C. F. DINKLE & C. R. WOODWARD.

Dumping-Wagon.

No. 200,265. Patented Feb. 12, 1878.

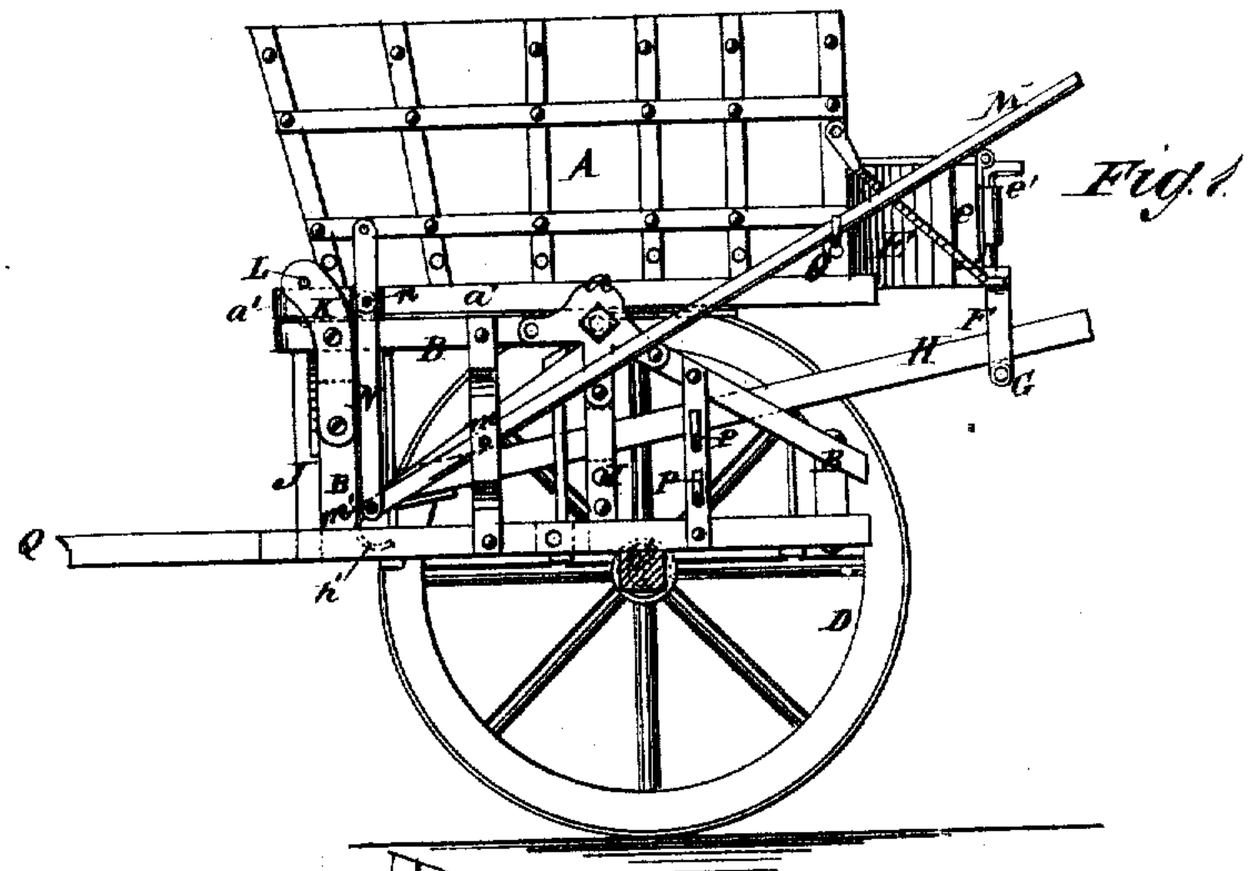


Fig. 1.

Fig. 2.

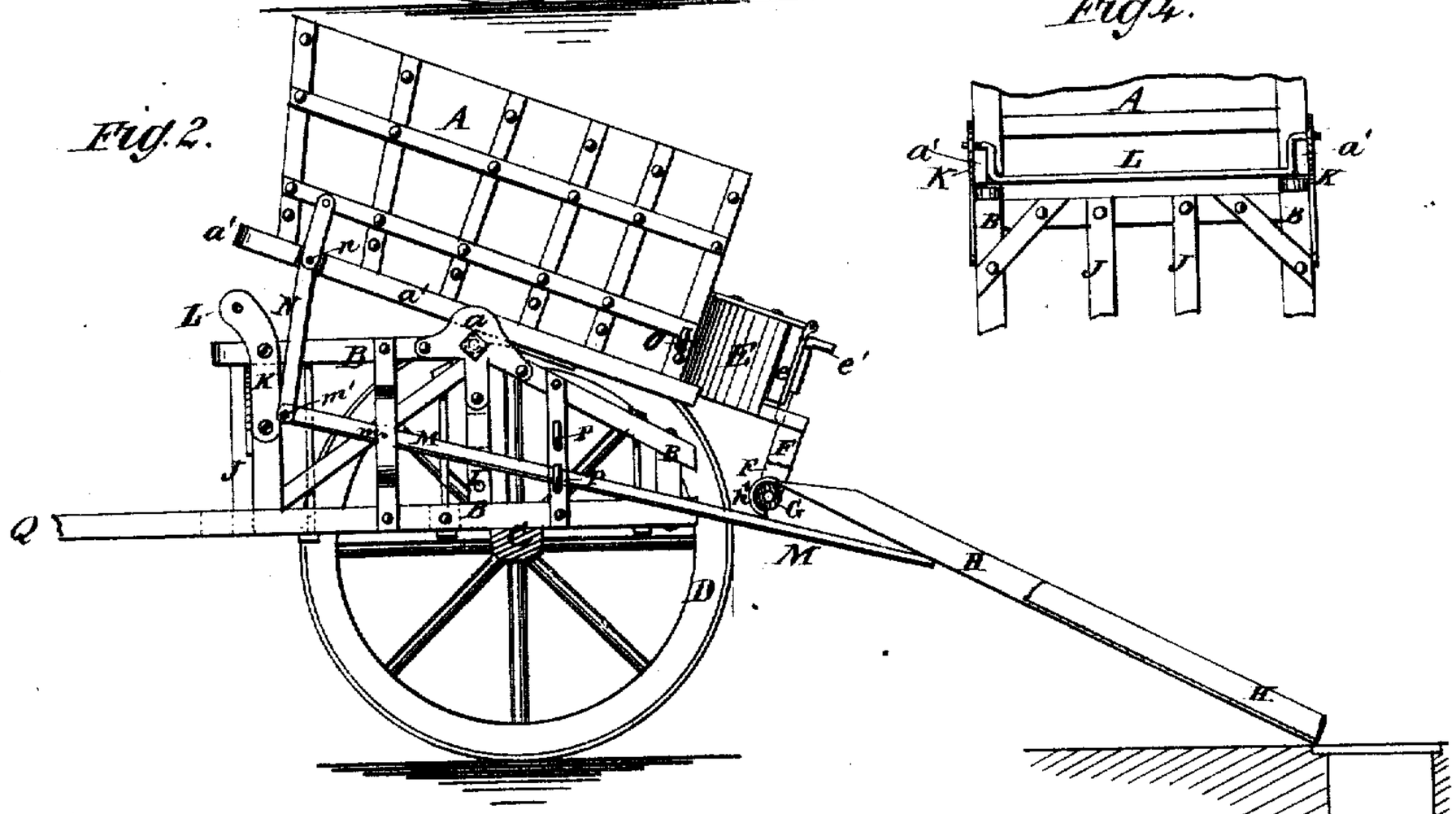
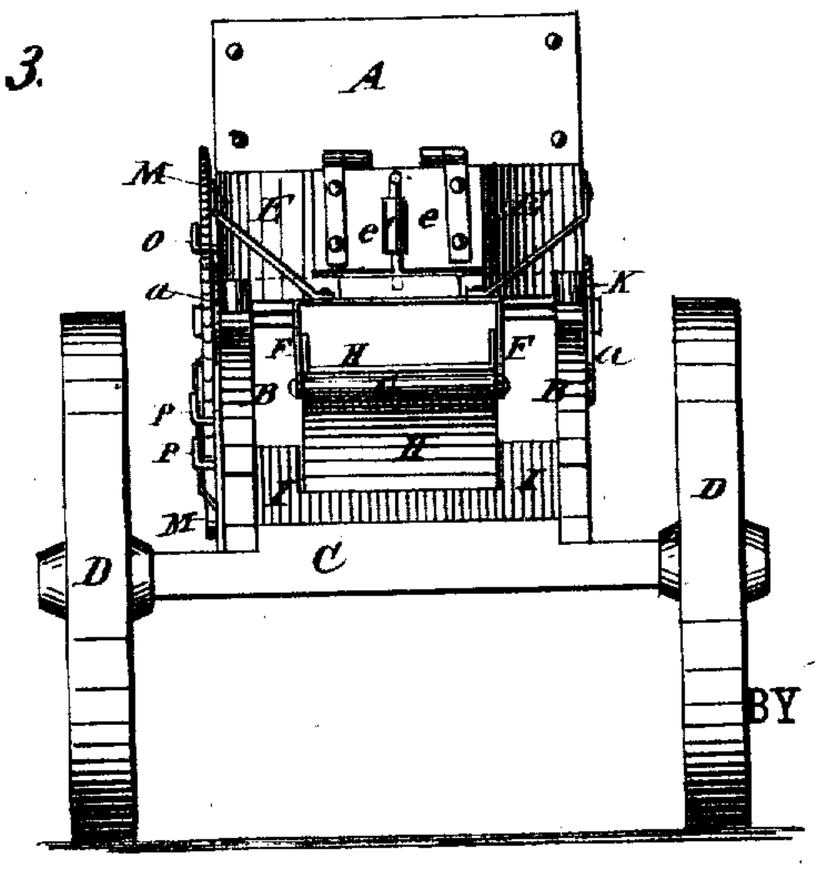


Fig. 4.

Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES F. DINKLE AND CHARLES R. WOODWARD, OF CARLISLE, PA.

IMPROVEMENT IN DUMPING-WAGONS.

Specification forming part of Letters Patent No. **200,265,** dated February 12, 1878; application filed December 22, 1877.

To all whom it may concern:

Be it known that we, CHARLES F. DINKLE and CHARLES R. WOODWARD, of Carlisle, in the county of Cumberland and State of Pennsylvania, have invented a new and Improved Coal-Cart, of which the following is a specification:

The object of our invention is to provide an improved construction for coal carts and wagons, whereby they will be easy to load, be light on the horse, and the discharge of coal from the cart or wagon box into the cellar of a house will be under perfect control of the person operating it, without the necessity of backing the cart upon the pavement.

The invention consists in the construction and combination of the various parts for their various purposes, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 represents a side view of a coal-cart constructed according to our present invention and in the position as when loaded and ready for transportation, the nigh wheel being removed to better show the construction. Fig. 2 is a side view of the same in position for unloading. Fig. 3 is a rear view, and Fig. 4 is a detail front view, of the same.

Similar letters of reference indicate corresponding parts.

A is the coal-box, supported by central journals in bearings *a* upon the two sides of the vertical frame B, resting on the axle C of the wheels D.

E is a discharge-spout, covered on top, and extending from the rear end of the coal-box A, an extension of the bottom of the cart-box A forming the bottom of the spout E. Its two vertical sides are set tapering from the sideboards of the cart-box to the outward narrow end of the spout, where it is provided with the hinged end-gate *e*, which may be fastened by the bolt *e'*.

To the bottom board, underneath the discharge-opening of the spout E, is bolted a cross-bar provided with two side hangers, F, between which is a roller, G, journaled at either end in the said hangers.

The distance between the hangers F and the length of the roller G is suited to support on the roller and to guide between the hangers a chute, H, which, in unloading the cart, is drawn out on the roller G, and is held from sliding off the same by means of the two end hooks *h'*, attached to the chute, and curved to half surround the roller G.

During transportation the chute is placed under the box A, and rests upon a cross-bar, I, in the frame B, with its rear end on the roller G, and its forward end against the vertical front bars J of the frame B, a cut or recess being made in cross-bar I, suitable to receive the chute and prevent it from getting out of place laterally, as shown in Fig. 3.

From the bearings *a* of the box A the upper beam or top of the frame B is made inclining rearward to allow of tilting the box A to any degree required. The top of the frame B, forward of the bearing *a*, is horizontal to receive and support the box A during transportation, the box being clamped to the frame in the horizontal position by a bolt or rod, L, the ends of which are inserted in holes in the side plates K, attached one on each side of the forward end of the frame B. The side plates K at the same time serve to steady the box A laterally, while the rod or bolt L, which holds it down, is prevented from slipping out endwise by being bent to form a rectangular offset, fitting, when turned down, between the front ends of the bottom beams *a'* of the box A, the bolt L thus having the appearance of a bar with a crank at either end, as seen in Fig. 4.

The object of the frame B is to elevate the box A sufficiently high to get fall enough to run the coal into the cellar in localities where the cellar-hole is considerably higher than the street.

The object of the hangers F is to suspend the chute H some distance below the door *e*, so that the coal, in falling from the spout E to the chute, will receive an additional impetus to carry it rapidly and efficiently from the cart to the cellar.

The tilting of the box A and its inclination to any degree desired is effected and regulated by the lever M, fulcrumed to the frame B at *m*, and connected by the pivot *m'* to one end of the link N, the other end of which is pivoted at *n* to the box A. When the box A is in the horizontal position the handle end of

the lever M is latched on the catch O on the box.

P P are catches, on which the lever M may be rested for holding the box in position at a given inclination in loading and unloading, and relieving the strain on the operator.

To unload the cart, the chute H is drawn out until the hooks *h'* catch on the roller G. The bolt L is then removed and the end-gate *e* opened, the lever M being then released from the catch O, to tilt and regulate the inclination of the cart-box, as required, to discharge the load.

After unloading the cart, if the lever M be left resting in the lowest catch P, as in Fig. 2, and the end-gate closed and bolted, the box is then in position for being most conveniently loaded. When loaded, the lever M is raised into the catch O, thus bringing the box in the horizontal position on the frame B, the bolt L is inserted, and the chute H pushed in on the roller G, to rest on the cross-bar I under the box A.

The shafts Q may be attached directly to the lower part of the frame B, as in the drawing, or they may be attached to a separate frame interposed between the frame B and the axle C.

The frame B may be slid on the axle C, and adjusted and secured in any desired position to bring the center of gravity of the weight perpendicularly above the axle, or forward of the same, according as is best calculated to relieve the horse.

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

1. The combination, with roller G and hangers F, of the box A, the recessed cross-bar I, and the front bars J, as and for the purpose described.

2. The lever M, fulcrumed at *m*, and the link N, having pivotal connections *m'*, in combination with box A, the catch O attached thereto, and the catches P of frame B, as and for the purpose specified.

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Witnesses:
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