

A. C. LEMON.
DUMPING WAGON.
APPLICATION FILED MAY 14, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

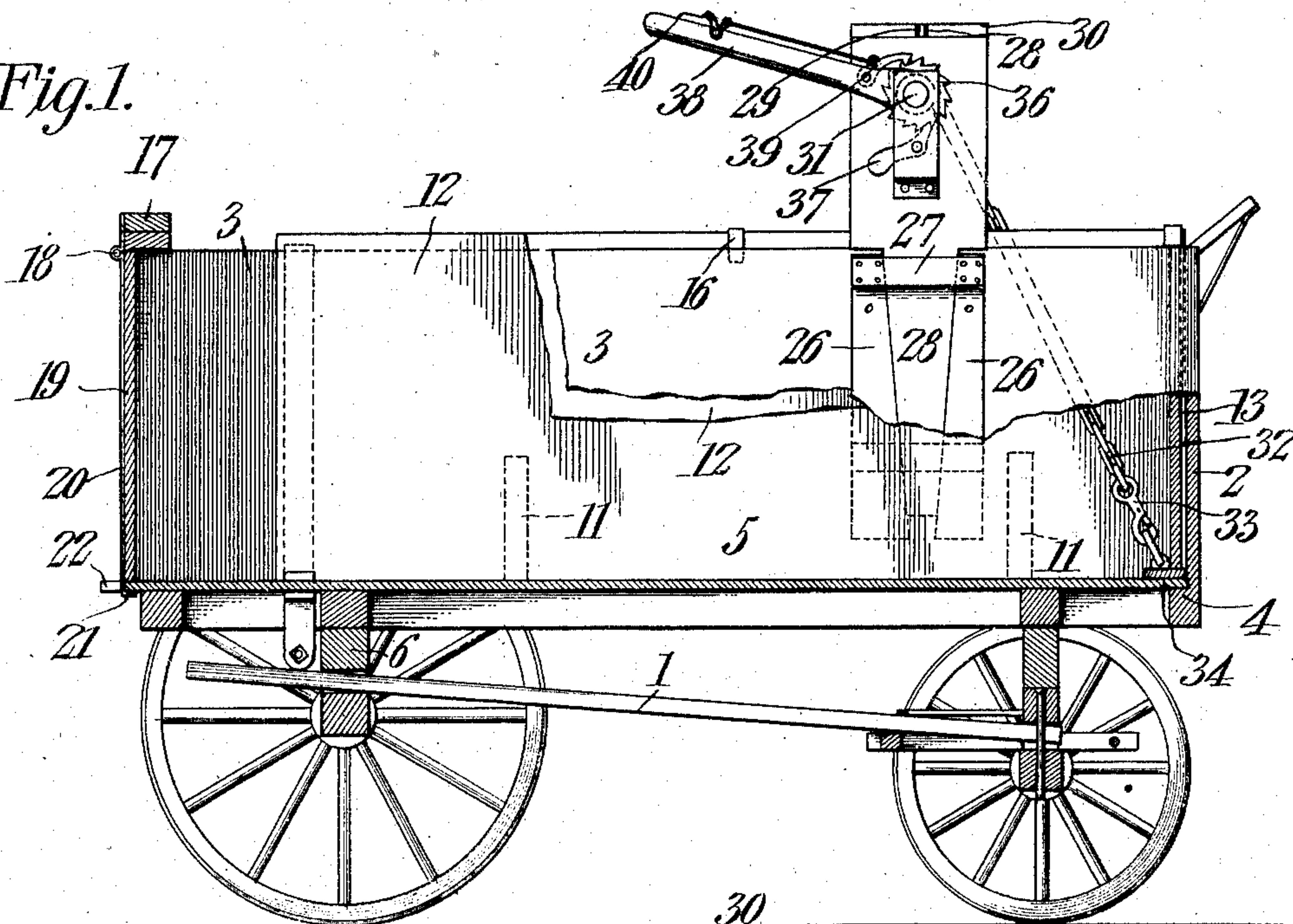


Fig. 2.

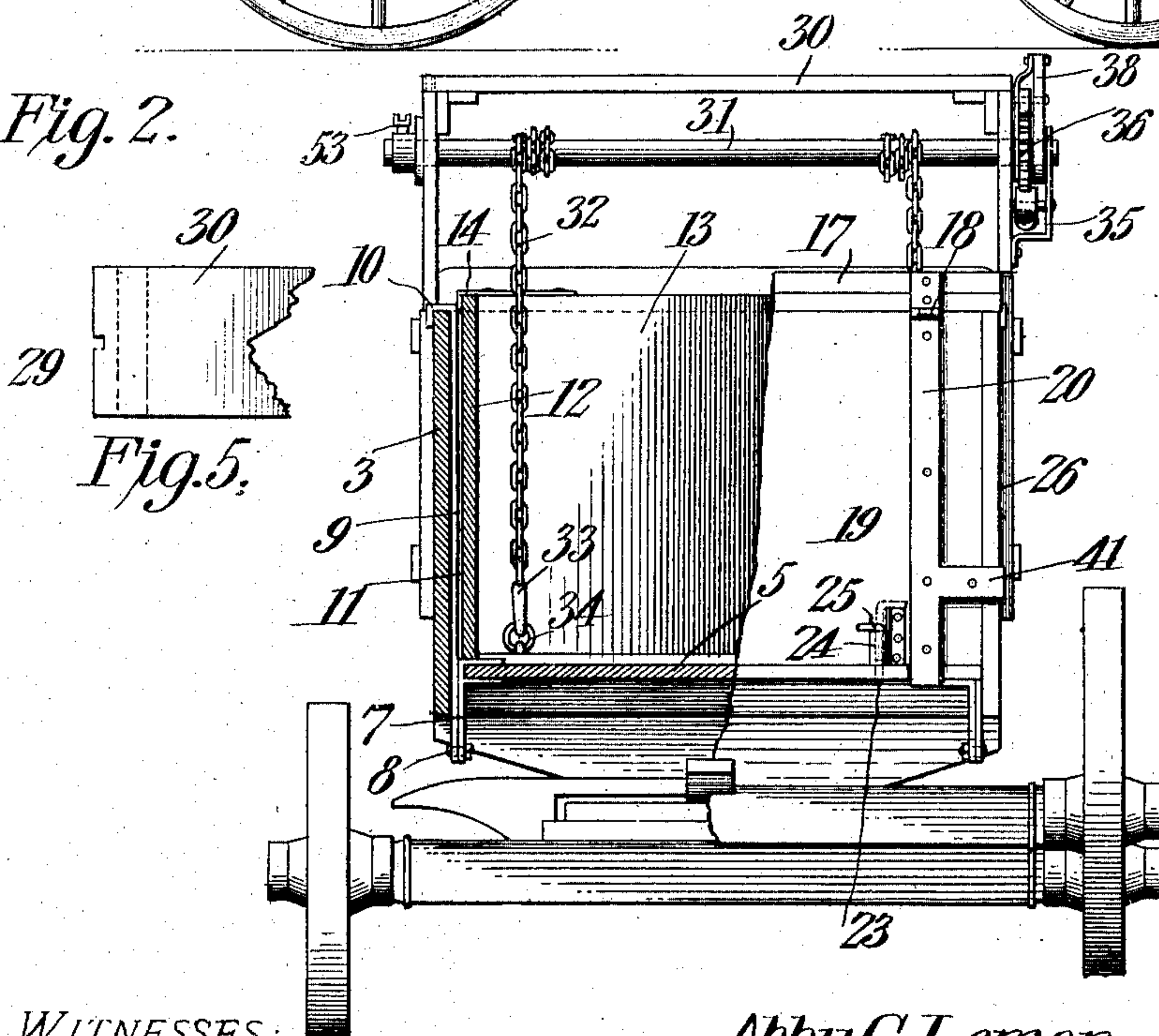


Fig. 5.

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No. 865,049.

PATENTED SEPT. 3, 1907.

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2 SHEETS—SHEET 2.

Fig. 6.

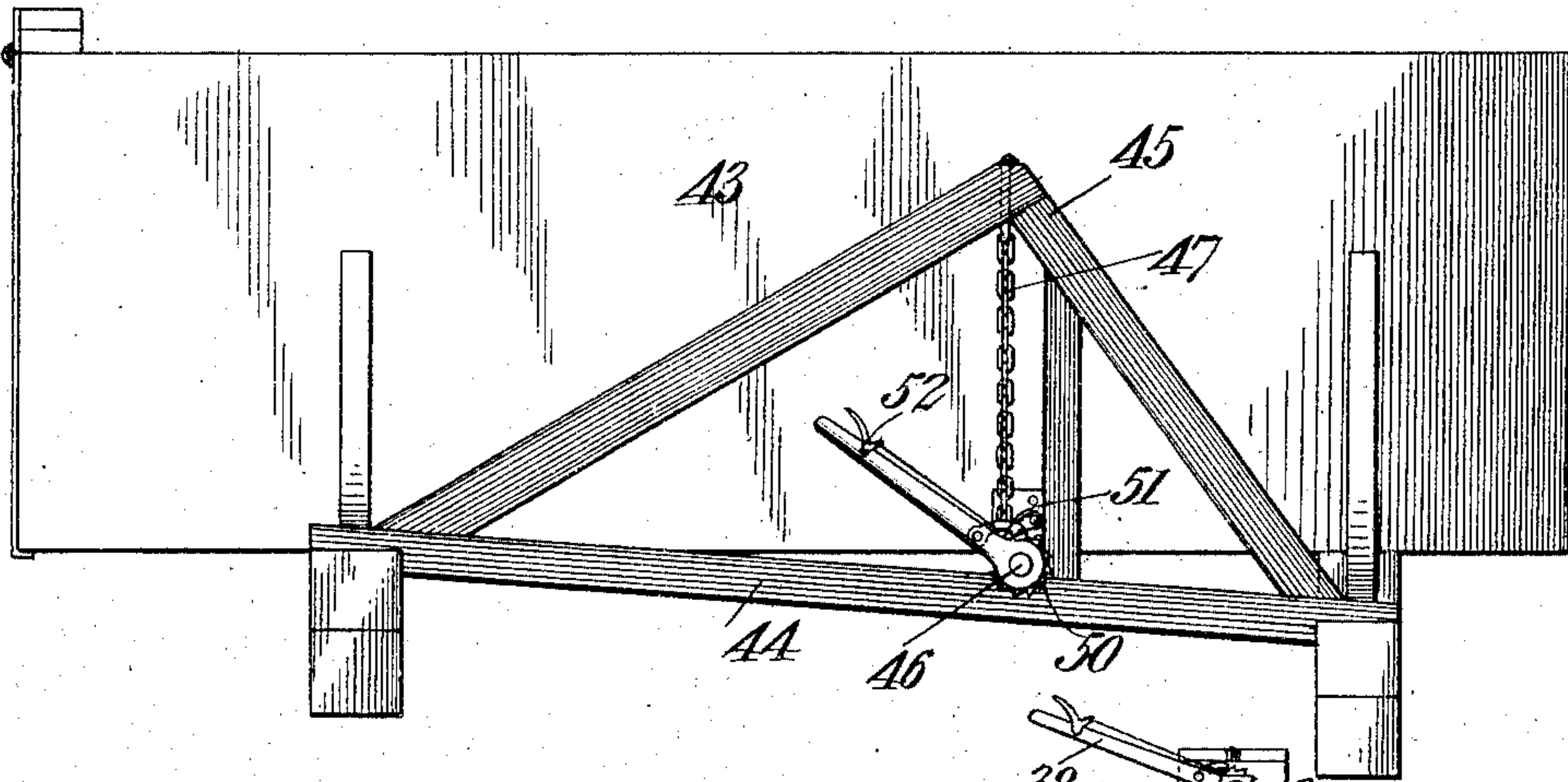


Fig. 3.

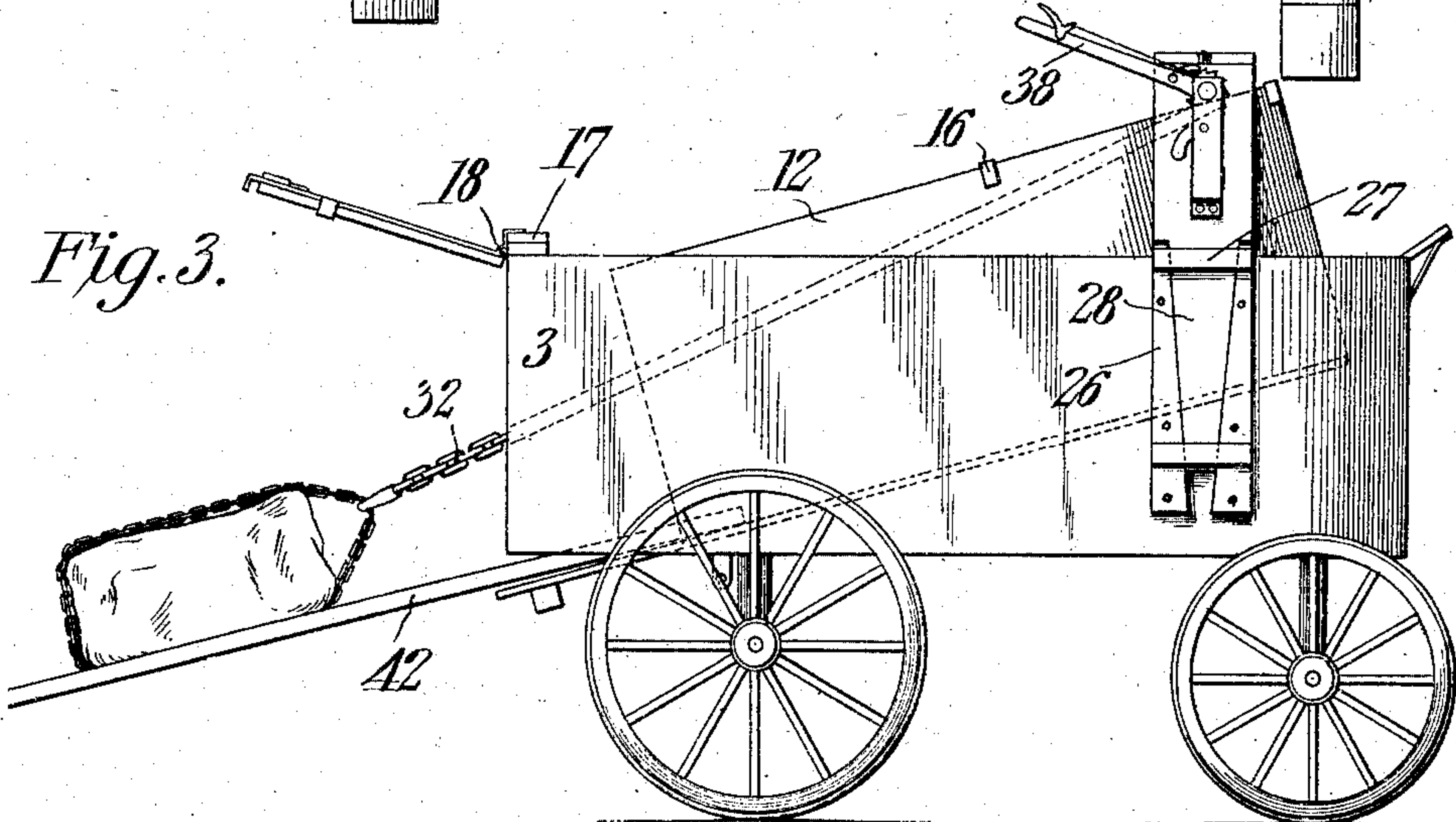


Fig. 7.

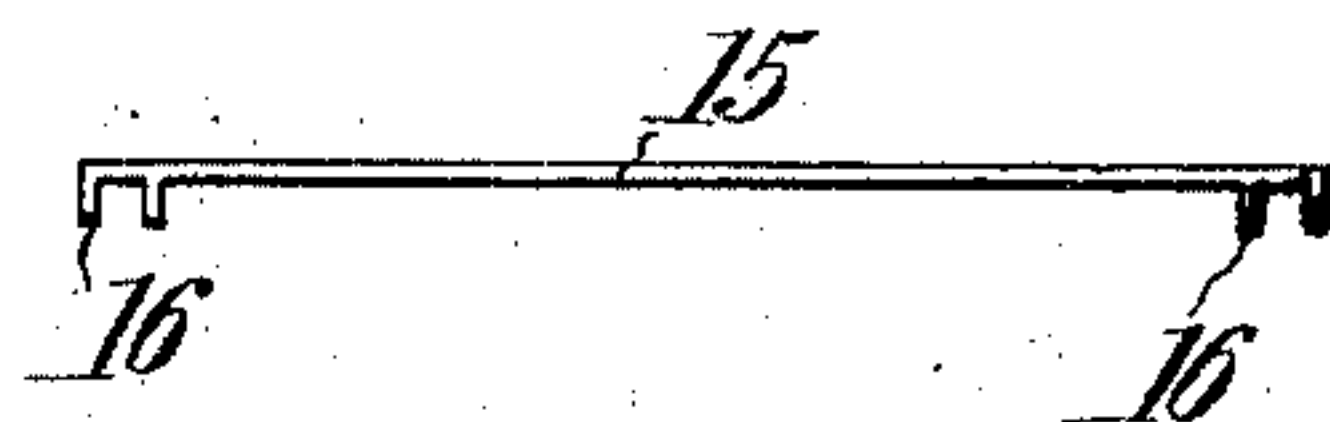
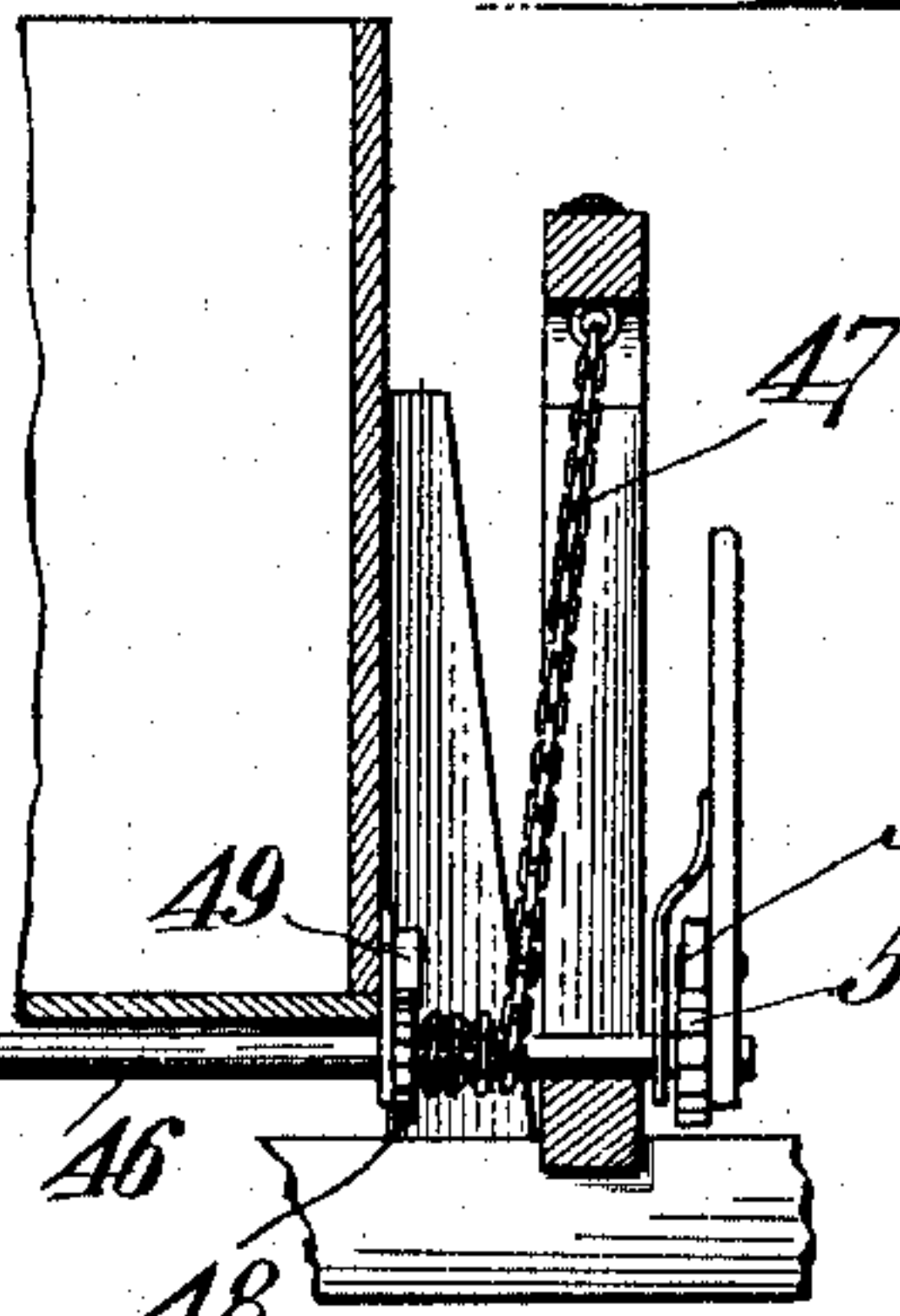
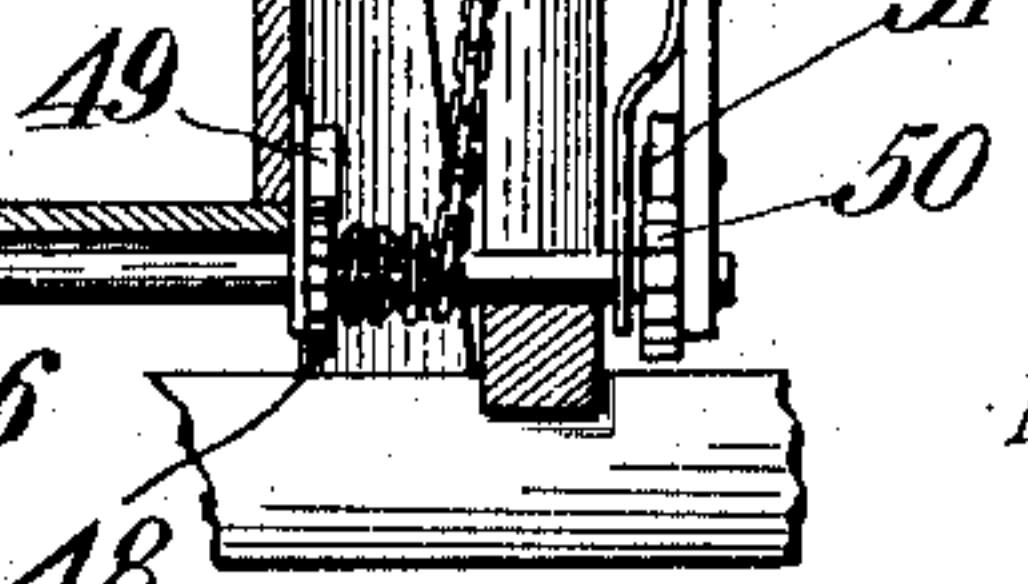


Fig. 4.

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UNITED STATES PATENT OFFICE.

ABBY C. LEMON, OF ROANOKE, VIRGINIA.

DUMPING-WAGON.

No. 865,049.

Specification of Letters Patent.

Patented Sept. 3, 1907.

Application filed May 14, 1907. Serial No. 373,527.

To all whom it may concern:

Be it known that I, ABBY C. LEMON, a citizen of the United States, residing at Roanoke, in the county of Roanoke and State of Virginia, have invented a new and useful Dumping-Wagon, of which the following is a specification.

This invention relates to dumping wagons and its object is to provide a device of this character having a tiltable body whereby the contents of the wagon can be readily discharged therefrom.

Another object is to provide a tailboard constituting a lock to prevent the tiltable body from shifting out of normal position.

A still further object is to provide novel means for actuating the tiltable body, said means being also useful for loading the wagon.

Another object is to provide actuating means which can be readily removed from the wagon.

A still further object is to provide means upon the tiltable body for preventing the escape of sand or other material of a like nature between the tiltable body and its support.

With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is a view partly in side elevation and partly in longitudinal section of a wagon embodying the present improvements; Fig. 2 is a view showing the wagon partly in rear elevation and partly in section; Fig. 3 is a side elevation of the wagon showing the mechanism in use for loading the same; Fig. 4 is a detail view of one of the cross braces; Fig. 5 is a plan view of one end portion of the seat; Fig. 6 is a side elevation of the body of a modified form of wagon; and Fig. 7 is a transverse section through the actuating mechanism and the adjoining portion of the body shown in Fig. 6.

Referring to the figures by characters of reference, 1 designates the running gear of a wagon and upon which is supported a front wall 2 and side walls 3 of a wagon body. The front wall has an inwardly projecting ledge 4 constituting a support for the front end of a tiltable bottom 5. Secured to opposite edges of the bottom at a point preferably directly in rear of the rear bolster 6 of the wagon are hangers 7 which are pivotally connected at their lower ends and as shown at 8 to the lower end of the straps 9 which extend downward upon the inner faces of the side walls 3 and are fastened thereto in any suitable manner, the upper ends of the straps being preferably hooked over the side walls as shown at 10. Standards 11 preferably in the form of metal strips extend upward from the side edges of bottom 5 and con-

stitute abutments for upstanding side panels 12 which rest upon the side portions of bottom 5. These panels are preferably spaced apart at their front ends by a front panel 13 having angular holding straps 14 extending beyond the upper edge thereof and designed to lap the side panels as shown in Fig. 2. Brace bars are also preferably utilized. As shown in Fig. 4 each bar, which is indicated by the numeral 15, has a pair of depending ears 16 at each end designed to embrace the upper edges of the panels 12 at one or more points between the ends thereof.

A cross strip 17 is secured at the rear ends of the upper edges of walls 3 and hinged thereto as at 18 is a tailboard 19. This tailboard is designed to lap the rear end of the bottom 5 and the hinged straps 20 which are fastened thereto extend beyond the lower edge of the tailboard and are hooked as at 21. These hooks are designed to fit within notches 22 in the projecting end of the bottom 5 and constitute means to prevent tilting of the bottom as long as the tailboard is in position. If desired any suitable means such as a sliding bolt 23 may be mounted upon the tailboard so as to engage the projecting end of the bottom 5 and lock the tailboard in closed position. The bolt is preferably arranged in a casing 24 and provided with a handle 25 adapted, when the bolt is raised, to swing into position upon one end of the casing to support the bolt as shown by dotted lines in Fig. 2.

Converging guide cleats 26 are secured upon the outer faces of the walls 3 near the front thereof and are connected by retaining straps 27. A standard 28 is insertible between each pair of cleats and is designed to be supported thereby and upstanding from each standard is a holding pin 28. These pins are designed to project into notches formed in the ends of a seat. A shaft 31 is journaled within the standard and directly under the seat and secured thereto are chains 32 the free ends of which are preferably provided with hooks 33 designed to engage eyes 34 extending upward from the front portion of the bottom 5. A bracket 35 is secured upon one of the standards and fastened to the shaft between this bracket and its standard is a ratchet wheel 36. This wheel and the shaft are held normally against rotation in one direction by a gravity controlled pawl 37. An actuating lever 38 is fulcrumed upon the shaft and carries a dog 39 designed to engage and rotate the ratchet wheel. This dog may be withdrawn from engagement with the ratchet by actuating a hand lever 40 of the usual construction and which is mounted on lever 38.

As shown in Fig. 2 each strap 20 is preferably provided with a laterally extending arm 41 having an ear at its extremity designed to lap the walls 3 when the tailboard is closed.

With the parts in the positions which have been de-

scribed it is apparent that sand or other similar granular material may be placed within the wagon without danger of leakage past the sides of the bottom 5. When it is desired to dump the wagon the tailboard is unlocked and swung out of engagement with the bottom 5 after which shaft 31 is rotated by oscillating lever 38. This will cause the chains to pull upward on the bottom and the material thereon will slide therefrom and under the tailboard. The panels 12 and 13 will move upward with the bottom 5 and when the wagon is empty these panels can be removed from their upstanding positions.

As shown in Fig. 3 the lifting mechanism can be utilized for loading the wagon should it be desired to place a heavy stone or other object therein. This operation is effected by placing a heavy board 42 upon the rear end of the bottom 5 and detaching the chains from the bottom 5. Said chains are then fastened to the object to be placed in the wagon and by winding the chains on shaft 31 the object can be drawn upward upon board 42. The weight of the object will of course cause the bottom to tilt until after said object has been brought into position upon the bottom 5 whereupon said bottom will swing downward to its normal position.

Instead of providing the body of the wagon with an interior tiltable portion the entire body can be tilted. The construction necessary to produce this result has been disclosed in Figs. 6 and 7. The body 43 is tiltable mounted above a frame 44 from which extends upstanding side frames 45. A shaft 46 is journaled upon the bottom of the body and has secured to its end portions chains 47 which are also secured to the upper portions of the side frames 45. Shaft 46 has a ratchet 48 designed to be engaged by a pawl 49 whereby unwinding of the chains is prevented. Another ratchet wheel 50 is secured to the shaft and is designed to be engaged by a pawl 51 carried by an actuating lever 52. Obviously by oscillating lever 52 shaft 46 can be rotated so as to

wind the chains thereon and the shaft will therefore be moved upward carrying the body 43 therewith.

As shown in the drawings the shaft 31 may be held against movement in one direction by a set screw 53 and this screw can be made sufficiently large and can be so shaped as to constitute a wrench whereby the various nuts and bolts embodied in the construction can be tightened or loosened.

What is claimed is:

1. In a dumping wagon the combination with an end and side walls; of a tiltable body interposed therebetween and comprising a bottom, side panels removably mounted thereon, an end panel removably mounted thereon and constituting spacing means for the side panels, and standards upon the bottom and constituting abutments for the side panels, and means for tilting the body.
2. In a dumping wagon the combination with an end and side walls; of a tailboard hingedly connected to the side walls, a bottom tiltable mounted between the side walls, means upon the tailboard for locking the bottom against tilting, and means for tilting the bottom.
3. In a dumping wagon the combination with an end and side walls; of a bottom tiltable mounted therebetween, means for actuating said bottom, a hingedly mounted tailboard carried by the side walls, means thereon for engaging the bottom to prevent tilting thereof, and means upon the tailboard for engaging the bottom to lock the tailboard.
4. In a dumping wagon the combination with an end and side walls; of a tiltable body interposed therebetween and comprising a bottom, side panels removably mounted thereon, an end panel removably mounted thereon, removable seat supporting standards slidably engaging the side walls, a shaft journaled therein, oscillatory means for actuating the shaft, a flexible lifting element secured to the shaft and disposed to be fastened to the tiltable bottom, and means for locking the shaft against rotation in one direction.

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

ABBY C. LEMON.

Witnesses:

MALCOLM W. BRYAN,
J. T. MEADOWS.