

(No Model.)

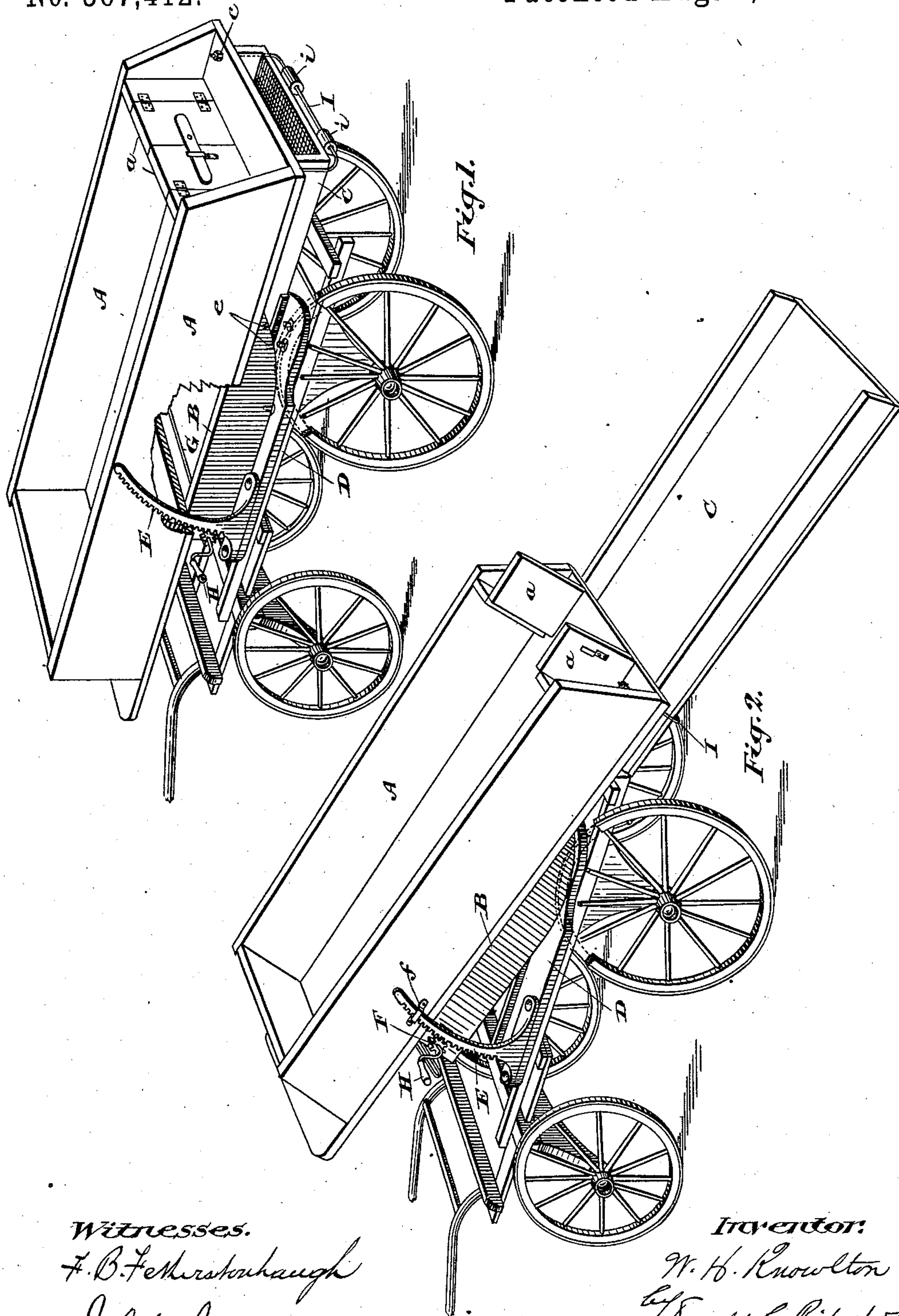
2 Sheets—Sheet 1.

W. H. KNOWLTON.

DUMPING WAGON.

No. 367,412.

Patented Aug. 2, 1887.



Witnesses.

F. B. Fetherbaugh
J. M. Jackson

Inventor:

W. H. Knowlton
by Small C. Ridout & Co
Attys

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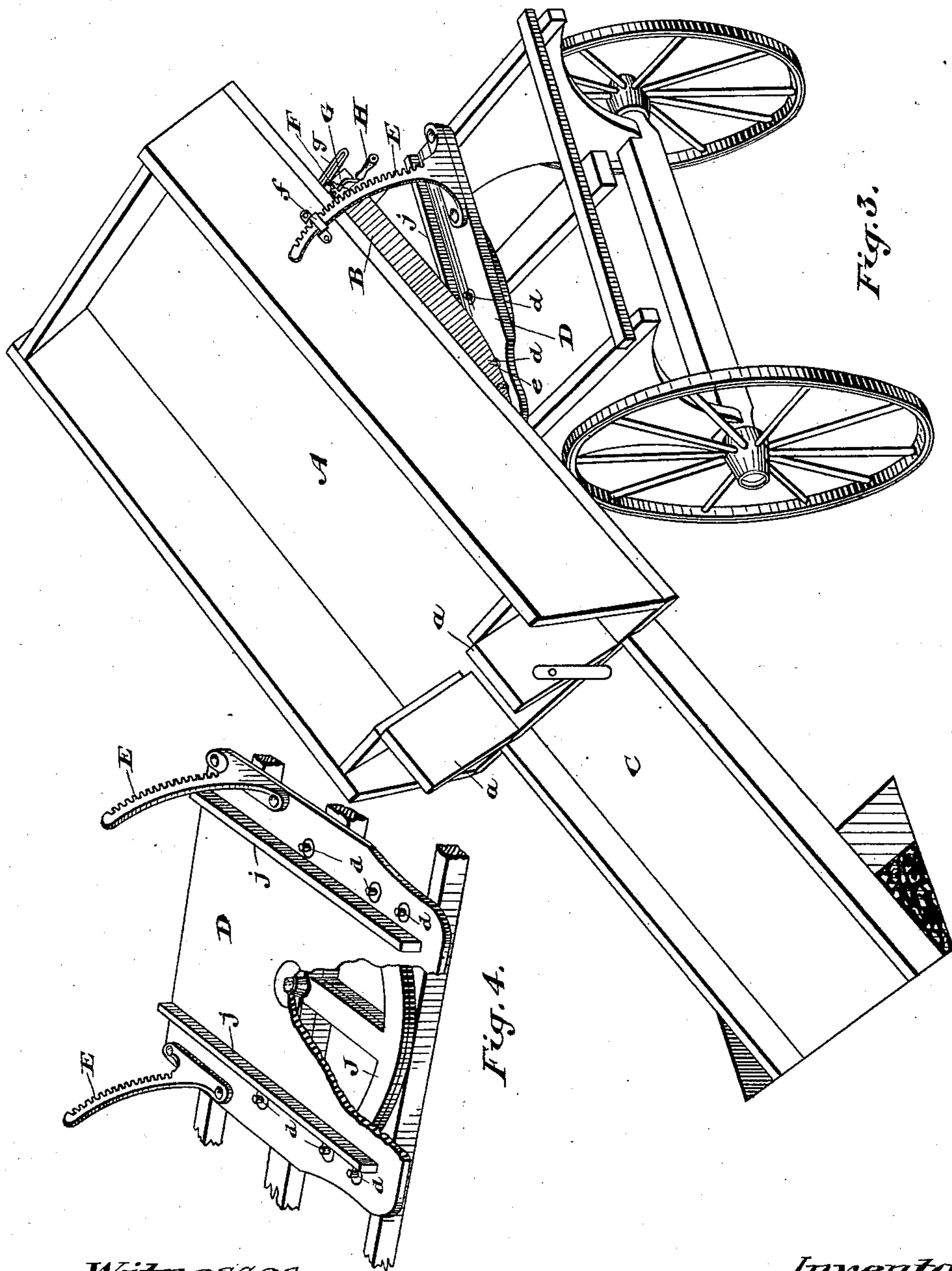
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UNITED STATES PATENT OFFICE.

WILLIAM H. KNOWLTON, OF TORONTO, ONTARIO, CANADA.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 367,412, dated August 2, 1887.

Application filed November 11, 1886. Serial No. 218,558. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY KNOWLTON, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, merchant, have invented certain new and useful Improvements in Dumping-Wagons, of which the following is a specification.

The object of the invention is to design a wagon from which its load may be dumped at any desired angle; and it consists, essentially, in connecting the box of the wagon to the wagon-frame, that it may be turned on a pivot and readily tilted, appliances and connections being provided for facilitating the attainment of this object, substantially as hereinafter more particularly explained.

Figure 1 is a perspective view showing my wagon in its normal position, a portion of the box being broken away to expose the supporting-timbers. Fig. 2 is a view showing the box tilted to the rear of the wagon. Fig. 3 is a view showing the box tilted to the side. Fig. 4 is a detail of the platform partially broken away, so as to reveal the sixth-wheel, on which it turns.

A is a wagon-box having secured beneath it the supporting-timbers B, the rear end of each timber being rounded off.

C is a chute, which, when not in use, is placed underneath the box, between the supporting-timbers B, and is supported by the platform D.

Outside the box A, I secure the racks E, which move in guides f, fastened to the side of the box A.

F are pinions, situated one on each end of the rod G, which is journaled in the supporting-timbers B. The pinions F are designed to engage with the rack E, and are operated by the crank-handle H.

It will be noticed that I secure on the platform D two or more pins, d. The pins d are designed to fit into holes e made in the rounded ends of the supporting-timbers B, which are thereby secured firmly in position during the discharge of the coal or other produce.

It will be seen, on reference to Fig. 4, that the platform D is supported on what I term a "sixth-wheel," J, constructed on the same principle as an ordinary fifth-wheel.

I should have mentioned that on the plat-

form D, I place strips j, which, with the pins d, before mentioned, are designed to keep the supporting-timbers B in position.

In order to facilitate the removal of the chute C from beneath the wagon-box A, I secure, by nuts c, to the back of the wagon-box the bent rod I, upon which I place two or more rollers, i.

I place at the back of the wagon-box gates a, which, when open, are designed to form guides to discharge the coal into the chute C.

g are hasps secured to the front of the supporting-timbers B for the purpose of holding the box in its normal position.

From this description it will be seen that the wagon-box A may be tilted to any desired angle, so as to bring its rear end opposite to the point where it is desired its load should be dumped without the necessity of turning the wagon. The facility with which the chute can be handled is also an important factor in the device, while the rack-and-pinion mechanism provided for the dumping of the box enables it to be handled by a single man without either difficulty or extra exertion.

I am aware that a dumping-wagon has been provided with hinged gates independent of the tail-gate, and do not claim such construction. My gates a form a part of the tail-gate, and thus serve a double function.

What I claim as my invention is—

1. The combination, with the timbers B and the wagon-box supported upon and attached thereto, of the racks E, shaft G, journaled in said timbers B, pinion F on said shaft meshing with the racks, and the crank-handle H, substantially as and for the purpose specified.

2. The combination, with the sliding chute, of the wagon-box A, provided at its rear end with hinged gates a, of less width than that of said chute, and designed when open to guide the contents of said box into said chute, and when closed to close the discharge-opening in said rear end, substantially as described.

3. The combination, with the platform D and box A, of the timbers B, secured to and supporting said box, the curved racks E, secured to said platform, the transverse shaft G, journaled in said timbers B, the pinions F F, one on each end of said shaft, and the crank-handle

dle H, substantially as and for the purpose specified.

4. The combination, with the sixth-wheel J and the platform D, supported thereon and provided with pins *d*, of the box A, and the tim-
5 bers secured to the under side of said box and having rounded ends provided with holes *e* to engage said pins when the box is tilted, sub-

stantially as described, and for the purpose specified.

Toronto, October 29, 1886.

W. H. KNOWLTON.

In presence of—

CHARLES C. BALDWIN,
JAMES E. MAYHU.