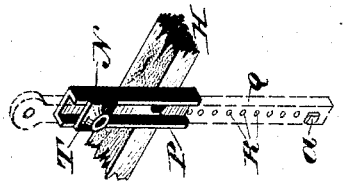
(No Model.) 3 Sheets—Sheet 1.

L. RODENHAUSEN.

DUMPING WAGON.

No. 421,143. Patented Feb. 11, 1890.

Fig. 4.



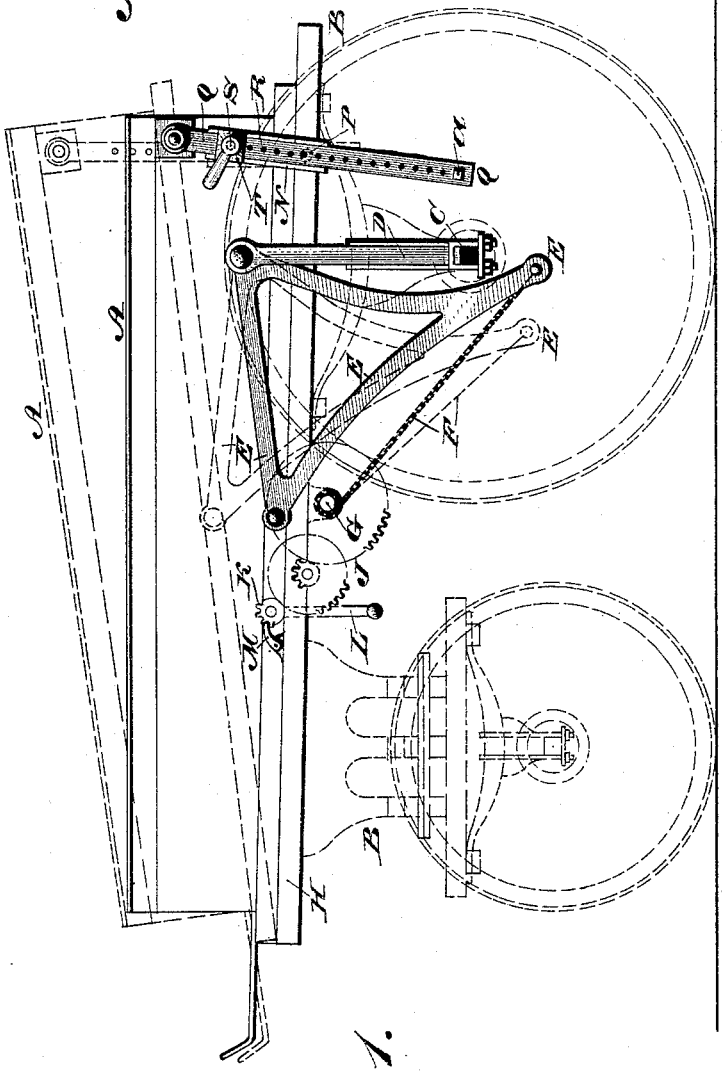


Fig. 1.

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Fig. 5.

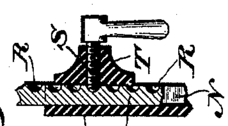

Fig. 2.

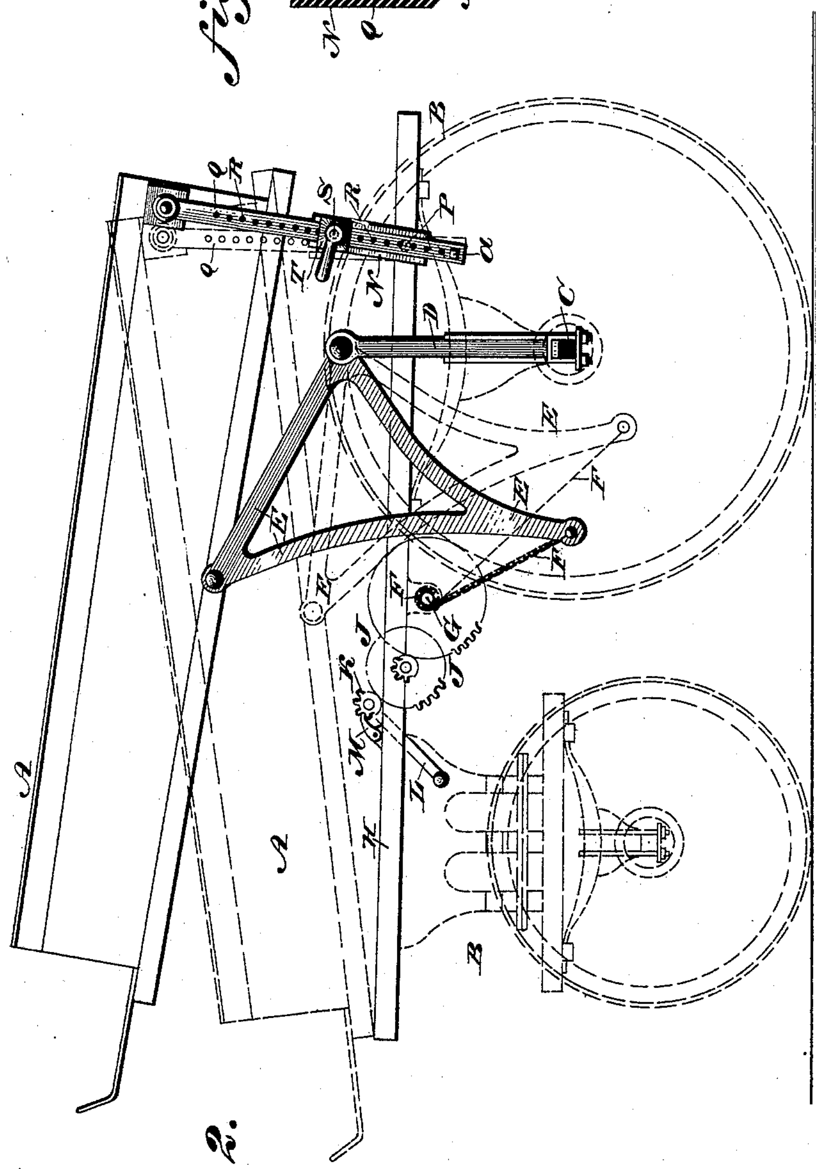

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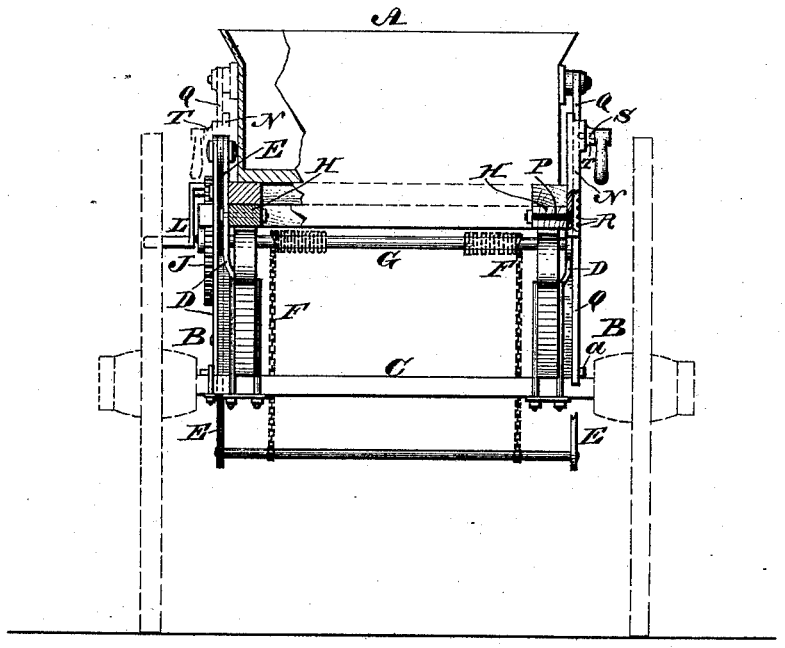
Fig. 3.



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UNITED STATES PATENT OFFICE.

LEONHARD RODENHAUSEN, OF PHILADELPHIA, PENNSYLVANIA.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 421,143, dated February 11, 1890.

Application filed October 17, 1889. Serial No. 327,319. (No model.)

To all whom it may concern:

Be it known that I, LEONHARD RODENHAUSEN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Dumping-Wagons, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a dumping-wagon having means for successively elevating opposite ends thereof.

Figures 1 and 2 represent side elevations of portions of a dumping-wagon embodying my invention, the parts being shown in different positions. Fig. 3 represents an end view thereof, partly sectional. Fig. 4 represents a perspective view of one of the side guides of the wagon. Fig. 5 represents a vertical section of portion of Fig. 4, on an enlarged scale, including a lifting-bar and clamping-screw.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates the body of a dumping-wagon, and B designates the running-gear thereof.

Rising from the rear axle C, at the side of the body A, are standards D, to which are pivoted the angular levers E, which latter are also pivoted in front of said standards to the body A.

F designates chains or ropes which are connected with the lower ends of the levers E, and also with a shaft G, whose bearings are on the sill H of the wagon, said shaft being adapted to be rotated by a train of gearing J, mounted on said sill, the shaft of the pinion K of said gearing being provided with a crank-handle L, for evident purposes. A pawl M is hung on the sill H and engages with the pinion K, for preventing return motion thereof.

To the side of the sill H, rearward of the standards D, are connected oscillating guides N, which are partly or may be entirely of tubular form, they being pivoted to said sill, as at P, and receiving vertically-movable bars Q, whose upper ends are pivotally connected with the rear of the body of the wagon.

The outer face of the bars Q are formed with sockets or depressions R to receive the points of screws S, which are fitted to the bosses T of the guides, and each provided with suitable handle.

The operation is as follows: The body of the wagon is primarily in the position shown in full lines, Fig. 1, and when it is desired to dump the load it is important to increase the pitch of the body, for which purpose it is to be placed in the position shown in full lines, Fig. 2. For this purpose the screws S are loosened and the gearing J is operated, in order to partly wind the chains F on the shaft G. This operates the levers E in such manner that as they turn on their axes their forward ends rise, thus elevating the body A at the rear end thereof, (see dotted lines, Figs. 1 and 2,) the bars Q rising with said body and the oscillating guides N conforming to the motion of said bar. The ascent of the bars Q is limited by stops *a* on the lower ends thereof. The screws S are now tightened and the chain further wound on the shaft G, whereby the front of the body A is elevated, it turning on the pivots P of the guides N as its axis, thus placing the body in the position shown in full lines, Fig. 2, whereby the said body possesses the proper height and pitch to cause the load to be effectively dumped. The pawl M may now be cleared of the pinion K, and the body is permitted to lower at its front end, after which the screws S are loosened and the rear end of the body lowers, the body thus assuming its normal position.

I am aware that it is not new to provide a dumping-wagon with mechanism for raising the body thereof above the top of the wheels and then turning and tilting it so as to empty the contents therefrom. Neither is it new to raise the body portion clear of the frame and then tilt the same by lowering the back or rear portion; but I am not aware that it is common to first raise the rear end of the body portion to the desired height, the front end remaining on the frame of the wagon, or securing the said rear portion and then by means of the same operating mechanism raise the front end to the necessary height to dump the contents from the body thereof. The operation thus described is performed by means of the mechanism herein described and claimed.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. A lever mounted on the running-gear of a wagon and pivoted to the body thereof, and means for raising said levers, in combination with a bar pivoted to the rear of said body and pivotally connected with the running-gear of the wagon, substantially as described.

2. A wagon having a lifting-bar which is pivotally connected with the body, and an oscillating guide mounted on the running-gear, said guide being provided with a screw or clamp which is adapted to tighten said bar, substantially as described.

3. The levers E and operating-chain, in combination with the lifting-bar Q and the oscillating guide N, said lever being mounted on the running-gear and pivoted to the body, and said bar being pivoted to the body and fitted in said guide, the latter being mounted on the running-gear, substantially as and for the purpose set forth.

4. A dumping-wagon having means for successively elevating the front and rear ends of the body thereof, said means consisting of parts constructed and combined substantially as described.

5. An oscillating guide connected with the running-gear of a wagon, and a lifting-bar fitted in said guide and pivoted to the body thereof for raising one end of said body, combined with means for raising the other end thereof, substantially as described.

6. A dumping-wagon having standards mounted on the rear axle of its running-gear, trains of gearing, and angular levers connected therewith and operated thereby, said trains of gearing being connected with the sills of the wagon, and the said levers being pivoted to the upper ends of the standards and the body of the wagon, guides pivoted to the sills in the rear of the standards, and bars pivotally connected to the body and working in the guides, and clamping devices for securing said bars in fixed position in said guides, said parts being combined substantially as described.

7. A dumping-wagon having bars pivotally connected to its body near the rear ends thereof, pivotal guides having bosses thereon connected with the sills, screws passing through an opening in said bosses and engaging in recesses on the sides of the said bars, and angular levers and trains of gearing connected with said body, and sills for raising said body, said parts being combined substantially as described.

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