L. PARTZSCHEFELD, JR.
PUTTYLESS STEEL SKYLIGHT.
APPLICATION FILED DEC. 13, 1918.

1,379,359. Patented May 24, 1921.

Fig. 3.

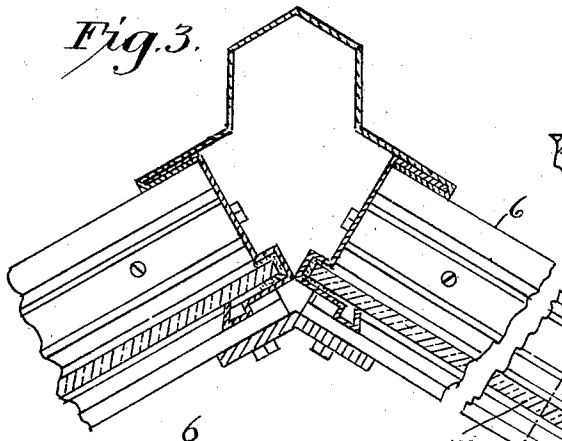
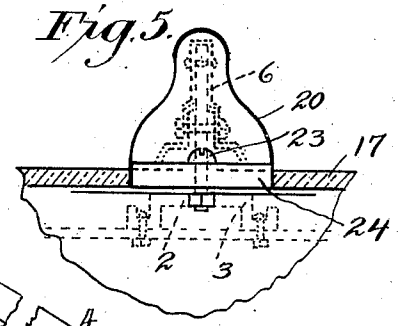


Fig. 5.



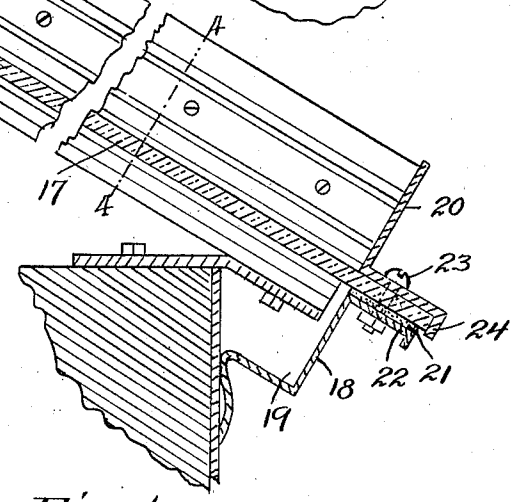


Fig. 4.

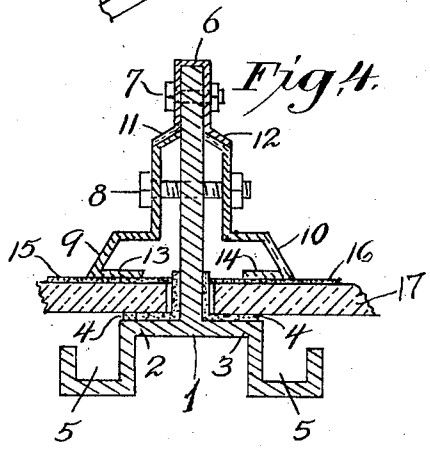


Fig. 1.

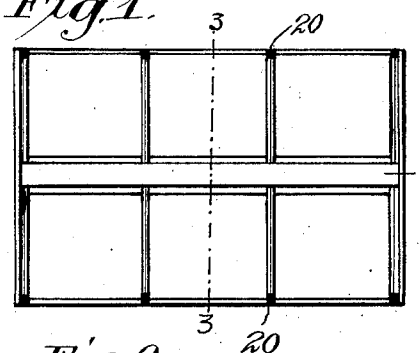


Fig. 6.

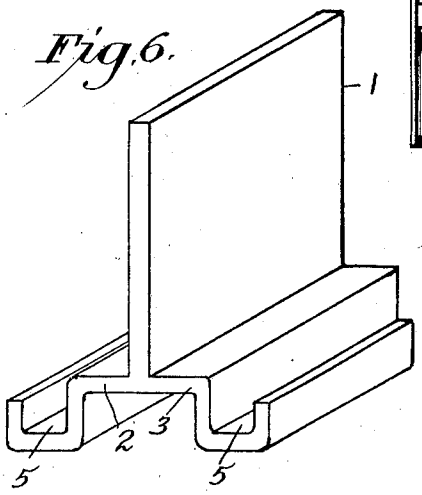
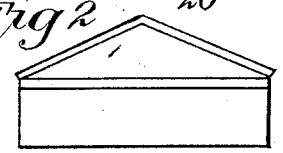


Fig. 2.



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UNITED STATES PATENT OFFICE.

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PUTTYLESS STEEL SKYLIGHT.

1,379,359. Specification of Letters Patent. Patented May 24, 1921.

Application filed December 13, 1918. Serial No. 266,623.

To all whom it may concern:

Be it known that I, LOUIS PARTZSCHEFELD, Jr., a citizen of the United States, residing at New York city, county and State of New York, have invented new and useful Improvements in Puttyless Steel Skylights, of which the following is a full, clear, and exact specification.

My invention relates to puttyless skylights such as are used on the roofs of buildings for example and an object thereof is to provide a skylight which will not only be water-proof at all times but of maximum strength as well and one requiring but the minimum material and time for production.

A further object of my invention is the provision of a skylight which will be of sufficient strength to support workmen on the bars thereof when the skylight is being erected or repaired, the danger of breaking of the glass of the skylight or straining any parts thereof either in erection or in making repairs, being practically eliminated.

In the accompanying drawings illustrating an embodiment of my invention,—

Figure 1 shows my improved skylight in plan;

Fig. 2 is an end view of the same;

Fig. 3 is a section taken on the line 3—3 of Fig. 1;

Fig. 4 is a view taken on the line 4—4 of Fig. 3;

Fig. 5 is an elevation of the ends of the eaves showing a stop employed in the present structure; and

Fig. 6 is a perspective of the glass-supporting bar employed.

Referring to the drawings in detail, 1 designates a glass-supporting bar preferably of rolled steel, this bar being provided with lateral and oppositely-extending base portions 2 and 3 for receiving glass-supporting cushions 4 of asbestos for example. The bar is also provided with condensation gutters 5 at the outer edges of the base portions 2 and 3 already referred to.

The top of the bar 1 is provided with a sheet-metal ridge 6 secured thereto at suitable intervals by bolts 7. Secured to but spaced from the sides of the bar 1 by bolts 8 are caps 9 and 10 each of which is provided with offset or lateral extensions adapted to be overlapped by outwardly-extending portions 11 and 12 respectively, of the metal ridge 6 as will be hereinafter pointed out.

The lower edges of the caps 9 and 10 are in the present instance turned inwardly substantially at right angles to the face of the member 1 when the parts are assembled as indicated at 13 and 14, these portions 13 and 14 resting upon non-absorbent asbestos cushions 15 and 16 placed between the portions 13 and 14 of the caps 9 and 10 and the glass 17 of the skylight. It will be seen, therefore, that when the parts are assembled as shown in Fig. 4 for example the glass 17 is in effect yieldingly retained in position in the skylight confined between the base portions 2 and 3 of the bar 1 and the asbestos cushions 4 on the one hand and the cushions 15 and 16 and the portions 13 and 14 on the caps 9 and 10 on the other.

The purpose of the construction thus far described is to take up the compression stresses in the skylight, the upward thrust of the metal caps 9 and 10 when the bolts 8 are set up being taken up by the lower outwardly-extending portions 11 and 12 of the cap 6. It will be understood that when the parts are assembled and the bolts 8 are set up the caps 9 and 10 are free to yield centrally to cause the upper edges of the caps underlying the lower edges 11 and 12 of the cap 6 to become properly seated, the lower and inwardly-extending portions 13 and 14 of the caps 9 and 10 resting firmly and securely on the cushions 15 and 16 to securely bind the glass 17 and insuring a firm and watertight connection at this point between the caps and the glass of the skylight.

The eaves of the skylight are also novel in construction as will be seen from Fig. 3, being provided with an adjustable apron 18 which provides a gutter 19 and clip 20, the latter being attached to the end of the bar 1 in any suitable manner. The apron 18 is provided with an asbestos cushion 21 drawn up to the under side of the glass of the skylight, the glass at this point being securely held or clamped in place between the clip 20 and the offset portion 22 of the apron 18 by adjustable bolts 23, the clip 20 being provided with a downwardly-extending portion 24 overlapping or overlying the end of the glass and functioning as a stop therefor.

By the construction described ample support is provided for the glass as well as a uniform one so that in assembling the skylight there is no danger of breaking the glass thereof and this construction also insures a thorough waterproof condition at all times.

From the foregoing it will be seen that in the construction of my improved skylight the glass is securely held in position at all times and the ends of the glass-supporting bars are closed in and the eaves of the skylight are water-proof by means of the adjustable apron 18 and the clip 20 so that a weather-proof condition of the skylight is assured at all times. It will be apparent furthermore that by providing the metal ridge 6 and the caps 9 and 10 breakage of the glass due to contraction and expansion thereof will be eliminated inasmuch as by reason of the particular manner in which the glass of my improved skylight is held in place the same may contract and expand without breaking the glass and in repairing the skylight planks or other supports may be placed across the bars 1 and the skylight repaired without breaking the glass of the skylight or subjecting the same to undue strain.

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

1. The combination with a glass supporting bar for skylights having an upwardly extending rib and oppositely extending base portions, of cushions on said base portions, glass seated on said cushions, upper cushions above the glass, and caps covering the opposite sides of the rib and having outwardly extending portions, downwardly inclined portions at the outer edges of said outwardly extending portions and spaced away from the rib, and inwardly extending portions at the lower edges of said inclined portions to engage said upper cushions.

2. The combination with a glass supporting bar for skylights having an upwardly extending rib and oppositely extending base portions, of glass supported on said base portions, caps secured to the opposite sides of the rib and having outwardly and downwardly inclined portions at their upper edges, the lower edge portions of said caps serving to hold the glass down on the base portions of the bar, and a separate ridge member secured over the upper edge of the rib and having inclined marginal portions fitting and overlapping the inclined upper edges of the caps to prevent their upward movement.

3. In a skylight the combination of a glass-supporting bar, caps secured thereto and adapted to yieldingly clamp the glass of the skylight to the bar, a portion of the bar extending beyond the tops of said caps, and a ridge-member secured to this portion of the bar and coöperating with said caps.

4. In a skylight the combination of a glass-supporting bar, caps secured thereto and spaced therefrom to yieldingly secure the glass of the skylight to said bar, a clip secured to said bar and providing a glass-stop, and an adjustable apron coöperating with said clip and engaging the glass on the side opposite the clip.

5. In a skylight the combination of a glass-supporting bar, a clip secured thereto and providing a stop for the glass of the skylight, and an adjustable apron secured to said clip and coöperating therewith to weatherproof the eaves of the skylight.

In testimony whereof I have signed my name to this specification.

LOUIS PARTZSCHEFELD, JR.