

H. G. PETERSON.
DUMPING BED.
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1,369,299.

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Fig. 1.

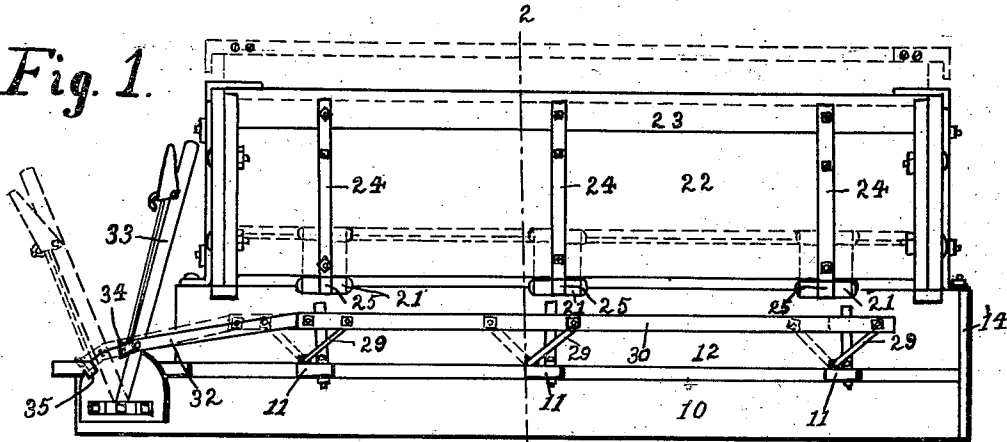


Fig. 2.

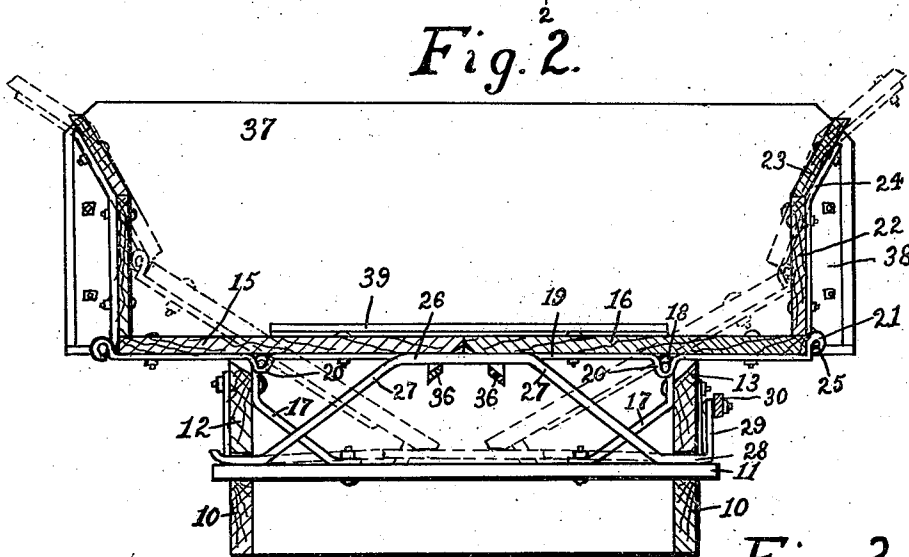
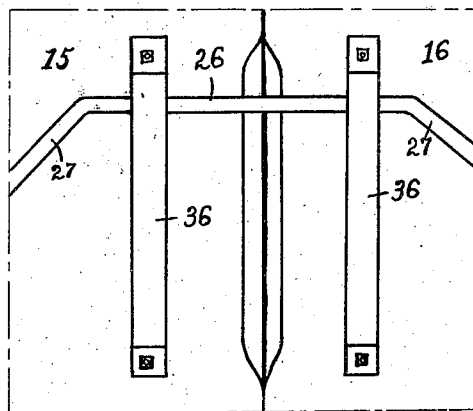


Fig. 3.



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DUMPING-BED.

1,369,299.

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To all whom it may concern:

Be it known that I, HENRY G. PETERSON, a citizen of the United States, and resident of Jewell Junction, in the county of Hamilton and State of Iowa, have invented a certain new and useful Dumping-Bed, of which the following is a specification.

The object of my invention is to provide a dumping bed of simple, durable and inexpensive construction.

More particularly it is my object to provide a dumping bed having its bottom divided into two parts, each pivoted along longitudinal lines between the side edges of the parts, and having at its outer side edges a pivoted side member, and to provide in connection therewith mechanism for tilting the bottom and side members to form the entire bed into a hopper of substantially V-shape in cross section.

A further object is to provide means for operating the dumping bed, adapted to hold the bed rigidly in position when it is used for hauling.

With these and other objects in view, my invention consists in the construction, arrangement and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows a side elevation of a dumping bed embodying my invention.

Fig. 2 shows a vertical, transverse, sectional view taken on the line 2—2 of Fig. 1; and

Fig. 3 shows an inverted plan view of the central part of the dumping bed.

In the accompanying drawings I have used the reference numeral 10 to indicate spaced opposite side frame members which support the main part of the dumping bed. The frame members 10 are connected by a plurality of cross-braces or frame members 11.

Resting on the frame members 11 above the frame members 10 are frame members 12 similar in general construction to the frame members 10, but having their upper surfaces beveled as at 13 from their upper edges downwardly and inwardly. The frame members 10 and 12 may be connected at their rear ends by means of the upright bar or strap 14 at each side of the bed.

One of the frame members 10 at one side of the machine projects forwardly beyond

the frame member 12, as illustrated in Fig. 1, for forming a support for the lever hereinafter more fully referred to.

The bottom of the bed proper is divided longitudinally along its center, and consists of two members 15 and 16. The side members 15 and 16 project laterally beyond the frame members 12, as clearly illustrated in Fig. 2. The bottom members 15 and 16 are pivoted at their lower surfaces adjacent to the inner surfaces of the upper edges of the side members 12 in the following manner:

Braces 17 are secured to the transverse frame members 11 at points spaced inwardly from the side members 12, and are thence extended upwardly and outwardly, as shown in Fig. 2, and are secured to the inner surfaces of the side members 12 near the upper edges thereof. These braces extend upwardly and laterally for forming spindles 18.

For each brace 17 there is provided a journal or bearing formed in a transverse brace 19 secured to the under surface of one of the bottom members. Each transverse brace 19 is provided with a portion 20 forming a journal for the spindle 18, and is then extended laterally to the outer edge of the bottom member and thence upwardly slightly, and is provided at its outer end with a journal 21. Resting on the bottom members 15 and 16, near their outer edges, are upright side members 22, forming part of the dumping body, having at their upper edges forwardly and outwardly inclined members 23. Stout braces 24 are fastened to the outer surface of the members 23 and 22, and have at their lower ends spindles 25 rotatably mounted in the bearings 21. As shown, the braces 19 are arranged in pairs spaced laterally from each other. It will thus be seen that the bottom members 15 and 16 are pivoted between their side edges at different points in the length of the bed, and the side members 22 are pivoted to the outer edges of the bottom members.

Arranged beneath the bottom members 15 and 16 are operating bails each comprising a transverse member 26 arranged immediately under the bottom members 15 and 16 at the joint between the two bottom members. The transverse portions 26 have at their ends downwardly and laterally extending portions 27, at the lower ends of which are lateral, horizontally extending portions 28 journaled in the side members 13. On the outer ends of the portions 28 on one side

of the bed are upwardly extending arms 29. The arms 29 have their upper ends pivoted to a longitudinally extended link 30 outside one of the frame members 12, as illustrated in Fig. 1.

Pivoted to the forward end of the link 30 is a link 32 which is pivoted to a lever 33. The lever 33 is pivotally mounted on the forward end of the forwardly extending frame member 10, and is provided with an ordinary movable pawl 34 adapted to coast with the notches of a sector 35. The member 26 of the middle bail is received in longitudinally arranged loops or keepers 36, as illustrated in Figs. 2 and 3.

Mounted on the frame members 12 at each end of the machine are end members 37 which project laterally beyond the side members 22, as shown in Fig. 2. Secured to the projecting portions of the end members 37 outside the side members 24 and 23 are strips or blocks 38 against which the members 22 and 23 abut when the dumping bed is in its normal position. The upper inner surfaces of the members 38 are beveled to fit the members 23, as shown in Fig. 2, and the upper edges of the member 38 serve as guides and supports for the members 23 during the dumping operation. Secured to the inner surfaces of the end members 37, just above the bottom members 15 and 16 and terminating within the outlines of the side members 12, are shields 39.

In the practical use of my dumping bed, when a load of sand or gravel has been put in the bed it will be understood that the bails stand upright, as shown, for instance in Fig. 2, for supporting the bottom members 15 and 16 in their normal positions.

When it is desired to discharge or dump the contents of the bed, the lever 33 is grasped and shoved forwardly, thereby swinging the arms 29 forwardly and rotating the portions 28 for swinging the bails forwardly under the bottom members 15 and 16. The heaviest part of the load will be at the center, and will therefore tend to force downwardly the inner edges of the bottom members 15 and 16.

The mounting of one of the bail members 26 in the loops or guides 36 also makes the action of the lever positive in operating the dumping bed. When the lever is moved to position for swinging the bails forwardly, the central portions of the bottom members 15 and 16 will be forced downwardly by the load to their dotted line positions, as illustrated in Fig. 2.

It is, of course, obvious that if the bottom members should stick, the bail member 26, which is received in the guides or loops 36, will force the central portions of the bottoms downwardly for starting the unloading or dumping movement.

It will be noted that the bottom members

are pivoted between their side edges, so as to operate the parts with minimum power. The gravel will be dropped out through the center of the bed, and the parts may then be returned to their normal position, as shown in full lines in Fig. 2.

It will also be noted that it is not only possible to tilt the bottom members, but that the side members are pushed upwardly to their dotted line positions shown in Fig. 2, so that when the bed is in dumping position the bottom members and side members have assumed positions where they are substantially V-shaped in cross-section, which makes a construction most efficient for discharging the load.

The beveled faces 13 are provided so that when the upper edges of the side members 12 support the bottom members, they do not interfere with the dumping action of the bottom members.

Some changes may be made in the construction and arrangement of the various parts of my dumping bed without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim as my invention:

1. A dumping bed comprising spaced side members, bottom members pivoted between their edges on said side members, bed side members pivoted to said bottom members at the outer edges thereof, and means for raising and lowering the central portions of the bottom members.

2. A dumping bed comprising spaced side members, bottom members pivoted between their edges on said side members, bed side members pivoted to said bottom members at the outer edges thereof, means for raising and lowering the central portions of the bottom members, and guide members for said bed sides.

3. In a device of the class described, spaced longitudinal frame members, bed bottom members pivoted between their side edges on the respective frame members, bed side members pivoted at their lower edges to the outer edges of said bottom members, and means for tilting said bottom members on their pivots.

4. In a device of the class described, spaced longitudinal frame members, bed bottom members pivoted on the respective frame members, bed side members, and means for tilting said bottom members on their pivots, said means including bail devices having central portions adapted to stand immediately below the central parts of the bed bottom members when the parts are in normal position, and having portions extending downwardly and laterally from said central portions, comprised with outwardly extend-

ing members forming spindles, means for journaling said spindles, the spindles at one side of the device having arms, and means for simultaneously actuating said arms.

- 5 5. In a device of the class described, spaced longitudinal frame members, bed bottom members pivoted between their side edges on the respective frame members, bed side members pivoted at their lower edges
10 to the outer edges of said bottom members, and means for tilting said bottom members on their pivots, said means including bail devices having central portions adapted to

stand immediately below the central parts of the bed bottom members when the parts 15 are in normal position, and having portions extending downwardly and laterally from said central portions, comprised with outwardly extending members forming spindles, means for journaling said spindles, the spin- 20 dles at one side of the device having arms, means for simultaneously actuating said arms, and guide devices for one of said central bail members.

Des Moines, Iowa, February 18, 1920.

HENRY G. PETERSON.