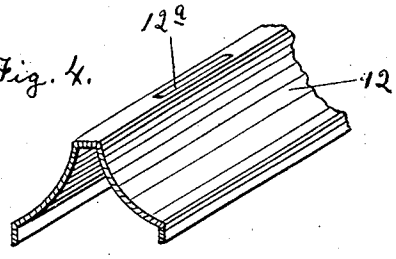
No. 881,964. PATENTED MAR. 17, 1908.

C. M. SERVATIUS.

SKYLIGHT FRAME BAR AND FRAME CONSTRUCTION.

APPLICATION FILED OCT. 7, 1907.

Fig. 4.



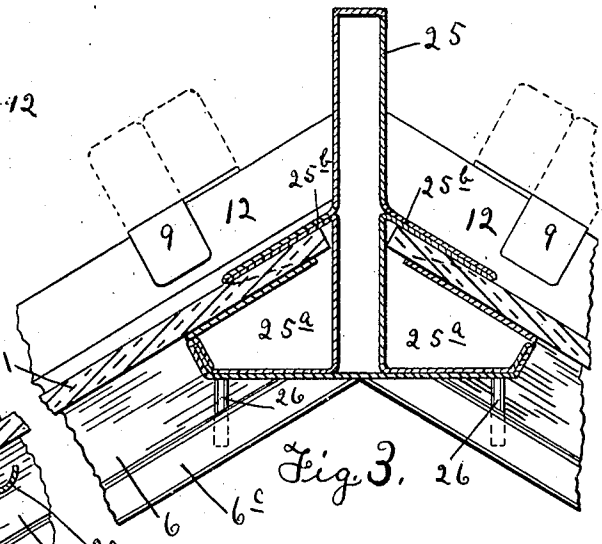


Fig. 3.

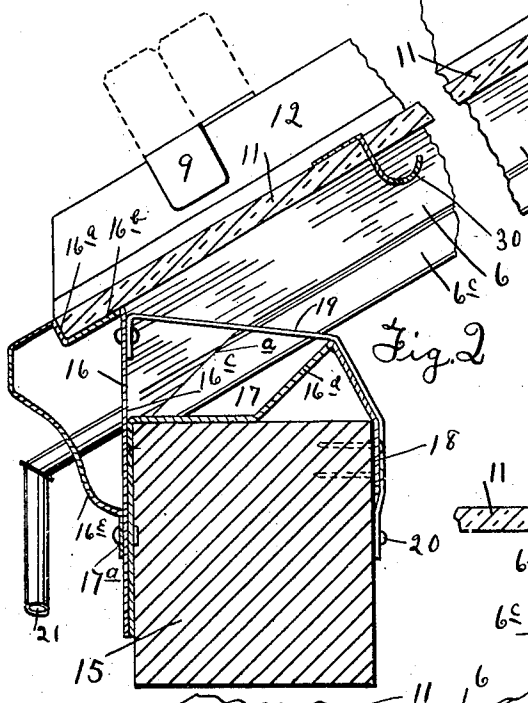


Fig. 2.

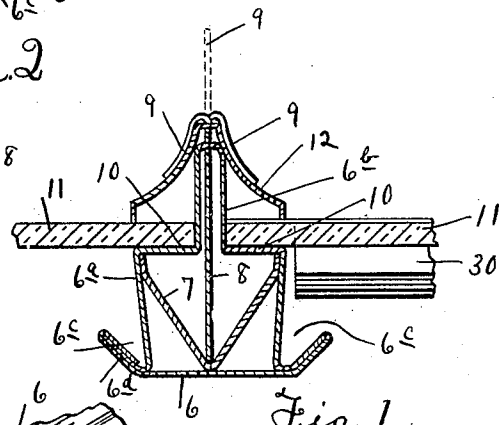


Fig. 1.

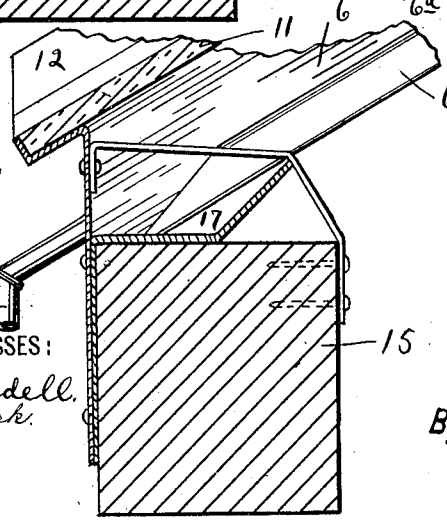


Fig. 5.

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UNITED STATES PATENT OFFICE.

CHARLES M. SERVATIUS, OF UTICA, NEW YORK, ASSIGNOR OF ONE-HALF TO GEORGE M. BALL, OF UTICA, NEW YORK.

SKYLIGHT FRAME-BAR AND FRAME CONSTRUCTION.

No. 881,964. Specification of Letters Patent. Patented March 17, 1908.

Application filed October 7, 1907. Serial No. 396,188.

To all whom it may concern:

Be it known that I, CHARLES M. SERVATIUS, of Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Skylight-Frame Bars and Frame Construction; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

The object of my invention is to provide an improved form of frame bar for skylights having features of strength and adaptability and including gutters, and an improved skylight frame construction in which said bar with its appurtenances is employed.

Figure 1 shows a cross section of a frame bar of my improved construction in connection with portions of the glass and other appurtenances. Fig. 2 shows a detail of the frame construction at the lower edge or eaves. Fig. 3 shows a detail of the frame at the upper end or peak. Fig. 4 shows a perspective detail of a section of the cap strip employed in the construction. Fig. 5 shows a modified form of construction from that shown in Fig. 2.

Referring to the reference letters and figures in a more particular description 6 indicates the frame bar formed from sheet metal to provide the rectangular body portion 6^a, the hollow upright fin portion 6^b and the two gutters 6^c. The edges of the sheet may be conveniently secured by folding together at one of the gutters as indicated at 6^d. Within the rectangular body portion 6^a a stay strip 7 is provided of V-shaped form in cross section with the point in the center of the bottom and the edges engaging in the upper corners of the rectangular portion. A central stay strip 8 is also provided extending from the bottom of the point of the strip 7 through to the top of the fin portion 6^b. At intervals the central supporting strip 8 will be provided with projections 9 extending through holes in the upper edge of the fin part 6^b. The top of the rectangular portion of the bar affords shoulders 10 at either side of the fin on which the glass 11 is adapted to rest. For securing the glass on the shoulder there is provided a cap strip 12 of a general inverted V-shaped form. The cap strip is provided at intervals with suitable openings as 12^a for receiving the projections 9 before referred to. These projections will preferably be slitted longitudinally and folded over to secure the cap down firmly pressing on the glass. The outer bearing edges of the cap strip will preferably take a position substantially opposite the outer edge of the shoulder 10. Any leakage around the edge of the glass resting on the shoulder 10 will obviously find its way into the gutter 6^c.

The frame bars described are advantageously employed as rafters in a roof construction as follows: On a beam or plate 15, which may be a portion of a building, is mounted a cap bar 16 formed of sheet metal and having particularly the shoulder 16^a against which the lower end of the last course of lights of glass are adapted to abut and be retained from sliding downwardly, a shoulder 16^b on which the extreme lower edge of the light rests, an upright wall portion 16^c affording a support for the parts before mentioned, and one wall of the gutter 17, the inner wall of which is formed by the inverted V-shaped fold 16^d. Strength and a cornice-like effect is provided by the part 16^e and the whole construction may be secured to the plate or beam 15 at 17^a and 18. The frame bars 6 at their lower end are cut and formed to engage the shoulders 16^a, 16^b and wall 16^c and the lower end of the frame bar gutter may be cut away, as indicated at *a*, to allow the escape of water from the gutter 6^c into the gutter 17 freely.

In order to furnish additional strength against the strain of the downwardly and outwardly thrust weight of the skylight, straps or stays 19 may be provided at intervals between the bars 6 secured to the wall 17 at their upper ends and carried inwardly and down and secured at 20 to the plate or beam 15. In order to drain the gutter 17 there may be provided at suitable points conductor pipes 21.

At the peak of the skylight there will be provided a ridge pole 25 formed of folded sheet metal in the form as shown in Fig. 3 and having the gutter portions 25^a and the inclined web portions 25^b under which the upper edge of the uppermost light is passed, as shown in Fig. 3 whereby the construction is effectually closed against rain from the outer side. The upper ends of the frame bars 6

are cut and fitted to the ridge pole or bar 25 and are preferably secured thereto by soldering. At suitable points drainage passages 26 are provided from the gutters 25^a into the gutters 6^c. Between each light of glass in the same course there is preferably introduced a thin folded sheet of metal formed particularly to provide a cross gutter 30, which gutter is somewhat shorter than the distance between the adjacent sides of adjacent frame bars 6. By this arrangement any condensation on the inner face of the glass of the skylight, or any leakage between the lights will be caught in these transverse gutters and delivered into the longitudinal gutters 6^c and thence duly cared for.

In the modified form of construction shown in Fig. 5 the ornamental and strengthening outer wall 16^b of the construction shown in Fig. 2 is omitted and a portion of the inverted V-shaped folded edge, that is, the inner wall of the gutter 17, is omitted. This cheapens and simplifies the construction somewhat but it is obvious that its mechanical operation is the same.

Other changes and modifications in and from the construction herein shown and described may be made without departing from the spirit of my invention.

What I claim as new and desire to secure by Letters Patent is:

1. A skylight frame bar having the rectangular body, the upright hollow fin and gutters formed from folded sheet metal and having the V-shaped stay strip in the body and the middle stay strip in the body and fin, substantially as set forth.

2. A skylight frame bar having the rectangular body, the upright hollow fin and gutters formed from folded sheet metal and having the V-shaped stay strip in the body portion, substantially as set forth.

In witness whereof, I have affixed my signature, in presence of two witnesses, this 2nd day of October 1907.

CHARLES M. SERVATIUS.

Witnesses:
GEO. E. RENDELL,
GEO. M. BALL.