

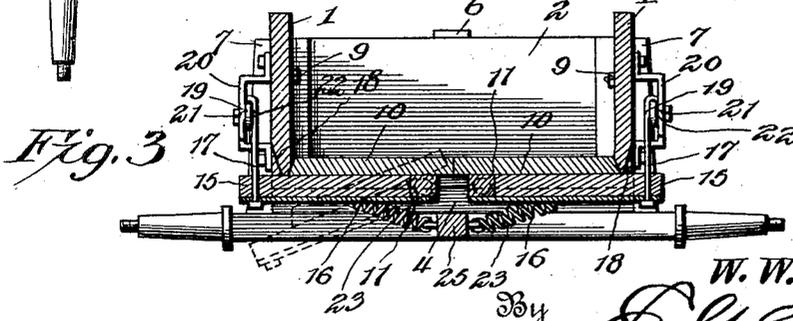
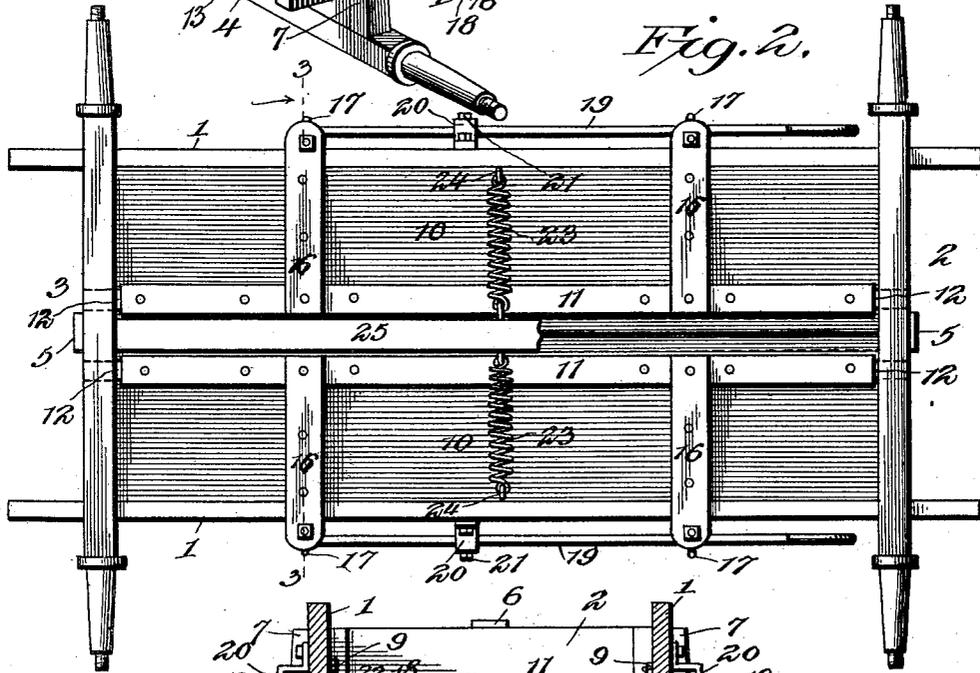
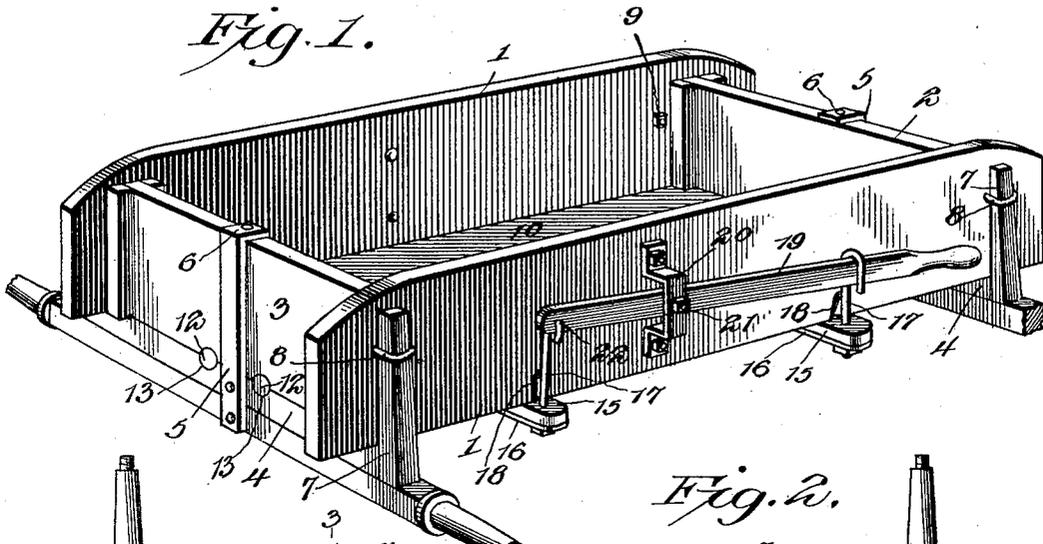
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Patented Dec. 3, 1901.

W. W. LOBAN.  
DUMPING WAGON.

(Application filed Sept 7, 1901.)

(No Model.)



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 688,103, dated December 3, 1901.

Application filed September 7, 1901. Serial No. 74,656. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM W. LOBAN, a citizen of the United States, residing at Williams, in the county of Hamilton and State of Iowa, have invented a new and useful Dumping-Wagon, of which the following is a specification.

This invention relates to dumping-wagons, and has for its object to provide for conveniently effecting the dumping operation while the wagon is in motion and to have the operating means in convenient reach of the driver, so that the dumping operation may be performed and the bottom of the wagon returned to its normal position without requiring the driver to leave his seat. It is furthermore designed to arrange for dumping one side of the load at a time and to have opposite independent operating means which are mounted upon the outer sides of the wagon-body, so as not to obstruct the interior thereof and to be in position for convenient manipulation.

A further object resides in providing for applying the present invention to any ordinary wagon employed for hauling dirt, sand, gravel, bricks, and the like without materially altering the construction and arrangement thereof.

A final object resides in providing for forcibly tilting the bottom sections of the body, so as to insure a quick and effective dumping operation, and also to effect the closing of the tilting bottom sections by the same means employed for effecting the dumping operation.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of a dumping-wagon embodying the present invention. Fig. 2 is a bottom plan view thereof, the running-gear being omitted. Fig. 3 is a transverse sectional view taken on the line 3 3 of Fig. 2.

Like characters of reference designate corresponding parts in all the figures of the drawings.

To illustrate the application and operation of the present invention, there has been shown in the drawings an ordinary vehicle-body embodying the opposite sides 1 and the front and rear ends 2 and 3, respectively, which are supported upon the usual bolsters 4 of any common or preferred form of running-gear. The front and rear ends are rigidly connected to the running-gear by means of the metal straps 5, which have their upper ends bent over and secured to the upper edges of said ends, as at 6, and their lower ends secured to some portion of the running-gear—as, for instance, the adjacent axle or bolster. The side pieces embrace the ends and lie between the latter and the adjacent standards 7, there being hooked fastenings 8 snugly embracing the respective standards and having their shanks passed inwardly through the side pieces and secured thereto by means of nuts 9. It is necessary to thus fasten the side pieces against accidental upward movement, as the actuating means for dumping the wagon is carried by the side pieces.

The bottom of the wagon is divided into longitudinal half-sections 10, each of which is supported upon a longitudinal rock-bar 11, that is located adjacent to the inner edge of the section and has each end formed into a journal or spindle 12, that is mounted in a suitable bearing—as, for instance, a concave socket or seat 13, formed in the upper side of the adjacent bolster, whereby the section is capable of a vertical tilting movement. The inner edges of the bottom sections are straight and normally lie in mutual contact, while the outer edges of the sections are beveled upwardly and inwardly, so as to insure a snug fit between the outer edges of the sections and the inner faces of the sides of the wagon and also to permit of the sections being tilted without binding upon the sides of the wagon, all of which is clearly illustrated in Fig. 3 of the drawings.

Each tilting bottom section is braced by means of transverse cleats or cross-bars 15, here shown as two in number, with their outer ends projected outwardly beyond the adjacent side of the body, so as to contact there-

with and form stops to limit the upward movement of the section. A metal plate 16 is applied to the under side of each cross-bar, and a hooked bolt 17 is passed upwardly through

5 the outer end of the plate and the cross-bar, so as to lie adjacent to the outer face of the side of the body, the latter having its lower portion cut away, as at 18, to accommodate the hooked bolt.

10 For the convenient manipulation of each tilting bottom section there is provided a lever 19, which is normally horizontal and lies at the outer side of the body, there being a

15 bracket or keeper 20 embracing the intermediate portion of the lever and lying between the adjacent cross-bars, said bracket or keeper being secured to the side of the body and having the lever fulcrumed thereto, as at 21. The

20 bolt or link which rises from the rear cross-bar is pivotally connected to the rear end of the lever, as at 22, while the forward hooked bolt normally engages over the forward end portion of the lever, so as to hold the same in place. It will here be noted that the lever is

25 pivoted adjacent to its rear end, and the long forward portion of the lever is extended to a point adjacent to the front end of the wagon, so as to be in convenient reach from the driver's seat, in order that each lever may be

30 manipulated without requiring the driver to leave his seat. To dump the wagon, each lever is sprung downwardly, so as to be disengaged from the keeper or hooked bolt 17, after which the lever is drawn laterally out-

35 ward and then thrown upwardly, whereby the adjacent bottom section is unlocked and is also rocked downwardly by reason of the connection between the rear end of the lever and the rear cross-bar. After the load has been

40 dumped the lever is depressed, thereby to draw the bottom section upwardly into its normal position, the lever finally being re-engaged with the catch or keeper afforded by the front hooked bolt 17.

45 From the foregoing description it will be apparent that both bottom sections may be tilted to dump the load and then returned to their normal positions without stopping the wagon and while the driver remains upon

50 his seat. Moreover, the invention may be applied to any ordinary wagon without materially altering the body thereof beyond forming the bottom into longitudinal sections which are capable of tilting movements.

55 Each lever not only locks its respective bottom section, but also forces the same downward, so as to insure a prompt dumping of the wagon and to obviate binding of the tilting section, and the lever also operates to

60 draw the section upwardly to its normal position.

To insure a prompt dumping of the bottom sections, each of the latter is provided with a helical spring 23, which has one end connected

65 to the lower outer edge of the adjacent bottom section, as indicated at 24, and its inner end

connected to the reach-bar 25 of the running-gear, so as to exert a downward tension upon the outer free edge of the bottom section. It will here be noted that this spring also places

70 a tension upon the connections between the bottom section and the lever 19, so as to prevent looseness, rattling, and accidental disengagement thereof.

What I claim is—

- 75
1. In a dumping-wagon, the combination with a wagon-body, having a movable bottom section, of a lever fulcrumed intermediate of its ends upon the body, an operative connection between one end of the lever and the

80 movable bottom section, and locking means carried by the movable bottom section to engage the opposite end portion of the lever and to lock the same in its normal position.

  2. In a dumping-wagon, the combination

85 with a wagon-body having a movable bottom section, of opposite upstanding links carried by the movable bottom section, a lever fulcrumed upon the body and intermediate of the links, one of the latter being connected to

90 the adjacent end of the lever, and the other link having a keeper to engage the lever in the normal position thereof.

  3. In a dumping-wagon, the combination

95 with a wagon-body, of a vertically-tilting bottom section, having a pair of outwardly-projected cleats to engage the body-frame and forming stops for the tilting section, upstanding links carried by the projected ends of the

100 cleats, a lever fulcrumed upon the body-frame and intermediate of the links, one of the latter being connected to the adjacent end of the lever, and the other link having a hook or keeper to engage the lever and lock the same

105 in its normal position.

  - 4. In a dumping-wagon, the combination with a wagon-body and the running-gear thereof, of a hinged bottom section, and a spring having its opposite ends connected to

110 said bottom section and a portion of the running-gear respectively.

  - 5. In a dumping-wagon, the combination with a wagon-body having its bottom divided into two longitudinal sections which are

115 hinged at their inner edges, means for normally holding the bottom sections closed, a running-gear for the support of the body and provided with a reach-bar, and opposite helical springs having their inner ends connected

120 to the reach-bar and their outer ends connected to the outer edge portions of the respective bottom sections.

  - 6. In a dumping-wagon, the combination with a movable bottom section, and means for

125 holding the same closed, of spring-actuated means to normally place an opening tension upon the bottom section, and to automatically open said bottom section when the latter is released from the holding means.

  - 7. In a dumping-wagon, the combination

130 with the body thereof having a tilting bottom section, of a lever fulcrumed intermediate of

its ends upon the body, one end of the lever  
having a permanent connection with the tilt-  
ing bottom section, and the opposite end por-  
tion of the lever having a detachable connec-  
5 tion with the tilting bottom section, the de-  
tachable connection being engaged with the  
lever when the tilting bottom section is closed.

In testimony that I claim the foregoing as  
my own I have hereto affixed my signature in  
the presence of two witnesses.

WILLIAM W. LOBAN.

Witnesses:

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