixed to opposite sides of the upright end pieces.

3. A ventilator including upright end pieces, a plurality of slats, each slat being inclined downward and outward, a depending flange at the outer edge of each slat, an upright flange at the inner edge of each slat, the slats carried by each side piece being slidably connected to the slats carried by the other side piece, and extensions upon the ends of the upright flanges forming ears fixed to opposite sides of the upright end pieces.

4. A ventilator including grooved upright end pieces and slats, a cheesecloth upon one side of the ventilator and spring wires for clamping the end portions of the cheesecloth in said grooves, and having angular portions bent around the upper and lower ends of the end pieces.

5. A ventilator including grooved upright end pieces and slats, a cheesecloth upon one side of the ventilator and spring wires for clamping the end portions of the cheesecloth in said grooves, and having angular portions

bent around the upper and lower ends of the end pieces, the upper angular portion of each wire having an outturned end forming a stop for engagement with the parting strip of a window frame.

6. A ventilator including end pieces and slats, and a pair of wire members, each having a horizontal portion adapted to be located through the lower portion of one end piece and into the window frame, a shoulder for engagement with said end piece and a depending portion for engagement in the window sill.

In testimony that I claim the above, I have hereunto subscribed my name.

MARSHALL F. CLAY.