

No. 732,809.

PATENTED JULY 7, 1903.

L. ZBOROWSKI.
WINDOW VENTILATOR.
APPLICATION FILED SEPT. 20, 1902.

NO MODEL.

Fig. 1.

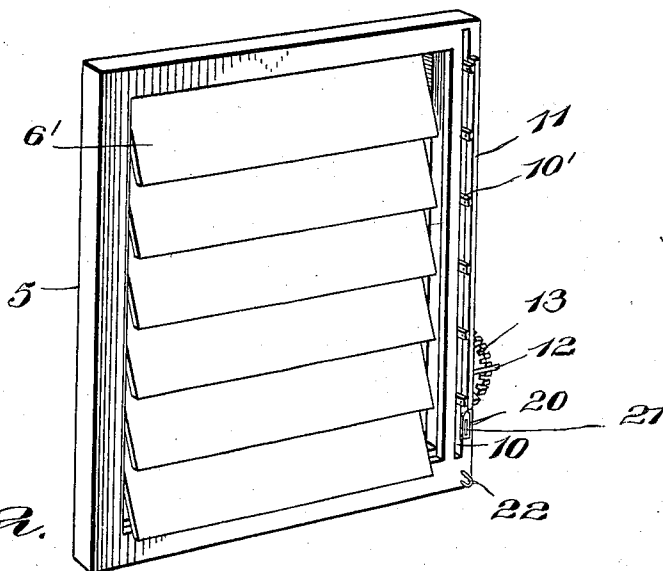


Fig. 2.

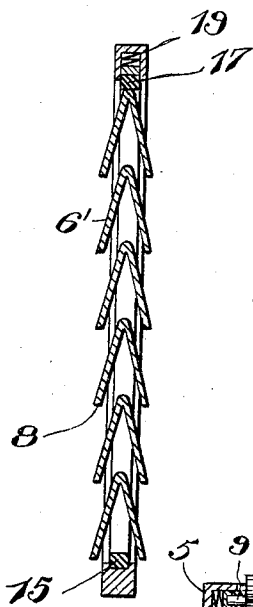


Fig. 3.

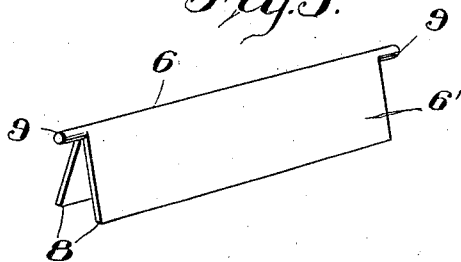


Fig. 6.

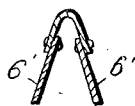


Fig. 4.

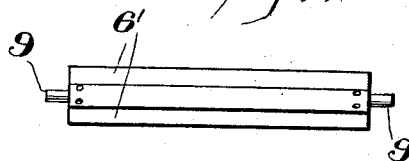
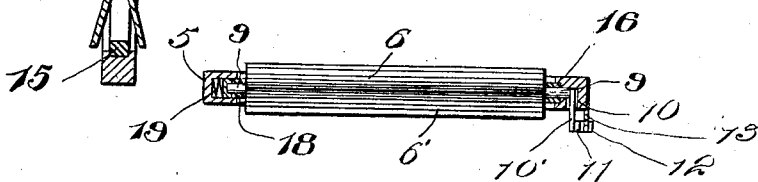


Fig. 5.



Witnesses

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By

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UNITED STATES PATENT OFFICE.

LADISLAW ZBOROWSKI, OF STEVENS POINT, WISCONSIN.

WINDOW-VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 732,809, dated July 7, 1903.

Application filed September 20, 1902. Serial No. 124,185. (No model.)

To all whom it may concern:

Be it known that I, LADISLAW ZBOROWSKI, a citizen of the United States, residing at Stevens Point, in the county of Portage, State of Wisconsin, have invented certain new and useful Improvements in Window-Ventilators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to ventilators, and more particularly to that class in which a sudden current of air is prevented from passing into an apartment, the object of the invention being to provide a ventilator which will operate automatically and which will prevent the entrance of a direct current or draft.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a perspective view of the ventilator. Fig. 2 is a vertical section of the device. Fig. 3 is a detail of one of the wings. Fig. 4 is a view of a modification. Fig. 5 is a top plan view of the device, partly in section. Fig. 6 is a transverse section of the structure shown in Fig. 4.

Referring now to the drawings, the present invention comprises a frame 5, which may be secured in an opening in the wall of a building or may be arranged in the form of an ordinary window-sash and hung with weights in the customary manner, in which are pivotally mounted a number of wings 6, each of which is formed of a glass plate bent at its center to form two leaves 6', which lie at an acute angle to each other, or may comprise two plates connected by means of an angular longitudinal plate, as shown in Fig. 4. The wings have trunnions 9, engaged in bearings in the window-frame, the trunnions at one end projecting into the longitudinal slot 10 of the frame and having cranks 10', to which is pivoted the shift-rod 11 for swinging the wings. The wings 6 are mounted in the frame in such a way that the downwardly-directed edges 8 of the leaves will reach to points slightly below the pivots of the next lower wings, so that when the wings are moved upon their pivots the inner face

of one of the leaves 6' will lie against the outer face of the wing next below. It will thus be seen that when all of the wings are in their normal positions a number of passages having acute angles midway of their lengths will be formed, but when the wings are moved upon their pivots, as will result from the pressure of a sudden gust of wind in either direction against the outer faces of the leaves, these passages will be closed, and passage of air therethrough will be prevented. By reference to the drawings it will be noted that the shift-rod 11 is provided with a catch 12, which when it is desired to hold the wings in one position is engaged with a rack 13, mounted upon the frame 5. This catch 12 is constructed of spring metal possessing sufficient flexibility to allow of its insertion in and removal from the notches of the rack 13. As shown in the drawings, this rack 13 is semicircular in form and is mounted upon the frame 5 in a plane with the shift-rod. The rack is made semicircular in form, for the reason that when the leaves are in their open position the shift-rod is spaced farther from the frame 5 than when the leaves are in a closed or partially-closed position. In the present construction and arrangement it will be seen that not only will the wings be operated by pressure of a gust of wind against their outer faces, but they will be closed either by suction from without or by pressure within the room. Thus if a current of air enters the room through an opening not provided with a ventilator, as a doorway or an open transom, the wings 6 will be closed, and a draft will be prevented.

At the bottom of the window-frame—that is, upon the sill—is a rubber strip 15, against which the lowermost wing may be closed to prevent ingress of cold air during winter, and against the right-hand side of the frame is fastened a second rubber strip 16, against which the ends of the wings at one side of the frame close, there being at the top of the frame and at the left-hand side thereof rubber strips 17 and 18, which are pressed outwardly by springs 19 into contact with the uppermost wing and the left-hand ends of all of the wings, respectively. The pressure of the strip 18 against the ends of the wings moves the wings in the opposite direction

and presses them firmly against the strip 16. At the lower end of the shift-rod may be hinged a plate 20, having an opening 21 to receive a staple 22, after which a padlock 5 may be engaged in the staple to prevent disengagement of the hinged plate and raising of the shift-rod to swing the wings to open position.

What is claimed is—

1. A ventilator comprising a frame, a plurality of arched wings pivotally mounted in the frame at their uppermost portions, said wings being disposed one within another and normally in spaced relation and being movable on their pivots into and out of mutual contact, cranks attached to the ends of the wings at their pivotal connection with the frame, a shift-rod connected with all of the cranks, and resilient strips attached to the sides of the frame and disposed for contact by the edges of the wings.

2. A ventilator comprising a frame, a plurality of arched wings pivotally mounted in the frame on longitudinal axes at their uppermost portions, said wings being movable longitudinally and disposed one within another and normally in spaced relation and being movable on their pivots into and out of mutual contact, cranks attached to the ends of the wings at their points of pivotal

connection with the frame, a shift-rod connected with the cranks, a strip of rubber or like material attached to the frame at one side thereof, a spring-pressed strip at the opposite side of the frame, said strips being disposed to engage the end edges of vertical portions of the wings, a strip of rubber or like material attached to the top of the frame and resting against the uppermost wing, and a strip of rubber or like material attached to the bottom of the frame in the path of movement of the lower edge portion of the lowermost wing.

3. A ventilator comprising a frame, a plurality of arched wings pivotally mounted in the frame, said wings being disposed one within another and normally in spaced relation and movable on their pivots into and out of mutual contact, cranks attached to the wings, a shift-rod connected with the cranks, a segmental rack mounted upon the frame and a flexible finger attached to the shift-rod and disposed for engagement with the notches of the rack.

In testimony whereof I affix my signature in presence of two witnesses.

LADISLAW ZBOROWSKI.

Witnesses:

JOE GLINSKI,

G. L. PARK.