

No. 811,832.

PATENTED FEB. 6, 1906.

H. DE WALLACE.
VENTILATING APPARATUS.
APPLICATION FILED JAN. 28, 1905.

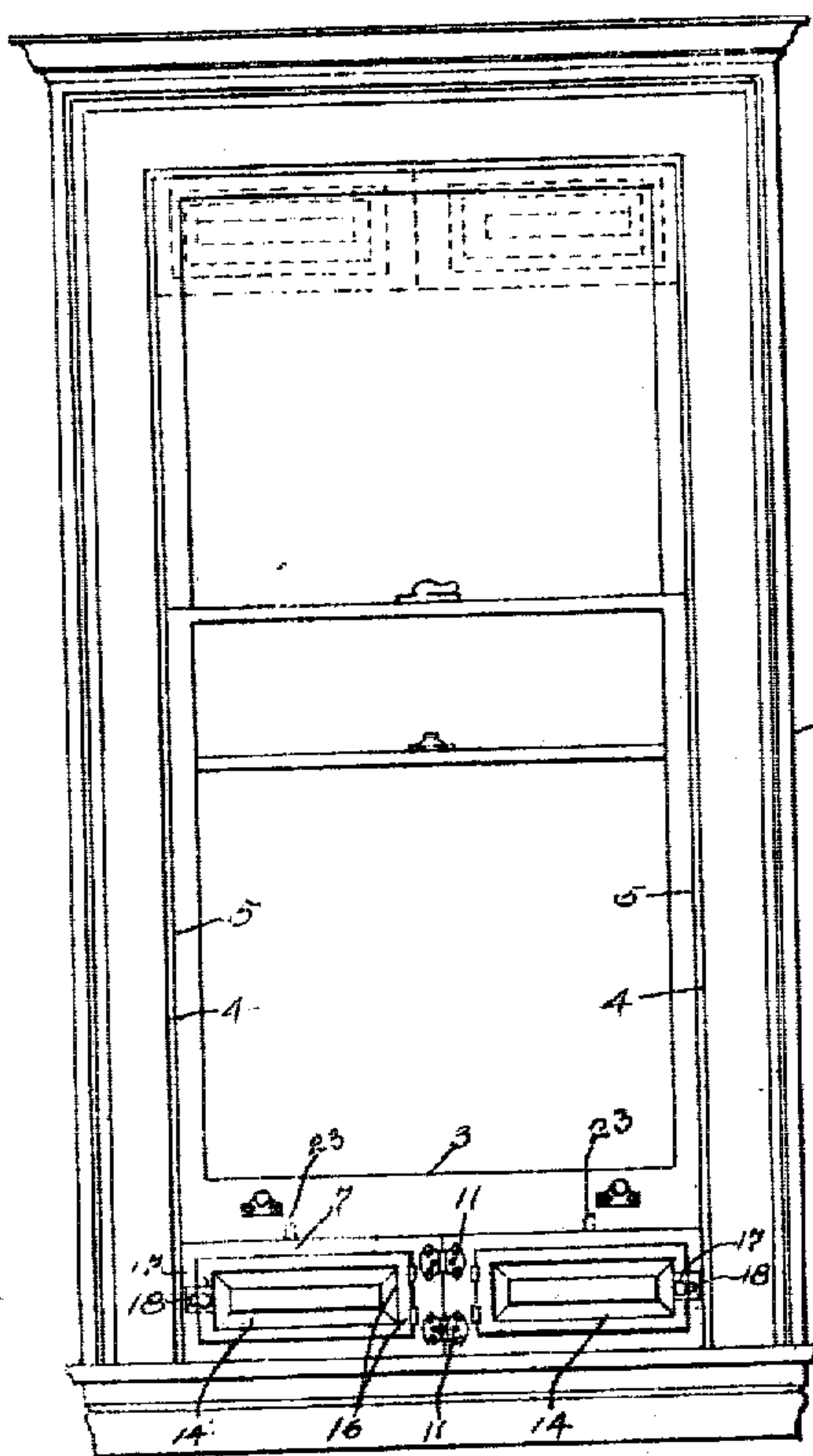


Fig 1

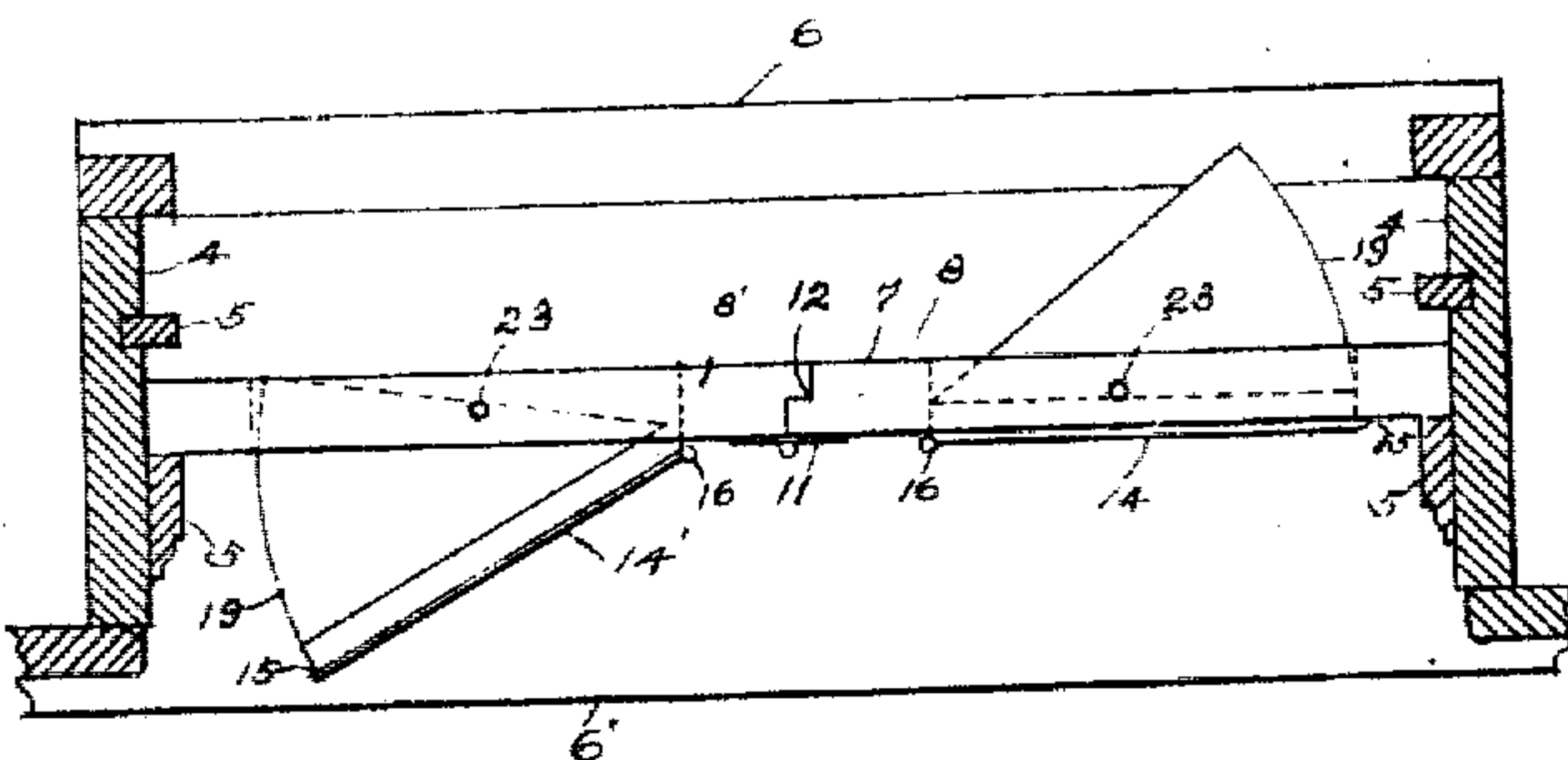


Fig 2.

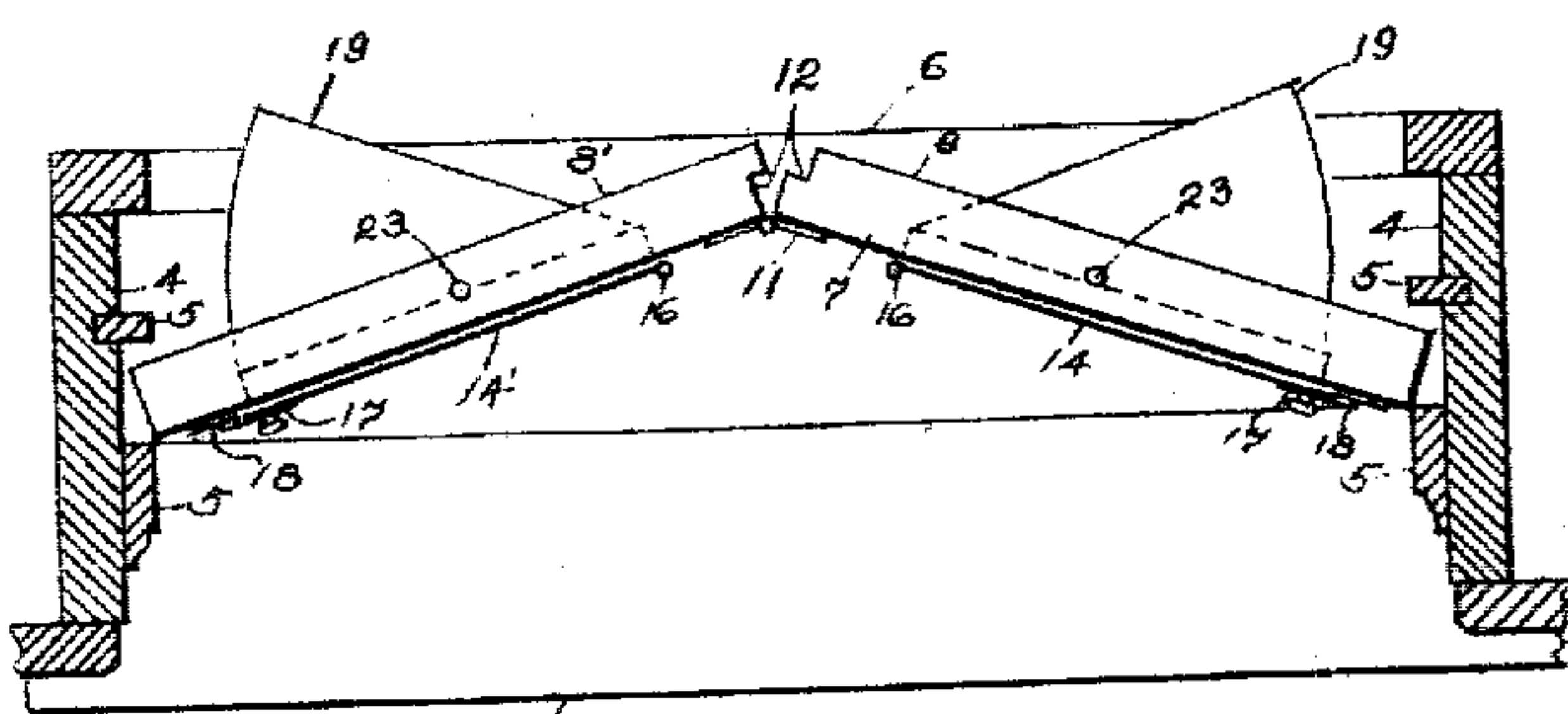


Fig 3.

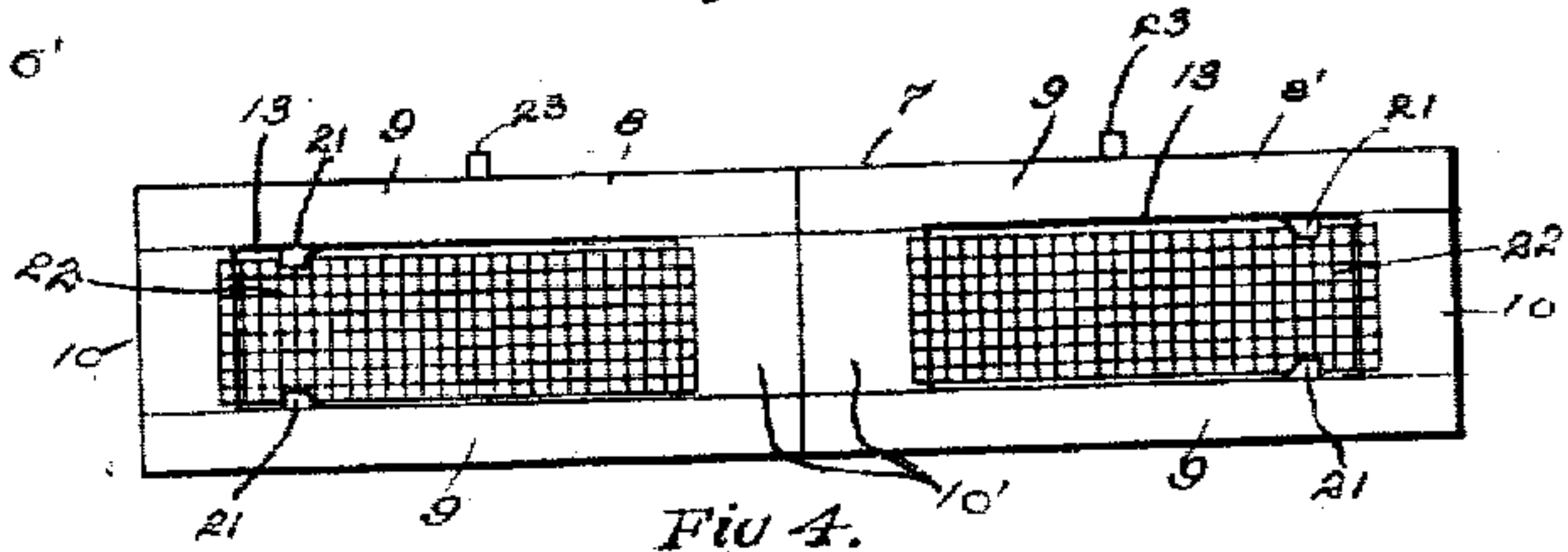


Fig 4.

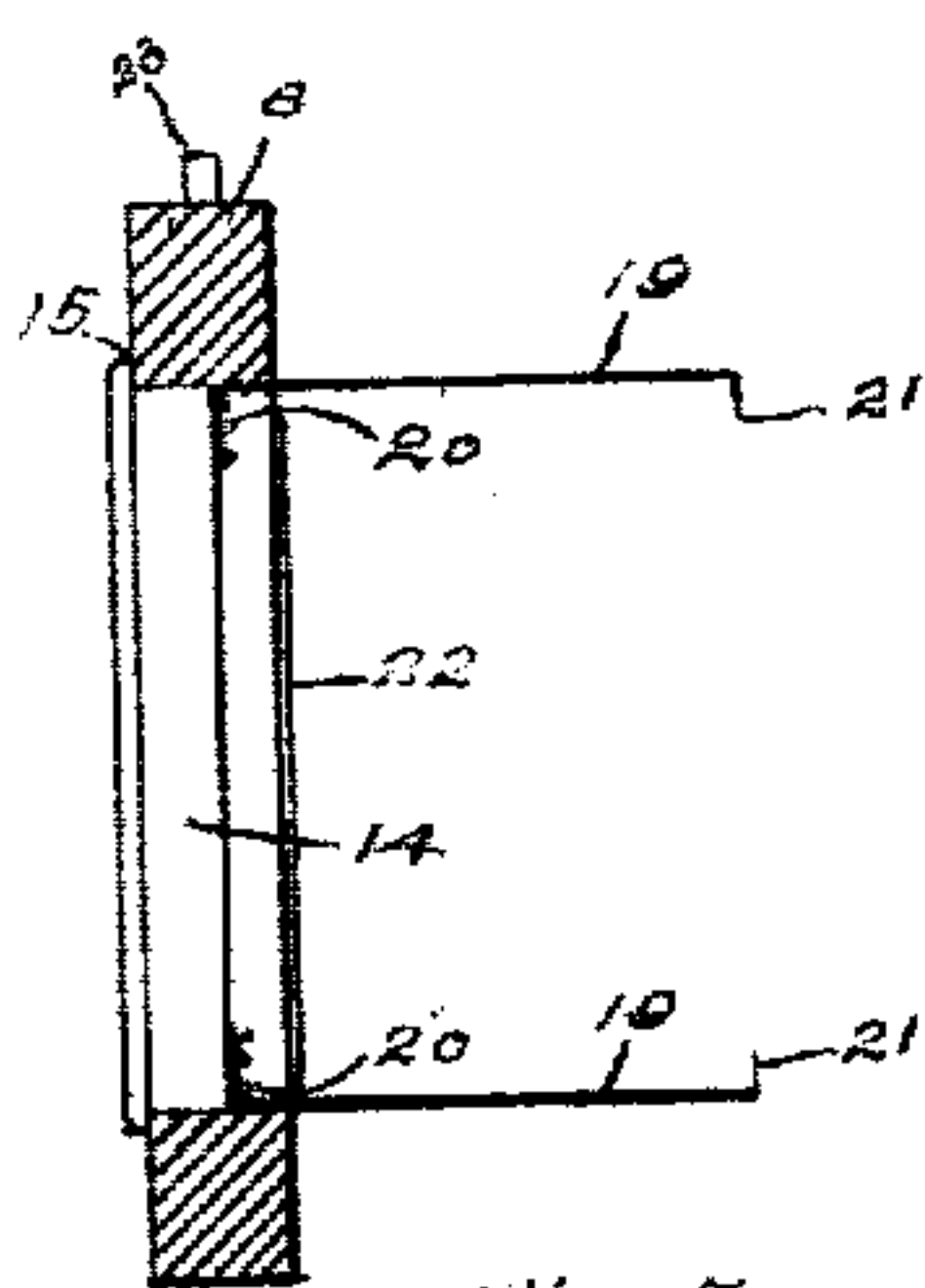


Fig 5.

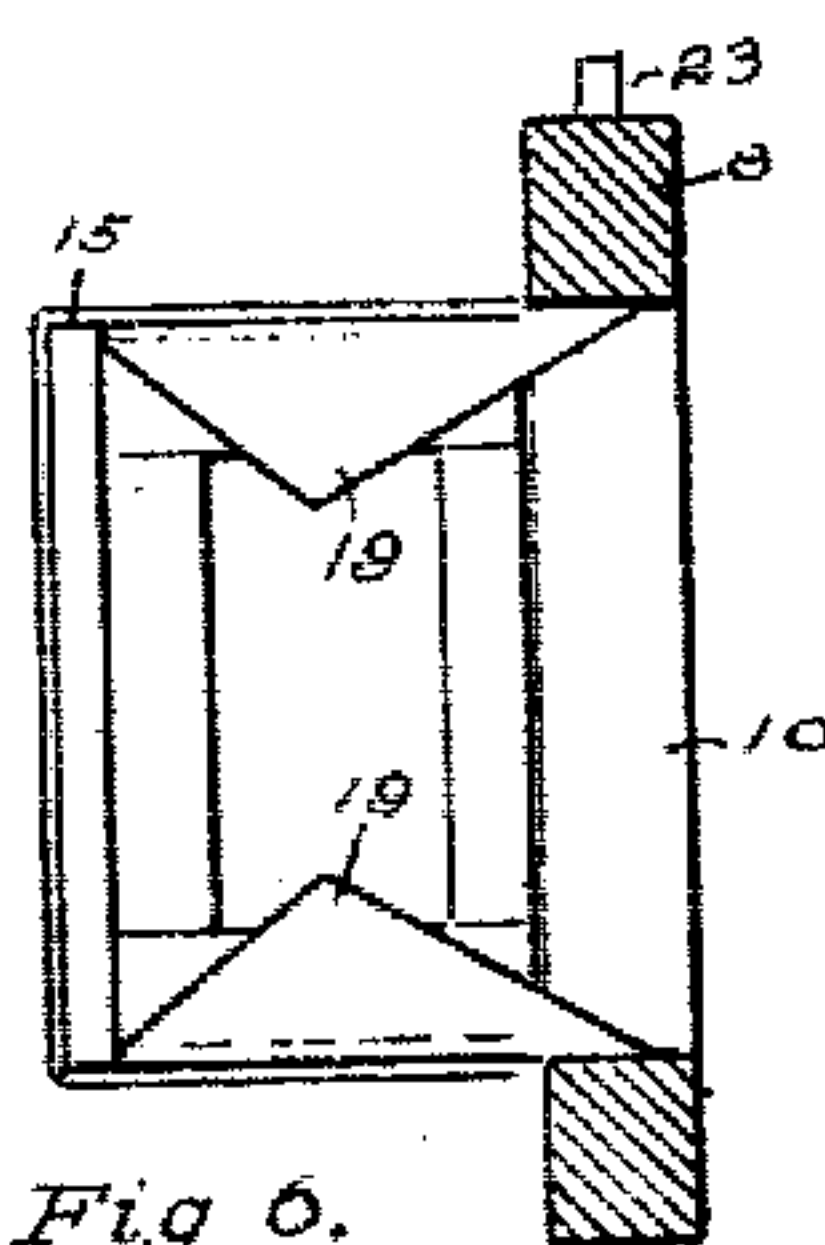


Fig 6.

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VENTILATING APPARATUS.

No. 811,832.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed January 28, 1905. Serial No. 242,993.

To all whom it may concern:

Be it known that I, HARRY DE WALLACE, a citizen of the United States, residing at Watertown, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Ventilating Apparatus, of which the following is a specification.

This invention relates to improvements in ventilating apparatus designed for employment in connection with the windows of dwelling-houses, office-buildings, or other like structures by the use of which fresh air of any desired volume may be admitted to the inner compartments or rooms of a building and whereby the dangers and discomforts caused by direct drafts are in a great measure obviated.

The object of the invention is to provide a ventilating apparatus which is simple in construction, inexpensive, and adapted to be readily applied or removed and which requires no alterations or labor in preparing a window to receive it.

The invention consists in features of construction and in combination of parts hereinafter particularly described and then sought to be clearly defined by the claims, reference being had to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a front elevation of a window, showing my invention applied thereto. Fig. 2 is a plan view of the ventilating apparatus, showing its position with reference to the window-frame, &c., and showing one door or gate open. Fig. 3 is a plan view showing the ventilator partially folded or collapsed for the purpose of applying the same to a window. Fig. 4 is a rear elevation showing the manner of attaching the screens to the frames of the ventilator. Fig. 5 is an end elevation, partly in section, of the ventilator, showing the manner of attaching the two wings to a door. Fig. 6 is a view showing modified form of the wings.

Similar figures of reference are applied to corresponding parts throughout the various figures.

In the drawings, 2 represents a window. 3 is the lower sash. 4 4 are the vertical sides of the window-frame. 5 5 are the several stops on either side of the frame. 6 is the window-sill, and 6' is the stile.

7 represents the complete ventilating apparatus, which is preferably made of wood and consists of two frames 8 and 8', which are substantially alike in size, &c. Each frame

is composed of the rails 9 9 and of stiles 10 and 10'. The complete ventilating apparatus is formed by joining the frames 8 and 8' together endwise by means of the hinges 11, and in order to make a suitable air-tight joint where the ends of the frames abut each frame is rabbeted in the reverse order, as indicated by the number 12, the object in providing the hinged joint between the two frames being for the purpose of folding or breaking the ventilator, as shown in Fig. 3, to facilitate placing it in position in a window. The frames 8 and 8' are provided with central openings 13, into which are operably fitted the paneled doors or gates 14 and 14'. These doors are provided with overlapping flanges or edges 15 on the face side of the ventilator, which serve to prevent the doors from opening or swinging except in one direction and they also serve to prevent the admission of air when the doors are closed. The doors 14 and 14' are attached to the stiles 10' of the frames by means of the hinges 16. By this arrangement the doors are adapted to swing in opposite directions, and if swung around a trifle over ninety degrees their faces will come together at a point central with the window and the ventilator 7. Catches 17 17 are mounted on the face side and at the free ends of the doors or gates, and when the latter are closed they engage the strikers 18 18, which are secured to the stiles 10 of the frames. The catches are provided with handles or knobs by which they are operated. Fig. 2 shows door 14' open to admit air into the room.

Figs. 2 and 3 show triangular-shaped wings or flanges 19, preferably made from sheet metal. These are secured to the backs along the opposite edges of the doors or gates by means of nails or other suitable devices 20, as shown in Fig. 5. The wings 19 are intended to be about the length of the openings 13, and when attached to the doors form channels or three-walled passages through which the currents of fresh air may pass into the interior of a house or room. The effect of this construction is to cause an apparent compression of the air, and although the vents may be of comparatively small areas, yet the air will enter the room with considerable force, and in that way an abundance of pure air may be obtained and deflected toward either side of a room at will. The extreme or outer points 21 of the wings 19 are bent or formed at right angles to the plane of

the wings, as shown in Figs. 4 and 5, for the purpose of limiting the movement of the doors or gates when they are thrown open, as shown in Fig. 2. A screen 22, preferably
 5 made of wire, is attached to the back of the frame for the purpose of excluding insects in summer and snow and sleet in winter. This screen is secured to the back surface of the frames by means of tacks or staples such as
 10 are commonly used for the purpose. The screens are to be made of a width slightly less than that of the opening in the frame, so as to permit of the free play or working of the wings 19 both above and below the screen.
 15 When the doors or gates are swung open, the lugs or points 21 come in contact with the upper and lower edges, respectively, of the screen, and are thus prevented from further movement.
 20 23 represents dowel-pins intended to form connection between the sash and the ventilator, and the particular object of their employment is to effect the holding of the ventilator in alinement with the sash and prevent
 25 its accidental displacement or removal. Various other simple locking means may be substituted for the dowel-pins, and I may prefer to use them.

Instead of the metallic wings or flanges 19
 30 I may prefer to employ pieces of leather or canvas and apply them so that they will fold accordion fashion (see Fig. 6) between the doors and the screens when the former are closed and not depart from the spirit of my
 35 invention.

It is obvious that many of the details may be varied without materially changing the principles of the invention, and I therefore do not limit myself to the precise construction herein described and shown.
 40

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

1. A ventilating apparatus, comprising two
 45 frames joined by means of hinges, a pivoted door or gate secured to each of said frames, a catch provided on each door or gate adapted to hold the same in a closed position, a pair of rearwardly-projecting wings or flanges secured to the horizontal edges of said doors,
 50 and at right angles to the plane of said door or gate, and a screen secured to the back of each of said frames, substantially as shown and described.

2. A ventilating apparatus, comprising two
 55 frames foldably joined together, central openings in said frames, doors or gates adapted to fit and close said openings, hinges connecting said doors or gates to said frames, wings or
 60 flanges secured to the horizontal edges of said doors or gates, screens attached to the back of the frames and adapted to limit the movement of said doors or gates, substantially as shown and described.

3. A ventilating apparatus, comprising two

frames hinged together and adapted to be attached to a window-frame, a central opening in each of said frames, doors or gates pivotally joined to said frames and adapted to fit
 70 and close said openings to prevent the admission of air into a room, and also adapted to be swung open for the purpose of admitting air into a room, a latch on each door adapted to hold the same in a closed position, a pair of wings secured to the opposite edges of each
 75 door, a lug or angular projection formed on each wing adapted to limit the movement of a door, and a screen disposed across the central opening of each frame, all substantially as and for the purposes described and shown. 80

4. A ventilating apparatus, comprising two frames hinged or pivoted together, central rectangular openings formed in said frames, doors or gates hinged to said frames and adapted to admit or exclude a volume of air,
 85 wings secured to the outer side of each door or gate and adapted to confine the flow of air to a channel formed by said wings and said door or gate, a screen secured to the back or weather side of each frame adapted to ex-
 90 clude insects, snow and sleet from a room, and means for attaching said ventilating apparatus to a window-sash, substantially as shown and described.

5. A ventilating apparatus, comprising a
 95 pair of rectangular frames of equal size joined together by means of a hinge or hinges, the abutting ends of said frames being reversely rabbeted to prevent the leakage of air through
 100 said joint, a central rectangular opening in each of said frames, and a movable door or gate hinged or pivoted to each of said frames whereby either or both of said rectangular openings may be opened or closed for the
 105 purpose of admitting or excluding a volume of air, substantially as shown and described.

6. A ventilating apparatus, comprising two frames foldably hinged together, the combined length of said frames being equal to the
 110 width of a window-sash, a rectangular opening formed in the center of each of said frames, a door or gate hinged on one side, and adapted to close or open the rectangular opening, of each of said frames, for the purpose of admitting or excluding a volume of
 115 air, and a screen upon the back of each of said frames and extending across said rectangular opening, adapted to prevent the admission of insects, &c., substantially as shown and described. 120

7. A ventilating apparatus, comprising two frames having rabbeted ends and joined together by means of hinges, a central opening in each frame, a gate or door hinged to each
 125 frame and adapted to be operated to close said opening for the purpose of excluding fresh air from a room, and also adapted to be swung open on said hinges for the purpose of admitting air of any desired volume into a
 130 room, a pair of wings or flanges oppositely

disposed upon the rear surface of each door or gate adapted to form a channel for the flow of a current of air into a room or compartment, a lug disposed at right angles to each
5 of said wings or flanges, and a screen secured to the back and across the central opening in each frame, adapted to prevent the opening of said doors or gates beyond a certain limit, substantially as shown and described.

10 8. A ventilating apparatus, comprising two frames pivotally joined together and adapted to be placed in a window either above or below, and in line with the sash thereof, devices

adapted to form a connection between the ventilating apparatus and a window-sash, 15 and a pair of doors or gates pivotally mounted upon said apparatus for the purpose of regulating the flow of air into or from a room, substantially as shown and described.

In testimony whereof I affix my signature 20 in presence of two witnesses.

HARRY DE WALLACE.

Witnesses:

EDGAR V. BLOODOUGH,
JOSEPHINE W. HODGES.