

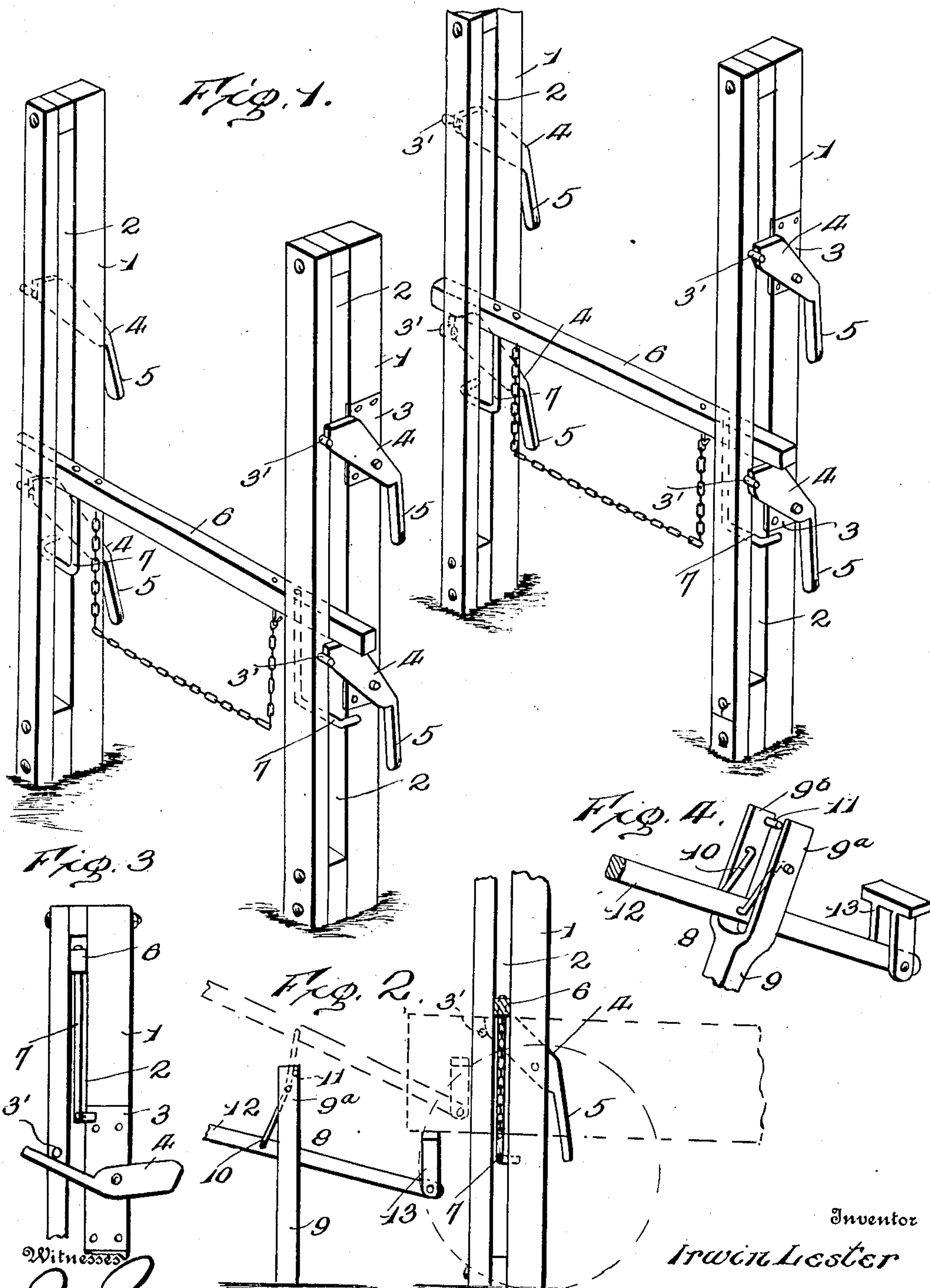
No. 892,437.

PATENTED JULY 7, 1908.

I. LESTER.

DEVICE FOR TRANSFERRING BOXES FROM AND TO VEHICLES.

APPLICATION FILED NOV. 1, 1907.



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UNITED STATES PATENT OFFICE.

IRWIN LESTER, OF TUSCOLA, ILLINOIS.

DEVICE FOR TRANSFERRING BOXES FROM AND TO VEHICLES.

No. 892,437.

Specification of Letters Patent.

Patented July 7, 1908.

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To all whom it may concern:

Be it known that I, IRWIN LESTER, citizen of the United States, residing at Tuscola, in the county of Douglas and State of Illinois, have invented certain new and useful Improvements in Devices for Transferring Boxes from and to Vehicles, of which the following is a specification.

This invention contemplates certain new and useful improvements in hoisting devices and relates particularly to a wagon-box lifter designed to elevate the wagon-box from the running gear when the latter is to be employed to support a hay frame or the like, and to serve as a rack to hold such wagon-box until it is returned to its running gear.

With this and other objects in view as will more fully appear as the description proceeds, the invention consists in certain constructions and arrangements of parts as I shall hereinafter fully describe and then point out the novel features thereof in the appended claims.

For a full understanding of the invention and the merits thereof and to acquire a knowledge of the details of construction, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of the frame of my improved wagon-box lifter with the supporting bars resting on the lower latches. Fig. 2 is a side elevation of one of the standards of the frame with a wagon in dotted lines in position in the frame and the jack in position to raise one end of the wagon-box. Fig. 3 is a side elevation of one of the standards showing a latch thrown over and a bar and follower in the channel above the latch, and Fig. 4 is a detailed view of the improved lifting jack.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The framework of my improved wagon-box lifter comprises four vertically extending standards 1 each consisting of two posts or the like spaced as shown to form a guiding channel 2. The standards 1 are designed to be placed two on each side of a driveway with the channels 2 in transverse alinement. To the outwardly facing side of one of the posts of each standard 1 upper and lower wear plates 3 are secured. Pivotally mounted on the respective upper and lower wear plates 3 are latches 4. These latches are

pivoted near one end as shown and the other end normally extends across the channel 2 and rests against a stop 3, projecting outwardly from the other post of the standard. The latches 4 are provided at their pivoted ends with tails 5 which when the latch is in its normal position extend downwardly. Mounted in the channels 2 are transversely extending supporting bars 6 adapted to rest on the latches 4 and designed to be secured to a wagon-box or bed which it is desired to remove from its running gear. The supporting bars 6 are provided at each end with a follower 7 which extends downwardly in the channel 2 and is bent outwardly so as to be adapted to operatively engage the latches 4 when said bar 6 is moved upwardly or downwardly in the channels 2.

A lifting-jack 8 is designed to raise or lower the wagon-box in the above described frame. This jack embodies a standard 9 provided with upwardly extending arms 9^a and 9^b in the upper ends of which is journaled a bail 10, said bail being adapted to be swung upward and be held by a stop 11 projecting from one arm of the standard as shown. A lifting lever 12 is fulcrumed at a point intermediate of its ends on the bail 10 and is provided at its lifting end with a block 13 pivotally mounted thereon as shown.

Before commencing the description of the practical operation of my invention, it will be supposed that a wagon is in position in the driveway and that the supporting bars 6 are secured to the respective ends of the wagon-box. The movable block 13 of the lifting jack 8 is placed under one end of the wagon-box and said wagon-box is elevated by operating the lifting lever 12. The block 13 because of its pivotal mount on the lever 12 always remains during the lifting operation in a vertical position which is very important since otherwise the wagon-box would slip off of the lever when the latter reached a certain inclination. The upward movement of the end of the wagon-box, pushes the attached supporting bar 6 upward in the channels 2. When the supporting bar 6 encounters the lower set of latches, it raises them, its upward movement is then continued until said latches return by gravity to their normal position against the stops 3. The jack 8 is then removed and the supporting bar 6 is allowed to rest on the closed latches. This operation is

repeated using the other end of the wagon-box and said wagon-box is then sufficiently elevated to be entirely removed from the running gear. If it is desired for any purpose to further elevate the wagon-box, the above operation is repeated until both the supporting bars rest on the upper latches. To accomplish this the bail 10 of the jack 8 is raised against the stop 11, thus raising the fulcrum of the lifting lever 12 and adapting said lever for use at a greater elevation. When the supporting bars 6 are raised from their position on the lower latches, their respective followers 7 engage said latches, turning them on their pivots over past their centers and causing them to fall downward until their respective tails abut against the stops 3 as shown.

When it is desired to lower the wagon-box from its upper position, the jack 8 is employed to raise one end of the wagon-box and its attached bar 6 until the latches upon which said bar rests, are thrown over, the box and bar are then lowered. Upon the lowering of the bar 6, its followers 7 engage the tails 5 of the upper latches 4, turning said latches on their pivots and automatically returning them to their normal position against the stops 3 after the bar has passed below the free end of such latches. The lowering of the end of the wagon-box and its attached bar is continued until the lower latches are automatically returned to position said end and bar being then elevated slightly to pass above the lower set of latches and being allowed to rest thereon when said latches have fallen into place. This operation is repeated using the other end of the wagon-box and said box in its former lower position.

To return the wagon-box to the running gear, raise one of its ends with the jack until the lower latches are thrown over and then lower until said end of the wagon-bed rests in its first position on said running gear. Repeat this operation using the other end (of the wagon-bed) and said wagon-bed is returned to position.

Having thus described the invention, what I claim is:

1. The herein described wagon-box lifter embodying standards each having a guide channel, latches pivoted at elevated points to the standards and normally extending across the respective channels, and supporting bars slidably mounted in the channels and adapted to rest on the latches, said bars being designed to be secured to the box of a wagon as and for the purpose set forth.

2. The herein described wagon-box lifter embodying standards each having a guide channel, latches pivoted at elevated points to the standards and normally extending across the channels, the standards being provided with stops against which the latches are designed to rest and supporting bars slidably mounted in the channels and adapted to rest on the latches as and for the purpose set forth.

3. The herein described wagon-box lifter embodying standards each having a guide channel, latches pivoted at elevated points to the standards and normally extending across the respective channels, the standards being provided with stops against which the latches are designed to rest and supporting bars slidably mounted in the channels, the latches being provided with tails as and for the purpose set forth.

4. The herein described wagon-box lifter embodying standards each having a guide channel, latches pivoted at elevated points to the standards and normally extending across the respective channels, said latches being provided with tails, the standards being provided with stops against which the latches are designed to rest, supporting bars slidably mounted in the channels and adapted to rest on said latches, and followers depending from said bars and bent laterally to engage the latches upon the upward or downward movement of the bar in the channels as and for the purpose set forth.

5. The herein described wagon-box lifter embodying standards each having a guide channel, said standards being provided on one side of the respective channels with stops, latches pivoted to the standards on the other side of the channels, and normally extending across the respective channels and resting against the stops, supporting bars slidably mounted in the channels and adapted to rest on said latches, and followers depending from said bars and bent laterally to engage the latches upon the movement of the bar in the channels, said latches being provided below the plane of the stop with tails designed to abut against the stop after the latch has been engaged by the follower upon the upward movement thereof.

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

IRWIN LESTER. [L. s.]

Witnesses:

WILDA SMITH,
P. M. MOORE.