

(No Model.)

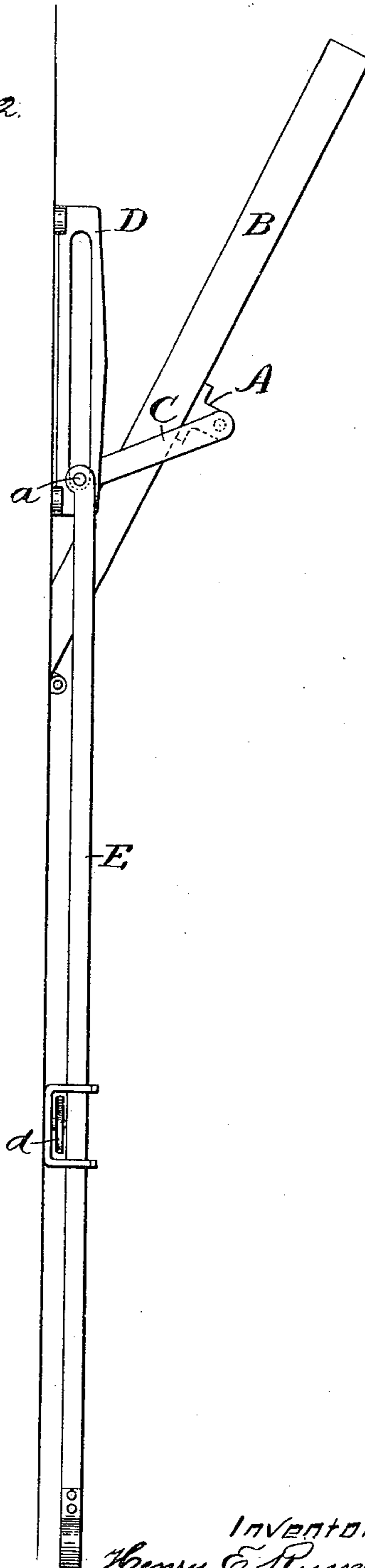
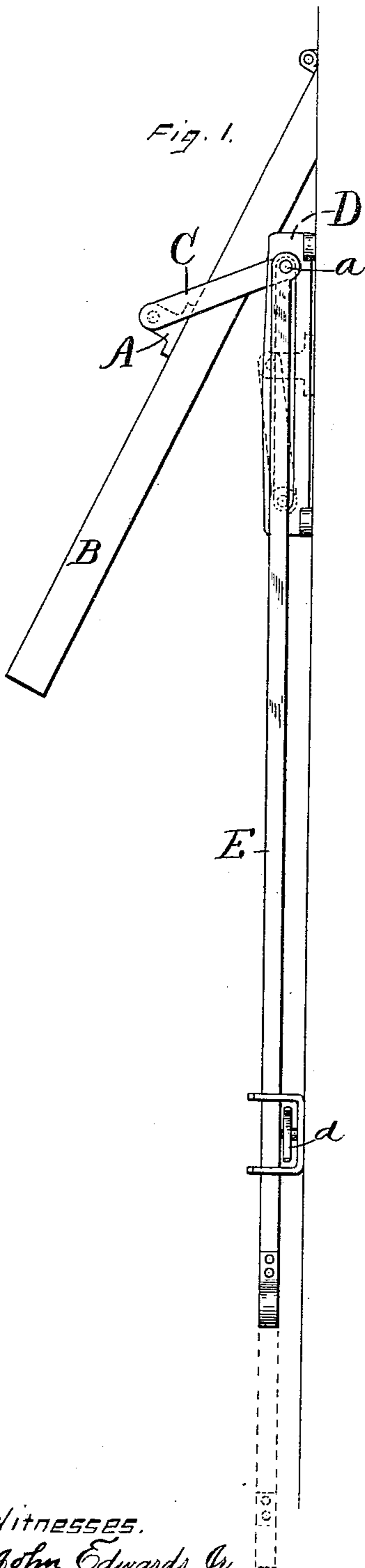
2 Sheets—Sheet 1.

H. E. RUSSELL, Jr.

TRANSOM LIFTER.

No. 377,362.

Patented Jan. 31, 1888.



WITNESSES.
John Edwards Jr.
W. H. Whiting

INVENTOR.
Henry E. Russell Jr.
By James Shepard
Att'y.

(No Model.)

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Fig. 3.

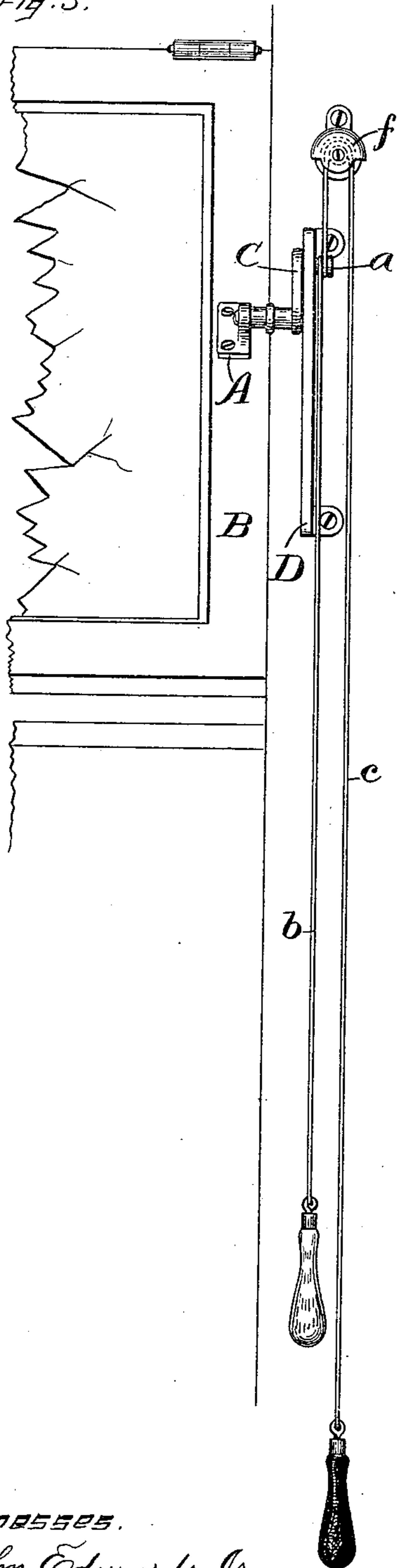
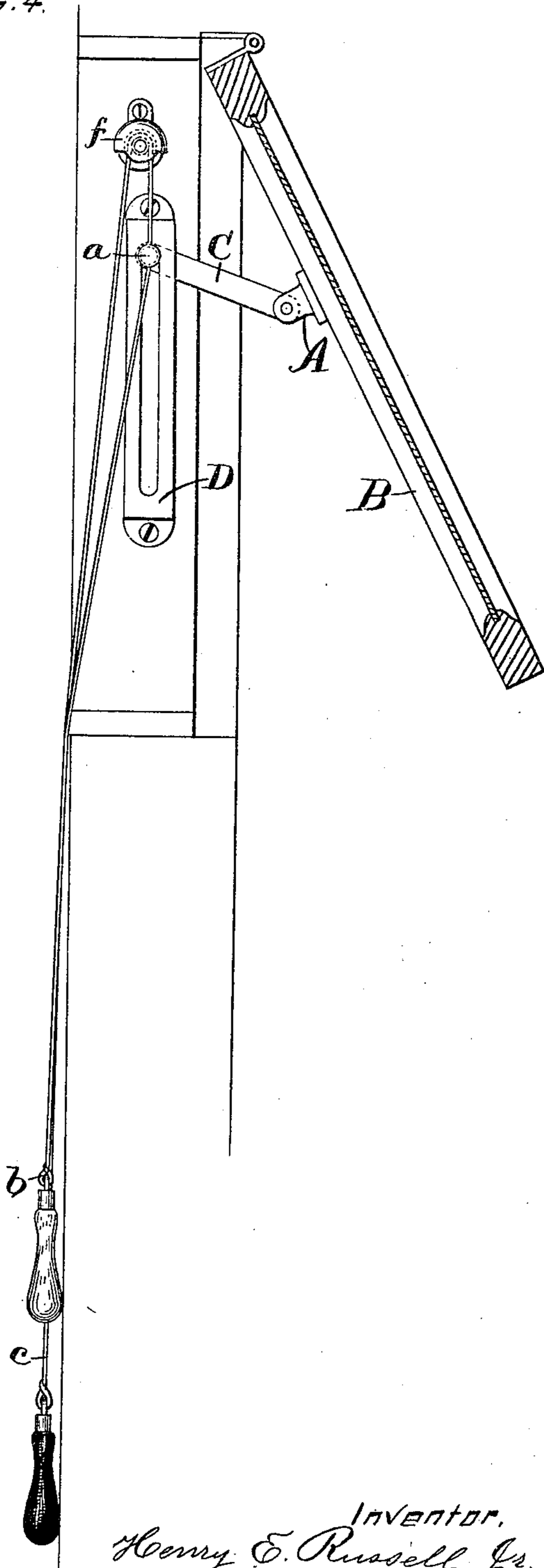


Fig. 4.



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UNITED STATES PATENT OFFICE.

HENRY E. RUSSELL, JR., OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO THE
RUSSELL & ERWIN MANUFACTURING COMPANY, OF SAME PLACE.

TRANSOM-LIFTER.

SPECIFICATION forming part of Letters Patent No. 377,362, dated January 31, 1888.

Application filed January 12, 1887. Serial No. 224,091. (No model.)

To all whom it may concern:

Be it known that I, HENRY E. RUSSELL, Jr., a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Transom-Lifters, of which the following is a specification.

My invention relates to improvements in transom-lifters; and the objects of my improvements are to simplify the construction and to increase the usefulness of the lifter, making it easy and convenient to operate and adapting it to a wide range of application.

In the accompanying drawings, Figure 1 is a side elevation of my transom-lifter as applied to a transom or fan-light, which is hinged at the top and operated by a rod and fastening-screw. Fig. 2 is a like view of the same as applied to a transom which is hung at the bottom. Fig. 3 is a front elevation of my transom-lifter as applied to a transom hung at the top and operated by cords; and Fig. 4 is a side elevation of the same as applied to the opposite side of the transom.

A designates a bracket secured to the transom B, and having a link, C, pivoted to its outer end. Secured in a vertical position to the window-jamb there is a slotted bracket, D, the same being slotted through and through in a direction which is parallel to the face of the frame in which the transom is hung. Within the slot of this bracket is the guide-pin *a*, one end of which is secured to one end of the link C, while the other end is projected for the attachment of the operating-rod E or cords *b* *c*. The axis of the guide-pin, which lies within the slot of the bracket D, is also parallel to the face of the transom-frame. The operating-rod is provided with a fastening-screw, *d*, by which to secure it in place. This rod and fastening-screw may be of any ordinary construction. When operated with the fastening-cords, the cord *b* extends downward from the guide-pin, while the cord *c* first extends upward over the pulley *f* and then downward, as shown in Figs. 3 and 4. I prefer to provide these cords with handles, making them of different colors, so as to readily distinguish the different cords. In connection with these cords any suitable or ordinary fastening device may be employed, by means of which the guide-pin *a* can be held

at any desired position within the slot of the bracket D. In all the figures of the drawings the transom is represented as open.

In Fig. 1 the position of the parts A, C, *a*, and E, when the transom is closed, is indicated by broken lines. From this it will be seen that the guide-pin *a* rests at the lower end of the slot within the bracket D, and that the connecting-pivot of the link C and bracket A is a little farther from the transom than the guide-pin *a*, whereby the link slants away from the transom. Therefore an upward pressure upon the operating-rod (in the arrangement shown in Fig. 1, or a downward pressure in the arrangement shown in Fig. 2) will throw the bracket end of the link C away from the jamb and open the transom, the guide-pin traversing the slot and carrying the link a little past the center or pivot of the bracket A, so as to hold the transom open, as shown.

In order to open the transom wider than is illustrated in the drawings, it is only necessary to attach the lifter nearer the pivot on which the transom swings. It is also evident that this operation will be the same whether the hinge or pivot of the transom is at its edge or in the middle, the lifter in each case being attached in the same position relatively to the transom pivot or hinge.

When the lifter is worked by cords, the pulling of the cord *c* moves the guide-pin *a* in a direction to throw the transom open, while the pulling of the cord *b* will move the guide-pin *a* in the direction to close the transom. The construction illustrated in Fig. 4 is the same as that of the other figures, excepting that the screw-hole lugs are differently arranged upon the slotted bracket D to enable it to be placed upon the opposite side of the transom, whereby the lifter is operated upon that side of the transom from which it swings instead of from the side toward which it swings, as in the other figures.

I do not claim, broadly, a transom-lifter having an operating-cord, nor the combination of a link, brackets, and a guide-block moving in a slot in one of said brackets.

Some of the advantages of my transom-lifter are as follows: It is adapted for use upon a transom which is hung either at the top, bottom, or in the middle. By the use of cords and

pulley it may be operated when the transom is placed at a great height. When used on a transom that is hung at the bottom, it will check itself and does not require the use of cushions or springs. It can be operated either with cords and pulley or by a rod and fastening-screw. When used on transoms that are hung at the top and opened far enough to carry the guide-pin to the end of the slot in the slotted bracket, no dependence need be placed upon the rod or cords to hold the window, as it will not move out of position. The operating rods or cords, when fastened in place, securely lock the transom when it is closed as well as at other times, and it can be used either as a right or left hand lifter and upon that side of the partition toward or from which the transom swings.

I claim as my invention—

1. In a transom-lifter, the combination of the bracket A, the bracket D, slotted through and through in a direction which is parallel to the face of the transom-frame, the link C,

pivoted to the bracket A, the guide-pin *a*, secured to the opposite end of said link and resting within the slot of the bracket D, with its axis parallel to the face of the transom-frame, and means for operating said guide-pin lengthwise within the slot of the bracket, substantially as described, and for the purpose specified.

2. In a transom-lifter, the combination of the bracket A, the link C, with one end pivoted to said bracket, the guide-pin *a*, secured to the opposite end of said link, and the slotted bracket D, having its slot of a length proportionate to that of said link C, as described, whereby the guide-pin and link in opening the transom may pass the center on which said link is pivoted to the bracket A, substantially as specified.

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Witnesses:

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M. S. WIARD.