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WAGON FOR COAL.

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1,124,825.

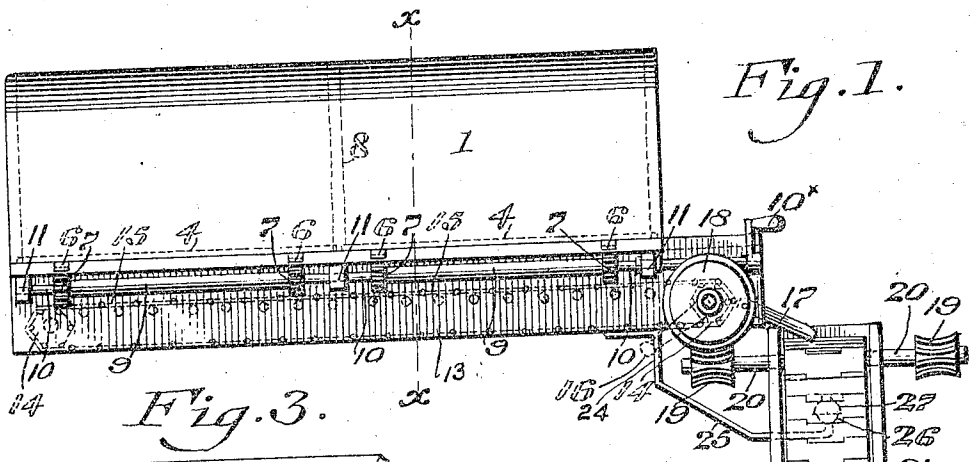


Fig. 1.

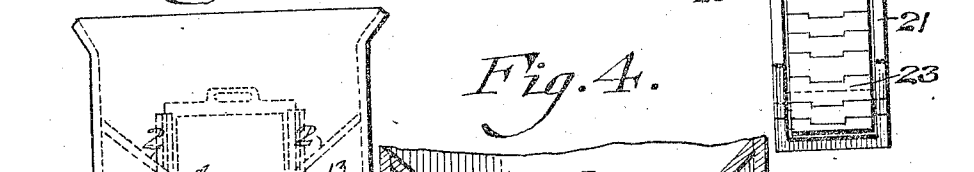


Fig. 3.

Fig. 4.

Fig. 2.

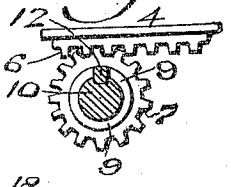


Fig. 5.

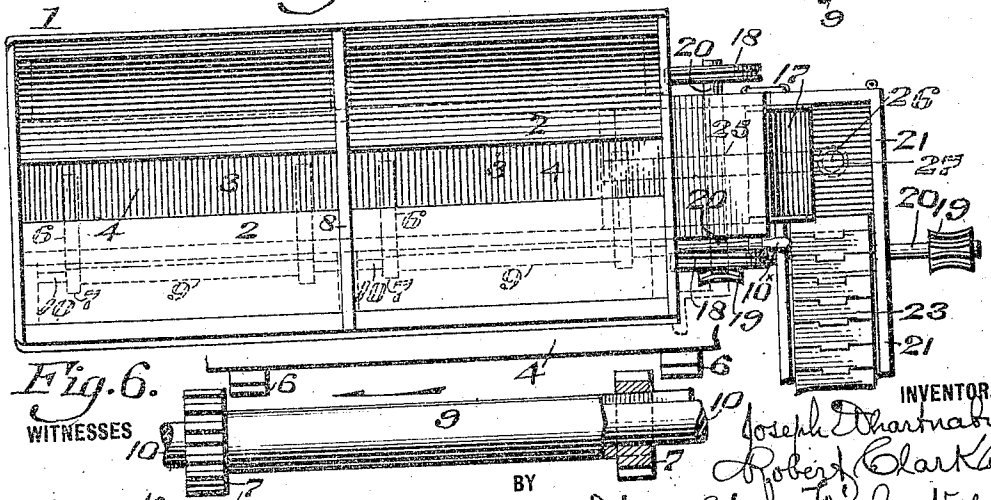


Fig. 6.

WITNESSES

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WAGON FOR COAL.

1,124,825. Specification of Letters Patent. Patented Jan. 12, 1915.

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To all whom it may concern:

Be it known that we, JOSEPH WHARTNABY and ROBERT CLARKE, both citizens of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Wagon for Coal, &c., of which the following is a specification.

Our invention consists of a wagon which is provided with means for discharging the entire bulk of the goods therein, or portions of the same as desired, either being accomplished in a convenient and easy manner.

It consists also of means for directing the goods discharged from the wagon to the right or left thereof, as may be desired or requested, thus avoiding the placing of the wagon angularly across a street or car tracks, which otherwise would block the latter.

The invention is satisfactorily illustrated in the accompanying drawing, but the important instrumentalities thereof may be varied, and so it is to be understood that the invention is not limited to the specific details shown and described.

Figure 1 represents a side elevation of a wagon embodying our invention. Fig. 2 represents a top or plan view thereof. Fig. 3 represents a partial end view and partial transverse section thereof. Fig. 4 represents a transverse section on line *x*—*x*, Fig. 1. Fig. 5 represents a partial section and side elevation of the gate and gate mechanism of the wagon employed. Fig. 6 represents a side elevation and partial longitudinal section of other portions of said gate mechanism employed.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, 1 designates the body of a wagon, the same having therein a false bottom 2, formed of pieces which incline from the sides toward the center where their lower ends are separated forming the outlet 3 of the body.

4 designates a gate which is adapted to close and open said outlet, the same being formed of a slidable piece which is fitted in the way 5 in the bottom proper of the body and provided on its under side with racks 6 with which mesh the pinions 7, it being noted that the interior of the body and the outlet 3 are divided by the partition 8 vertically therein, thus producing separate compartments in the body and separate outlets, so that the contents of each compartment may be unloaded without disturbing the contents of the other apartment. To this end the gate 4 is divided forming a section for each apartment, and the pinions 7 are provided for the racks 6 of each section of the gates. A pair of pinions is connected with a sleeve 9 and two such sleeves are employed, they being slidable end to end on the shaft 10 which extends longitudinally under the bottom of the body of the wagon and has its bearings 11 thereon, said sleeves being connected with said shaft by the feather 12, whereby while said collar is slidable on said sleeve it is adapted to rotate with the same, it being evident that when both compartments of the body are to be unloaded, the sleeves being in the position shown in Fig. 1, and the pinions engaged with the racks, the crank handle 10ˣ of the shaft 10 is operated to rotate said shaft when the sleeves and pinions rotate with the same, and thus motions are imparted through the racks to both sections of the gate, thereby opening both of the outlets 3 allowing the contents of the body to be unloaded from both compartments simultaneously.

When it is desired to unload one of the compartments without unloading the other compartment, the sleeve beneath the latter is shifted in the present case, to the left, see Fig. 6, whereby the pinions 7 are removed from the previously intermeshing racks, whereby when the shaft 10 is rotated the left hand section of the gate is not disturbed or opened, but the right hand section of the gate being in gear with its racks and pinions will be operated and so opened, whereby the contents of the body above the same will be dropped through the relative outlet and so be unloaded.

Depending from the bottom proper of the body are the longitudinally-extending plates 13 on which at the front and rear of said body are mounted the shafts of the polygonal rollers 14 around which passes the endless apron or traveler 15, which as is evident, is below the outlet of the body and formed of articulated plates which form a bed on which the contents of the body may be dropped, the shaft of the rear roller 14 having connected with it the crank handle 16 which when rotated operates said apron, so that the part that is above moves rearward beyond the rear terminal of the body where it has a discharge outlet and the chute

17 is provided to direct the load, that is on the apron and reaches said chute, to a pavement, street, etc., as may be desired, rearward of said outlet. The plates 13 are separated forming a passage way in which said endless traveler 15 has its play or motion.

The shaft of the rear roller 14 has connected with it on opposite ends, the worm wheels 18 which are adapted to engage with the worms 19, which are mounted on the shaft 20, whose bearings are on the sides of the spout 21, which latter is adapted to direct the contents of the body discharged from the rear end of the same or at the spout 17, to the right or left, as occasion may require.

The shaft 20 carries the pulley 22 around which passes the endless apron or traveler 23, which may be similar to the traveler or apron 15, it being supported at its outer end near the outer end of the spout 21, said outer end of the spout being open, so that when the apron 15 is being operated motion is imparted to the worm wheel 18, and the worms 19 to the pulley 22 and consequently to the apron 23, whereby the load leaving the body of the wagon is directed to the spout and carried by the apron 23 thereof to the right or left, as the case may be, due to the position in which the spout may be set. To allow the change of the spout to the right or left, the longitudinally-extending plates 13 at the rear end thereof have depending from the bottom thereof as at 24 the hanger piece 25 on whose rear end is supported the ball 26. On the underside of the spout 21 at the head end thereof is secured the socket member 27 which is supported freely on said ball forming a ball and socket joint for said spout allowing the latter to be turned to the right or left to shoot the load in corresponding direction, while the spout remains on said hanger 25, said spout and said plates 13 being provided with suitable hooks and eyes to sustain said spout in its angular and sidewise positions over a curb, street, pavement, etc., at which it may be set.

If desired, the rear end of the body of the wagon may have an opening therein for the discharge of heavy or more bulky goods such as lime, ore, etc., which may not drop easily from the extreme rear end of the outlet 3, said opening when not in use being adapted to be closed by a tail board, such as is shown dotted in Fig. 3.

Having thus described our invention what we claim as new and desire to secure by Letters Patent, is:—

1. A wagon having a body provided with a discharge outlet in the bottom thereof, a partition in the body forming said outlets in divisions, a plurality of gates, one for each division of said outlet, racks on said gates, pinions adapted to engage said racks, a plurality of sleeves each carrying said pinions respectively, and a rotatable shaft on the body on which said sleeves are slidably mounted and adapted to be rotated by the same.

2. A wagon having a body, a discharge outlet in the bottom thereof, a gate adapted to close and open said outlet, means for operating said gate in opposite directions, a second gate, means coöperating with the first-named operating means for moving said gate with the first-named gate or separately, an endless traveler on the body below said bottom, and means for operating said traveler, said body having an opening at its rear end where said traveler is uncovered.

3. A wagon having a body, a discharge outlet in the bottom thereof, a traveler on said body below said bottom, means for operating said traveler, said body having a discharge opening at its rear, movable means for closing said opening, a spout supportable on said body adapted to be placed in communication with said discharge opening, and geared means whereby said spout may be adjusted to the right or left, a traveler in said spout at an angle to the first-named traveler and gearing common to both travelers for operating the same simultaneously.

4. A wagon having a body with a bottom having a discharge outlet therein, means dividing said body into separate compartments, a plurality of gates one for the outlet of each compartment, means for operating said gates in unison or separately, and a rotatable shaft on the body on which portions of said operating means are slidably mounted and adapted to be rotated by the same.

5. In a wagon of the character stated, a body, the same having a discharge outlet in its bottom, an endless traveler on the body below said outlet, plates depending from said body forming a passage way in which said traveler has its play, the pulleys for said traveler being mounted on said plates, a hanger pendant from said plates at the rear end thereof, a ball on said hanger, a discharge spout movable to the right or left rearward of said discharge end, a socket member on the head end of said spout, the same being freely mounted on said ball, said socket member and ball being adapted to be below said head end of the spout.

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