May 19, 1931. J. F. LEVAN 1,806,298

SASH VENTILATOR

Filed Oct. 6, 1928

Fig. 1

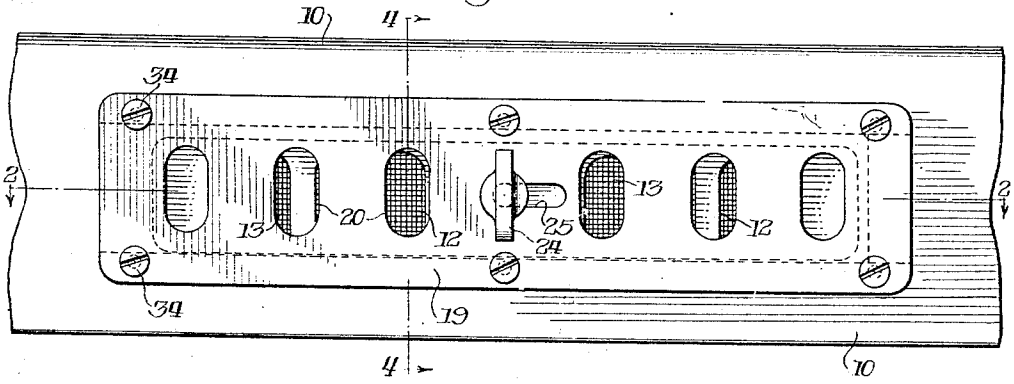


Fig. 3

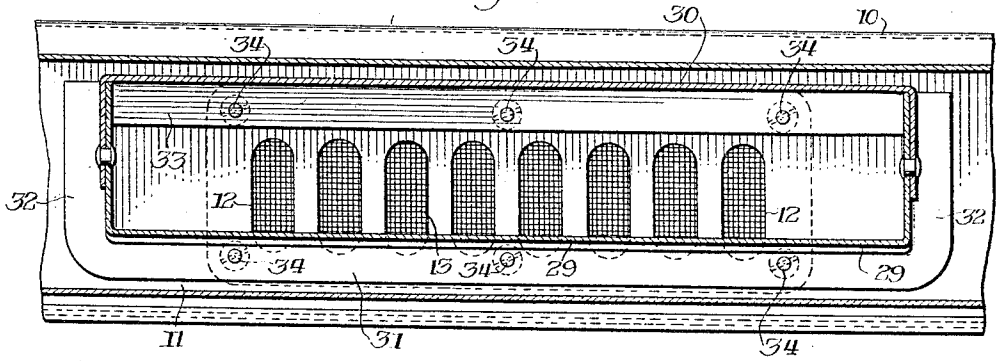


Fig. 2

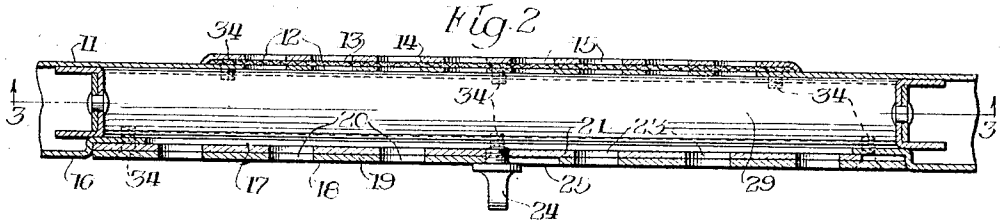
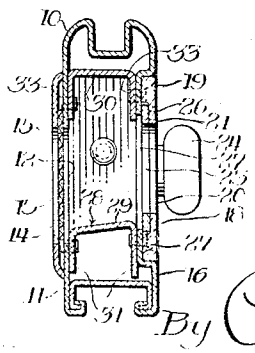


Fig. 4



Inventor:
John F. Levan
By Cromwell, Foster & Warden
Attys

Patented May 19, 1931 1,806,298

UNITED STATES PATENT OFFICE

JOHN F. LEVAN, OF ELKHART, INDIANA, ASSIGNOR TO THE ADLAKE COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS

SASH VENTILATOR

Application filed October 6, 1928. Serial No. 310,766.

The object of this invention is to provide an improved sash ventilator of the type in which the ventilator is mounted in the rail of the sash.

One form of the invention is presented herein for the purpose of exemplification, but it will of course be understood that the invention is susceptible of embodiment in other forms coming equally within the scope of the appended claims.

In the accompanying drawings:

Fig. 1 is a fragmentary side view of a sash rail equipped with the ventilator;

Fig. 2 is a horizontal longitudinal section, taken on the line 2—2 of Fig. 1;

Fig. 3 is a vertical longitudinal section, taken on the line 3—3 of Fig. 2; and

Fig. 4 is a vertical transverse section, taken on the line 4—4 of Fig. 1.

As shown in the drawings, the ventilator is mounted in the lower rail 10 of a hollow sheet metal sash. The outer side wall 11 of the rail is provided with a number of small openings 12, which openings are covered by a wire screen 13 which is held in place by a plate 14 having openings 15 which register with the openings 12. The inner side wall 16 of the rail is provided with a single large opening 17, which opening is covered by a shutter 18 consisting of a fixed plate 19 having a number of apertures 20 and a sliding plate 21 having a number of apertures 23 which are adapted to be shifted into or out of register with the apertures 20 by means of a finger-piece 24 which passes through a slot 25 in the plate 19 and is secured to the plate 21. The plate 21 slides in a groove 26 in the plate 19, and the plate 19 is set into the inner side wall 16 of the rail far enough to bring the face of the plate 19 flush with the face of the inner side wall 16, the portion 27 of the side wall bordering the opening 17 being offset sufficiently for that purpose.

A generally rectangular frame 28 is positioned in the rail about the openings in the side walls 11 and 16, and serves to form a passageway between such openings. The frame 28 is of sheet metal construction, and preferably consists of two strips 29 and 30 which are riveted together at their ends. The strip 29, which forms the bottom and end portions of the frame, is provided along its edges with downwardly extending flanges 31 and outwardly extending flanges 32, and the strip 30 is provided with downwardly extending flanges 33. The flanges 31, 32 and 33 bear contiguously against the inner and outer side walls of the rail, and the flanges 31 and 33 are provided with screw-threaded apertures which receive screws 34 by means of which the screen plate 14 and the shutter plate 19 are held in position.

The portion of the frame strip 29 between the flanges 21 is arranged at an inclination to the horizontal, and slopes toward the bottoms of the openings 12 in the outer side wall 11, whereby to provide a surface which will effect drainage in that direction.

The openings 20 in the shutter are preferably distributed over a greater distance longitudinally of the rail than the openings 15 in the screen plate, whereby to cause a partial diffusion of the air after it passes through the screen plate and before it enters the car or room in which the sash is mounted.

I claim:

1. In a sash ventilator, a hollow sheet metal sash rail provided with openings in the side walls thereof, a screen plate mounted over the opening in the outer side wall against the exterior face of the latter and provided with a row of air openings, a shutter plate mounted over the opening in the inner side wall against the exterior face of the latter and provided with a row of air openings, a sheet metal frame positioned in the rail about the openings, connecting means between the screen plate and one side of the frame, and other connecting means between the shutter plate and the other side of the frame.

2. In a sash ventilator, a hollow sheet metal sash rail provided with openings in the side walls thereof, a screen mounted over the opening in the outer side wall, a shutter mounted over the opening in the inner side wall, and a generally rectangular sheet metal frame positioned in the rail about the openings, the bottom member of the frame being sloped toward the outer side wall and being provided interiorly of the rail with marginal

downwardly extending positioning flanges for contiguous engagement with the side walls of the rail.

3. In a sash ventilator, a hollow sheet metal sash rail provided with openings in the side walls thereof, a screen mounted over the opening in the outer side wall, a shutter mounted over the opening in the inner side wall, and a generally rectangular sheet metal frame positioned in the rail about the openings, the top and bottom members of the frame being marginally flanged and connected through the side walls of the rail with the screen and the shutter.

4. In a sash ventilator, a hollow sheet metal sash rail provided with openings in the side walls thereof, a screen mounted over the opening in one of the side walls, a shutter mounted over the opening in the other side wall, and a generally rectangular sheet metal frame positioned in the rail about the openings, the top and bottom members of the frame being connected through the side walls of the rail with the screen and the shutter.

5. In a sash ventilator, a hollow sheet metal sash rail provided with openings in the side walls thereof, a screen covering the opening in the outer side wall, an apertured shutter plate mounted over the opening in the inner side wall in lapped relation to the edges thereof, an apertured slide positioned in a longitudinally extending groove in the back of the shutter plate, an exteriorly accessible operating handle extending through a slot in the shutter plate into engagement with the slide for shifting the latter longitudinally of the groove, the edges of the opening underlying the shutter plate being set into the rail far enough to bring the face of the shutter plate substantially flush with the face of the rail and provide end closures for the groove in the shutter plate.

In testimony whereof I have hereunto subscribed my name.

JOHN F. LEVAN.