

F. J. SCHUMACHER.
VENTILATOR.
APPLICATION FILED MAR. 2, 1911.

1,013,322.

Patented Jan. 2, 1912.

Fig. 1.

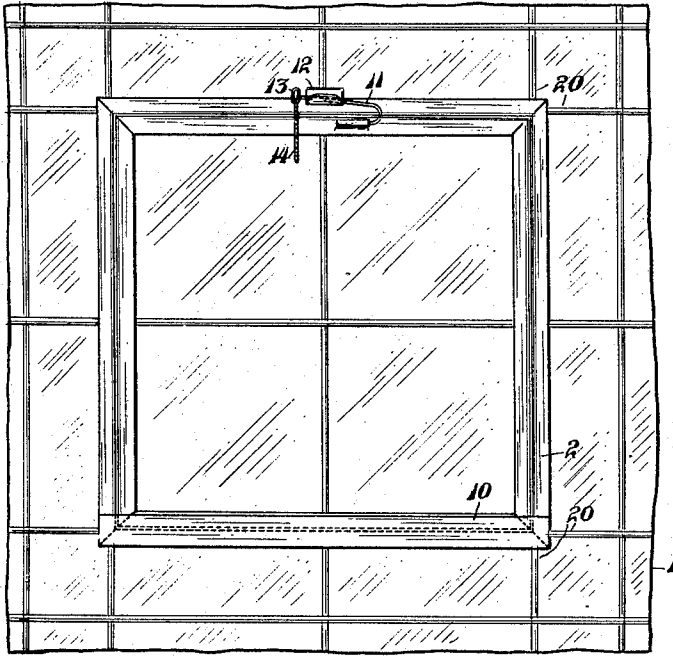


Fig. 3.

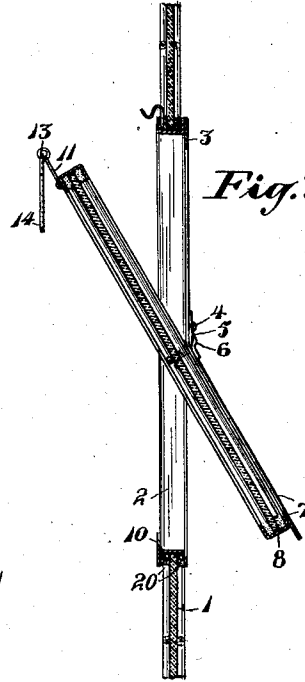


Fig. 2.

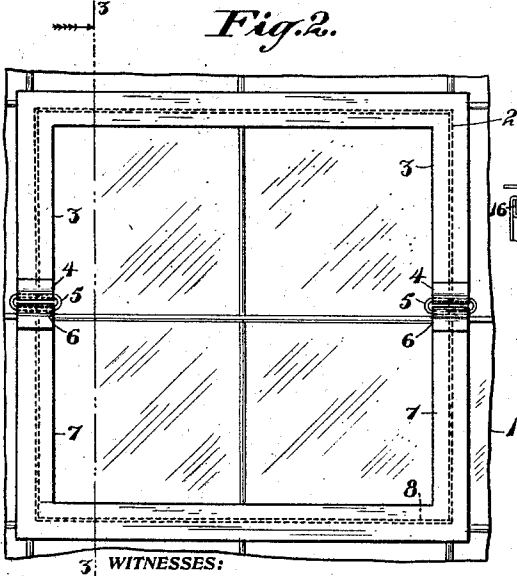


Fig. 4.

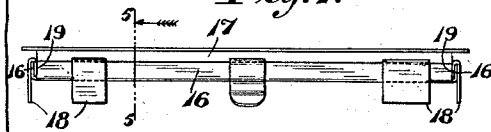
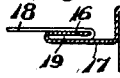


Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FREDERICK J. SCHUMACHER, OF SAN FRANCISCO, CALIFORNIA.

VENTILATOR.

1,013,322.

Specification of Letters Patent.

Patented Jan. 2, 1912.

Application filed March 2, 1911. Serial No. 611,933.

To all whom it may concern:

Be it known that I, FREDERICK J. SCHUMACHER, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented new and useful Improvements in Ventilators, of which the following is a specification.

The present invention relates to improvements in ventilators such as are used in prism glass windows.

The object of the invention is to provide means for pivoting the ventilator sash upon the ventilator frame which will permit said sash to swing freely in said frame, so that there is no danger by said swinging of breaking or wrenching off the pivots therefor; also which will provide a greater bearing surface for said pivots, whereby the sash is rendered more durable; also such as to render it comparatively easy to remove the sash from the ventilating frame when desired.

In the accompanying drawings, Figure 1 is an inside view of my improved ventilator closed; Fig. 2 is an outside view of the same; Fig. 3 is a vertical section of the same on the line 3—3 of Fig. 2, partly open; Fig. 4 is a top plan view of a modified form of ventilator frame, the glass being omitted; Fig. 5 is an enlarged sectional view on the line 5—5 of Fig. 4.

Referring to the drawing, 1 indicates a prism light window in which is inserted a ventilator frame 2, rectangular in form. The outer surfaces of the top and the upper halves of the vertical sides of said ventilator frame are, as shown at 3, extended inwardly, or over the corresponding portions of the ventilator sash 8, and, conversely, the outer surfaces of the bottom and the lower halves of the vertical sides of said sash are, as shown at 9, extended outwardly, so as to overlie the corresponding portions of the ventilator frame. To the outer surfaces of the vertical sides of the ventilator frame at the lowest ends of said inward extensions therefrom, are secured eyes or bearings 4, and, similarly, to the outer surfaces of the vertical sides of the ventilator sash 8 at the uppermost ends of the outward extensions therefrom are secured eyes or bearings 6. In the bearings 4 and 6 on each side of the ventilator is secured a link-shaped loop 5. On these loops the sash swings as on a horizontal pivot, the

upper half of the sash swinging inward and the lower half swinging outward. This form of pivot for the sash in a ventilating frame I consider an important feature of my invention.

Heretofore, so far as I am aware, it has been the practice to pivot the sash within the frame by means of pivot pins inserted in the edges of the sides of said sash and frame. The objection to this construction is that it does not permit the sash when opened to be drawn downward below the center, and if much strain be placed upon the sash in drawing it downward it will break or wrench off these pivot pins. To avoid this it has been customary to provide chains or other means for limiting the downward movement of the sash in opening the ventilator. But these devices are objectionable on account of the extra expense which they involve, and for other reasons.

By my present construction of pivots, the ventilator can be fully opened to any extent without the least strain upon the pivotal mechanism. A further advantage attendant upon this construction is that I provide a large extent of bearing surface, and therefore the life of the device is proportionately prolonged. A further advantage is that by unsoldering the eyes or bearing which are connected directly to the sash the sash can readily be removed from the ventilating frame whenever desired. The outer surfaces of the sides of said frame and sash are made of considerable width to form stops for engaging respectively the corresponding portions of the sash and frame. On the inner surface of the bottom of the ventilating frame is secured a horizontal strip 10 of considerable width which extends to a sufficient height above the bottom of the sash as to render the same perfectly water-tight, in case any water should find its way past the upper portion of the sash.

The means for opening and closing the ventilating sash consists of a piece of spring wire 11 bent back upon itself, the lower portion being secured to the top of the sash, while the upper portion is free and is adapted to engage a catch 12 secured upon the top of the ventilating frame, the spring wire being formed at its free end with an eye 13 through which a cord 14 is secured. Upon pulling on this cord the spring latch is withdrawn from the catch and the continued pull opens the sash.

I claim:—

In combination with a ventilator sash, a ventilator frame, the outer surfaces of the upper halves of the vertical sides of which
5 are extended inwardly or over the corresponding marginal portions of the ventilator sash, the outer surfaces of the lower halves of the vertical sides of the ventilator sash being extended outwardly or over the
10 corresponding portions of the ventilator frame, eyes or bearings secured respectively

to the outer surfaces of said frame and sash at respectively the lowermost and uppermost portions of said extensions therefrom, and link-shaped loops in said eyes or bearings. 15

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

FREDERICK J. SCHUMACHER.

Witnesses:

FRANCIS M. WRIGHT,
D. B. RICHARDS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
