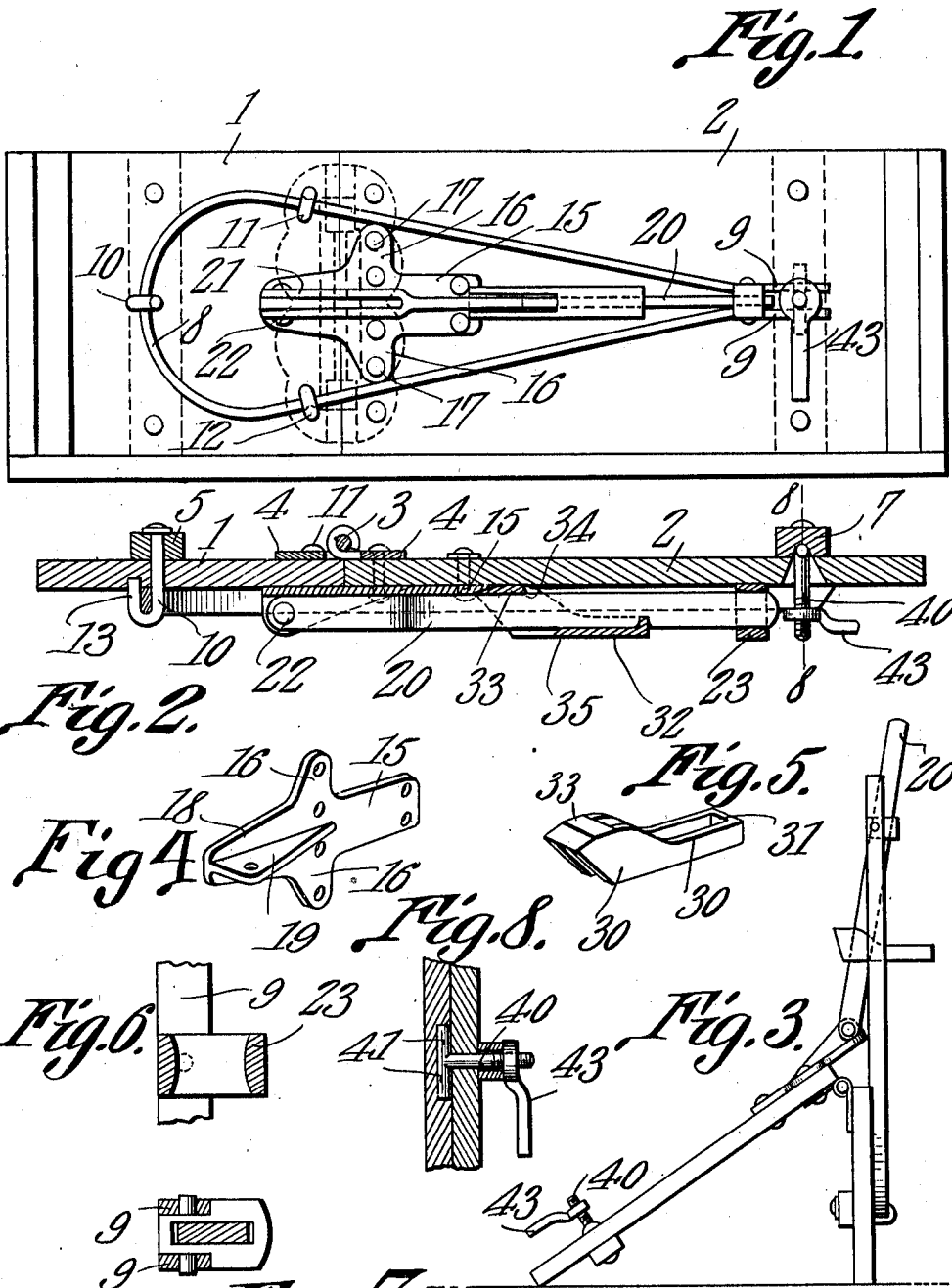


O. BUCKLIN.
END GATE AND LIFTING JACK.
APPLICATION FILED MAR. 17, 1910.

982,792.

Patented Jan. 31, 1911.



Witnesses

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UNITED STATES PATENT OFFICE.

ORSON BUCKLIN, OF MARIETTA, MINNESOTA.

END-GATE AND LIFTING-JACK.

982,792.

Specification of Letters Patent. Patented Jan. 31, 1911.

Application filed March 17, 1910. Serial No. 549,998.

To all whom it may concern:

Be it known that I, ORSON BUCKLIN, a citizen of the United States, residing at Marietta, in the county of Lac qui Parle and State of Minnesota, have invented a new and useful End-Gate and Lifting-Jack, of which the following is a specification.

This invention relates to a combined end gate and lifting jack.

The objects of the invention are to improve and simplify the construction of end gates and lifting jacks disclosed in my United States Patent No. 831,534, dated September 25, 1906.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of the claims without departing from the spirit of the invention.

In the accompanying drawing forming a part of this specification. Figure 1 is a rear end elevation of a wagon provided with an end gate and lifting jack constructed in accordance with the present invention. Fig. 2 is a horizontal and longitudinal section through the end gate and lifting jack shown in Fig. 1, and taken on the line 2—2 thereon. Fig. 3 is a side elevation of the end gate and lifting jack in position for use as a lifting jack. Fig. 4 is a perspective view of the supporting plate. Fig. 5 is a similar view of the foot piece which engages the article to be raised. Fig. 6 is a vertical section through the guide member. Fig. 7 is a transverse section through the guide member. Fig. 8 is a section on the line 8—8 of Fig. 2.

Like reference numerals indicate corresponding parts in the different figures of the drawing.

The end gate and lifting jack of the present invention is made up of a base 1 and a lever 2, said members being hinged together, as indicated at 3, the hinge thereof being provided with leaves 4 which extend transversely a distance about equal to the width of the members 1 and 2 as indicated by the dotted lines in Fig. 1. The base 1 on the same side thereof as the hinge 3 is provided with a transversely extending cleat 5, and

the lever 2 on the same side thereof is provided with a similar transversely extending cleat 7. Secured to the base 1 on the side thereof opposite the cleat 5 is a frame 8 which preferably is constructed of metal bent into the shape illustrated in Fig. 1, the free ends of the metal at the upper end of the frame 8 being bent into parallelism with each other as indicated at 9. The means for securing the frame 8 to the base 1 preferably consists of the bolts 10, 11 and 12. The bolt 10 as shown clearly in Fig. 2 extends through the cleat 5 and at its opposite end is reversely bent to form a hook 13 the end of which projects into a suitable socket in the base 1. The hook formed on the bolt 10 engages the base of the frame 8 and thus secures said frame securely to the base 1 in addition to holding the cleat 5 firmly in place. The bolts 11 and 12 are similarly bent to form hooks to engage the frame 8, and said bolts at their opposite ends as indicated in Fig. 2, engage the leaf 4 of the hinge 3. It will be seen therefore that the bolts 10, 11 and 12 simplify and strengthen the entire construction of the device, as they secure the hinge and the cleat in place and also cause both of said members to brace the base 1 on one side and by holding the frame 8 securely against the opposite side, cause the said frame also to brace the member 1.

Secured to the lever 2 on the side thereof opposite the hinge 3 is a supporting plate 15 having lateral extensions 16 which fit flat against the lever 2 and serve to brace the same. The means for securing the supporting plate 15 in position preferably consists of bolts 17 which extend through the plate 15, lever 2 and leaf 4 of the hinge 3, whereby the screws or bolts 17 serve to secure both the hinge and the supporting plate in position on opposite sides of the lever 2. The supporting plate 15 is formed with a forward extension 18 on which is mounted a fin or web 19 with which is pivotally connected the lifting bar 20, said lifting bar being preferably forked or bifurcated as indicated at 21 so as to straddle the fin 19 the bar 20 being pivotally connected with said fin as indicated at 22. The lifting bar 20 at the free end thereof extends through a guide member or yoke 23 which, as shown in Figs. 6 and 7 is provided with pintles 6 that engage oppositely alined openings in the

parallel ends 9 of the frame 8 and serves to guide the lifting bar 20 in its up and down movement as indicated in Fig. 3.

Adjustably mounted upon the lifting bar 20 as indicated in Figs. 2 and 3 is a foot piece which is shown in detail in Fig. 5 and consists preferably of a pair of side plates 30 which are connected with each other at their outer ends by a cross piece 31, at their lower edges by a web 32 shown in Fig. 2 and at their upper edges by a web 33. The outer edge of the web 33 preferably is sharpened at the lower point thereof as indicated at 34 and the inner edge of the web 32 is similarly sharpened at the lowest point thereof as indicated at 35, the sharpened edges 34 and 35 serving to bite into the forward and rear edges of the lifting bar 20 when the parts are in a position illustrated in Fig. 3 so as to hold the foot in any position to which it has been adjusted. When the lifting jack is not in operation and is used as an end gate as shown in Figs. 1 and 2 the frame 8 and the lifting bar 20 are folded along the lever 2. The thickness of the web 33 of the foot, as shown in Fig. 2, is approximately the same as the thickness of the supporting plate 15, so that said web 33 serves to hold the foot in folded position and to prevent any rattling thereof during the movement of the wagon with which the end gate is connected.

The means for locking the parts in the

position shown in Figs. 1 and 2 preferably comprise a bolt 40 which extends through the lever 2, and at its inner end within a suitable slot or recess formed in the cleat 7 is provided with oppositely extending portions 41 which serve to produce a T-bolt which is capable of swinging movement so as to be moved into position between the parallel portions 9 of the frame 8. A handle nut 43 is screwed upon the bolt 40 for the purpose of locking the end gate in the position shown in Figs. 1 and 2.

What is claimed is:

An end gate and lifting jack comprising a lever, a base, a leaf hinge between the lever and base, a cleat extending transversely across one side of the base, a frame fitted to the other side of the base, bolts extending through the leaf hinge and having hooks at their outer ends that straddle the frame and have their terminals sunk in the base, a bolt extending through the cleat and having a hook that straddles the frame and has its terminal sunk in the cleat, a lifting bar connected with the lever, and a foot adjustable on the lifting bar.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ORSON BUCKLIN.

Witnesses:

O. J. OLSEN,
J. A. JOHNSON.