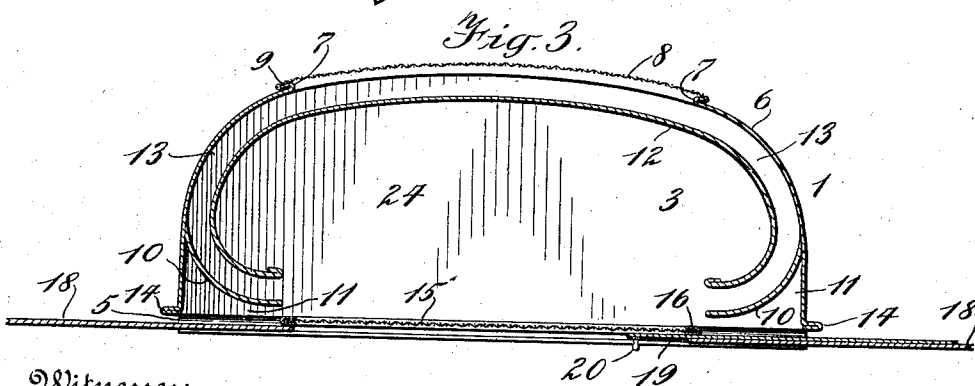
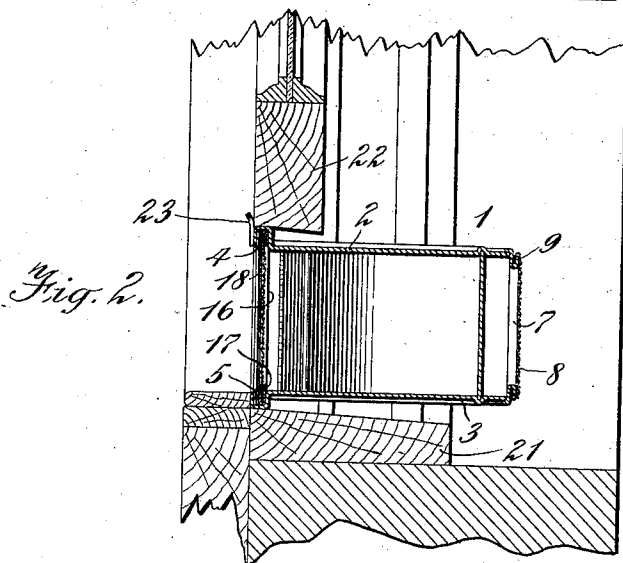
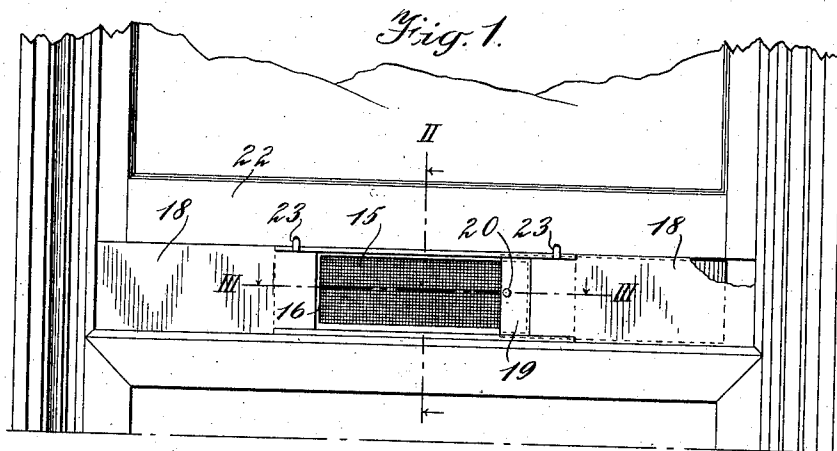


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WINDOW VENTILATING APPLIANCE.
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1,016,713.

Patented Feb. 6, 1912.



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UNITED STATES PATENT OFFICE.

RICHARD SCHIMEK, OF NEW YORK, N. Y.

WINDOW-VENTILATING APPLIANCE.

1,016,713.

Specification of Letters Patent.

Patented Feb. 6, 1912.

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To all whom it may concern:

Be it known that I, RICHARD SCHIMEK, a citizen of the United States, residing at the city of New York, in the borough of Manhattan and State of New York, have invented certain new and useful Improvements in Window-Ventilating Appliances, of which the following is a full, clear, and exact description.

10 This invention relates to ventilating appliances and more particularly to window ventilators of the type which are intended to be positioned between the lower rail of the sash of a window and the sill.

15 One object of my invention is to provide a device of this character which shall permit of properly ventilating a room without incommoding the occupants thereof.

In most devices of this character, as heretofore constructed, relatively strong air currents are permitted to pass directly into the room, while much of the entrained dust with which the outer air chancas to be laden is also swept along by the draft. I have therefore aimed to not only prevent such too direct admission of air, but to prevent, as far as practicable, the admission of this dust and dirt; separating the dust particles from the air, depositing and collecting them in suitable receptacles from whence they may be readily removed. I have also provided means for regulating the admission of air, while, further, adapting the device to various widths of windows.

35 In the drawings which form a part hereof, and in which like reference characters designate like parts throughout the several views: Figure 1 is a front elevation of one form of my ventilator, in position in a window. Fig. 2 is a vertical section of the same taken on line II—II of Fig. 1. Fig. 3 is a transverse section of the device taken through the middle thereof.

Referring to Figs. 2 and 3, a sheet metal casing broadly designated 1, preferably having the side and rear walls thereof arcuate as shown, is provided with a bottom and a top panel, respectively designated 2 and 3, the front edges of which are grooved as at 4—5 for the reception of the several elements hereinafter referred to.

The arcuate sheet 6 which forms the side

walls above referred to is apertured at 7 to provide a rear opening for the ventilator, and this opening is covered by a fine mesh wire cloth screen 8, which may be secured in position by flanging over the edges of the aperture as at 9, correspondingly folding over the edges of the screen and clamping the latter under the flanges 9.

Sheet metal wings or partitions 10 are soldered or otherwise suitably secured to the inner walls of the sides of the casing, the jointures therebetween preferably being such that the side walls and said partitions smoothly blend into each other in a substantially regular curve. The front or free edges of these partitions, which extend between the top and bottom of the casing, are spaced back from the grooves 4—5, so as to form pockets 11, the purpose of which will be hereinafter explained. Within the arcuate sheet 6 is a correspondingly bent sheet or partition 12 which is preferably spaced equidistantly therefrom to form channels which deliver into the body of the casing. The front edges of sheet 6 may, if desired, be flanged as at 14, leaving the grooves 4—5 open at their extremities for the admission of a front screen 15. This screen is preferably also formed of fine mesh wire cloth, the screen proper being held in a suitable sheet metal frame 16. As indicated at 17, in Fig. 2, the lower side of this frame is preferably of somewhat greater depth than the upper side thereof, and projects upwardly a short distance above the bottom of the casing. In front of the screen 15 and also in the grooves 4—5 are side or extension plates 18, and between one of these and the said screen is a slidably mounted cover plate 19, which may be provided with a knob or handle 20.

The device is preferably shorter in length than the width of a window and is intended to be held between the sill 21 of the window and the lower rail 22 of a sash thereof. When so disposed the side plates 18 are pulled partially out of grooves 4—5 and the outer extremities thereof are preferably pushed in behind the sash retaining strips of the window, so that practically no air passes therearound.

In practice the metal of which the casing is formed is quite thin, being shown rela-

tively thick merely for convenience of illustration.

Clips 23 may be provided upon the front of the casing, if desired, in order to better retain it in position.

5 The device operates as follows: Assuming that the cover 19 has been shoved to the right to the desired extent, thereby uncovering the front screen the required amount to
10 insure what may be deemed proper ventilation, the outer air is then free to pass through screen 8 into the channels 13, from whence it quietly emerges through the front screen 15 into the room. If the wind be
15 blowing against the screen 8, directly from the rear, the air driven through said screen will divide into two substantially equal currents which upon their emerging from the oppositely opening channels 13 will tend to
20 nullify each other, depositing much of the entrained dust in the chamber 24, and the air thereafter passing out through screen 15 substantially at right angles to the course of the currents emerging from the channels.
25 Assuming now that the air is directed against the outer side of screen 8 at an acute angle thereto, then that which passes through said screen will traverse one of the channels 13 in preference to the other and
30 will blow across the rear of screen 15, gradually emerging therethrough, but depositing most of its entrained dust in so doing. If the so laterally directed air be driven through screen 8 with sufficient force it may
35 even induce a whirling action or circulation of the same within the apparatus, passing through one of the channels 13 in one direction and back through the other channel in the other direction, only an amount sufficient for proper ventilation emerging into
40 the room through the front screen. Thus, in so far as breaking the force of the incoming air is concerned, the device, while devoid of moving parts, is adapted to efficiently
45 admit merely a proper amount of air at practically all times; the parts of the appliance being so disposed as to neutralize by its own more or less violent action, the force of the wind. Obviously too, when but a
50 light breeze is stirring the air filters quietly and yet quite freely through the device, while the slidable cover 19 permits of regulating the flow to a nicety. The arcuate formation of the channels 13, has another
55 advantage, in that it induces a slight centrifugal action in the incoming air currents, and since these channels are relatively narrow this relatively slight action is able to manifest itself appreciably. By reason
60 thereof many of the entrained dust particles are caused to impinge against the outer walls of the respective channels and are thereby caused to deposit upon the bottom of said channels, whence they are swept on
65 into the central chamber 24. Further when

the incoming air passes across the front screen and substantially parallel thereto, which it does at practically all times, most of its remaining entrained dust is also deposited in chamber 24 and such of this dust
70 as does not find its way into the back of this receptacle, passes gradually across the floor of said chamber, adjacent the screen 19 and into one or the other of the dust pockets 11, from whence it may be conveniently removed.
75 The relatively wide portion 17 of the screen frame 16 facilitates this action, and prevents the dust upon the floor of chamber 24 from passing thence out into the room.

80 The device is simple and inexpensive to construct and is decidedly efficient in operation; and, in so far as I am aware, the utilization of the principles embodied herein, in the manner shown, is decidedly new in the
85 art.

I am aware that various modifications of the device herein exemplified may be made without departing from the spirit of my invention, and hence I desire to be limited
90 only by the scope of the claims appended hereto.

Having described my invention, I claim:

1. In a ventilator, a screen, a plurality of arcuate channels adapted to receive air
95 passed through said screen, the exhaust openings of said channels being oppositely disposed, a chamber into which said channels deliver and a second screen through which the air from said chamber may pass.
100

2. In a ventilator, a screen, a plurality of channels adapted to receive air passed
105 through said screen, the exhaust openings of said channels being oppositely disposed, a chamber into which said channels deliver and a second screen through which the air from said chamber may pass.

3. A window ventilator comprising a plurality of channels, a chamber into which
110 said channels open, the exhaust openings of said channels into said chamber being oppositely disposed, whereby currents of air passing simultaneously therethrough tend to neutralize each other, a screen through
115 which the air from said chamber may pass, and means for regulating the flow of air therethrough.

4. A window ventilator comprising a plurality of channels, a chamber into which
120 said channels open, the exhaust openings of said channels into said chamber being oppositely disposed, whereby air currents passing simultaneously therethrough tend to neutralize each other, and a screen through
125 which the air from said chamber may pass, the mouths of said channels being directed to pass currents of incoming air across said screen and parallel thereto.

5. A window ventilator comprising a plurality of channels, a chamber into which
130

said channels open, the exhaust openings of said channels into said chamber being oppositely disposed, whereby air currents passing simultaneously therethrough tend to
5 neutralize each other, a screen through which the air from said chamber may pass, the mouth of said channels being directed to pass currents of incoming air across said screen and parallel thereto, and receptacles

into which dust separated from said incoming air may be deposited. 10

In witness whereof, I subscribe my signature, in the presence of two witnesses.

RICHARD SCHIMEK.

Witnesses:

WALDO M. CHAPIN,
WILLIAM C. LANG.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
