F. A. REIHER.

TRANSOM-LIFTER.

No. 186,166. Patented Jan. 9, 1877.

Fig. 1

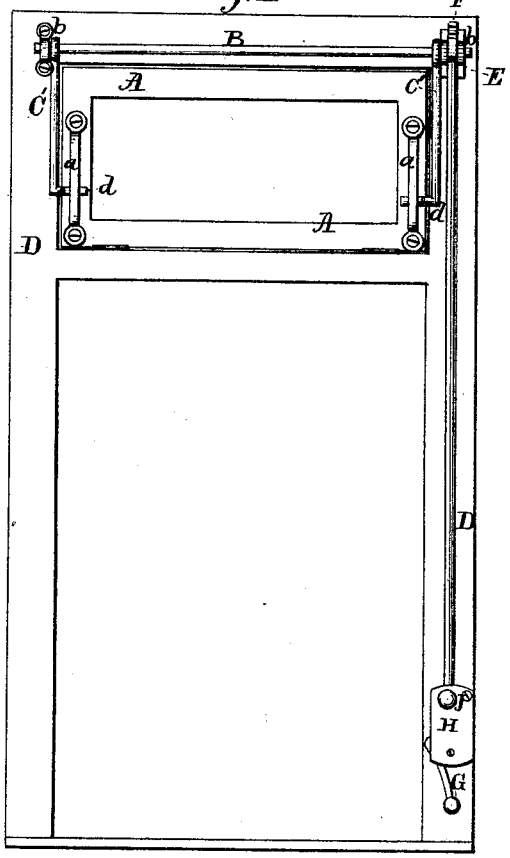


Fig. 2.

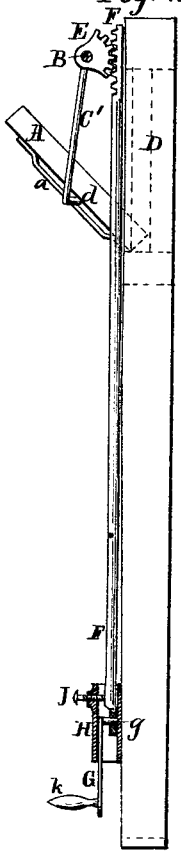


Fig. 3

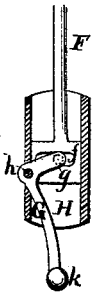
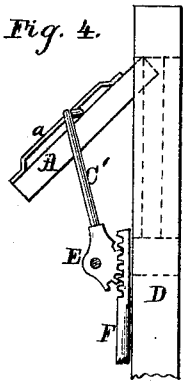


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE

FRANK A. REIHER, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF HIS RIGHT TO C. F. BOLLMANN, OF SAME PLACE.

IMPROVEMENT IN TRANSOM-LIFTERS.

Specification forming part of Letters Patent No. **186,166**, dated January 9, 1877; application filed August 16, 1876.

To all whom it may concern:

Be it known that I, FRANK A. REIHER, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Transom-Lifters, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings:

The object of my invention is to adjust, lift, or shut transoms or skylights from a distance below; and mainly consists in the arrangement of certain arms guiding the free (not hinged) end of the transom-sash by means of a gear-segment and a rack-rod, operated upon by a lever, as will hereafter more fully be described.

In the drawings, Figure 1 shows a front elevation of my device, the transom being in a partly elevated position. Fig. 2 shows a side elevation of the same. Fig. 3 shows the lifting-lever with end of rod enlarged. Fig. 4 shows a modification in the arrangement of parts, the transom-sash being hinged in a different manner.

The transom-sash A, hinged to the door-frame D in the usual manner, is provided with two guide-rails, *a a*. Permanently affixed to a rod or shaft, B, turning in two bearings, *b b'*, are the arms C' C', arranged at each end of the transom-sash and bent at their ends, forming finger-like projections *d d*, as shown in Fig. 1. The position of these arms C' C' will naturally determine the respective position of the transom. Firmly affixed to one end of the shaft B is the gear-segment E, in gear with the rack-rod F situated vertically on the side of the door-frame. The lower end of this is flattened out, as shown in Fig. 3, forming a plate, which is provided with a horizontal slot, *f*. A casing, H, screwed to the post of the door-frame D, forms a guide for the lower end of rack-rod F. The double-armed lever G is fulcrumed at the pin *h*, fastened to the casing, and operates the rack-rod. Its short arm, with pin *g*, engages in the slot *f*, while the long arm is provided with a handle or knob, *k*, for the operator. The set-screw J on top of the casing serves to hold the rack-rod at any desired position. Respective recesses may be formed in the rack-rod.

The operation is simply as follows: Any movement imparted to the lever G will necessarily be followed by the pin *g*, rack-rod F, gear-segment H, shaft B, arms C' C', and the transom-sash A.

Light transoms may be operated by only one arm, C', which may be connected directly to the segment, as shown in Fig. 4. Only one rail, *a*, is necessary, and the shaft B will be reduced to a stationary stud, on which the segment turns.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The arms or arm C' C', with rails *a a*, fastened to the transom-sash, in combination with the gear-segment and rack-rod.

2. The double-armed lever G, in connection with the rack-rod F with slot *f*.

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