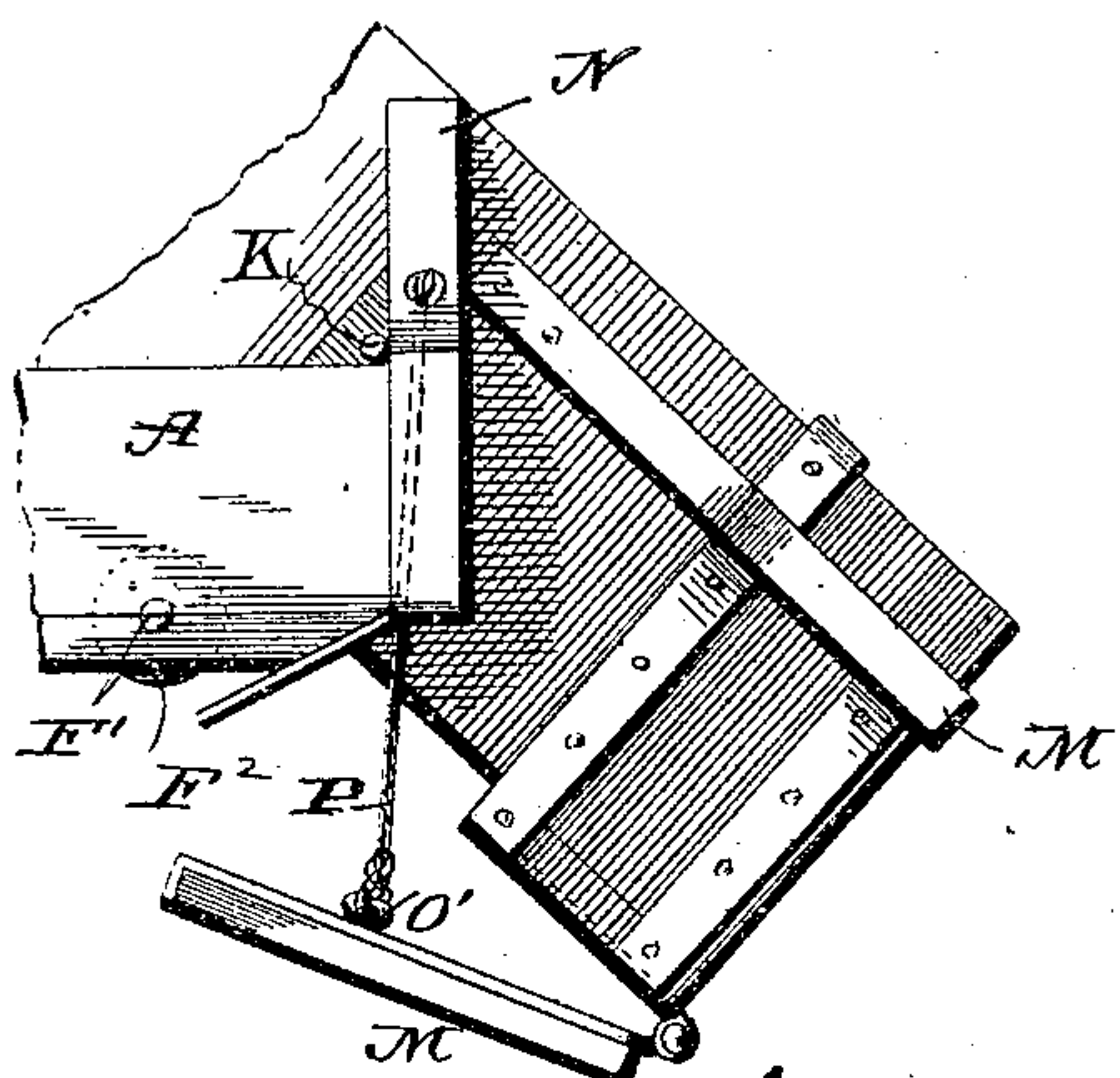


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Inventor
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att.

UNITED STATES PATENT OFFICE.

ROBERT FREELAND KING, OF BOZEMAN, MONTANA.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 457,853, dated August 18, 1891.

Application filed May 14, 1891. Serial No. 392,674. (No model.)

To all whom it may concern:

Be it known that I, ROBERT FREELAND KING, a citizen of the United States, residing at Bozeman, in the county of Gallatin and State of Montana, have invented certain new and useful Improvements in Dumping-Wagons; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

15 This invention relates to certain new and useful improvements in dumping-wagons; and it has for its objects, among others, to provide a simple, cheap, and durable construction of this character whereby the wagon-body may be used for a variety of purposes by slight changes, such as removing the dumping box or boxes. I provide a truck or body or rack which is strong and yet light, providing for ready movement of the forward wheels. I provide sliding dumping-boxes which are provided with pivot-pins which normally are held from contact with the side bars of the truck or body of the wagon, being held by hooked arms which, when the box is to be slid and dumped, are disengaged therefrom, and the pivot-pins then bear upon the side bars and serve as fulcrums, on which the box turns. I provide the boxes with removable front gates or ends, and the rear end of the rear box is provided with a hinged gate having springs for holding it closed, a spring for forcing it open when the holding-springs are disengaged, and cords so connected that as the end-gate is lowered and the box slid to the rear the said gate is folded under the bottom of the box, whereby it is prevented from being injured by the material being dumped from the box.

45 Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

50 The novelty in the present instance resides in the peculiarities of construction and the combinations, arrangement, and adaptation of parts, all as more fully hereinafter described,

shown in the drawings, and then particularly pointed out in the claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view of a dumping-wagon constructed in accordance with my invention, with one of the boxes removed and indicated in position by dotted lines. Fig. 2 is an end elevation of the rear box. Fig. 3 is a detail side elevation showing the rear box as dumped.

Like letters of reference indicate like parts in all the views where they occur.

Referring now to the details of the drawings by letter, A designates the side bars of the truck or rack, which are connected at their forward ends by the cross-bar *a*.

70 B is the front axle, which has the bolster B' affixed thereto in any suitable manner, the upper face of the bolster being recessed, as shown at *b*, for the short reach C, which is located at its forward end in the said recess and is provided with a hole through which passes the king-bolt C'. The wheels C² are of any known or approved form of construction. The rear end of the short reach is secured to a cross-bar *a'*, which is secured to the under side of the side bars of the truck, as shown. Seated in recesses in the upper face of the bolster B' are the front ends of the hounds D, a wear-plate *d* being provided above the same. The rear ends of the hounds are connected by the parallel bars *d'*, between which the short reach has sufficient play. To the front end of the side bars of the truck, over the front bolster, is affixed a cross-bar A', through which the king-bolt passes. The front cross-bar *a* serves to prevent the front box from sliding too far.

E is the rear axle, carrying the wheels, of known or any approved construction.

75 F and F' are two rods held in the side bars of the frame or truck and carrying near each end, within the side bars, the rollers F². The front set of rollers is at sufficient distance to give the front box sufficient room to dump without binding on the front hounds. The rear set is arranged just far enough back behind the rear axle so that the rear box may

have a freedom of motion in rolling back, and sufficiently high so that the box does not bind on the bar used in place of the rear bolster, which bar is shown at E².

5 The side bars of the frame or truck are provided upon their outer faces with staples or analogous devices G, so that when it is desired to use the frame for wood the boxes can be taken off and stakes placed in and held
10 by the said staples. To adapt it for use for hay, the boxes are removed and the hay-frame is set upon the frame in the usual manner. In changing from one to the other the work is so light it can be readily done by one per-
15 son. The box is a double box, consisting of a rear and a front portion. I have designated the front box by the letter H and the rear box by the letter H'. The front box is a rectangular box provided with a front end H², pro-
20 vided near the ends with vertical spring-bars H³, which are secured thereto with the ends free and designed to engage the top and bottom bars, as shown.

I is a spring-bar pivoted near its center to
25 the end and adapted to turn on the said pivot, with the ends of the bar extended beyond the upper and lower edges of the end, as seen, and these ends are designed to engage beneath the catches I', which are oppositely arranged upon
30 the upper and lower bars of the end of the box, as shown. Turning the spring-bar vertically forces the ends of the bar beneath the catches and locks the end in place. Turning the bar horizontally, or partially so, dis-
35 gages its ends from the catches, and the end is free to be removed. The front end of the rear box is provided with a similar gate, held in position by like means, as shown. Both
40 boxes have near their forward ends upon each side rollers J', which are designed to travel upon the upper face of the side bars of the truck or frame, as shown. Both boxes have projecting from their sides, substantially at the longitudinal center of the box, the pins
45 K, which are normally held up from the side bars by the hooked rods or arms L, which are connected to the side bars and their hooked ends engaging the said pins, as shown. This serves also to hold the boxes from movement
50 endwise. When it is desired to slide the boxes endwise to dump them, these hooks are disengaged from the pins, which then ride on the side bars and constitute the pintles or pivots on which the boxes are turned to dump
55 them.

Both boxes are suitably bound with metal, so as to prevent them from warping and to greatly strengthen them. The front end of the rear box forms the rear end of the front
60 box, as shown. The rear box is provided at its forward end with a forwardly-extending plate L', upon which the bottom of the front box at the rear end rests.

The rear box has an end-gate M, hinged at
65 its lower edge to the rear end of the bottom of the said box, and when ready for loading this gate is turned up vertically to close the

rear end of the box and is held firmly in place by means of the springs M' on each side of the box. These springs are turned 70 or bent at their ends so as to catch and hold the gate in a firm clasp. The uprights N, attached to the side bars of the frame or truck, press against these springs and hold them against the end-gate to hold it firmly in po- 75 sition.

In dumping, when the box is moved back on the rollers to the dumping-point, the hooked arms having been disengaged from the pivot-pins when about six inches back, 80 the springs lose their hold on the end-gate, the swell of the springs having passed the bars that bind them, and the gate is then forced downward by means of a coiled spring O, which is attached to the inside of the box 85 and adapted to bear against the inner face of the end-gate, as shown.

P are cords fastened on each side about midway of the end-gate in any suitable manner, as by the rod O', having hooked ends or 90 eyes for the reception of the cords or chains, and at the other ends attached about four inches above the rack side bars, preferably to the uprights N, so that as the box goes back the end-gate is drawn under the box, as 95 shown, to give freedom to the dumping and to prevent injury to the end-gate by the falling material. After dumping the rear box the front box is pushed toward the rear and dumped and then both returned to their nor- 100 mal positions.

Various modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its ad- 105 vantages.

What I claim as new is—

1. The combination, with the frame, of the front axle and bolster, the cross-bar secured to the side bars of the frame to the rear of the front axle, the short reach connected at 110 one end to the said cross-bar and at the other end held by the king-bolt, and the hounds connected at their rear ends by the parallel bars between which the reach works, as set forth. 115

2. The combination, with the frame and its rollers, of the sliding boxes provided with rollers and pivot-pins projecting from the sides thereof, and the hooked rods for detachably engaging the said pins, as set forth. 120

3. The combination, with the frame and the rollers, of the rear and front boxes, each provided with a removable front end, and the rear box with a removable hinged end-gate, as set forth. 125

4. The combination, with the frame and its rollers, of the movable rear and front boxes, each provided with a removable front end and a hinged end-gate to the rear box, and a forwardly-extending plate on the front end 130 of the rear box adapted to support the rear end of the front box, as set forth.

5. The combination, with the rear box provided with a hinged end-gate, of the spring

attached to the box and acting upon the inner face of the gate and the springs on the outside of the box and adapted to hold the end-gate closed, as set forth.

5 6. The combination, with the frame and the uprights thereon, of the rear box provided with a hinged end-gate, the spring acting to force the end-gate outward, and the springs on the outside of the box and adapted to hold
10 the gate closed and held pressed by the said uprights, as set forth.

7. The combination, with the frame and the

uprights secured thereto, of the rear box provided with spring-actuated end-gate, the springs on the outside of the box engaged by 15 the uprights, and the cords or chains connecting the end-gate with the said uprights, substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT FREELAND KING.

Witnesses:

W. T. GOULDER,
BERRY KING.