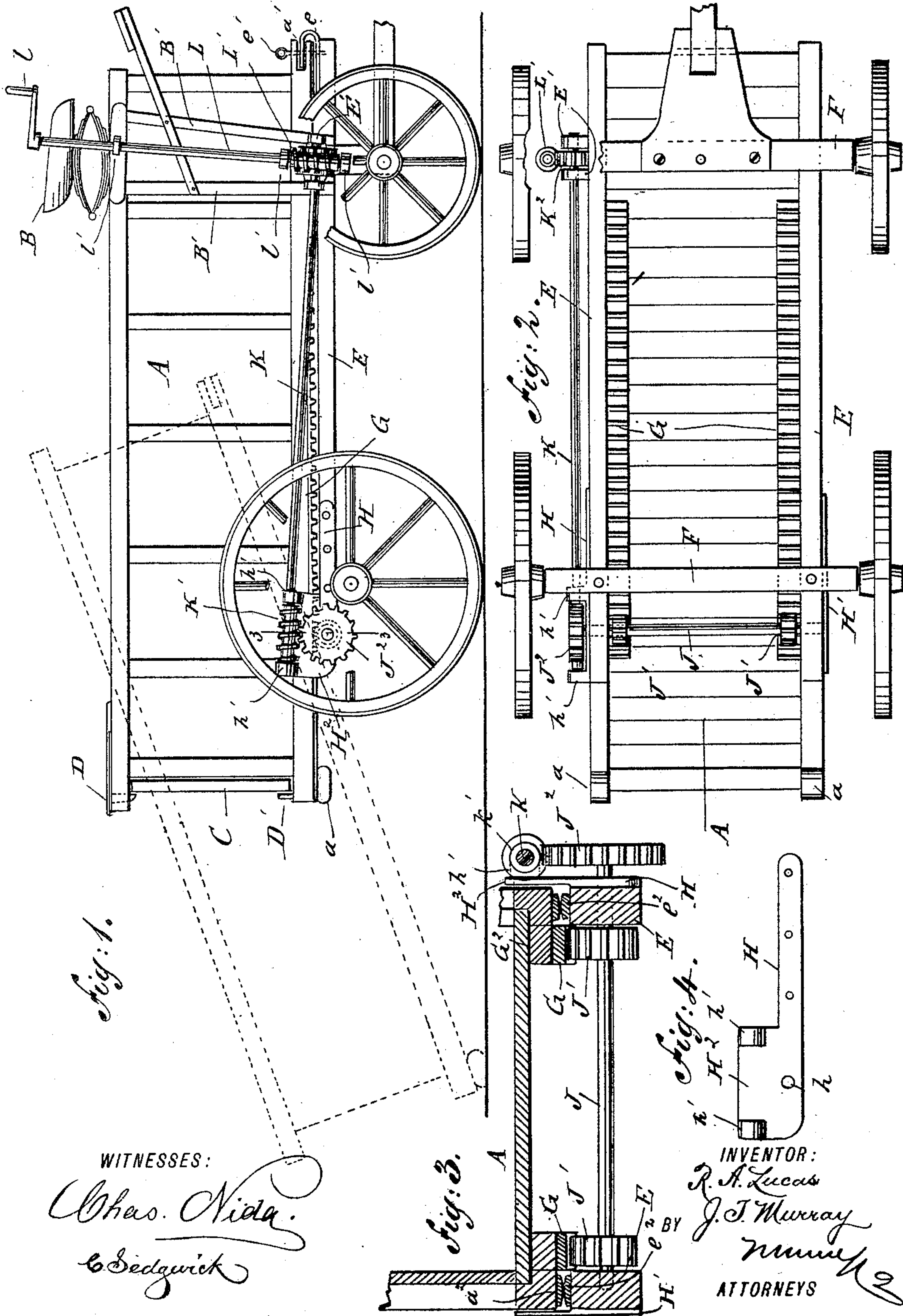


(No Model.)

R. A. LUCAS & J. T. MURRAY.  
DUMPING WAGON.

No. 458,910.

Patented Sept. 1, 1891.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

RAYMOND A. LUCAS AND JOHN T. MURRAY, OF KOHALA, HAWAII.

## DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 458,910, dated September 1, 1891.

Application filed January 3, 1891. Serial No. 376,586. (No model.)

*To all whom it may concern:*

Be it known that we, RAYMOND A. LUCAS and JOHN T. MURRAY, of Kohala, Hawaii, Hawaiian Islands, have invented a new and Improved Dump-Wagon, of which the following is a full, clear, and exact description.

Our invention relates to improvements in dump-wagons; and the object of our invention is to produce a strong and durable dump-wagon of simple construction, which may be easily dumped and then brought to its normal position; also, to provide means whereby the driver may operate the dump-wagon without leaving his seat.

To this end the invention consists in a dump-wagon constructed substantially as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a broken side elevation of a dump-wagon embodying our invention, the position of the wagon when dumped being indicated by dotted lines. Fig. 2 is a broken inverted plan of the same. Fig. 3 is a broken cross-section on the line 3 3 of Fig. 1, and Fig. 4 is a detail elevation of a guide for the dump-wagon.

The wagon-body A is an ordinary rectangular body, and a seat B is located above the body, being mounted on independent supports B', so that the body may be moved without moving the seat, and at the rear end of the wagon-body is an ordinary tail-board C, which is held in place at the top by the spring-catches D and at the bottom by the pins D'. The wagon-body is mounted on a bed E, which is supported on the vehicle-axes F in the usual way, and at the rear end of the wagon-body on the under side are buffers a, adapted to strike against the ground when the wagon is dumped. The sills of the wagon-body are slotted at their forward ends, as shown at a', and hooks e are fixed to the front of the wagon-bed E, so that when the body is moved forward the hooks will enter the slotted ends, and the body and bed are fastened together by the pins e', which extend downward through the slotted sills of the body and through suitable holes in the hooks e.

Extending longitudinally throughout near-

ly the entire length of the wagon-body are the racks G, which are attached to the bottom near the sides, and the wagon-body is held in place, so that the racks will mesh with the gears, hereinafter described, by means of the guides H and H'. The guide-piece H is attached to the bed of the wagon, and is widened at its rear end, as shown at H<sup>2</sup>, so as to extend above the sill of the wagon-body, thus preventing the wagon-body from moving to one side, and the guide-piece H', which is of a similar shape, is attached to the opposite side of the wagon-bed, so as to prevent the body from moving in the opposite direction. The guide-piece H has laterally-extending lugs h' at each end of the widened portion H<sup>2</sup>, which lugs serve as supports for the shaft K, as described below, and the rear portion of the guide-strip has also a transverse hole h therein, through which extends the transverse shaft J. The shaft J extends transversely through and is journaled in the bed of the wagon, said shaft having fixed thereto near each end a gear-wheel J' to mesh with the racks G of the wagon-body, and at one end of the shaft between the lugs h' is a gear-wheel J<sup>2</sup>, which is engaged by a worm K' at the rear end of the shaft K. The rear end of the shaft K is mounted in the arms h' of the guide-strip H, and the shaft extends forward to a point near the forward end of the wagon-body, its forward end being supported in lugs E', which project from the side of the wagon-bed, and fixed to the shaft between the lugs is a gear-wheel K<sup>2</sup>, which is engaged by a worm L' on the vertical shaft L. The shaft L is supported on the wagon-bed and on the supports B' by the keepers l', and at the top of the shaft is a crank l, by which it may be turned. The shaft is located near the seat B, so that it may be easily operated by the driver.

The wagon-body is intended to slide on the bed E, and in order that there shall be but little friction between the body and the bed the sills of the wagon-body are rounded on their undersides, as shown at a<sup>2</sup>, and the abutting portions of the wagon-bed are correspondingly rounded, as shown at e<sup>2</sup>.

The operation of the wagon is as follows: When a load is to be dumped, the tail-board C and the pins e' are removed and the driver turns the crank l and shaft L in a direction



to actuate the shafts K and J, so that the gear-wheels on the latter shaft, acting on the racks G, will force the wagon-body rearward, and when it reaches a certain point the weight of the load will cause the rear end of the body to drop into the position indicated by dotted lines in Fig. 1, so that the load will slide from the body, and to replace the body in position upon the bed the crank l and shaft L are turned in the opposite direction, thus causing the gear-wheels to engage the racks on the body and force it forward, and when it reaches a certain point the weight of the body will cause it to drop to place on the bed, and when the hooks e enter the slots a' the body and bed are secured together by the pins e' in the manner described.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A dump-wagon comprising a bed having a transverse shaft mounted therein and provided with gear-wheels, a body mounted to slide on the bed and provided with longitudinal racks which engage the gear-wheels, a shaft mounted longitudinally on the wagon-bed and having one end geared to the trans-

verse shaft, and a vertical crank-shaft having its lower end geared to the longitudinal shaft, substantially as described.

2. In a dump-wagon, the combination, with a transverse shaft geared to the wagon-body, as described, of a longitudinal shaft mounted on the wagon-bed and provided at one end with a worm geared to the transverse shaft and at its opposite end with a gear-wheel, and a vertical crank-shaft mounted in suitable supports and having at its lower end a worm to engage the gear-wheel on the longitudinal shaft, substantially as described.

3. In a dump-wagon, the combination, with the bed and the sliding body having a transverse and longitudinal shaft, as described, of the guide-strip secured to the body and having a widened end to project above the sill of the body, said end having a transverse hole to receive the transverse shaft and having laterally-extending lugs to receive the longitudinal shaft, substantially as described.

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