

No. 812,918.

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J. E. BRIGGS.
DUMPING WAGON.
APPLICATION FILED DEC. 15, 1904.

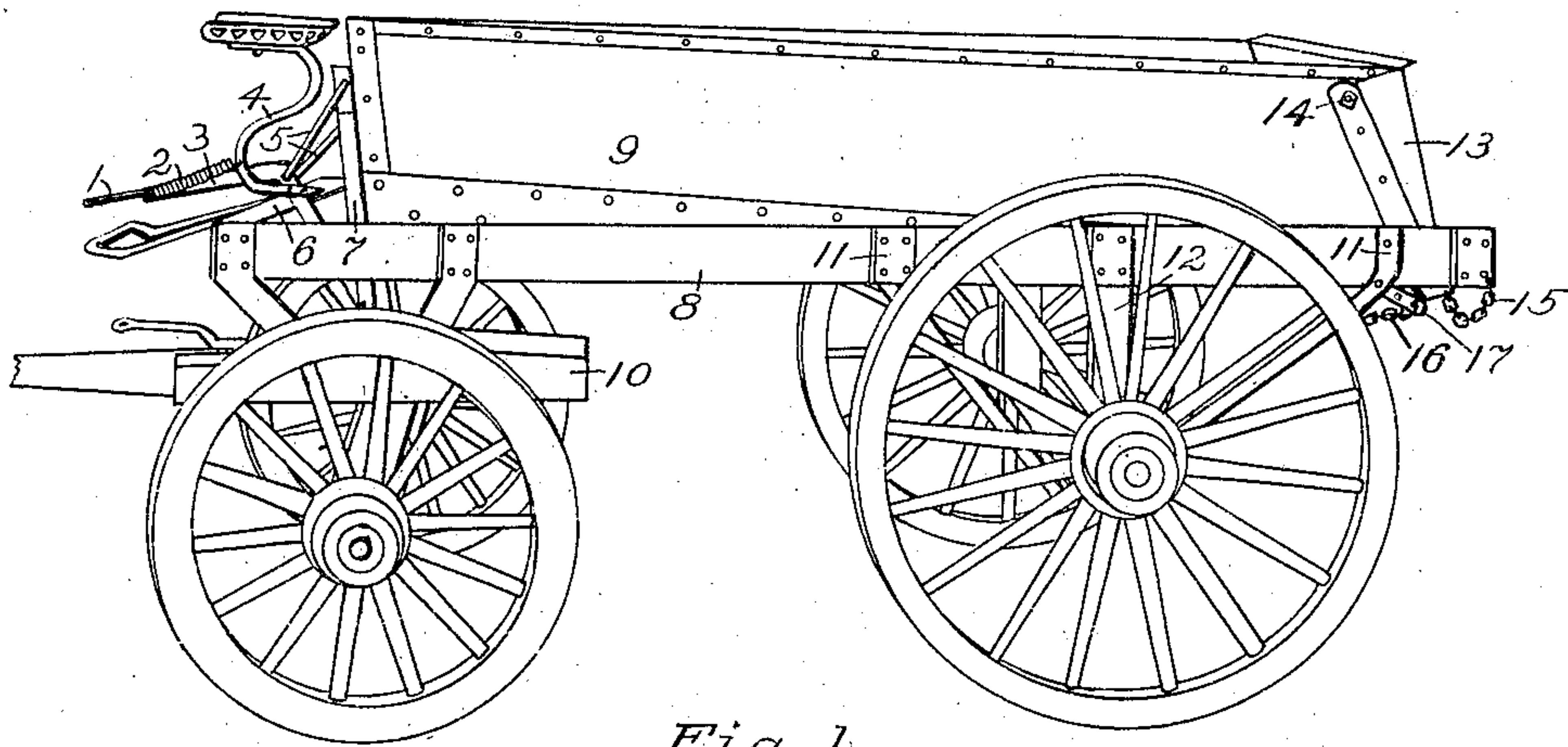


Fig. 1.

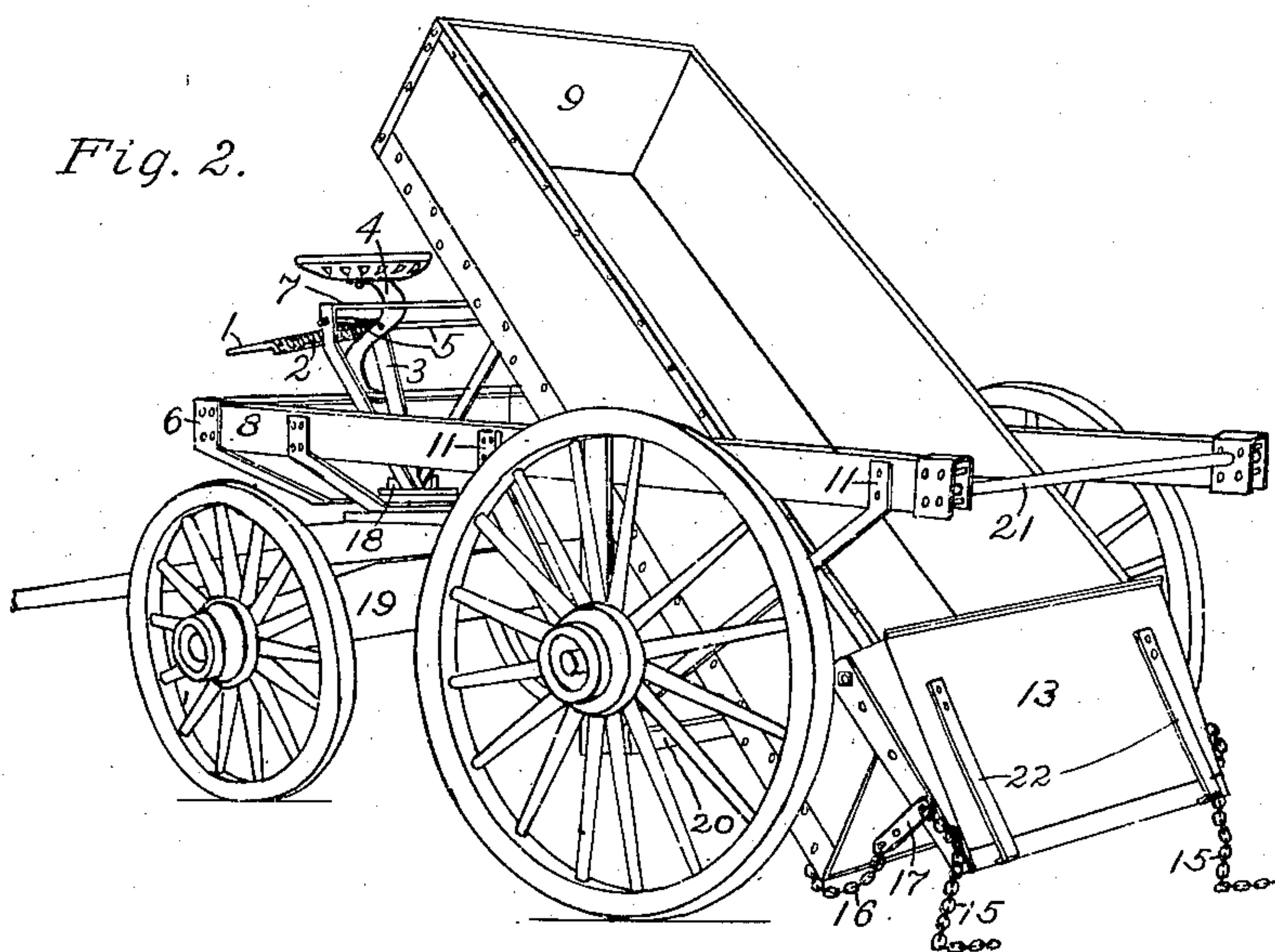


Fig. 2.

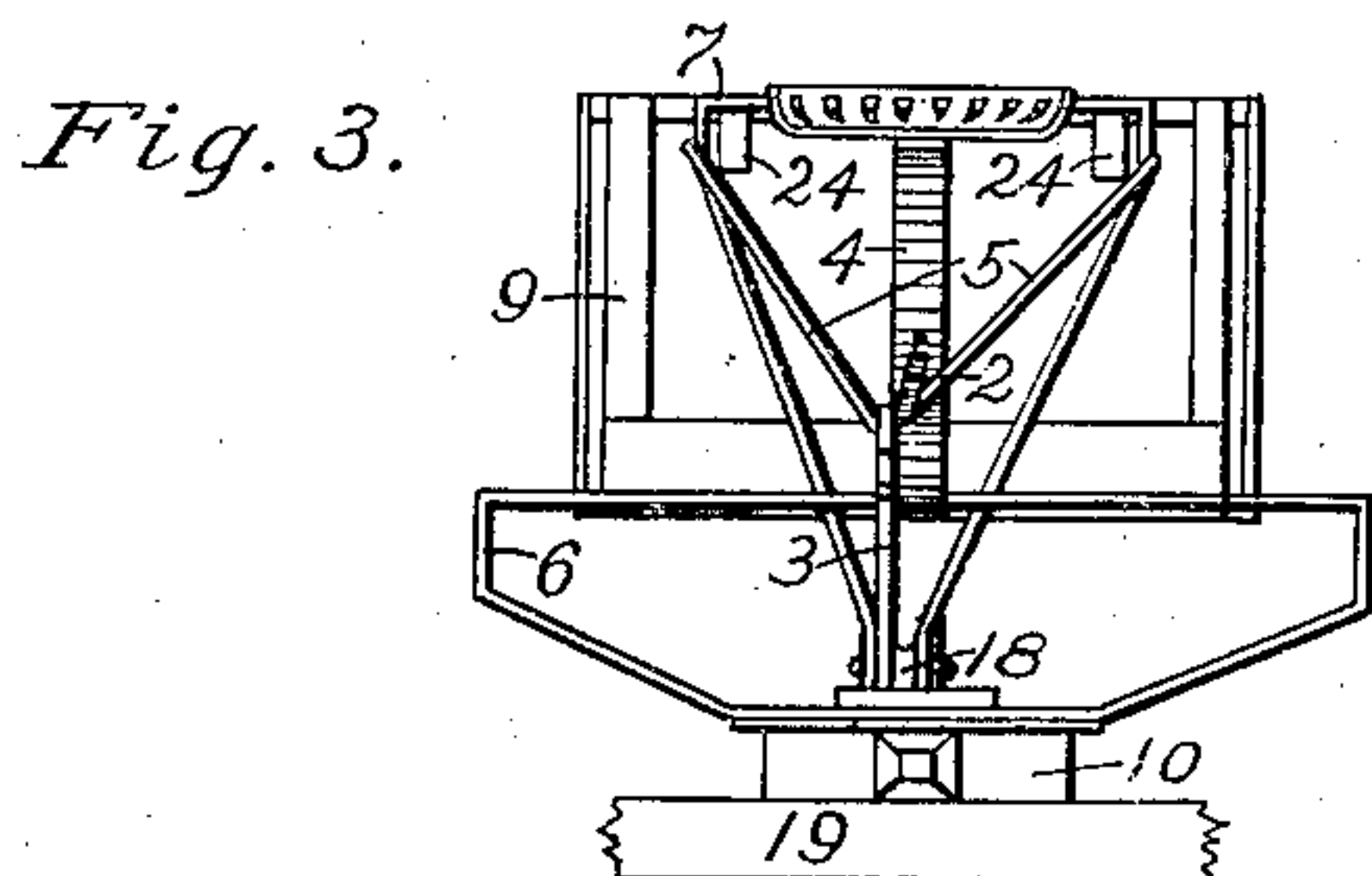


Fig. 3.

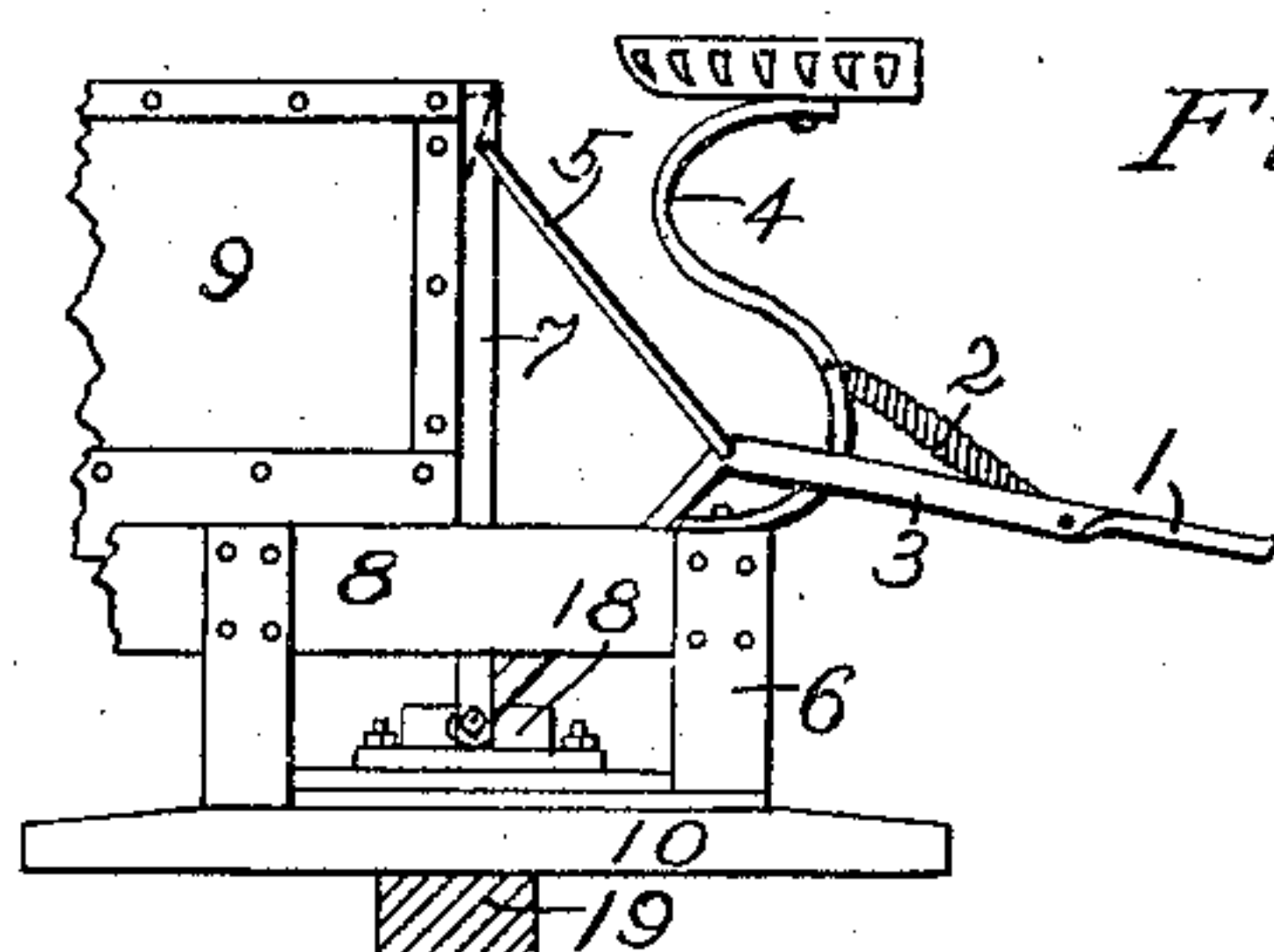


Fig. 4.

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DUMPING-WAGON.

No. 812,918.

Specification of Letters Patent.

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To all whom it may concern:

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

My invention relates to dumping-wagons; and the object of my invention is to provide for ready clearance of load, and especially to furnish means whereby the wagon may be dumped without the necessity for driver alighting, also supplying means whereby the load may be delivered as desired in one place or scattered on a level grade. This object I have accomplished by the means which are hereinafter described and claimed and which are illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved dumping-wagon. Fig. 2 is a perspective view of same, showing the wagon-box tilted into the dumping position. Fig. 3 is a detail view showing a front elevation of the releasing mechanism; and Fig. 4 is another detail view of the releasing mechanism, showing it in side elevation.

Similar numbers refer to similar parts throughout the several views.

My improved dumping-wagon consists, essentially, of a box 9, mounted on pivots in a rectangular frame 8, supported on a wheeled truck. The center of gravity of the box is located a short distance to the rear of the pivots, which permits the box to tilt rearwardly when the releasing mechanism in front has been actuated. The box is constructed of greater width at the rear end than at the front end, which conduces to greater facility in releasing the load when it is tilted back.

Upon a transverse block 10, pivoted on the axle 19, is mounted a pedestal-block 18, the upper projection of which serves as a bearing-stud for the loop-shaped rack-bar 7, and an angular forwardly-extending lever 3 is at its lower end pivoted to the same projection and is connected to the rack-bar 7 by means of the links 5. A spring 2 is connected between the lever 3 and the seat-support 4 to keep said lever in upright position. Projecting wedge-shaped blocks 24 are attached to the front end of the box 9, their narrow edges down, and the upper horizontal bar of the rack-bar 7 is arranged to pass over these wedges and contact with their upper surfaces. As the upper surfaces of the wedges 24 are

slightly inclined backward, it is obvious that when the upper bar 7 is passed over them and supported by the tension of the spring 2 the tendency will be for the bar 7 to remain in contact with the wedges and hold the wagon-box 9 in its usual closed or horizontal position, as shown in Fig. 1.

The lever 3 is provided with a foot-piece 1, and the driver can easily release the box 9 from its horizontal position to tilt it backward by simply depressing the lever 3, which disengages the bar 7 from the wedges 24. The box will then under the combined influence of the load and because of the rearward location of its center of gravity tilt backward to the ground.

The rear axle 20 is constructed, as shown, of a downwardly-bent shape, and its ends are mounted in the uprights 12, having side braces 11. This form of axle permits the box 9 to be tilted back the sufficient distance desired. The front end of the frame 8 is supported on the block 10 by means of the supporting-standards 6. When the box 9 has been lifted into its horizontal position, its end-gate 13 comes in contact with the transverse rod 21, the elasticity of the spring-bars 22 between keeping said end-gate tightly closed against the wagon-bed. The driver may without alighting from his seat depress the forward end of the wagon-box into its horizontal position, when the bar 7 will be retracted over the wedges 24.

In Fig. 2 the wagon is shown in the tilted position necessary for grading. In this position the end-gate 13 is not opened to its full extent, but maintained in any desired extent of spread by simply connecting the chains 16 from the wagon-box to the adjusting-bar 17 on the end-gate 13. The wagon may then be moved forward and the contents distributed of an even height along the grade.

When it is desired to open the end-gate to its fullest extent for the purpose of dumping the contents in one place, the chains 16 are disengaged and the chains 15 are then connected between the end-gate 13 and the ends of the frame 8 near the cross-bar 21. The end-gate 13 is pivoted at its upper corners on bolts 14 to the wagon-box 9.

It will be seen that the box may be tripped or returned to its horizontal position by the driver without the necessity of his alighting from his seat, which saves much time in the unloading. As the end-gate 13 is placed tightly in contact with the rod 21 when the bed is

raised, there is no necessity for any other means for fastening it into closed 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 wheeled axles, of a frame mounted thereon, a box fulcrumed within the frame for vertical rocking movement, means for releasably fastening down the front end of said box, a foot-actuated lever for detaching said fastening means, a spring connected between said foot-actuated lever and the frame, and a tilting end-gate pivoted to the upper part of the rear end of said box and adapted to be automatically closed and held under spring tension when said box is shifted to its normal position.

2. In a dumping-wagon, the combination with wheeled front and rear axles, of a frame supported thereon, a box fulcrumed at a point a short distance in front of its center of gravity within said frame, contact-pieces on the front of said box, a clutch pivoted to said frame and adapted to releasably engage said contact-pieces, a foot-actuated lever connected to said clutch, a tilting end-gate pivoted to said box adapted to automatically tilt into an inclined position away from said box upon the rocking of the box a transverse rod carried by the frame, spring members carried by the end-gate adapted to engage said rod when the box is shifted to its normal position, an adjusting-bar attached to said end-gate, and means for linking said adjusting-bar to said box to retain said end-gate when tilted within the desired limit of opening.

3. In a dumping-wagon, the combination with wheeled front and rear axles, of a frame supported thereon, a box fulcrumed within the frame for vertical rocking movement, contact-pieces on the front of said box, a clutch pivoted to said frame and adapted to releasably engage said contact-pieces, a foot-actuated lever connected to said clutch, a

spring connected between said foot-actuated lever and said frame, a tilting end-gate pivoted to said box adapted to automatically tilt into an inclined position away from said box upon the rocking of the box, means for holding said end-gate closed under spring tension when the box is in its normal position, an adjusting-bar attached to said end-gate, means for linking said adjusting-bar to said box to retain said end-gate when tilted within the desired limit of opening, and means for preventing the closing of said end-gate when tilted into any desired open position.

4. In a dumping-wagon, the combination with a frame, of a box fulcrumed therein, said box gradually increasing in width from front to rear, a tilting end-gate pivoted to said box, a transverse rod carried by the frame, spring members carried by the end-gate adapted to engage said rod when the box is in its normal position, means for linking the lower part of said end-gate to said box to adjust in a desired degree the width of opening thereof, and means for preventing the closing of said end-gate when once opened to any desired degree of adjustment.

5. In a dumping-wagon, the combination with wheeled front and rear axles, of a frame mounted upon said axles, a box pivoted for rocking movement in said frame, lugs carried by the front end of said box, a yoke pivoted for rocking movement upon the front axle and adapted to engage said lugs, a foot-lever for actuating said yoke, a spring which normally holds said yoke in engagement with the lugs, a swinging end-gate pivoted to the wagon-body and means for holding said end-gate closed under spring tension when the box is in its normal position.

Signed at Waterloo, Iowa, this 20th day of October, 1904.

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Witnesses:

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