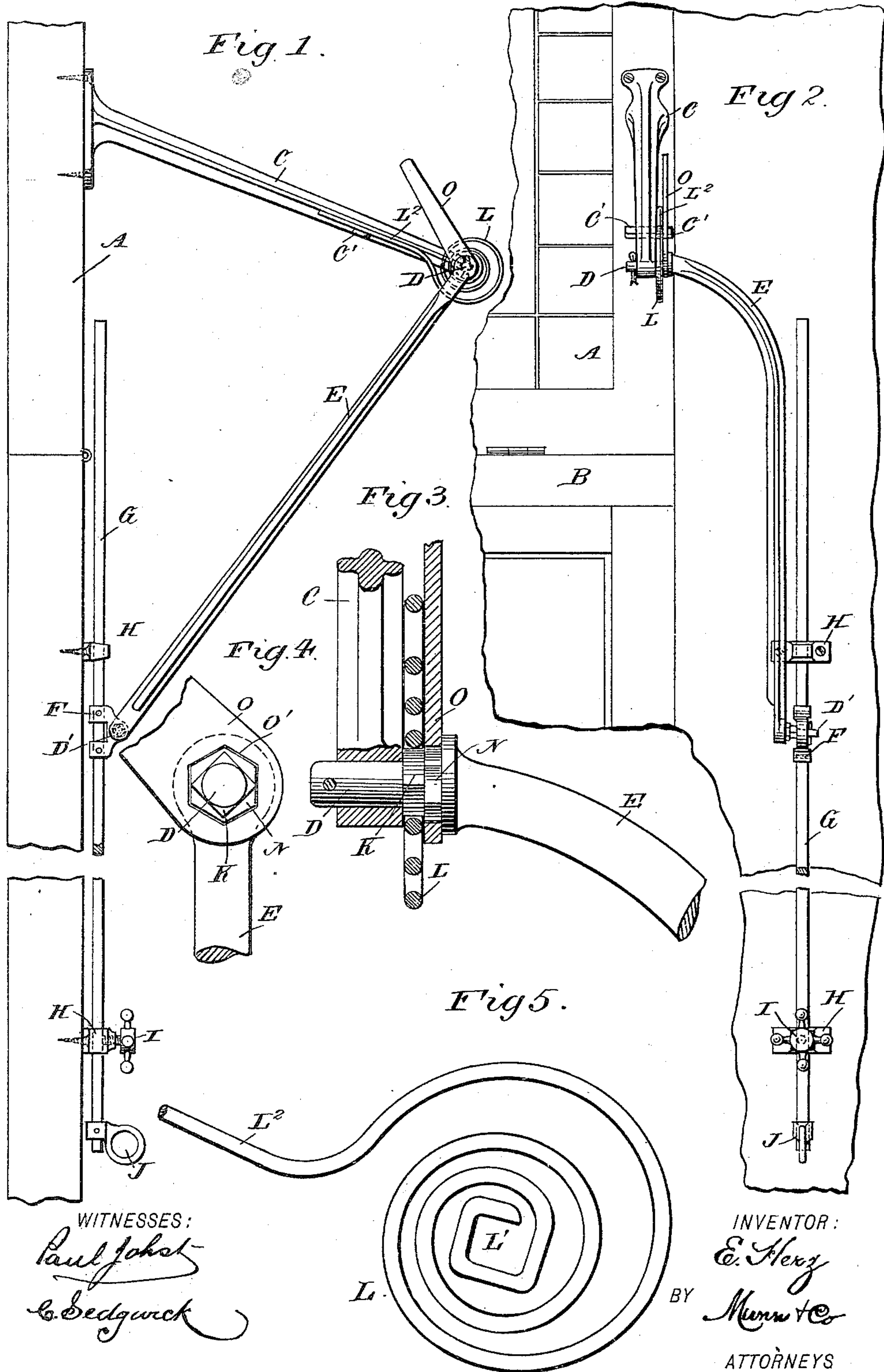


(No Model.)

E. HERZ.
TRANSOM LIFTER.

No. 442,482.

Patented Dec. 9, 1890.



UNITED STATES PATENT OFFICE.

EMIL HERZ, OF NEW YORK, N. Y.

TRANSOM-LIFTER.

SPECIFICATION forming part of Letters Patent No. 442,482, dated December 9, 1890.

Application filed October 14, 1890. Serial No. 368,131. No model.)

To all whom it may concern:

Be it known that I, EMIL HERZ, of the city, county, and State of New York, have invented a new and Improved Transom-Lifter, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved transom-lifter which is simple and durable in construction, permits a full or partial opening of the window, is adapted to relieve the latter of all shock or strain, and is so arranged as to limit the outward swinging movement of the window.

The invention consists of a bracket adapted to be secured to the window provided with a lug and a link pivotally connected with the said bracket and provided with a stop and a spring, both adapted to engage the said lug.

The invention also consists of certain parts and details and combinations of the same, as will be hereinafter fully described, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement as applied. Fig. 2 is a front view of the same. Fig. 3 is an enlarged transverse section of the joint between the link and the bracket. Fig. 4 is an enlarged face view of the link and its stop, and Fig. 5 is an enlarged face view of the spring.

The transom-lifter is especially intended for transom-windows of the construction shown in Figs. 1 and 2, in which the window A is pivotally connected at its lower edge to the transom-bar B. The transom-lifter is provided with a bracket C, secured on the frame of the window A and extending outwardly and downwardly, as is plainly illustrated in Figs. 1 and 2. The outer end of the bracket C is pivotally connected with a pin D, formed on the end of a link E, provided at its other end with a similar pin D', engaging a corresponding aperture in the sleeve F, secured on the bar G, arranged vertically and fitted to slide in suitable bearings H, secured to the casing near the transom on which the lifter is applied. One of the bearings H is provided with a set-screw I for fastening the bar G in place after the window A has been

swung to the proper place. On the lower end of the bar G is arranged a suitable handle J for conveniently manipulating the bar G to open and close the window A. The handle J is arranged so as to be within convenient reach of a person standing on the floor. Next to the pin D on the link E is formed a square offset K, adapted to be engaged by the similarly-shaped inner end L' of a spiral spring L, having its outer end L² made straight to extend and rest on the top of a lug C', projecting from the side of the bracket C. Next to this square offset K on the link E is arranged another offset N, preferably made hexagonal and adapted to be engaged by a corresponding opening O', formed on a stop O, adapted to engage the lug C', previously mentioned, when the window A is swung open, so as to limit the movement of the window. The hexagonal opening O' is preferably arranged, as illustrated in Fig. 4, so that the angle at which the stop O extends to the link E can be changed at every thirty degrees by alternately turning the stop O around to engage the offset N. In this manner the distance the window can be opened by the transom-lifter is regulated as the outward swinging movement of the window ceases when the stop O strikes against the lug C' of the bracket C.

The operation is as follows: When the set-screw I is disengaged from the bar G, then the spring L tends to hold the window A closed. When the operator desires to open the window, he pulls on the handle J, so that the bar G slides downward and carries the link along, so that the window A swings open against the tension of the spring L, which is compressed by the outward swinging movement of the bracket E with the window A. The resistance of the spring L increases the farther the window A is opened, and when finally the stop O strikes against the lug C' of the bracket C the further outward motion of the window ceases; but the spring L by offering such large resistance prevents all shock which would otherwise be incident at the stop striking against the lug C'. When the window has thus been opened, the operator screws up the set-screw I so as to lock the bar G in place, and thus hold the window A in an open position. By changing the relative position of the stop O to the link E, as

previously described, the distance the window A can swing open is regulated—that is, can be increased or diminished, as desired.

When the operator desires to close the transom-window A, he unscrews the set-screw I, so that the spring L previously compressed gently closes the window.

The link E is provided with the pins D and D', so as to permit of changing the link E around whenever it is desired to reach the transom-window from the opposite side.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A transom-lifter comprising a bracket adapted to be secured to the window and provided with a lug, and a link pivotally connected with the said bracket and provided with a stop and a spring, both adapted to engage the said lug, and means, substantially as described, for operating the said link, substantially as shown and described.

2. A transom-lifter comprising a bracket adapted to be secured to the transom-window and provided with a lug, a link pivotally connected with the said bracket, a bar fitted to

slide vertically and pivotally connected with the said link, a spring held on the said link and engaging with its free end the lug on the said bracket, and a changeable stop held on the said link and adapted to engage the said lug on the bracket when the window A is swung open, substantially as shown and described.

3. In a transom-lifter, the combination, with a bracket adapted to be secured to the window and provided with a lug, of a link provided with a pin pivotally connected with the said bracket, the said link being also provided with polygonal offsets, a spring engaging with one end of the said polygonal offsets and with its other end the said lug, and a stop engaging the other polygonal offset and adapted to engage with its free end the said lug when the window is opened, and means, substantially as described, for operating the said link, substantially as shown and described.

EMIL HERZ.

Witnesses:

THEO. G. HOSTER,
EDGAR TATE.