May 12, 1936. W. S. HAMM 2,040,306

VENTILATOR FOR VEHICLES

Filed July 12, 1933

Fig. 1

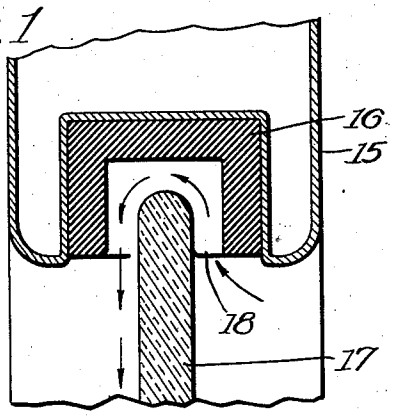


Fig. 2

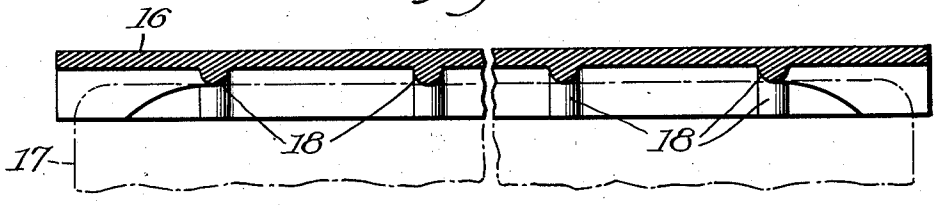
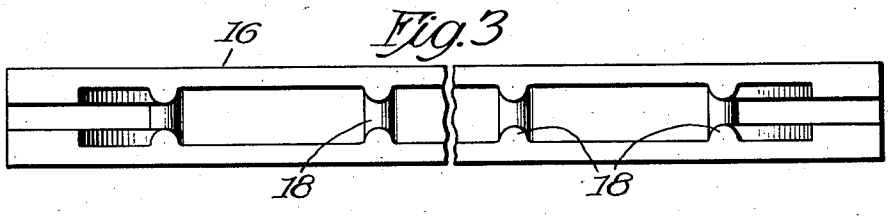


Fig. 3



Inventor
William S. Hamm
By Gilson, Mann & Co. Attys.

Patented May 12, 1936 2,040,306

UNITED STATES PATENT OFFICE

2,040,306

VENTILATOR FOR VEHICLES

William S. Hamm, Elkhart, Ind., assignor to The Adlake Company, a corporation of Illinois

Application July 12, 1933, Serial No. 680,051

2 Claims. (Cl. 98—2)

The invention relates to means for ventilating closed bodies, such as those of automobiles; and particularly to means for controlling the admission of air thereto in such manner that the entering currents are prevented from blowing upon the occupants, being directed downwardly along a wall of the body and becoming diffused before being brought under the influence of an exhausting ventilator or open window located to produce an outflow.

It has been found desirable to provide for the withdrawal of vitiated air from closed vehicle bodies, as by means of ventilators such as those forming the subject of Letters Patent granted to me under date of March 27, 1928, No. 1,663,630, and April 9, 1929, Nos. 1,708,133 and 1,708,134. In order that such exhausting ventilators may function it is, of course, necessary that air be admitted to the body to take the place of that which is withdrawn.

The common practice for the admission of fresh air has been to open a window. When this is done the relatively rapidly moving outside currents enter obliquely and in the direction of the rear end of the body, and return therefrom, without diffusion, upon the backs of the passengers, to their serious discomfort. The exhausting or scavengering ventilator being usually located in the roof of the vehicle, the forwardly moving currents come within the zone of most active influence of the outdraft before they are diffused and mixed with the air already in the body. Thus they frequently retard the movement of the vitiated air by satisfying the suction, and are of much less value than they should be in purifying the atmosphere.

The principal object of this invention is to provide for the introduction of air, responsive to the lowering of the pressure within the body due to the action of evacuating means; the entering current being directed downwardly and, moving at low velocity, being generally diffused throughout the chamber and not coming directly under the influence of the suction.

A further object of the invention is to provide for the admission of air currents in such manner as to cause them to sweep over the inner surface of a sash or window and prevent the condensation of vapors thereupon.

In its broader aspects the invention consists in the combination of an exhausting ventilator with an induction adjunct adapted to diffuse the entering air currents. More specifically it consists in means, usually associated with the edge of a sash, for admitting a thin sheet of air and directing it downwardly over the inner face of the sash.

The accompanying drawing discloses the invention.

Fig. 1 is a detail transverse vertical section through the casing and sash of a window;

Fig. 2 is a detail longitudinal vertical section of the molding as shown in Fig. 1, which receives the upper margin of the sash; and

Fig. 3 is a bottom plan view of such molding.

In this specification the word "window" is used to connote the casing and sash, and the word "sash" is used to connote either a glazed frame or a plate of glass without frame, it being the usual practice at this time to use the latter form of sash in automobiles.

In the form of induction ventilator shown in Figs. 1, 2, and 3, the top rail of the window is shown at 15, and is provided with a longitudinal channel in its lower face within which is fitted a molding 16, of resilient material, preferably rubber, as indicated, having in its lower face a channel or slot for receiving the sash 17. The molding channel is of greater width than the thickness of the sash, and its side and top walls are crossed by a plurality of ribs 18, which provide a channel entering from below within which the upper edge of the sash will snugly fit.

When the window is closed the glazing entering into the channel or slot in the molding, as 16, becomes a part of the wall, and this channel takes the form of an inverted U, and a series of restricted passages is provided over the top margin of the sash for the entrance of an air current following the direction of the arrows in Fig. 1. The entering air current is prevented from moving backwardly within the vehicle body, in response to the general direction of the exterior currents, by the ribs 18, and is directed downwardly along the inner face of the sash. This current, being in the form of a thin sheet, becomes diffused as it descends, and consequently is not felt by the occupants. This diffusion becomes general, with the result that the atmosphere throughout the entire body chamber is purified.

I claim as my invention—

1. In a window ventilator, a top casing wall having a sash-receiving channel, ribs crossing the vertical walls of the channel, and stops for preventing a sash from contacting the upper wall of the channel, whereby air currents admitted above the sash are directed downwardly.

2. A ventilating molding adapted to fit within a slotted top rail of a window casing and having a longitudinal slot for receiving a sash, and transverse ribs within the slot for engaging the sides and top margin of the sash.

WILLIAM S. HAMM.