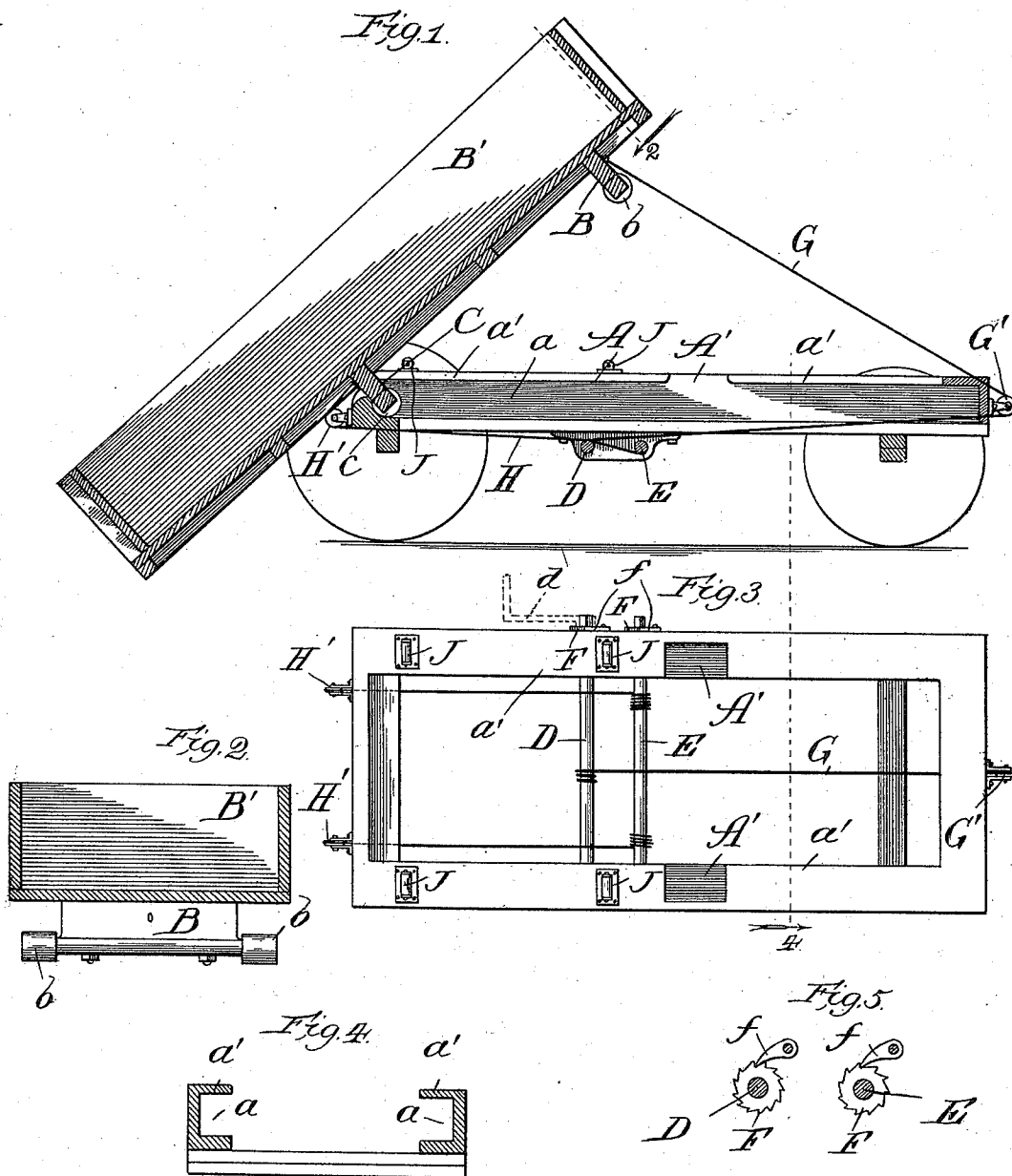


(No Model.)

I. B. CHRISSINGER.
DUMPING WAGON.

No. 577,913.

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UNITED STATES PATENT OFFICE.

IRWIN B. CHRISSINGER, OF CHICAGO, ILLINOIS, ASSIGNOR TO CLINTON S. WEEKS AND M. F. CHRISSINGER, OF SAME PLACE.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 577,913, dated March 2, 1897.

Application filed May 20, 1896. Serial No. 592,246. (No model.)

To all whom it may concern:

Be it known that I, IRWIN B. CHRISSINGER, a citizen of the United States, residing at Chicago, Cook county, Illinois, have invented certain new and useful Improvements in Dumping-Wagons, of which the following is a specification.

The object of my invention is to make a simple, inexpensive, but efficient and serviceable dumping-wagon; and my invention consists in the features and details of construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a longitudinal section of my dumping-wagon, showing the wagon-body in a tilted position; Fig. 2, a sectional elevation on line 2 of Fig. 1; Fig. 3, a sectional plan of the wagon-frame with the wagon-body removed; Fig. 4, a transverse section on line 4 of Fig. 3, and Fig. 5 a detail view of the ratchet-wheels at one side of the wagon-frame.

In making my dumping-wagon I first construct a wagon-frame A, connected to suitable running-gear. This frame is rectangular, and, as illustrated more particularly in Fig. 4 of the drawings, it is provided with interior recesses or channels *a*, which run longitudinally along the sides of the wagon-frame. The upper flange or projecting portion *a'* is continuous except at a predetermined point, where openings A', oppositely disposed, are provided for a purpose hereinafter to be designated. If preferred, a thin strip of metal may be secured to the bottom of the recess in order to form a smooth and substantial track for wheels or rollers to travel upon.

The wagon-body proper consists, essentially, of a rectangular box or bed B' of a size to fit upon the wagon-frame. Upon the bottom of the box and at the proper points thereupon I arrange blocks B and C. The lower outer ends of the blocks are provided with rollers or equivalent devices *b* and *c*, respectively, which rollers are adapted to travel within the recess *a* when the wagon-bed is moved.

As shown in Fig. 1, the openings A' and the block B are so disposed with relation to each other that when the rear rollers *c* have reached the rear end of the recess the wagon-

body will be free to tilt, inasmuch as the rollers *b*, which had been confined within the recess, are in this position allowed to pass upwardly through the openings A'.

Two winding-shafts D E are suitably mounted in any convenient place upon the wagon-frame, but preferably as shown in the drawings, and the end of each is constructed to receive a crank *d*. Near the end of each shaft is a ratchet-wheel and dog or pawl F of the usual and well-known construction.

Connected to the block B is a rope or small cable G, which passes to the front of the wagon around a pulley G', and thence around the winding-shaft D. This pulley may be arranged as shown or located in any other desirable place so long as the desired purpose is accomplished.

Two similar ropes or small cables H H are secured to the rear block C, passing around pulleys H', secured to the end of the wagon-frame, and thence around the winding-shaft E. I prefer to employ a set of cables upon this shaft in order to secure a straight pull on the wagon-box and prevent any liability of wedging or sticking, although one cable might answer the purpose. Furthermore, the position of these pulleys may be altered, if desired.

Upon the top face of the wagon-frame I arrange any number of suitable rollers J, preferably as shown in the drawings. When the bed is being moved upon the frame, it bears upon the rollers and travels easily.

My dumping-wagon, being constructed as hereinbefore set forth, operates as follows: The wagon body or box being in normal position on the frame, the winding-shaft E is rotated to wind up the cable H and thus draw the block C and the box backward upon the wagon-frame, the rollers *b c* traveling in the recess *a*. It is understood that when the shaft E is rotated the ratchet device on the shaft D is released in order to allow the cable G to unwind.

When the wagon-bed is in position to tilt, the openings A' will be situated directly above the rollers *b*, which will be free to pass out therethrough. The bed will then assume the position shown in Fig. 1. In this position it is noticed that the rollers *c* or pivotal

points of the bed are directly over the rear axle of the wagon, which arrangement will be found the most desirable and practical in operation.

5 When the bed is restored to its normal position, the operation of the winding-shafts is reversed, that is, the shaft D is rotated to wind up cable G and shaft E is allowed to unwind cable H. Upon the first winding of
10 cable G the bed is drawn from a tilted to a horizontal position, and the position of the rollers *b* coinciding with the openings A' the former will enter in the recess and by the continued winding of the shaft they will travel
15 forward therein, when the wagon-bed will assume its normal position with respect to the wagon-frame. At this time the shaft D has been unwinding and the rollers *c* have been traveling forward in the recesses. When the
20 bed is being moved either forward or backward, the bottom thereof rests on the rollers J on the wagon-frame, whereby the easy movement thereof is assured.

It is obvious that my invention may be applied to a car or other vehicle without sufficient change to depart from the spirit and scope of my invention, and, furthermore, that, if desired, the bed may be made to dump either front or back by arranging the openings A' at the center and so constructing and
30 positioning the blocks B C that when either one is drawn to the limit of the recesses or channels the other will be free to pass out through the opening, thereby permitting of
35 a front or end dump without material alteration of the parts.

Although I have described more or less precise forms and details of construction, I do not intend to be understood as limiting myself thereto, as I contemplate changes in the form, the proportion of parts, and the substitution of equivalents, as circumstances may suggest or render expedient and without departing from the spirit of my invention.

45 I claim—

1. In a dumping-wagon, the combination of a wagon-frame provided with internal longitudinal recesses or channels extending substantially from end to end of the frame and
50 having one pair of openings into the top of the recesses, and a wagon bed or body having two pairs of laterally-projecting pins extending into the recesses and supporting the bed upon the frame, one pair of pins being
55 adapted to pass outwardly through the openings in the top of the recesses when the bed is tilted upon the other pair of pins as a pivot.

2. In a dumping-wagon, the combination of a wagon-frame provided with internal longitudinally-extending recesses or channels having corresponding side openings cut in the top
60 flange of the recesses, a wagon body or bed, depending blocks upon the bed provided with side projecting portions engaged by the recesses and adapted to move therein and means for moving the bed upon the frame
65 whereby as the bed is moved to tilting position

the projecting portions of one of the blocks will be free to pass through the openings in the recesses to allow the bed to tilt. 70

3. In a dumping-wagon, the combination of a wagon-frame provided with internal longitudinally-extending recesses or channels having two corresponding side openings in the top flange of the recesses, a wagon body or
75 bed, two depending blocks upon the bed, laterally-projecting rollers mounted upon the ends of each block and adapted to travel within the recesses, cables secured to the bed and means for operating the cables to move
80 the bed upon the frame, whereby, as the bed is moved to a tilting position the rollers on one of the blocks will correspond in position with the openings in the recesses and be released from the recesses and be permitted to
85 tilt.

4. In a dumping-wagon the combination with the running-gear, of a wagon-frame provided with internal recesses or channels having two corresponding side openings in the top flange of the recesses, the rear end of the recesses terminating at a point above the rear axle of the wagon, a wagon body or bed, two depending blocks upon the bed provided with
90 laterally-extending portions engaged by the recesses and adapted to move therein, and means for moving the bed upon the frame, the blocks being so spaced upon the bed with respect to the two said openings that when
95 the rear block has reached its rearward limit of movement above the rear axle, the position of the projecting portions of the front block will correspond with the openings in the recesses, whereby the wagon-bed is free to tilt. 100

5. The combination of a wagon-frame provided with internal recesses having corresponding side openings in their top, a wagon-bed, depending blocks thereupon provided with side projecting portions engaged by the recesses and adapted to travel therein and
105 two winding-shafts journaled in the wagon-frame and cables connected therewith and with the front and rear portions of the wagon-body. 110

6. The combination of a wagon-frame with recesses *a* having openings A' in the top thereof, a wagon-bed, blocks B C having rollers *b c* respectively, a winding-shaft D, cable H connected thereto and to block C, winding-shaft E, cable G connected to shaft E and to
120 block B and ratchet device F *f* at the end of the shaft. 125

7. The combination of wagon-frame A having recesses *a* and openings A', wagon-bed B', depending portions B C having sets of rollers
125 *b c*, shafts D E journaled in frame A, pulleys G' H' at the front and rear respectively of the frame, cable H connected to shaft D and portion C and passing around pulley H' and cable G connected to shaft E and portion B and
130 passing around pulley G'.

8. In a dumping-wagon, the combination of a wagon-frame having internal longitudinal recesses with oppositely-disposed openings

on the top face of the recesses, a tilting wagon-body having two portions or strips upon the bottom thereof provided at their ends with rollers adapted to travel within the recesses
5 when the wagon-body is horizontal, the rollers on the forward strips being adapted to pass out upwardly through the openings in the recesses when the wagon-body is tilted, at which
10 reached the rear limit of travel in the recesses

and constitute pivots or fulcrum-points for the wagon-body, mechanism for moving the wagon-body backward to permit it to tilt and means for drawing it back again to a horizontal position and into normal position on the wagon-frame. 15

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