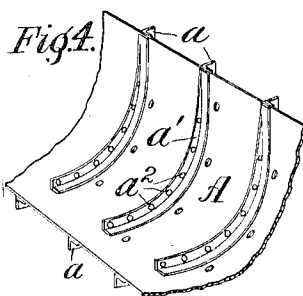
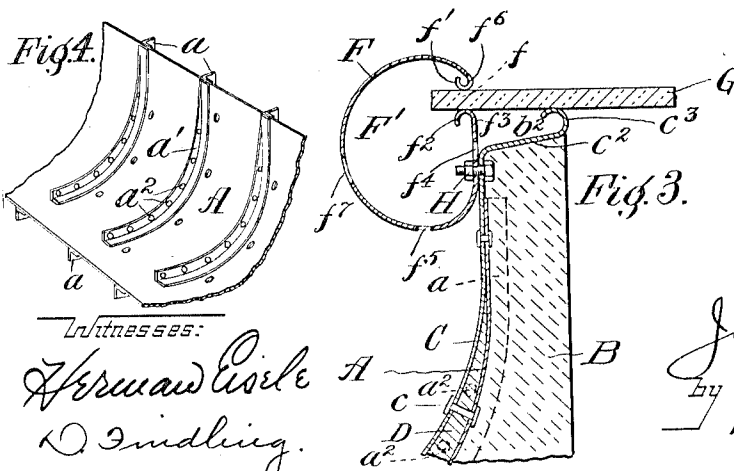
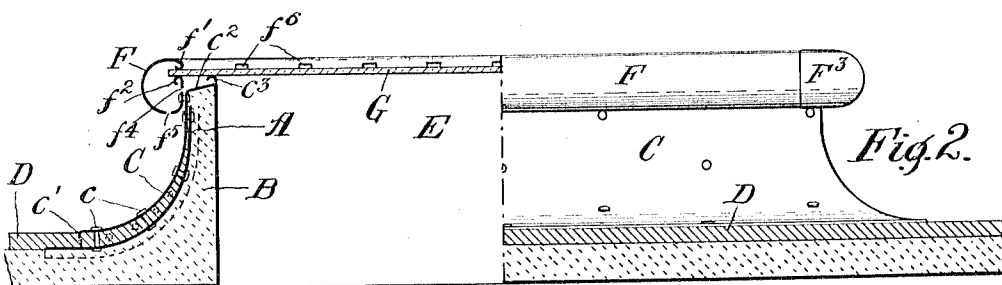
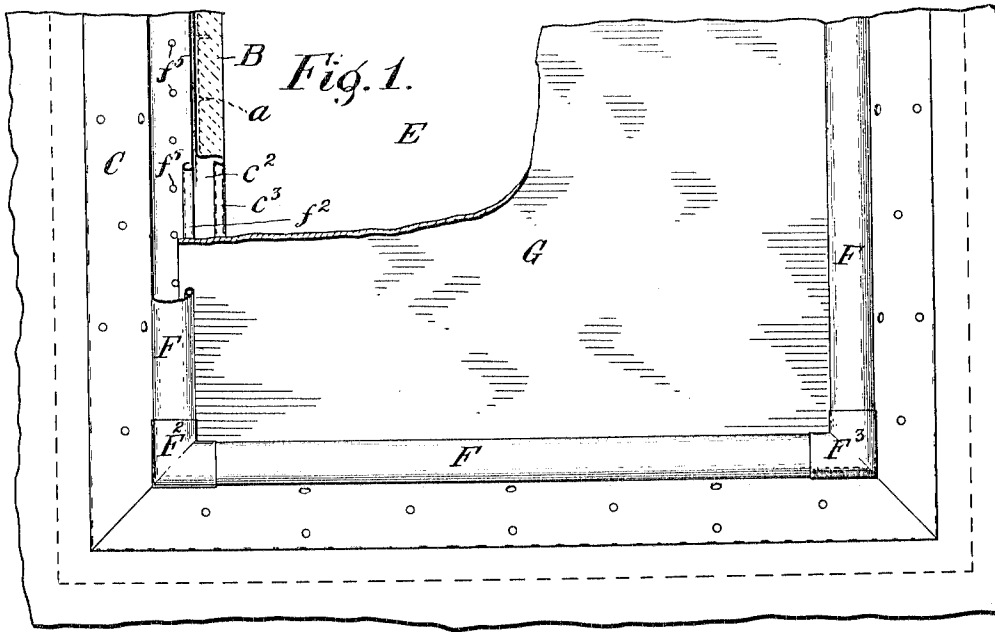


J. B. KING.
 SKYLIGHT CONSTRUCTION.
 APPLICATION FILED FEB. 27, 1913.

1,081,966.

Patented Dec. 23, 1913.



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UNITED STATES PATENT OFFICE.

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SKYLIGHT CONSTRUCTION.

1,081,966.

Specification of Letters Patent.

Patented Dec. 23, 1913.

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To all whom it may concern:

Be it known that I, JAMES B. KING, a citizen of the United States, resident of Clyde, county of Sandusky, and State of Ohio, have invented a new and useful Improvement in Skylight Constructions, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

My invention relates to sky-light structures, its object being to provide a sky-light construction which will be economical of manufacture and efficient in its operation.

A specific object is to prevent leakage at the joints and to permit the parts to be readily assembled and disassembled.

The said invention consists of means hereinafter fully described and particularly set forth in the claims.

The annexed drawing and the following description set forth in detail certain means embodying my invention, the disclosed means however constituting but one of various mechanical forms in which the principle of the invention may be applied.

In said annexed drawing:—Figure 1 is a fragmentary plan of a sky-light embodying my invention, a portion thereof being shown in horizontal section. Fig. 2 is a side elevation of such sky-light shown partly in vertical section. Fig. 3 is a fragmentary vertical section upon an enlarged scale. Fig. 4 is a fragmentary perspective view of one of the supporting sheets forming an element of my improved construction.

The illustrated embodiment of my invention includes in its construction a plurality of supporting sheets A, Figs. 2, 3 and 4. These sheets extend completely around the curb B of the sky-light and are shaped to conform with the outer contour thereof. Each of these sheets is provided with ribs *a* upon its exterior surface and with ribs *a'* upon its interior surface. The ribs *a* are embedded in the concrete forming the curb B and therefore hold same securely in place as will be understood. Adjacent to and resting upon the ribs *a'* of each sheet is a flashing-sheet C. The ribs *a'* are of tapered construction as shown, the greatest depth being at the bottom and thence decreasing to zero at the top at which latter point the flashing sheet is riveted to the supporting

sheet A as shown in Fig. 3, the two sheets being in direct contact at this point. A suitable fastening device such as rivets *c* secure the main body of the flashing-sheet to the supporting sheet while being held apart by the separating ribs *a'* as shown in Fig. 2. The lower edge-portion *c'* of the flashing-sheet is preferably downwardly curved as shown in Fig. 2, and the supporting sheet A preferably extends outwardly beyond such lower-edge portion of the flashing-sheet.

The upright portion or web of each rib *a'* is provided with perforations *a''*, Fig. 4, and the space formed between the two sheets is filled with a stiffening filler such as the asphalt D or other material used as the roof covering, and which may be forced into this space while hot or in a liquid state. The asphalt so introduced in this space passes through the perforations, thus joining those portions of the asphalt mass lying immediately of the ribs, and binding same to each other.

The flashing-sheets C extend upwardly and overlap the top of the curb B as shown in Figs. 2 and 3 and the overlapping portion *c''* is formed upon its inner edge with a bead *c'''* turned outwardly and partially downwardly. A continuous bead is therefore formed completely surrounding the upper end of the light-well E. Secured to the upper portion of the flashing-sheets C are the sheet-metal rolls F having their ends preferably beveled so as to abut each other. Each of these rolls is formed with a longitudinal slot *f* the upper edge portion of which is formed with an inwardly and upwardly turned bead *f'* and the lower-edge-portion is formed with an inwardly and downwardly turned bead *f''*.

Resting upon the beads *c'''*, projecting into the rolls F and of a thickness such as to engage both the upper and lower beads *f'* and *f''* of all of the surrounding rolls F, is a sheet or plate G, preferably of reinforced glass. Three of the rolls F are riveted to the flashing-sheet as shown in Fig. 2 and the remaining roll is removably secured thereto by means of nuts and bolts H.

By means of the above construction it will be seen that each roll F forms an interior chamber F' and the inner portion *f'''* thereof forms the outer wall of a chamber *b''* which is bounded at the rear and bottom by the overlapping portions of the flashing-sheet

and at the top by the plate G. Formed in this front outer wall-portion of the chamber b^2 , that is in the roll F, are the perforations f^4 and in the bottom of the roll are the perforations f^5 as shown in Figs. 1 and 3. The upper edge-portion of the roll is formed with perforations f^6 as shown in Figs. 2 and 3.

In constructing the above described device the supporting and flashing-sheets are first formed and then secured to each other as previously described. Three of the rolls F are then joined together by means of corner reinforcements F^2 , Fig. 1, and then riveted to the flashing-sheets as shown. The plate G is then slid into place through the open end of the structure as thus far built up, whereupon the fourth roll F, after having been provided with the corner reinforcements F^3 , is slid into place and then secured to the flashing-sheets by means of the bolts and nuts H. To facilitate this bolting, the nuts are placed upon the inside of the rolls and outer apertures f^7 are provided opposite these nuts for the insertion of a small socket wrench used for effecting the bolting operation. The parts as thus assembled are then placed in position on the roof, forms then built up and the concrete for forming the curbs poured so as to fill up the space beneath and back of the flashing and supporting sheets, the ribs a thus becoming embedded in the concrete. The asphalt D is then inserted in the space between the sheets as previously described, thus completing the entire structure.

When it is desired to replace the plate G, should the latter become broken, the detachable edge F is removed by loosening the nuts, a socket wrench inserted through the apertures f^7 being used for this purpose, the bolt being stationary as a result of the embedding of the head thereof in the concrete. After this plate has been replaced the said roll is resecured in position.

By means of the above construction water which falls upon the plate passes through the perforations f^6 and into the chamber F' of the rolls F, from which it drains through the perforations f^5 . Should, however, any of this water splash upwardly and tend to pass into the chamber b^2 , such tendency is counteracted by the downwardly extending bead f^2 . Should, however, any of this water obtain entrance in the chamber b^2 its passage into the light-well is prevented by the bead b' and it drains downwardly through the perforations f^4 out of the chamber b^2 into chamber B' and out of the perforations f^3 . To facilitate this drainage the upper surface of the curbs is inclined downwardly and outwardly and the overlapping portion b of the flashing-sheets made to conform therewith. In this manner I secure a sky-light construction which

is water-tight and which may be readily removable for repairs.

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

1. In a sky-light structure, the combination with a flashing-sheet; of a supporting sheet adjacent and secured to said flashing-sheet and provided with ribs extending from its exterior face.

2. In a sky-light structure, the combination with a flashing-sheet; of a supporting sheet secured to the latter and provided with ribs extending from its exterior and interior surfaces.

3. In a sky-light structure, the combination of a flashing-sheet; a supporting sheet adjacent to the latter; means for separating said two sheets; and means for securing said two sheets to each other.

4. In a sky-light structure, the combination of a flashing-sheet; a supporting sheet adjacent to the latter; one of said sheets being provided with spaced flanges separating said two sheets; and means for securing the latter to each other in such separated position.

5. In a sky-light structure, the combination of a flashing-sheet; a supporting sheet adjacent to the latter; one of said sheets being provided with perforated and spaced flanges for separating said two sheets; and means for securing the latter to each other in such separated position.

6. In a sky-light structure, the combination of the curb; a supporting sheet secured to the latter; a flashing-sheet secured to said supporting sheet and separated therefrom; and a stiffening filler between said two sheets.

7. In a sky-light, the combination of the curb; a supporting sheet provided with ribs projecting from one face and embedded in said curb; a flashing-sheet secured to said supporting sheet and separated therefrom; and a stiffening filler between said two sheets.

8. In a sky-light, the combination of the curb; a supporting sheet provided with ribs projecting from one face and embedded in said curb, and with ribs projecting from its other face; a flashing-sheet secured to said supporting sheet and resting against said second-named ribs; and a stiffening filler between said two sheets.

9. In a sky-light, the combination of the curb; a supporting sheet provided with ribs projecting from one face and embedded in said curb, and with perforated ribs projecting from its other face; a flashing-sheet secured to said supporting sheet and resting against said second-named ribs; and a stiffening filler between said two sheets and passing through said perforations.

10. In a sky-light, the combination of the

curb; flashing-sheets secured to the latter, overlapping the top thereof: sheet-metal rolls each having a longitudinal slot and secured to said flashing sheet so as to surround the curb; and a plate having its edge-
5 portions projecting into said rolls through said slots.

11. In a sky-light, the combination of the curb: flashing-sheets secured to the latter
10 overlapping the top thereof, such overlapping portion formed with an outwardly turned bead: a plate resting upon said bead: and means for securing said plate in such
position.

12. In a sky-light, the combination of the curb: flashing-sheets secured to the latter
15 overlapping the top thereof, such overlapping portion formed with an outwardly turned bead: a plate resting upon said bead: and means secured to said flashing-sheets
20 for securing said plate in such position.

13. In a sky-light, the combination of the curb: flashing-sheets secured to the latter
25 overlapping the top thereof: a plate resting on such overlapping portion of said sheets: and means for securing said plate in place.

14. In a sky-light, the combination of the curb: flashing-sheets secured to the latter: sheet-metal rolls each having a longitudinal
30 slot upon the inner side thereof whose upper edge-portion is formed with an inwardly and upwardly turned bead and whose lower edge-portion is formed with an inwardly and downwardly turned bead: said
35 rolls being secured to said flashing-sheets: and a plate whose edge-portions project through said slots and engage said beads.

15. In a sky-light, the combination of the curb: flashing-sheets secured to the latter.
40 and overlapping the top of the curb and formed with an outwardly turned bead on such overlapping portion: sheet-metal rolls secured to said sheets, each having a longitudinal slot upon the inner side thereof
45 whose upper edge-portion is formed with an inwardly and upwardly turned bead and whose lower edge-portion is formed with an inwardly and downwardly turned bead; and

a plate having its edge-portions projecting through said slots, engaging the beads of
50 said rolls and in contact with the upper edge of said flashing-sheet beads.

16. In a sky-light, the combination of the curb: flashing-sheets secured to the latter, and overlapping the top of the curb and
55 formed with an outwardly turned bead on such overlapping portion: sheet-metal rolls secured to said sheets, each having a longitudinal slot upon the inner side thereof whose upper edge-portion is formed with
60 an inwardly and upwardly turned bead and whose lower edge-portion is formed with an inwardly and downwardly turned bead: and a plate having its edge-portions projecting through said slots, engaging the
65 beads of said rolls and in contact with the upper edge of said flashing-sheet beads: said lower roll-bead and bottom of the roll being formed with perforations for the exit
70 of water.

17. In a sky-light, the combination of the curb: flashing-sheets secured to the latter and overlapping the top thereof: the inner edge-portion of the overlapping portion of
75 said sheets being formed with an upwardly and outwardly turned bead: a plate resting upon the latter and forming chambers between it and the subjacent sheets: and rolls forming inclosed chambers, forming the
80 outer walls of said first-named chambers and secured to said sheets: said rolls each formed with a longitudinal slot having its edge-portions respectively formed with inwardly-turned beads: said plate projecting through
85 said slots and engaging said roll-beads: the wall-forming portions of said rolls and the bottom portion of the latter being formed with perforations for the exit of water from said chambers.

Signed by me, this 18 day of February 1913.

JAMES B. KING.

Attested by—

THEO. ROSEN,
HOMER METZGAR.