H. BAILEY.

Dumping-Wagons.

No. 147,468. Patented Feb. 17, 1874.

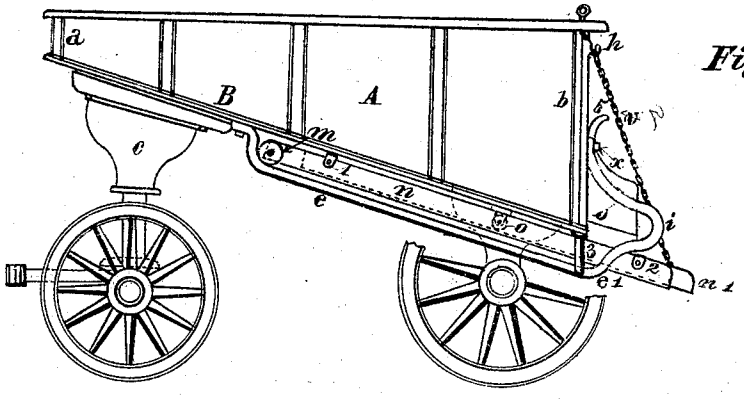

Fig. 1.

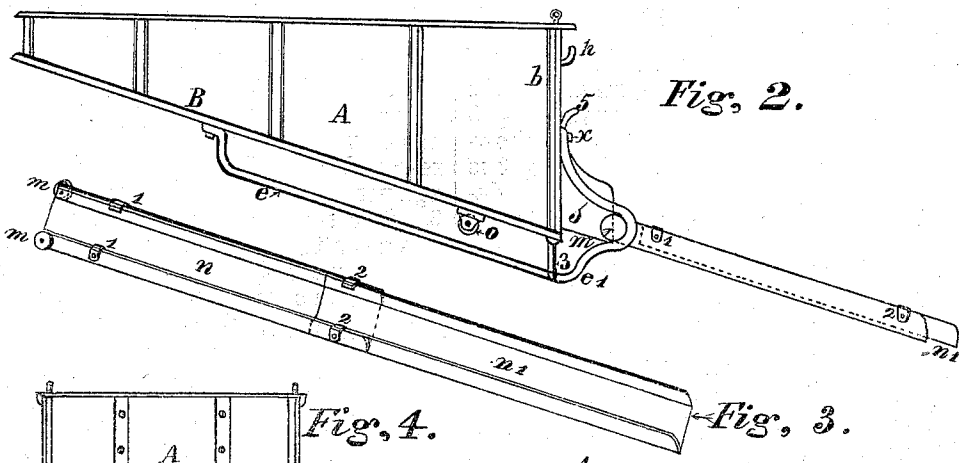

Fig. 2.

Fig. 3.

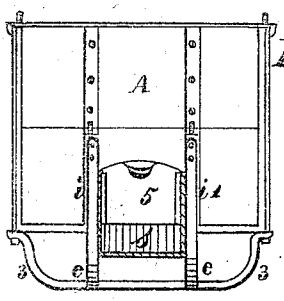

Fig. 4.

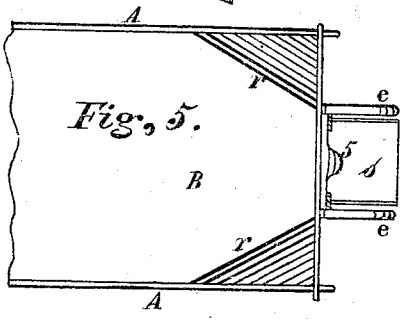

Fig. 5.

Witnesses.

Jas. R. Piper

Wm. P. Patton

Inventor

H. Bailey

UNITED STATES PATENT OFFICE.

HAMILTON BAILEY, OF HARRISBURG, PENNSYLVANIA.

IMPROVEMENT IN DUMPING-WAGONS.

Specification forming part of Letters Patent No. **147,468**, dated February 17, 1874; application filed September 23, 1873.

To all whom it may concern:

Be it known that I, HAMILTON BAILEY, of the city of Harrisburg, county of Dauphin and State of Pennsylvania, have invented a new and useful Improved Coal-Wagon; and I hereby declare the following to be a full, clear, and exact description of the same and its manner of operation, reference being had to the annexed drawing, making a part of this specification, and to the letters of reference marked thereon.

The nature of my invention consists in the combination of the body of a four-wheeled wagon, the bottom of which is given an inclination or pitch from front to rear, with an adjustable extension coal-delivering chute, substantially as is herein shown and described.

In the drawings, Figure 1 represents a side elevation of the wagon in perspective. Fig. 2 is a side view of the body of the wagon, showing the chute extended half-length. Fig. 3 is a perspective view of the extensible coal-delivering chute, showing it extended full length. Fig. 4 is a rear-end elevation of the wagon-body. Fig. 5 is a top or plan view of the wagon-body.

Like letters and figures in the different views represent like parts.

In the different figures, A represents the wagon-body. It is constructed of suitable material; either wood or iron may be used. It should be stoutly framed or put together, and is of such dimensions as to contain a ton of coal. The rear end is given about four times the depth of the front end, considered from the bottom to the top edge. This gives the bottom of the body a descending slope or pitch sufficient to cause all of the load to be delivered by its gravity upon the elevation of the gate 5 in the rear of body. Said gate 5 is plainly shown in Fig. 4. In order to avoid lodgment of coal in the rear corners of the body A, corner-pieces *r r* are introduced, that properly direct the coal to the gate-opening. (See Fig. 5.) Upon the under side of the wagon-body A, in a line parallel with its sides, the guide-strips *e e e' e'* are rigidly attached. Said strips or rails, two in number, are placed such a proper distance from each side of the wagon-body A, as to give them a position apart from each other about the width of the gate 5. A cross-brace, 3 3, (see Figs. 1, 2, and 4,) is firmly attached to the metallic strips *e e e' e'*, and also to the under side of the wagon-body A, at its rear end, and serves to retain in position the strips *e e e' e'*, and prevent them from spreading apart. It will be noticed, upon inspection of Figs 1 and 2, that the front ends of the strips *e e e' e'* are curved up, so as to cause the portion of the strips in the rear of said curve to hang a proper distance below the under side of the body of the wagon. This portion of the strips or rails *e e* extends to the rear parallel with the bottom of the wagon-bed A, and also with each other. Immediately in the rear of the brace 3 3 the rails or strips *e e* are curved up at *e' e'*. (See Figs. 1 and 2.) They are again curved farther to the rear, as shown at *i*, Figs. 1 and 2, said curve being continued until it produces a semicircular arc, the free end of which is continued inward toward the rear end of the body A, and recurved to bear against the same, as is shown at *x*, Figs. 1 and 2. Said ends are properly fastened by bolts or screws to the rear end of the wagon-body A. They are shown in place upon each side of the gate 5, at *i i'*. (See Figs. 4 and 5.)

The extension chute or trough *n n'* is constructed of sheet metal, of sufficient thickness to insure stability. It is made of such a width in relation to the width of the gate 5, as to permit it to extend a little beyond it when in position under it, or rather under the delivering-spout S, that is attached to the rear end of the wagon-bed A. It is made of sheet metal, and has its edges turned up, so as to form sides that extend nearly to the top of the gate 5. It is intended to properly direct the coal as it escapes from the raised gate 5 into the chute *n*. The chute *n* consists of two pieces of about equal length, that have their edges turned up a proper height, to prevent coal from overflowing in its passage. The piece *n* is of such relative width to the piece *n'*, as to permit it to slide into it endwise. Upon the upturned flanges or sides of *n*, clips of iron are secured. These hook over the top edges of the chute, and are intended to maintain a proper connection between the parts *n* and *n'* of the chute, they being so constructed that the flanges on the portion *n'* will slide freely through them until the chute is fully extended.

A shoulder or stop is provided to prevent the entire withdrawal of the part n'. The clips are shown at 1 2 2 2, Fig. 3. Upon the upper end of the portion n of the chute, on the flanges of the same, small grooved wheels m m are secured, so as to be allowed to turn freely upon their point of suspension. They are attached to the outsides of the flanges, and as the width of the chute n n' is properly proportioned to the width between the strips or guideways e e', the wheels m m will rest with their grooved edges upon the strips e e', as a car does upon a railway when the chute is in place. At a proper point upon the under side of the bottom of the wagon-bed A, a bracket is secured, that supports a roller, o. Said roller is made, preferably, of gum, and is of such dimension, and is given such a position in relation to the chute n n', that it will bear upon the top surface of the part n' when the said chute is given the position shown in Fig. 1. Its office is to hold the two parts of the chute n together, and thus prevent undue rattling, and also to ho'd the chute securely down upon the rails or strips e e'. A chain, r, is secured to the outer end of the part n' of the chute. It hooks fast to the rear end of the wagon-body A when the chute is run in under the body, and holds it in that position.

The method of operating the device is as follows: The wagon being filled with coal and run to the point of delivery, the chute is drawn out from beneath the wagon, and either fully or partially extended, as the width of pavement may require. The end of the chute being introduced into the cellar-window or vault-hole, the gate 5 is then raised, and as a continuous trough is thus formed from the wagon to the cellar or vault, the coal, from the action of gravity, will slide down into the same, thus avoiding the dirt and obstruction to travel incident to the ordinary way of depositing coal upon the pavement, by dumping it from the common coal-cart.

I do not make special claim to the construction of the body of a wagon with an inclined bottom, nor do I claim to be the first to use a trough to convey coal from a cart to the cellar, as I am aware that such devices have been used separately; but

What I do claim as new, of my invention, and desire to secure by Letters Patent of the United States, is—

The combination of the wagon-body A, having an inclined bottom, with the guide-strips e e e' e', gate 5, and extensible adjustable chute n n', constructed as shown, and for the purpose specified.

H. BAILEY. [L. S.]

Witnesses:
R. J. FLEMING,
WM. P. PATTON.