No. 676,212.

Patented June 11, 1901.

I. L. VANSANT.

CHUTE FOR WAGONS, &c.

(No Model.)

(Application filed Oct. 20, 1899.)

2 Sheets—Sheet 1.

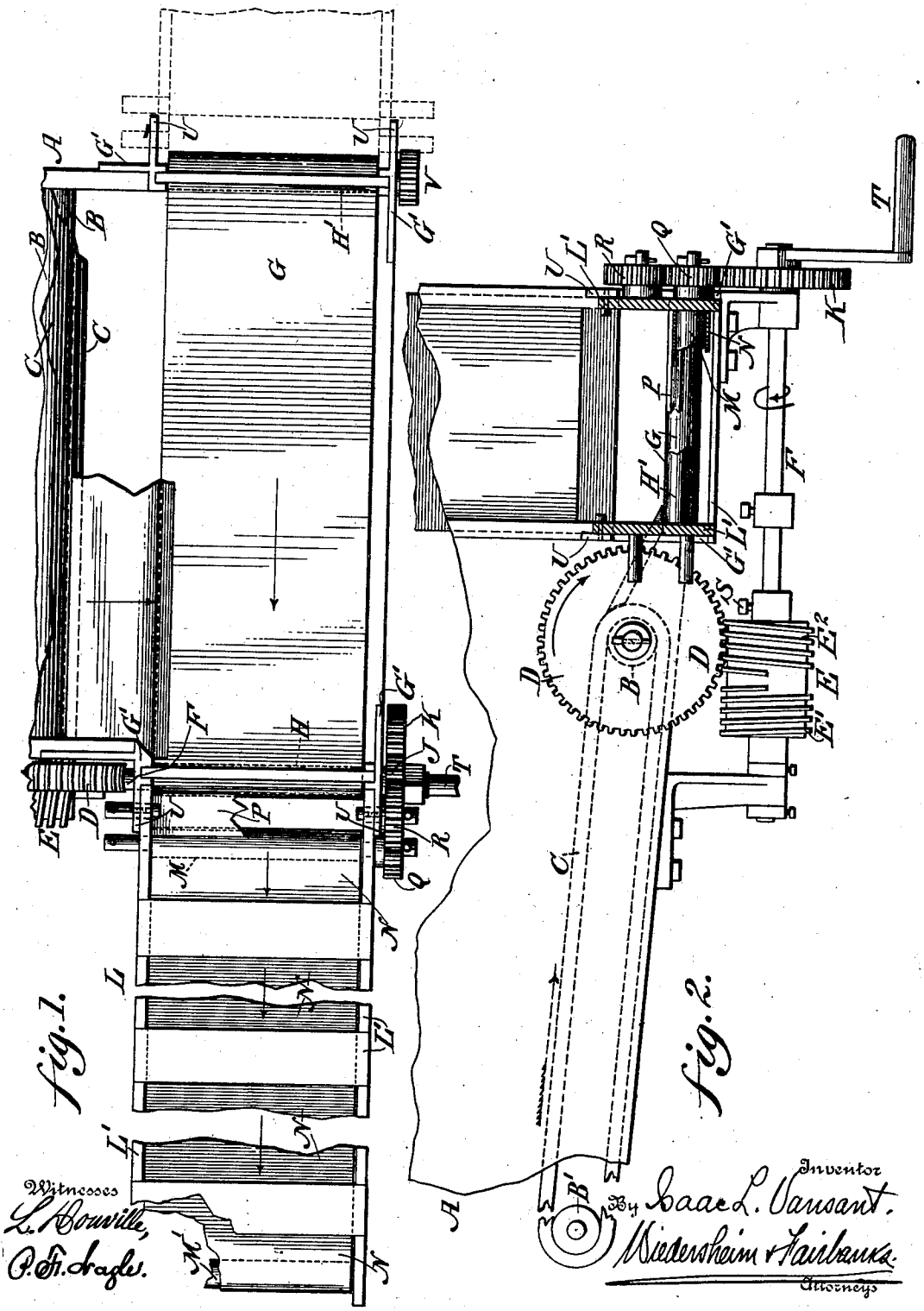


Fig. 1.

Fig. 2.

Witnesses
L. Bonville,
P. F. Fragle.

Inventor
By Isaac L. Vansant.
Wiedersheim & Fairbanks.
Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 676,212. Patented June 11, 1901.

I. L. VANSANT.

CHUTE FOR WAGONS, &c.

(Application filed Oct. 20, 1899.)

(No Model.) 2 Sheets—Sheet 2.

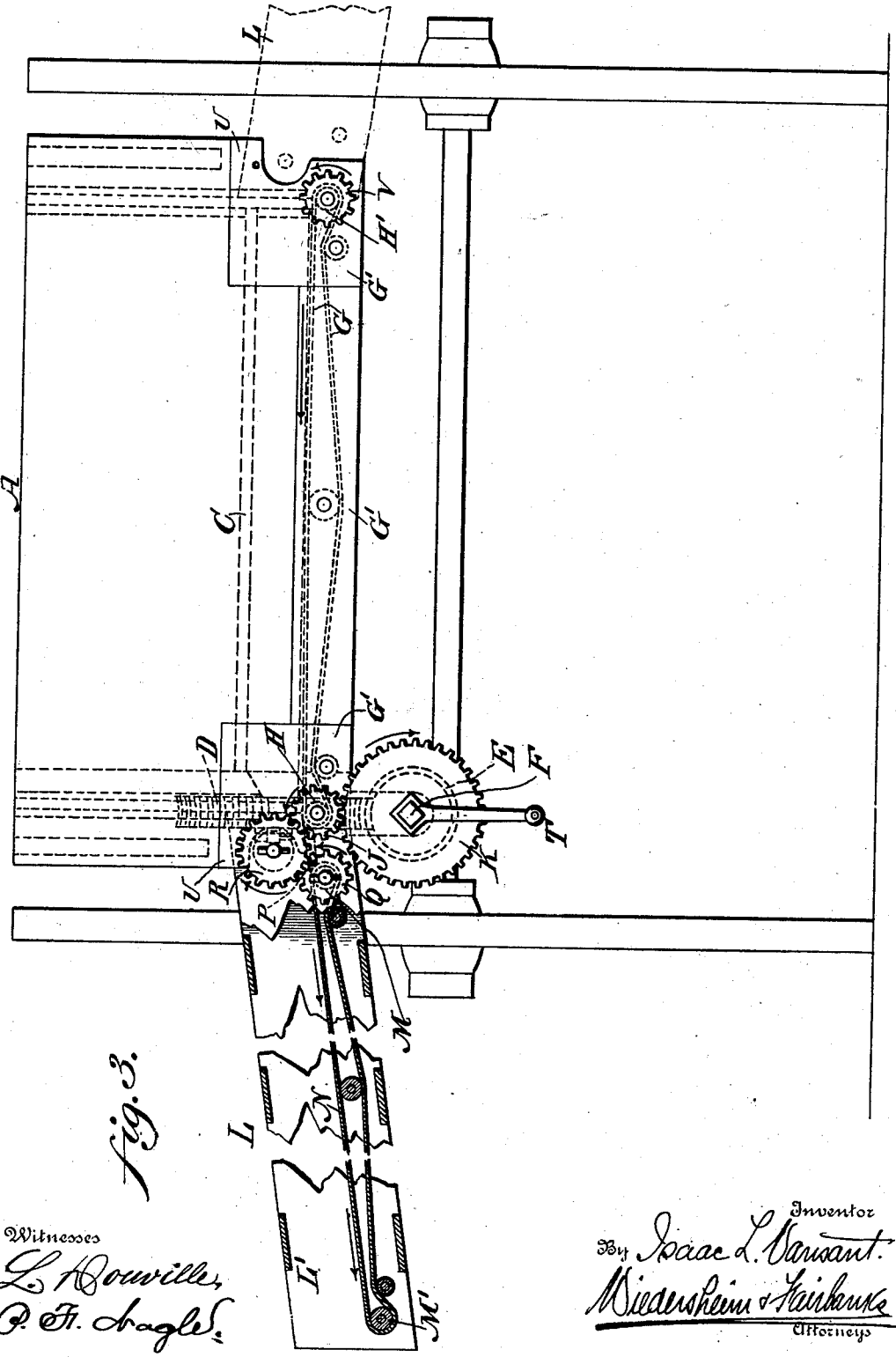


fig. 3.

Witnesses
L. Dowville,
C. F. Gagle.

Inventor
By Isaac L. Vansant.
Wiedenheim & Fairbanks
Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ISAAC L. VANSANT, OF PHILADELPHIA, PENNSYLVANIA.

CHUTE FOR WAGONS, &c.

SPECIFICATION forming part of Letters Patent No. 676,212, dated June 11, 1901.

Application filed October 20, 1899. Serial No. 734,274. (No model.)

To all whom it may concern:

Be it known that I, ISAAC L. VANSANT, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Chutes for Wagons, &c., which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to a chute for discharging the contents of a wagon or other vehicle; and it consists in adapting said chute to be placed to the right or left of the discharge portion of said wagon or vehicle and to receive motion in the direction that the discharge or dumping of the contents of the said wagon or vehicle may accomplish in either direction, the mechanism and operation of the same being hereinafter set forth and the novel features pointed out in the claims.

Figure 1 represents a plan view of a chute embodying my invention, including portion of a wagon with which the chute is connected. Fig. 2 represents a side elevation thereof. Fig. 3 represents a rear end view thereof.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a body of a wagon, the same having mounted on the front and rear ends thereof the rollers B B′, around which passes the endless apron C. To the shaft of the rear roller B is secured the worm-wheel D, which meshes with the worm E, the latter being keyed or otherwise secured to the shaft F, which is properly mounted to the rear of the body A, at the side thereof, it being noticed that when said shaft F is rotated motion is communicated to the worm and worm-wheel, and consequently to the apron C, whereby the latter is caused to discharge the contents of the body at the rear thereof.

G designates a supplemental apron which is mounted on the rollers H H′, the bearings of whose shafts are supported on a frame G′ at the rear of the body A, said apron G extending at a right angle to said body. Keyed or otherwise secured to the shaft of the roller H is the pinion J, with which meshes the gear-wheel K, the latter being secured to the shaft F, whereby, as is evident, motion may be imparted to the pinion J, and consequently to the apron G.

L designates a chute which consists of a suitable frame L′, having mounted thereon at the ends thereof the rollers M M′, around which passes the endless apron N. At the end of the chute adjacent to the roller M is the bridge P, which is secured to said frame, which forms a continuity of the apron N.

Secured to the shaft of the roller M is the pinion Q, with which meshes the idler R, the latter being mounted on the frame of the chute and being adapted to gear with the pinion J, whereby it is evident that when the shaft F is rotated motion is imparted to the pinion J, the idler R, and the pinion Q, whereby the apron N receives motion in the same direction as the apron G, it being noticed that when the chute is in position the bridge P is interposed between the aprons G and N as a continuity thereof. The worm E is reversely pitched, as at E′ E^2, and it is freely mounted on the shaft F, whereby it may be shifted to the right or left, and when in the desired position it is firmly connected with said shaft by means of the bolt or screw S.

The operation is as follows: When it is desired to discharge the material or contents of the wagon—say to the left—the parts being in the position as shown in the drawings, the shaft F is operated by a suitable crank or other handle T at the rear of the supplemental apron G, whereby the different gearings are rotated, thus operating the aprons C, G, and N. The material in the body of the wagon on the apron C is directed rearwardly and thrown upon the apron G, the latter conveying it over the bridge P to the apron N, by which it is discharged at the outer end of the latter, which is at the left of the wagon. The frame of the chute L is supported on the frame of the apron G by brackets, arms, or other suitable means, as at U, and when desired may be removed therefrom and placed in a position on the right of the apron G, so as to discharge in that direction. To accomplish this, the worm-wheel D is removed and the worm E shifted or moved on the shaft F, so that the other pitch of said worm may engage with the worm-wheel D, the latter then being restored to its position. The pinion Q and idler R are also removed from the ends of the shafts which carry them and placed on the opposite ends thereof. It will here be

noticed that the shaft of the roller H′ has connected with it the pinion V, which is similar to the pinion J. Now when the chute is applied to its new position the idler R gears with said pinion V. Consequently when the shaft F is rotated, which will be in a direction reverse to that first described, as the driver wishes to face the discharge end of the chute, the apron C will continue to discharge its load upon the apron G; but the latter will move toward the right, owing to the motion imparted to it by the pinion J, and as the idler gears with the pinion V the latter rotates in such direction as to cause the apron N to move in the same direction as said apron G, and thus the load will be discharged on the right. By loosening the set-screw S the worm E will be free on the shaft F, and the latter may be revolved without imparting motion to said worm, the worm-wheel D, and the apron C. In this case when the wagon is dumped the contents thereof will descend by gravity on said apron.

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

1. A vehicle having a transversely-extending apron, gear-wheels on the rollers thereof on opposite sides of the vehicle, and a reversible chute consisting of a frame, rollers thereon, an endless apron on said rollers, a gear-wheel on one of the shafts of said rollers, and an idler meshing with the last-named gear-wheel, and being adapted to engage with either of the gear-wheels of the apron of the vehicle in either the right-hand or left-hand position of said chute.

2. A vehicle having a longitudinally and transversely extending apron, and a chute with a transversely-extending apron thereon, in combination with gearing on the frame of the longitudinally-extending apron and said vehicle for operating the apron of the chute on either the right or left side of the vehicle, and a shaft carrying driving-wheels, one for the gearing of the longitudinally-extending apron and one for the gearing of the transversely-extending apron of the chute, whereby the longitudinally-extending apron operates in the same direction whether said chute is on the right or left side of the vehicle.

3. A reversible chute for a vehicle consisting of a frame, an endless apron thereon, rollers at the ends of said frame for said apron, a gear-wheel on one of the shafts of said rollers, and an idler on the frame meshing with said gear-wheel, said chute being reversible, and adapted to be placed at either side of the vehicle and have its apron moved in opposite directions.

4. A vehicle having a transversely-arranged endless apron thereon, rollers therefor, gear-wheels on the shafts of said rollers at opposite sides of said vehicle, and a reversible chute having an endless apron, rollers for said apron, a gear-wheel on the shaft of one of the latter-named rollers, and an idler meshing with the latter-named gear-wheel, said idler being adapted to be placed in engagement with either of the gear-wheels at the sides of the vehicle and the chutes form transversely-extending continuities of each other.

5. A vehicle having a longitudinal apron, a gear-wheel on one of the rollers thereof, a transverse apron, a gear-wheel on each roller thereof, a chute adapted to be connected with either side of said vehicle, an apron on said chute, a gear-wheel on a roller of the chute-apron, an idler on said chute meshing with said gear-wheel of the chute, said idler being adapted to mesh with either of the gear-wheels of the transverse apron of the vehicle, and a shaft carrying driving-wheels, one for the transverse apron and the other for the longitudinal apron.

ISAAC L. VANSANT.

Witnesses:
JOHN A. WIEDERSHEIM,
WM. CANER WIEDERSHEIM.