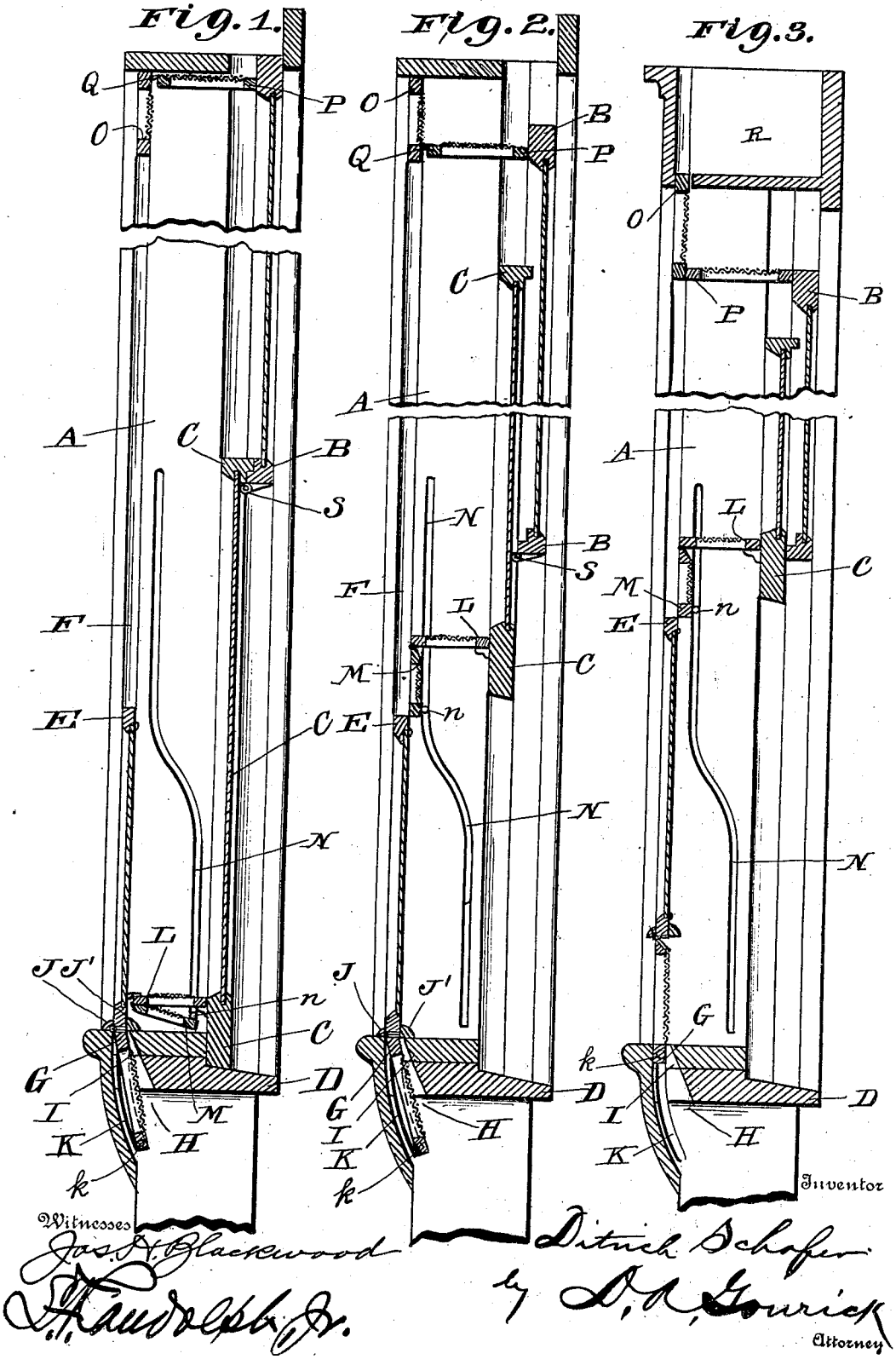
No. 812,238. PATENTED FEB. 13, 1906.

D. SCHAFER.

WINDOW VENTILATOR.

APPLICATION FILED MAY 3, 1905.



UNITED STATES PATENT OFFICE.

DITRICH SCHAFER, OF SACRAMENTO, CALIFORNIA.

WINDOW-VENTILATOR.

No. 812,238. Specification of Letters Patent. Patented Feb. 13, 1906.

Application filed May 3, 1905. Serial No. 258,631.

To all whom it may concern:

Be it known that I, DITRICH SCHAFER, a citizen of the United States, residing at Sacramento, in the county of Sacramento and State of California, have invented certain new and useful Improvements in Window-Ventilators, of which the following is a specification.

The invention relates to ventilators to be applied to the windows of dwellings, &c., and has for its object the provision of a structure by which a circulation of air may be maintained and at the same time dust and insects be excluded from the room.

My invention has especial reference to the improvement of the construction of ventilator shown in Patent No. 769,570, granted to me on September 6, 1904. In said patent a plate of rigid material is secured inside of the window-sash and resting on the sill, and a screen-frame is secured to the bottom rail of the sash and arranged to cover the space between the sash and plate, this construction preventing a direct draft from the opening under the sash when raised.

In my improvement of which this is a description the plate is slidably mounted in the window-frame and provided with a screen-frame secured to its lower end, which is normally seated in a boxing under the sill, but which when the plate is raised covers the opening made thereby, thus permitting a direct draft into the room, but preventing the ingress of insects and dust.

A further improvement consists in providing means for preventing ingress of insects at the top of the window when the upper sash is lowered to permit the escape of the foul air from the room, consisting of screen-frames so arranged as to cover the opening made by lowering said upper sash.

The construction and operation of my invention will be described in detail hereinafter and illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view of a window, showing the sashes closed; Fig. 2, a view showing the sashes open and with the deflector-plate in the position shown in Fig. 1; Fig. 3, a view showing a modification of the construction of the ventilator on the upper portion of the window and with the plate at the lower portion of the casing raised to permit a direct draft.

In the drawings similar reference characters indicate corresponding parts throughout the several views.

A represents the side posts of a window-frame; B, the upper sash; C, the lower sash; D, the sill.

E represents a frame having a plate of transparent material, preferably glass, therein and slidably mounted in grooves F in the side posts A.

G represents a screen-frame hinged to the bottom of frame E and adapted to normally rest in a box or recess H under the sill, a slot I being provided in said sill through which the screen G descends into and is withdrawn from said box or recess H.

J and J′ represent strips of molding secured to the bottom rail of frame E and adapted to cover the top of slot I when the frame G is retired into the box or recess H.

The box or recess H may be made vertically beneath the frame E and slot I; but when desired it may be made with a pitch toward the ouside of the building, as shown in the drawings, in which case it may be found desirable to provide the ends of the box with segmental grooves K and provide the ends of the frame G with rollers *k* to ride in said grooves and guide the free edge of the frame G into and out of said box or recess.

On the bottom rail of the lower sash is secured a screen-frame L, and hinged to the under side of its free edge another frame M, having a length of weather-stripping secured to its lower edge that when the window is raised engages the transparent plate in frame E to make an insect-proof joint.

N represents a guide-groove in each side post A, and *n* a roller journaled on each end of the lower edge of frame M to ride in the groove N in the adjacent post. The groove N, as clearly shown in the drawings, begins near the bottom rail of the lower sash at its lower end, runs vertically upward for a short distance, and then curves toward the inner side of the window-casing and again vertically upward, so that when the window is closed, as shown in Fig. 1, the frame M is folded under the frame L, but when the lower sash is raised, as shown in Figs. 2 and 3, the frame M assumes a vertical position.

It will be understood from this description that with the frame E in its lowermost position the lower sash C may be raised and air from the outside admitted over said frame E without creating a draft in the room, while

by raising frame E, and with it frame G, air may be admitted directly through frame G to the room at the same time that it may pour over the top of frame E, and by raising the sash to a sufficient height so that the frame M is exposed above the frame E the air may be admitted both above and below said frame E directly from the outside, said ventilation being accomplished without admitting insects or dust to the room.

My invention also contemplates an insect and dust proof structure at the upper end of the window-casing to permit lowering the upper sash to allow the foul air to escape from the room, the structure consisting, as shown in Figs. 1 and 2, of a vertical screen-frame O, secured to the frame A, and a horizontal screen-frame P, secured to the top rail of the upper sash and having a length of weather-stripping Q secured to its free edge to make an insect and dust proof joint between said frames O and P.

In Fig. 3 a modification of the structure at the top of the window is shown, in which the vertical frame O is secured to the free edge of frame P and when the sash B is closed disappears into a housing R in the upper end of the window-casing.

S represents weather-stripping secured to the under side of the bottom rail of the upper sash, which engages the pane in the lower sash to prevent insects and dust getting into the room when the sashes are open.

Having thus described my invention, what I claim is—

1. In a window-ventilator, a horizontal screen-frame secured to the top rail of the upper sash, and a vertical screen-frame acting in conjunction with said horizontal frame to form an insect and dust proof deflector for the top of the casing, substantially as shown and described.

2. In a window-ventilator, a horizontal screen-frame secured to the top rail of the upper sash, and a vertical screen-frame secured to the free edge of said horizontal frame, substantially as shown and described.

3. In a window-ventilator, a horizontal screen-frame secured to the top rail of the upper sash, a vertical screen-frame secured to the free edge of said horizontal frame, and a housing in the top of the casing to receive said vertical frame, substantially as shown and described.

4. In a window-ventilator, a frame slidably mounted in the window-casing, a screen-frame secured to the lower edge of said frame, a box or casing beneath the window-sill to receive said screen-frame, and a screen-frame secured to the bottom rail of the lower sash to bridge the space between the sash and the first-named frame, substantially as shown and described.

5. In a window-ventilator, a frame slidably mounted in the window-casing, a screen-frame hinged to the lower edge of said frame, a box or casing beneath the window-sill to receive said screen-frame, and a horizontal screen-frame secured to the bottom rail of the lower sash to bridge the space between said sash and the first-named frame, substantially as shown and described.

6. In a window-ventilator, a frame slidably mounted in the window-casing, a screen-frame secured to the lower edge of said frame, a box or casing beneath the window-sill to receive said screen-frame, a screen-frame secured to the bottom rail of the lower sash, a screen-frame hinged to the last-named screen-frame, and grooves in the window-casing to guide said hinged frame, substantially as shown and described.

7. In a window-ventilator, a frame slidably mounted in the window-casing, a screen-frame hinged to the lower edge of said frame, a box or casing beneath the window-sill to receive said screen-frame, a screen-frame secured to the bottom rail of the lower sash, a screen-frame hinged to the last-named screen-frame, and the window-casing formed with grooves to guide said hinged frame, substantially as shown and described.

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

DITRICH SCHAFER.

Witnesses:
C. A. ELLIOTT,
E. M. KELLY.