J. W. HUFFMAN.

DUMPING BED FOR WAGONS.

APPLICATION FILED SEPT. 25, 1918.

1,347,375.

Patented July 20, 1920.

2 SHEETS—SHEET 1.

Fig. 1.

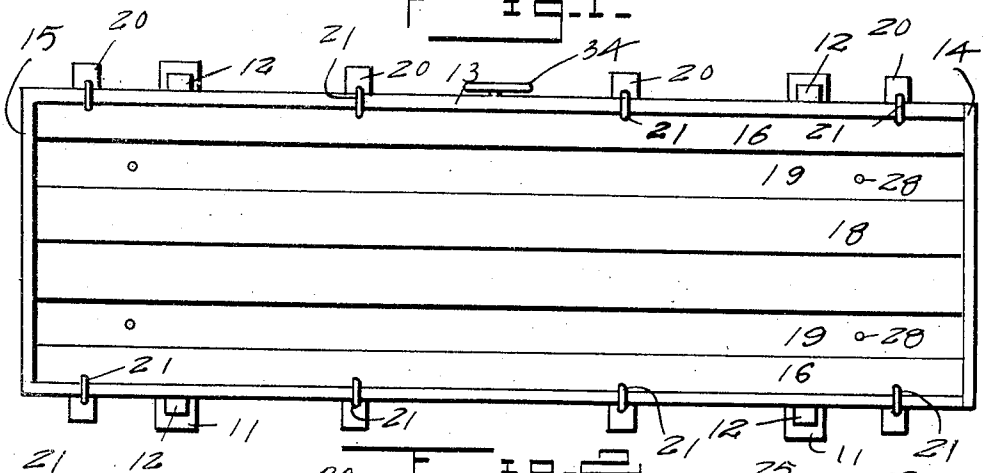


Fig.

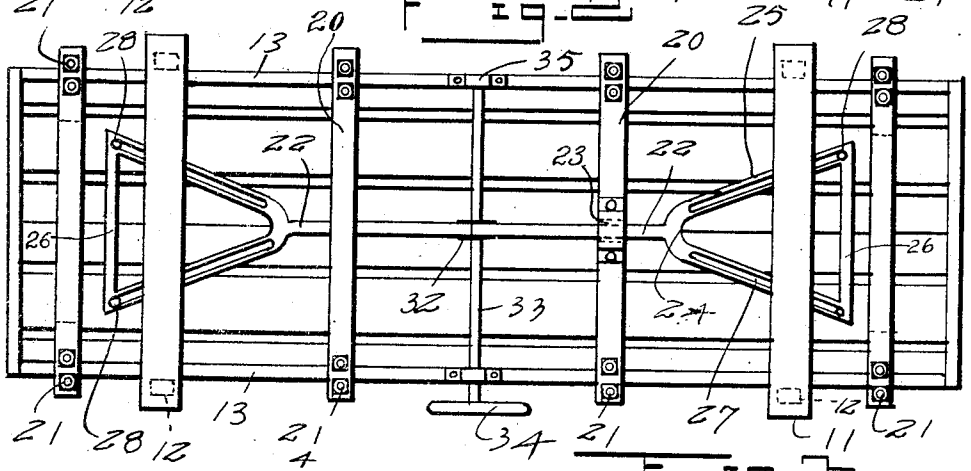
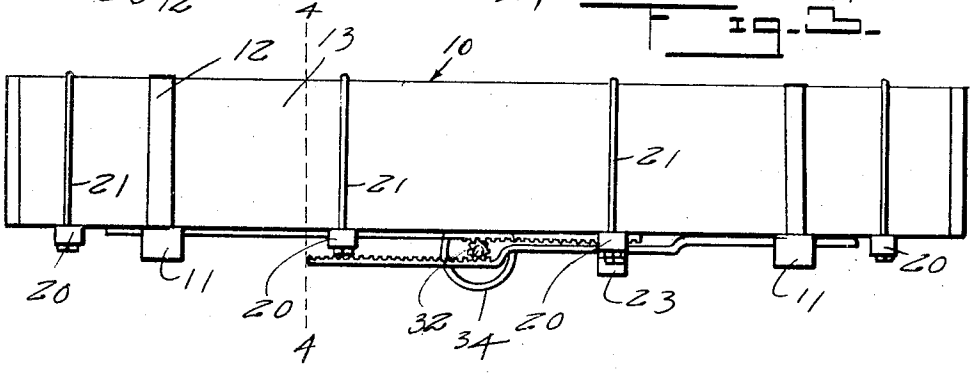


Fig.



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2 SHEETS—SHEET 2.

Fig. 4.

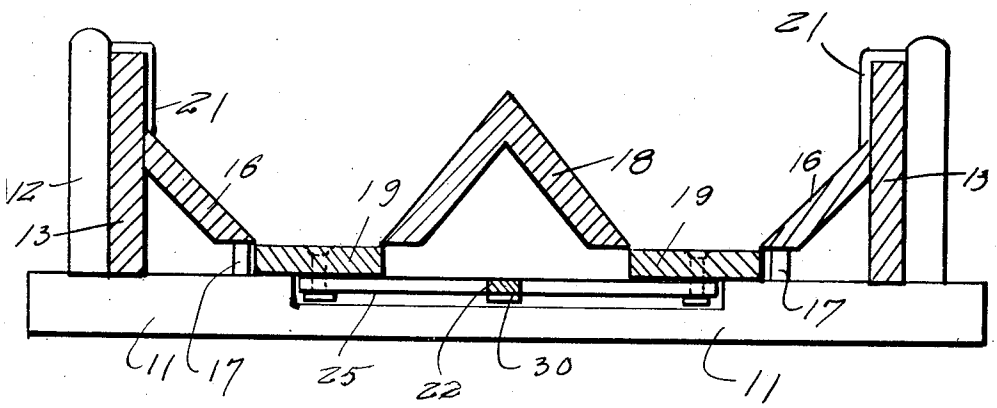


Fig. 5.

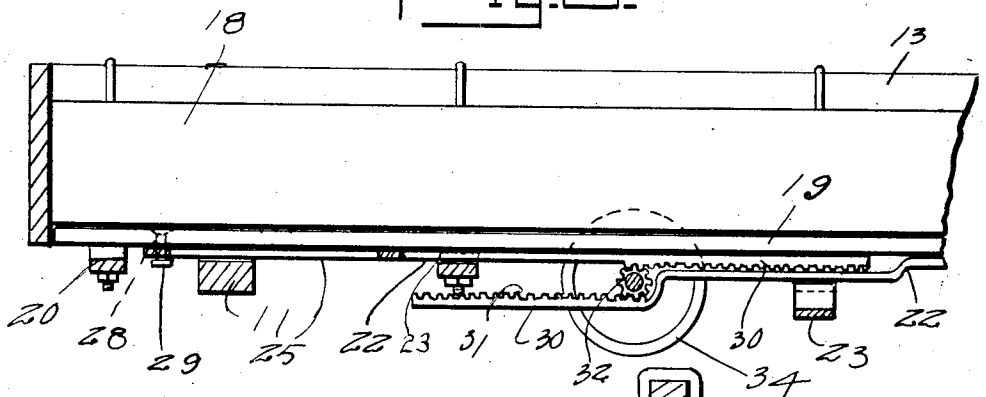
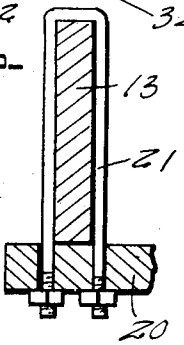


Fig. 6.



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UNITED STATES PATENT OFFICE.

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DUMPING-BED FOR WAGONS.

1,347,375. Specification of Letters Patent. Patented July 20, 1920.

Application filed September 25, 1918. Serial No. 255,657.

To all whom it may concern:

Be it known that I, JOHN WILLIAM HUFFMAN, a citizen of the United States, residing at Marion, in the county of Osceola and State of Michigan, have invented certain new and useful Improvements in Dumping-Beds for Wagons; and I do hereby 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.

My invention relates to dumping beds for wagons.

An important object of this invention is to provide a wagon having means for dumping the contents thereof in a highly convenient, efficient and expeditious manner.

A further object of the invention is to provide a body wherein a portion of its bottom is adapted to slide transversely of the remaining portion of the bottom, and thus provide a discharge opening for the contents of the wagon body.

A further object of the invention is to provide extremely simple means for manually operating the movable portion of the bottom of the wagon body.

A further object of the invention is to provide a wagon body construction of the character described, which by virtue of its efficiency and simplicity in operation, will meet with commercial favor when placed upon the market.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawing forming a part of this specification, and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a plan view of a wagon body embodied in the invention,

Fig. 2 is a bottom plan view of the same,

Fig. 3 is a side elevation of the same,

Fig. 4 is a vertical transverse section taken on line 4—4 of Fig. 3,

Fig. 5 is a vertical longitudinal section through a portion of the wagon body, and

Fig. 6 is a fragmentary section through the wagon body, showing the means employed to retain the sides thereof in position.

In the drawing, wherein for the purpose of illustration is shown the preferred embodiment of my invention, the numeral 10 generically designates a wagon body, which is mounted upon bolsters 11. Uprights 12 extend from the opposite end portions of the bolsters 11 and serve to support the sides 13. The front and rear ends 14 and 15, respectively, may be secured to the sides of the body by any suitable means. As clearly shown in Fig. 4, the bottom of the wagon body comprises in part, a pair of longitudinally extending transversely inclined bottom boards 16. The bottom boards 16 have their outer longitudinal edges beveled for engagement with the sides 13, and have their inner longitudinal edges inclined or beveled for resting upon a suitable support 17. A bottom section 18, disposed intermediate the bottom sections 16, and extending longitudinally of the body, is secured at its ends to the front and rear ends 14 and 15. The intermediate bottom section 18 is in cross section in the form of an inverted V, and is adapted to coact with the inclined bottom section 16 in discharging the dirt or other contents of the wagon upon the operation of the releasing mechanism.

The releasing mechanism comprises in part, a pair of longitudinally extending horizontally disposed bottom boards 19 arranged on opposite sides of the V-shaped member 18. As clearly shown in Fig. 4, the bottom boards 19 are disposed below the planes of the lower sides of the members 16 and 18, and are adapted to rest for a portion of their width on the bolster boards 11. As clearly shown in Fig. 2, a plurality of transversely extending cross members 20 are secured to the sides 13 through the medium of U-bolts 21. A pair of rack bars 22 extend longitudinally of the wagon body and are slidably carried by the transversely extending supports 20. Sleeves or brackets 23 serve to support the rack bars. The forward sleeve 23 is secured to the under side of one of the transversely extending supporting members 20, while the rear sleeve 23 is secured to the upper side of one of the transversely extending supporting members. Extending from the outer end portions of the rack bars 22 is a pair of forks 24, having outwardly extending arms 25. The forward ends of the arms 25 are connected by a transversely extending rod 26. The outwardly diverging arms 25 are provided with longitudinally extending slots 27, adapted for the reception of depending pins or lugs 28, carried by the under sides of the sliding bottom boards 19. The pins or studs 28 are provided with enlarged heads 29, contacting

with the under sides of the arms 25 for retaining the yokes 24 in their proper position. It will be apparent that a forward movement or a movement toward the ends of the wagon body by the yokes 24 will cause the arms 25 to draw the sliding bottom boards 19 inwardly and thus create openings in the bottom of the wagon body for the discharge of its contents.

The inner end portions 30 of the rack bars 22 are provided with teeth 31, engaging a gear 32. As clearly shown in Fig. 2, the gear 32 is keyed to a transversely extending shaft 33, having an operating wheel 34 at one end thereof. The transversely extending shaft 33 is rotatably secured to the bottom portion of the wagon by sleeve bearings 35. It will be apparent that a rotary movement of the wheel 34, in the proper direction, will cause the rack bars 22 to move outwardly and thus draw the bottom boards 19 together or beneath the V-shaped member 18.

In the practice of my invention, it will be apparent that when it is desired to load the wagon and retain the contents therein, the sliding bottom boards 19 are positioned, as shown in Fig. 4, thus preventing the discharge of the contents of the wagon. When it is desired to discharge the contents of the wagon, the wheel 34 is rotated to cause the rack bars 22 to move outwardly and thus draw the bottom boards 19 beneath the V-shaped member 18. Upon the movement of the bottom boards 19 beneath the V-shaped member 18, the dirt will immediately discharge itself from the wagon body by reason of the inclined walls 16 and the inclined sides of the bottom board 18.

While I have shown and described the preferred embodiment of my invention, it is understood that I may make such minor changes in arrangement and construction of parts, as will remain within the spirit of the invention and the scope of the appended claims.

Having thus described my invention, what I claim is:

1. A dumping apparatus including a plurality of spaced sections, a plurality of releasing sections coacting with the spaced sections, forks having their arms slidably connected with the releasing sections, and means to reciprocate the forks for positioning said releasing sections.

2. A dumping apparatus including a plurality of spaced sections, a plurality of releasing sections coacting with the spaced sections, forks having outwardly diverging arms provided with elongated slots therein, lugs carried by said releasing sections and extending through the elongated slots in said arms, and means to reciprocate the forks for positioning said releasing sections.

3. A dumping body comprising side and end walls, relatively stationary bottom boards, sliding bottom boards disposed parallel to and below the plane of the stationary bottom boards, rack bars, arms extending from the outer ends of the rack bars and having elongated slots therein, lugs carried by the sliding bottom boards and extending through the elongated slots of said arms, and means to operate the rack bars to move the sliding boards beneath the stationary bottom boards to provide discharge openings.

4. A dumping apparatus including a plurality of stationary sections, releasing sections coacting with the stationary sections and disposed below the plane of the same, rack bars extending longitudinally of said releasing sections, outwardly diverging arms connected with the outer ends of the rack bars and having sliding connection with said releasing sections, and means to operate said rack bars for positioning said releasing sections.

5. In a dumping apparatus, a body having discharge openings in its bottom, slidable bottom sections normally closing the openings, slidably mounted divergent arms, lugs carried by said bottom sections and slidably engaging the arms, and means for moving the arms to move the sections toward and away from each other.

6. In a dumping apparatus, a body having openings in the bottom thereof, slidable sections normally closing the openings, divergent ways associated with the sections at the ends thereof, a pair of pins disposed in each of the divergent ways and rack bars causing relative movement between the ways and pins to cause the sections to be moved to either closed or opened position.

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

JOHN WILLIAM HUFFMAN.

Witnesses:

A. L. ARNDT,

ELI M. KENYON.