March 2, 1926. 1,575,144

J. W. BISHOP

VENTILATOR

Filed June 25, 1925

FIG_1_

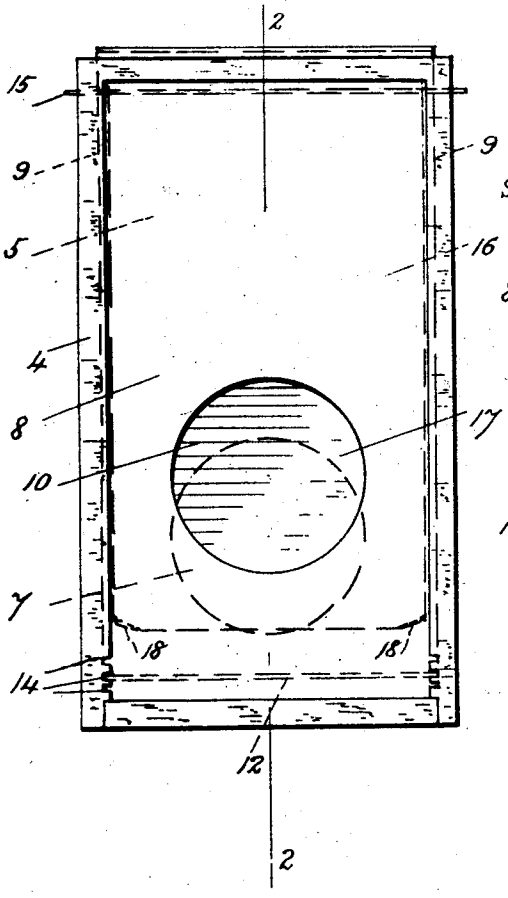
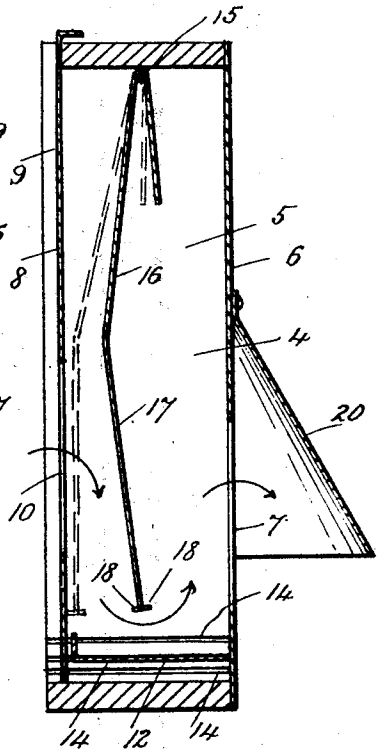


FIG_2_



Inventor,
Jacob W. Bishop
by Herbert W. Dennen,
Attorney.

Patented Mar. 2, 1926. 1,575,144

UNITED STATES PATENT OFFICE.

JACOB W. BISHOP, OF WASHINGTON, IOWA.

VENTILATOR.

Application filed June 25, 1925. Serial No. 39,521.

To all whom it may concern:

Be it known that I, JACOB W. BISHOP, a citizen of the United States, residing at Washington, in the county of Washington and State of Iowa, have invented certain new and useful Improvements in Ventilators, of which the following is a specification.

This invention relates to ventilators adapted to be built into the walls of dwelling houses; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a front view of a ventilator constructed according to this invention. Fig. 2 is a vertical section through the ventilator, taken on the line 2—2 in Fig. 1.

A rectangular frame 4 is provided, and is adapted to be built into the wall of a dwelling house or other building like a hollow tile. The interior of this frame forms an air chamber 5, and the outer side wall 6 of the chamber, which is secured to or formed on the frame, is provided with an opening 7. The inner side wall 8 of the chamber is slidable vertically in grooves 9 in the frame, and it is provided with an air opening 10.

The chamber is provided with a horizontal bottom plate 12, which is slidable in any of a series of grooves 14 in the frame. The side wall 8 is first slid up a little, and then the plate 12 can be slid into any pair of grooves so as to adjust its position vertically. A pivot rod 15 is secured in the upper part of the frame, and a damper plate 16 is pivoted loosely on this rod. The lower part 17 of the damper plate is arranged at a slight angle to its upper part, and is arranged so that when it is moved towards the inner side wall 8 to its full extent it will be parallel to it. Projections 18 are formed on the lower part of the damper plate, by bending the corners of the plate, which limit its movements, and prevent it from entirely closing the air openings, but these projections may be omitted, if desired, so that the lower part of the plate can fit snugly against the side wall 8 and completely close its air opening 10. Any suitable screen or guard 20 can be provided to prevent rain from beating into the ventilator through the opening in its outer side wall.

Under ordinary circumstances, the heated air inside the room will pass through the frame under the damper plate in the direction of the arrows in Fig. 2, and the damper plate will hang as shown in full lines. When the wind blows hard against the dwelling it turns the damper plate on its pivot to the position shown in dotted lines in Fig. 2, so that a stream of cold air is not blown through the frame into the room. When a door in the room is open, or when a strong draft outwardly is formed through the frame, the damper swings in the reverse direction and partially cuts off the outward current of air. The sensitiveness of the damper is adjusted by raising or lowering the bottom plate 12, so that there will be more or less space between it and the bottom edge of the damper plate.

What I claim is:

1. In a ventilator, a frame having inner and outer sides provided with air openings and having also a vertically adjustable plate at its bottom, and a damper plate pivoted in the frame above the bottom plate and between the air openings and operated by the currents passing through the frame.

2. In a ventilator, a frame provided with an outer side wall and a vertically slidable inner side wall, each side wall being provided with an air opening, and said frame having also a series of horizontal grooves in its lower part, a vertically adjustable bottom plate slidable in the said grooves, and a damper plate pivoted in the frame above the said bottom plate and between the air openings.

In testimony whereof I have affixed my signature.

JACOB W. BISHOP.