

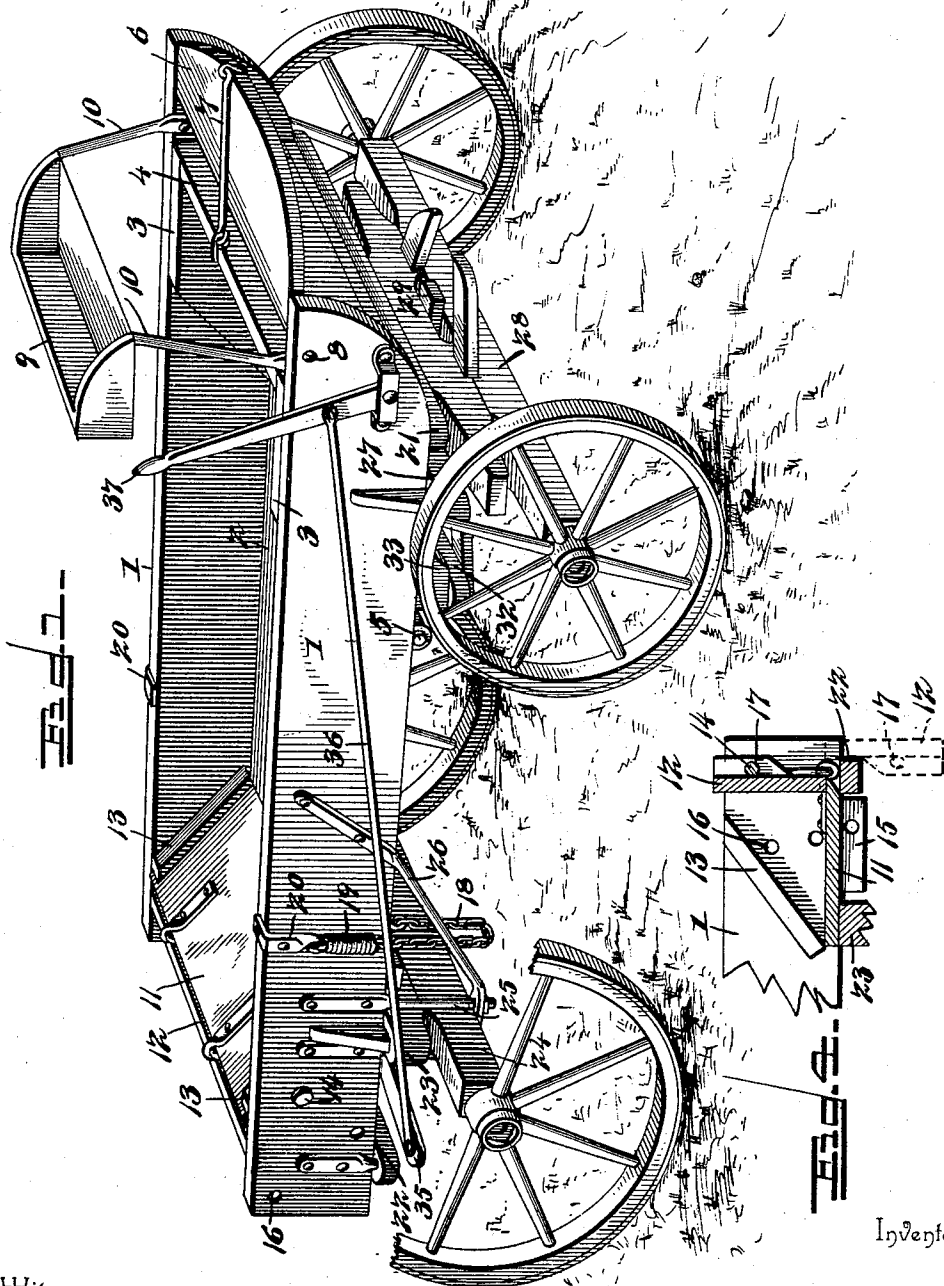
(No Model.)

2 Sheets—Sheet 1.

G. L. NORVELL.
DUMPING WAGON.

No. 599,727.

Patented Mar. 1, 1898.



Inventor

Witnesses
E. E. Stewart
J. F. Riley

By *his* Attorneys,
George L. Norvell

C. A. Snow & Co.

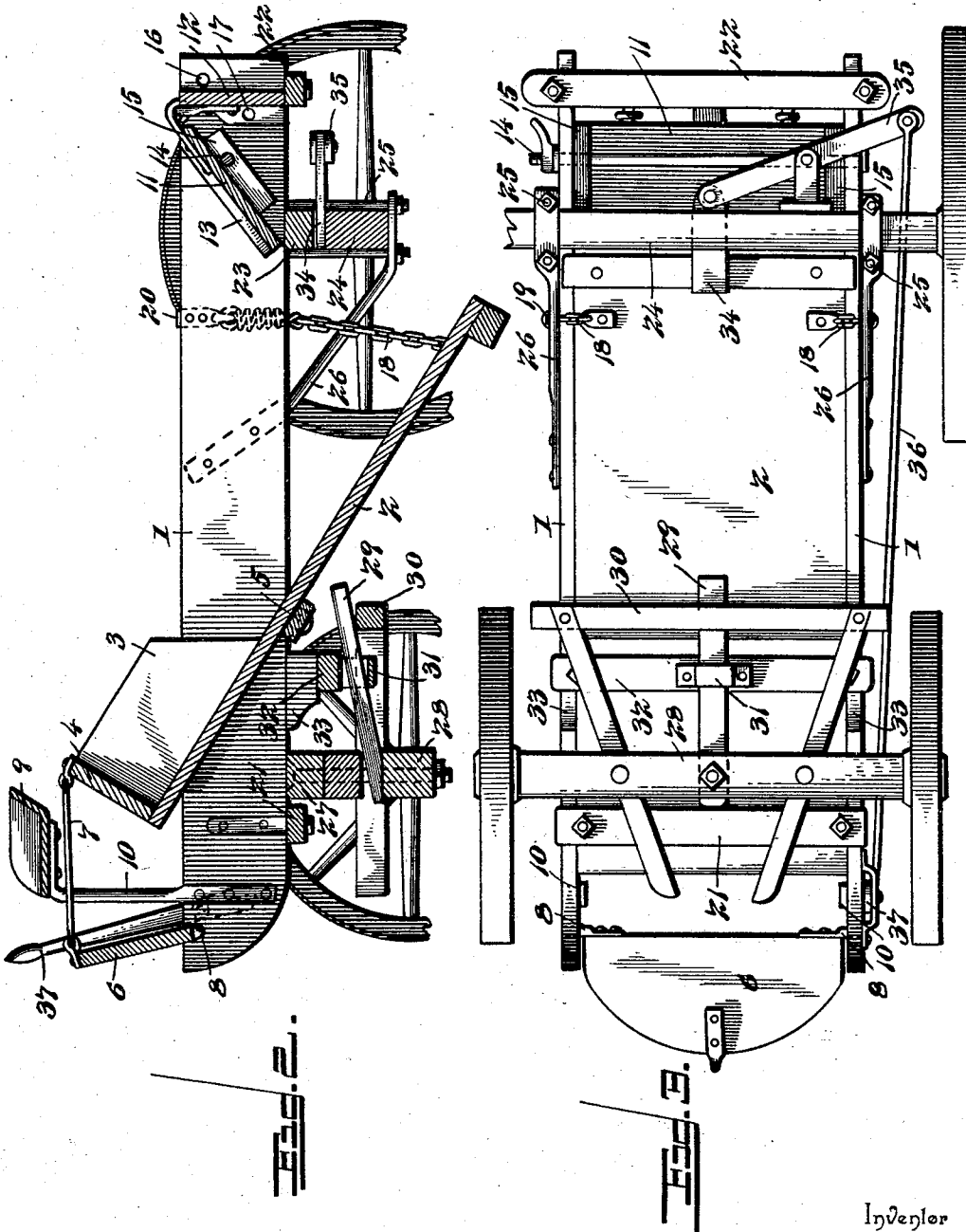
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UNITED STATES PATENT OFFICE.

GEORGE LOGAN NORVELL, OF COLUMBIA, MISSOURI.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 599,727, dated March 1, 1898.

Application filed March 31, 1897. Serial No. 630,123. (No model.)

To all whom it may concern:

Be it known that I, GEORGE LOGAN NORVELL, a citizen of the United States, residing at Columbia, in the county of Boone and State of Missouri, have invented a new and useful Dumping-Wagon, of which the following is a specification.

The invention relates to improvements in dumping-wagons.

The object of the present invention is to improve the construction of dumping-wagons and to provide a simple and efficient one adapted to dump material in a pile and also to scatter or evenly distribute the same and capable of enabling the driver to discharge a load and return the parts to their proper position without leaving his seat.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a dumping-wagon constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view, the bottom of the body being inclined for dumping a load. Fig. 3 is an inverted plan view. Fig. 4 is a detail view showing the inclined back portion of the body lowered to a horizontal position.

Like numerals of reference designate corresponding parts in the several figures of the drawings.

1 designates sides of a dumping-wagon body which is mounted on a running-gear and which is provided with a pivoted or hinged bottom 2, adapted to tilt downward and rearward to discharge the load and provided at its front with short side pieces 3 and a front board 4. The pivot or pintle 5, which hinges the tilting bottom to the sides 1, is located at a point slightly in advance of the center of the bottom, so that the load will operate to tilt the latter and also to enable the driver by a comparatively slight pressure to control the downward swing of the same in order to discharge a load in a pile or distribute it evenly over a surface and thereby adapt the dumping-wagon to be employed for grading or distributing fertilizer or the like.

The sides of the body are extended in advance of the bottom, and a pivoted footboard 6 is mounted between them in advance of the tilting bottom and is connected with the same

by a link-rod 7. The pivots or pintles 8 of the footboard are located at the rear edge of the same and fit in suitable bearing-openings of the extending portions of the sides, and the link-rod 7 is connected with the footboard at the front edge thereof, whereby the footboard acts as a lever and enables the driver to control the tilting bottom 2 and return the same to a horizontal position after the wagon has discharged its load. A seat 9 for the accommodation of the driver is arranged at the front of the wagon and is supported by suitable standards 10, which are secured at their lower ends to the extended portions of the sides of the body.

The body is provided at its back with an inclined section 11, hinged at its upper edge to the top of an end-gate 12 and extending downward and forward thereof to the rear edge of the tilting body 2 to assist in discharging the material with which the wagon is loaded. It is arranged against the rear faces of inclined cleats 13, and it is supported by a removable transverse rod 14, which passes through perforations of the sides of the wagon-body and through cleats 15 of the inclined section 11. When desired, the inclined section 11 may be lowered to a horizontal position by removing the rod 14, and the end-gate 12 may then hang loose or be swung upward to a vertical position. In the latter case the end-gate is then secured by the rod 14, which is arranged in perforations 16 of the rear ends of the sides 1 and is passed through a perforation 17 of a central cleat or block of the end-gate.

As clearly shown in Figs. 1 and 4, the sides of the wagon-body are provided near their lower edges with perforations adapted to receive a rod for confining the inclined section 11 in a horizontal position. When a top box is employed, the inclined section 11 may be swung upward to a vertical position to serve as an end-gate for the same, and a removable board or section may be supplied to take the place of the inclined section 11 and complete the bottom of the wagon.

The downward swing of the tilting bottom 2 is limited by chains 18, secured to the free end of the bottom and provided with coiled springs 19, which are provided with eyes and which engage hooks 20 of the sides 1 of the body, whereby the wagon is cushioned and is prevented from being injured in dumping a

load of heavy material. The chains are of such length that the tilting bottom will be prevented from coming in contact with the ground.

5 The sides 1, which are connected by front and rear transverse bars 21 and 22, are secured upon the rear bolster 23 of the rear axle 24 by clips consisting of vertical rods 25, arranged in pairs at each side of the
10 wagon-body, secured to the outer faces of the same and extending below the rear axle and connected by inclined braces 26. The lower terminals of the vertical rods are threaded and passed through perforations of the inclined
15 braces, which extend upward from the rear axle to the sides of the body, and the threaded terminals of the rods are engaged by nuts, which are arranged on the lower
20 faces of the rear portions of the inclined braces. This connection between the rear portion of the body and the running-gear obviates the necessity of employing rear hounds.

The front of the body loosely rests upon a front bolster 27, to which a front axle 28 is
25 pivotally connected in the usual manner, and a short reach 29, which extends from the front axle to the rear ends of the front hounds, is connected with the wagon-body and is supported by a transverse bar 30, which connects
30 the rear ends of the front hounds. The short reach 29 passes through a keeper 31 of a cross-bar 32, which is connected with and downwardly offset from the sides of the wagon-body, blocks 33 being interposed between the
35 ends of the cross-bar 32 and the lower edges of the sides of the wagon-body. The bolster 27 is located between the front transverse bar 21 and the blocks 33, which form stops, the transverse bar 21 limiting the forward movement of the bolster and the blocks the back-
40 ward movement thereof.

The tilting bottom 2 is locked in a horizontal position by a reciprocating bolt 34, disposed longitudinally of the wagon and arranged in an opening of the rear bolster.
45 The front end of the reciprocating bolt is beveled and is adapted to engage under the rear edge of the tilting bottom, which is provided with a cleat, and the rear end of the bolt is pivoted to the inner end of a transverse lever 35, which is connected by a rod
50 36 with an operating-lever 37. The operating-lever is fulcrumed on one side of the body adjacent to the seat in order to be within convenient reach of the driver, and the transverse lever, which extends from one side of the body to the middle thereof, is fulcrumed in a suitable bracket or support on the rear
55 bolster.

60 It will be seen that the dumping-wagon is simple and comparatively inexpensive in construction, that it is under complete control of the driver and will enable him to discharge a load in a pile or scatter the same, and that
65 the tilting bottom may be returned to a horizontal position without the driver leaving his seat. It will also be apparent that the tilting

bottom is prevented from striking the ground and is cushioned to avoid injury to the dumping-wagon.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

1. In a dumping-wagon, the combination of a body provided with a tilting bottom, and a pivoted footboard arranged at the front of the body in position to be engaged by the feet of the driver and connected with the tilting bottom and adapted to return the same to a horizontal position, substantially as described.

2. In a dumping-wagon, the combination of the sides of the body, a tilting bottom mounted between the sides, a detachable end-gate arranged at the back of the body, and the inclined back section hinged to the upper edges of the end-gate and extending downward therefrom to the rear edge of the tilting bottom, said back section being detachably mounted in position and adapted to be lowered to a horizontal position, substantially as described.

3. In a dumping-wagon, the combination of the sides of the body, a tilting bottom mounted between them, inclined cleats secured to the inner faces of the sides of the body, a removable inclined back section fitting against said cleats and extending upward from the rear end of said bottom, a removable end-gate hinged at its upper edge to the upper edge of the back section, and a removable rod securing the back section in an inclined position and adapted to support the end-gate when the back section is lowered to a horizontal position, substantially as described.

4. In a dumping-wagon, the combination of a front axle, a bolster pivotally connected thereto, the short reach extending from the front axle, the front hounds supporting the rear end of the short reach, the wagon-body sides loosely supported upon the bolster and provided at their front ends with a connecting cross-piece 21 located in advance of the bolster, the bottom 2 pivoted between its ends to the sides of the body and supported at its front end by said cross-piece, the bracket-blocks 33 depending from said sides, the transverse bar 32 connecting the bracket-blocks 33, and the centrally-arranged keeper loosely receiving the reach and mounted on the transverse bar 32, whereby the wagon-body is detachably secured to the running-gear at the front thereof, substantially as described.

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

GEORGE LOGAN NORVELL.

Witnesses:

G. W. HARRELL, Jr.,

B. F. VENABLE.