No. 679,912. Patented Aug. 6, 1901.

J. F. PREUTHUN.

VENTILATING SKYLIGHT.

(Application filed July 30, 1900.)

(No Model.)

Fig. 1.

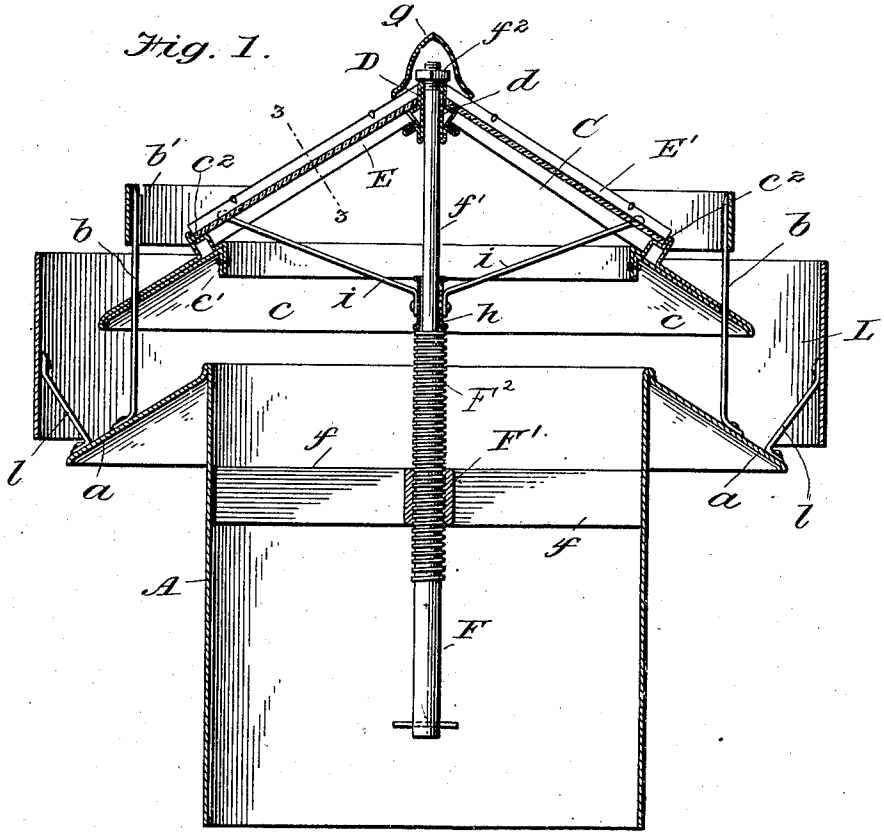


Fig. 2.

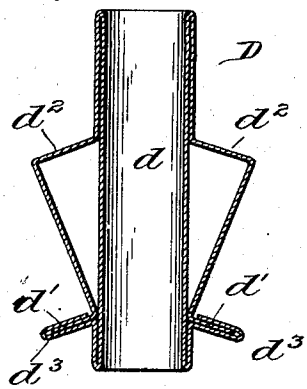
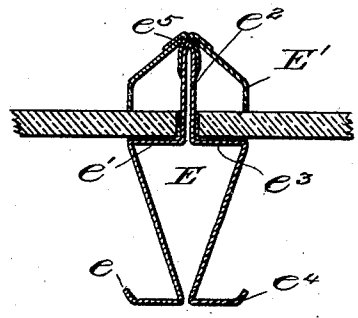


Fig. 3.



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UNITED STATES PATENT OFFICE.

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VENTILATING-SKYLIGHT.

SPECIFICATION forming part of Letters Patent No. 679,912, dated August 6, 1901.

Application filed July 30, 1900. Serial No. 25,275. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. PREUTHUN, a citizen of the United States, and a resident of the city of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Ventilating-Skylights, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to certain improvements in skylights used for both lighting and ventilating purposes; and it consists in the construction and arrangement as herein set forth.

The object of my invention is to provide a combined skylight and ventilator having means for adjusting the ventilating-openings, so as to regulate the ventilation.

A further object of my invention is to provide an improved construction of hood or frame for holding the skylights, which is made entirely of sheet metal.

Further objects of my invention are to generally improve and simplify the construction of devices of this character.

Referring to the accompanying drawings, in which similar letters of reference are used to indicate similar parts, Figure 1 is a sectional elevation of a ventilating-skylight embodying my improvements. Fig. 2 is an enlarged detail section of the central portion of the hood-frame. Fig. 3 is an enlarged transverse section taken about on the line 3 3 of Fig. 1.

In carrying out my invention I provide the lower section A, which may be either cylindrical or rectangular and which is composed of sheet metal pressed into the desired form. The upper edge of the section A is provided with a conical flange *a*, which may be formed integral with the section A, as shown in the drawings. Extending upwardly from the flanges *a* are vertical guide-rods *b*, the lower ends of which are riveted or otherwise secured to the said flange. A number of these guide-rods may be provided on the flange *a*, and their upper ends are connected by means of a circular or rectangular band *b'*.

C designates the hood or frame in which the skylights are supported. This hood may be either circular or rectangular in shape, and in this instance I have shown it as substantially conical. The lower section *c* comprises a single piece of sheet metal, starting with the flange *c'*, then bent downwardly at an angle and back upon itself, then upwardly at right angles, forming a shoulder c^2, and ending in a vertical flange, which is riveted to the flange *c'*. The central portion of the hood C comprises a tubular section *d*, made of sheet metal, starting with the flange *d'* and extending upwardly at right angles, then bent at an angle to form a shoulder d^2, then extending upwardly a short distance, then downwardly to form the tube *d*, then upwardly and outwardly to form the U-shaped flange d^3, into which fits the flange *d'*, the said flange *d'* and U-shaped flange d^3 forming a ledge upon which the inclined glass-supporting frames rest.

The glass-supporting frames E are formed in the manner illustrated on an enlarged scale in Fig. 3 of the drawings and comprise a single piece of sheet metal starting with the flange *e* on one side and extending upwardly at an angle and then bent horizontally to form the shoulder *e'*, then extending vertically and bent over upon itself to form the central U-shaped flange e^2, then extending outwardly, forming another horizontal shoulder e^3, then extending downwardly on an incline disposed oppositely to its other side and ending in the substantially horizontal flange e^4, the flanges *e* and e^4 being bent up at their edges, so as to form gutters for catching the drippings formed by the condensation on the skylight. The glasses rest upon ledges c^2 of the lower section *c* at their lower ends and upon the shoulders d^3 of the central section at their upper ends, while the sides of said glass rest upon ledges *e'* and e^3 of the frame E. A longitudinal cap E' (shown in Fig. 3 of the drawings) is provided over each of the flanges e^2, and the said caps are held in position by means of the metal clips e^5, which are secured at their lower ends to the flange e^2 and after passing through slots or openings in the cap E' are bent over against the top of the cap, as illustrated. The lower section *c* is provided with a series of apertures through which pass the guide-rods *b*, as illustrated in Fig. 1.

A central shaft F, having coarse screw-threads provided on its intermediate portion,

is supported in a threaded sleeve F′, which is secured in the section A by means of the bracket-arms *f*. The upper portion of the shaft F is slightly reduced, as shown at *f*′, and passes through the tubular portion *d* of the central section D of the hood, and on the upper end of the rod *f*′ I provide a nut or collar f^2, which bears against the upper end of the section D. A cap *g* fits over the upper end of the rod *f*′ and is soldered or otherwise secured to the frame-caps E′. The screw-threaded portion F^2 of the shaft F forms a shoulder at its upper end, against which rests a tubular sleeve *h*, the said sleeve fitting around the reduced portion *f*′ of the shaft. Extending radially from the sleeve *h* are brace-rods *i*, each having bent ends which are riveted to the said sleeve, and their other ends enter the U-shaped slot e^2, formed in the glass frames E and are riveted or otherwise secured therein.

Secured to the flanges *a* of the lower section A by means of the braces *l* is a circular or rectangular band L, which serves as a wind-guard.

By revolving the central shaft F the skylight C may be raised or lowered to regulate the distance between the lower section *c* of the hood and the flange *a* of the section A, and if it is desired the hood may be adjusted until the portion *c* bears tightly against the flange *a*, thereby closing the skylight entirely.

From the above description it will be readily seen that I have provided a combined skylight and ventilator which can be regulated or adjusted for ventilating purposes or may be entirely closed when the ventilation is not desirable.

The entire structure is composed of sheet metal and is simple in construction and efficient in its operation.

While I have shown my device to be circular in this particular instance, of course it will be understood that the same may be either square or rectangular without departing from my invention or without changing the details of construction, and I do not desire to be limited to the exact form illustrated.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A combined skylight and ventilator comprising a lower stationary section having an inclined or conically-disposed flange extending from its upper edge, a movable hood-section consisting of a transparent upper section, a tapering metallic section, *c*, adapted to bear against the inclined flange of the stationary section when the skylight is closed, a vertical flange, *c*′, formed at the upper edge of the tapering metallic section, *c*, for more effectually sealing the two sections when closed, and means for raising or lowering the hood-section, for the purpose described.

2. A combined skylight and ventilator comprising a lower stationary section having a downwardly-inclined flange adjacent its upper end, a movable hood-section having skylights provided in its upper section, a tapering metallic lower section adapted to bear against the inclined flange of the stationary section when the ventilator is closed, a series of guide-rods secured to the lower section adapted to pass through the flange of the hood-section, circular band connecting the upper ends of the guide-rods for bracing the same and limiting the upward movement of the hood-section, and means for raising or lowering the said hood-section, substantially as described.

3. The combination of a stationary section having an outwardly-tapering flange secured to its upper edges, a tapering hood-section having a solid metallic lower section adapted to rest on the flange of the stationary section when the ventilator is closed, vertically-disposed flanges carried by the said metallic portion of the hood, adapted to fit neatly within the stationary section, means for supporting and elevating or lowering the hood-section, and a circular band secured to the flanges of the stationary section and extending above the lower edge of the hood-section, substantially as described.

4. The combination of the rigid section, A, a movable hood-section, C, comprising a metallic frame, *c*, bent to form a flange, *c*′, a shoulder, c^2, formed on its upper surface, a central metallic section, D, having ledges, d^2, and d^3, formed thereon, and sheet-metal glass frames or mullions, E, adapted to rest on and be secured to the sections, *c*, and D, substantially as described.

5. In a skylight the combination with the frames *c* and D, of the mullions, E, comprising a single piece of sheet metal having flanges, *e* and e^4, formed on their edges to provide gutters, shoulders, *e*′ e^3, in their opposing sides to form ledges on which the glass rests, a centrally-disposed U-shaped flange, e^2, and a metallic cap, E′, secured over the flange, e^2, substantially as described.

In witness whereof I have hereunto set my hand this 24th day of July, A. D. 1900.

JOHN F. PREUTHUN.

Witnesses:
JNO. T. CROSS,
CHARLES H. SPECKMAN.