

C. E. HYLANDER.
LIFTING JACK.
APPLICATION FILED OCT. 8, 1909.

2 SHEETS—SHEET 1.



R. A. Balderson.
Walter Jamariss

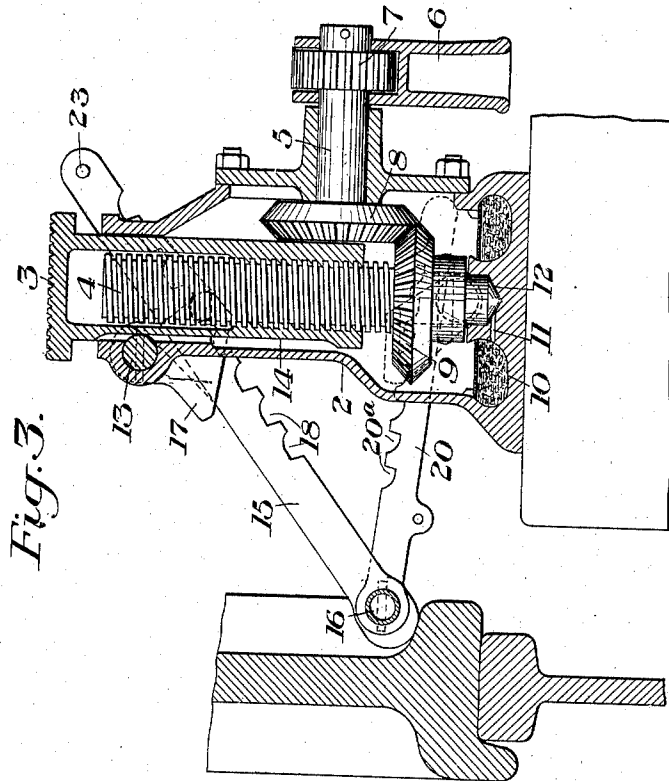
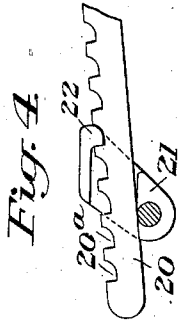
C. E. Hylander,
by B. Howell, Byrnes, Parmelee,
his Atty.

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967,126.

Patented Aug. 9, 1910.

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WITNESSES

R. A. Balderson
Walter Jamariss

INVENTOR

C. E. Hylander,
by Dehewell, Byrnes & Parmelee,
his Attys.

UNITED STATES PATENT OFFICE.

CHARLES E. HYLANDER, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO THE DUFF MANUFACTURING COMPANY, OF PITTSBURG, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

LIFTING-JACK.

967,126.

Specification of Letters Patent.

Patented Aug. 9, 1910.

Application filed October 8, 1909. Serial No. 521,762.

To all whom it may concern:

Be it known that I, CHARLES E. HYLANDER, of Pittsburg, Allegheny county, Pennsylvania, have invented a new and useful Improvement in Lifting-Jacks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view showing one form of my improved jack illustrating its use in part; Fig. 2 is a front view of the same; Fig. 3 is a section on the line III—III of Fig. 2; and Fig. 4 is a detail view.

My invention has relation to the class of lifting jacks, and more particularly to car box jacks, and is designed to provide a jack having a wheel holding-down device of novel and efficient character, which device may also be made to serve as the handle of the jack.

The precise nature of my invention will be best understood by reference to the accompanying drawings, in which I have shown the preferred embodiment thereof, which will now be described, it being premised, however, that various changes may be made in the details of construction and arrangement of the parts without departing from the spirit and scope of my invention.

In these drawings, the numeral 2 designates the frame of the jack, 3 the lifting ram, 4 the actuating screw for the ram, 5 the actuating shaft operated by the ratchet lever 6 and ratchet 7, and 8 and 9 the bevel gearing connection between the shaft 5 and the screw shaft.

10 designates a lubricant reservoir in the base portion of the jack and having one or more passages 11 leading to the step or thrust bearing 12 of the screw shaft.

13 is a pin which is seated transversely across one side of the jack frame near its upper end, and which is adapted to engage the flattened side 14 of the ram 3 to act as a guide therefor.

The wheel holding-down device consists of the two thrust members 15, which are connected at their lower ends by a transverse bar or pin 16, and which are arranged to slide through buckles 17 which are pivotally secured on the ends of the pin 13. These thrust members are formed with a

series of notches 18, any one of which is adapted to be engaged with a fixed tooth 19 on the buckle 17 through which the thrust member passes, and thus lock the thrust member therein. The device also comprises the tension members 20, which are pivotally connected at their forward ends to the lower ends of the respective thrust members, and which are arranged to slide in buckles or guides 21 pivotally attached to the lower part of the sides of the jack frame. The tension members 20 are provided with a series of teeth 20^a any one of which is arranged to engage with a tooth 22 on the buckle or guide 21, as shown in Figs. 1 and 4.

As will be understood from the drawings, there is one pair of thrust and tension members at each side of the jack, the two tension members being connected by the transverse bar 16, which also serves for the pivoted connection of the tension members with the thrust members.

The ends of the thrust members are arranged to contact with the flange of a car wheel in the manner shown in Figs. 1 and 3. The tendency of the wheel to lift causes the thrust and tension members to be firmly locked in their respective buckles or guides, thus holding the wheel down and preventing it from lifting. The buckles or guides are always kept engaged with the notches of the thrust and tension members by gravity. By swinging the buckles on their pivots, the thrust and tension members can be adjusted at various angles, according to conditions, this adjustment being in a horizontal or in a vertical direction.

The thrust and tension members, when desired, may be drawn through the guides or buckles and turned upwardly into the position shown in dotted lines in Fig. 1 to form a handle for the jack. The free ends of the thrust members are provided with pins 23 to prevent them from pulling through and out of the guides or buckles when the jack is being carried.

Those features of the jack herein shown and described, but not claimed, form the subject-matter of a co-pending application of myself and George F. Freed, Serial No. 521,763.

I do not herein limit myself to the use of the wheel holding-down device described in

connection with the particular form of jack shown, since such device may be used with various other constructions of jack.

What I claim is:—

5 1. The combination with a jack frame, of
a wheel holding-down device comprising a
thrust member arranged to engage the flange
of a car wheel, a tension member connected
to the thrust member, and guide members
10 connected to the jack frame and having
means for securing the thrust and tension
members in different positions; substantially
as described.

15 2. In a lifting jack, the combination with
a jack frame, of a holding-down device comprising a pair of thrust members, a pair of
tension members connected to the thrust
members, and guides pivotally connected to
the jack frame and having means for ad-
20 justably securing the thrust and tension
members therein; substantially as described.

3. In a lifting jack, the combination with
a jack frame, of a holding-down device comprising upper and lower guide members
25 pivotally connected to each side of said
frame, a pair of thrust members loosely engaging the upper guide members, and a
pair of tension members connected to the
lower ends of the thrust members and loosely
30 engaging the lower guides, said members
and guides having means whereby the thrust

and tension members may be adjustably
locked therein; substantially as described.

4. In a lifting jack, the combination with
a jack frame, of a wheel holding-down de- 35
vice comprising notched tension members,
notched thrust members pivotally connected
to the tension members, and guides pivot-
ally attached to the jack frame and having
respectively openings therethrough for the 40
thrust and tension members and also each
provided with a tooth adapted to engage in
one of the notches of the thrust or tension
member fastened therethrough; substantially
as described.

5. The combination with a lifting jack, of
a wheel holding-down device comprising a
pair of connected thrust members adapted
to engage the flange of a car wheel, a pair of
tension members pivotally connected to the 50
jack frame and having means for locking
the thrust and tension members in different
positions therein, said members being adapted
to be moved into position to form a handle
for the jack; substantially as described. 55

In testimony whereof, I have hereunto set
my hand.

CHARLES E. HYLANDER.

Witnesses:

GEO. H. PARMELEE,
H. M. CORWIN.