

No. 712,782.

Patented Nov. 4, 1902.

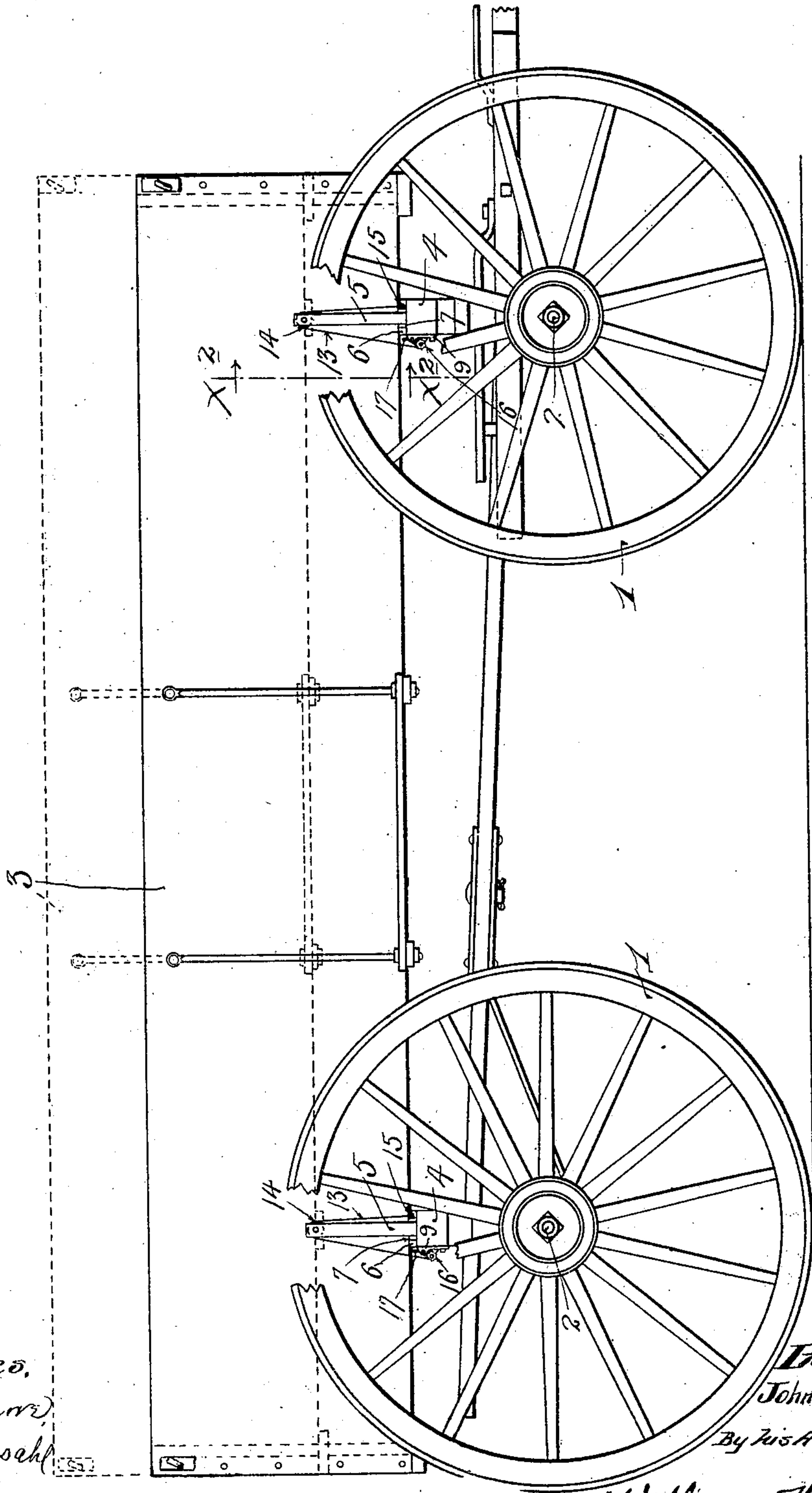
J. C. DWYER.
BOX RAISING DEVICE FOR WAGONS.

(Application filed Dec. 5, 1901.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.



Witnesses,
H. S. Kilgore,
A. H. Oschke

Inventor,
John C. Dwyer,
By his Attorneys,

Williamson Merchant

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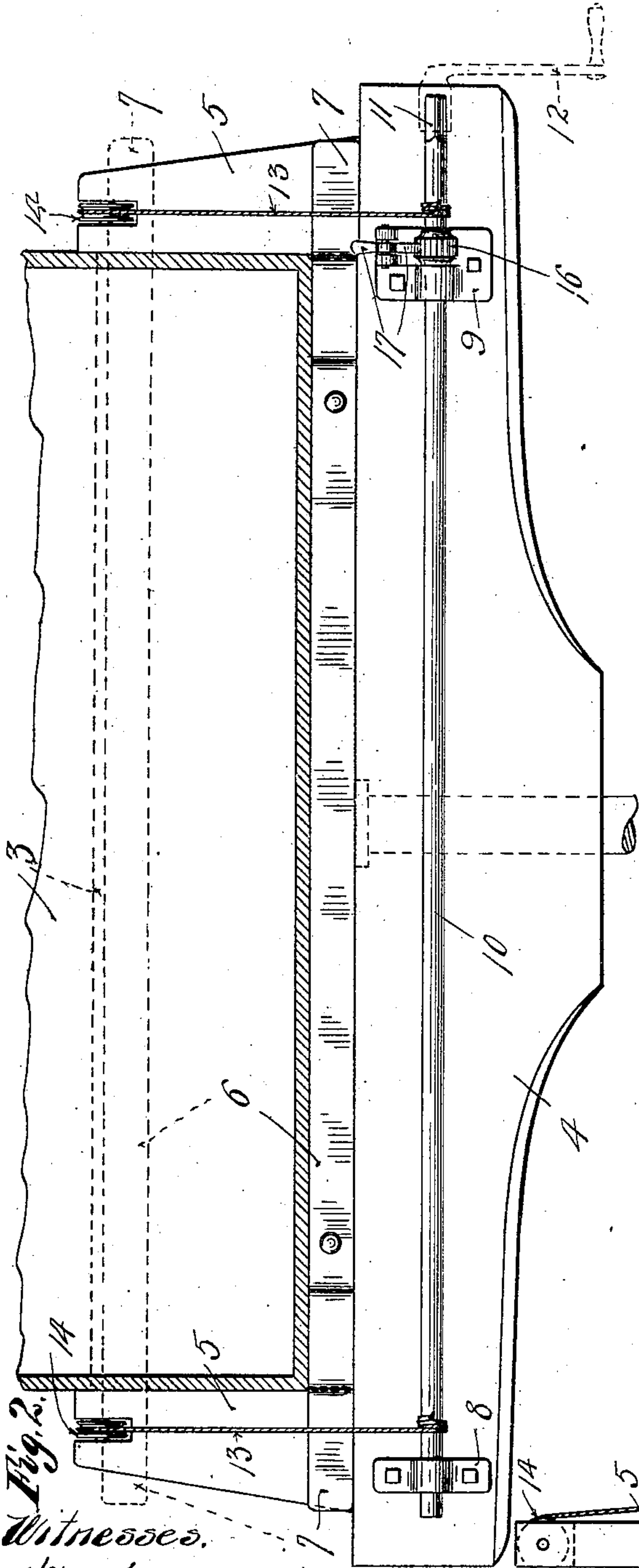


Fig. 3.

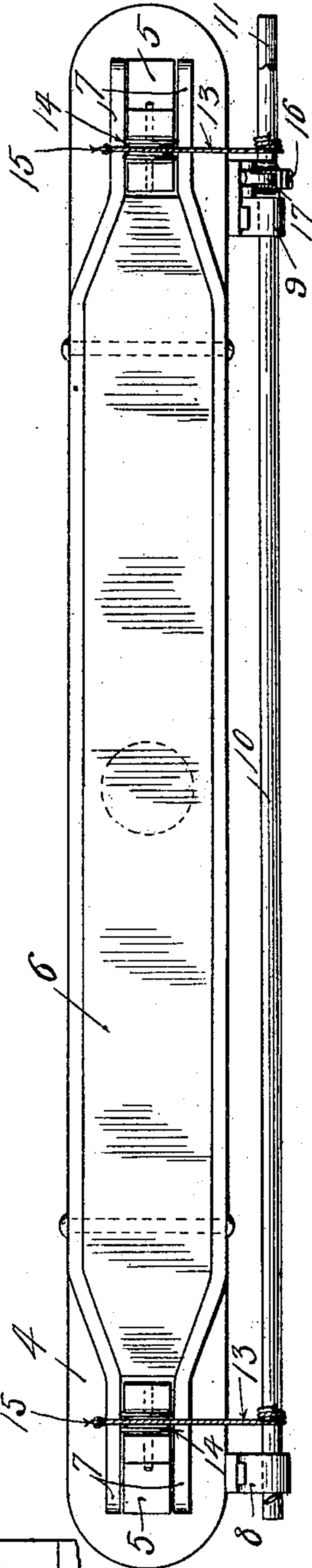
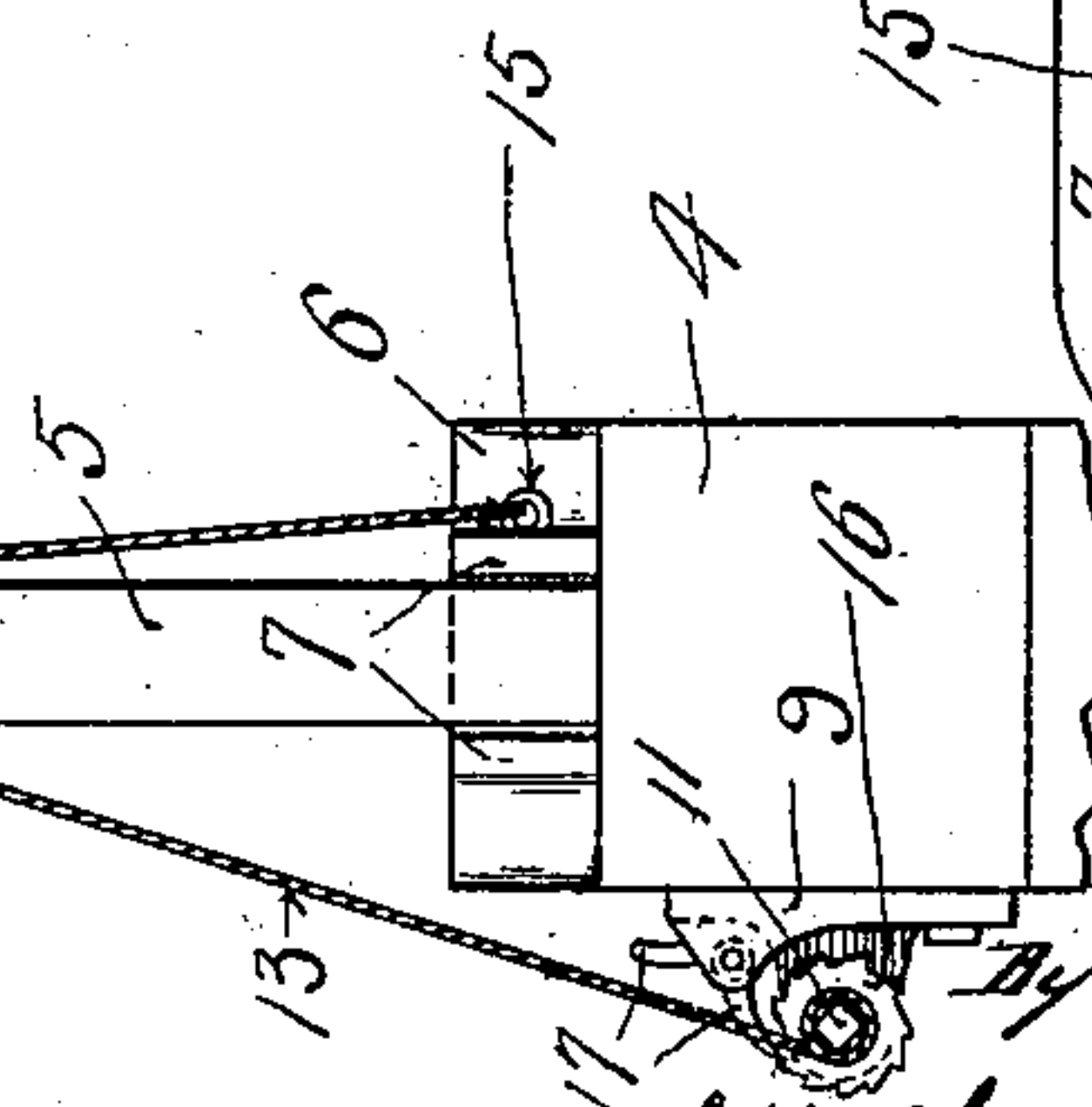


Fig. 4.



Witnesses:
H. S. Kilgore
A. H. Opsahl

Inventor:
John C. Dwyer.
By his Attorneys,
Williamson & Merck

UNITED STATES PATENT OFFICE.

JOHN C. DWYER, OF WELLS, MINNESOTA.

BOX-RAISING DEVICE FOR WAGONS.

SPECIFICATION forming part of Letters Patent No. 712,782, dated November 4, 1902.

Application filed December 5, 1901. Serial No. 84,723. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. DWYER, a citizen of the United States, residing at Wells, in the county of Faribault and State of Minnesota, have invented certain new and useful Improvements in Box-Raising Devices for Wagons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to wagons, and has for its object to provide an improved attachment for the bolsters thereof by means of which the wagon-box may be raised to assist in its removal.

To the above ends the invention consists of the novel devices and combinations of devices hereinafter described, and defined in the claims.

The invention is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Figure 1 is a side elevation with some parts broken away, showing a wagon equipped with my improved devices for raising the box thereof. Fig. 2 is a transverse vertical section taken on the line $x^2 x^2$ of Fig. 1, some parts being broken away. Fig. 3 is a plan view of one of the bolsters, and Fig. 4 is an end view of the said bolster.

Of the parts of the wagon it is only necessary to note the wheels 1, axles 2, box 3, and bolsters 4, the latter of which have the ordinary standards 5. Supplemental bolsters 6 are placed loosely on tops of the bolsters 4, with their bifurcated ends 7 embracing the standards 5, so as to hold the said supplemental bolsters against lateral movements, while permitting them to move vertically on said standards as guides.

Mounted in suitable bearings 8 9 on each bolster 4 is a transversely-extended windlass-shaft 10, which at one end 11 is preferably formed angular to receive a wrench or winding-crank 12. (Indicated by dotted lines in Fig. 2.) Wire ropes or other flexible connections 13 are connected to the windlass-shaft 10, near its ends. These windlass connections 13 are passed over guide-sheaves 14, loosely mounted in the bifurcated upper ends of the

standards 5 and are then turned downward and attached, as at 15, one to each end of the cooperating supplemental bolsters 6. As is evident, by turning the windlass-shaft 10 in the right direction the windlass connections 13 will be wound thereon and the supplemental bolsters 6 will be raised. To lock the windlass-shaft 10 in whatever position it may be set, and thereby hold the box at any elevation desired, said shaft 10 is provided with a ratchet-wheel 16, and the bearing 9 is provided with a pivoted lock-pawl 17 for cooperation with the said ratchet-wheel.

The difficulties of removing a heavy wagon-box or even an ordinary light one are well known to all persons familiar with the uses of a wagon. It is of course often necessary to remove the wagon-box and to substitute therefor a hay-rack, wood-rack, or other device. These devices are all usually very heavy, and their removal from and application to the bolsters of the wagon in the ordinary way are made difficult and awkward from the fact that they must be moved vertically with respect to the standards 5. Thus it has always required two or more persons to accomplish the above changes. By my improved device, as is obvious, one person may easily raise the box or the rack, as the case may be, with its bottom even with the tops of the standards 5. It then becomes a very easy matter to slide the box off from the bolsters or raised supplemental bolster-sections.

It is for ordinary use necessary to have a lifting device applied to each bolster—that is, both to the front and rear bolster. However, in some instances—as, for instance, where it is only desirable to tilt the box—a single lifting device might be employed.

It will, of course, be understood that the invention above described is capable of many modifications as to details of construction not herein specifically set forth, but all within the scope of my invention as herein claimed.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. A wagon having one or more vertically-movable supplemental bolsters, in combination with means for positively raising the same, to lift the wagon-box, substantially as described.

2. In a wagon, the combination with pri-

mary bolsters having vertical standards between which the wagon-box is placed, of supplemental bolster normally resting upon said primary bolster and provided at its ends with
5 prongs embracing said standards, and means for raising and lowering said supplemental bolster.

3. In a wagon, the combination with a primary bolster having vertical standards, of a
10 supplemental bolster normally resting upon said primary bolster and guided for vertical movements by said standards, and a windlass-shaft with windlass connections passed over guides on the upper ends of said stand-
15 ards and connected to said supplemental bolster, substantially as described.

4. In a wagon, the combination with the bolsters 4 having the standards 5 with guide-sheaves 14 in their upper extremities, of the
20 supplemental bolsters 6 normally resting upon said bolsters 4 and bifurcated at their ends to embrace said standards 5, the windlass-shafts 10 mounted in bearings on said bolsters 4, the windlass connections 13 connected in
25 pairs to said shaft 10, passed over the guide-sheaves 14 and connected to the ends of said supplemental bolsters, and lock devices for holding said windlass-shafts where set, substantially as described.

30 5. In a wagon, the combination with the bolsters 4 having standards 5 with guide-

sheaves 14 mounted in their upper ends, the supplemental bolsters 6 normally resting on said bolsters 4 and bifurcated at their ends to embrace said standards 5, the windlass- 35 shafts 10 mounted in bearings on said bolsters 4 and formed angular at one end for the application of a wrench, the flexible connections 13 connected in pairs to said shaft 10 passed over said guide-sheaves 14 and connected to 40 the opposite ends of said supplemental bolsters, and a lock for securing each windlass-shaft where set, involving a ratchet-wheel on said shaft and a cooperating lock-dog pivoted on one of said shaft-bearings, substantially 45 as described.

6. The combination with a wagon having vertical standards for holding the box in place, of a windlass having lifting connections arranged to act over guides on the upper por- 50 tions of said standards and provided with devices for lifting the box from its lower portion, whereby the bottom of the box may be raised to or substantially to the tops of said standards, substantially as described. 55

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

JOHN C. DWYER.

Witnesses:

F. M. COOPER,
W. S. NASKIN.