

(No Model.)

J. McINTYRE.

SKYLIGHT.

No. 283,913.

Patented Aug. 28, 1883.

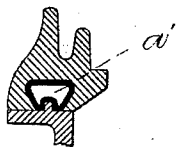


Fig. 5.

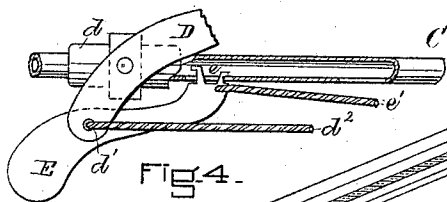
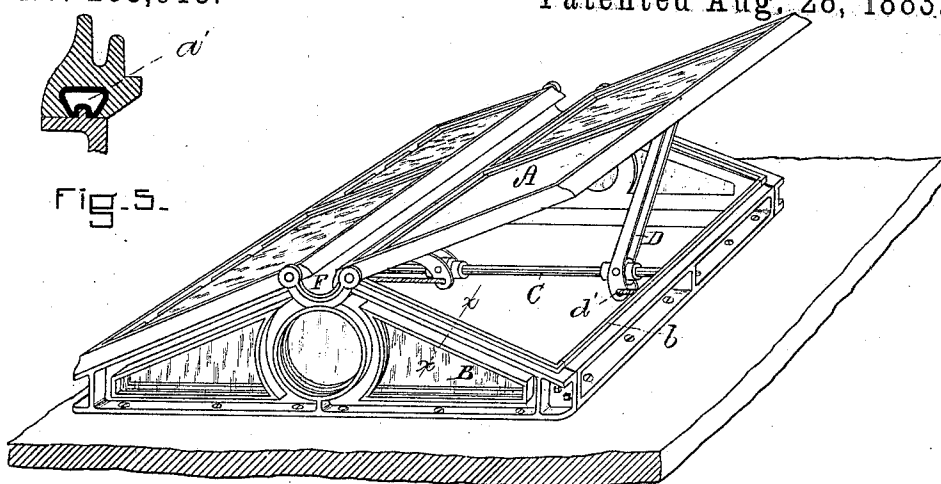


Fig. 4.

Fig. 1.

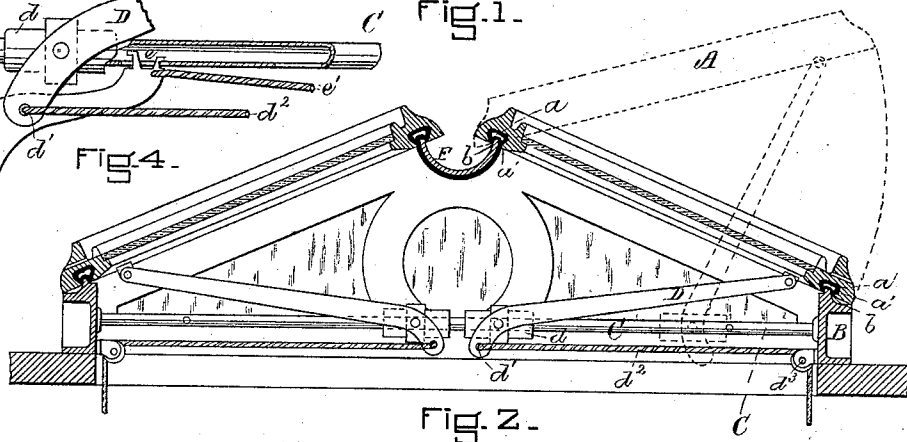


Fig. 2.

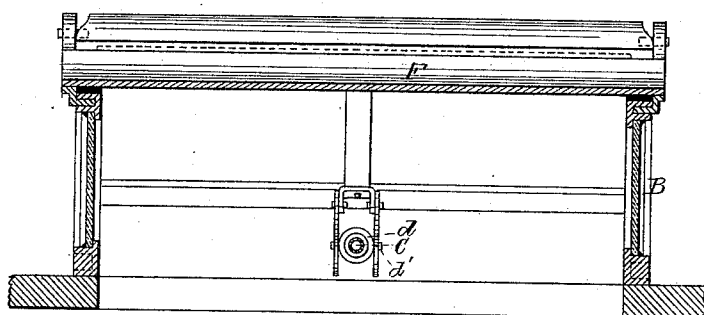


Fig. 3.

WITNESSES

Wm. A. Leopeland.

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UNITED STATES PATENT OFFICE.

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SKYLIGHT.

SPECIFICATION forming part of Letters Patent No. 283,913, dated August 28, 1883.

Application filed November 11, 1882. (No model.)

To all whom it may concern:

Be it known that I, JAMES MCINTYRE, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Skylights, of which the following is a specification.

My invention relates to improvements in skylights, more especially those used for lighting ships' cabins; and it consists in arranging the devices for operating two opposite frames, so that these frames may be raised or lowered singly or together, be supported at the same or different points, as desired, and one be closed or opened independently of the other by means of devices operated from the cabin; also, in providing a trough between the two frames to receive and shed the water from one or both of the frames when raised.

The accompanying drawings illustrate a ship's skylight with all my improvements embodied in the best way now known to me.

Figure 1 is a perspective view of a cabin-skylight with one of the frames raised. Fig. 2 is a transverse sectional view, showing the raising and supporting braces and the cross-rod and parts of the operating-cords. Fig. 3 is a longitudinal section through the ridge-trough. Fig. 4 is an enlarged view of the automatic stop, showing its connection to the braces and cross-tube. Fig. 5 is an enlarged sectional view on line *xx* of Fig. 1, showing the water-tight joint between the glazed frame and the curb.

The glazed frame or sash A is hinged or pivoted to the curb B, and has a recess or groove, *a*, formed in and extending entirely around it. A rubber tube, *a'*, is embedded in this groove *a*, and rests, when the frame is lowered, on a tongue or projection, *b*, formed on and extending entirely around the curb B, thereby forming a perfect water-tight joint. A bar, C, preferably a tube to secure maximum strength and minimum weight, is secured at each end to the curb, and is provided with a loose sleeve, *d*, to which the double or forked braces D are pivoted. These braces are also pivoted to the glazed frame A, and extend beyond the sleeve *d*, where they are secured to each other by means of a tubular rivet, *d'*. This tubular rivet receives the end of a cord, *d''*, which passes over a pulley,

d'', and thence down to the cabin. By means of this cord a person in the cabin can raise or lower the sash at pleasure by causing the sleeve *d* to slide on the bar C, and cause the braces D to assume different positions, in any of which they may be secured by belaying the cord in the usual way. This way of securing the braces is objectionable, and therefore, on account of the greater length of cord required and the trouble of belaying, I have provided the device shown in Fig. 4, which consists of a weighted arm, E, pivoted on the tubular rivet *d'*, and provided at its light end with teeth *e*, or the like, which engage with notches on the bar C or enter holes made at suitable intervals therein. These teeth are disengaged to move the skylight by means of a cord, *e'*, and are caused to engage with the notches or holes of the bar C by the falling of the heavy end of the arm E when the cord *e'* is slackened.

The foregoing description refers to one frame, but is equally applicable to each of any number of similar frames of which the skylight may be composed. Ships' skylights are generally made, as shown in the drawings, with glazed frames on each side of a double-inclined curb. These glazed frames have been connected by rods to a single sleeve sliding on a vertical rod, and by means of a cord passing over pulleys and connected to the sliding sleeve the frames were raised or lowered, always moving together, so that one could not be opened or closed without opening or closing the other one. In my arrangement the frames can be operated entirely independently of each other, and either be raised or lowered singly, when desired. During warm rains or summer showers it is desirable to have the lee frame raised for ventilation, and for this reason I have made the ridge of the skylight trough-shaped to receive the water from the raised frame, instead of convex, as heretofore.

In the drawings, F is the trough, the upper edges of which form parts of the tongues *b*, on which the rubber tube partially rotates as the frame is raised or lowered, so as to always keep the joint water-tight, as clearly shown in Fig. 2. In this instance the curb and sash frame are made of metal. The curb is bolted to the roof of the cabin and has each end glazed.

I claim as my invention—

1. In a skylight with two frames, one each side of a double-inclined curb, the combination of a bar secured at each end in the walls of the curb, sleeves sliding on this bar independently of each other, braces connecting a sleeve with its frame, and means, substantially as described, for sliding and securing either sleeve, whereby either frame may be operated independently of the other, as and for the purposes specified.

2. In combination with the skylight supported by braces pivoted to a sleeve sliding on a rod or tube, a weighted arm having teeth on

its light end adapted to engage with the rod or tube, substantially as and for the purposes set forth.

3. In a skylight having glazed frames pivoted to a curb inclining both ways, a trough forming the ridge of the skylight and receiving the drain from the frames when raised, substantially as set forth.

JAMES MCINTYRE.

Witnesses:

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