(No Model.)

T. MAYHEW.

TRANSOM LIFTER.

No. 348,226. Patented Aug. 31, 1886.

Fig. 1.

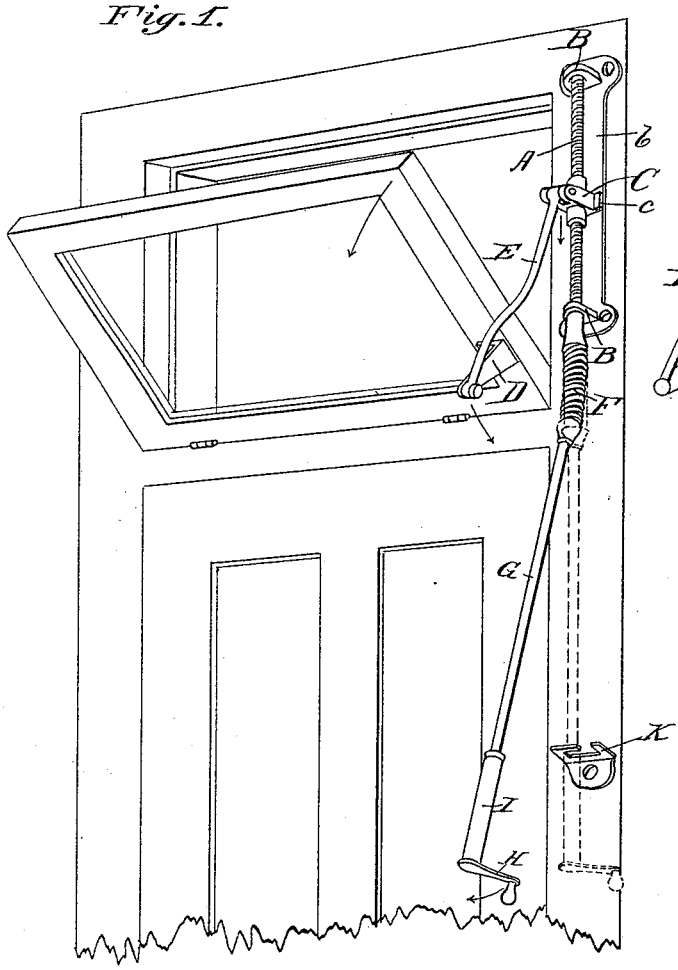
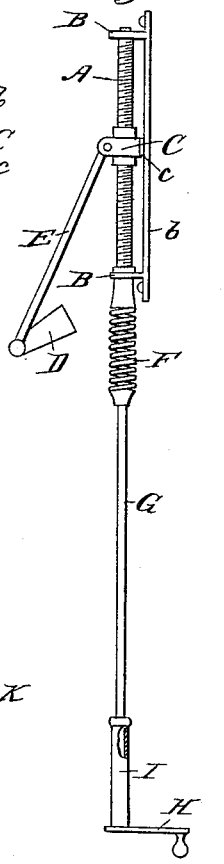


Fig. 2.



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TRANSOM-LIFTER.

SPECIFICATION forming part of Letters Patent No. 348,226, dated August 31, 1886.

Application filed January 26, 1886. Serial No. 189,783. (No model.)

To all whom it may concern:

Be it known that I, THEOPHILUS MAYHEW, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Transom-Lifters, of which the following is a specification.

My invention relates to an improved transom-lifter.

Heretofore transom-lifters have been made wherein a traveler, mounted in suitable guides, has been attached to the frame of the door, and connected by means of a pitman with a bracket upon the hinged transom-frame, so that a movement of the traveler along its guides will cause the transom to open or shut, this movement of the traveler being caused by means of a rod attached thereto, and extending downward along the frame of the door to a point within the easy reach of a person operating the transom. The movement of the traveller has also been accomplished by the use of a screw-threaded rod extending through a threaded opening in the body of the traveler, mounted in journal-bearings rigidly attached to the door or window frame, and operated by a crank-handle through a beveled gearing. It is to this latter class that my invention belongs; and it consists in connecting an operating-rod to the screw-threaded rod by means of a flexible joint to admit of the operating-crank handle being swung out of the axial line of the screw-threaded rod without interfering with its working. This feature and its utility are more fully described hereinafter.

In the accompanying drawings, Figure 1 is a perspective view of a transom fitted with my improved lifter. Fig. 2 is a side view of the lifter detached from the door.

A is a screw-shaft, mounted within journal-bearings B B, secured to the jamb of the door, preferably by being made integral with or attached to a back plate, *b*, which may be secured to the door-frame by screws.

C is a traveler, mounted upon the screw-shaft by means of a threaded opening or collar, through which the screw-shaft works, and flattened out at its rear side *c*, so as to present a flat surface to the door-frame, or preferably to the plate *b*, so that as the screw-shaft is rotated the traveler will be prevented from turning and will consequently be moved along in the axial line of the screw-shaft.

A bracket, D, is attached to the transom so as to project forward therefrom, and a connecting-rod, E, is pivoted to this bracket and to the traveler C, so that the movements of the traveler will be communicated to the transom and cause it to open or shut. To the lower end of the screw-shaft A is attached by means of a flexible joint, F, a rod, G, to serve as an extension of the screw-shaft, and to extend downward along the frame of the door to a point within reach of a person desiring to operate the transom.

The flexible joint F is for the purpose of allowing the screw-shaft to be operated from a point not in its axial line, and this feature I consider as important for the reason that it admits of the fixtures being mounted much closer to the face of the door-frame than they otherwise would, and for the further reason that it allows of the use of a crank-handle applied directly to the end of the rod G, as shown at H. I preferably make the flexible joint as shown in the drawings—that is, by interposing between the lower end of the screw-shaft and the rod G a spiral spring, said spring being so proportioned as that it will transmit a rotating motion from the rod G to the screw A. I do not wish, however, to confine myself to this particular form of flexible joint, as there are many other well-known forms in which it can be made, any one of which would serve equally well.

To provide for the turning of the rod G to operate the screw-shaft, a crank-handle, H, is mounted upon the lower end of the rod, and in using the device the lower end of the rod must be steadied by one hand, while it is rotated by the other.

For convenience in using my transom-lifter and to prevent possible injury to the hands of the user, I place a loose sleeve, I, upon the rod G, which sleeve may be grasped in the hand used to steady the rod while it is being turned, and serve as a journal-bearing for the rod. To prevent any unnecessary swinging of the rod when not being used, a hook, K, is attached to the door-frame, so that the rod G may be held thereby when so desired, as shown in Fig. 1, dotted lines.

What I claim as my invention is—

1. In a transom-lifter or analogous device, the combination, with a screw-shaft mounted in journal-bearings and adapted to communicate motion to the transom-operating parts, of a handle or rod for rotating said screw-shaft, attached thereto by a flexible joint, all as and for the purpose set forth.

2. In a transom-lifter, the combination of a sliding traveler, a pitman-rod, E, bracket D, screw-threaded shaft B, operating-handle G, and spiral-spring connection F F between the handle G and screw-shaft B, all as and for the purpose set forth.

Signed at New York, in the county of New York and State of New York, this 23d day of January, A. D. 1886.

THEOPHILUS MAYHEW.

Witnesses:

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