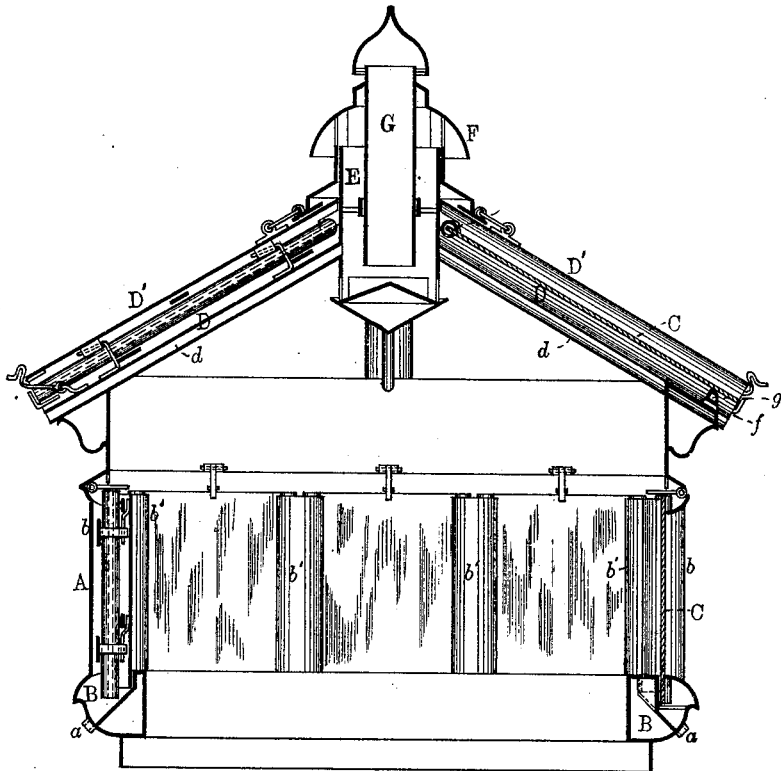


J. HARSCH.  
VENTILATING SKY-LIGHTS.

No. 195,362.

Patented Sept. 18, 1877.

—FIG. I—



—WITNESSES—

*Wm. H. Johnson*  
*Frank M. Burrhead*

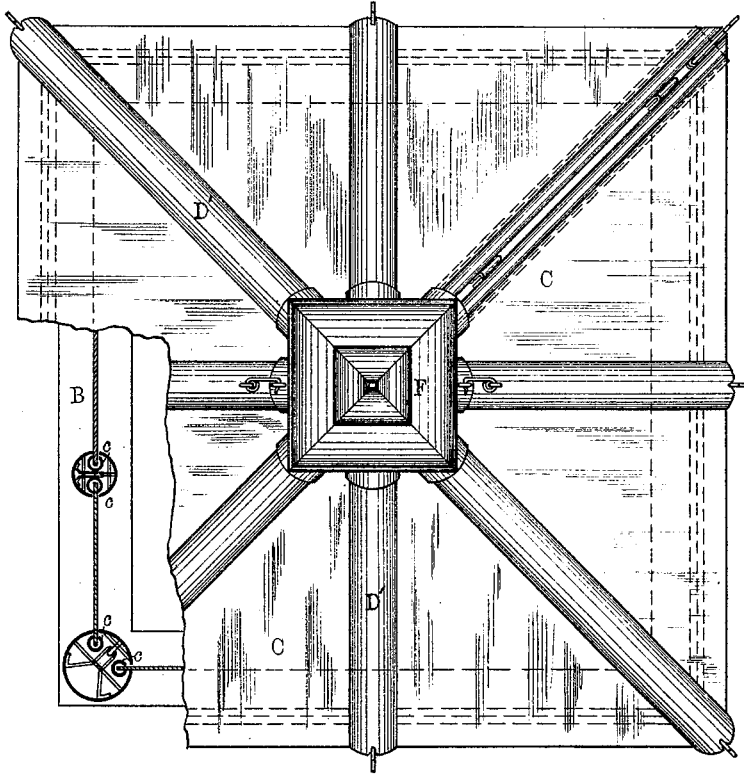
—INVENTOR—

*Joseph Harsch*  
*by W. H. M. Thomas*  
*attor*

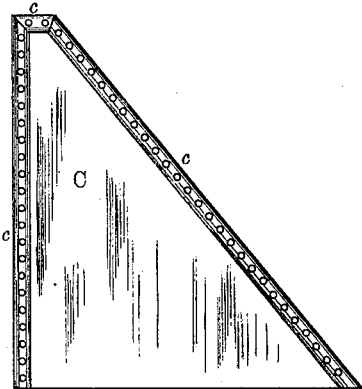
J. HARSCH.  
VENTILATING SKY-LIGHTS.

No. 195,362.

—FIG. II— Patented Sept. 18, 1877.



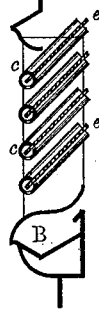
—FIG. III—



—FIG. IV—



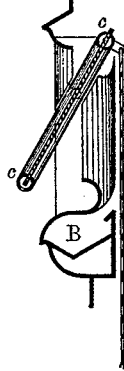
—FIG. V—



—FIG. VI—



—FIG. VII—



—WITNESSES—

*Wm. H. Towson*  
*Frank M. Burnham,*

—INVENTOR—

*Joseph Harsch,*  
*by Wm. T. Howard*  
*attor.*

# UNITED STATES PATENT OFFICE.

JOSEPH HARSCH, OF BALTIMORE, MARYLAND.

## IMPROVEMENT IN VENTILATING-SKYLIGHTS.

Specification forming part of Letters Patent No. **195,362**, dated September 18, 1877; application filed July 2, 1877.

### *To all whom it may concern:*

Be it known that I, JOSEPH HARSCH, of the city of Baltimore and State of Maryland, have invented certain Improvements in Ventilating-Skylights, of which the following is a specification; and I do hereby declare that in the same is contained a full, clear, and exact description of my said invention, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

This invention relates to a skylight adapted to be placed in either a vertical or inclined position, and which may be constructed of galvanized sheet-iron, zinc, or other sheet metal; having for its object the lighting as well as the ventilating of the apartment over which it is placed.

My invention consists in a novel method of uniting the glass plates to the frame of the skylight, whereby water driven through the interstices existing between the said glass plates and the frames is conducted to a channel or channels, from which it escapes to the roof of the building.

In the description of the invention which follows, reference is made to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a vertical transverse section of the skylight. Fig. 2 is a partly-sectional plan view of the same. Figs. 3 and 4 are views of a glass plate provided with the devices, whereby it is fitted for insertion in the frame of the skylight. Figs. 5, 6, and 7 are cross-sections of a part of the frame, illustrating different methods of providing for the escape of air from the skylight.

Similar letters of reference indicate similar parts of the invention in all the figures.

A is the frame of the skylight, provided at its lower edge with a chamber, B, running entirely around it. The chamber B is for the purpose of collecting and carrying off any water that may find its way between the glass plates C and the frame, and for the latter purpose is provided with outlet-pipes *a*. The sides of the frame A, above the chamber B, are composed of hollow bars *b*, which admit of the attachment of the glass plates thereto, in a manner hereinafter described. The upper part of the skylight is formed partially of

hollow bars D, similar to the ones *b* of the sides of the same, but in a reversed position, they being arranged with the hollow or concave side facing outwardly. The bars D radiate from a central ventilating-chamber, E, of a construction hereinafter described, and are attached at their lower ends to a cornice, forming a finish to the upper end of the straight or vertical portion of the skylight. The bars *b* and D are fitted with removable bars *b'* and D', which serve to lock or secure the glass plates C when in place. The glass plates C are provided with water-conducting beads or conduits *c* at the edges thereof likely to admit water to the inside of the skylight, and in some cases the said beads or conduits are perforated to allow of the escape of water therefrom. The glass plates are placed over the edges of the bars *b* and D, and are partially held in position by the water-conducting beads or conduits *c*, which extend over the edges of the said bars and within the same. The glass plates are, however, fully secured by the bars *b'* D', before alluded to, which bear upon the glass plates, and are held firmly down by means of hooks and staples or other suitable devices. The central ventilating-chamber E is surmounted by an ornamental cap, F, which allows of the escape of heated air from the interior of the skylight, while preventing the admission of water thereto. The ventilating-chamber is also provided with a supplemental or inner chamber, G, having a cap similar to the one F. Pipes *d*, situated under the bars D, admit of the passage of air from the exterior of the skylight to the interior of the chamber E, and thereby assist in inducing an upward current in the said chamber. The skylight is further ventilated by means of apertures *f*, situated between the bars D and directly below the strips *g*, supporting the lower ends of the glass plates forming the main portion of the top of the skylight.

In Fig. 5, instead of a single glass plate secured to the frame, as before described, inclined strips or slats *e* of glass are used, the ends and lower edges of which are inclosed within water-conducting beads *c*, secured permanently to the frame A.

In Fig. 6 a similar arrangement of glass

slats is illustrated ; but these glass slats differ from those shown in the preceding figures, in that the conducting-beads support their ends only.

In Fig. 7 the glass plate with its bead or conduit is suspended upon pivots, in order to allow of its being opened.

These last three designs, or any one of them, may, if desired, be used in connection with the fixed glass plate before described.

Water passing around the edges of the glass plates is conducted to the interior of the beads or conduits, and thence to the chamber B; and it will be seen that where the position of the said beads or conduits is such as to prevent the water passing freely from their ends, they are perforated at their lower ends.

Having thus described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

1. The water-conducting beads or conduits, combined with the glass plates of a skylight, substantially as specified.

2. In a skylight, two or more glass plates, having their approaching edges provided with water-conducting beads or conduits, as shown, in combination with removable hollow bars, adapted to connect the said glass plates and cover the adjacent beaded edges thereof, substantially as specified.

In testimony whereof I have hereunto subscribed my name this 6th day of June, in the year of our Lord 1877.

JOSEPH HARSCH.

Witnesses:

W. W. WHARTON,  
WM. W. TOWSON.