J. T. RIGDON.

DUMPING WAGON.

APPLICATION FILED JULY 15, 1915.

1,179,563. Patented Apr. 18, 1916.

Fig. 1.

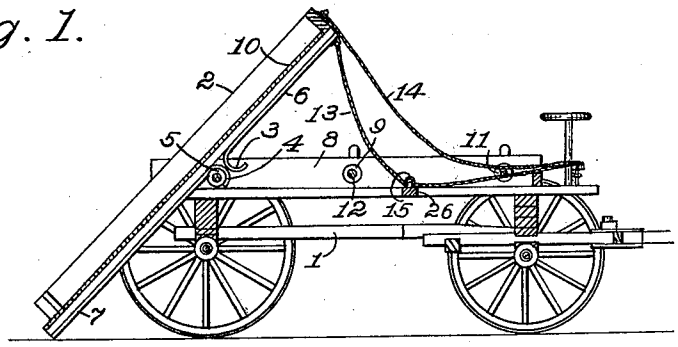
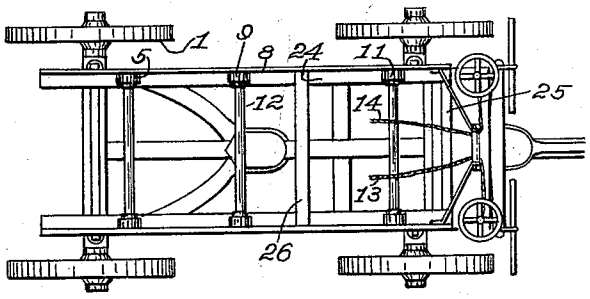


Fig. 2.



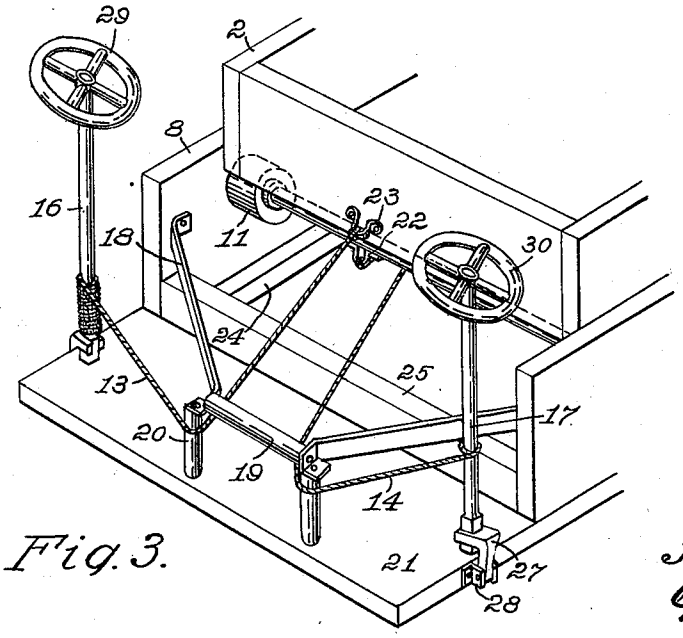


Fig. 3.

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DUMPING-WAGON.

1,179,563. Specification of Letters Patent. Patented Apr. 18, 1916.

Application filed July 15, 1915. Serial No. 40,018.

To all whom it may concern:

Be it known that I, JEFFERSON T. RIGDON, a citizen of the United States of America, and a resident of East Waterloo township, Blackhawk county, Iowa, have invented certain new and useful Improvements in Dumping-Wagons, of which the following is a specification.

My invention relates to improvements in dumping wagons, and the object of my improvement is to provide a movable dumping box for a wagon running gear, of simple, inexpensive construction and easily operated. This object I have accomplished by the means which are illustrated in the accompanying drawings, in which:

Figure 1 is a longitudinal vertical section of a wagon running gear with my improved dumping box movably mounted thereon, and shown in a dumping position. Fig. 2 is a plan view of the running gear of said device, the wagon box being removed. Fig. 3 is an enlarged detail perspective view of the forward part of said device, showing the different traction devices for moving the wagon box back and forth.

Similar numerals of reference denote corresponding parts throughout the several views.

1 is a wagon running gear. Spaced longitudinal beams are supported on the ends of the bolsters, and upon them are mounted the longitudinal planks 8 connected by means of cross bars 25 and 26. These shafts 12 located respectively at the middle and near the ends of said beams 8 have their ends fixed in the latter, and rollers 5, 9 and 11 are rotatably mounted upon the ends of the shafts next to said planks. Upon the bottom of the wagon box 2 are fixed spaced longitudinal bars 10.

The numerals 6 and 7 denote wear plates mounted on the lower faces of the beams 10 in line and having their ends which meet near the middle of said beams curved over downwardly and reversely at 3 to form hooks or engaging means adapted respectively to engage the rollers 9 and 5 alternately.

The wagon box beams 10 are supported movably upon said rollers, 5, 9 and 11, and the box 2 may be dumped by moving it rearwardly upon said rollers until the rearmost hooks 4 engage the rear rollers 5. The box then tilts rearwardly into its dumping position shown in said Fig. 1, said hooks 3 being located forward of the center of gravity of the box. To move said box forward and back over said rollers, I have adopted the following means. Referring to Fig. 3, the numerals 16 and 17 denote vertical rotary shafts seated in bearings in a forwardly projecting plank secured across the front part of the beams 8 and adapted to support a driver's seat, said seat not being shown. The numeral 18 denotes a pair of forwardly directed horizontal converging bars or brackets whose outer ends are spaced apart with the pintles of a horizontal roller 19 rotatably mounted therein. The extremities of said bars have horizontal outwardly directed ears, and vertical rollers 20 have their pintles rotatably mounted in said ears and in the plank 21. The numerals 23 and 22 denote fixed loops in the forward part of the wagon box 2, the loop 22 being located below the loop 23 at the angle of the box. A pulley 15 is mounted upon the middle of the cross bar 26. A cable 13 has one end secured to the loop 23 then carried under the horizontal roller 19 and around one of the vertical rollers 20 and then secured to the shaft 16 to be wound up thereon. A cable 14 has one end secured to the loop 22, and is then carried back under the box 2, passed about the pulley 15, thence carried forward under the roller 19, about the other roller 20, to be wound upon the other vertical shaft 17. The shafts 16 and 17 are supplied at their upper ends with hand wheels 29 and 30, respectively. The shaft 16 is rotated to wind up the cable 13 to draw the box 2 forwardly. The shaft 17 is rotated to wind up the cable 14 to pull the box 2 rearwardly to its dumping position.

In order to secure either cable to hold the box 2 in a desired position, I employ the following described detachable securing means: The lower part of each of the shafts 16 and 17 is squared. Spaced bearing lugs 28 are mounted on opposite ends of the plank 21 and a bifurcated catch 27 is pivotally mounted between them with its bifurcated part bent angularly so that they may be swung up to fit over the squared part of the adjacent shaft removably.

It will be seen that my improved dumping box and its accessories are adapted to be removably mounted upon any wagon running gear at a moment's notice, and that the device is very simple in construction and

inexpensive. The dumping of the wagon may be, by the means described, effected from the driver's seat, and the box brought back to its original position.

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

1. In a dumping wagon, the combination with the running-gear, of a frame supported removably thereon, comprising spaced connected longitudinal planks supported removably by said running gear, shafts fixed across said frame, rollers rotatably mounted upon the opposite ends of said shafts, a wagon-box having at or near its center of gravity pairs of reversely directed depending fixed hooks contacting back to back at opposite parts of its under surface adapted to become engaged alternately with the rearmost rollers and the rollers immediately forward of the latter when the box is movably mounted upon said rollers and moved backwardly or forwardly respectively, the box being adapted to dump rearwardly when moved backward to engage its rearwardly directed hooks with said rearmost rollers.

2. In a dumping wagon, the combination with the running-gear, of a frame supported removably thereon comprising spaced connected longitudinal planks set on edge and supported removably by said running-gear, shafts fixed across said frame between said planks, rollers rotatably mounted upon opposite ends of said shafts, a wagon-box, spaced longitudinal beams fixed along the under side of said box, longitudinally alined wear-plates fixed on the under sides of said beams their meeting ends being curved downwardly to form reversed hooks opening respectively forwardly and rearwardly and adapted, when the box is mounted movably upon said rollers, to be alternately engaged with the rearmost rollers or the rollers immediately forward of the latter respectively, said box being adapted to dump rearwardly when the rearwardly opening hooks are engaged with the rearmost rollers, and means for moving said box back and forth over said rollers.

3. In a dumping wagon, the combination with the running gear, frame, and wagon box removably supported thereon and longitudinally movable thereover, of means for limiting the extent of rearward movement of said wagon-box, and means for propelling the wagon-box forward or back, comprising laterally spaced vertical rollers rotatably mounted on the front of the frame, a horizontal rotatable roller supported over the interspace of said vertical rollers transversely of the frame, rotatable vertical shafts mounted adjacent to each vertical roller and each provided with a hand-wheel, the lower end of each shaft being squared, bifurcated clips movably mounted on the frame near the squared portion of each shaft and adapted to be manually moved to embrace said squared portion releasably to prevent rotation thereof, a pulley mounted on said frame underneath and midway the length of the wagon-box, a cable secured to and wound about one vertical shaft, carried thence over one vertical roller and under said horizontal roller and secured to the front end of the wagon-box, and another cable secured to and wound about the other vertical shaft, carried thence over the other vertical roller and under said horizontal roller, then rearwardly about said pulley, and thence forwardly to and secured to the front end of said wagon-box.

Signed at Waterloo, Iowa, this 28th day of June, 1915.

JEFFERSON T. RIGDON.

Witnesses:
PEARL M. STANTON,
GEO. C. KENNEDY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."