Aug. 27, 1929. W. M. JOHNSON 1,726,072

VENTILATOR FOR AUTOMOBILE WINDOWS

Filed Dec. 31, 1926

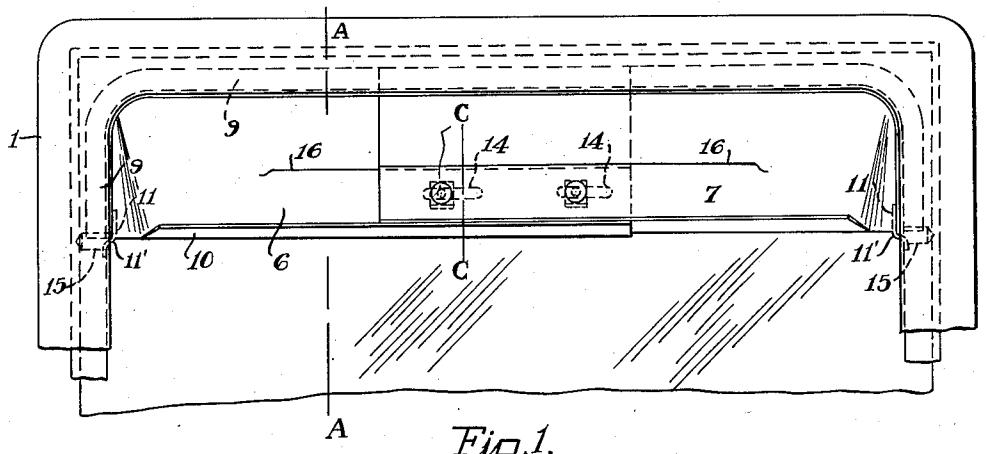


Fig. 1.

Fig. 2.

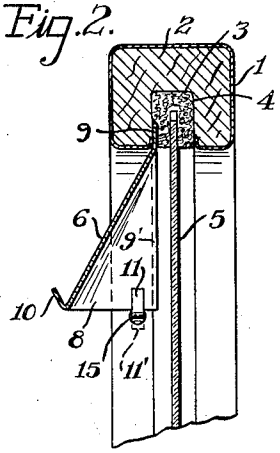


Fig. 3.

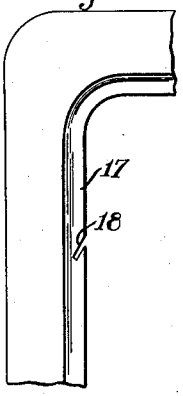


Fig. 4.

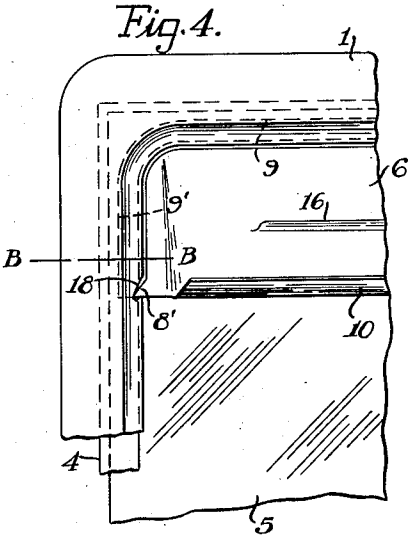
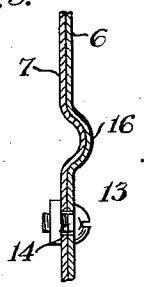


Fig. 5.



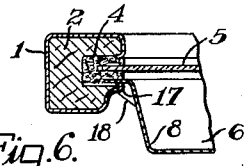


Fig. 6.

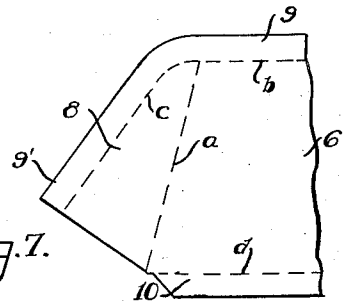


Fig. 7.

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UNITED STATES PATENT OFFICE.

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VENTILATOR FOR AUTOMOBILE WINDOWS.

Application filed December 31, 1926. Serial No. 158,234.

This invention relates to ventilators for the windows of closed automobile bodies, it particularly relating to a ventilator in the form of an attachment which can be applied to the windows of conventional forms of bodies.

One of the objects of this invention is to provide a ventilator so constructed and arranged as to be capable of being applied to the window of a closed automobile body without the aid of screws or similar fastening devices.

A further object of this invention is to provide a ventilator of the character described so constructed as to be adjustable as to width to enable the ventilator to be applied to automobile body windows of different sizes.

Further objects of the invention will appear from the accompanying drawings, description and claims.

In the accompanying drawing:

Fig. 1 is an elevation of the outer side of a portion of a window and its frame with my improved ventilator shown applied thereto.

Fig. 2 is a section on the line A—A of Fig. 1.

Fig. 3 is a side elevation of a portion of a window frame of slightly modified form.

Fig. 4 is a side elevation of the same frame shown in Fig. 3 in connection with a portion of the window, with my ventilator shown applied thereto.

Fig. 5 is an enlarged section of a portion of the ventilator, the section being on the line C—C of Fig. 1.

Fig. 6 is a section on the line B—B of Fig. 4.

Fig. 7 is a view of a portion of one of the sheet metal blanks from which the device is formed.

Referring to the drawings, 1 represents a metallic window frame of any suitable form, having an inner filler 2 of wood. The wooden fillers are grooved in the usual way indicated at 3 to receive the usual felt channels 5 in which the glass 5 of the window slides.

My improved ventilator is formed in two sections 6 and 7 of sheet metal which when assembled are in overlapping relation. Each section is formed of a sheet of metal having its outer end cut to the shape shown in Fig. 7 and afterwards bent rearwardly on the line *a* to a substantially triangular form as indicated at 8 in Fig. 2. The upper edge of each section is bent on the dotted line *b* of Fig. 7 at an obtuse angle to the main portion thereof to form a securing flange indicated at 9 and the rear edge of the triangular portion 8 is also bent on the dotted line *c* to form a continuation 9′ of this flange 9. The lower edge of each section is also bent on the dotted line *d* as indicated at 10 to form a trough. In the construction shown in Figs. 1 and 2 each triangular section has secured to its lower edge near the rear end thereof, a small metallic plate 11 which projects below the edge of the section 8 and is bent laterally and thence downwardly to form an angularly projecting lip 11′. In applying the ventilator, the two sections are separately secured to the window frame and then brought in overlapping relation with the overlapping parts secured together by short stove bolts 13, one of the sections, such as the one 7, being provided with slotted openings 14 and the other with round openings to receive the bolts so as to permit the two sections to be connected together in different positions of adjustment. Each section is applied to the window frame by first inserting the lip 11′ in an opening 15 drilled in the window frame and then slipping the flange 9 and its extension 9′ between the window frame and the felt channel as shown best in Fig. 2 until the two sections are brought into proper overlapping relation to be secured by the bolts 13 before referred to. The overlapping portion of each section is preferably bent to form stiffening ribs 16 as shown in Fig. 5.

In Figs. 3, 4 and 5 there is shown a frame of a character which precludes the employment of the lips 11′ because of the fact that the inner edges of the frame are of peculiar form employing inwardly extending flanges 17. When such a frame is encountered, an angularly extending slot 18 is sawed in the flange 17 and the lower edge of the triangularly-shaped portion 8 is slipped in this slot

18, the lips 11′ being discarded. As the ventilator section is turned to insert its edges in the glass channel in the manner before explained, the portion which has been inserted in the slot bends, as indicated at 8′ in Fig. 4, to provide in effect a lip which will have an engagement with the window frame and thus act the same as the lip 11′ to prevent dislodgement of the ventilator vertically after the parts have been fastened together.

In this arrangement, it will be seen that there is provided a window ventilator which may be applied to the window frame without the aid of such fastening devices as screws and the like. After the flanges 8 and 9′ have been inserted between the frame and the felt channel, the lips 11′, or 8′, engaging the window frame, effectively prevent the flanges 9 and 9′ from slipping from their position between the frame and the felt channel, particularly after the two parts of the ventilator have been joined together by the bolts. By forming the ventilator in two sections which may be adjustably connected together by the bolts, provision is made for accommodating the ventilator to different widths of windows. The arrangement is one also which provides a structure which may be manufactured in an economical manner and which may be readily installed by mechanically unskilled persons.

Having thus described my invention, I claim:

1. A ventilator for the windows of automobiles having upper and side edges arranged to be received between the window frame and the outer side of the glass channel by slipping the same therebetween with the frame and channel in assembled condition and inter-engaging means between each end of said ventilator and said window frame cooperating with said edges for holding said ventilator in position, said engaging means being located on exposed parts of the ventilator and window frame whereby said ventilator may be installed without removal of the glass retaining devices.

2. In a ventilator for the windows of automobile bodies consisting of a two-part structure having overlapping portions, each part of said structure having its upper edge and the edge of the outer end formed to be received between the window frame and the outer side of the glass channel by slipping the same therebetween with the frame and channel in assembled condition, means for engaging the outer end of each part of said ventilator with said window frame, and means for connecting the overlapping portions of said ventilator together, said engaging means being located on exposed parts of the ventilator and window frame whereby said ventilator may be installed without removal of the glass retaining devices.

3. A ventilator for the windows of automobiles having upper and side edges arranged at an angle to the main portion and adapted to be received between the window frame and the outer side of the glass channel by slipping the same therebetween with the frame and channel in assembled condition, and inter-engaging means between each end of said ventilator and said window frame cooperating with said edges for holding said ventilator in position, said engaging means being located on exposed parts of the ventilator and window frame whereby said ventilator may be installed without removal of the glass retaining devices.

4. In a ventilator for the windows of automobile bodies consisting of a two-part structure having overlapping portions, each part of said ventilator having its upper edge and the edge of the outer end arranged angularly, with the angularly arranged edges adapted to be received between the window frame and the outer side of the glass channel by slipping the same therebetween with the frame and channel in assembled condition, means for engaging the outer end of each part of said ventilator with said window frame, and means for connecting the overlapping portions of said ventilator together, said engaging means being located on exposed parts of the ventilator and window frame whereby said ventilator may be installed without removal of the glass retaining devices.

5. A ventilator for the windows of automobiles consisting of a two-part structure having overlapping portions, the outer end of each part of said structure being bent to form enclosing ends, the upper edge of each part and the rear edge of the enclosing end thereof being angularly bent to adapt such edges to be received between the window frame and the outer side of the glass channel by slipping the same therebetween with the frame and channel in assembled condition, means for further engaging the lower edge of each triangular shaped portion with the window frame, and means for connecting the overlapping portions together, said engaging means being located on exposed parts of the ventilator and window frame whereby said ventilator may be installed without removal of the glass retaining devices.

6. A ventilator for the windows of automobile bodies consisting of a two-part structure with means for adjustably connecting the parts together, each part of said structure having edges suitably bent to be received between the window frame and the outer side of the glass channel when in assembled condition and permit the main portion of said part to project downwardly and outwardly in the form of an awning, and inter-engaging means between the ends of each part of said structure and the window frame to prevent vertical displacement after the parts of said ventilator have been connected together, said engaging means being located on exposed

parts of the ventilator and window frame whereby said ventilator may be installed without removal of the glass retaining devices.

7. In a ventilator for the glass windows of automobiles, a body portion having upper and side edges arranged to be applied to the window frame at the outer side only of the glass by loosely inserting the edges between the frame and glass, and a projecting part on each side edge having an interlocking engagement with a part of the window frame.

In testimony whereof, I have hereunto set my hand.

WILLIAM M. JOHNSON.