

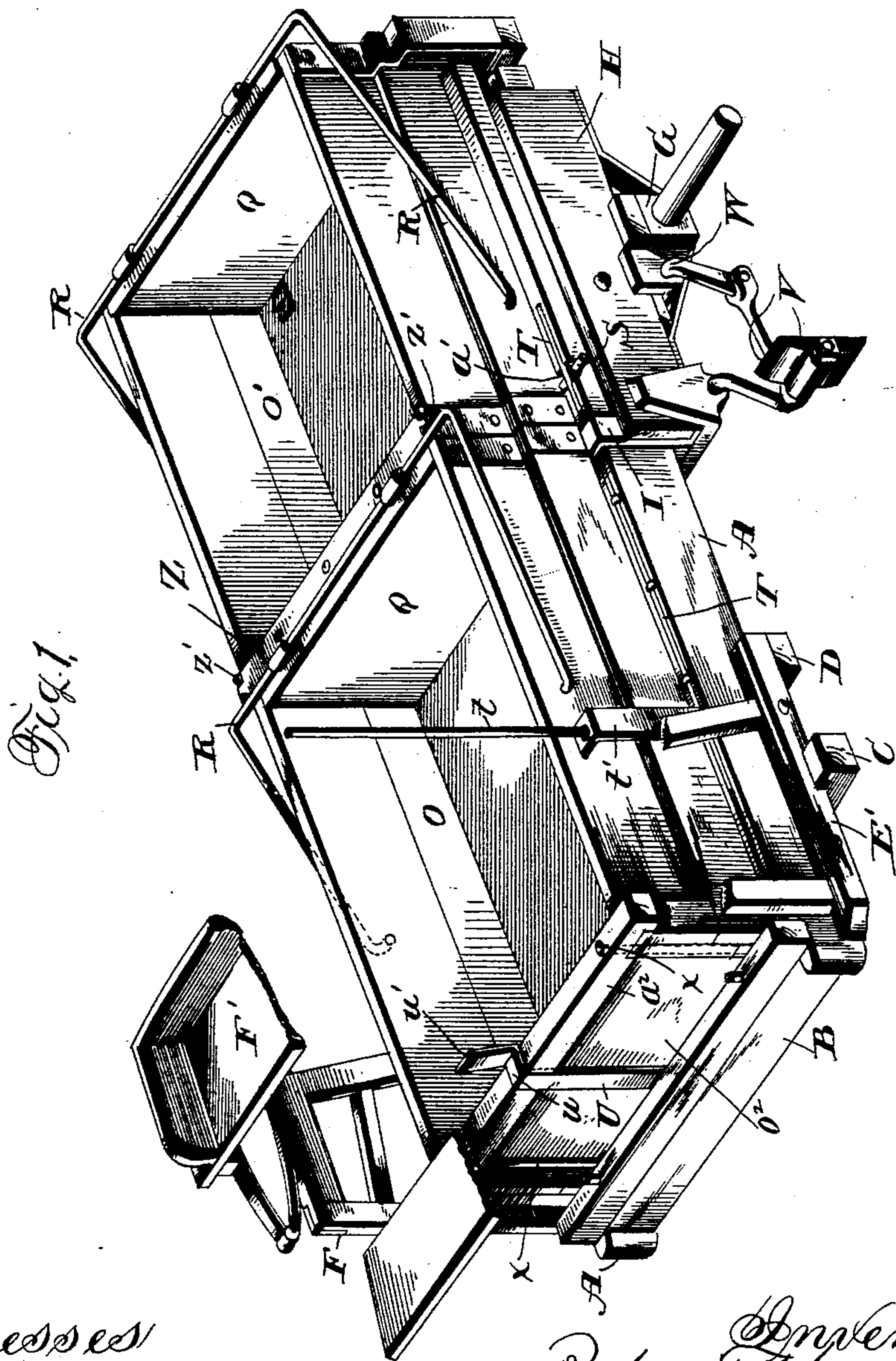
(No Model.)

2 Sheets—Sheet 1.

R. F. KING.
DUMPING WAGON.

No. 541,170.

Patented June 18, 1895.



Witnesses
C. Williamson,
A. L. Hough.

Inventor
Robert F. King,
by Franklin H. Hough,
his attorney

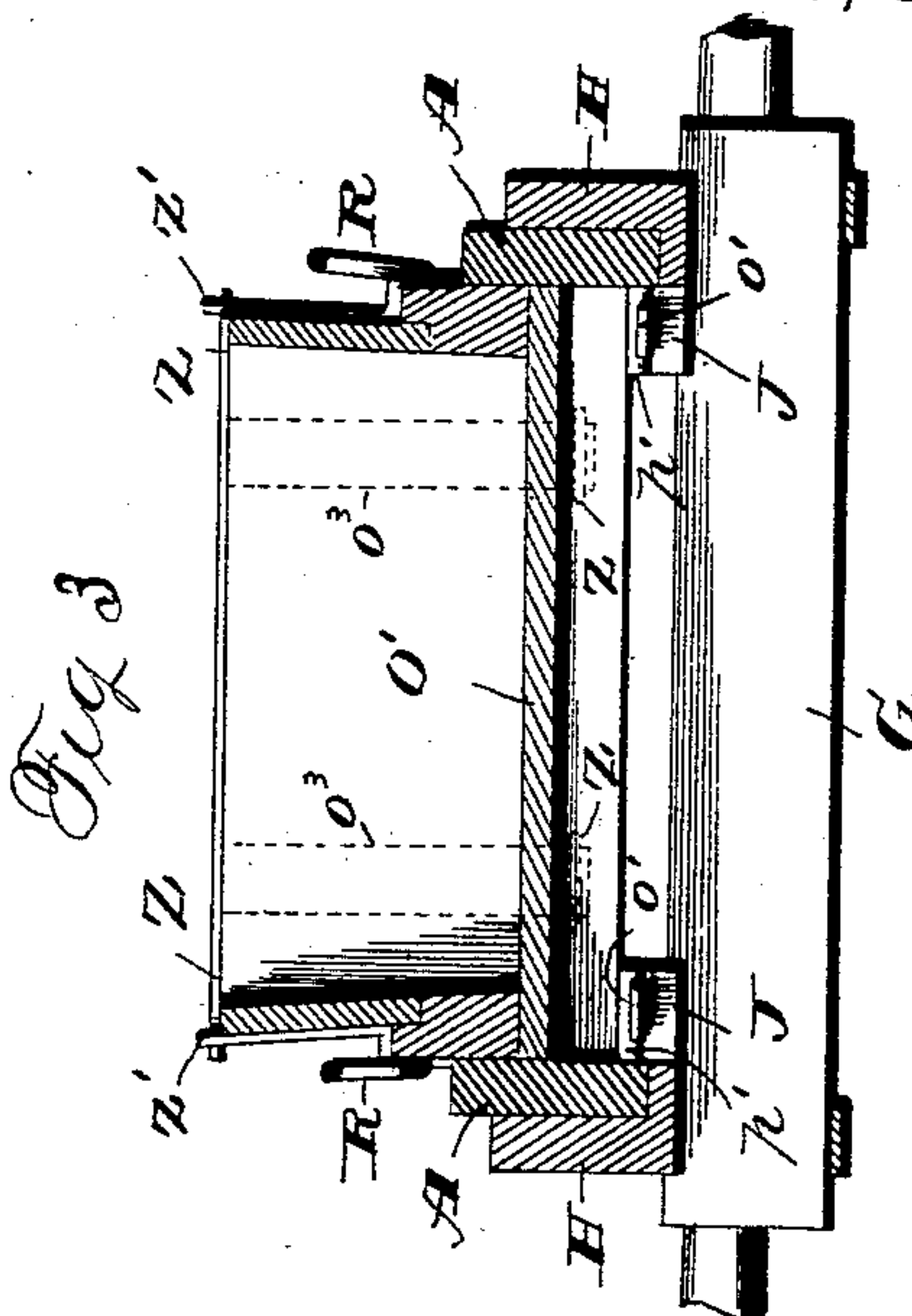
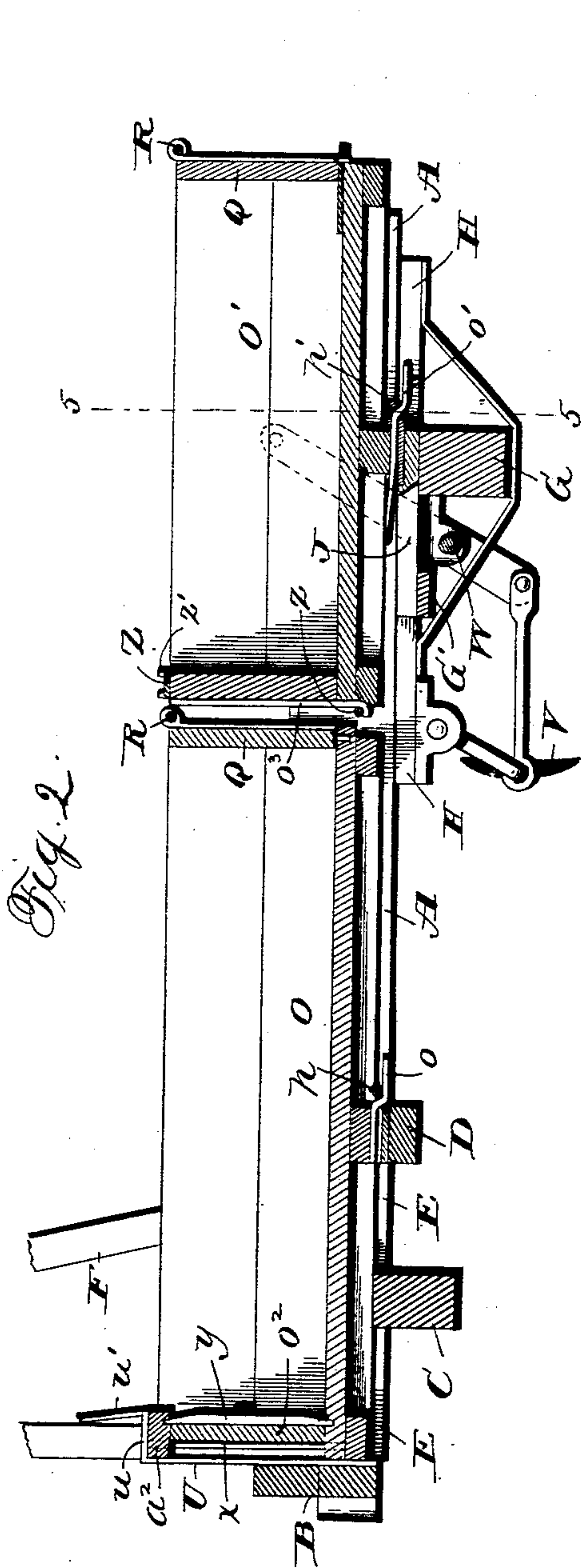
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UNITED STATES PATENT OFFICE.

ROBERT F. KING, OF BOZEMAN, MONTANA.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 541,170, dated June 18, 1895.

Application filed May 27, 1892. Renewed December 5, 1894. Serial No. 530,928. (No model.)

To all whom it may concern:

Be it known that I, ROBERT F. KING, a citizen of the United States, residing at Bozeman, in the county of Gallatin and State of Montana, have invented certain new and useful Improvements in Wagons; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in dumping wagons, and the invention consists in the construction, arrangement and adaptation of parts, all as will more fully hereinafter appear.

In the accompanying drawings, Figure 1 is a perspective view of the framework of my vehicle; Fig. 2, a longitudinal section. Fig. 3 is a transverse section.

The frame of my vehicle consists of two parallel longitudinal beams A and A that at their extreme front ends are connected by a transverse bar or beam B. Just in the rear of the latter is the front bolster C being securely bolted to the under side of the beams A and A, and a short distance in rear of the bolster, is a transverse bar D likewise securely bolted to the under side of the said beams. To the inner and outer sides respectively of each beam, are secured bars E and E' that have a length sufficient to extend from the beam B to the bar D, and preferably the bars adjacent to each beam, and the latter are united by bolts passing entirely through all three. Rising from the outer bars E', E', are standards F and F', which support a seat F'.

The rear axle G is not directly and rigidly connected to the beams A and A, but is bolted to the under sides of two longitudinally movable bars H and H that each engages the rear portion of one of the beams A. Each bar H is L-shaped in cross section, and its vertical portion engages the outer side of the beam A while the horizontal portion engages the under side thereof. The upper side of each beam is engaged by the horizontally bent end of the metal bar I that is attached to each bar H at its front end. A short bar J engages the inner side of each beam being bolted at

its rear end to the top side of the axle G and at its front end to the top side of the transverse bar G' secured to the under sides of the two bars H and H. By this arrangement the rear axle is capable of being moved either forward or backward, to permit the length of the vehicle to be varied. When used as a hay rack it may be desirable to use the extreme length, while for the purposes of a dumping wagon, the adjustment will be to the short length. Holes are provided in the beams A and in the bars H, which are adapted to be placed in alignment and through which pins or bolts may be passed to fix the rear axle at the desired point of adjustment.

O and O' are independent boxes mounted one in advance of the other. Each box has on its underside two rearwardly extending hooks o and o', which in the case of the front box O engage two loops p secured at the rear ends of the inner bars E. The hooks o' and o' of the rear box O' engage loops P' secured at the rear ends of the short bars G' attached to the rear axle. These hooks and loops constitute hinges on which the boxes turn to dump. Each box has an end gate Q which at its upper edge is connected to the transverse bar of a U-shaped frame R that has its free ends pivotally connected to the sides of the box. The side bars of said frame are adapted, as the rear end of the box moves downward, to be engaged and stopped by the upper sides of the beams A and A, and thus prevent the continued descent of the end gate with the box end, thereby automatically causing the latter to be opened and allowing the contents of the box to be discharged. The bottom edge of each end gate R has pins to enter openings in the bottom of the box, to hold the gate from swinging on its connection with the cross bar of frame Q, as would happen were no such expedient provided. Preferably the front end of each box is made detachable from the box. To lock the rear box in horizontal position a pin or bolt S is provided which projects from one side near the front end thereof, so as to drop into a notch or cavity a' in the upper edge of one beam A, over which pin, when in said notch, a sliding bar or rod T moving in a groove in the upper side of said beam, is adapted to be projected. To said rod T, at its front end, is pivotally attached

an operating lever t , arranged in reach of one occupying the seat F' and fulcrumed in a bracket t' attached to the standard F . By moving the lever forward, the rod will be projected over the pin in the notch and so lock the box against being dumped; while by moving said lever rearwardly, the rod will be drawn from over the pin in the notch, and the box allowed to dump. A spring bar U attached to and arising from the front bar B , is provided to lock the front box in a horizontal position, for this purpose having a horizontal extension u to overhang and engage the upper side of its front wall or gate. A vertical extension u' , within reach of the driver's foot, affords means for moving the bar U and so releasing the box and allowing it to dump. The rear box should be dumped first. It will be noticed that the positions of the lever t and trip u' are such that both boxes can be dumped without leaving the seat F . The sides of the boxes are preferably made each of two pieces, one, the lower, having a rabbet in its upper edge on its inner side in which is seated the upper piece. Said pieces are suitably bolted together and strengthened by metal straps or plates.

I provide shoes V , V as shown, as brakes, to be applied to the rear wheels and hang them from boxes attached to the front ends of the bars H and H . Each shoe is attached to a separate crank shaft, which by a link, is connected with a second crank shaft W journaled just in advance of the axle G , and adapted to be rocked from the driver's seat in any usual way.

I show two modes of securing the front ends of the dumping boxes O and O' detachably in place; one applied to each box. That shown in connection with the front box, is as follows: Vertical rods x are rigidly secured to the front ends of said box by having their ends contained in the bottom thereof, and in a cross-bar a^2 attached to the upper edge of the sides of the box. The end o^2 is placed against these rods from the inside of the box, and held from falling rearward by a turn button y pivoted at its inner face, whose opposite ends engage notches in the bottom of the box and in the under side of the cross-bar a^2 . This mode of holding the end in place, is very secure and strong, as the strain or pressure of the load in the box is sustained by the rods x , against which said end is pressed.

The front end of the rear box O' is shown as secured in place by the metal staples o^3 secured to its outer face, whose lower ends are bent or made hook-shaped, to engage staples z secured to the box bottom. On the upper edge of said end, is placed a spring plate Z , whose outer ends engage notches in the upper ends of the brace plates or straps z'

bolted to the sides of the box. The plate Z and notches lock the end from turning on its connection with the staples o^3 .

I claim—

1. A vehicle structure, having a supporting frame comprising two longitudinal beams, means for the pivotal detachable connection of two dump boxes, and a separate locking device for each box, one comprising a sliding bar adapted to be projected over a pin on the rear box to hold the same in a horizontal position, substantially as shown and described.

2. A vehicle structure, having a supporting frame comprising two longitudinal parallel beams connected at their front ends by a transverse bar, and at their rear ends by a sliding frame that carries the rear axle, and having provision for the detachable connection of two separate dumping boxes, a rod T movable in a groove in one of the beams, an operating lever pivoted to said rod, and a pin for engaging said rod substantially as shown and described.

3. In a vehicle structure, in combination, a supporting frame comprising two longitudinal, parallel beams connected at their front ends by a transverse bar, means for the detachable pivotal connection of two dumping boxes, the spring lock bar for engaging the front box, the sliding rod to lock the other box, the sliding frame to which the rear axle is attached, a lever pivoted to said rod, and a pin with which said rod engages, substantially as shown and described.

4. In a vehicle structure, for the purpose described, in combination, a frame comprising two parallel beams united at their front ends, the sliding frame at their rear ends, having an L-shaped side piece to engage each beam, the loops carried by said beams near their front ends adapted to engage hooks on a dumping box, the loops on said sliding frame to engage hooks on a second box, the spring latch plate for one box, the sliding latch bar for the other box, and the notch for the pin, the pin, the sliding rod movable in a groove in the beam, and a lever pivoted to said rod substantially as shown and described.

5. In combination, the vehicle side beams, the two pivoted dumping boxes, one being placed in front of the other, the spring latch bar to engage and lock the front box in a horizontal position, and the sliding bar adapted to be projected over a pin attached to the rear box to hold it in a horizontal position, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT F. KING.

Witnesses:

JOHN V. BOGERT,
HERBERT S. WEBB.