(Model.)

J. McFARLAND.

DUMPING WAGON.

No. 332,414. Patented Dec. 15, 1885.

Fig. 1

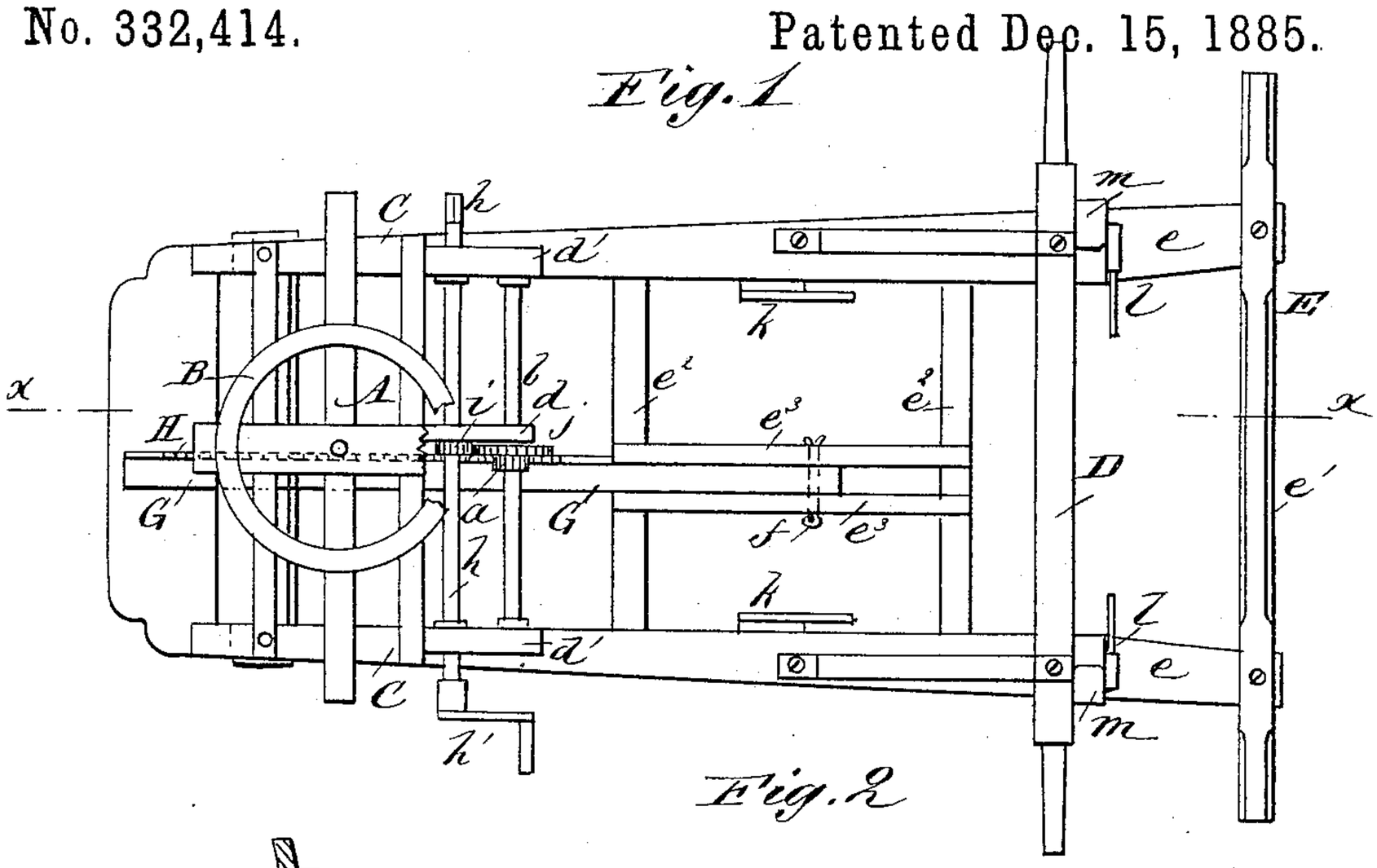


Fig. 2

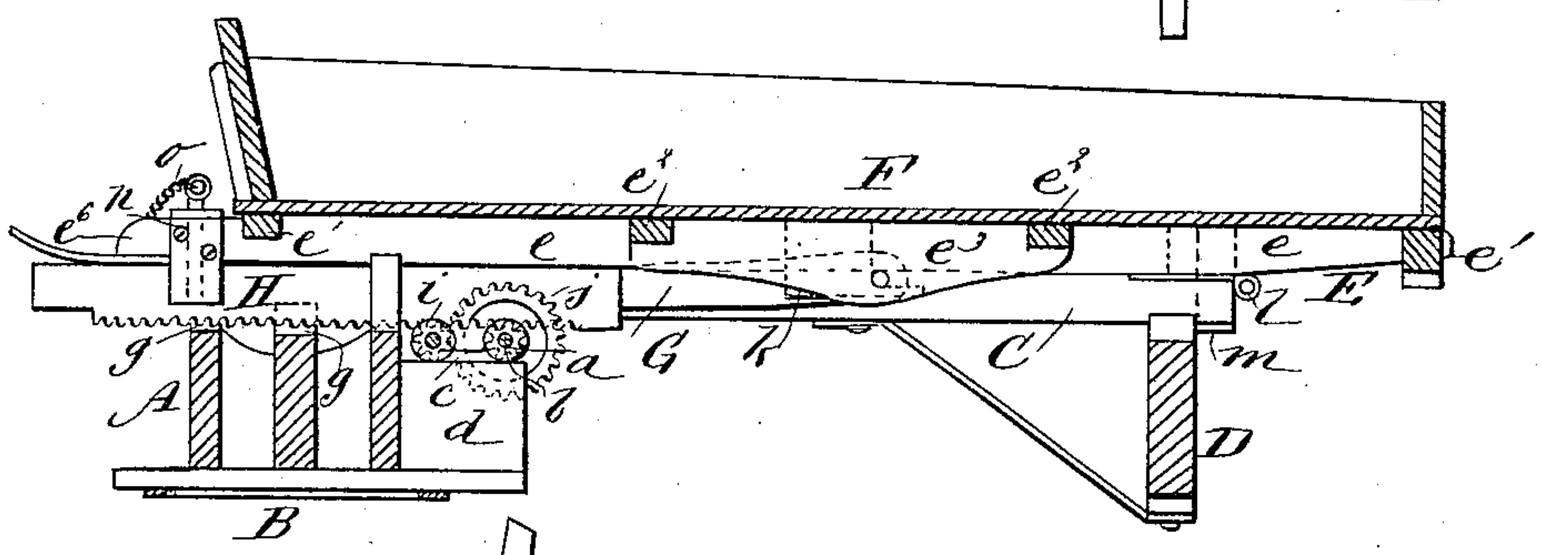
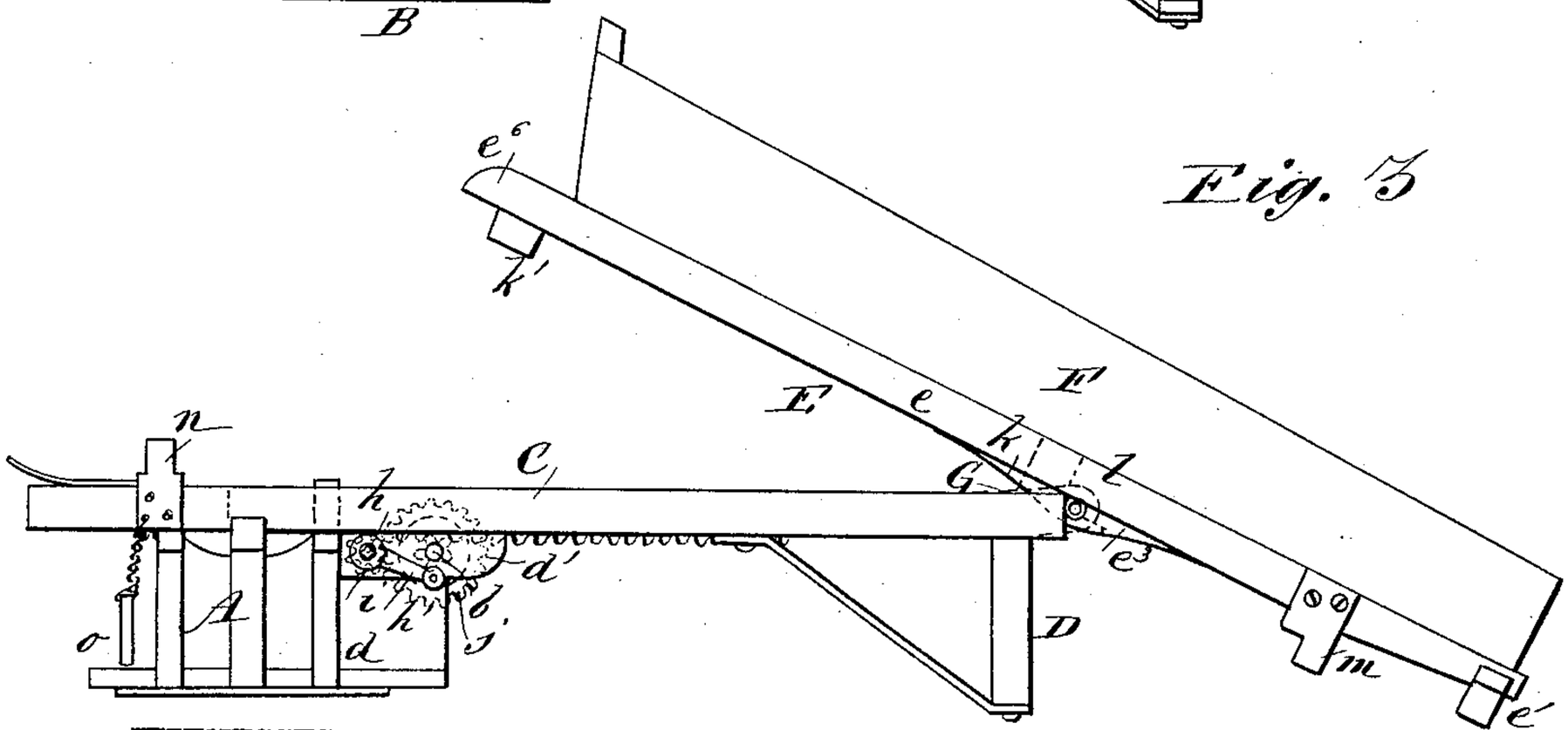


Fig. 3



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JAMES McFARLAND, OF LOUISVILLE, KENTUCKY.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 332,414, dated December 15, 1885.

Application filed May 19, 1885. Serial No. 166,048. (Model.)

To all whom it may concern:

Be it known that I, JAMES MCFARLAND, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and Improved Dumping-Wagon, of which the following is a full, clear, and exact description.

My invention relates to improvements in rear-dumping wagons; and the invention consists, principally, in making the box and supporting-frame therefor wider at the rear end than in front, and at the same time making the guide-pieces to work back and forth in parallel lines, thus adapting the box to readily free the load in dumping, and also avoiding expensive construction.

The invention also consists in attaching the gear for moving back and forth the box and its supporting-frame back of the chair of the wagon, so that in turning the wagon the front wheels will come back of the gearing, so that it will not interfere with turning the wagon in short curves.

The invention further consists of certain locking devices to prevent bouncing of the box in going over rough ground or pavement; and, finally, the invention consists of the construction, arrangement, and combination of parts, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is an inverted plan view of my improved dumping-wagon with the box, wheels, and front axle removed. Fig. 2 is a sectional elevation of the same (with the box in place) on line *x x* of Fig. 1, and Fig. 3 is a side elevation showing the box and supporting-frame therefor moved back to dumping position.

A represents the chair of the wagon, to which the fifth-wheel B is attached in the ordinary manner.

C C are the main sills of the wagon, supported at their forward ends upon the chair A, and at their rear ends upon the bolster or axle D. The inner edges of the sills C C are straight and parallel with each other, while their outer edges are diagonal, the sills being made of tapered stuff, the rear ends being wider than their forward ends, as shown clearly in Fig. 1.

E is the sliding frame that supports the box F, both side bars of which are wider at their rear than at their forward ends. The frame E is composed of the main side bars, *e e*, end cross-bars, *e' e'*, intermediate cross-bars, e^2 e^2, and central parallel bars, e^3 e^3, attached to the intermediate cross-bars, e^2, to which bars e^3 the connecting-rod G is attached for moving the frame E and box F backward and forward. The main side bars, *e e*, are made of tapered stuff, but their inner edges for the most part are straight and parallel, to correspond with the inner edges of the sills C C. The connecting-rod G is attached to cross-pieces e^3 e^3 by pin *f*, and it passes thence through suitable openings or guides, *g*, made in the upper edges of the timbers composing the chair A, which form guides for the rod and hold it from vertical and lateral movement, but permit it to move freely in a longitudinal direction. A rack, H, is attached to the connecting-rod G, and with this rack meshes the pinion *a*, secured upon the shaft *b*, which is journaled in pillow-block *c*, secured upon the central block, *d*, and in end pieces, *d' d'*, attached to the rear of the chair A, as shown clearly in Fig. 3. Journaled in the same blocks, *c d'*, is the crank-shaft *h*, and on this is secured the pinion *i*, which meshes with the larger gear-wheel, *j*, on shaft *b*, so that when the shaft *h* is turned by crank *h'* the motion will be transmitted through the described gearing to the rack H with multiplied power for easily moving it back and forth, for shoving the frame E and box F backward to dumping position, and drawing them forward again.

The box F is secured to the frame E by any suitable means, and the side bars, *e e*, of the frame E are provided with hook-plates *k k*, that are adapted to engage with the stop-pins *l l* at the rear ends of the main sills C C, for stopping the rearward motion of the frame and box E F, and these hook-plates and pins *k l*, with pin *f*, constitute the pivots for the frame E and box F to turn upon in dumping, as will be understood from Fig. 3.

The frame and box E F, in moving back and forth, are guided by the said plates *k* and by front flanges, *k'*, that run against the straight parallel inner edges of the sills C C.

For locking the frame E and box F to the sills C C when moved forward upon the wagon

so that they will not bounce in going over rough roads, I attach angle plates or cleats *m* to the sides of the frame E, which engage with the under surface of the sills C, and I attach also the loops *n* to the forward ends of the sills C, into which loops the extended forward ends, e^6 e^6, of the side pieces, *e e*, of frame E pass when the box and frame are drawn entirely forward, as shown in Fig. 2, and I provide pins *o*, adapted to be dropped into corresponding openings made in the loops *n* and extended ends e^6, for preventing the frame and box E F from sliding backward of their own accord.

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

1. In a dumping-wagon, the combination, with the sills C, having parallel inner edges, of the sliding frame E, wider at its rear than at its forward end, and having the inner edges of its side bars parallel with the inner edges of the sills, substantially as and for the purpose set forth.

2. In a dumping-wagon, the combination, with the sills C, having parallel inner edges, of the sliding frame E, wider at its rear than at its forward end, having the inner edges of its side bars parallel with the inner edges of the sills, and the downwardly-projecting flanges *k'* on the inner edges of the side bars of the sliding frame, substantially as herein shown and described.

3. In a dumping-wagon, the combination, with the sills C, having parallel inner edges, and provided with the pins *l*, of the frame E, wider at its rear than at its forward end, and provided with the hooked guide-plates *k*, adapted to engage the pins *l* when the frame is moved backward, substantially as herein shown and described.

4. In a dumping-wagon, the chair A, provided at its rear with bearing-blocks for the shafts of the operating-gear, in combination with said shaft and gear, and rack-plate for operating the box and its supporting-frame, substantially as described.

5. In a dumping-wagon, the shafts *b h* and intermeshing gear-wheels *a i j*, in combination with the connecting-rod G, provided with rack H and connected with the sliding frame E, the pinion *a*, meshing with the rack H, substantially as described.

6. The sliding frame E, provided with plates *m*, in combination with the sills C, provided with loops *n*, to receive the forward end e^6 of the frame E, substantially as and for the purposes set forth.

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Witnesses:
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