C. J. YOUNG.

DUMPING BODY FOR TRUCKS.

APPLICATION FILED APR. 15, 1919.

1,329,101.

Patented Jan. 27, 1920.

2 SHEETS—SHEET 1.

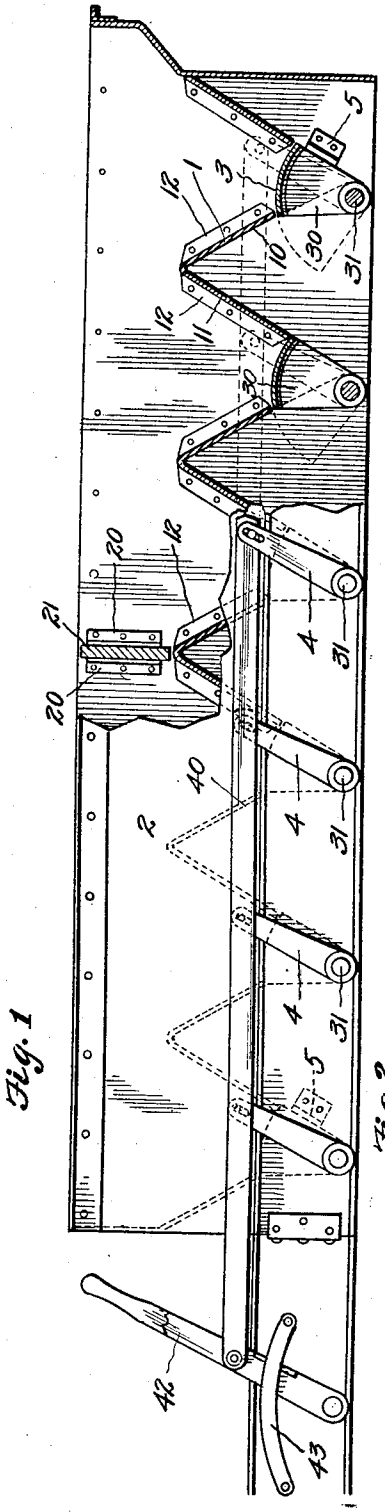


Fig. 1

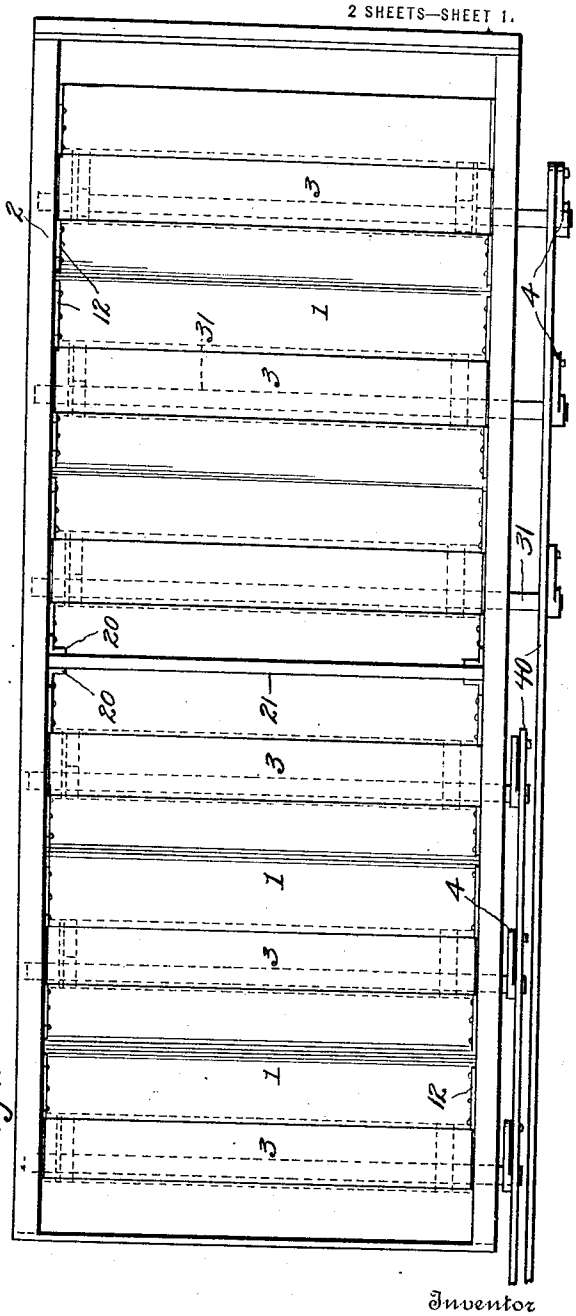


Fig. 2

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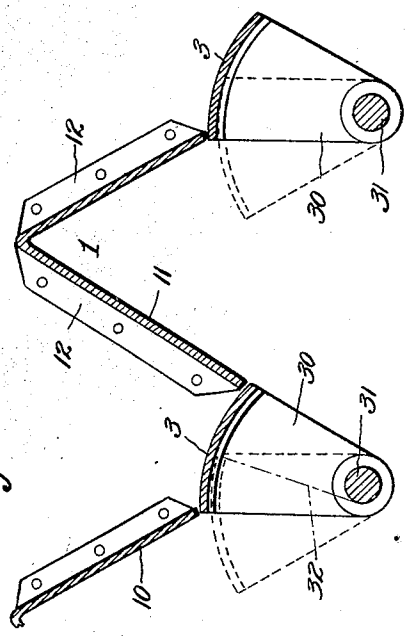


Fig. 4

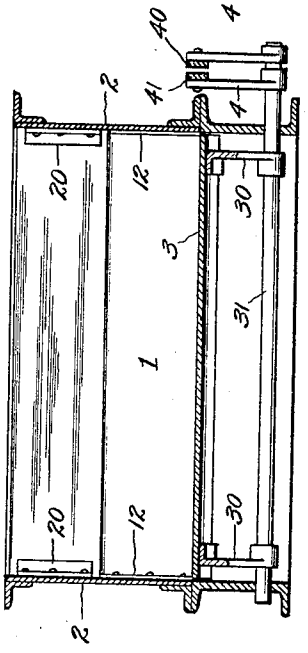


Fig. 3

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UNITED STATES PATENT OFFICE.

CARL J. YOUNG, OF SEATTLE, WASHINGTON.

DUMPING-BODY FOR TRUCKS.

1,329,101. Specification of Letters Patent. **Patented Jan. 27, 1920.**

Application filed April 15, 1919. Serial No. 290,196.

To all whom it may concern:

Be it known that I, CARL J. YOUNG, a citizen of the United States, and resident of the city of Seattle, county of King, State of Washington, have invented certain new and useful Improvements in Dumping-Bodies for Trucks, of which the following is a specification.

My invention relates to vehicle bodies, and pertains particularly to the construction of the bottom of the vehicle bed so that it may be dumped of its contents. My invention consists of the construction of the bottom of the vehicle bed whereby it may be readily dumped when desired.

The particular features of this invention upon which I wish to obtain Letters Patent will be hereinafter described and then particularly pointed out by the claim which terminates this specification.

The drawings accompanying herewith represent my invention embodied in the form of construction which I now prefer to use.

Figure 1 is a side elevation and partial section of a vehicle body having my invention embodied therein.

Fig. 2 is a top plan view of the same.

Fig. 3 is a cross sectional elevation of the vehicle bed.

Fig. 4 is a longitudinal sectional elevation showing a short section of the vehicle bed and the dumping mechanism.

The vehicle body, as herein illustrated, is supposed to be constructed of metal plates. It is of course obvious that wood construction might be employed, although for hauling of heavy materials, such as this invention is particularly designed for, a metallic construction is far preferable. The main portion of the vehicle body may be of usual or standard rectangular construction. The bottom of the body is, however, composed of a series of A-shaped beams extending transversely thereof, and with their bases separated from the bases of adjoining beams so as to leave wide slots or openings through which the contents of the bed may be discharged.

These A-shaped beams 1 are conveniently formed by bending a metal plate upon itself so as to secure the A- or inverted-V shape with the apex upward. The ends of the sides of these beams are preferably flanged up, so as to form flanges 12 which are secured to the sides 2 of the body by riveting, bolting or in any other suitable manner. These beams form very rigid connection between the sides of the bed and also as supports for the load. The successive beams are spaced apart so as to form ample width of openings through which to discharge the contents.

I prefer to make these beams so that one side is somewhat longer than the other and extends to a slightly lower level. As illustrated, the side 11 is somewhat longer than the side 10. The gap between the bases of adjacent beams is controlled in its opening by means of cylindrical segment plates 3. These plates are mounted upon heads 30 which are secured to shafts 31 which extend across the body and are journaled in the sides 2. The segment plates 3 may be secured so that their center of curvature coincides with the center of the shaft 31 to which they are secured, and they should be so placed that their outer convex surface comes in close engagement with the lower edges of the A-beams 1. I prefer, however, that the center of curvature of the segment plates 3 be located a little to one side of the axis of the shaft 31.

In Fig. 4 the center of curvature of the segment plate 3 is indicated by the radial broken line 32, and is located substantially at the periphery of the shaft 31. When this arrangement is made, as the plate is swung into the position to discharge the contents, which position is illustrated by the dotted lines in Fig. 4, the outer surface of the plate 3 tends to draw away from the load above it. It, therefore, makes it open somewhat easier than if the center of curvature of the plate 3 was concentric with the shaft 31. While I prefer this form of construction, yet I do not consider that this is entirely essential. In some cases the other principle of pivoting will suffice.

Each of the shafts 31 is provided upon one end and outside of the bed, with a crank arm 4. These crank arms are connected in series by a link 40, so that a number of them may be operated at one time. The segment plates 3 at one end of the bed may be connected by a different set of links and crank arms from those at the other end, so that the material in one end of the body may be dumped without affecting the material in the other end of the body. I have shown such an arrangement in Figs. 1 and 2. In this case I have shown a link 41 which is con-

nected with the first three plates of the forward compartment, while the link 40 is connected with the corresponding plates of a rear compartment. These links 40 and 41 are connected with levers 42, or other means located convenient to the driver, so that they may be controlled from the driver's seat. A segment bar, as 43, is provided, by means of which the same may be set in any adjusted position.

The space within the vehicle bed may be divided up into compartments conveniently by providing the sides 2 with guide bars 20, separated so as to permit the insertion between them of removable planks 21. These are located so as to aline with the apex of one of the A-beams 1. As many of these as desired may be provided, thus making it possible to dump the load in sections, either at the same or at different places.

The type of construction which employs the deep sides to the bed and the connecting A-beams rigidly secured to these sides, forms a very rigid structure which will carry heavy loads without deflection, and one which is strong to resist injury under any ordinary kind of use. To prevent movement of the segment plates 3 too far to the rear, or toward the position of closing, so as to thus prevent a possible opening at the opposite side, I provide stop plates 5 secured to the sides of the bed in position to be contacted by the side of the heads 30 and thus to prevent the possibility of the plates moving in this direction farther than enough to well close the opening. It is believed that the operation of the device is apparent and that further detailed description of its operation will be unnecessary.

What I claim as my invention is:

A dumping vehicle body comprising side and end walls and a bottom composed of spaced inverted V-shaped beams fixed at their ends to the side walls, transverse shafts mounted revolubly in the side walls beneath each of the openings between the said beams, segmental plates fixedly mounted on the shafts; the centers of curvature of the said plates being offset from the center of the shaft toward the side that the plates open, a stop fixed to a side wall to limit closing movement of the plates, crank arms secured to each shaft and a bar connecting said cranks whereby they may be moved to actuate the plates to and from closed position.

Signed at Seattle, Washington, this 26th day of March, 1919.

CARL J. YOUNG.