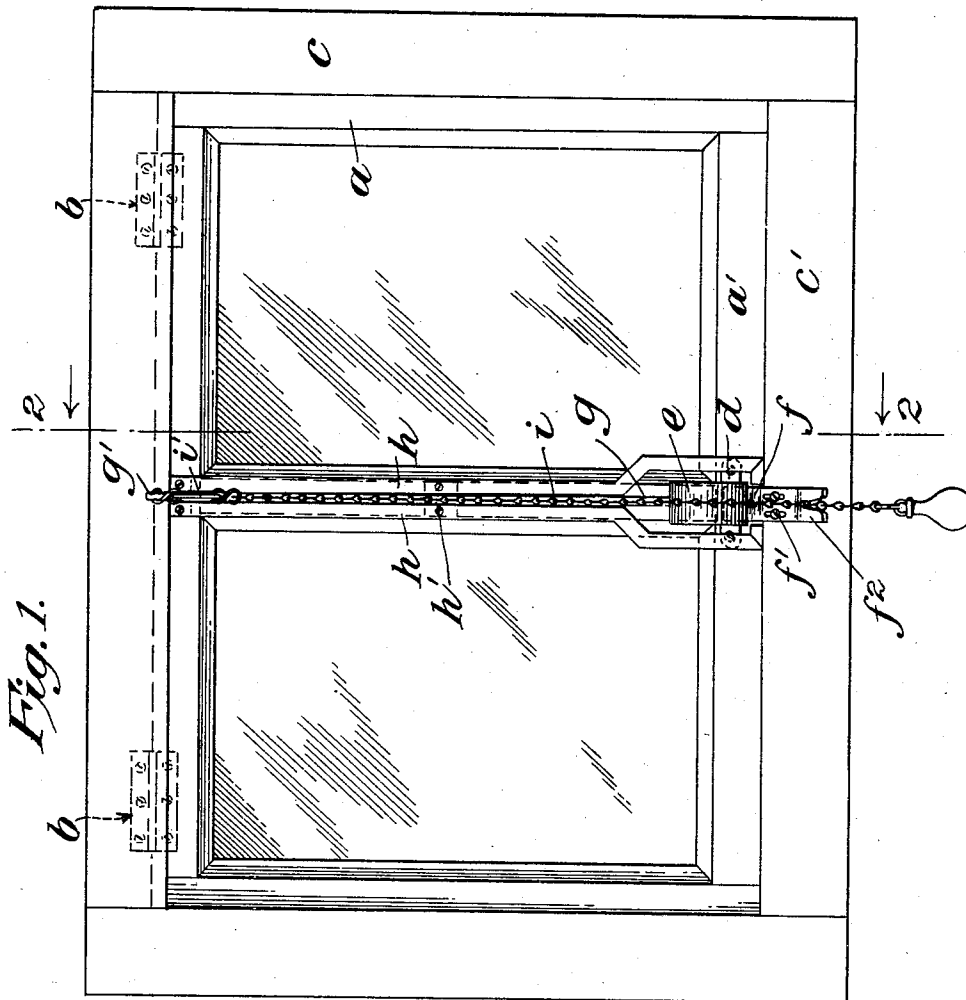


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 TRANSOM LIFTER, &c.
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977,291.

Patented Nov. 29, 1910.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 4.

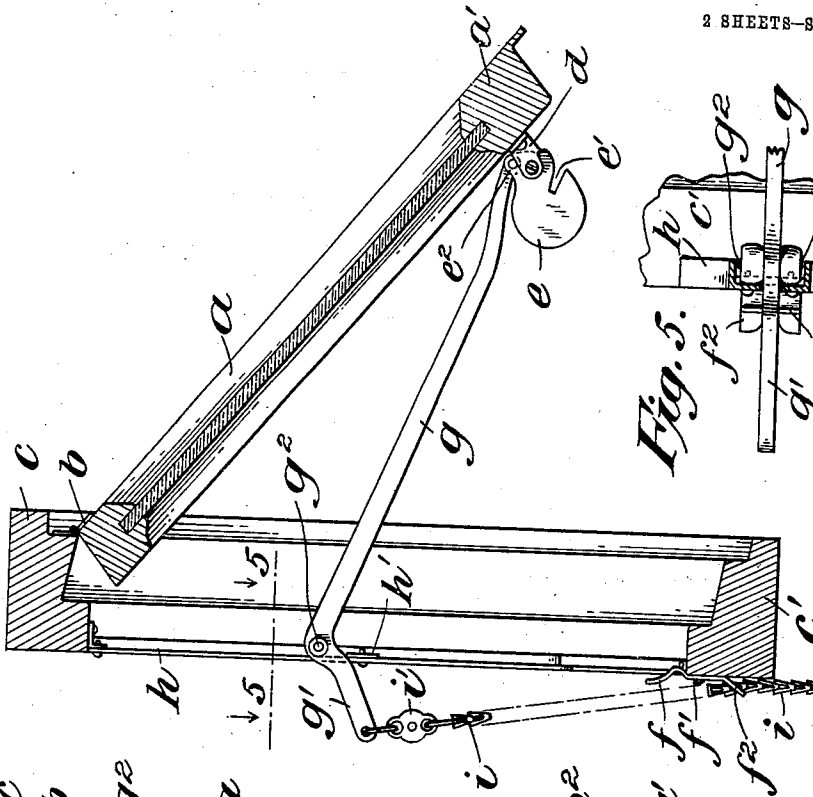


Fig. 3.

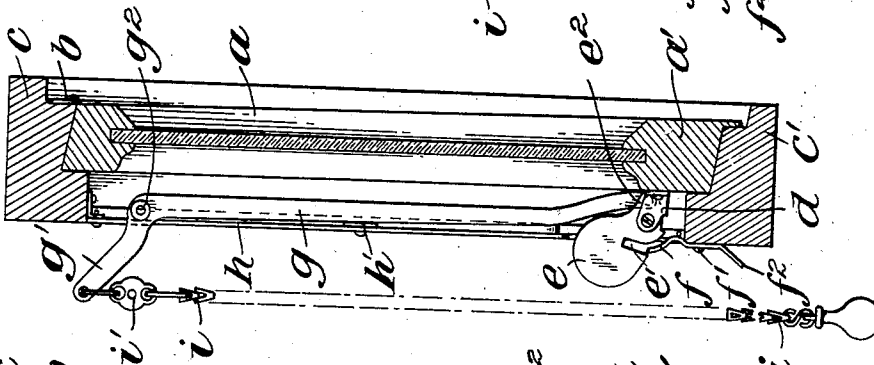
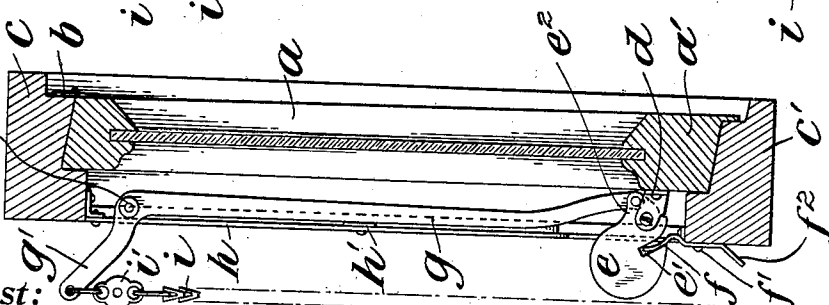


Fig. 2.



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UNITED STATES PATENT OFFICE.

ALEXANDER FROMHOLD, OF RUTHERFORD, NEW JERSEY.

TRANSM-LIFTER, &c.

977,291.

Specification of Letters Patent.

Patented Nov. 29, 1910.

Application filed April 2, 1910. Serial No. 553,088.

To all whom it may concern:

Be it known that I, ALEXANDER FROMHOLD, a citizen of the United States, residing in Rutherford, in the State of New Jersey, have invented certain new and useful Improvements in Transom-Lifters, &c., of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

This invention relates to mechanism for locking and unlocking, opening and closing transoms, shutters, &c., which may be placed so high as to be not readily accessible and are so hung as to be closed by the action of gravity or spring pressure when released.

The object of the invention is to provide improved means for unlocking and opening the transom or shutter, such improved means being also constructed and arranged in such manner as to permit the transom or shutter to lock itself when it swings by gravity from the open to the closed position.

The invention will be more fully explained hereinafter with reference to the accompanying drawings in which it is illustrated and in which—

Figure 1 is a view in front elevation of a transom equipped with the improved mechanism. Figs. 2, 3 and 4 are detail views partly in section on the plane indicated by the line 2—2 of Fig. 1, looking in the direction of the arrows. Fig. 5 is a detail view, on a larger scale, on the plane indicated by the line 5—5 of Fig. 4, looking in the direction of the arrows.

In the embodiment of the invention illustrated in the drawings a glazed transom *a* of ordinary construction is shown as hung by hinges *b*, *b*, at its upper edge, in a frame or casing *c*, which may also be of ordinary construction. It is assumed that the weight of the transom is such that when released from an open position it will swing by gravity to a completely closed position. On the lower member *a'* of the transom is secured a bracket *d* in which is pivoted a weighted latch *e*, having a notch *e'* to engage a catch *f* which is fixed adjustably, as at *f'*, on the lower member *c'* of the casing *c*. The weighted end of the latch is so formed on its underside that it may slip readily over the catch *f* as the transom swings to its closed position and may then

drop into engagement with the catch, the transom being thereby locked in closed position. The bracket *d* is so formed as to support the pivot of the weighted latch *e* at a sufficient distance from the transom frame to accommodate a short arm *e'* of the weighted latch which is nearly horizontal when the latch is in engagement with the catch *f*. An operating rod *g* is pivoted at its lower end to the extremity of the short arm *e'* of the latch *e* and has at its upper end a short arm *g'* which extends at an angle from the rod *g*, away from the transom. The short arm *g'* is arranged to move between guide rods *h*, secured to the casing *c*, and has at the angle a laterally projecting pin *g'* which is adapted to bear against the inner side of the guide rods *h*. The cord or chain *i*, by which the transom is manipulated, is attached to the outer end of the short arm *g'*, preferably through the medium of a readily fusible link *i'*, so that upon an abnormal increase of temperature the transom will be released if open, through the melting of the link *i'*, and the transom will be permitted thereby to close and lock automatically, even if the chain *i* is not released from the catch *f'* which is provided for the purpose of holding the transom in its open position.

It will now be understood that when the transom is closed and locked, a pull upon the chain *i* first presses down the short arm *e'* of the latch *e* and lifts the latch from engagement with the catch *f*, thereby releasing the transom, and that a continued pull on the chain *i* then causes the transom to be swung open, the cross pin *g'* having a bearing against the inner side of the guide rods *h*. A stop *h'* may be secured to the rods *h* to limit the downward movement of the rod *g*, *g'*, and thereby to limit the opening movement of the transom. Whenever the upper end of the rod *g*, *g'*, is released, either by disengagement of the chain from the catch *f'*, or by melting of the link *i'*, the weight of the transom will cause the latter to swing to its closed position and the latch *e* to engage the catch *f* as already explained.

It will be understood that the transom *a* may be hung in any convenient manner so that it will swing to closed position through the action of gravity or otherwise and that

other changes may be made to suit different conditions of use without departing from the spirit of the invention.

I claim as my invention:

- 5 1. The combination with a transom adapted to swing to closed position when released, of a latch mounted on the transom, a catch mounted on the frame or casing, a guide rod mounted on the frame or casing, and an operating rod connected with the latch and
10 having a projection to bear against the guide rod and its extremity extended beyond the guide rod to receive an operating cord or chain.
- 15 2. The combination with a transom adapted to swing to closed position when released, of a pivoted weighted latch mounted on the transom and having an oppositely extended short arm, a catch mounted on the frame or
20 casing, a vertical guide rod mounted on the frame or casing, and an operating rod pivotally connected with the short arm of the

latch and having a projection to bear against the guide rod and its extremity extended beyond the guide rod to receive an operating
25 cord or chain.

3. The combination with a transom adapted to swing to closed position when released, of a latch mounted on the transom, a catch mounted on the frame or casing, a guide rod
30 mounted on the frame or casing, an operating rod pivotally connected with the latch and having a projection to bear against the guide rod and its extremity extended beyond the guide rod, an operating chain connected
35 to the free end of the rod and having a fusible link, and a catch for the chain.

This specification signed and witnessed this 31st day of March 1910.

ALEXANDER FROMHOLD.

Signed in the presence of—

M. R. MALONEY,
R. S. BEATTY.