(No Model.)

G. A. COLTON.

TRANSOM LIFTER.

No. 476,365. Patented June 7, 1892.

Fig. 1.

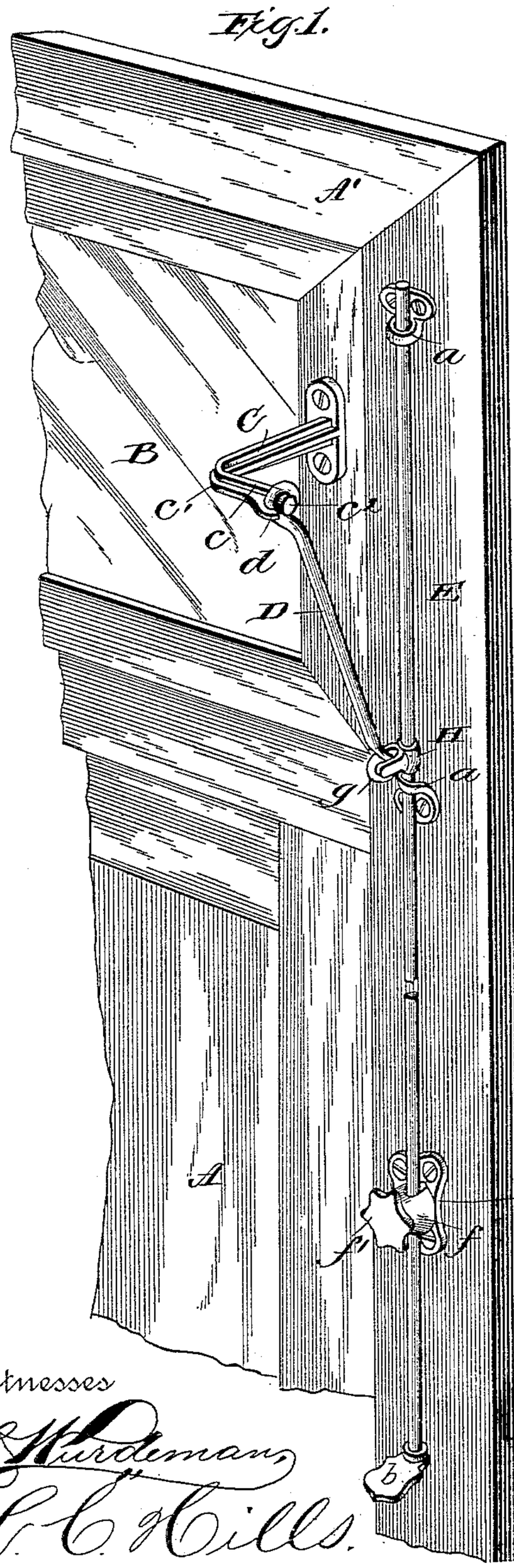


Fig. 6.

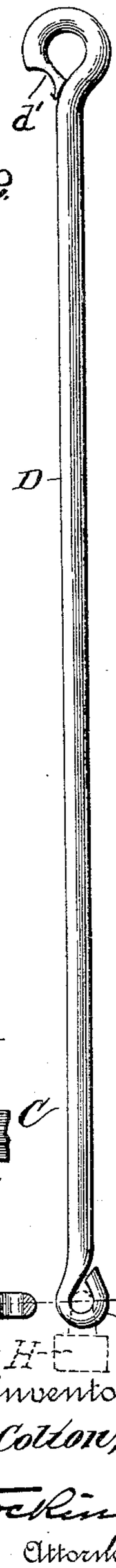


Fig. 2.

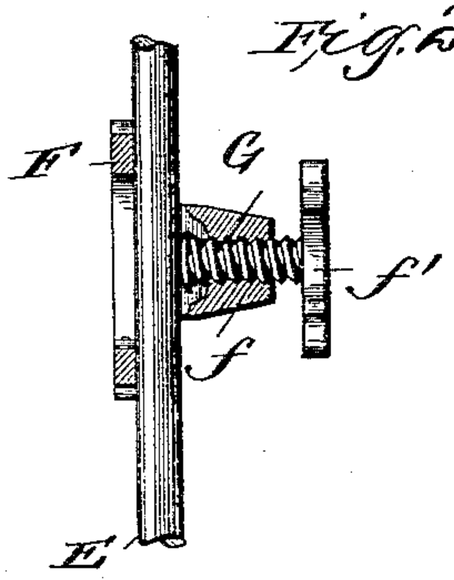


Fig. 3.

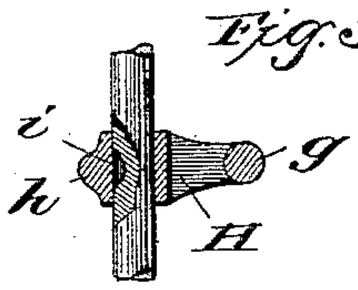


Fig. 4.

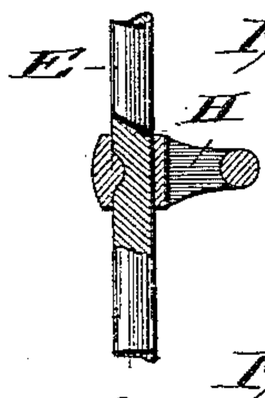
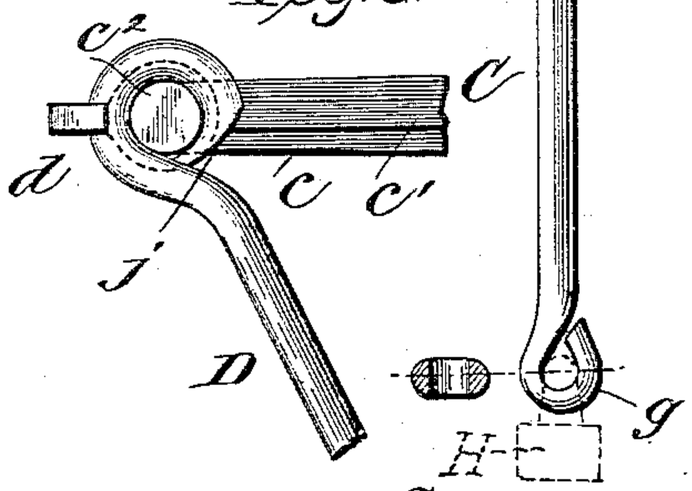


Fig. 5.



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UNITED STATES PATENT OFFICE.

GEORGE A. COLTON, OF CHICAGO, ILLINOIS.

TRANSOM-LIFTER.

SPECIFICATION forming part of Letters Patent No. 476,365, dated June 7, 1892.

Application filed November 28, 1891. Serial No. 413,415. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. COLTON, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Transom-Lifters, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in transom-lifters; and it has for its objects, among others, to provide an improved device of this character which shall be more complete and durable than the prior forms, in which the set-screw shall be constructed so as to prevent its withdrawal, and in which the stirrup is secured to the rod in a novel manner. I form the rod with a notch or depression and the stirrup with an exterior wart or projection, which is designed to be driven into the said notch or depression after it is placed upon the rod, thus leaving a neat finish upon the outer face of the stirrup instead of a hole, as in the prior constructions, where the stirrup was secured to the rod by means of a punch or other tool, forcing a portion of the metal of the stirrup into the notch in the rod. I upset or otherwise treat the inner end of the set-screw, so that it cannot be withdrawn from its socket. I form the bracket which is designed to be attached to the transom with a bendable portion, which is designed to be compressed around a hooked portion of the brace, the end of the hook of the brace being milled away to form a good-looking and close bend.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view showing my improved lifter in position. Fig. 2 is an enlarged detail showing the manner of securing the set-screw against displacement. Fig. 3 is a detail showing the stirrup before it is secured to the rod. Fig. 4 is a similar view after the stirrup is secured to the rod. Fig. 5 is an enlarged view showing the end of the brace-arm secured to the bracket. Fig. 6 is a side view of the brace-arm detached.

Like letters of reference indicate like parts throughout the several views in which they occur.

Referring now to the details of the drawings by letter, A designates a portion of a door or window, A′ the frame, and B the transom, all of any well-known or approved construction.

C is a bracket secured to the transom and having a lateral arm *c*, which is preferably ribbed, as shown at *c′*, and at the outer end this arm is formed with a round portion c^2, as seen in Figs. 1 and 5, and the rib is extended to form the bendable lug or portion *d*, which is designed to be bent around the brace-arm D and prevent displacement thereof.

To the frame are attached the guides *a*, through which the rod E is designed to slide freely, the said rod being provided at its lower end with a finger-piece or analogous provision *b*, as shown in Fig. 1.

Secured to the frame near the lower end of the rod is the guide-bracket F, having a vertical passage for the rod, as shown best in Fig. 2, and this guide-bracket is formed with a screw-threaded boss *f*, in which works the set-screw G, the inner end of which is upset or otherwise treated to prevent its withdrawal from the boss, and the other end—the outer end—is provided with a knob, handle, or other analogous provision *f′*, by which it may be manipulated when desired. This set-screw is designed to engage the rod and hold it in its adjusted positions.

H is a stirrup designed to be secured to the rod and to have the brace-rod secured thereto. It is formed with a sleeve portion to receive the rod and with a loop or cross-bar *g*, around which the lower end of the wire of the brace-rod is bent, as shown best in Fig. 1. The sleeve portion is formed with an exterior wart or projection *h*, as shown in Fig. 3, and the rod is formed with a notch or depression *i* opposite this wart or projection, and in order to secure the stirrup to the rod all that is necessary to do is to place the stirrup, with the wart, opposite the notch, and then in any suitable manner, with any suitable instrument, give the wart a blow and drive it into

the notch or depression, as shown in Fig. 4, when the parts will be securely held together and a neat smooth finish will be provided upon the face of the stirrup, as seen in Fig. 4.

To secure the upper end of the brace D to the lateral arm of the bracket C, it may be bent around the rounded portion c^2 thereof, and the lug d then bent upon it, as shown in Fig. 1, or the loop or coil in the brace may be first formed and then slipped on the said rounded portion and then the lug d bent over it. Either way may be employed. In order to make a neat and close bend, I mill away a portion of the wire brace at the hook, as shown at j in Fig. 5.

The manner of securing the brace to the bracket permits of its being put on top or bottom, or right or left hand; but it cannot get unhooked after the transom-lift is secured in place.

The operation is similar to previous devices of this character, and a description thereof is not deemed necessary.

As shown in Fig. 6, the coil at the upper end of the brace-arm D is milled away, as shown at d', to enable the coil to be slipped over the end of the bracket C without bending down or around the coil. This may sometimes be found preferable to the bending of the part d around the coil.

In order to permit of the making of a neater and closer bend and at the same time to permit of the swiveling of the stirrup, I mill away the lower end of the brace-arm, as seen best in Fig. 6, which milling, being upon the inner side of the loop or coil, is of course done before the loop or eye is formed.

I am aware that it has been proposed to employ in a tool-handle a ferrule with interior fins, the said ferrule being designed to be bodily compressed to force the said fins into the wood of the handle and do not seek to cover such construction. My invention differs from such in that the wart or projection is on the outer surface of the sleeve and the body of the sleeve is not compressed. All that is necessary is a blow upon the exterior wart, which compresses it into the depression of the rod, leaving a neat outer surface. This may be done at the factory or when the lifter is set up or applied in position, requiring no special machinery.

What I claim as new is—

1. In a transom-lifter, the combination, with the rod formed with a depression, of a stirrup having a portion to receive the rod and provided with an exterior wart or projection, whereby the substance of the stirrup may be compressed into the depression of the rod to firmly connect the two together, substantially as and for the purpose specified.

2. As an improved article of manufacture, a stirrup for transom-lifters, comprising a sleeve portion provided with an exterior wart or projection, substantially as and for the purpose specified.

3. The combination, with the rod, of the guide-bracket having screw-threaded boss, and through which the rod passes, and the set-screw tapped through said boss and having its inner end upset to impinge against the interior of the bracket, substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE A. COLTON.

Witnesses:
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HENRY F. GEHRKE.