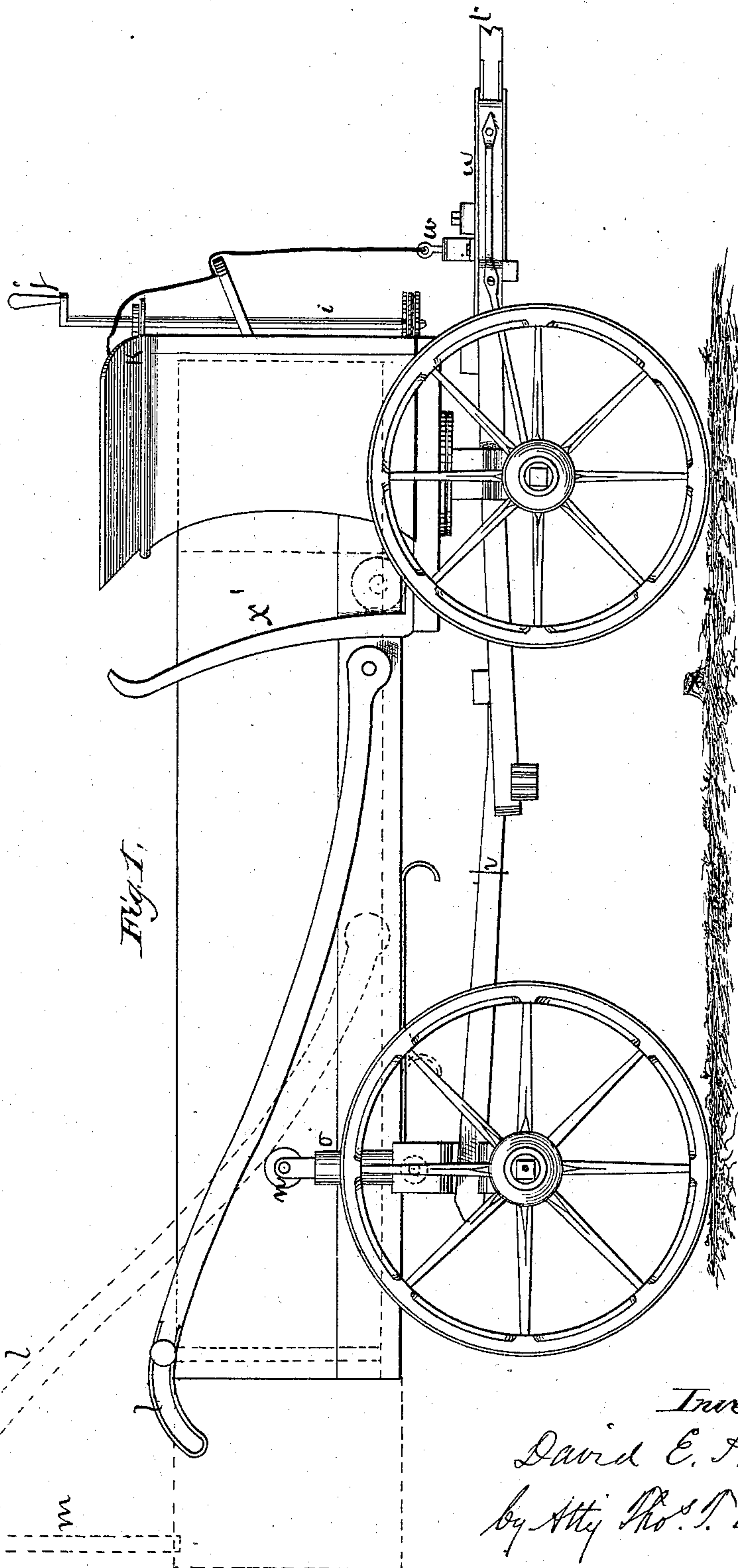


3 Sheets--Sheet 1.

**D. E. HAINES.
Dumping-Wagons.**

No. 138,246.

Patented April 29, 1873.



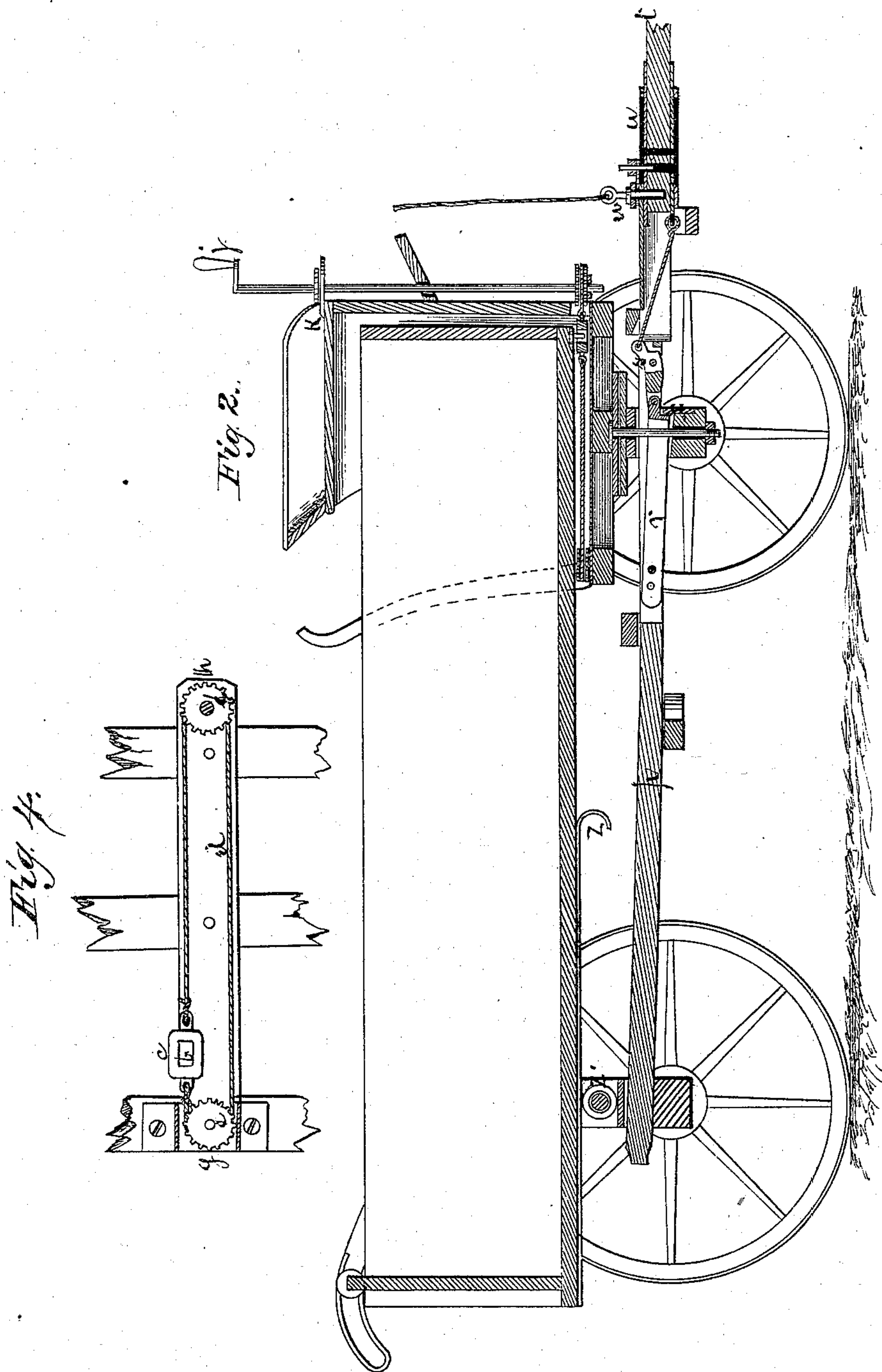
Witnesses.
Thomas F. Parker
Geo C Lambright

Inventor.
David E. Haines
by Atty Tho^s T. Everett

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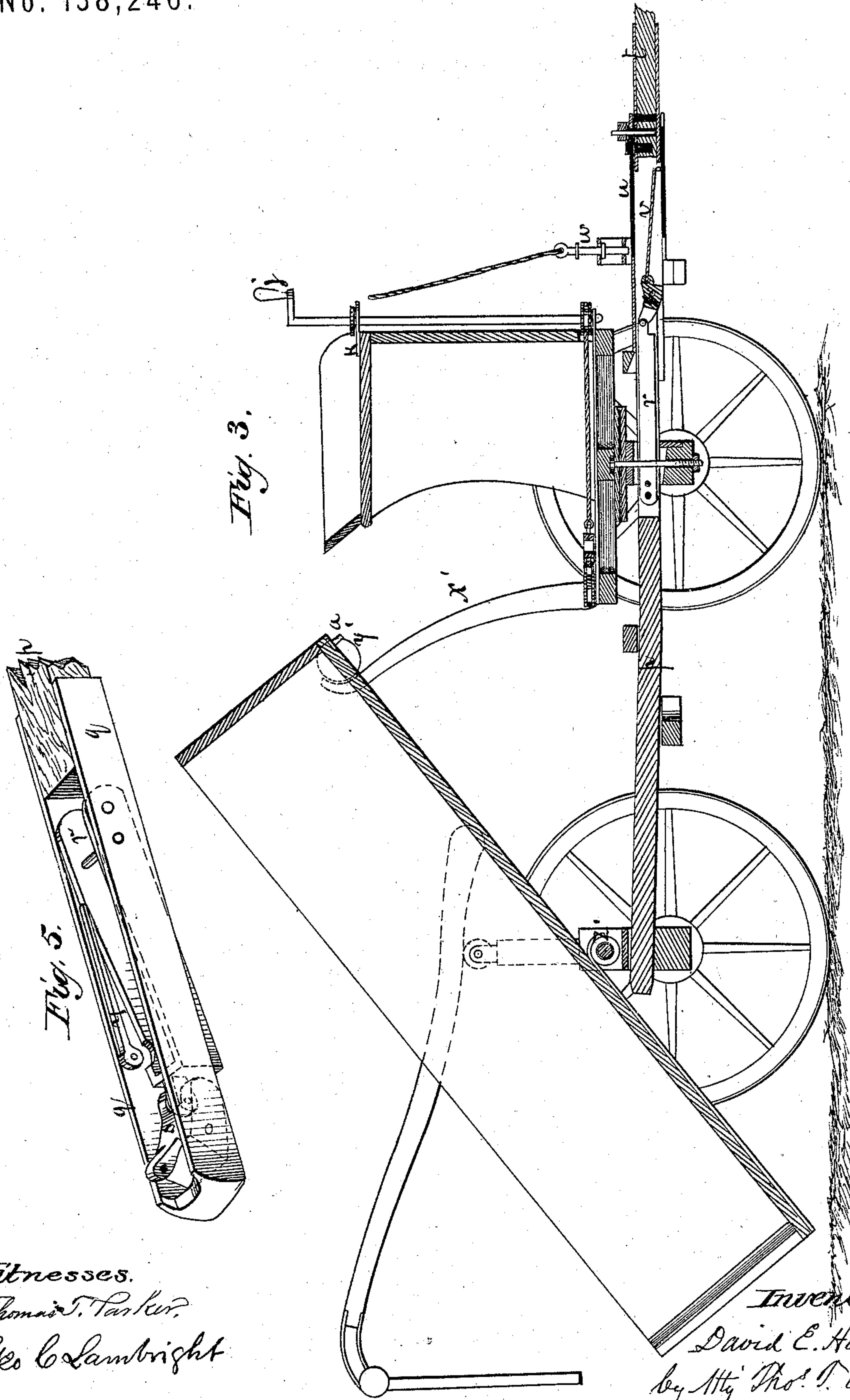
Inventor:

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UNITED STATES PATENT OFFICE.

DAVID E. HAINES, OF UNIONTOWN, DISTRICT OF COLUMBIA.

IMPROVEMENT IN DUMPING-WAGONS.

Specification forming part of Letters Patent No. **138,246**, dated April 29, 1873; application filed February 25, 1873.

To all whom it may concern:

Be it known that I, DAVID E. HAINES, of Uniontown, in the county of Washington and District of Columbia, have invented certain Improvements in Dumping-Wagons, of which the following is a specification:

These improvements relate to that class of wagons intended for carrying and delivering bricks and other articles or material in bulk, the load being usually dumped out instead of being taken out by hand. The construction and arrangement of the several parts of this wagon are such as will allow of the dumping being performed by the driver without leaving his seat.

Of the drawing forming a part of this specification, Figure 1 is a side view of the wagon with the body moved backward and the tail-board elevated, shown in dotted lines. Fig. 2 is a longitudinal sectional view; Fig. 3, also a like view, showing the parts in position when dumping; and Figs. 4 and 5 are views of parts detached in detail.

In the front part of the bottom board of the wagon is affixed a pin or bolt, *a*, which fits into a hole, *b*, of the block *c*. To each end of this block *c* is attached the end of the chain or cord *d*, which passes around the pulleys or toothed wheels *e* and *f*, the one wheel being affixed to the bar *g* and the other to the bar *h*. The pin of the wheel *f* continues upward as a rod, *i*, having a crank or handle, *j*, with support by the seat *k*. By means of this arrangement of the parts named the driver can move the body of the wagon backward or forward. In moving it backward the rear end of the curved bar *l* will be elevated, carrying with it the tail-board *m*, this arm or bar *l* riding on the roller *n* on the stanchion *o*. When the body is in the position here recited the other parts are brought into action for putting the body in the dumping position. The reach *p*, connecting the hind with the front axle, has attached to its front end bars *q*, which embrace it. Within these bars *q* are two other bars, *r*, united at the front end, and having a knuckle, *s*, pivoted thereto. The rear ends of the bars *r* are pivoted to the bars *q*, as shown by Fig. 5, two or more holes being in bars *q* so that

the pivot may be transferred, and the time of moving the reach forward be quickened or prolonged. The end of the tongue *t* rests in a socket, *u*. It is attached to the knuckle *s* by a cord or chain, *v*. The tongue is held in the socket by the bolt *w*, which, when lifted up, allows the tongue to be drawn forward. A cord attached to the bolt is carried up to the driver's seat.

Fig. 2 shows the parts in the condition previous to preparing for dumping. It will be noticed that the front end of the bars *r* are here shown fitted against a plate or recess in the front axle *x*, this position of the end of the bars depending on the action of the spring *y* attached to one of the bars *q*, best shown by Fig. 5.

When the bolt *w* is drawn up, and the horses started forward, the front end of the bars *r* is lifted out of the recess by the action of the cord or chain on the knuckle, and the hind axle and wheels are drawn forward until the curve of the plate *z* comes in contact with the roller *z'* on the hind axle. By the time this has occurred the equilibrium between the hind axle and the body of the wagon is disturbed, and the center of the body being beyond the hind axle, the dumping follows. The load being delivered, the horses are backed until the tongue can be bolted, the body of the wagon is brought forward, and as the horses move forward, the hind wheels not moving, the first condition of parts is restored.

The leading object of having the ends of the bars fit in the recess is to provide for backing the wagon.

In addition to the rollers over the hind axle such other rollers may be used as will facilitate the easy movement of the parts.

In the place of the curved arms *l*, arms or bars of any other suitable forms may be used for operating the tail-board; and in place of the curved arm *x'*, against which the roller *y'* travels as the front part of the body is elevated, any other arm of proper shape or form may be used.

What I claim is—

1. The combination of the pin *a* or its equivalent with the block *c*, cord or chains *d*, wheels

e and *f*, and crank-rod for giving motion to the body of the wagon.

2. The combination of the arm *l* and stanchion-roller *n* for elevating the tail-board.

3. The combination of the bars *u* and *r* with spring *y*, knuckle *s*, and reach and movable tongue, as and for the purpose described.

4. The combination of the plate *r* with the

plate or recessed front axle, as and for the purpose set forth.

This specification signed this 31st day of December, 1872.

DAVID E. HAINES.

Witnesses:

THOS. T. EVERETT,
AMBROSE FOLLIOTT.