

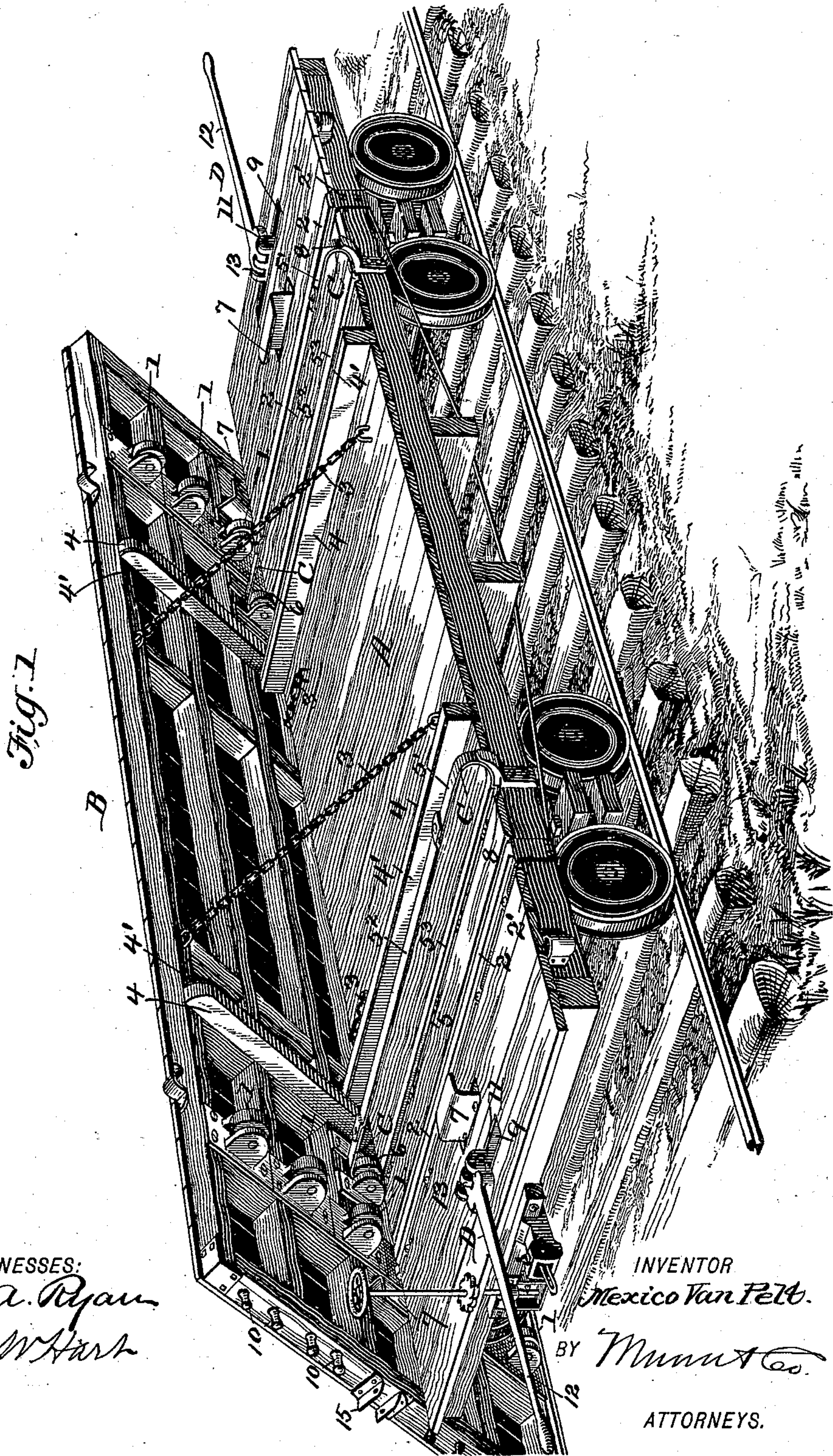
(No Model.)

2 Sheets—Sheet 1.

M. VAN PELT.
DUMPING CAR.

No. 552,019.

Patented Dec. 24, 1895.



WITNESSES:
Jos. A. Ryan
Amos W. Hart

INVENTOR
Mexico Van Pelt.

BY *Munn & Co.*

ATTORNEYS.

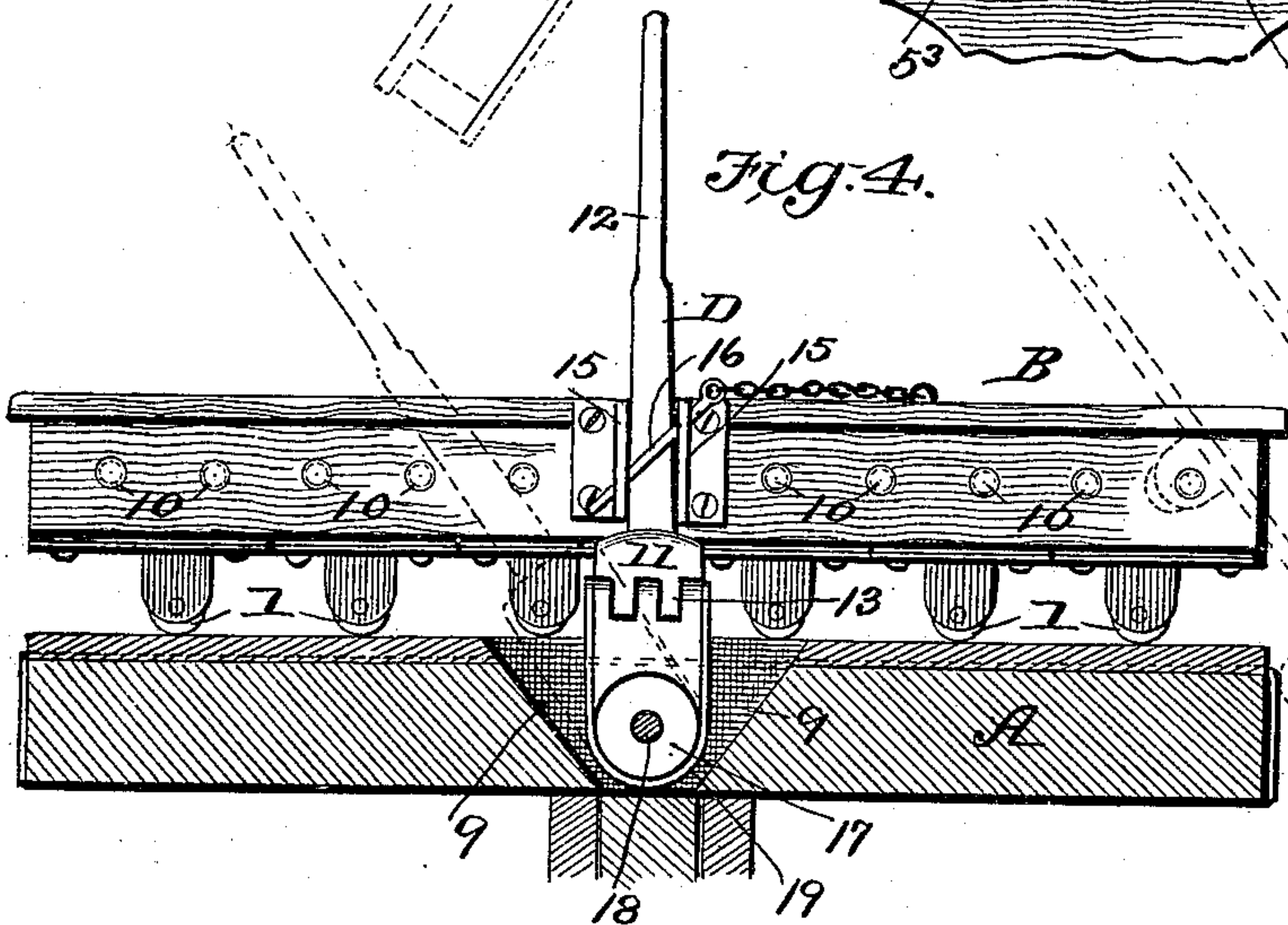
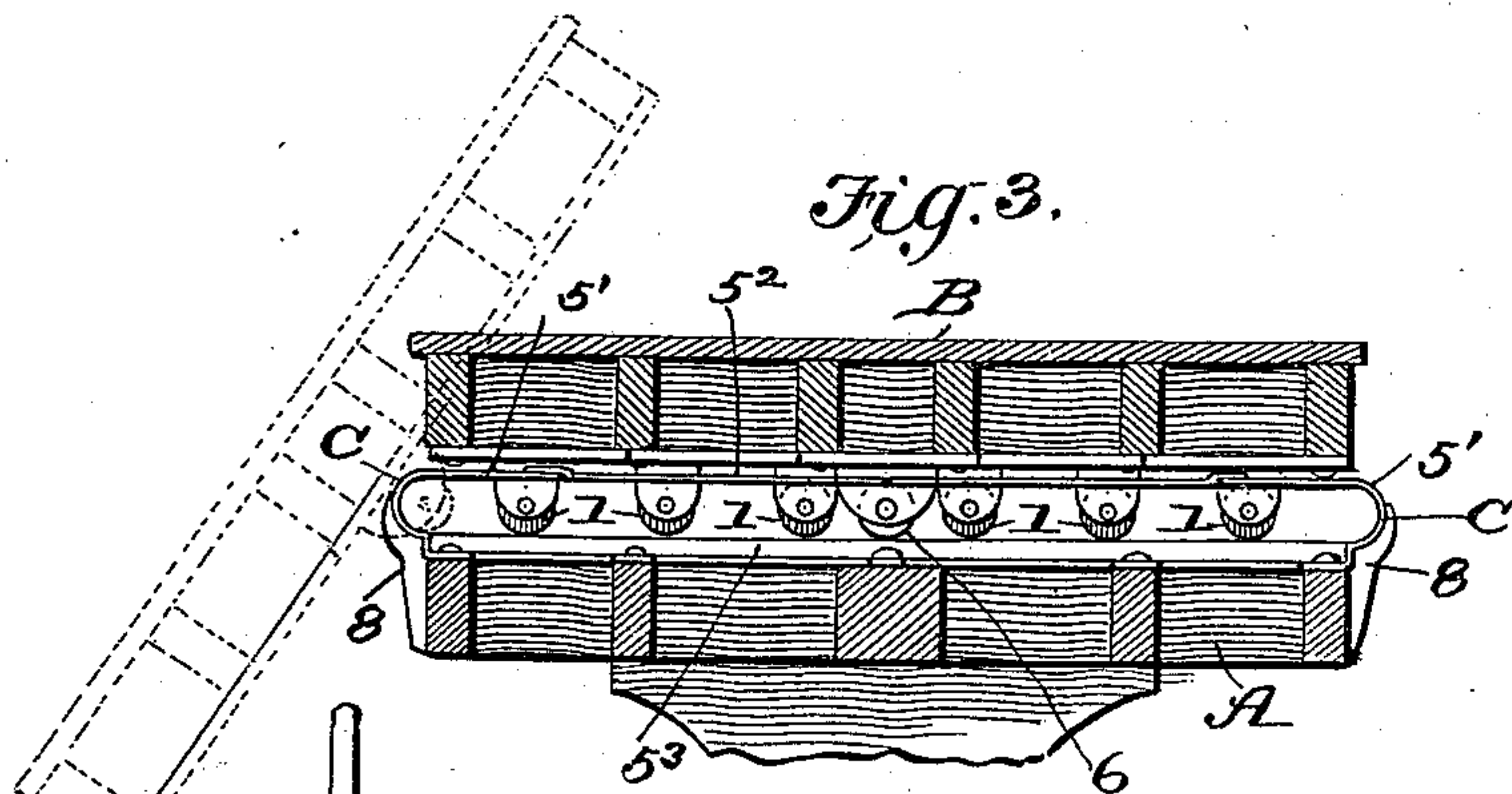
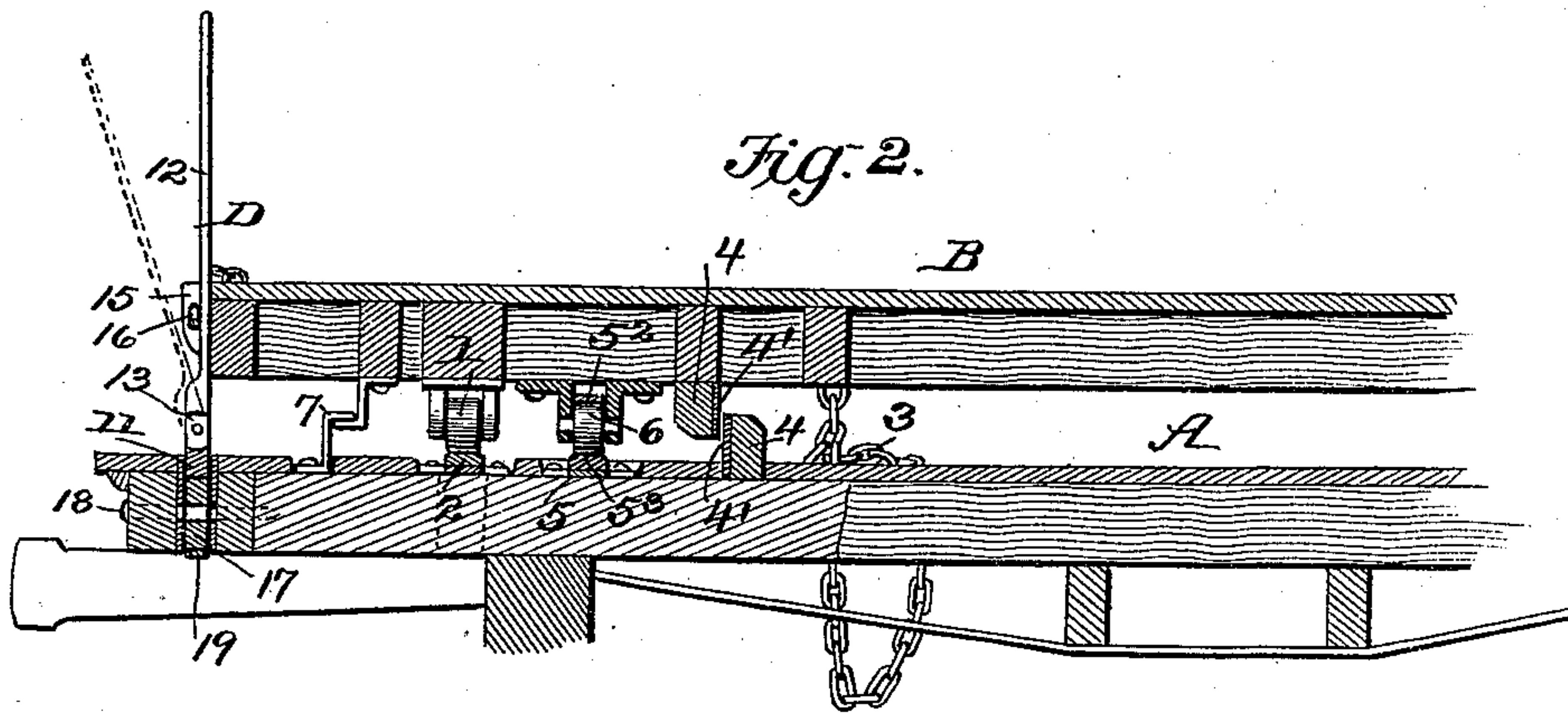
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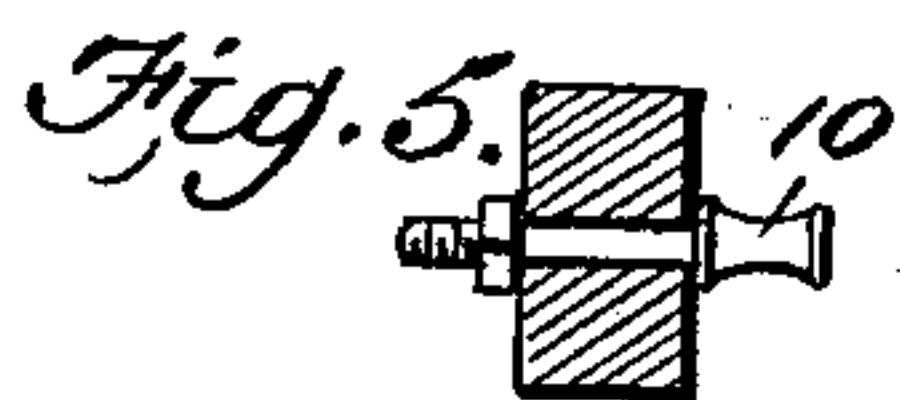
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UNITED STATES PATENT OFFICE.

MEXICO VAN PELT, OF MOUNDSVILLE, WEST VIRGINIA.

DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 552,019, dated December 24, 1895.

Application filed September 25, 1895. Serial No. 563,643. (No model.)

To all whom it may concern:

Be it known that I, MEXICO VAN PELT, of Moundsville, in the county of Marshall and State of West Virginia, have invented a new and Improved Dumping-Car, of which the following is a specification.

My present invention is an improvement upon that for which I have received Letters Patent No. 538,938, dated May 7, 1895. The said improvement includes several novel features hereinafter described, chief among which are the means whereby the carriage or movable dumping-platform is secured and locked on the true platform or body of the car proper while traveling, and whereby said dumping-platform may be shifted laterally for the purpose of tilting it to discharge the load.

In the accompanying drawings, Figure 1 is a perspective view showing the movable platform shifted and held in the position required for dumping. Fig. 2 is a central vertical longitudinal section of a portion of the dumping-platform and the car upon which it is mounted. Fig. 3 is a vertical cross-section. Fig. 4 is an end view. Fig. 5 is a detail section showing the attachment of pins or bolts to the end of the carriage or dumping-platform.

In the present invention, as in the original, the carriage or dumping-platform B is mounted on the platform or flat body of the car proper A and is shiftable laterally thereon for tilting, to discharge its load of dirt, sand, gravel, coal, lumber, or other material or commodity. As before, also, said dumping-platform B is supported, when in normal position, by a series of wheels 1, mounted rotatably in bearings attached to the under side of platform B, but in this case they run on metal bars secured on broad metal rails or plates 2, let into the car-platform A, and extended at the ends 2' down over the sides of the frame of the latter, A. The arrangement of certain of these bearing-wheels 1 is such that when the platform B is tilted, as shown in Fig. 4, they come into contact with the ends 2' of the rails or plates 2, and thus serve as rests or points of support, which to a certain extent co-operate with and supplement the action of the curved bars or loop-guides C and stay-chains 3, as will be further explained.

In place of the transverse angle-iron guard or stay-bars before employed for preventing endwise movement of the dumping-platform B, I substitute wooden ones 4, which are faced with plate metal 4'. Such guards 4 are securely bolted to the car-platform A and to the under side of the dumping-platform, so that their metal faces 4' are always in contact.

The means for holding the dumping-platform B down on the car-platform while traveling, and also for limiting the lateral or shifting movement of the former, B, as well as supporting it while tilting, are the bars or loop-guides C before mentioned. They are composed mainly of broad metal base-bars 5, let into and secured to the car-platform and having vertical inwardly-curved end portions 5' and a parallel top bar or tie 5², which is secured to and extends between the extremities of such curved portions 5', as shown best in Fig. 3. A supplemental portion of the loop-guides is the metal bar or rail 5³, arranged and secured between the curved or hook-like end portions 5'. The latter have abrupt abutments or shoulders that fit against the ends of the wooden rail 5³, so that the bearing and fulcrum wheels 6 of the dumping-platform B pass easily from one part to the other. The wooden rail relieves jar and noise and serves as a wear-surface for the wheels 6. The latter are mounted rotatably in brackets bolted to the under side of the dumping-platform B and run in each elongated loop-guide C on the wooden rail 5³, and thus between the latter and the horizontal tie-bar 5². It is obvious that this connection prevents the platform or carriage B jumping out of place perpendicularly, so that the end catches or locks 7 previously employed may in many cases be dispensed with. It will be further apparent that the tie-bar 5² strengthens the curved portions 5' of bar 5, so that it (5²) better resists the lateral and downward thrust of the wheels 1 in the operation of dumping. The curved end portions 5' of the loop-guides extend slightly beyond the sides of the car-platform A and are supported and braced at that point by brackets 8, which are bolted to the car-frame and have curved arms fitted to and extending up on the curved portions of the loop-guides.

The most important of my improvements is

the means for shifting the carriage or dumping-platform B laterally, and for this purpose I employ two-part jointed levers D, which are pivoted in narrow vertical transverse slots or recesses 9 in the portions of the car-platform that extend beyond the carriage B. Said levers coact with pins or bolts 10, projecting from the ends of said carriage, as will be further described. Said bolts are screw-threaded at their inner ends and pass through the end portion of the car-frame, being secured detachably by washers and nuts, as shown. Thus a broken or otherwise defective bolt may be readily removed and another substituted.

The levers D, Fig. 4, are composed of a flat pivoted head 11 and relatively-longer handle portion 12, the two being connected at 13 by a double rule-joint, which allows the handle portion 12 to turn freely in the lengthwise direction of the car-platform A. The lever-heads 11 fit somewhat closely in the parallel-sided slots or recesses and are thus free to move—i. e., oscillate—therein in a direction transversely of the car-platform A.

It will now be perceived that by placing the lever-handles 12, Fig. 4, between any two of the pins or bolts 10 on the respective ends of the platform B and pressing laterally on the levers the dumping-platform B will be moved a few inches in the same direction, and then upon turning the lever-handles 12 outward they will be removed from between such pins and may be set between the two adjacent ones and the operation repeated, and so on, until the platform B is forced to the limits of its lateral movement and tilted as shown in Fig. 1. The stay-chains 3 hold it in such tilted position, in conjunction with the wheels 6, which act as pivots or fulera, and that pair of the wheels 1, which at that time bear upon the ends 2' of the rails 2, as shown, Fig. 4. In further explanation of this part of my invention I will state that the ends 5' of the loop-guides project beyond and overhang the sides of the car-platform A a distance equal to or else exceeding one-half the diameter of the pivot-wheels 6, so that when the platform B tilts it can assume a greater angle and thus discharge its load more easily than was the case with my former invention. Further, the arrangement of the wheels 1 is such that one of them bears against the side of the car-platform, as shown by dotted lines, Fig. 4, when the platform B is tilted, thus affording a brace or support for the same.

In addition to the operative function of the levers D above described, they serve as locks or means for holding the dumping platform B in normal position while traveling, so that side standards on the car-body A may be dispensed with. For this purpose parallel vertical flanges 15 are secured to each end of the platform B and are separated by a space of sufficient width to receive the lever-handles 12 between them. When the latter are so

placed, Fig. 4, they are secured by pins 16 inserted diagonally through holes in the keepers 15.

The recesses or slots 9 are formed just in rear of the draw-heads, and to prevent unduly weakening of the car-frame, so that it may adequately resist end-thrust of the draw-heads, I provide the levers D with a cylindrical pivot-block 17, Fig. 4, which fits closely between the walls of the recesses and is secured in place by a transverse screw-bolt 18. The broad heads of the levers D are cut out to adapt them to fit said blocks 17 and are rotatably secured to them by means of a metal strap 19, as shown.

What I claim is—

1. In a dumping car, the combination, with the car platform, of levers which are pivoted to its end portions and adapted to swing vertically, transversely of the same, and the dumping platform having end projections with which such levers coact, as shown and described.

2. In a dumping car, the combination, with the shiftable dumping platform, having end projections, and the car platform, of the levers whose heads are pivoted to the latter and adapted to swing transversely of the same, said levers having handle portions which are adapted to yield in a direction at right angles to their heads, substantially as shown and described.

3. In a dumping car, the combination, with the shiftable dumping platform, and the car platform, of levers which are pivoted to the latter and adapted to swing transversely of the same, said levers having a rule joint, which permits their upper or handle portions to swing in a direction at right angles to their pivoted heads, substantially as shown and described.

4. In a dumping car, the combination, with a dumping platform, having pins fixed in its ends, and the car platform provided with vertical transverse recesses, or slots, having parallel sides, of the levers having flat heads pivoted and fitted in said recesses, and handle portions that are connected with such heads by a rule joint, which permits the said handle portions to swing in the lengthwise direction of the car, but prevents their lateral movement, independently of their heads, as shown and described.

5. In a dumping car, the combination, with the dumping platform, having keepers affixed vertically to their ends, and the car platform, of levers pivoted to the latter, and having yielding handle portions which are adapted to enter said keepers, and means for securing the levers in the keepers, for locking the dumping platform in normal position, as shown and described.

6. In a dumping car, the combination, with the car platform having vertical transverse end recesses, or slots, in rear of the drawheads, of the levers pivoted in said recesses and hav-

ing cylindrical pivotal blocks that fit closely in said recesses, and a metal strap which secures the levers rotatably to such blocks, as shown and described.

5 7. In a dumping car, the combination, with dumping platform and the car platform, of the elongated transverse loop-guides, composed of a broad, metal base bar having its ends curved inward, a top bar that connects
10 the extremities of such curved portions, and is parallel to said base bar, and a bearing and fulcrum wheel, secured to the dumping platform and fitting and adapted to run in said loop-guides, as shown and described.

15 8. In a dumping car, the combination, with the car platform, and dumping platform having wheels 6 attached, of the loop-guides

proper, composed of the broad, metal, base bar having inwardly-curved end portions, and a parallel tie-bar that joins the latter, of the 20 wooden track bar secured on the base bar and its ends abutting the said end portions of the loop-guides, as shown and described.

9. In a dumping car, the combination, with the car platform and elongated loop-guides, 25 of the supports and braces affixed to the car frame, beneath the extended curved ends of the loop-guides, and having curved arms fitting the corresponding curves of the latter, as shown and described.

MEXICO VAN PELT.

Witnesses:

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J. M. WILLIAMS.