(No Model.)

J. W. CHAMBERS.

WAGON BODY LIFTER.

No. 498,235. Patented May 30, 1893.

Fig. 1.

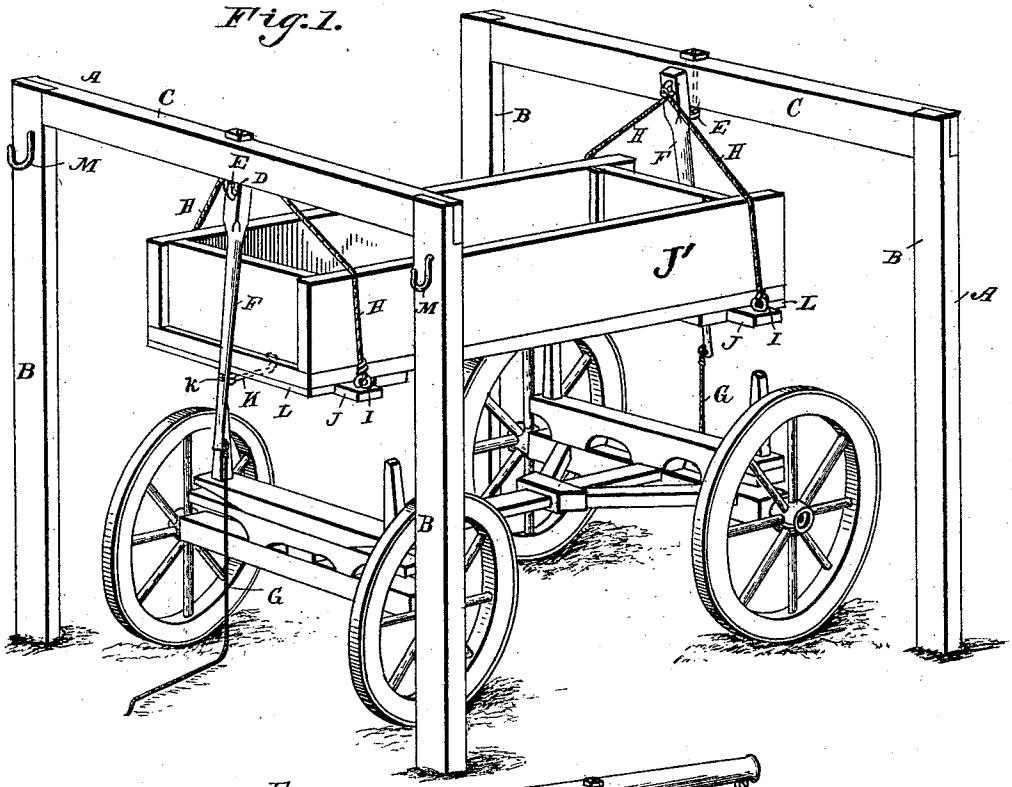

Fig. 3.

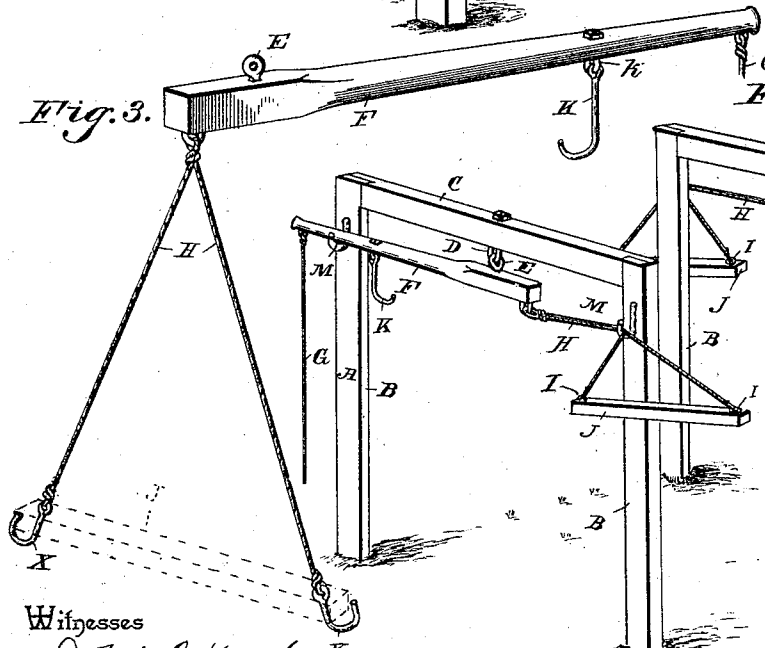

Fig. 2.

Witnesses

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Inventor

J. W. Chambers,

By his Attorneys,

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UNITED STATES PATENT OFFICE.

JOHN W. CHAMBERS, OF DURAND, ILLINOIS.

WAGON-BODY LIFTER.

SPECIFICATION forming part of Letters Patent No. 498,235, dated May 30, 1893.

Application filed April 13, 1893. Serial No. 470,184. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. CHAMBERS, a citizen of the United States, residing at Durand, in the county of Winnebago and State of Illinois, have invented a new and useful Wagon-Body Lifter, of which the following is a specification.

This invention relates to wagon body lifters; and it has for its object to provide a lifting device of this character whereby a wagon body can be easily and readily lifted from its running gear and retained in a suspended position until it is desired to replace it again.

To this end the main and primary object of the invention is to simplify the construction of lifting devices of this character whereby the same can be more easily operated with less expenditure of power, being designed not only for lifting box bodies, but rack bodies as well.

With these and other objects in view which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

In the accompanying drawings:—Figure 1 is a perspective view of a wagon body lifter constructed in accordance with this invention, showing the wagon body lifted from and suspended above its running gear. Fig. 2 is a similar view showing the lifting levers and loops supported in a position out of the way. Fig. 3 is a detail in perspective of a modification.

Referring to the accompanying drawings, A represents opposite derrick frames arranged a suitable distance apart, and each comprising the vertical posts B, firmly supported from the ground, and the horizontal cross beams C, connecting the upper extremities of said posts a distance above the ground, in order to permit the wagon to be backed thereunder. It is designed to have the derrick frames A, apart from each other a distance which permits the ends of a wagon body to be disposed under the cross bars C, of the tops of the derrick frames; and the posts B of each frame are spaced from each other, sufficiently, in order to accommodate the width of a wagon, but not necessarily the team drawing the same; so usually in placing the wagon in proper position, the same is backed under the opposite derrick frames.

Centrally attached to the cross bars C, of each derrick frame, are the pivot or fulcrum eye bolts D, which receive the eyes of corresponding bolts E, secured to the lifting levers F, at a point near the lifting or short ends thereof, in order to provide a simple and efficient fulcrum for such levers. The lifting levers F, which are thus fulcrumed to the top and center of the derrick frames A, are sufficiently long in order to secure the proper leverage for easily lifting the ends of a wagon body from the running gear, and to the long ends of the levers F, are attached the operating ropes G, by means of which the long ends of the levers can be drawn toward the ground in order to lift the other ends and thereby raise the wagon body, as will be presently apparent.

Loosely attached to the extremities of the short ends or arms of the levers F, are the depending lifting ropes H, which are attached at their lower extremities to the eye-bolts I, fitted in the opposite ends of the lifting bars J, which are adapted to be placed transversely under the bottom ends of the wagon body in order to provide for easily lifting the same, and as is illustrated in the modification in Fig. 3 of the drawings, the ropes H, may carry at their extremities the lifting hooks X, which are only employed in lifting rack bodies, such as hay racks.

It has already been stated that the wagon from which the body is to be lifted, is first placed under the derrick frames A, so that the lifting loops formed by the ropes H, and the bars J, can be placed over the opposite ends of the wagon body, which may be designated as J′. Now by pulling down on the operating ropes G, the long ends of the levers will be drawn toward the ground and against the opposite ends of the wagon body. The short ends or arms of the levers, in the meantime, are raised above the tops of the derrick frames so that the wagon body is lifted from the running gear. After the levers have been drawn down to a position against the opposite ends of the wagon body, the same are held in this position by means of the secur-

ing hooks K. The securing hooks K, are pivotally connected to the eye-bolts *k*, passing through the levers F, and are adapted to be hooked onto the bottom cleats L, usually secured to the opposite bottom extremities of a wagon body, and it will be obvious that the weight of the wagon body bearing down on the said hooks K, will serve to lock the same in position, so as to hold the body suspended, until it is desired to lower the same onto the running gear.

When the lifting devices herein described are not in use, the lifting levers F, are adapted to be swung up into supporting engagement with one of the supporting hooks M, secured to the posts B, at their upper extremities, and the lifting loops, or at least the ropes H, thereof, which are attached to the short ends of the lifting levers, are hung onto the supporting hooks directly opposite those in which the levers removably rest. This is clearly shown in Fig. 2 of the drawings, and it will be obvious that it provides a convenient support for the lifting devices so as to hold the same out of the way when the wagon is being placed under the derrick frame.

Changes in the form, proportion and the minor details of construction, as embraced within the scope of the appended claims, may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a wagon body lifter, the combination of opposite derrick frames, lifting levers fulcrumed centrally to the top of said derrick frames, lifting ropes attached to one extremity of said levers and adapted to be connected with a wagon body, and operating ropes attached to the other extremities of said lifting levers, substantially as set forth.

2. In a wagon body lifter, the opposite derrick frames, single lifting levers fulcrumed to each of said derrick frames at the top, lifting loops attached to the short ends of said levers and adapted to embrace opposite ends of a wagon body, and securing hooks connected to the long arms of the levers and adapted to engage the bottom ends of a wagon body, substantially as set forth.

3. In a wagon body lifter, the combination of opposite upright derrick frames, single lifting levers fulcrumed centrally to the top of said derrick frames on an eye-bolt fulcrum, lifting ropes attached to the short ends of said levers, lifting bars connected at their ends to the lower extremities of said lifting ropes and adapted to be placed under the bottom ends of a wagon body, securing hooks loosely attached to the long ends of said levers and adapted to engage the bottom ends of the wagon body, and operating ropes attached to the long ends of said levers, substantially as set forth.

4. In a wagon body lifter, the opposite derrick frames having opposite supporting hooks at their opposite top ends, and lifting levers fulcrumed to the top and center of said derrick frames and having lifting loops at one end, said levers and their lifting loops being adapted to be swung into removable engagement with opposite supporting hooks respectively, substantially as set forth.

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

JOHN W. CHAMBERS.

Witnesses:
J. M. GEARY,
L. L. NORTON.