Sept. 23, 1924. 1,509,757

S. HEYMAN

SKYLIGHT

Filed April 25, 1923 2 Sheets-Sheet 1

Fig. 1,

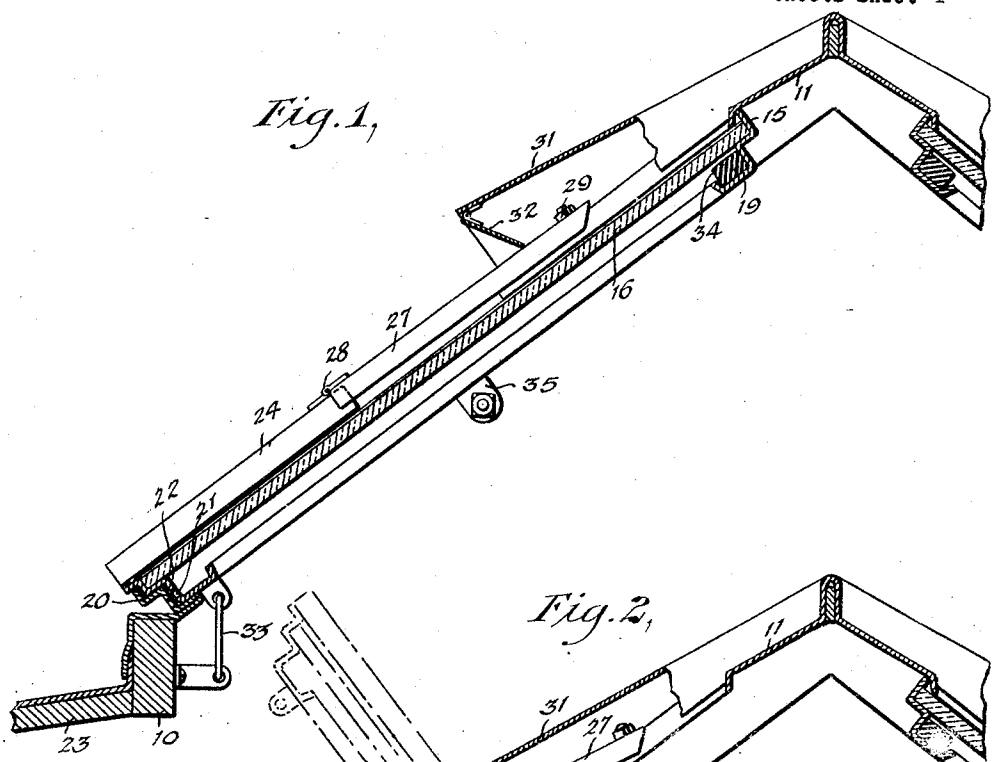
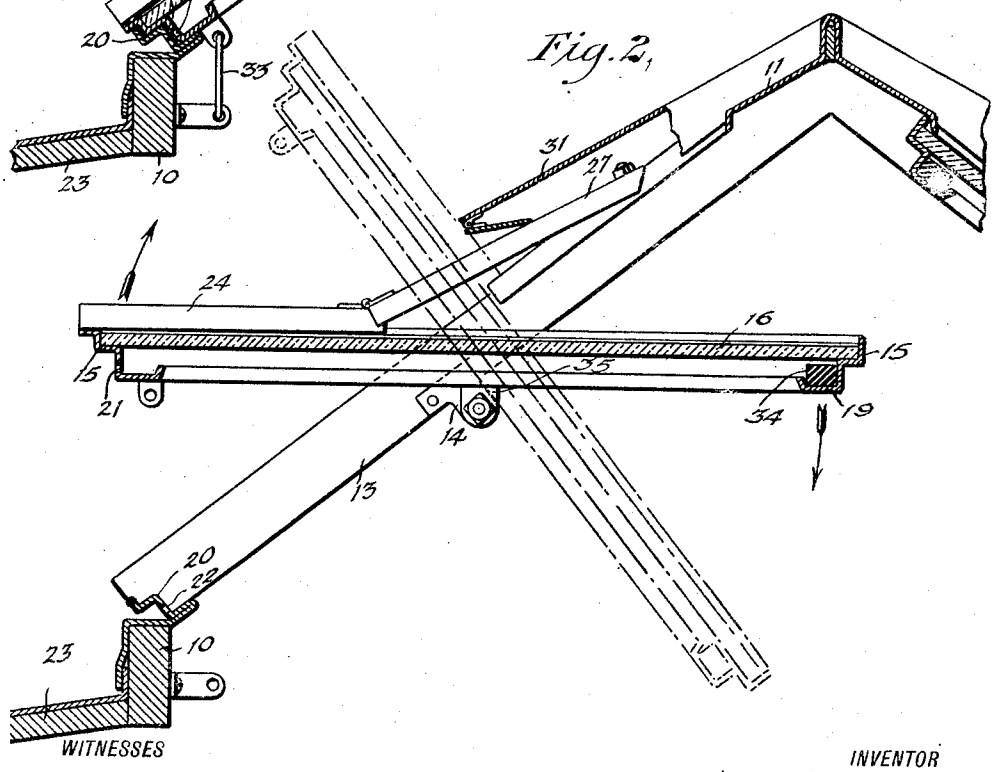


Fig. 2,



WITNESSES

Edw. Thorpe

E. W. Savage

INVENTOR

Samuel Heyman

BY Munn & Co

ATTORNEYS

Sept. 23, 1924. 1,509,757

S. HEYMAN

SKYLIGHT

Filed April 25, 1923 2 Sheets-Sheet 2

Fig. 3,

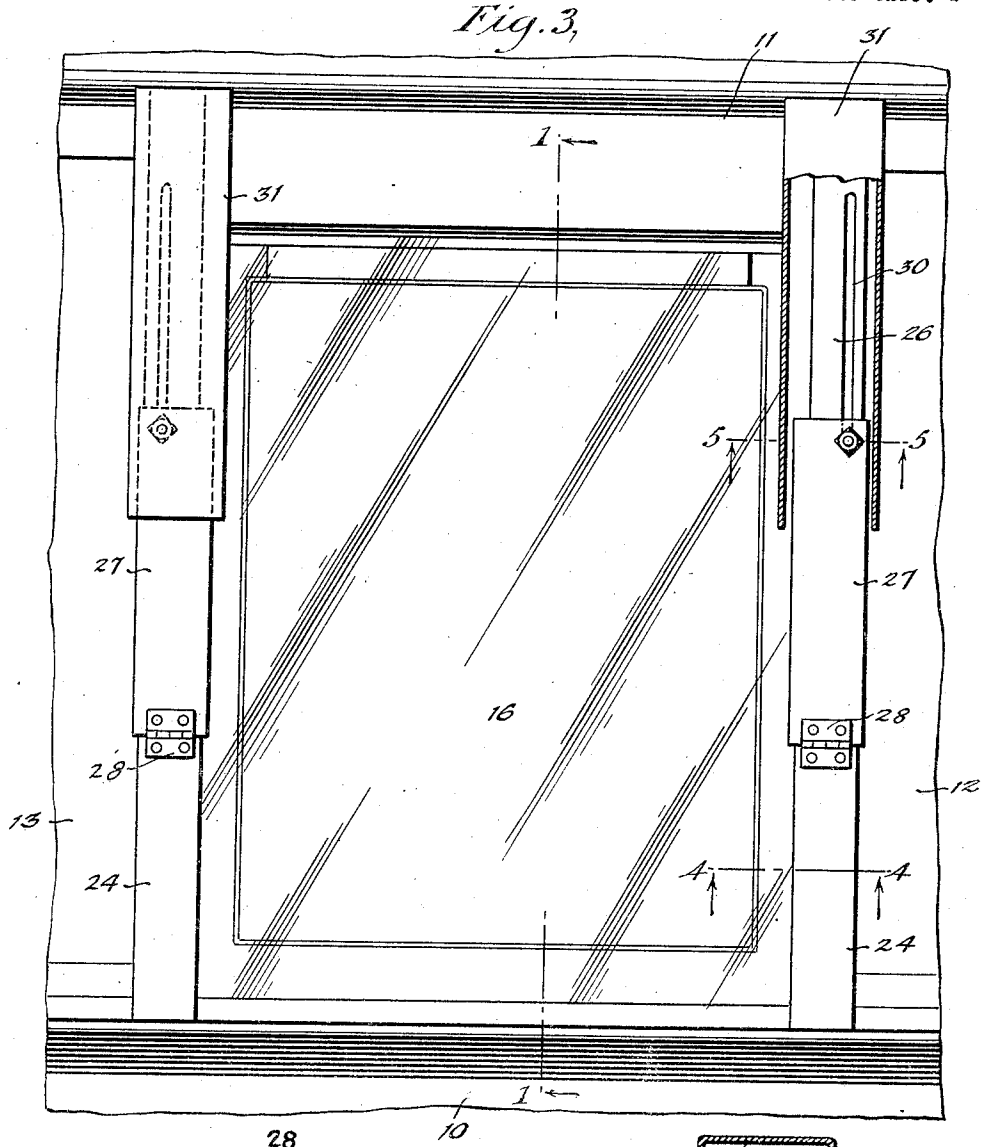


Fig. 4,

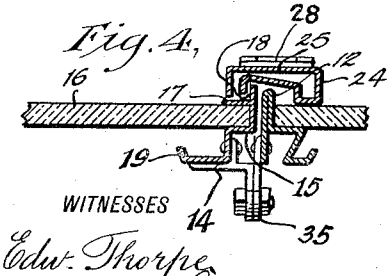
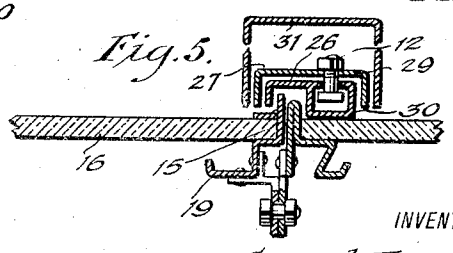


Fig. 5.



WITNESSES

Edw. Thorpe

E. W. Savage

INVENTOR

Samuel Heyman

BY

Munn & Co.

ATTORNEYS

Patented Sept. 23, 1924. 1,509,757

UNITED STATES PATENT OFFICE.

SAMUEL HEYMAN, OF BROOKLYN, NEW YORK.

SKYLIGHT.

Application filed April 25, 1923. Serial No. 634,538.

To all whom it may concern:

Be it known that I, SAMUEL HEYMAN, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Skylights, of which the following is a full, clear, and exact description.

This invention relates to skylight construction.

In constructing skylights an effort is usually made to pivotally mount the sash so that it may be operated with ease from below. When skylights are provided with pivotally mounted sashes considerable difficulty is experienced in providing water-tight joints. This difficulty arises on account of the necessity of swinging a portion of the sash downward through the frame so as to provide for simple and efficient operation.

The general object of this invention is the provision of a skylight having a pivotally mounted sash and means for establishing water-tight joints between the sash and the skylight frame.

A further object of the invention is the provision of a skylight having a pivotally mounted sash normally held in closed position by a fusible link and provided with a weight which automatically opens the skylight upon the destruction of the fusible link.

Another object of the invention is the provision of a skylight provided with means for receiving and carrying away water that may make its way through the joints when they are not properly closed by a sash and skylight.

These objects are accomplished by providing a skylight frame in which the sash is pivotally mounted, mounting on the lower ends of the sides of the sash channel members which overlap the frame, attaching to the upper portion of the frame channel members which project downward over the joints between the sides of the sash and frame, hinging to the sash channels which overlap the ends of the sash channels and the frame channels, being movably mounted on the latter, supporting above the joints between the movably mounted channel members and the frame channel members roofs provided with depending doors for protecting the joints from the weather. A fusible link is provided connecting the sash to the frame to normally retain the sash closed, and a weight is mounted on the upper end of the sash for automatically swinging it into open position upon the destruction of the fusible link.

These and other objects of the invention will be more clearly understood from the following detailed description and accompanying drawings.

Figure 1 is a vertical longitudinal section through the skylight along the line 1—1, Figure 3, showing its construction;

Figure 2 is a vertical longitudinal section through the skylight showing the sash partly open;

Figure 3 is a top plan view of the skylight with a portion of one roof cut away disclosing a movably mounted channel member;

Figure 4 is a transverse section along the line 4—4, Figure 3;

Figure 5 is a vertical transverse section along the line 5—5, Figure 3.

Referring to the above-mentioned drawings, the invention includes a skylight frame formed by bottom plates 10 and top plates 11 connected by side members 12 and 13. Depending from the side members 12 and 13 are hangers 14. A sash 15 provided with depending lugs 35 is pivotally mounted between the hangers 14 by connecting the depending lugs 35 to the hangers.

The sash 15 is constructed from angle irons and carries a light 16 which is retained in position in the sash by plates 17 which extend along the side of the sash and is soldered thereto as shown at 18. Depending from the sash 15 is a trough 19 for receiving and carrying off the water that may penetrate between the sash 15 and the light 16. This depending trough is so positioned on the sash that in conjunction with the sash it forms a stepped member. The lower end of this stepped member seats in a stepped plate 20 mounted on the plate 10 of the frame, while the upper end of the stepped member including the sash 15 seats beneath the plate 11 forming the upper wall of the frame. Openings 21 are provided in the lower section of the trough 19 to permit water which may find its way into the trough to pass into the trough provided by the stepped member 20 and from thence through an opening 22 onto the roof 23.

In order to establish water-tight joints

between the sides of the sash 15 and the sides of the frame 12 and 13 channel members 24 are mounted on the lower ends of the sides of the sash 15 so as to project over the side members 12 and 13. These channel members are provided with an upper wall 25 which may be bent inward over the light 16, as shown in Figure 4. Carried by the plate 11 are channel members 26 which extend downward along the joints between the sides of the sash and the frame. The channel members 24 and 26 terminate short of one another. Channel members 27 are provided which overlap the ends of the channel members 24 and 26. These channel members 21 are hinged to the channel members 24 at 28. The upper ends of the channel members 27 are movably mounted on the channel members 26. The movement of the channel members 27 on the channel members 26 is controlled by bolts 29 which slide in guides 30 provided in conjunction with the channel members 26. In order to protect the joints between the channel members 27 and the channel members 26, hoods 31 carried by the plate 11 are provided and extend downward over these joints. In order to provide for the movement of the channel members 27, the hoods 31 must be spaced a distance above the channel members. Hinged doors 32 depend from these hoods and ride on the channel members 27 so that rain may not make its way beneath the hoods 31.

Occasionally when fires break out in buildings great volumes of smoke and gas are colected in the buildings, causing the asphyxiation of the occupants. If the building is provided with skylights and these were so constructed that they would automatically open in case of fire this danger of asphyxiation would be eliminated. Consequently, this skylight is constructed with a fusible link 33 connecting it to the frame and normally retaining it in closed position. A weight 34 is provided in the upper end of the skylight so that upon the destruction of the fusible link 33 by the heat, the skylight will be immediately opened.

In operating this skylight to move it from its closed position to open position, the channel members 27 slide along the channel members 26. The doors 32 swing freely, permitting the raising of the lower ends of the channel members 27.

I would state in conclusion that while the illustrated example constitutes a practical embodiment of my invention I do not limit myself strictly as to the exact details herein illustrated since manifestly the same can be considerably varied without departing from the spirit of the invention as defined in the appended claims.

Claims:

1. In a skylight including a frame and a sash pivotally mounted in the frame, means for covering the openings between the sides of the sash and the frame, comprising a channel member carried by the sash and projecting over the frame, said channel member extending throughout only a portion of the length of the sash, a second channel member carried by the frame and extending longitudinally over a portion of said opening, and a third channel member overlapping the ends of said first-mentioned channel members hinged to the channel member carried by the sash, and a fixed cover member extending over the overlapping joint of the frame channel member and the hinged channel member.

2. In a skylight including a frame, a sash pivotally mounted in the frame and a slidably mounted member for covering a portion of the opening between the sash and frame a hood carried by the frame extending over said opening, and a depending member hinged to the lower end of said hood and riding on said slidably mounted member to permit the operation of the slidably mounted member.

3. In a skylight including a frame and a pivotally mounted sash, means for making water-tight joints between the sides of said sash and the frame comprising a channel member carried by the sash and projecting over the frame, said channel member extending over a portion of the length of the sash, a channel member carried by the frame and extending longitudinally over a portion of the length of the joint between the sash and frame, a movably mounted channel member overlapping the ends of the sash channel member and the frame channel member hinged to the sash channel member, means for guiding the movement of said movably mounted channel member on the frame channel member, a hood carried by the frame and extending over the joint between the movably mounted channel member and the frame channel member, and means for closing the opening between the end of said hood and the movably mounted channel member.

4. A skylight, comprising a frame, a sash carrying a light pivotally mounted in the frame, said sash overlapping the lower portion of the frame and projecting beneath the upper portion, channel members mounted on the lower portions of the sides of the sash and projecting over the joint beween the sash and frame, channel members carried by the frame and projecting downward along the joint between the sides of the sash and frame, channel members overlapping the ends of the sash channel members and the frame channel members, said channel members being hinged to the sash channel members and mounted to slide on the frame channel members, means for establishing

sliding connections between the hinged channel members and the frame channel members, and hoods carried by the frame and extending over the joints between the frame channel members and the hinged channel members.

5. In a skylight including a frame, a sash pivotally mounted in the frame and movably mounted channel members for closing a portion of the joints between the sash and frame when the skylight is closed, means for protecting the upper ends of the movably mounted members, comprising hoods extending over the upper ends of the slidably mounted members, and swinging doors depending from said hoods riding on the movably mounted members to permit the movement of said members.

SAMUEL HEYMAN.