No. 841,404. PATENTED JAN. 15, 1907.

W. N. JAY.

DERRICK FOR LOADING WAGONS.

APPLICATION FILED OCT. 31, 1906.

Fig. 1.

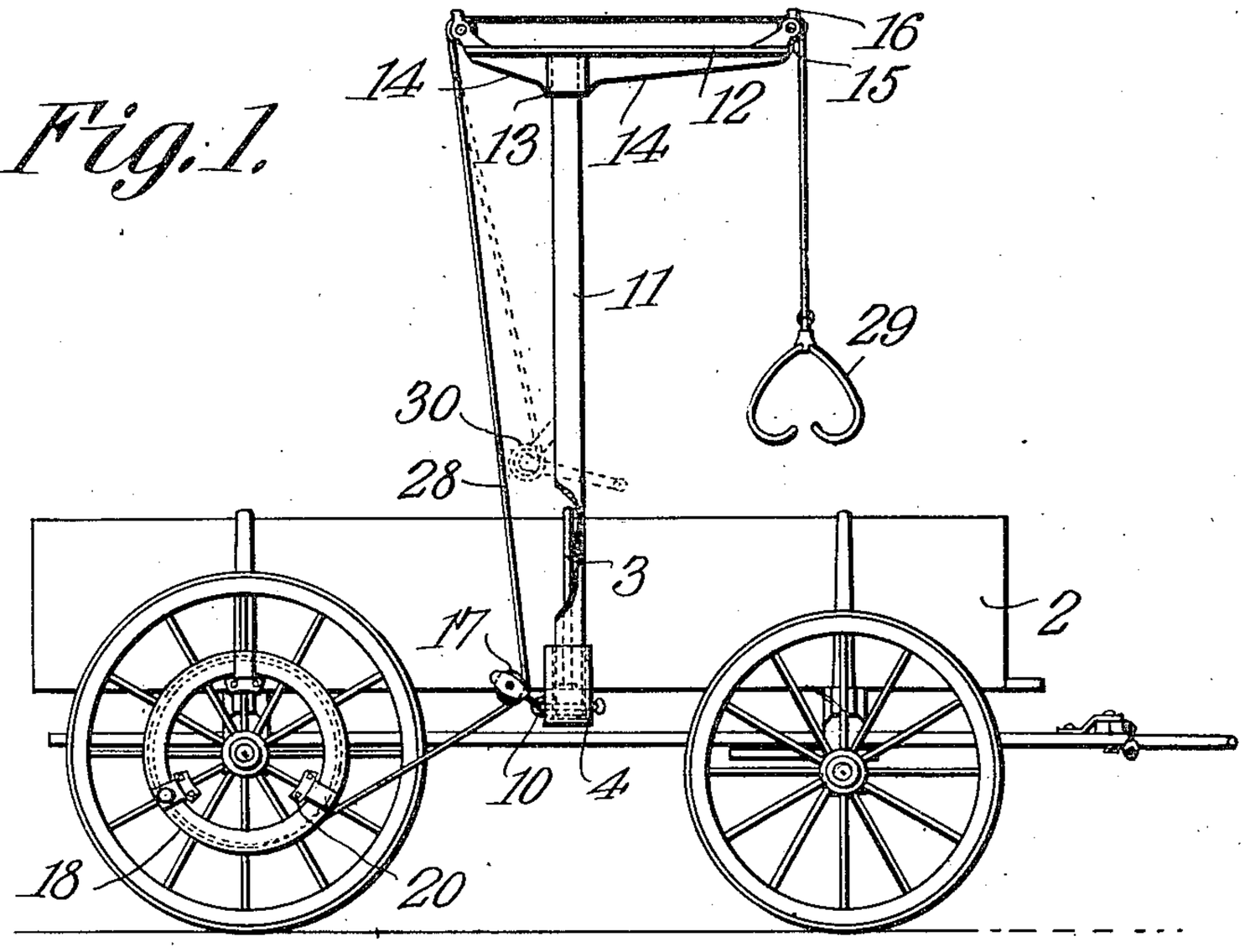


Fig. 4.

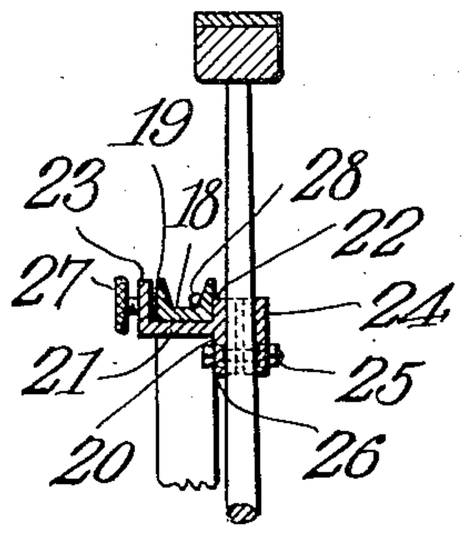


Fig. 2.

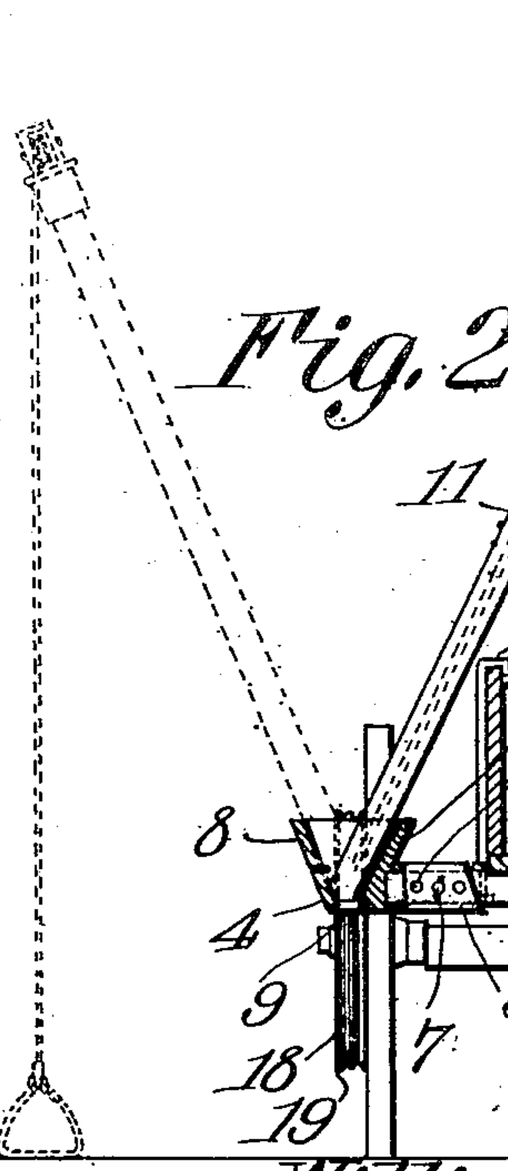
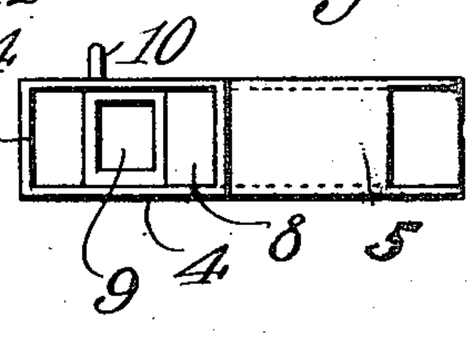
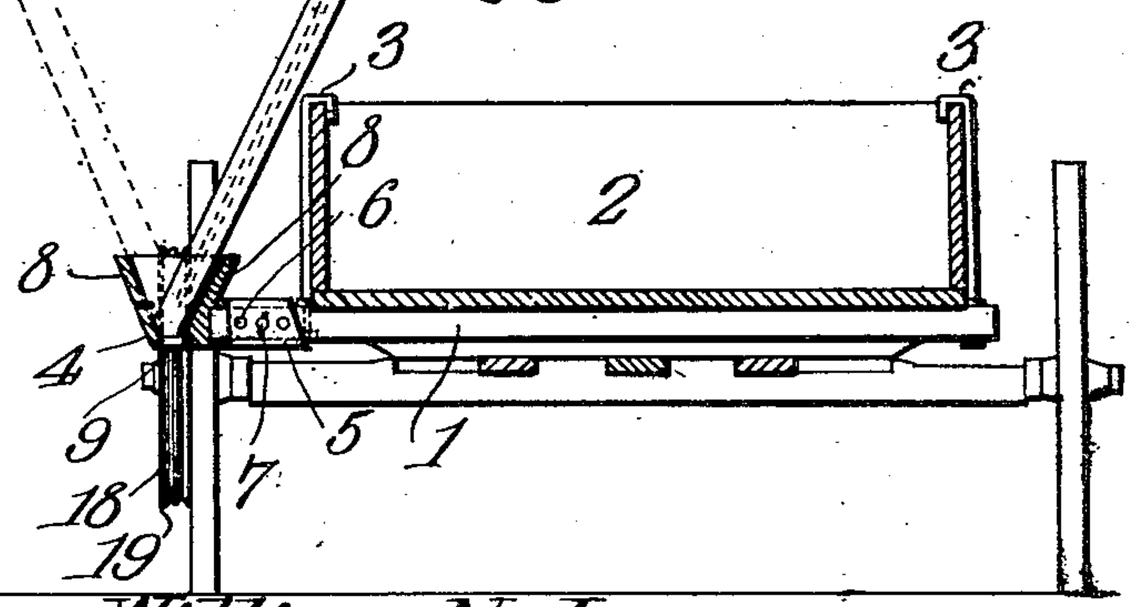


Fig. 3.





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WILLIAM NICOLAS JAY, OF MOSCOW, IDAHO.

DERRICK FOR LOADING WAGONS.

No. 841,404. Specification of Letters Patent. Patented Jan. 15, 1907.

Application filed October 31, 1906. Serial No. 341,442.

To all whom it may concern:

Be it known that I, WILLIAM NICOLAS JAY, a citizen of the United States, residing at Moscow, in the county of Latah and State of Idaho, have invented a new and useful Derrick for Loading Wagons, of which the following is a specification.

This invention has relation to derricks for loading wagons; and it consists in the novel construction and arrangement of its parts, as hereinafter shown and described.

The object of the invention is to provide a derrick in the form of a wagon attachment which may be applied to the body of the vehicle and is thus ready to be used at any point or station at which the wagon may be located.

The attachment consists, primarily, of a socket provided with a laterally-extending sleeve which is adapted to receive and capable of being longitudinally adjusted upon the end of the cross-piece or beam secured to the bottom of the wagon and extending transversely under the body thereof. An upright rests at its lower end in the said socket and is adapted to swing at its upper end in a transverse direction with relation to the wagon-body. A cross-arm is attached to the upper end of said upright, and pulleys are located upon the top of said cross-piece and are provided with suitable tackle-retaining guides. A series of supports are attached to the spokes of one of the wheels of the wagon, one of the said supports having a clamping member. A ring provided with a grooved periphery is mounted upon the said supports concentrically with relation to the wheel and is adapted to be engaged by the said clamping member, by means of which the said ring is fixed with relation to the wheel. Otherwise the said ring remains at rest while the wheel rotates. A block is attached to the socket, and a tackle is fixed at one end to the said ring and passes around the block, then up and over the pulleys journaled upon the cross-piece, and then hangs pendent and is provided with tongs or other suitable grappling-irons.

In the accompanying drawings, Figure 1 is a side elevation of a wagon with the loader applied thereto with parts broken away. Fig. 2 is a transverse sectional view of a wagon with the loader applied thereto. Fig. 3 is a top plan view of the socket employed on the loader, and Fig. 4 is a transverse sectional view of the upper portion of the wheel of a wagon and the upper portion of a winding-ring carried thereby.

The derrick attachment comprises the cross-piece or beam 1, which is attached to the bottom of the wagon-body 2 by means of the clamp-hooks 3, which extend over the upper edges of the sides of the body 2 and pass through perforations in the beam 1, which is held upon the said clamp-hooks 3 by suitable taps screwed upon the shanks of the said hooks. The socket 4 is provided with the laterally-extending sleeve 5, which receives the end of the beam 1. The sides of the said sleeve 5 are provided with a series of bolt perforations 6, any one of which is adapted to receive the transversely-extending bolt 7, which passes through a perforation in the beam 1 and which in conjunction with the several perforations in said sleeve constitute a means for adjustably attaching the said sleeve to the said beam. The socket 4 is rectangular in horizontal section and is provided with the inwardly-inclined sides 8 8 and in its bottom with the opening 9. The said socket 4 is provided upon one of its outer sides with an eye 10. The squared upright 11 rests loosely at its lower end in the socket 4, and consequently is free to swing against one or the other of the inclined sides 8 thereof. The cross-piece 12 is provided on its under side with a socket 13, which receives the upper end of the upright 11. The said socket 13 is located between the ends of the said cross-piece 12, and the webs 14 14 extend from opposite sides of the socket 13 to the opposite ends of the cross-piece 12 and serve as braces for the superstructure. The pulleys 15 15 are journaled for rotation upon the top of and at the ends of the cross-piece 12. The tackle-guides 16 pass over the said pulleys 15. The block 17 is provided with a hook or link which engages the eye 10 of the socket 4.

The ring 18 is supported upon one of the wheels of the wagon. Said ring is provided at its opposite faces with the annular flanges 19. The supports 20 hold the ring 18 in position upon the wagon-wheel. The said support consists o the outer members 21, provided with the guide-lugs 22 and 23, and the

inner plates 24, which bear against the inner sides of the wagon-spokes. The clamping-bolts pass through the plates 24 and the lugs 26, and thus clamp the support 21 upon the spokes. The ring 18 normally rests freely between the lugs 22 and 23. The lug 23, however, of one of the supports 21 is provided with a set-screw 27, which passes transversely through the said lug and is adapted to engage the side of the ring 18 and impinge the same against the opposite lug 22, thereby fixing the ring 18 with relation to the wheel.

One end of the tackle 28 is fixed to the ring 18. The said tackle then passes around the pulley of the block 17, then up and over the pulleys 15 15, and depend at its free end, which is provided with the tongs 29 or other suitable grappling-iron.

From the foregoing description it is obvious that when the wagon is moving from place to place and the set-screw 27 is out of engagement with the ring 18 the parts will be carried along by the vehicle without movement on the part of the ring 18, the tackle 28, and the tongs 29. However, when the wagon arrives at a shock or a pile of filled bags which are to be loaded upon the vehicle the tongs 29 are drawn down and engage either with the shock or bags. The set-screw 27 is then turned into engagement with the ring 18, which thus is made fast to the wheel, and the team is started up, previous to which, however, the upright 11 has been swung out so that its outer side rests against the outer incline 8 of the socket 4. The team is then started, and as the wheels rotate the tackle is wound upon the ring 18. Thus the load is lifted, and when above the edge of the side of the wagon-body 2 the team is stopped and the upright 11 is swung laterally over the wagon-body, when the set-screw 27 is disengaged from the ring 18 and the load drops into the body 2. When the front end of the wagon-body 2 is loaded, the upright 11 may be taken out of the socket 4 and turned around, so that the rear end of the wagon-body 2 may be loaded.

In case the shock is a very large one or there are a great number of bags, instead of moving the wagon as above described to elevate the bags the wagon may remain at rest and a hand-windlass 30, which is attached to the upright 11, may be used for drawing the tackle 28. By this means unnecessary movement of the wagon is avoided.

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

1. In combination with a wagon-body, a socket attached thereto, means for adjusting said socket laterally with relation to the body, an upright resting in the socket and adapted to swing laterally with relation to the body, tackle and grapple carried by the upright and means for drawing the tackle.

2. In combination with a wagon, a beam extending transversely of the body thereof, hook-irons clamping said beam in position upon the body, a socket attached to the beam, an upright resting in the socket and adapted to swing transversely of the wagon-body, tackle and grapple carried by the upright and means for drawing the tackle.

3. In combination with a wagon, a beam secured to the body thereof and extending transversely of said body, a socket adjustably attached to said beam, an upright resting in the socket and adapted to swing transversely of the wagon-body, tackle and grapple carried by the upright and means for drawing the tackle.

4. In combination with a wagon, a beam attached thereto, a socket having a sleeve which receives said beam, an upright resting in the socket and adapted to swing transversely of the wagon, tackle and grapple carried by the upright and means for drawing the tackle.

5. An attachment as described comprising a socket having parallel walls and oppositely-inclined walls and a support-receiving sleeve, said socket adapted to receive an upright.

6. An attachment as described comprising a socket having parallel walls and oppositely-inclined walls, said socket having an opening in its bottom and adapted to receive an upright.

7. An attachment as described comprising a socket having parallel walls and oppositely-inclined walls and an opening in its bottom, said socket having a support-receiving sleeve, said socket adapted to receive an upright.

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

WILLIAM NICOLAS JAY.

Witnesses:
HALSEY H. ORLAND,
WILLIAM T. GRIFFIN.