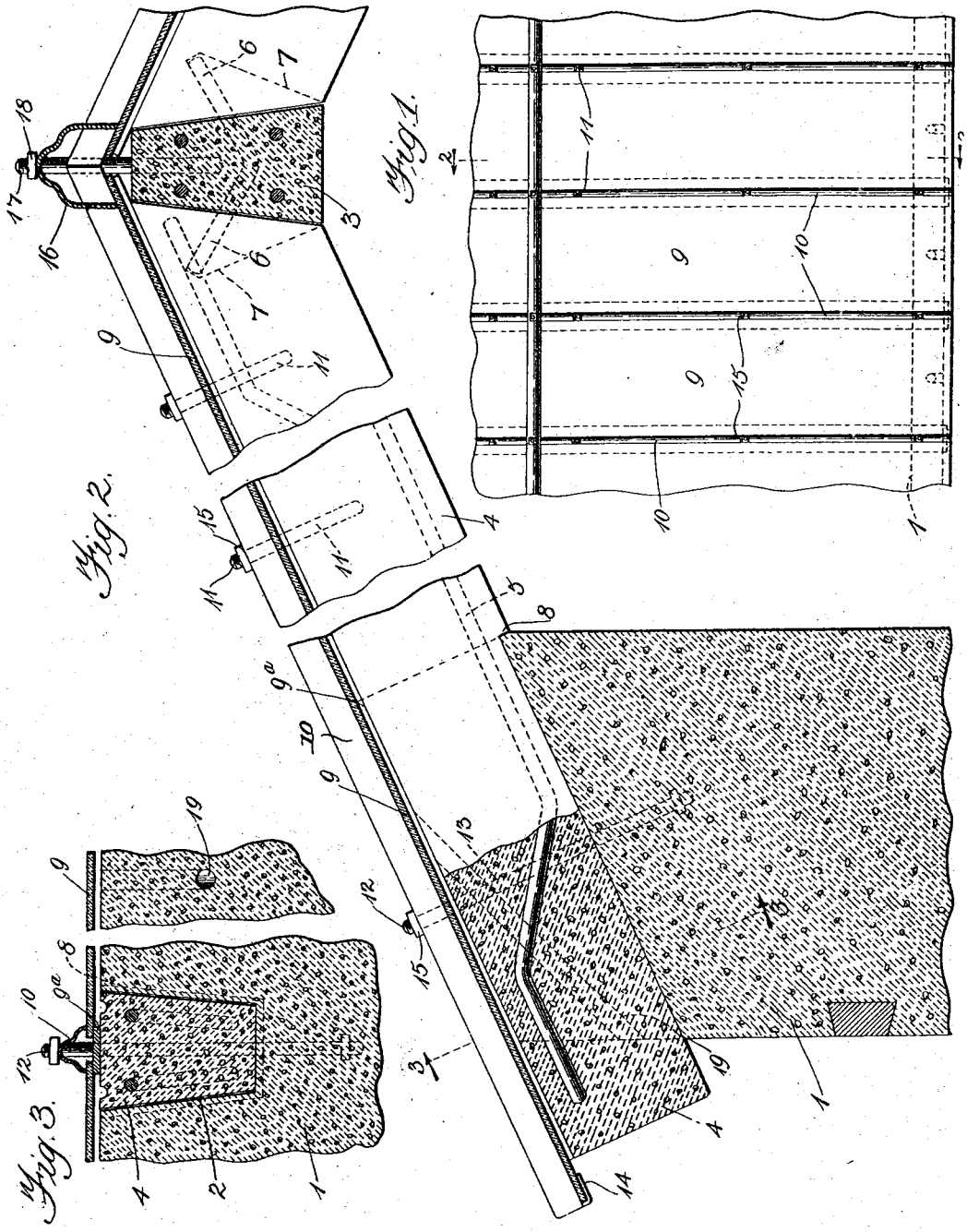
O. KITZELMAN.

SKYLIGHT AND SIMILAR STRUCTURE.

APPLICATION FILED AUG. 9, 1909.

1,066,628. Patented July 8, 1913.



Witnesses:
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UNITED STATES PATENT OFFICE.

OTTO KITZELMAN, OF CHICAGO, ILLINOIS.

SKYLIGHT AND SIMILAR STRUCTURE.

1,066,623. Specification of Letters Patent. Patented July 8, 1913.

Application filed August 9, 1909. Serial No. 511,865.

To all whom it may concern:

Be it known that I, OTTO KITZELMAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Skylights and Similar Structures, of which the following is a specification.

The object of this invention is to produce a strong, simple skylight or similar structure, the framework of which consists of concrete.

In the accompanying drawings, Figure 1 is a fragmental top plan view of a skylight embodying the features of my invention. Fig. 2 is a transverse section on line 2 2 of Fig. 1. Fig. 3 is a section on line 3 3 of Fig. 2.

In the embodiment selected for illustration, the vertical side walls or curbs 1 are of concrete, the upper edges of said curbs being inclined to correspond with the slope of the roof, and having recesses 2 therein at suitable distances apart to receive the rafters entering into the construction of said roof. The ridge beam 3 is herein shown as of concrete. Extending from the ridge beam 3 to the curbs 1 are rafters 4 of reinforced concrete. In this instance, the rafter 4 is reinforced by two bars embedded therein and unconnected with each other. The ends of the bars lie a suitable distance below the upper surface of the rafter and near such upper surface, while the major portion of the bar 5 is bent downwardly to extend to the underside of the beam.

In the form shown, the rafters 4 are supported by the ridge beam 3 through the medium of metal posts or bars 6 embedded in the ridge beam, and projecting from the sides thereof. The rafters 4 have openings 7 formed therein to receive the bars 6. The outer or lower ends of the rafters 4 lie within the recesses 2, the upper surface of the rafters being preferably substantially flush with the upper edge of the curb. The rafters 4 may have shoulders 8 thereon, as herein shown, to lie in contact with the inner surface of the curb 1 and thereby resist the tendency of said rafters to longitudinal downward displacement.

9 are sheets or plates of glass or other suitable material extending from the ridge beam 3 to the curb 1 and from one of the rafters 4 to an adjacent rafter. Interposed between the rafters 4 and plates 9 are strips 9ª of felt or other suitable material, which strips underlie the adjacent edges of the adjacent plates. The plates 9 are secured in place by means of caps 10 overlying the adjacent edges of the adjacent plates and extending from the ridge beam 3 to the outer ends of the plates. The cap 10 is held in close contact with the plates 9 so as to clamp said plates in place by means of bolts 11 which are fixed in the rafter 4 and by means of a bolt 12 which extends through an opening 13 in the rafter and is anchored in the curb 1, the bolts 11 and 12 extending through said cap. If desired, a hook 14 may be formed upon the outer ends of each cap 10 to receive the outer edges of the plates 9, and thereby assist in securing said plates in place. On the upper ends of the bolts 11 and 12 are nuts 15. The upper edges of the plates 9 are covered by a cap 16 extending longitudinally of the ridge beam and overlying the upper edges of the plates and the upper ends of the caps 10. The cap 16 is secured in place by means of bolts 17 fixed in the ridge beam and extending through said cap, nuts 18 being turned upon the upper ends of said bolts. Drain openings 19 may be formed in the curb 1 at suitable intervals.

I would have it understood that I desire not to be limited to the precise details of construction herein shown and described, for various modifications will occur to persons skilled in the art.

I claim as my invention:

1. In a concrete building structure, the combination of a curb; an upwardly tapered reinforced concrete ridge beam; reinforced concrete rafters sloping downwardly from said ridge beam, the upper ends of each of said rafters being beveled to abut against and be supported by the tapered sides of said ridge beam, said upper ends of the rafters having openings therein; a series of bars embedded in said ridge beam, the ends of said bars extending upwardly and outwardly from the sides of said beam and entering the openings in the upper ends of said rafters for supporting said rafters against longitudinal movement, said curb having a series of notches therein in which the lower portions of said rafters lie, with the upper face of said rafters substantially flush with the upper face of the curb; and shoulders on the bottom and two sides of said rafters abutting against the inner side

of the curb at the edges of said notches for further preventing downward sliding movement of said rafters.

2. In a concrete building structure, the combination of a curb; an upwardly tapered reinforced concrete ridge beam; reinforced concrete rafters sloping downwardly from said ridge beam, the upper ends of said rafters being beveled to abut against and supported by the tapered sides of said ridge beam, said upper ends of said rafters having openings therein; a series of bars embedded in said ridge beam and extending upwardly and outwardly from the sides thereof and entering said openings in the rafters, for supporting said rafters against longitudinal movement, said curb having a series of notches therein in which the lower portions of said rafters lie; shoulders on the bottom and two sides of said rafters abutting against the inner side of said curb at the edges of said notches for further preventing downward sliding movement of said rafters; and bolts embedded in said curb and projecting upwardly into said rafters, said bolts and said shoulders being substantially parallel to facilitate mounting of the rafters on said curb and said ridge beam.

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