No. 878,231. PATENTED FEB. 4, 1908.

A. A. PACKER.

VENTILATOR.

APPLICATION FILED APR. 20, 1907.

2 SHEETS—SHEET 1.

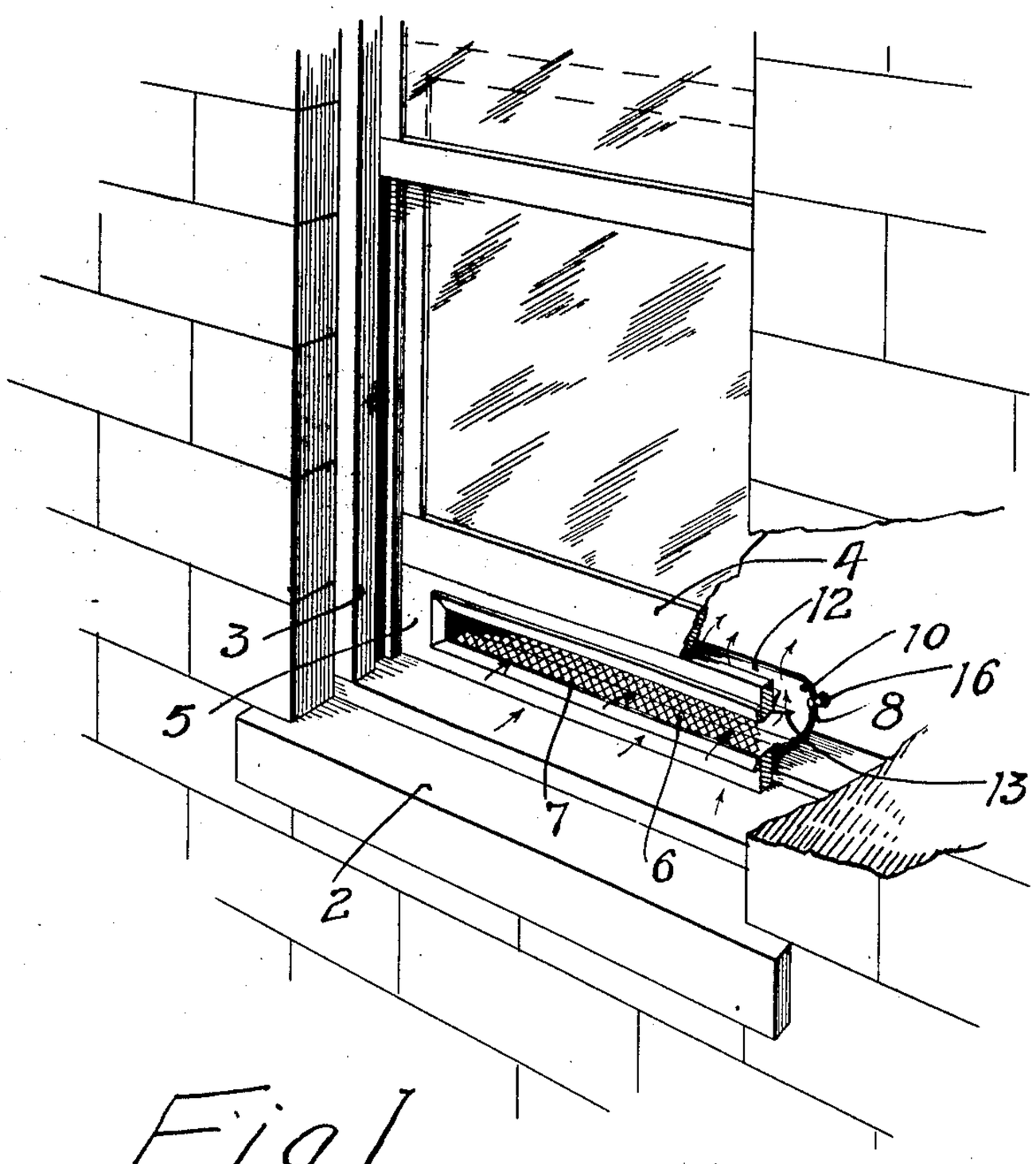

Fig 1.

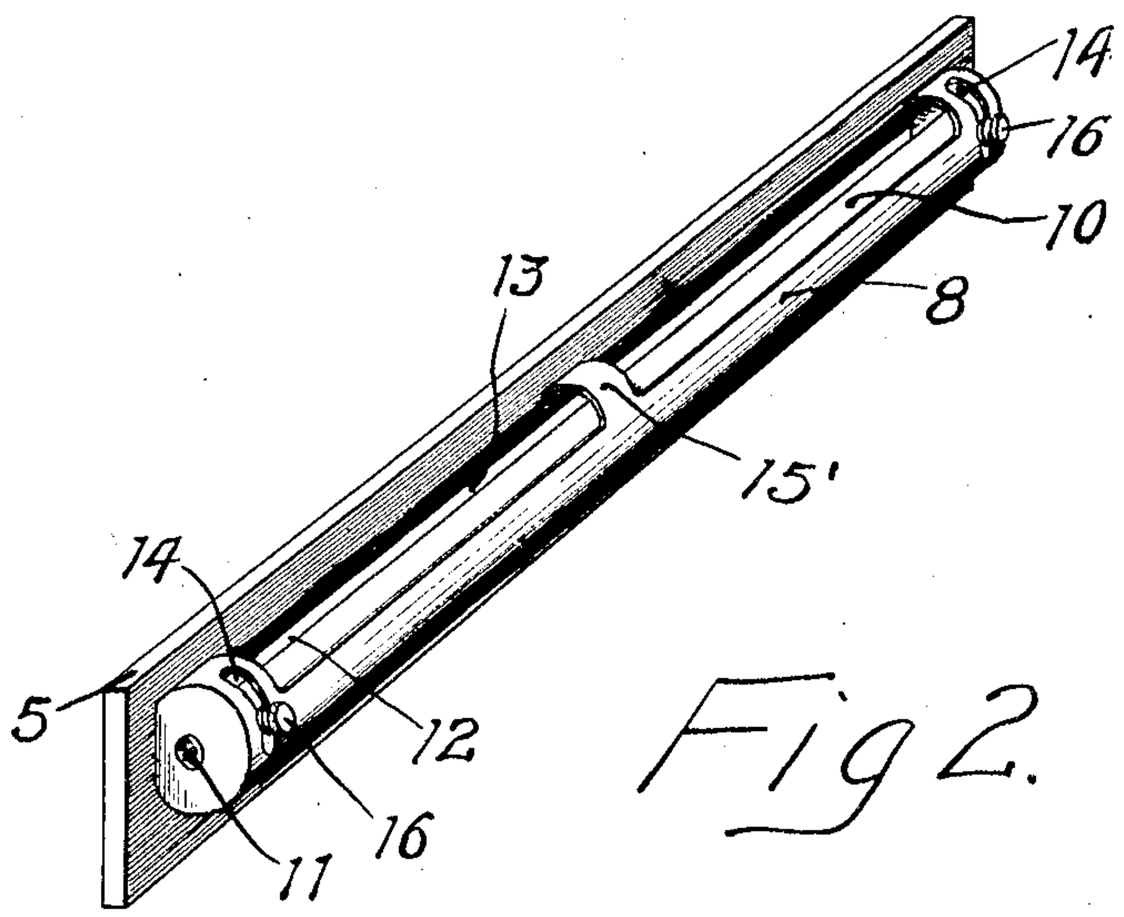

Fig 2.

WITNESSES

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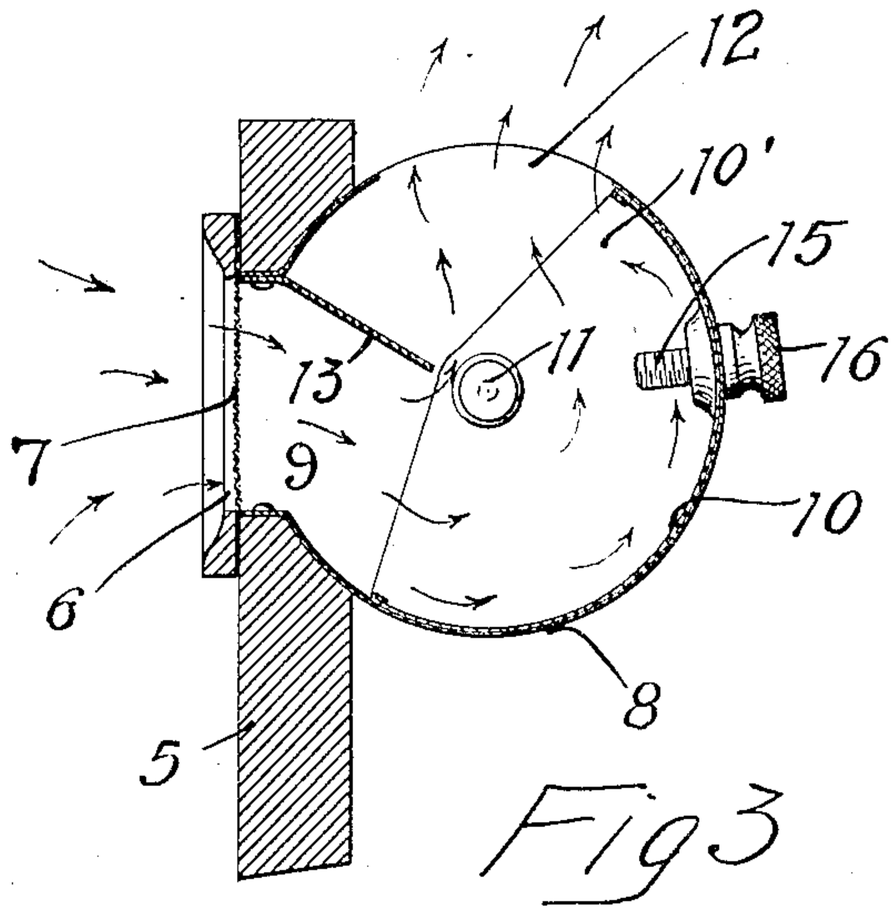

Fig 3

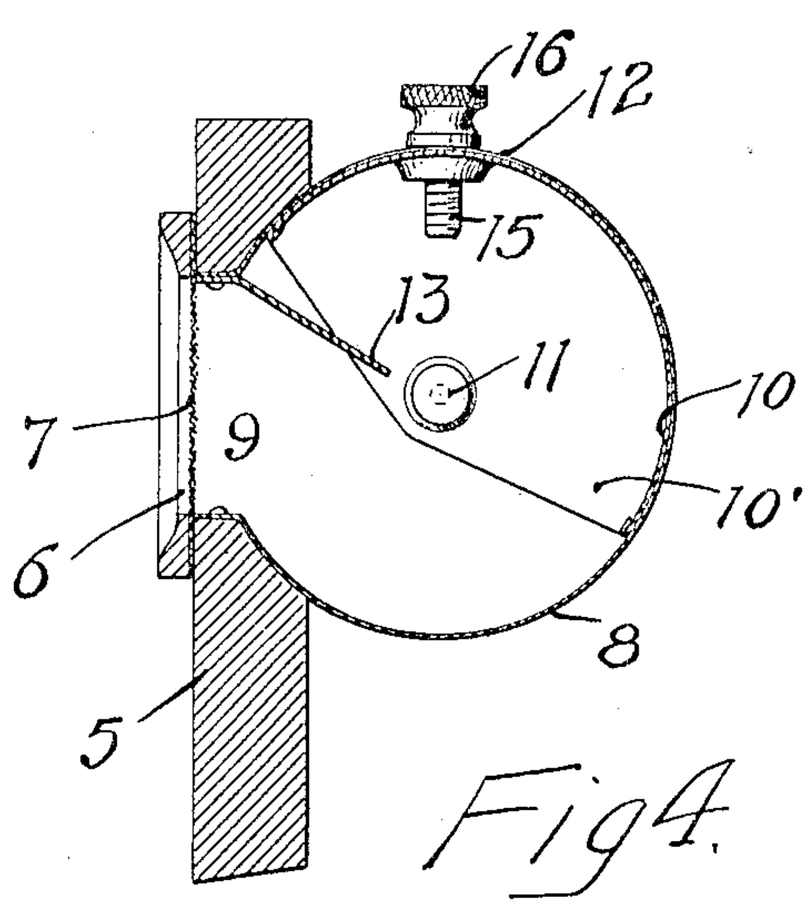

Fig 4.

Fig 5.

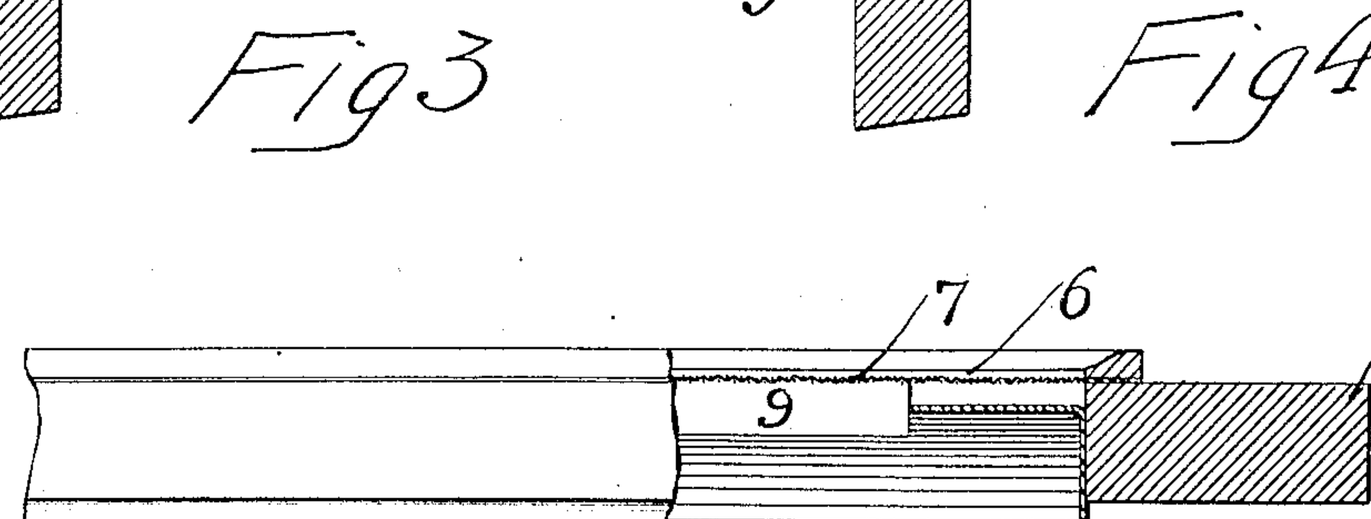

Fig 6.

WITNESSES
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UNITED STATES PATENT OFFICE.

ALFRED A. PACKER, OF ST. PAUL, MINNESOTA.

VENTILATOR.

No. 878,231. Specification of Letters Patent. Patented Feb. 4, 1908.

Application filed April 20, 1907. Serial No. 369,242.

To all whom it may concern:

Be it known that I, ALFRED A. PACKER, of St. Paul, Ramsey county, Minnesota, have invented certain new and useful Improvements in Ventilators, of which the following is a specification.

My invention relates to that type of ventilators adapted for use with windows to ventilate rooms, and the object of my invention is to provide a ventilator composed of but few parts and hence inexpensive to manufacture or repair.

A further object is to provide a ventilator which can be easily applied to a window and as readily removed therefrom.

A further object is to provide a ventilator which can be easily adapted for any width of window.

The invention consists generally in various constructions and combinations, all as hereinafter described and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view looking at the outside of a window and showing my invention applied thereto. Fig. 2 is a similar view illustrating the invention removed from the window. Fig. 3 is a sectional view showing the ventilator in its open position. Fig. 4 is a similar view showing the ventilator closed. Figs. 5 and 6 are detail sectional views illustrating the means for opening and closing the ventilator and securing it in any desired position.

In the drawing, 2 represents a window sill, 3 the frame and 4 the lower sash between which and the sill my improved ventilator is placed.

5 is a board corresponding in length to the width of the sash and made of suitable height to be slipped into the opening when the sash is raised, the sash being lowered to rest upon the upper edge of the board to hold the ventilator in place in the window. The board or plate 5 is provided with a longitudinal opening 6, and on the outer side of the board covering this opening I provide the usual screen mesh 7. On the opposite or inner side of the board a substantially cylindrical shell 8 preferably of metal is provided and having an opening 9 coinciding with the opening in the board, the walls of the cylinder at the edges of the opening being secured to the board in any suitable manner and holding the cylindrical shell in place thereon. Within the shell a semi-cylindrical valve 10 is provided having heads 10′ mounted on pivot pins 11 in the ends of the shell and concentric therewith, said valve being adapted to swing on its axis and cover a longitudinal opening 12 in the upper walls of the shell and close the same against the entrance of air into the room. A deflector plate 13 is provided within the shell near the top of the opening 9 and inclined inwardly and downwardly from said opening for the purpose of directing the incoming currents of air past the middle portion of the shell and through the valve. The direction of movement of these currents is indicated by the arrows in Fig. 3, the valve being open to allow the cold air to flow in past the inner edge of the deflector and up through the opening 12 and up beside the glass in the lower sash until finally it flows off into the room without creating a draft on a person seated near the window. In fact, the air will be spread out and deflected against the inner surface of the window to such an extent that while thorough ventilation of the room will be obtained no disagreeable drafts will be noticed even close by the window.

For the purpose of regulating the size of the opening in the upper part of the cylindrical shell I provide slots 14 in the walls thereof and mount screws 15 in the valve near each end, the ends of the screws projecting through the slots 14 and being provided with thumb nuts 16 which when tightened will engage the edges of the slots and lock the valve in any desired position. The amount of cold air entering through the ventilator can thus be regulated according to the outside temperature.

Where the opening 12 is of considerable length, I may provide the strengthening brace 15′ extending across the said opening midway between the ends thereof, as shown in Fig. 2.

The board 5 will be made of any suitable length according to the size of the window, and the opening therein may be varied according to the dimensions of the room and the number of persons usually occupying it. If preferred, however, the opening through the board may be the same size for all ventilators and the supply of fresh air regulated to the needs of the room, by means of the swinging valve.

I claim as my invention:

1. A window ventilator comprising a board or plate having an opening extending lengthwise thereof, a screen for said opening, a sub-

stantially cylindrical shell having an opening in its side wall coinciding with the opening in said board, and secured to said board on the inside of the window, and said shell having an opening in its upper walls and a swinging valve semi-cylindrical in form located in said shell and arranged to swing back and forth therein and regulate the passage of air, through said opening, and means within said shell for deflecting the incoming currents of air and preventing them from passing in a direct line therethrough substantially as described.

2. A window ventilator comprising a plate adapted to rest on the window sill between it and the lower sash and extending across the window from side to side, said plate having an opening extending lengthwise therein, a shell provided on the inner side of said plate and having an opening in its side wall coinciding with the opening in said plate and said shell having a second opening in its upper walls, a plate provided within said shell and arranged to deflect the incoming currents of air, a valve pivoted within said shell and arranged to close the opening in the upper walls thereof, and means for adjusting said valve to increase or decrease the size of said opening.

3. A window ventilator comprising a plate adapted to be placed on the sill between it and the sash and having an opening extending lengthwise therein, a substantially cylindrical shell having an opening to coincide with the opening in said plate and secured to the inner side of said plate, said shell having an opening in its upper wall extending lengthwise thereof, a swinging valve provided in said shell and having a wall arranged to close said last named opening and prevent the entrance of air therethrough, and a deflector plate arranged in the upper part of the opening in the side wall of said shell and inclined downwardly and inwardly from said opening and adapted to direct and deflect the air to the opposite wall of said shell, substantially as described.

4. The combination, with a window sash, of a plate adapted to be placed under the sash, and on the upper edge of which plate the sash rests, said plate having an opening extending therethrough and a shell having a corresponding opening in its side walls and coinciding with the opening in said plate, a deflector plate provided in said shell and inclined inwardly and downwardly from the opening therethrough, and said shell having a second opening in its upper walls near said sash, a valve adapted to regulate the currents of air flowing through said second opening, and means for adjusting said valve.

5. The combination, with a window sash, of a plate adapted to be placed under the sash, said plate having an opening extending therethrough and a shell having a corresponding opening in its side walls and coinciding with the opening in said plate, said shell having a second opening in its upper walls near said sash, a valve adapted to regulate the flow of air through said second opening, and means for deflecting the currents of air flowing through said first named opening to prevent them from passing in a direct line through said shell, substantially as described.

In witness whereof, I have hereunto set my hand this 12th day of April 1907.

ALFRED A. PACKER.

Witnesses:

RICHARD PAUL,

J. B. ERA.