

J. FRIEND.
Skylight.

No. 212,307.

Patented Feb. 18, 1879.

Fig. 1

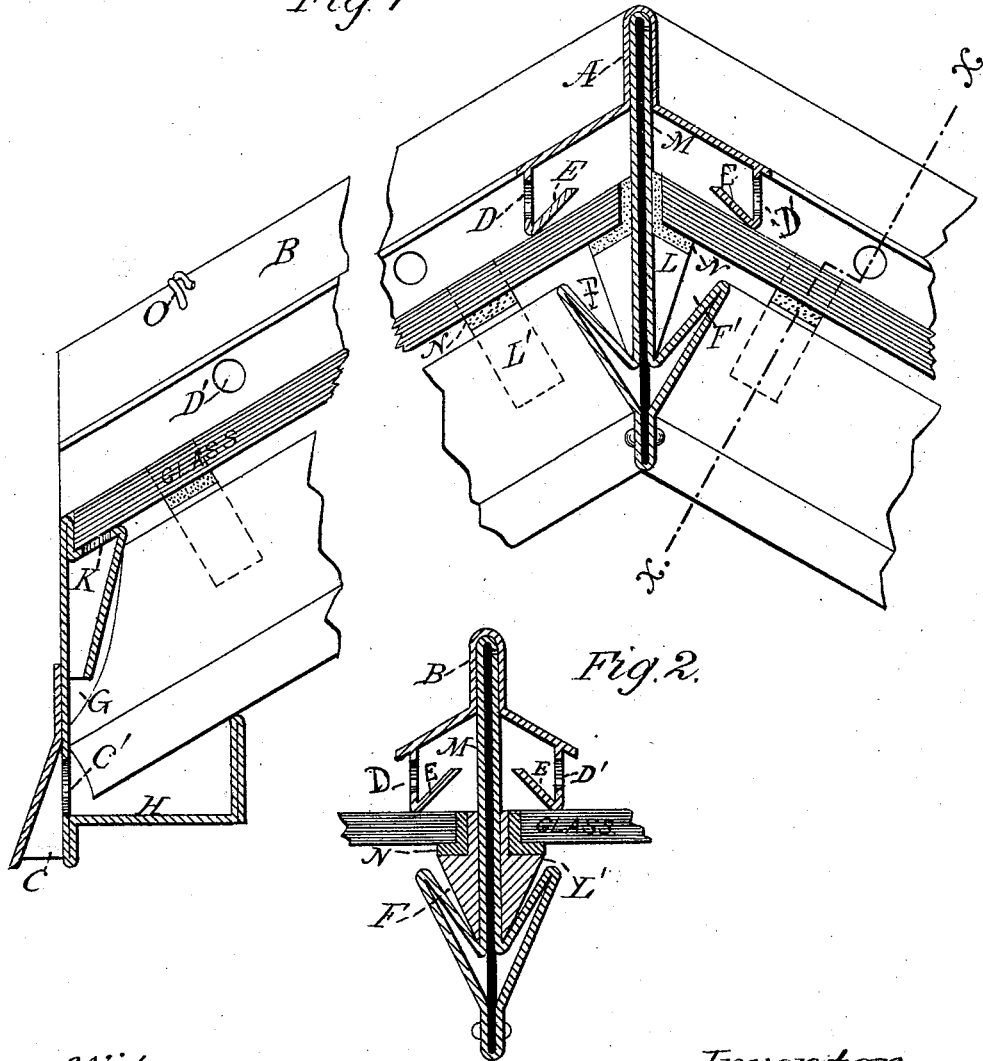


Fig. 2.

Witnesses
Isaiah Bailey
Chas. F. Schmitz

Inventor
Jacob Friend,

By J. A. Hurdle,

Att'y.

UNITED STATES PATENT OFFICE.

JACOB FRIEND, OF CINCINNATI, OHIO.

IMPROVEMENT IN SKYLIGHTS.

Specification forming part of Letters Patent No. 212,307, dated February 18, 1879; application filed July 25, 1878.

To all whom it may concern:

Be it known that I, JACOB FRIEND, of the city of Cincinnati, county of Hamilton, and State of Ohio, have invented a new and useful Improvement in Ventilating-Bars for Skylights, which improvement is fully set forth in the following specification.

This invention relates to that class of improvements employed for ventilating and at the same time giving light by means of a combined skylight and ventilator, as described and shown by the following specification and drawings.

The object of my invention is to give light and ventilation by means of a combined skylight and ventilating frame, such as I shall fully describe hereinafter.

In the drawings, Figure 1 represents a cross-section of ventilating hip-bar and cornice of skylight, showing the mode of ventilation at that point. Fig. 2 represents a cross-section of the cross ventilating-bar, taken through x , Fig. 1.

A represents the cap; B, the cross-cap, of the construction shown in Fig. 2, soldered to the hip-bar, and held to the upright M by means of a wire, O, fastened so as to easily remove it without damage to the frame.

C C' represent an opening in the cornice, which answers for a drain and ventilator, of which there can be any number desired.

D D' represent openings for the escape of foul air. E represents the gutter to catch the water that is beaten in by wind-storms. All water that is beaten over the gutter E is precipitated into the gutters of the hip-bar. It then passes to the gutters of the cross-bars, and is conveyed to openings G of the cross-bar gutter, from which it falls to the surface H, and then through C C' into the open air; or it may escape by way of the gutter F' at the end of hip-bar.

The sides of the frame are shown as bent inward at the top and then downward, so as to form a support for the lower edge of the glass, and at the top of this support is a perforation, K, and at the bottom an opening, G. This opening is adapted to carry off any wa-

ter that may force itself beneath the glass, and allows it to fall to the surface H, thereby making its escape through C C' to the open air.

The gutters are provided with small brass blocks L L', Figs. 1 and 2, fastened to the upright M, which extends from the bottom of the bar to the top, as shown in the drawings. The block L used in the gutter of the hip-bar does not require a flange above like that shown at L', Fig. 2. Each block L and L' is provided with a rubber cap, N, which is adapted to allow for the contraction and expansion of the glass, and to give space between the frame and glass for ventilation, as shown in the drawings.

The frame-work can be made of any material desired, the accompanying drawings showing one made of light material. Heavy iron, brass, or copper can be used. In that case bolts and rivets would be necessary.

Having thus fully described my invention, what I claim as new, and desire to obtain Letters Patent for, is—

1. The combination of the upright M, having thereon small brass blocks L, with hard-rubber blocks N, to allow for the contraction and expansion of the glass, and to give space for ventilation, substantially as shown and described.

2. In a skylight and ventilator, the combination of the cap A, gutters E, having the openings D D', upright M, brass blocks L, and rubber blocks N, substantially as shown and described.

3. In a skylight and ventilator, the glass-support having an opening, K, the ventilators C C', gutters H, cross ventilating-bar having openings G, for the escape of water forced in by storm, with cap A, gutters E, having openings D D', upright M, and brass blocks L and rubber blocks N, substantially as shown and described.

JACOB FRIEND.

Attest:

H. BRUNKMANN,
ISAIAH BAILEY.