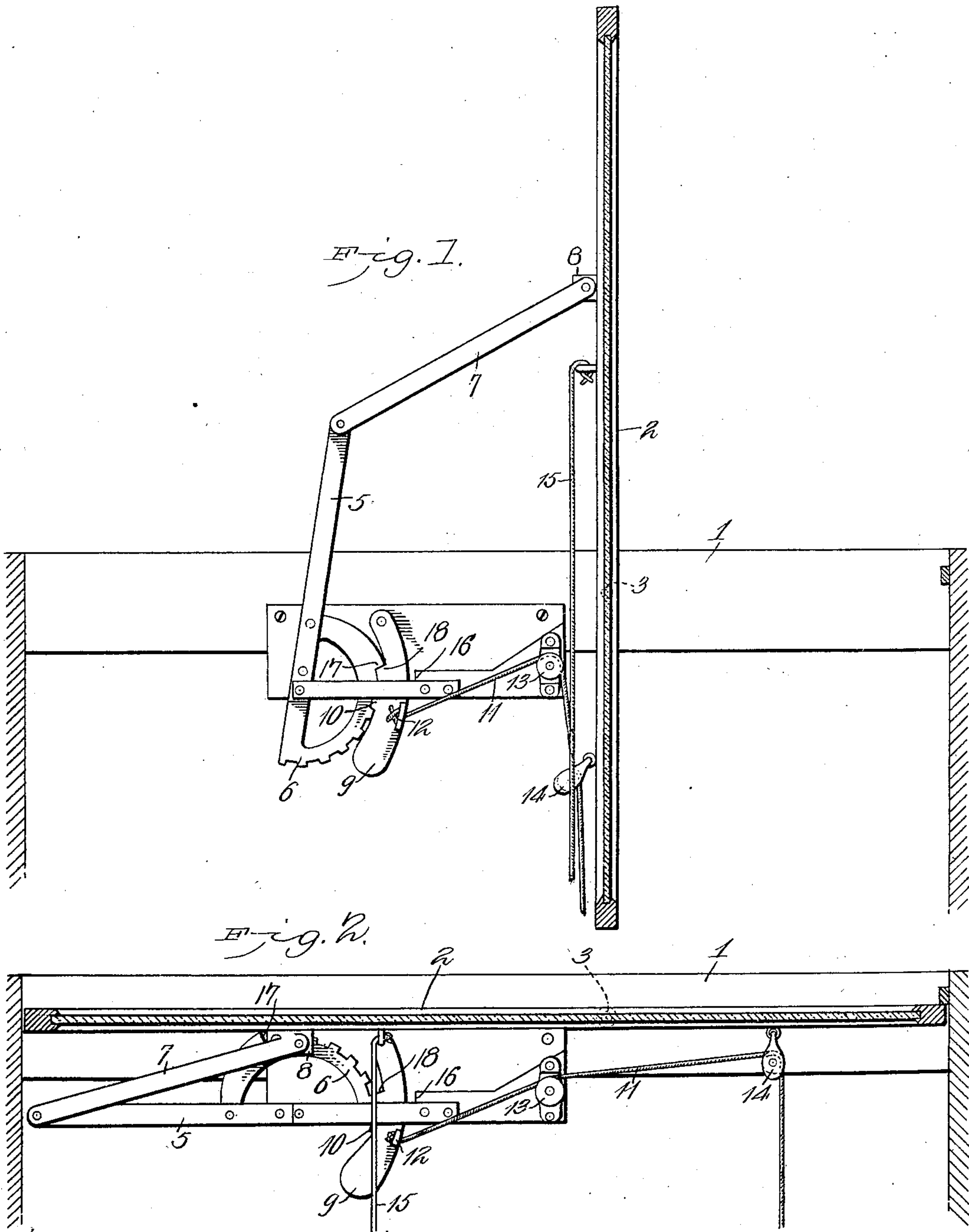


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F. REICHARD.
DEVICE FOR OPERATING SKYLIGHTS.
APPLICATION FILED FEB. 11, 1903.

NO MODEL.



Witnesses
E. H. Stewart
J. A. Elmore

F. Reichard, Inventor.
by *C. A. Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

FORREST REICHARD, OF EASTON, PENNSYLVANIA, ASSIGNOR OF ONE-HALF
TO GEORGE F. KICHLINE, OF EASTON, PENNSYLVANIA.

DEVICE FOR OPERATING SKYLIGHTS.

SPECIFICATION forming part of Letters Patent No. 725,871, dated April 21, 1903.

Application filed February 11, 1903. Serial No. 142,888. (No model.)

To all whom it may concern:

Be it known that I, FORREST REICHARD, a citizen of the United States, residing at Easton, in the county of Northampton and State of Pennsylvania, have invented a new and useful Device for Operating Skylights, of which the following is a specification.

My invention relates to devices for operating skylights, and has for its objects to produce a device of this character which will be simple of construction, inexpensive to manufacture, efficient in operation, and one in which the skylight will be automatically locked at any point from its open to its closed position, the locking means being actuated by the means which serves to perform the opening or closing operation.

To these ends the invention comprises, in a skylight-operating device, the combination, with a pivoted sash, of an arm pivoted thereto and operated thereby, a movable rack operated by the arm, a pivoted pawl adapted to automatically engage the rack for locking the sash in any desired position, and means for operating the sash adapted to simultaneously release the pawl from the rack.

The invention further comprises the details of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a sectional elevation of a skylight having my improved operating device applied thereto and illustrating the sash in its opened position. Fig. 2 is a similar view illustrating the sash closed.

Referring to the drawings, 1 indicates a skylight frame or casing having a sash 2 pivoted therein, as at 3, and adapted to swing on its pivot from a closed to an open position. In this connection it is to be noted that the pivotal point of the sash is located intermediate of its longitudinal center and one end, thus permitting the sash to close by gravity when released, as hereinafter explained.

5 indicates an arm pivoted near one end to the framework of the skylight and provided at its pivoted end with a segmental rack 6, concentric with the pivotal point of the arm. This arm normally lies in a position parallel with the sash when the latter is in its closed position and is connected with the sash by a

link 7, pivoted to the outer end of the arm and to a suitable clip 8, secured by screws or otherwise to the sash.

9 indicates a pawl pivoted at one end to the framework adjacent to the rack 6, the pawl being provided with a tooth 10, adapted to engage with the teeth of the rack for locking the same against movement, and thus locking the sash in any desired position, as will be readily understood. The pawl is preferably weighted at its free end to cause it to move by gravity into engagement with the segment; but it will be understood that it may be actuated by a spring or in other suitable manner to cause its automatic engagement with the segment.

11 indicates a rope or other flexible connection secured at one end to an ear 12 on the pawl and passed through a sheave 13, secured to the framework, and a second sheave 14, pivotally connected to the sash at a point between its pivot and inner end.

15 indicates a second rope secured in any suitable manner to the sash at a point between its pivot and outer end, the function of which will presently be described.

17 indicates a shoulder on the rack adapted to engage a similar shoulder 18 on the pawl to limit the opening movement of the sash.

The operation of the device is as follows: Supposing the parts to be in the position illustrated in Fig. 2, with the sash closed and locked in its closed position by means of the pawl engaging the rack, the operator, in order to open the sash, pulls upon the rope 11, which action moves the pawl out of engagement with the rack and holds the same against a suitable stop 16, shown herein as a part of the framework. The pawl being in engagement with the stop, a continuous pull on the rope causes the same to travel through the sheave 14 and exert a downward pull upon the sash, thus swinging the same on its pivot to an open position, as illustrated in Fig. 1.

When the rope is released, the pawl is moved automatically into engagement with the rack 6, thus locking the parts and securing the sash in any desired position. In order to close the sash, it is simply necessary to operate the rope 11 to move the pawl out of engagement with the rack and exert a slight

pull on the rope 15 sufficient to swing the sash beyond the center of gravity, when it will close by gravity, the speed with which it closes being governed by the rope 11.

5 From the foregoing description it will be seen that I produce a device which is at once simple, durable, inexpensive, and efficient in operation, and one in which the sash will be automatically locked in any desired position,
10 and in attaining these ends I do not limit or confine myself to the precise details herein shown and described, inasmuch as various minor changes may be made therein without departing from the spirit or scope of my invention.
15

Having thus described my invention, what I claim is—

1. In a skylight-operating device, the combination with a pivoted sash, of an arm pivoted thereto and operated thereby, a movable
20 rack operated by the arm, a pivoted pawl adapted to automatically engage the rack for locking the sash in any desired position, and means for operating the sash adapted to simultaneously release the pawl from the rack.
25

2. In a skylight-operating device, the combination with a pivoted sash, of a framework

therefor, a rack pivoted to the framework, an arm carried by the rack, a link connecting the arm to the sash, a pawl pivoted to the framework and adapted to automatically engage
30 the rack to lock the sash in any desired position, and means adapted to operate the sash and to simultaneously release the pawl from the rack.

3. In a skylight-operating device, the combination with a framework, of a sash pivoted therein, a rack pivoted to the framework and provided with an arm, a link connecting the arm to the sash, a pawl pivoted to the framework and adapted to automatically engage
40 the rack to lock the sash in any desired position, sheaves carried by the framework and sash, and a rope connected to the pawl and operating in the sheaves and adapted to be
45 operated to open the sash and simultaneously release the pawl from the rack.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

FORREST REICHARD.

Witnesses:

G. M. WELLER,
WILLIAM MOCK.