April 15, 1930. C. R. JOHNSON 1,754,559

WINDOW VENTILATOR

Filed Sept. 30, 1927

Fig. 1.

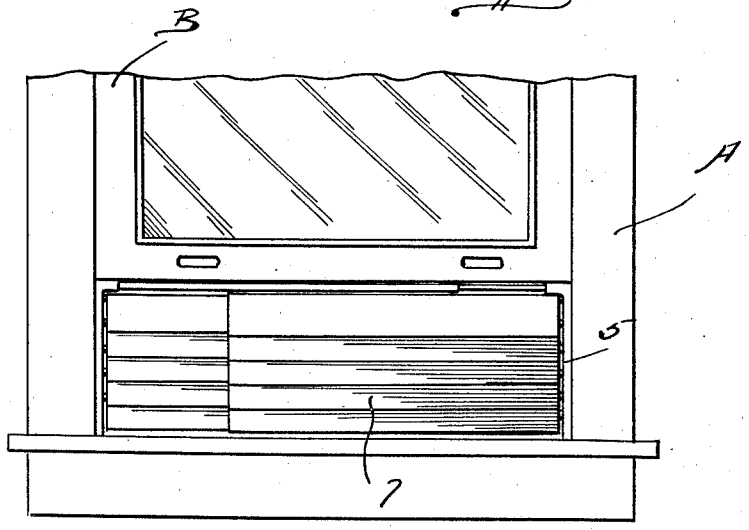


Fig. 2.

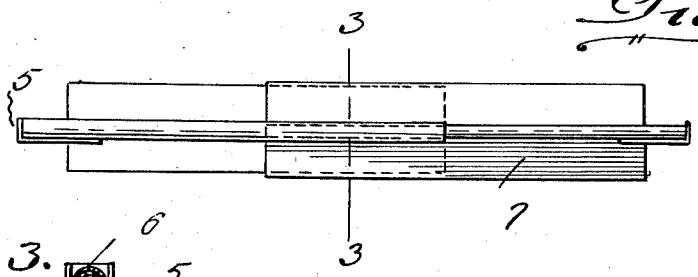


Fig. 3.

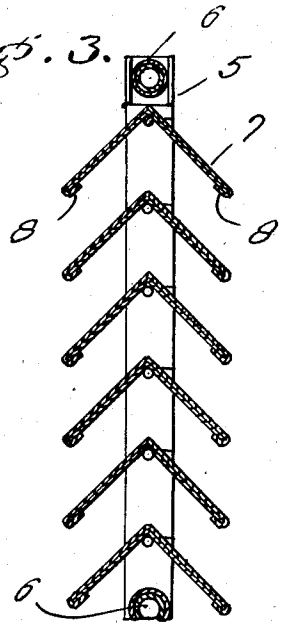
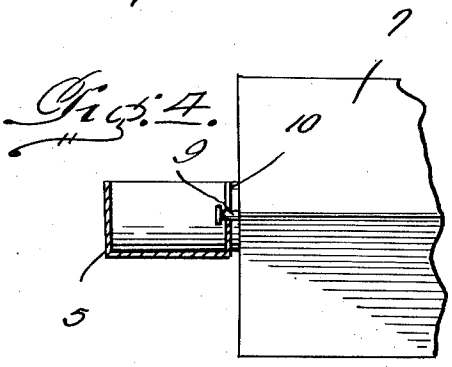


Fig. 4.



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UNITED STATES PATENT OFFICE

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WINDOW VENTILATOR

Application filed September 30, 1927. Serial No. 223,075.

This invention relates to new and useful improvements in ventilators and aims to provide a highly novel simple and efficiently operating ventilator that is to be disposed within windows and that will automatically control the passage of air into the room, the device being normally operable to open position under normal atmospheric conditions but to automatically close during an unusal breeze or windstorm. Furthermore, the ventilator is of such construction as to prevent the passage of rain, water, dirt or the like through the window but at the same time to permit the proper passage of air therethrough.

Furthermore, the invention aims to provide a ventilator that is of adjustable length so that the same may be arranged within various sized window frames and that may be rigidly secured therein by lowering the sash thereon. However, if desired, the ventilator may be arranged within the upper end of the frame and there secured by forcing the upper sash against the bottom edge thereof.

In the drawing wherein like reference characters correspond to like parts throughout the various views:—

Figure 1 is a fragmentary elevation of a window frame within which is disclosed a sliding sash, while arranged within the frame beneath the sash is my improved ventilator,

Figure 2 is a top plan view of the ventilator,

Figure 3 is a detail vertical section taken at the point 3—3 of Figure 2, and,

Figure 4 is a section through one of the side frame bars of the ventilator between which are pivotally supported the shutter units of the ventilator.

Now having particular reference to the drawings, my novel ventilator consists of a pair of similarly constructed vertical end frame members 5—5 preferably of sheet metal. These frame members are inter-connected at their upper and lower ends by adjustable length bars 6—6 which bars consist of telescopical sections as clearly indicated in Figures 1 and 3.

The invention further consists of a plurality of horizontally arranged shutter members 7 each of which is of inverted V-shape in cross section and each of which comprises a pair of sections having sliding connection with each other so that the length thereof may be adjusted simultaneously with the adjustment of the ventilator frame. The lower edges of the outermost sections of these shutters are crimped over the lower edges of the innermost sections as at 8 to prevent the movement of the sections in any direction except longitudinally.

At the apex of these shutters the same are equipped at their ends with longitudinally extending pins 9 for detachable engagement within transverse slots 10 at the inner sides of the vertical frame bars 5—5. Obviously, this connection between the shutters and the vertical frame members will permit of the shutters being removed from the frame whenever desired.

As clearly disclosed in Figure 3, the shutter members are arranged one above the other and in spaced relation. The length of the side walls thereof being such that the lower edges will engage the side walls of the next under shutter to swing closed in either direction for completely closing the passage through the ventilator. Furthermore, by reason of the pivotal connection between the shutters and the frame, said shutters are free to swing in reverse directions so that the shutters will close under heavy drafts. Furthermore, by reason of the particular character of the shutter members rain and snow will be prevented from passing through the ventilator and entering the room.

It is of course obvious from a consideration of Figure 1 that the frame after being adjusted to a desired length is arranged within the window frame A, preferably beneath the sliding sash B after which the sash is lowered upon the top of the frame to rigidly secure the same within the window. However, if desired, the ventilator may be arranged directly beneath the upper end of the frame and there secured by forcing the upper sash against the lower edge thereof.

In view of the foregoing description when considered in conjunction with the accompanying drawings, it will be apparent that I have provided a highly novel, simple and

efficient window ventilator that is well adapted for all of the purposes heretofore designated and even though I have herein shown and described the invention as consisting of certain detail structural elements, it is nevertheless to be understood that some changes may be made therein without departing from the spirit and scope of the appended claim.

Having thus described my invention, what I claim as new is:—

In a window ventilator of the character described, a pair of U-shaped leg members, the leg portions of one member being hollow and adapted to receive the leg portions of the complementary member in telescopic relation, a plurality of detachable pivotal shutter units arranged horizontally within said frame, said shutter units each consisting of a pair of slidable sections, said sections being substantially V-shaped in cross section and each having one of its ends pivotally connected to one end of the frame, said sections being provided with its edge portion bent inwardly in spaced relation to itself, and the other section being slidably engaged at its free end portion within the inwardly bent edge portion of the complementary section, whereby the frame shutter unit may be extended.

In testimony whereof I affix my signature.

CLAUDE R. JOHNSON.