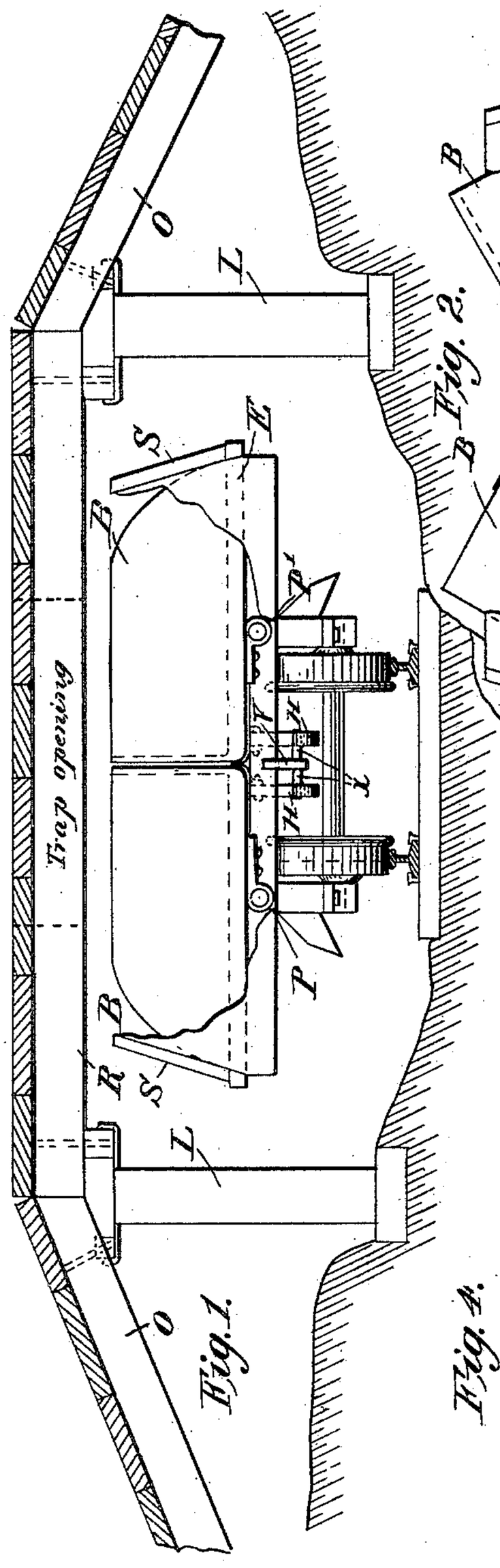
(No Model.)

C. D. PAGE.

DUMP CAR.

No. 467,772. Patented Jan. 26, 1892.



UNITED STATES PATENT OFFICE.

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DUMP-CAR.

SPECIFICATION forming part of Letters Patent No. 467,772, dated January 26, 1892.

Application filed January 9, 1891. Serial No. 377,279. (No model.)

To all whom it may concern:

Be it known that I, CALEB D. PAGE, a citizen of the United States, residing at Tacoma, in the county of Pierce and State of Washington, have invented certain new and useful Improvements in Dumping-Cars, of which the following is a specification.

This invention relates to dumping-cars provided with duplex boxes; and it consists in the construction and novel arrangement of parts whereby the two sections of the car are made to automatically discharge their contents on either side of the track.

My invention has further relation to a mechanism for securely locking the two sections in place when they are being loaded and for readily unlocking them when it is desired that they shall discharge their contents; and my invention has still further relation to a portable track for use at the dump or place where the contents of the car are to be discharged.

I have illustrated my invention in the accompanying drawings, in which—

Figure 1 is an end view of my car with the end of the outer casing E broken away so as to disclose the ends of the boxes B B and the hinge-joints P P′, and showing the car in position to be loaded from the trap R. Fig. 2 shows the car mounted on my improved portable track and with the boxes released from the locking mechanism and turned to discharge their contents. Fig. 3 is a view in side elevation of my locking device. Fig. 3½ is a plan view of the same, and Fig. 4 is a plan view of the boxes and car-body.

Similar letters of reference refer to similar parts throughout the drawings.

A represents the truck of the car, constructed in the well-known manner, upon which is mounted the casing E, constituting the outer part of the car proper.

B B represent the boxes, which are pivotally connected at their bottoms to the truck A through the medium of the hinge-joints P P′, which are located sufficiently near to the back side of the car to cause the preponderance of weight of the loaded car to be toward the outer side of the car. When released from the locking mechanism, the boxes will thus automatically upturn and discharge their contents, as shown in Fig. 2.

E represents the casing surrounding the boxes B B. These boxes are inclosed on three sides only, the outer sides being open, and the sides S S of the casing serve as a fourth side to each, respectively, when the boxes are in the upright position shown in Fig. 1.

I will now describe the locking mechanism by which the boxes are held in position for loading. To the inner bottom ledge of each box B and located in the longitudinal center thereof are pivotally secured depending hooks H H, which normally engage two anti-friction rollers *x x*, attached to the end of a rod T, running longitudinally of the car and in a plane with the hooks. The rod T passes through suitable supports on the truck A and is long enough to cause the rollers *x x* to extend slightly beyond the center of gravity of the hooks H H. For actuating the rod T, I provide a lever V, which may be of the first or second class.

The operation of my device is as follows: The parts being in the position shown in Fig. 1 the lever V is moved in the direction of the arrow. This releases the hooks from engagement with the rollers *x x* and both boxes simultaneously upturn and discharge their contents. The lever V is then returned to the position shown in Fig. 3. When the boxes B B are caused to resume their upright positions, the rollers *x x* being, as before stated, slightly beyond the center of gravity of the hooks H H, the latter, descending, are pushed outward by contact with the rollers until they lock therewith on the principle of the ordinary gravity-catch and the boxes are again firmly held in place. When not engaged by the rollers *x x*, the faces I of the hooks H H rest against the floor of the boxes, and are thus held in the proper position for contact with the rollers.

The dumping-cars now in use are very high, and it is therefore necessary to have a very high trap from which to load them. To obviate this difficulty, I build my cars very low, the boxes being set, practically, directly on the car-body, and am thus enabled to use a very low trap.

I employ for use with my car a trap such as that shown in Fig. 1, in which L represents the supporting-columns, R the center floor provided with the trap-opening, and O O the approach-floors. In building my cars low,

however, I find that the sides of the boxes come too near the ground when the latter are tilted, and that the discharged matter has to be shoveled away before the boxes can be raised. This defect I remedy by providing a portable track to be used at the dump. This track is formed by placing two long pieces of timber J, which serve as stringers for the rails, the necessary distance apart to form a track, and uniting them by tie-rods *q*, placed at suitable intervals. They are further braced by panels R, to which they are secured at appropriate intervals, and which are about the same height as the stringers. The track rests, in use, upon sleepers W. The stringers J are sufficiently high to permit the boxes to be raised after discharge without obstruction from the discharged contents. It will be seen that my improved track is simple in construction, comparatively light, and can be easily moved from place to place. I would state further that where it is necessary to provide high trestle-work for tracks the use of my portable track greatly diminishes the cost of construction of the latter.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a dumping-car, the combination, with boxes open at one side pivotally secured to the truck of the car, of the casing E, surrounding the boxes and provided with the sides S S to close the open sides of the boxes, substantially as described.

2. In a dumping-car having pivoted boxes adapted to dump on opposite sides of the car, the combination therewith of means, such as described, for automatically locking and simultaneously unlocking the boxes, substantially as described.

3. In a dumping-car having pivoted boxes adapted to dump on opposite sides of the car, the combination therewith of hooks secured to said boxes and a common locking medium engaging the hooks and operating, when released from engagement therewith, to unlock the boxes on both sides of the car simultaneously, substantially as described.

4. The locking mechanism for dumping-cars herein described, consisting of the hooks H H and the rollers *x x*, connected to a lever-operated rod, whereby they may be brought into and out of contact with the hooks, substantially as described.

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Witnesses:
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