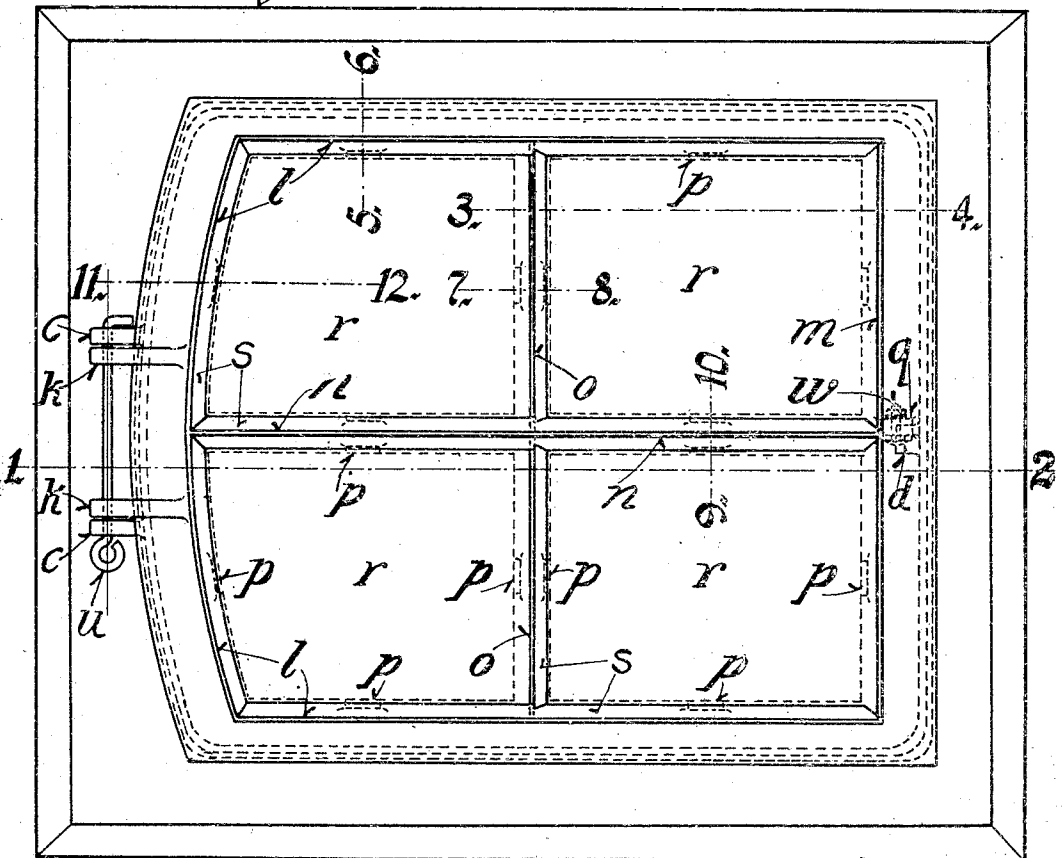


959,018.

2 SHEETS--SHEET 1.



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SKYLIGHT.
APPLICATION FILED NOV. 18, 1909.

959,018.

Patented May 24, 1910.

2 SHEETS—SHEET 2.

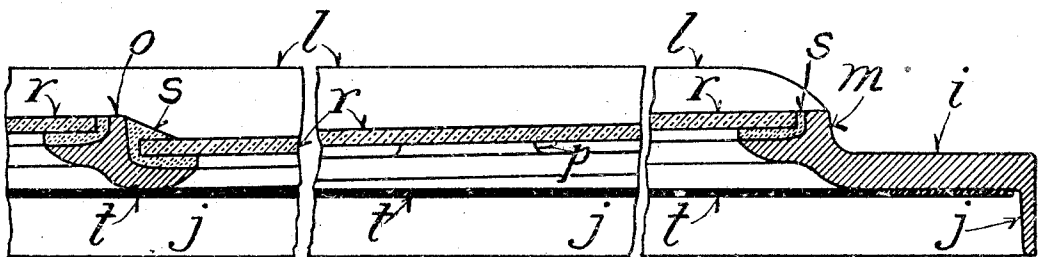


Fig. 3.

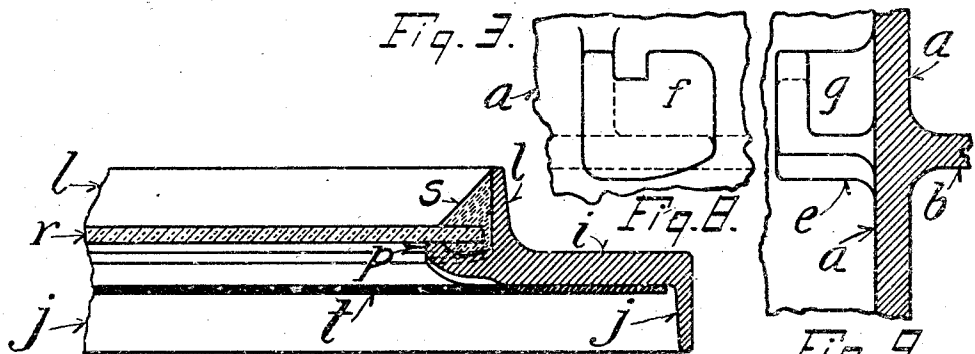


Fig. 4.

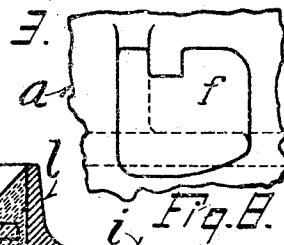


Fig. 5.

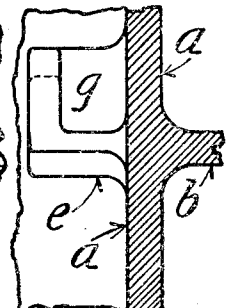


Fig. 6.

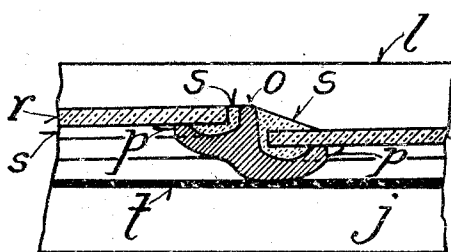


Fig. 7.

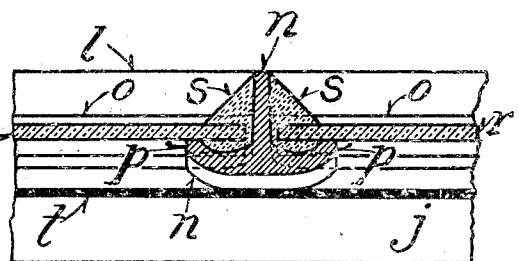


Fig. 8.

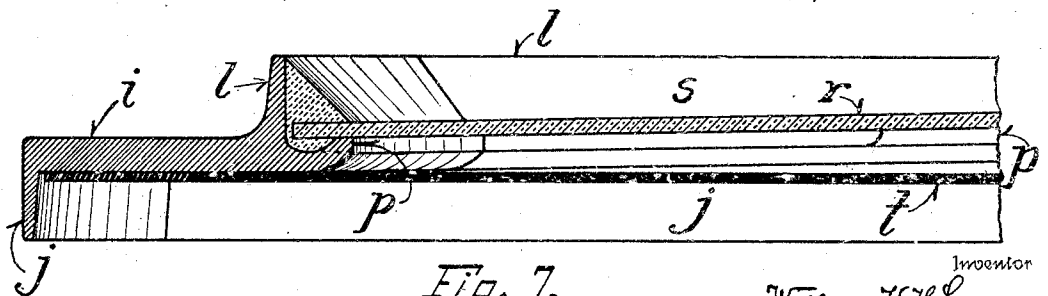


Fig. 9.

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SKYLIGHT.

959,018.

Specification of Letters Patent.

Patented May 24, 1910.

Application filed November 18, 1909. Serial No. 528,729.

To all whom it may concern:

Be it known that I, WILLIAM K. H. LANGER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Skylights, of which the following is a specification.

My invention relates to improvements in cast metal sky-lights the object of the invention being to provide a lower frame and a sash therefor, each of integral castings, and it consists of certain novel features of construction of parts as will be more fully hereinafter described and pointed out in the claim.

I attain these objects by the structure illustrated in the accompanying drawings in which—

Figure 1 is a vertical view in section of the entire sky-light on the line 1—2 of Fig. 2; Fig. 2 is a top view of the entire sky-light; Fig. 3 is a view in section of the sash on the line 3—4 of Fig. 2; Fig. 4 is a view in section of the sash on the line 5—6 of Fig. 2; Fig. 5 is a view in section of the sash on the line 7—8 of Fig. 2; Fig. 6 is a view in section of the sash on the line 9—10 of Fig. 2; Fig. 7 is a view in section of the sash on the line 11—12 of Fig. 2; Fig. 8 is a side view, showing part of the lower frame A and lock *d*, and Fig. 9 is a view in section, showing part of the lower frame A and the lock *d* on the line 1—2 of Fig. 2.

Referring to Figs. 1 and 2, letter A represents the lower frame, consisting of the frame *a*, flange *b*, hinge *c* and lock *d* all cast integral. The frame *a* extends below the flange *b* to hold the lower frame A in place. The flange *b* extends at right angles to the vertical sides of the frame *a* and the outer edge is tapered to decrease the thickness of the flange and rests upon the roof (not shown). The hinge lugs *c* are located on the upper side of the frame *a* near the top edge. The lock *d* is located at the inside center of the lower side of the frame *a* opposite the flange *b*. The flange *e* of the lock *d* extends at right angles to the frame *a* and carries at its outer edge the flange *f* which extends upwardly at right angles to the flange *e*. The flange *g* extends upwardly at right angles to the flange *e* at one side thereof and connects the frame *a* with one side of the flange *f*. The groove in the top of the flange *f* on the side toward the flange

g holds the lifting-rod *v* in place when the sash is opened for ventilation. The bottom of the flange *e* is beveled so that the sash B is drawn tight when the lifting-rod *v* is in its closed position. The lock *d* is clearly shown in Figs. 8 and 9. The top of the frame *a* slants downwardly, starting at the side of the frame *a* as shown in Fig. 1. The lower frame A is put on the roof so that the slant of the frame *a* has the same direction as the slope of the roof (not shown). The holes indicated by *h*, Fig. 1, are for fastening the lower frame A to the roof.

B represents the sash, consisting of the frame *i*, projecting flange *j*, hinge *k*, frame light bars *l* and *m*, light bar *n*, transverse light bar *o*, boss *p* and lug *q*, all cast integral. The frame *i* has on the outer edge a projecting flange *j* which is turned downward at right angles to the frame *i*, overlapping the top of the lower frame A in its closed position, to prevent water from entering, as shown in Fig. 1. The hinge lugs *k* are located on the upper side of the frame *i* inside of the hinge lugs *c* of the lower frame A, as shown in Fig. 2.

The horizontal flange of the light bar *l* is extended inside of the frame *i* and the vertical flange of the light bar *l* is turned upward at right angles to the frame *i* as shown in Figs. 4 and 7. The horizontal flange of the light bar *m* is similar to the horizontal flange of the light bar *l* but the vertical flange is cut down flush with the upper edge of the light-pane *r* to allow the water to flow down, as shown in Fig. 3. The light bar *n* is T-shaped in cross section, the vertical flange being of the same height as the vertical flange of the light bar *l* and rising intermediate the horizontal flanges as shown in Fig. 6. The transverse light bar *o* receives the light-panes *r* at different heights as shown in Fig. 5. The vertical flange thereof arises intermediate the horizontal flanges and the top thereof is flush with the upper edge of the higher light pane *r* to allow the water to flow downwardly.

The inclination of the light panes *r* is less than the inclination of the lower frame A as shown in Figs. 1, 3, 4, 5, 6 and 7. All of the horizontal flanges of the light bars correspond with the slant of the light-panes *r* and are supplied with bosses *p*. The bosses *p* are located in the center of the horizontal flanges of the light bars and extend upwardly as shown in Figs. 1 to 7, inclusive.

The light panes *r* rest on the said bosses *p* and the edges of the light panes *r* will be embedded in the putty or other holding material *s*, the latter being located against
5 the rear face as well as the upper face of the light panes *r* and filling the space between the light panes *r* and the horizontal flanges of the light bars, as clearly shown in Fig. 3. At the places where the vertical
10 flanges of the light bars are flush with the upper edge of the light panes *r*, the upper face of the light panes will not receive putty or other holding material as clearly shown in Figs. 3 and 5. Lug *q* is located in the
15 center of the lower side of the frame *i* and extends downwardly at right angles thereto. The felt packing *t* is glued to the under side of the frame *i*. This felt prevents dust from entering and lies between the upper
20 side of the frame *a* of the lower frame A and the under side of the frame *i* of the sash B as shown in Fig. 1. The hinge bar *u*, shown in Fig. 2, has on one end an eye, the opposite end being bent at right angles to the bar after it is in place. The lifting rod
25 *v* is curved and has on the concave side,

open slots, suitable to fit the lock *d* for locking the sash in its closed position and for holding it open for ventilating purposes. The lifting rod may be provided with any
30 desired number of slots and is fastened to the lug *q* by a machine bolt *w* with a spring washer to allow side movement.

Having fully described my invention, what I claim as new and desire to secure by
35 Letters Patent is:

The combination of a sky-light consisting of a lower frame and sash, the latter having a frame with a projecting flange and light bars, the horizontal flanges of which are
40 supplied with extending bosses and are so disposed that the light panes may rest upon said bosses, and between the bosses, upon the holding material which fills the space between the rear face of the light pane and
45 the horizontal flange of the light bar.

In testimony whereof I have affixed my signature in presence of two witnesses.

WILLIAM K. H. LANGER.

Witnesses:

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