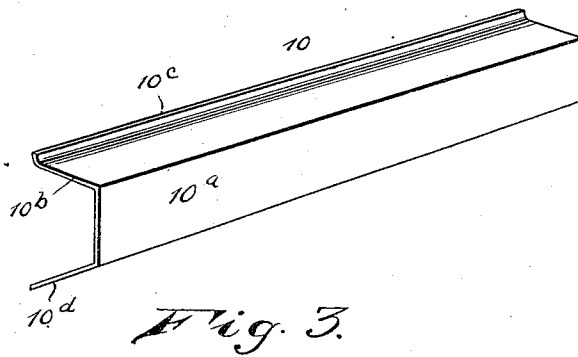
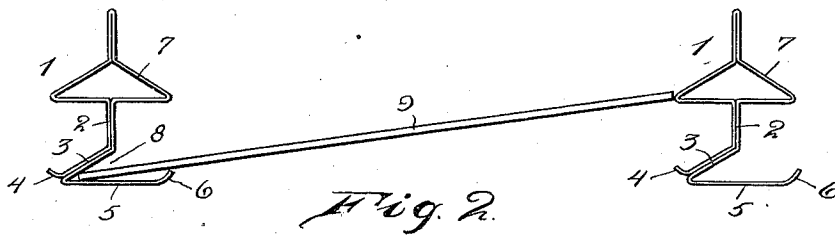
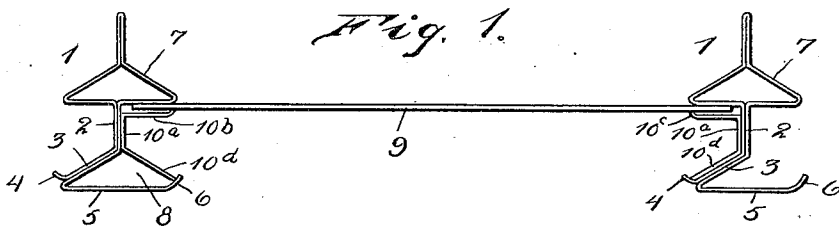


H. U. ROGNESS.
SKYLIGHT.
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1,043,870.

Patented Nov. 12, 1912.



Inventor

Witnesses

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UNITED STATES PATENT OFFICE.

HELGE U. ROGNESS, OF SIOUX FALLS, SOUTH DAKOTA.

SKYLIGHT.

1,043,870.

Specification of Letters Patent.

Patented Nov. 12, 1912.

Application filed December 15, 1911. Serial No. 665,880.

To all whom it may concern:

Be it known that I, HELGE U. ROGNESS, a citizen of the United States, residing at Sioux Falls, in the county of Minnehaha and State of South Dakota, have invented certain new and useful Improvements in Skylights, of which the following is a specification.

My invention relates to skylights and especially to the transparent roofs of green houses, and has for its object the provision of a supporting structure for the transparent plates by which the plates may be removed and replaced from the inside of the green house, thus making it possible to replace broken plates without trouble or danger of breaking other plates during the operation.

My invention consists in a specially constructed bar and specially constructed plate-holding cleats, shaped to fit the bar, and will be described in detail hereinafter and illustrated in the accompanying drawings in which—

Figure 1 is a cross section of a fragment of a skylight showing my improved construction of bar and the plate holding cleats in position, Fig. 2, a similar view showing the operation of inserting the glass plate in position, and Fig. 3, sectional details of the plate holding cleats.

In the drawings similar reference characters will be used to designate corresponding parts in the several views.

My improved bar shown at 1 may be, as illustrated, formed of sheet metal, or may be rolled and shaped from metal bars, as desired, the construction of the under portion of the bar being the only essential feature thereof. The under portion of the bar consists of a vertical web 2, an inclined web 3, an upwardly inclined flange 4, on one side of inclined web 3, a horizontal portion 5, on the other side of inclined web 3, and under it, and an upwardly and outwardly inclined flange 6 on the outer edge of horizontal portion 5. The cap 7 shown on the bars in the drawings may be changed as desired to suit the style of roof to be constructed and I do not, therefore, limit myself to the style of cap shown in the drawings. As will be clear from the drawings and above description, this construction of bar provides a recess 8 between the inclined web 3 and horizontal portion 5, which, as shown in Fig. 2 of the drawings, may be utilized to receive one edge

of the transparent plate 9 when inserting it in position, so that a broader cap than could otherwise be used may be utilized.

The cleats for holding the glass plates in position are formed to closely fit the two sides of the bar 1 and are shown at 10. Said cleats 10 are each channel-shaped in cross-section and have a vertical web portion 10^a, a horizontal flange 10^b, that engages the glass plate 9, and having its free edge bent upwardly as shown at 10^c to hold the plate 9 with a certain amount of resilience to prevent it from cracking under the stress of changes of temperature. The lower flange of cleat 10 is inclined downwardly so that it will fit the inclined web 3 of the bar, and be interchangeable, said flange being designated 10^d.

In erecting my skylights it will be apparent that the cleats 10 alone will be sufficient to hold the glass plates 9 in position on the bars 1, but should it be desired to use putty or cement to form a weather-tight joint it may be inserted in the channels of the cleats. The bars 1 also form gutters to carry away any surface water that may get in between the glass plates 9 and the bars.

Having thus described my invention what I claim is—

1. In a skylight, bars each having a cap, a vertical web, an inclined web, an upturned flange on one side of the inclined web, a horizontal portion on the other side of said inclined web, and an upturned flange on the free edge of the horizontal portion, a roofing plate mounted between said bars and engaging their caps, and channeled cleats having flanges engaging said roofing plate and the inclined web of the bars and held in position by the upturned flanges on the lower edges of the bars.

2. In a skylight, bars each having a vertical web, an inclined web, an upturned flange on one side of the inclined web, a horizontal portion on the other side of said inclined web, and an upturned flange on the free edge of the horizontal portion.

3. In a skylight, bars each having a cap, a vertical web, an inclined web, an upturned flange on one side of the inclined web, a horizontal portion on the other side of said inclined web, and an upturned flange on the free edge of the horizontal portion, a transparent plate mounted between the bars and engaging their caps, and channeled cleats

each having a vertical web to engage the vertical web on the bar, horizontal flanges engaging the transparent plate, and an inclined flange adapted to engage the inclined web of the bar, the lower edges of the cleats being held in position by engaging the upturned flanges on the lower edges of the bar.

In testimony whereof I hereto affix my signature in the presence of two witnesses.

HELGE U. ROGNESS.

Witnesses:

GEO. BARNETT,

H. JENB.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."