E. R. LEONARD.

SKYLIGHT.

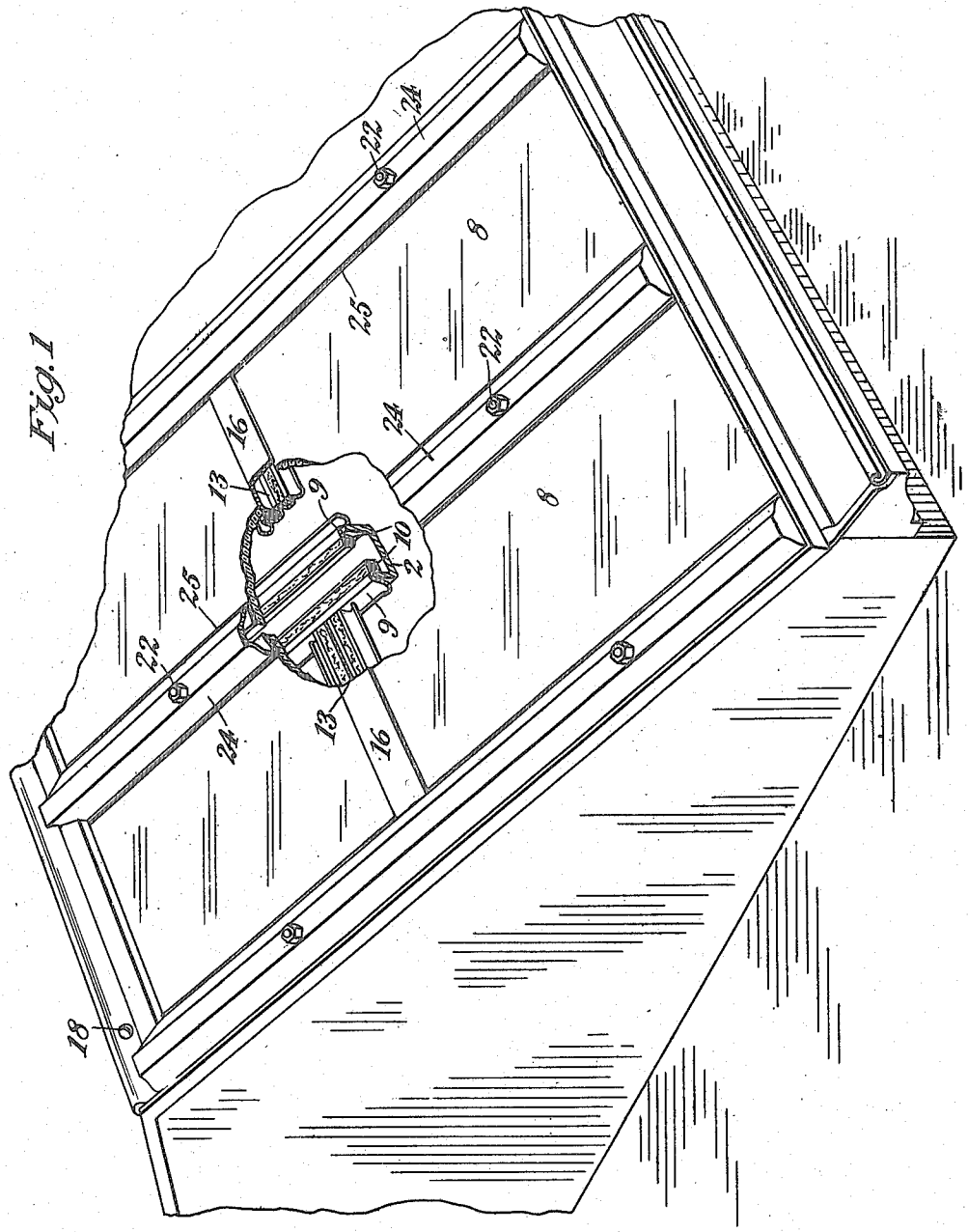
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1,133,384.

Patented Mar. 30, 1915.

2 SHEETS—SHEET 1.

Fig. 1



Witnesses:
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Agnes Gerhauser.

Inventor:
Elof R. Leonard.
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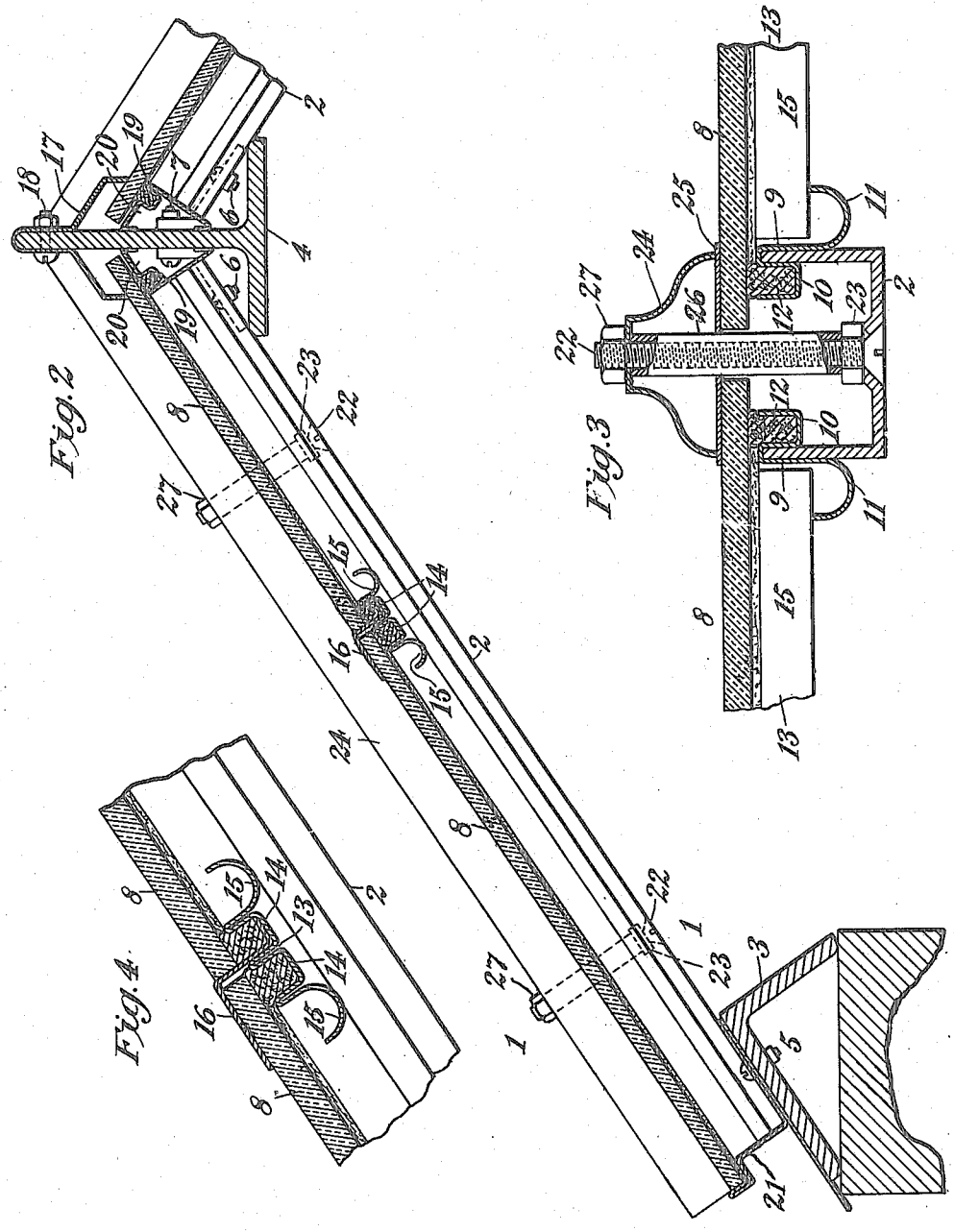


Fig. 2

Fig. 3

Fig. 4

Witnesses:
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UNITED STATES PATENT OFFICE.

ELOF R. LEONARD, OF WOODCLIFF, NEW JERSEY.

SKYLIGHT.

1,133,384. Specification of Letters Patent. Patented Mar. 30, 1915.

Application filed January 13, 1915. Serial No. 2,792.

To all whom it may concern:

Be it known that I, ELOF R. LEONARD, a citizen of the United States, residing at Woodcliff, county of Bergen, and State of New Jersey, have invented certain new and useful Improvements in Skylights, of which the following is a specification.

My invention relates particularly to the frame work for holding the sheets of glass commonly used in skylights; and the improvements are directed to means whereby the glass shall be securely held, upon a more or less yielding bed, and in such a way as to avoid the danger of fracturing or breaking it at the points where it is held; while, at the same time, tight and weather-proof joints between the glass and the frame work are provided, and suitable means are arranged for carrying off moisture condensing under the skylight.

In the drawings Figure 1 is a perspective view of a section of my improved skylight, partially broken away to show the details of construction; Fig. 2 is a vertical section through one side and the top of my improved skylight, the line of section corresponding with the right hand line of Fig. 3, the view being taken looking to the left; Fig. 3 is an enlarged sectional view taken on the line 1, 1 of Fig. 2 looking to the right; and Fig. 4 is an enlarged detail of part of Fig. 2.

Corresponding parts are to be denoted by similar reference numerals in all the figures.

Bars or rafters 2 extend in the usual manner from a crown plate 3 to a ridge-bar 4, and are secured thereto by bolts or other suitable fastenings, as 5, 6, 7. These rafters 2 consist of channel beams and they support and carry the glass 8, 8. Over the side edges of the rafter I place carriers 9, 9, which are formed preferably of copper, and are formed at their inner ends into pockets or sockets 10, 10, while their outer ends form gutters 11, 11, to carry off condensed moisture. In the pockets 10, I place a packing 12 of felt or similar elestic or fibrous material, which projects somewhat above the pocket, and which forms a bed to receive the glass 8. Transversely between the rafters 2 I place cross bars 13, which are also preferably formed of copper, and which embody two sockets 14, 14, with adjacent gutters 15, 15, extending over and adapted to drain into the gutters 11. In the upper socket 14 I place a cap-strip 16, preferably of lead, which is bent at an angle to lie in the bottom of the socket 14, and then extended up sufficiently to bring it above the top of the glass over the lower pane of which its upper edge is bent down as shown in the figures, the upper pane naturally pressing down snugly against the cap-string, the overlap of which covers the upper edge of the lower pane.

In the sockets 14 I place a packing of felt or other elastic or fibrous material disposed like the packing in sockets 10, so as to form a bed for the portion of the glass coming above the sockets 14, 14. The packing in the upper socket 14 serves also to hold down the cap strip 16 and to yieldably press it against the glass which it overlaps, with the result that the contact between this lead cap strip and the glass is not a hard and positive contact but is more or less elastic; and this diminishes the danger of breaking the glass by too rigidly gripping its end.

The upper end of the glass at the ridge is held beneath a sheet metal ridge cap 17, preferably of copper, secured to the ridge pole 4, as by bolts 18, its edges overlapping the glass and pressing yieldably against it, the glass being supported, as at other points, by felt or elastice packing, carried in a socket 19 in a sheet metal member 20 carried between the ends of the rafters and the ridge pole. A similar socket may be placed at the lower edge of the glass, if desired, or it may be carried upon a metal extension strip, as 21, there being little danger of breaking the glass as it is not necessary to place a cap or clamping plate over this portion of it.

In the rafters 2 are secured bolts 22, locked in position by nuts 23, and extending up through the cap 24, which is preferably of copper, and which rests upon a soft lead packing sheet 25 lying upon the glass 8. The bolts 22 are provided with sleeves 26, extending from the lock nuts 23 up to the proper height for the cap 24, so that when the cap is put in place and the nuts 27 are screwed down, the cap will be brought evenly against the lead packing 25, but will be saved from any undue or abnormal pressure which might be caused by the screwing down of the nuts to an improper extent, resulting in distorting the cap or breaking the glass.

By means of my improvements I obtain a skylight in which the glass is yieldably, or elastically held, without danger of breakage from rigid gripping, and in which the joints

are, without the use of putty or other plastics, made close and weather tight; while the parts may be readily separated and reassembled to permit of replacing broken glass, or of making other repairs, and simple and efficient provision is made for carrying off moisture condensing against the under side of the skylight.

Having thus described my invention, what I claim and desire to secure by Letters Patent of the United States, is:

The combination in a skylight, of rafters, drainage elements and socket elements carried thereby, a transverse bar intermediate the rafters embodying duplicated packing sockets each with an exteriorly adjacent drainage gutter, a joint-strip cap detachably secured in the upper transverse socket and overlapping the lower transverse socket, an elastic packing filling and extending above the tops of the sockets, and glass supported thereby.

ELOF R. LEONARD.

Witnesses:
HOWARD M. ROWE,
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