No. 647,163. Patented Apr. 10, 1900.

J. SMITH.

SKYLIGHT.

(No Model.) (Application filed Nov. 22, 1898.) 2 Sheets—Sheet 1.

Fig. 1.

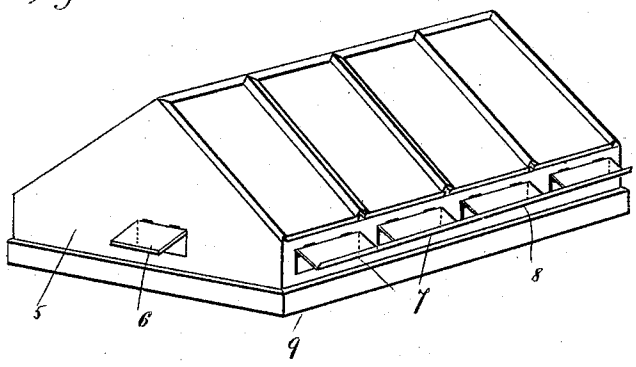
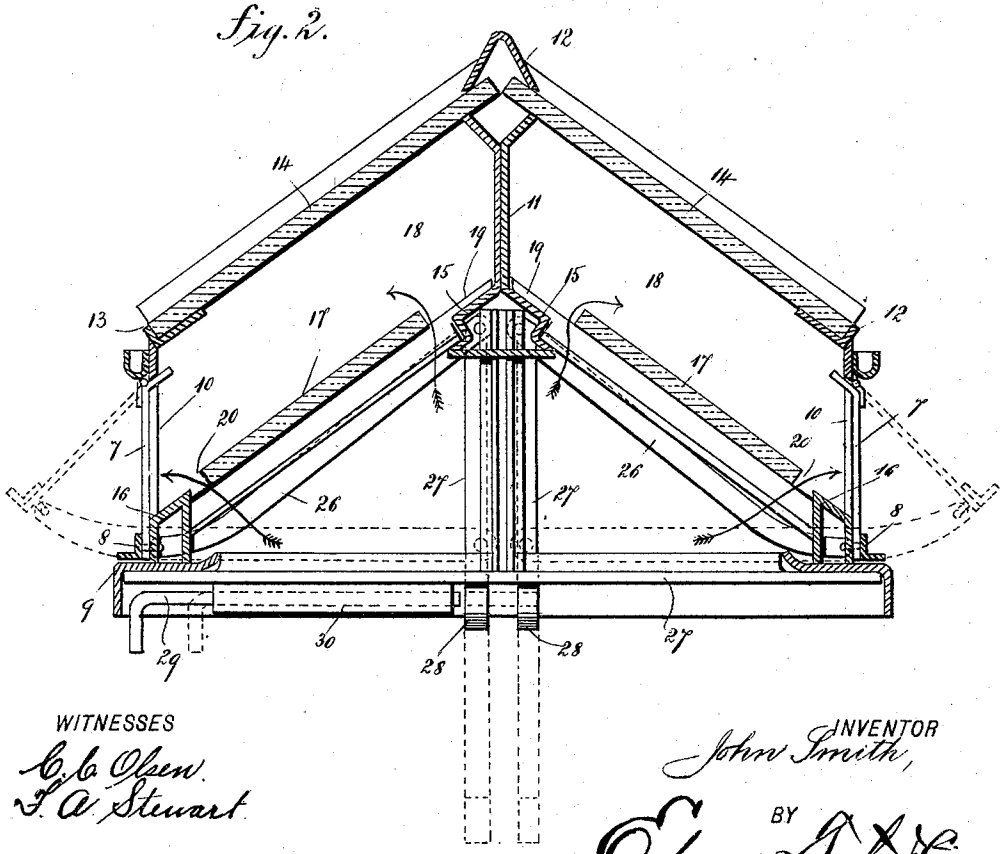


Fig. 2.



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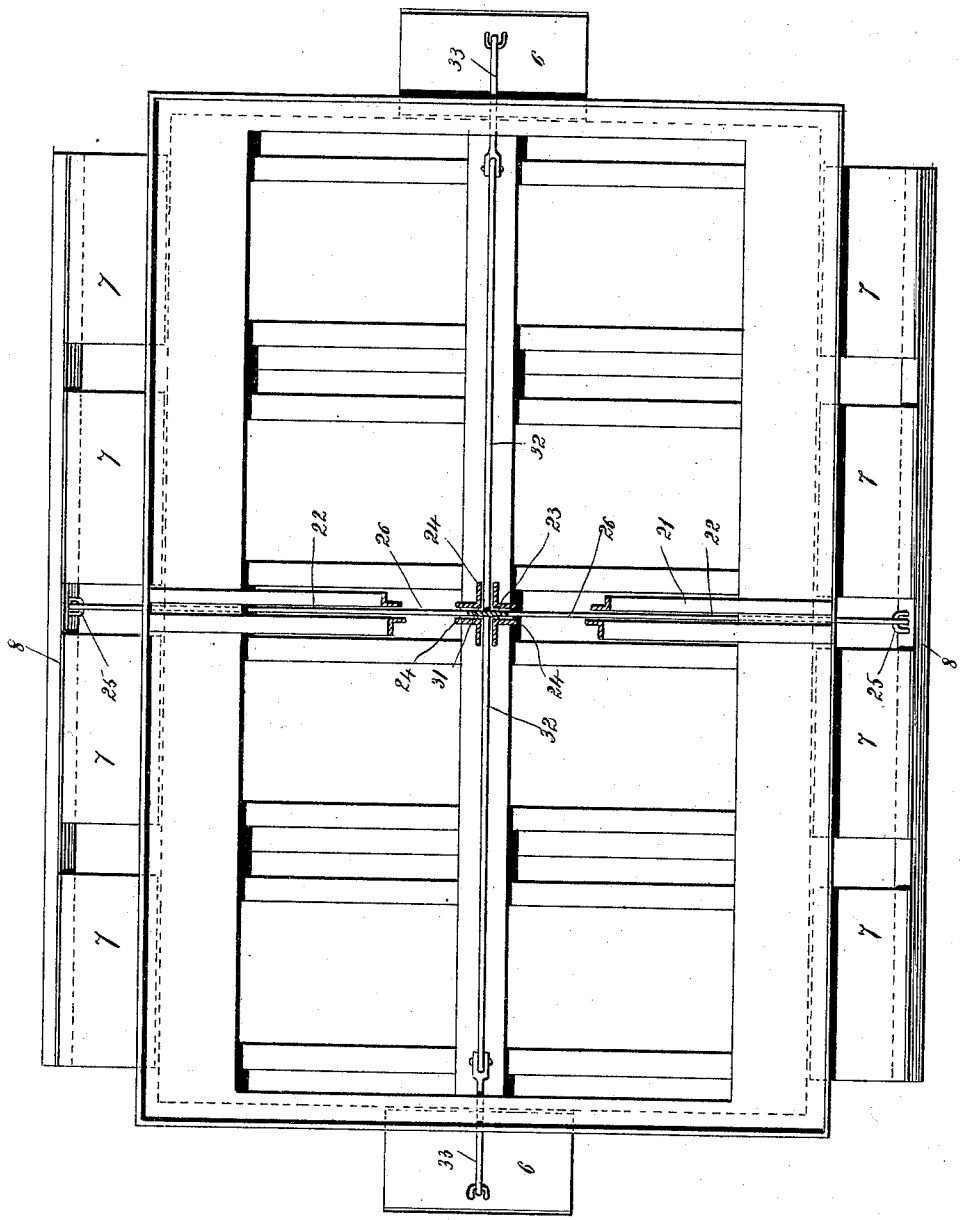


Fig. 3.

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UNITED STATES PATENT OFFICE.

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SKYLIGHT.

SPECIFICATION forming part of Letters Patent No. 647,163, dated April 10, 1900.

Application filed November 22, 1898. Serial No. 697,203. (No model.)

To all whom it may concern:

Be it known that I, JOHN SMITH, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Skylights or Analogous Structures, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention is an improvement on that described and claimed in United States Letters Patent granted to me January 11, 1895, No. 540,821; and said invention relates particularly to the ventilation of skylights; and the object thereof is to provide improved devices for this purpose; and with these and other objects in view the invention consists in the construction, combination, and arrangement of parts hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a perspective view of an ordinary skylight made according to my invention; Fig. 2, a section thereof; and Fig. 3, a bottom plan view, part of the construction being in section, and Figs. 2 and 3 being on an enlarged scale.

In the drawings forming part of this specification I have shown at 5 an ordinary skylight-frame provided at the ends and sides with hinged doors 6 and 7, respectively, and the hinged doors 7 at the sides are connected at their lower edges by a horizontal rod, bar, or similar device 8.

The frame of the skylight is preferably similar to that shown and described in the patent hereinbefore referred to; but said frame may be constructed in any desired manner, and comprises a suitable base or support 9, vertical side portions 10, a longitudinal central portion 11, and top and side supports 12 and 13, in which are placed downwardly-inclined glass panels 14 and supplemental supports 15 and 16, in which are placed supplemental glass panels 17. The panels 14 and 17 are arranged at the same inclination and are parallel in cross-section, and between said panels and their supports are spaces 18. The panels 17, which are arranged below the spaces 18 or some of them, do not extend entirely to their upper supports 15, and there are also open spaces 20 at the lower ends of said panels or some of them, and in the operation of the apparatus air passes out through the open spaces 19 and 20 and down between the panels 14 and 17 and out through the doorways at the sides and also at the end doors when said end doors are employed, and the chief object of this invention is to provide means for operating said doors. In order to accomplish this result, I provide the frame of the skylight or the bottom thereof with a central transverse bar or support 21, in which is preferably formed a longitudinal slot 22, and this central transverse bar or support connects with a central vertical guide 23, which is cross-shaped in cross-section and provided with four guideways 24, arranged at right angles to each other, and I also preferably connect with the rods or bars 8, as shown at 25, bars 26, with the inner ends of which are connected operating rods or bars 27, which extend downwardly through the guideways 24 and are provided at their lower ends with rings 28, which serve as handles. The rods or bars 27 extend downwardly through the transverse support 21, and mounted beneath said support at one side is a locking-rod 29, which moves in a keeper 30 and which is adapted to pass through the rings 28, so as to hold the doors in a closed position. When doors are closed, the operating devices are in the position shown in Fig. 2, and when the rods or bars 27 are drawn downwardly the doors are swung outwardly and held in an open position. By means of the construction shown in Fig. 2 the doors 7 at one side of the skylight are operated separately, while by means of the construction shown in Fig. 3 the doors on both sides and at the ends of the skylight may be operated at the same time. In order to accomplish this result, I connect the rods or bars 26, which operate the side doors, with a single vertically-movable bar 31, with the upper end of which is connected a horizontal bar 32, and the end doors 6 are operated by links 33, connected with the opposite ends of the horizontal bar 32, and by pulling the bar 31 downwardly the doors 7 at the opposite sides and also the end doors 6 may be opened, while by shoving said bar 31 upwardly into the posi-

tion of the bars 27 shown in Fig. 2 all of said doors may be closed.

It will thus be seen that by means of my invention the side doors on one side may be separately operated or the doors on both sides and at the ends jointly operated, and any suitable means may be provided for locking the parts, so that the doors will be held in a closed position, and many changes in and modifications of the construction herein described may be made without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A skylight provided at each side with two sets of horizontally-arranged inclined panels, whereby spaces between said panels are formed, the lower panels being provided with ports or passages and doors at the opposite sides of the skylight closing openings communicating with the spaces between said panels, and means for opening and closing said doors, consisting of rods or bars pivotally connected therewith and extending upwardly and inwardly into the skylight, supplemental rods or bars pivotally connected with the inner ends of said first-named rods or bars and extending downwardly through the bottom of the skylight-frame, and a locking device or devices operating in connection with the supplemental rods to hold the door in a closed position, substantially as shown and described.

2. A skylight, comprising a suitable frame, and provided at each side with two separate rows of downwardly-inclined panels, one arranged above another, the lower panels being provided with ports or passages, openings in the sides of the frame communicating with the spaces between said panels, doors for closing said openings, rods pivotally connected with said doors and extending inwardly and upwardly into the frame, and other rods connected with the inner ends of the first-named rods and extending downwardly through the bottom of the frame, substantially as shown and described.

3. In a skylight, a frame provided with openings in the ends and sides thereof, and doors for closing said openings, two horizontally-arranged and downwardly-inclined sets of panels in the top thereof whereby spaces are formed between said panels with which said openings in the sides of the frame communicate, rods or bars connected with said doors and extending inwardly and upwardly into the frame, and other rods or bars pivotally connected with the inner ends of the first-named rods or bars, and extending downwardly through the frame, and a lock operating in connection with the last-named rod for holding the doors in a closed position, substantially as shown and described.

4. A skylight, comprising a frame provided at each side with two downwardly-inclined sets of panels forming the roof of the skylight, and between which are spaces, the panels of the lower set being provided with ports or passages, openings in the sides of the frame communicating with said ports or passages, doors for closing said openings, said doors on the opposite sides being all connected, rods or bars connected with said doors and extending inwardly and upwardly into the frame, and other rods or bars connected with the inner ends of the last-named rods or bars and extending downwardly through the bottom of the frame whereby the doors may be closed and opened, substantially as shown and described.

5. A skylight, comprising a frame provided at each side with two downwardly-inclined sets of panels forming the roof of the skylight, and between which are spaces, the panels of the lower set being provided with ports or passages, openings in the sides of the frame communicating with said ports or passages, doors for closing said openings, said doors in the opposite sides being all connected, rods or bars connected with said doors and extending inwardly and upwardly into the frame, and other rods or bars connected with the inner ends of the last-named rods or bars and extending downwardly through the bottom of the frame whereby the doors may be closed and opened, said frame being also provided with guides for the last-named rods or bars and locks for holding the doors in a closed position, substantially as shown and described.

6. A skylight, comprising a frame having openings in the sides and ends, hinged doors for closing said openings, rods pivotally connected with the doors which close the side openings and extending inwardly and upwardly into the frame, other rods pivotally connected with the inner ends of the first-named rods and projecting downwardly through the frame, whereby the side doors may be opened and closed, rods connected with the doors which close the end openings and extending upwardly into the frame, a single horizontal rod connected with the inner ends of said last-named rods, and another rod connected centrally with said horizontal rod and extending downwardly through the frame, substantially as shown and described.

JOHN SMITH.

Witnesses:
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