(No Model.)

J. F. WOLLENSAK.

TRANSOM LIFTER.

No. 381,742. Patented Apr. 24, 1888.

Fig. 1.

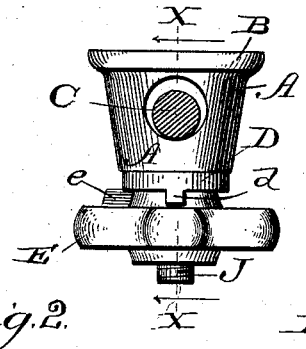


Fig. 2.

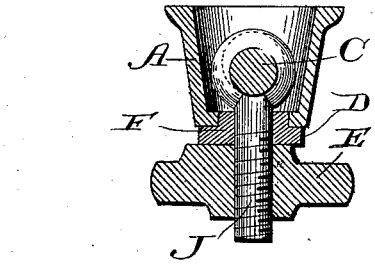


Fig. 3.

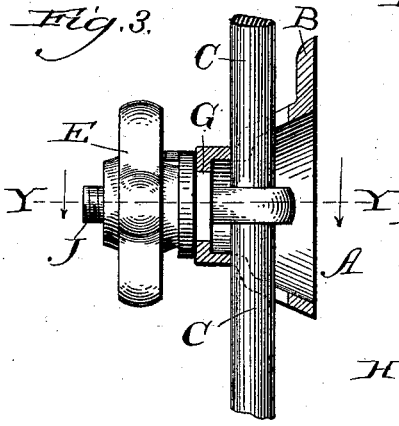


Fig. 4.

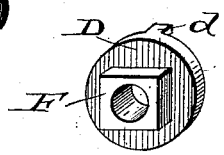


Fig. 5

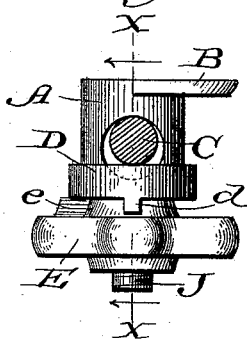
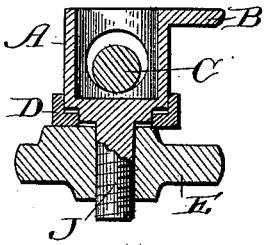


Fig. 6.

Fig. 8.



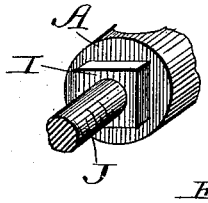


Fig. 7.

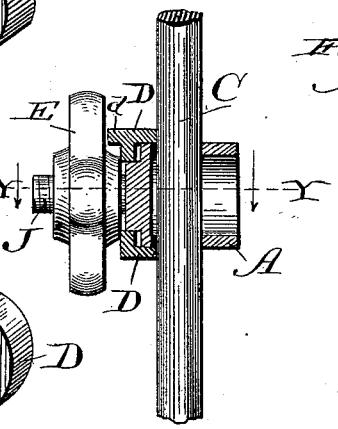
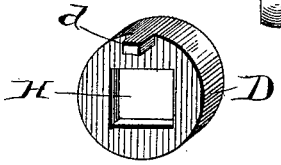


Fig. 9.



Witnesses:
Chas. E. Gaylord.
George S. Payson.

Inventor:
John F. Wollensak.
By Banning & Banning
Attys

UNITED STATES PATENT OFFICE.

JOHN F. WOLLENSAK, OF CHICAGO, ILLINOIS.

TRANSOM-LIFTER.

SPECIFICATION forming part of Letters Patent No. 381,742, dated April 24, 1888.

Application filed October 27, 1887. Serial No. 253,550. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. WOLLENSAK, a citizen of the United States, residing at Chicago, Illinois, have invented certain new and useful Improvements in Fasteners for Transom-Lifters, of which the following is a specification.

The object of my invention is to make a fastener for the lifting-rod of transoms and other articles in which the nut cannot be removed without difficulty; and my invention consists in the features and details of construction, hereinafter described and claimed.

In the drawings, Figure 1 is a plan view of my improved lifter with the nut and other parts in place. Fig. 2 is a longitudinal section of the fastener, taken in the line Y Y of Fig. 3. Fig. 3 is a section of the shell or case of the fastener, taken in the line X X of Fig. 1. Fig. 4 is a perspective view of the washer used in Figs. 1, 2, and 3, viewed from the inside. Fig. 5 is a fastener employing a modified washer. Fig. 6 is a longitudinal section of the same, taken through the line Y Y of Fig. 7. Fig. 7 is a longitudinal section taken through the line X X of Fig. 5. Fig. 8 is a perspective view of the shell or case used in Figs. 5, 6, and 7; and Fig. 9 is a perspective view of the washer used in such figures.

A represents the shell or case of the fastener; B, a flange or foot by which it is attached or screwed to the door-jamb; C, the lifting-rod of the transom; D, a washer between the top of the shell or case and the fastening-nut; *d*, a projection on such washer; E, the fastening-nut; *e*, an extension on the same; F, a square hub on the washer used in Figs. 1, 2, and 3; G, a square socket in the top of the shell or case in which such hub rests; H, a square socket in the washer used in Figs. 5, 6, 7, and 8, and I a square hub on the shell or case fitting into such square hole or socket.

In making my improved fastener as shown in the first four figures of the drawings, I make a shell or case in which the different parts are to be arranged and provide it with a flange or foot to enable it to be screwed or otherwise securely attached to a door-casing. As my improvement does not consist in this foot or flange or in the method of attaching the shell to the door-casing, I do not specially emphasize these matters, as various other means may be employed in their place. The shell or case is provided with holes through its sides to permit the lifting-rod of a transom or other article in connection with which it is to be used to be passed. In using my fastening device with a transom-lifter these holes would naturally be at the top and bottom sides of the shell or case. Of course it is understood that the shell or case is hollow, as shown in the figures of the drawings. A short rod with a hook, ring, or eye on its inner end to wholly or partially encircle the lifting-rod is inserted from the inside of the shell or case with its end extending out and threaded, so as to receive a fastening-nut. For convenience I will term this short piece the "fastening device" and designate it by the letter J. Instead of providing the end of the shell or case with a round hole out of which the threaded end of the fastening device may extend, I provide it with a square hole or socket, and I make a washer, D, which is provided with a square hub adapted to fit into the square hole or socket in the end of the shell, so that it cannot be rotated. This washer is provided with a round hole through which the threaded end of the fastening device extends, as shown in Fig. 2, and is provided with an outwardly-extending projection, *d*, as shown in Fig. 1. The fastening-nut is properly threaded to permit its being screwed onto the threaded end of the fastening device, and its inner side is provided with an extension, *e*, adapted to contact with the projection *d* when nearing the washer D.

In operating my fastener, as shown in the first four figures of the drawings, I insert the square hub of the washer D in the square hole or socket provided for it in the outer end of the shell or case. I then insert the fastening device from the inside, with its threaded end extending out through the hole in the washer. I then put on the fastening-nut and run it down until the extension *e* passes the projection *d* the last time, with the fastening device drawn out against the washer. Immediately after the extension has passed the projection the last time I push the fastening device, with its nut, in, so as to bring the hook or eye on the inner end of the fastening device in line with

the holes of the shell or case. This of course brings the extension *e* down far enough to cause it to strike against the projection *d* upon reversing the nut and prevent the removal of the nut. The lifting-rod is then inserted through the holes of the shell or case and through the ring, hook, or eye on the inner end of the fastening device. The fastening-nut is then turned forward until the lifting-rod is drawn sufficiently tight against the sides of the holes in the shell or case, as shown in Fig. 1, to prevent its being moved up or down until the nut is loosened and the friction released.

In Fig. 5 and following figures I have shown a modification of my fastener. Instead of providing the washer with a square hub to fit into a square hole or socket in the end of the shell or case, I provide the end of the shell or case with a square hub, as shown in Fig. 8, and provide the washer with a square socket, as shown in Fig. 9, adapted to fit over the hub on the shell or case and prevent its rotation. This modification is a mere reversal or transposition of these features, as already described in connection with the first four figures of the drawings. Instead of using the fastening device as already described, I bring the edges of the washer D down outside of the shell or case, as shown in Figs. 5 and 6, far enough to bear against the lifting-rod and press it securely against the inner edges of the holes in the shell or case, as shown in Fig. 5. This arrangement enables me to dispense with the fastening device, and in its place the end of the shell or case is extended and threaded to receive a fastening-nut, as shown in Figs. 6 and 8. In operating this modified form of fastener I place the washer onto the shell or case with its square socket fitting around the square hub on the end of the shell. I run the fastening-nut down until the extension *e* passes the projection *d* for the last time, when the washer is pushed down as far as it will go with the lifting-rod out of the shell or case. When the extension has thus passed the projection for the last time, I draw the washer out enough to insert the lifting-rod. This brings the projection on the washer in the way of the extension on the nut, so that on reversing the nut the two will contact with each other and prevent the removal of the nut. The nut is then run down and the edges of the washer forced tightly against the lifting-rod, so as to hold it by the friction thus created between the two parts, as shown in Fig. 5.

It is necessary that, after the rod is in place and has pushed the washer out so that the projection on the washer and the extension on the nut cannot pass each other, the nut should sufficiently tighten the parts before the projection and extension come into contact again by a complete turn of the nut. If this should not be the case, the washer may be turned a quarter or a half farther around, so as to permit the nut to be turned also a quarter or a half farther. In this way in putting the parts together their positions may be regulated and adjusted, and when the parts become worn they may be again adjusted so as to secure the necessary friction between the washer and the lifting-rod. This adjustment can also be effected with the arrangement shown in the first four figures of the drawings.

I have spoken of the washers and the shells or cases being provided with square sockets and square hubs. As the only object of having them square is to prevent their rotation when put together, any other angular form or means of preventing rotation would obviously answer the same purpose. I do not mean, therefore, to emphasize these forms and means, but simply to limit myself to washers and shells so connected together as to be non-rotatable with respect to each other. This non-rotation could be as well secured by making a square or angular hole through the washer and a correspondingly square or angular portion on the stem of the fastening device shown in Fig. 2; or the washer, as shown in the various figures, could be extended down on the outside of the shell or case to partially surround or embrace the lifting-rod. In this case the washer shown in the first four figures would have to have its edges turned over the outer end of the shell or case and brought down enough for the purpose, while the washer shown in the remaining figures would simply need to have its depending edges somewhat hollowed out to partially encircle the lifting-rod. I mention these as illustrations of the ways in which non-rotatability between the washer and the shell can be obtained. I have also mentioned my improvements in connection with a transom-lifter; but I mean to employ them in connection with other devices where it is required to hold a rod in any fixed position. In using the term "transom-lifter" or in speaking of the square sockets or square hubs either in the specification or in the claims I mean to use these terms in the broad sense above explained.

What I regard as new, and desire to secure by Letters Patent, is—

1. In a fastener for transom-lifting rods, the combination of a shell or case having holes in its sides through which the lifting-rod may pass, a washer engaging non-rotatably with the outer end of the shell or case and having a projection, as *d*, a lifting-rod passing through the holes in the shell or case and held in a fixed position when the fastening-nut is screwed down, and a fastening-nut having an extension, as *e*, the extension on the nut and the projection on the washer engaging with each other as the nut is unscrewed and preventing its removal when the parts are together, substantially as described.

2. In a fastener for transom-lifting rods, the combination of a shell or case having holes in its sides through which the lifting-rod may pass and a hole in its outer end through which the threaded end of a fastening device may extend, a washer on the outer end of the shell or case held non-rotatably, and also having a

hole through which the threaded end of the fastening device may extend, and a projection, as *d*, a fastening device having a hook or ring on its inner end and screw-threads on its outer end extending out through the holes in the shell and washer to receive a fastening-nut, a lifting-rod passing through the holes in the shell or case and through the hook or ring on the inner end of the fastening device, whereby it may be drawn and held against the outer edges of the holes, and a fastening-nut having an extension, as *e*, screwed on the outer end of the fastening device and drawing the lifting-rod against the outer edges of the holes in the shell or case, the extension on the nut and the projection on the washer contacting against each other as the nut is unscrewed and preventing its removal when the parts are together, substantially as described.

JOHN F. WOLLENSAK.

Witnesses:
WILLIAM E. GILL,
GEORGE S. PAYSON.