

(No Model.)

2 Sheets—Sheet 1.

L. BUSSE.
DUMPING WAGON.

No. 484,732.

Patented Oct. 18, 1892.

Fig. 1

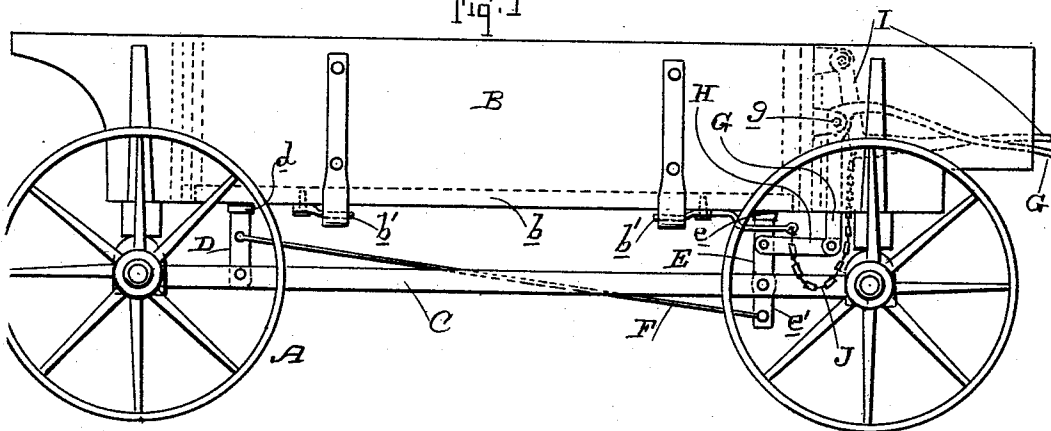


Fig. 2

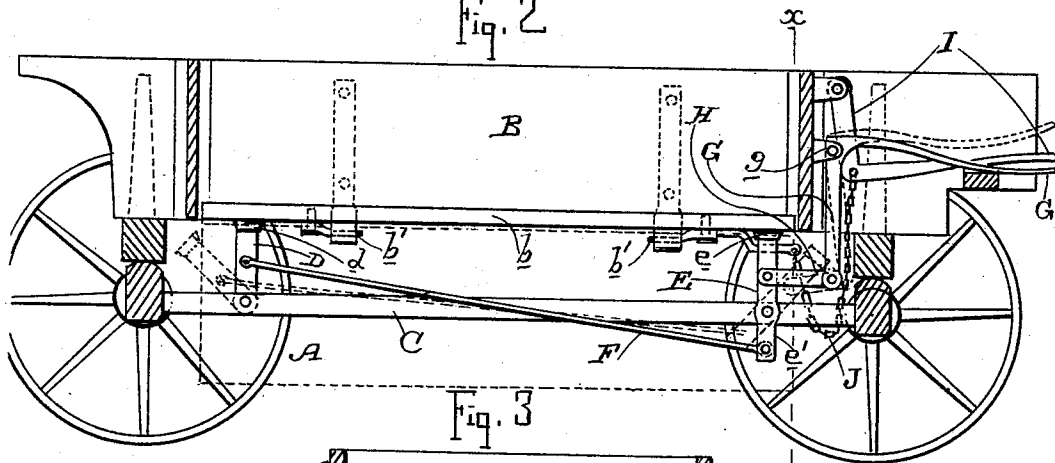
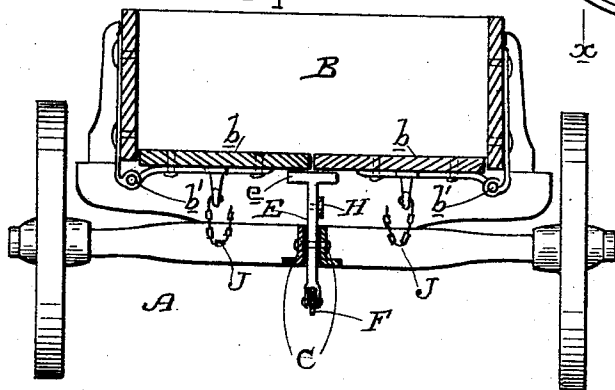


Fig. 3



Witnesses,
J. H. Nurse.
J. A. Bayless

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(No Model.)

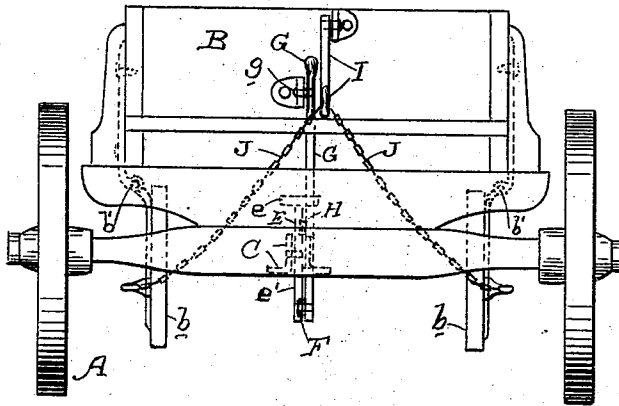
2 Sheets—Sheet 2.

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Fig. 4



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UNITED STATES PATENT OFFICE.

LEOPOLD BUSSE, OF SAN FRANCISCO, CALIFORNIA.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 484,732, dated October 18, 1892.

Application filed July 5, 1892. Serial No. 439,037. (No model.)

To all whom it may concern:

Be it known that I, LEOPOLD BUSSE, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Dumping-Wagons; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of dumping-wagons in which the bottom boards are hinged to the lower edges of the sides of the wagon-bed, whereby said boards move to and from the center to close and open the bottom.

My invention consists in the novel arrangement and construction of the supports for holding the bottom boards and relieving them and in the connections by which said supports are operated, as I shall hereinafter fully describe, and specifically point out in the claims.

The object of my invention is, to provide simple and effective means for holding and dropping the bottom boards of a dumping-wagon.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a side elevation of my dumping-wagon. Fig. 2 is a central longitudinal vertical section of same, the dotted lines showing the changes in position of the supporting-arms. Fig. 3 is a cross-section on line *x x* of Fig. 2. Fig. 4 is a front view.

A represents the running-gear, and B the body or bed of any wagon adapted for this purpose. The construction of these parts may be of any suitable character. The bed or body B has the bottom boards *b*, which are suitably hinged at *b'* to the lower edges of the sides of the bed, whereby said boards are adapted to move to and from the center, in the former case lying in a horizontal plane and forming the closed bottom of the bed and in the latter case hanging down on each side, thus opening the entire bottom of said bed. These bottom boards are held in a horizontal or closed position, and are relieved to drop therefrom by the following means:

C is the reach of the running gear of the wagon. Pivoted to this reach, near one end thereof, is a swinging supporting-arm D, the upper end or head *d* of which is sufficiently wide to bear up under and to support both

boards *b* of the wagon-bed. Pivoted near the other end of the reach is a similar supporting-arm E, having a head *e*, which bears up under the boards *b* and supports them at that end. When these arms are in a vertical position, they fully support the bottom boards and the superposed load in the wagon. The arm E has an extension *e'* projecting below its pivotal point, and said extension is connected by a rod F with the rear arm D at a point above the pivotal point of said arm D.

Pivoted at *g* to the front of the wagon is an elbow or bell-crank lever G, the downwardly-extending arm of which is connected by a link H with the support-arm E at a point above the pivotal center of said arm.

I is a lever pivoted to the front of the wagon and having connected with it the chains J, which extend downwardly and are connected with the boards *b* of the wagon-bed.

The operation of my wagon is as follows: When the boards *b*, which form the bottom of the wagon-bed, are in a horizontal or closed position, they are held rigidly in this position by resting upon the support-arms D and E, which are then vertical. Now by lifting up on the horizontal arm of the elbow or bell-crank lever G its vertical arm is thrown forwardly, and through the connecting-link H the support-arm E is drawn forwardly sufficiently to cause its upper end or head *e* to move beyond the forward ends of the bottom boards *b*. This movement of support-arm E, through its downward extension *e'* and connecting-rod F, with the rear arm D, throws the head of said arm D backwardly until said head clears the rear ends of the boards *b*. These opposite movements of the support-arms are simultaneous, and when their heads are freed from the boards *b* said boards drop downwardly about their hinged connections, thereby fully opening the bed and discharging the contents thereof. To raise the boards again, the lever I is lifted, whereby through the chains J the boards are raised to a horizontal position, and, being momentarily held there, the horizontal arm or lever G is pressed downwardly, thereby throwing the support-arms E and D back again to their normal positions under the boards *b*, whereby said boards are supported.

Although the reach C may be of any suitable construction, I deem it best to make it of iron and to form it of two independent pieces of angle-iron, between the adjacent sides of which the arms D and E are pivoted and between which the connecting-rod F passes and is guided. This makes not only a very strong reach, but also provides guides for the support-arms and connecting-rod.

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

1. In a dumping-wagon, and in combination with its swinging bottom boards and underlying reach, arms pivoted to said reach and bearing under the bottom boards to support them and connections for swinging said arms from under the bottom boards, whereby said boards are relieved, substantially as herein described.

2. In a dumping-wagon, and in combination with its swinging bottom boards and underlying reach, supporting-arms pivoted to said reach and bearing up under the bottom boards, whereby they are held up in a closed position, a connection between said supporting-arms, whereby they move in unison, and connections with one of said arms, whereby both are swung to and from place to support and to relieve the bottom boards, substantially as herein described.

3. In a dumping-wagon, and in combination with its swinging bottom boards and underlying reach, the supporting-arms D and E, pivoted to the reach and bearing with their upper ends under the bottom boards of the wagon to support said boards, the connecting-rod F, extending between the two arms on opposite sides of their pivotal centers, whereby they are moved in opposite directions, and a lever and connections with one of said arms for swinging them to and from place to sup-

port and relieve the bottom boards, substantially as herein described.

4. In a dumping-wagon, and in combination with its swinging bottom boards and underlying reach, the supporting-arms D and E, pivoted to the reach and bearing with their upper ends under the bottom boards of the wagon to support said boards, the connecting-rod F, extending between the two arms on opposite sides of their pivotal centers, whereby they are moved in opposite directions, the bell-crank or elbow lever G at the front of the wagon, and the link H, connecting said lever with one of said supporting-arms, substantially as herein described.

5. In a dumping-wagon, the swinging bottom boards of the bed and underlying reach, in combination with the connected and oppositely-moving supporting-arms pivoted to the reach and bearing under the bottom boards, the lever G and connections with one of said arms, and the lever I and chains J, connecting said lever I with the bottom boards, substantially as herein described.

6. In a dumping-wagon, the combination of the swinging bottom boards of the bed, the reach of the running-gear, consisting of two separated angle-irons, the oppositely-moving supporting-arms bearing up under the bottom boards and pivoted between the angle-irons of the reach, the connecting-rod F, joining said arms and passing between the angle-irons of the reach, and a lever and connections for operating said arms, substantially as herein described.

In witness whereof I have hereunto set my hand.

LEOPOLD BUSSE.

Witnesses:

S. H. NOURSE,
J. A. BAYLESS.