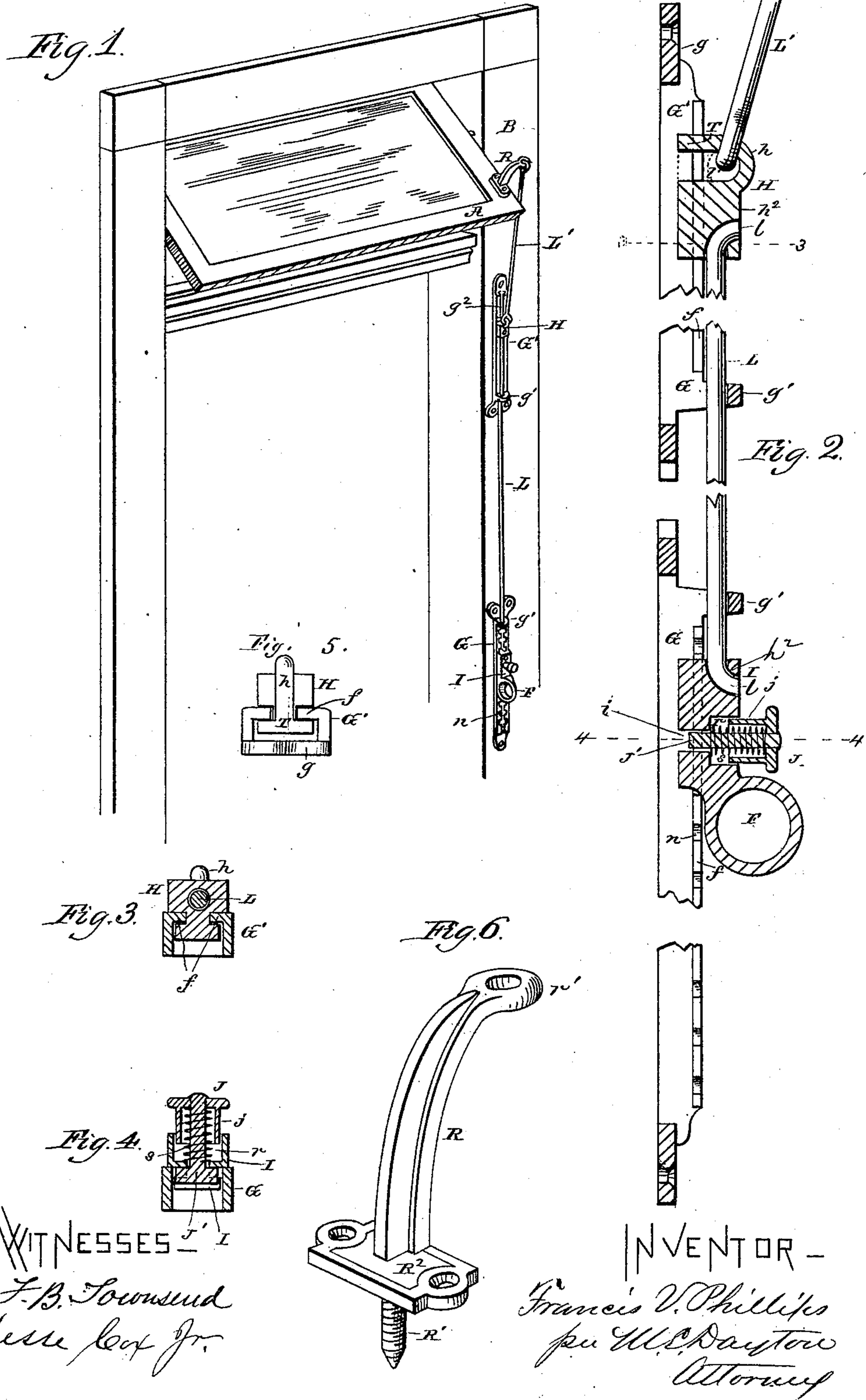


(No Model.)

F. V. PHILLIPS.
Transom Lifter.

No. 243,613.

Patented June 28, 1881.



UNITED STATES PATENT OFFICE.

FRANCIS V. PHILLIPS, OF CHICAGO, ILLINOIS.

TRANSOM-LIFTER.

SPECIFICATION forming part of Letters Patent No. 243,613, dated June 28, 1881.

Application filed May 14, 1881. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS V. PHILLIPS, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful
5 Improvements in Transom-Lifters; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon,
10 which form a part of this specification.

This invention relates to features of construction in lifters for transoms of doors, which have for their several objects, first, to provide
15 a positive automatic catch in convenient position to be disengaged by the same hand with which the lifting-rod is operated; second, to guard against the removal of the sash-arm by burglars; and, third, to facilitate the connection of the parts by the carpenter when applying
20 the lifter to a door, and to simplify the construction and lessen the cost of the lifter.

In the drawings, Figure 1 shows a door-frame and transom-sash having my improved lifter applied thereto. Fig. 2 is a central vertical
25 section of those parts of the lifter which are applied to the door-frame. Fig. 3 is a horizontal or transverse section of the upper guide and the sliding head or block which runs therein through 3 3 of Fig. 2. Fig. 4 is a horizontal
30 section of the lower notched guide and slide through 4 4 of Fig. 2. Fig. 5 is a top view of the upper guide and the slide therein. Fig. 6 shows the arm which is fixed to the transom-sash.

35 The same letter indicates the same part in all of the figures.

A is the transom-sash, here shown as centrally pivoted at its ends. B is the door-frame. R is the arm fixed to the transom-sash. L is
40 the vertical rod, extending from a point in convenient reach of one standing upon the floor to a point near the transom. G is a guide for the lower end of the rod L, and G' is a guide for its upper end. L' is a link or rod connecting
45 the upper end of the rod L with the arm R of the transom-sash A. H is the slide working in the upper guide, G', and affording a means of connection between the rods L and L'. I is a slide running in the guide G, and
50 fixed to the lower end of the rod L.

The guide G' is of a common construction, consisting of a long narrow open-backed metal box having a central longitudinal slot, g^2 , in its front face, narrower than the space beneath the box. This gives the flanges $f f$. (Seen more clearly
55 in Figs. 3 and 5.) The slot g^2 of the guide G' is open at the top, and, as here shown, is bridged at its lower end by the bridge g' . The guide G is generally similar to that just described. It differs in having its bridge g' at
60 its upper end, and in having notches n in the flanges f opening opposite each other from the slot g^2 , as shown in Fig. 1.

The slides H and I are fitted to the guides in the usual manner—that is, by having lateral
65 grooves, in which the flanges f run—and they are inserted, of course, at the open or unbridged ends of the slots g^2 . The slide I is provided with the ring or finger-hold F at its
70 lower end, to admit the forefinger in lifting or lowering the transom. Above the ring F, and in position to be conveniently pressed by the thumb when the forefinger is in the ring F, this slide is provided with a spring-catch,
75 which engages the notches n , and thereby holds the slide at any desired point in the guide. Said catch consists of a thumb piece, J, having a shank, J', provided with a T-head at its
80 inner end, which shank is inserted loosely through an aperture in the slide I from its under side, and is riveted to the thumb-piece J, as seen in Figs. 2 and 4. Between the slide
85 and the thumb-piece is inserted the expanding coiled spring s , which operates to lift the thumb-piece, and to thereby draw the T of the shank J' outward into the slots n . To make
90 the slide compact, and to assist in guiding the T-catch, the slide is shown as recessed at r , and the thumb-piece as having the thimble j entering said recess loosely, and at the same time inclosing and protecting the spring s . Said thumb-piece may, however, have two wings to set over the sides of the slide, instead
95 of the thimble j setting into the recess. The transverse slot i , Fig. 2, in which the T-catch works, holds the latter always in position to enter the opposite notches, n . The slide H is provided with a hook or eye, h , to afford connection with the eye h' of the link L'.
100

In the drawings, h is a hook, having its free

extremity T-shaped, as seen in Fig. 6, over which the eye l' , previously formed, may be readily slipped when the parts are applied to the door. The link L' is connected by a closed
5 eye to the free end of the arm R.

The rod L may be permanently riveted to the slides H and I in the usual manner; but to enable the lifter to be more closely packed for shipment, and at the same time readily joined
10 when applied to the door, I have devised the method of connecting these parts shown in Fig. 2, wherein each slide is cast with a curved hole, h^2 , and the ends of the rod L are similarly curved, so that when the slides are loose
15 from the guides they may be conveniently slipped off or on the rod L, but when they are held in line by the guides the rod cannot be removed. The package will usually, therefore, need to be no longer than the rod L, which is
20 commonly the longest part of the lifter.

The link L' should be securely attached by the maker to the arm R, and if the slide G' is not fastened permanently to the rod L, the said slide is preferably made with a closed eye
25 at h and attached by the maker to the link L' .

For the purpose of guarding against the removal of the arm R from the transom-sash by a person operating from the outside with a screw-driver to remove the screws entering the
30 sash through the plate R^2 , I cast a screw, R' , to the under face of said plate. This screw is run into the sash before the link L' is connected with the guide G' , and when, afterward, said link is connected with the guide it is obviously
35 impossible to turn the arm R sufficiently to withdraw said screw. The plate R^2 is retained, and is screwed to the sash to give additional strength to the arm.

It is, of course, plain that the lifter described will operate the sash if the latter is pivoted at
40 other points than as here shown.

The guides G and G' are fastened to the door-frame by screws at their ends, and the adjacent ends of the guides have screw-holes at both sides of the rod, permitting the guides to
45 be secured with the rod in place.

If preferred, the notches n may be made in the under face of the flanges f , instead of extending through said flanges, as shown in the
50 drawings.

I claim as my invention—

1. In a transom-lifter, the combination, with the rod-guide G, having the flanges f and notches n , of the slide I, provided with the finger-hold F, and the spring-catch J J', substantially
55 as described, and for the purposes set forth.

2. Combined with the guides G and G' , the rod L, having its end curved at l , as shown, and the slides H and I, provided with a correspondingly-curved aperture, h^2 , to receive the rod, substantially as and for the purposes
60 specified.

3. In a transom-lifter, the combination, with the rod L' , confined at its lower end, of the
65 arm R, connected with the rod L' , and provided with the fixed screw R' , substantially as shown, and for the purposes set forth.

In testimony that I claim the foregoing as my invention I affix my signature in presence
70 of two witnesses.

FRANCIS V. PHILLIPS.

Witnesses:

M. E. DAYTON,
W. C. ADAMS.