

C. D. HEILE & E. G. SNYDER.

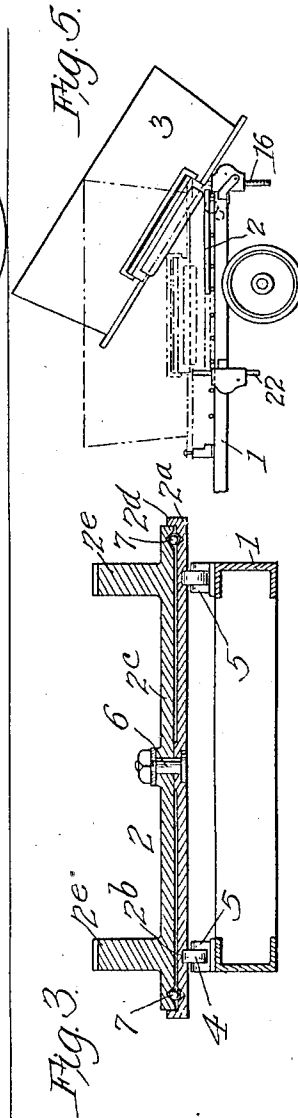
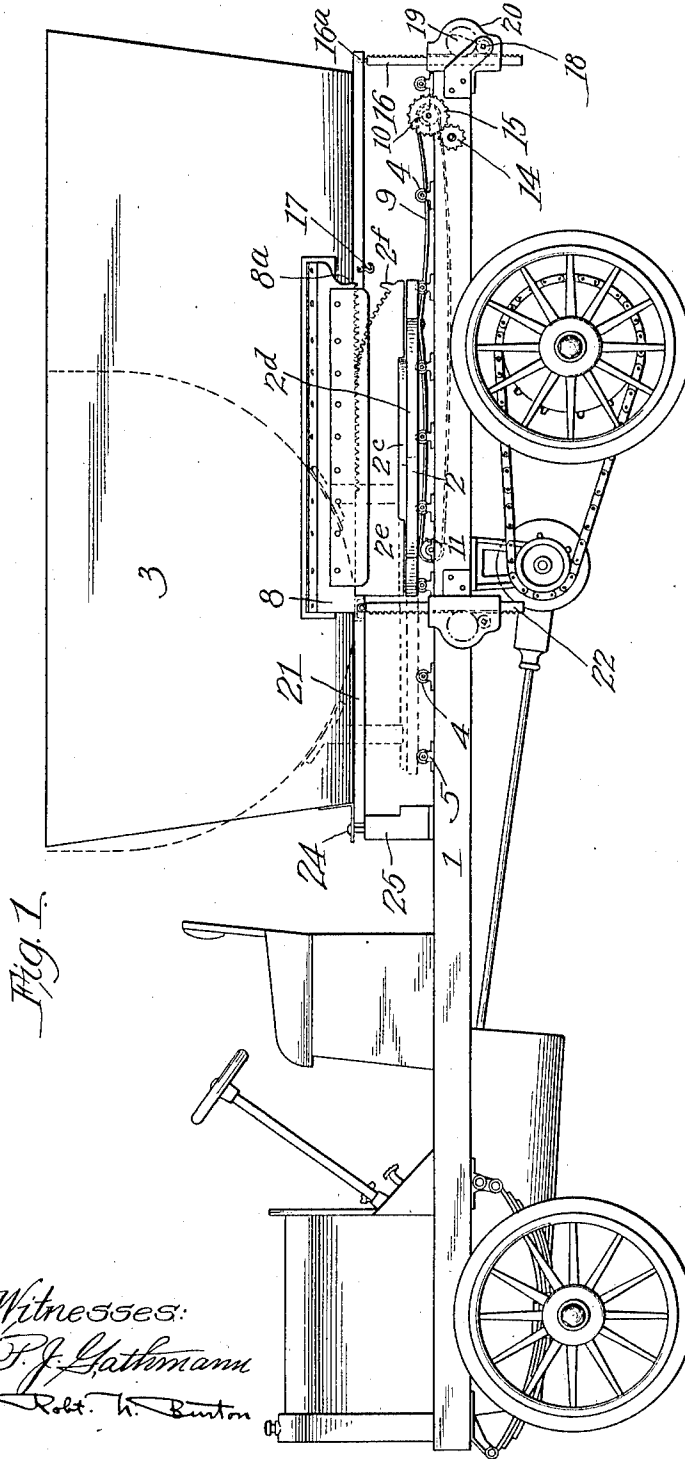
DUMP WAGON.

APPLICATION FILED AUG. 14, 1911.

1,061,743.

Patented May 13, 1913.

2 SHEETS—SHEET 1.



Inventors:
Charles D. Heile,
Ernest G. Snyder.
By *Denton & Denton*
Attorneys:

Witnesses:
P. J. Gathmann
Robert H. Burton

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2 SHEETS-SHEET 2.

Fig. 2.

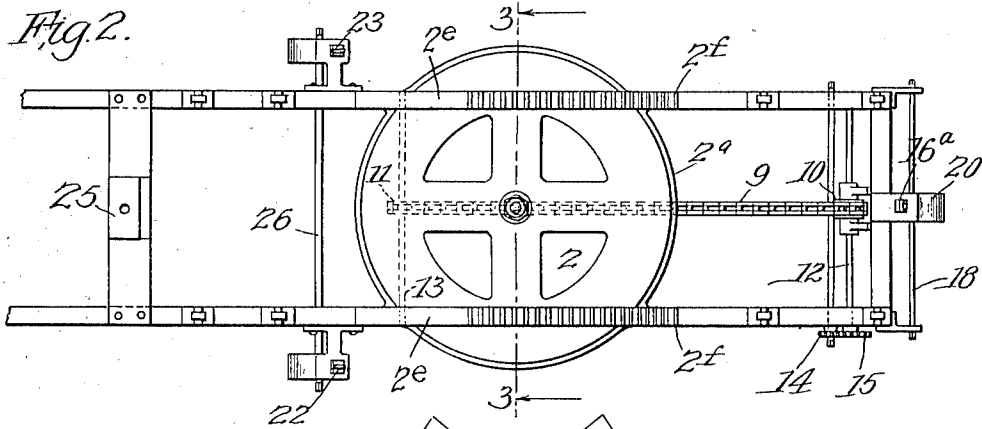
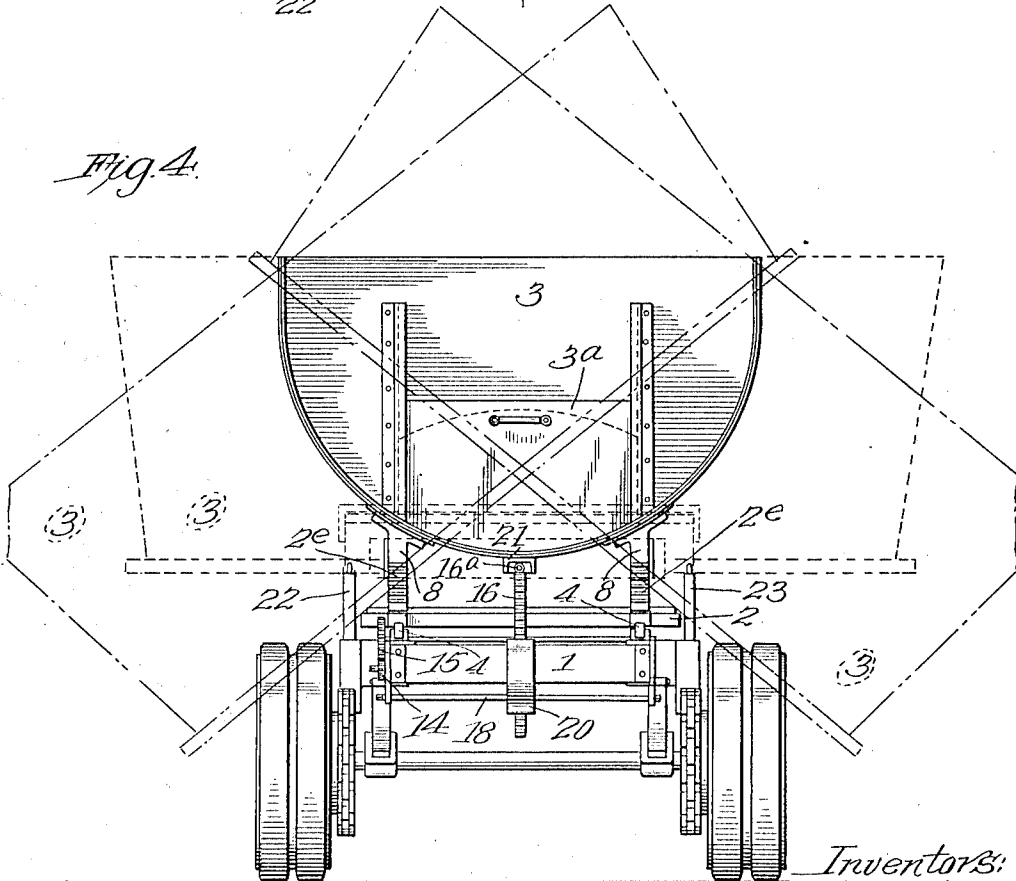


Fig. 4.



P. J. Gathmann
Robt. W. Burton

Inventors:
Charles D. Heile,
Ernest G. Snyder.
By Runtin & Runtin
Attorneys:

UNITED STATES PATENT OFFICE.

CHARLES D. HEILE, OF OAK PARK, AND ERNEST GEORGE SNYDER, OF CHICAGO, ILLINOIS, ASSIGNORS TO H. McFARLANE & COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

DUMP-WAGON.

1,061,743.

Specification of Letters Patent.

Patented May 13, 1913.

Application filed August 14, 1911. Serial No. 643,815.

To all whom it may concern:

Be it known that we, CHARLES D. HEILE and ERNEST G. SNYDER, citizens of the United States, residing at Oak Park and Chicago, respectively, in the county of Cook and State of Illinois, have invented new and useful Improvements in Dump-Wagons, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

This invention relates to that type of dump wagon in which the emptying of the wagon body is effected by tilting the same with respect to the supporting frame.

It consists of the features and elements described and shown in the drawings as indicated in the claims.

In the drawings:—Figure 1 is a side elevation of a dump wagon embodying this invention. Fig. 2 is a plan view of the body-supporting carriage. Fig. 3 is a detail section taken as indicated at line 3—3 on Fig. 2. Fig. 4 is a rear elevation of the wagon showing in dotted lines the position of the body for dumping to either side of the wagon. Fig. 5 is a partial side elevation on a reduced scale, to indicate the position of the body for dumping to the rear of the wagon.

In the drawings, the particular features which constitute this invention are shown as applied to a motor wagon upon the frame, 1, on which there is movably mounted a turn table carriage, 2, which in turn supports the wagon body, 3, which is designed to contain the material to be transported by the wagon. To render the carriage, 2, movable along the frame, 1, there is provided a series of rollers, 4, journaled in brackets, 5, which are secured at intervals along the side members, of the frame, 1, as may be understood from Figs. 1 and 3. The lower member, 2^a, of the turn table carriage, 2, rests at all times upon some of these rollers, 4, being provided with channels, 2^b, cut in its under surface to accommodate the rollers and to maintain the carriage in proper position upon them. The upper member, 2^c, of the turn table is secured to the lower member by a king bolt, 6, and is spaced apart from it by ball bearings, 7, disposed in annular ball races cut near the respective peripheries of the two turn table members. For further centering the members, 2^a and 2^c, with respect to each other, the former

has formed upon it a peripheral flange, 2^d, extending upward to encompass the member, 2^c.

At either side the upper member, 2^c, of the carriage has extending upward a rib, 2^e, which directly supports the weight of the wagon body, 3. As shown in the drawings, the body, 3, is formed with a bottom curved or rounded from side to side, so as to require to be provided with the sills, 8, which are riveted to the bottom in position to register with and be lodged upon the respective ribs, 2^e, of the carriage, 2. Toward their rear ends the rib portions, 2^e, of the carriage are rounded off downward so as to permit the sills, 8, to be rocked upon them for tilting the body, 3, in the operation of dumping the material contained therein; and to prevent slippage between the supporting ribs, 2^e, and the sills, 8, during such rocking, the said elements are formed with intermeshing teeth which give the sills, 8, the appearance of gear racks, while the rounded portions of the elements, 2^e, are virtually segmental gears. For dumping to the rear of the wagon, it is contemplated that the carriage, 2, shall be run along the frame over the rollers, 4, rearward, so that the tail end of the body, 3, shall overhang the frame, 1, and for this purpose there is provided a sprocket chain, 9, running over sprocket wheels, 10 and 11, carried on transverse shafts, 12 and 13, mounted in the frame, 1, one of said shafts being provided with operating gears, 14 and 15, to one of which a crank handle, not shown, may be applied for operating the chain.

It may be understood, that at one point the chain, 9, is attached to the carriage, 2, so that by operating the chain, the carriage may be caused to traverse the frame, 1, forward or backward according to the wish of the operator. When it is desired to dump the load to the rear of the wagon, the carriage, 2, may thus be run back along the frame, 1, to the point at which the hook, 17, connected to the under side of the body, 3, engages the eye, 16^a, formed in the upper end of the rack bar, 16, of a tilting jack mounted at the rear of the frame, 1; the body may then be readily tilted to dumping position by applying a crank handle to the gear shaft, 18, which operates the gears, 19, contained in the housing, 20, and meshing with the rack bar, 16. The sills, 8, and the

supporting ribs, 2^e, are so placed that the center of gravity of the body, 3, lies normally forward of the curved and toothed portion of the ribs, 2^e, so that a positive downward pull upon the rear end of the body is necessary to incline it to the dumping position illustrated in Fig. 5, and danger of accidental dumping is obviated. Furthermore, the channel iron, 21, which extends longitudinally of the body, 3, along the middle and lowest portion of its rounded bottom, is positioned to register over the end of the rack bar, 16, so that the latter may act as a supplementary support to prevent the accidental tilting of the body, 3, upon a rough road, in case it should be but partially filled and this partial load should work rearward, tending to over-balance the body.

For permitting the escape of the contents when the body is tilted to the position shown in Fig. 5, any form of removable tail board or door in the rear end may be provided, one form of such door being illustrated at, 3^a, in Fig. 4. For insuring adequate support for the body in tilted position, the final tooth, 2^f, of the segmental gear formed on the rib, 2^e, is made considerably larger and longer than the other teeth, while its forward face and the rear end, 8^a, of the sill, 8, are correspondingly curved so as to swing smoothly into contact with each other in the tilting of the body, 3.

The function of the turn table, 2, is to adapt the body, 3, to be tilted and emptied to either side of the frame, 1, as well as to the rear, and additional tilting jacks, 22 and 23, are provided at either side of the frame for assisting in this operation. The locking bolt, 24, having been disengaged from the pillow block, 25, at the forward end of the body, 3, the latter may be swung upon the turn table, 2, until it stands at the position shown in dotted lines in Fig. 4. The carriage will then be run forward by operation of the chain, 9, until the channel

iron, 21, comes to a position at which the hook, 17, which is suspended from it, may be engaged with the terminal eye of the rack bar of one of the tilting jacks, 22 or 23. These jacks are directly opposite each other and are provided with a common gear shaft, 26, squared at both ends to receive an operating crank, so that such a crank may be applied to the end of the shaft on the side of the wagon opposite to that at which the load is to be dumped, and the operation of the crank will not be interfered with by the tilting of the body, 3, as it comes to one or other of the broken line positions indicated in Fig. 4.

We claim:—

1. In combination with a motor wagon having traction wheels and a frame supported thereon, a body normally located about centrally over said traction wheels, and means by which said body is supported on the frame, comprising a turn-table mounted for longitudinal travel on said frame to permit swinging said body to a transverse position and tilting it between the front and rear wheels of the wagon for dumping its contents.

2. In combination with a wagon having steering wheels and other supporting wheels and a frame mounted thereon, a body normally located about centrally over said other wheels, and means by which said body is supported on the frame comprising a turn-table mounted for longitudinal travel on said frame to permit swinging said body to a transverse position and tilting it between the steering wheels and other wheels of the wagon for dumping its contents.

In testimony whereof we have hereunto set our hands at Chicago, Illinois, this 10th day of August, 1911.

CHARLES D. HEILE.
ERNEST GEORGE SNYDER.

Witnesses:

ROBT. N. BURTON,
M. GERTRUDE ADY.