No. 636,549. Patented Nov. 7, 1899.

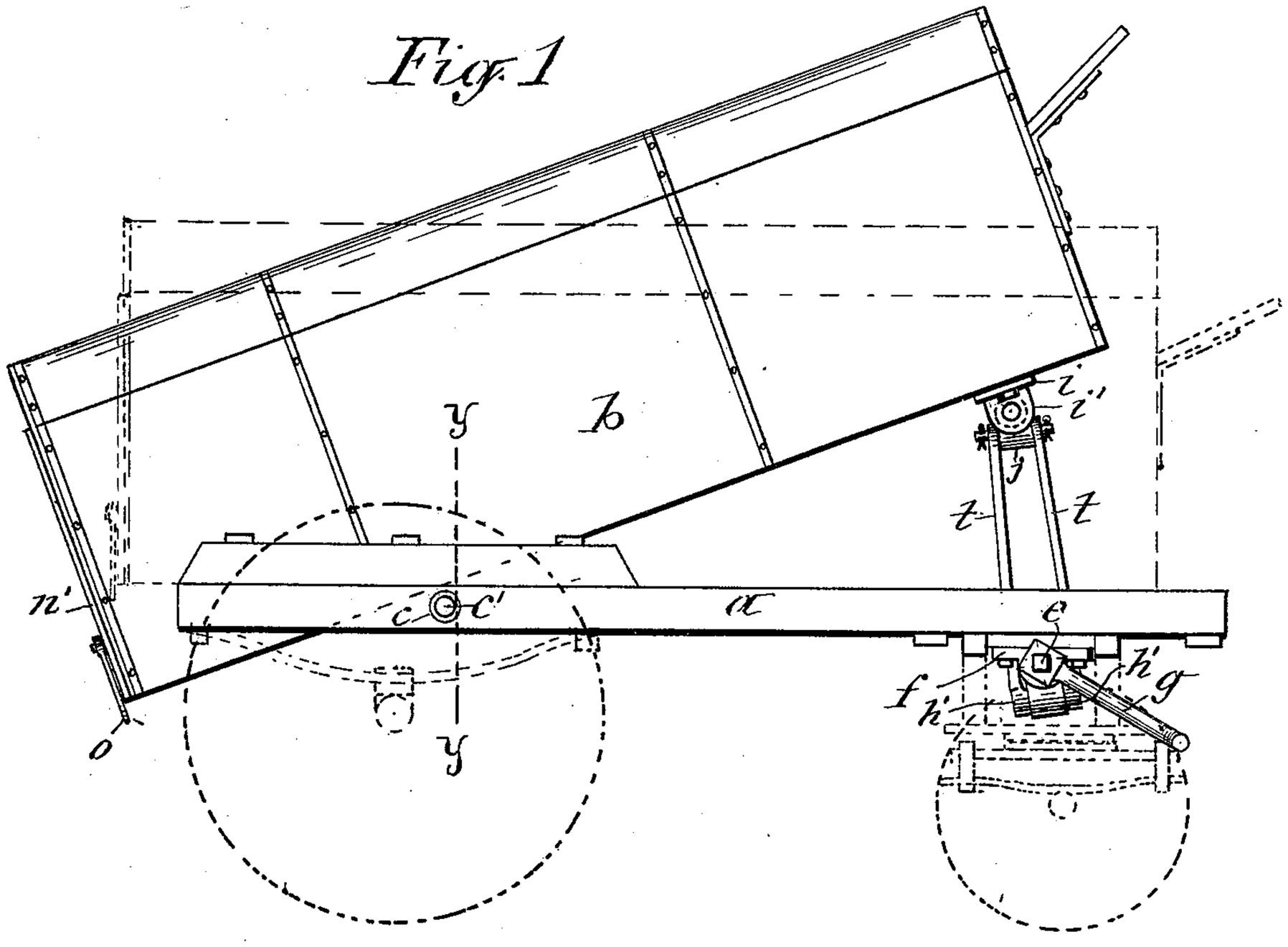
C. S. PHARIS.

DUMPING WAGON.

(Application filed Aug. 28, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1



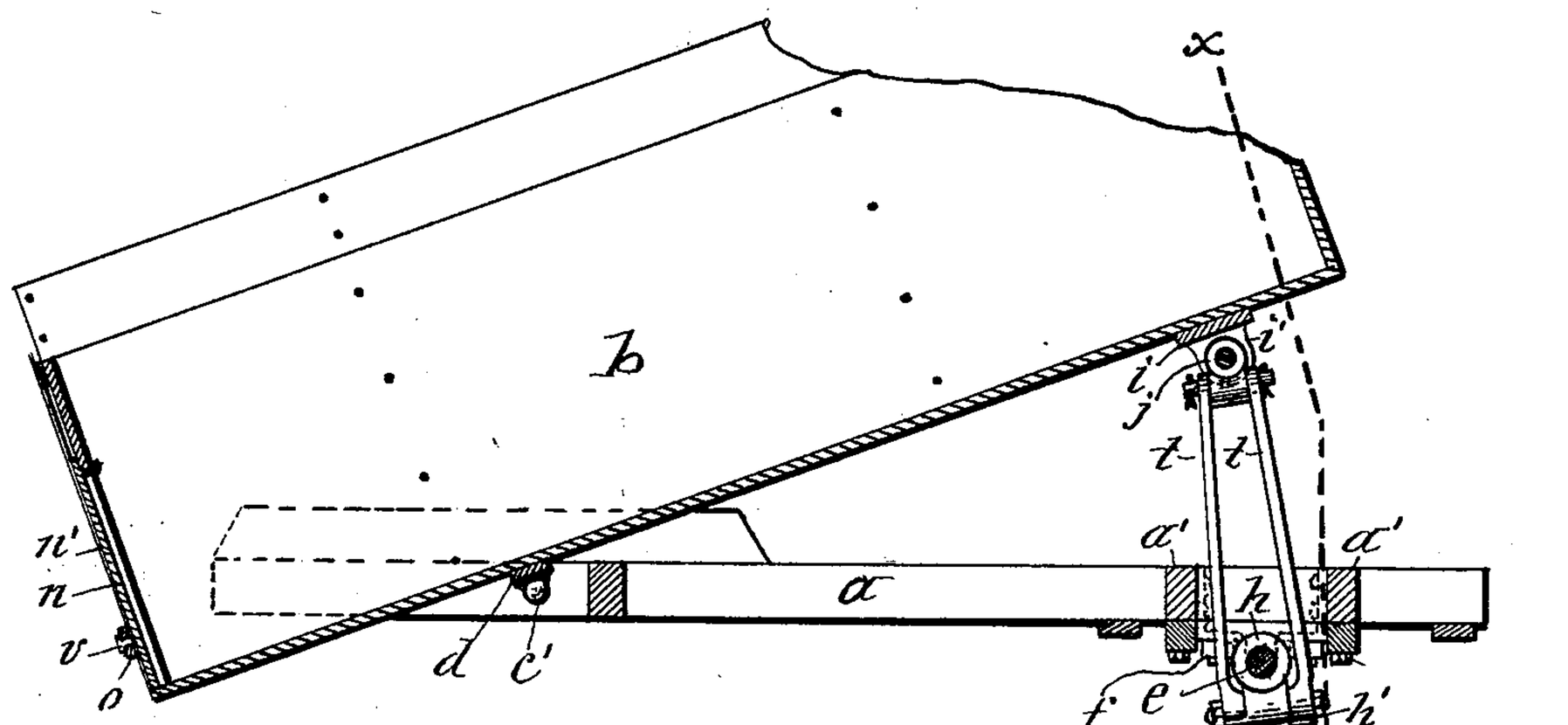


Fig. 2

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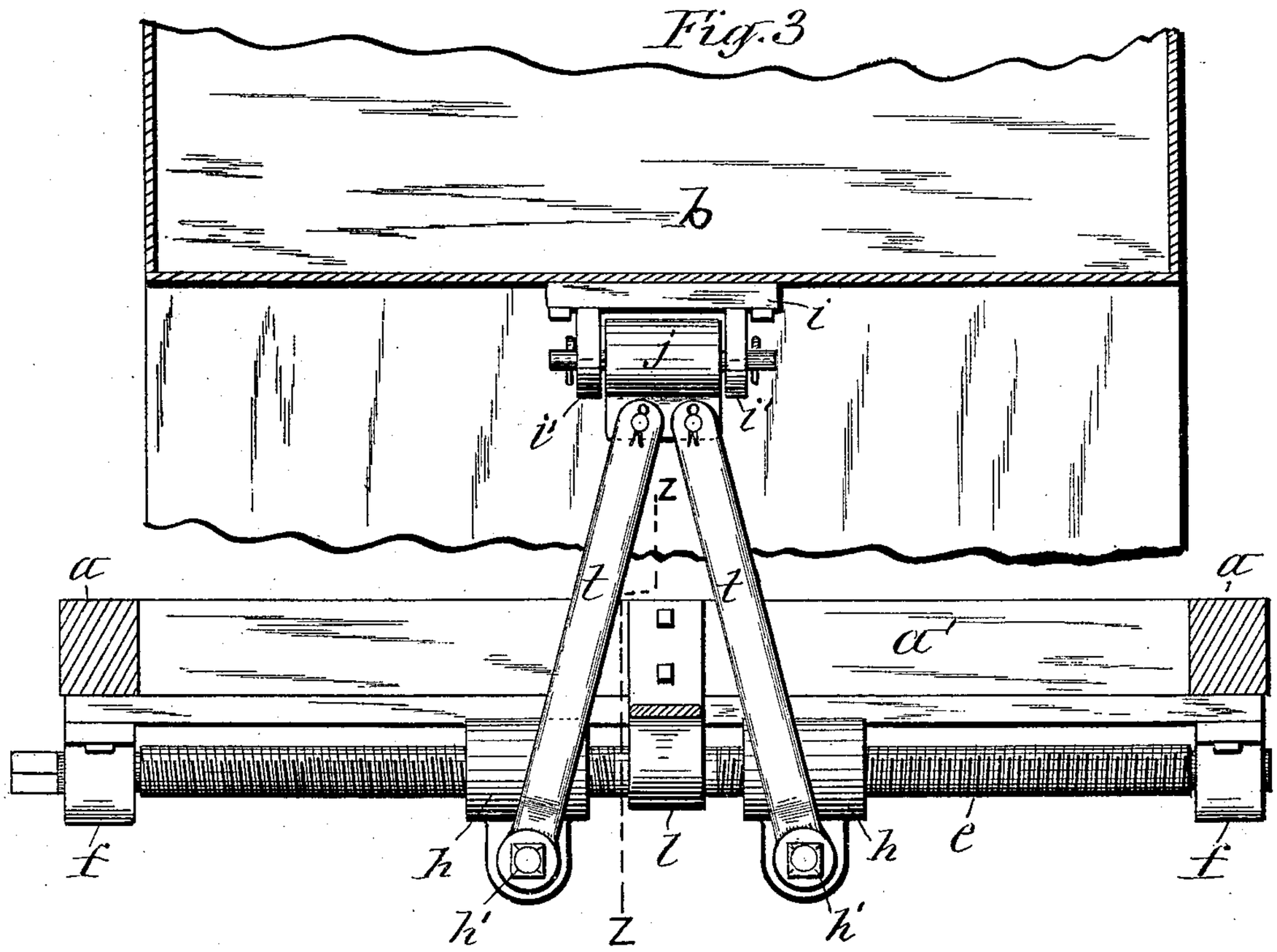
Fig. 3



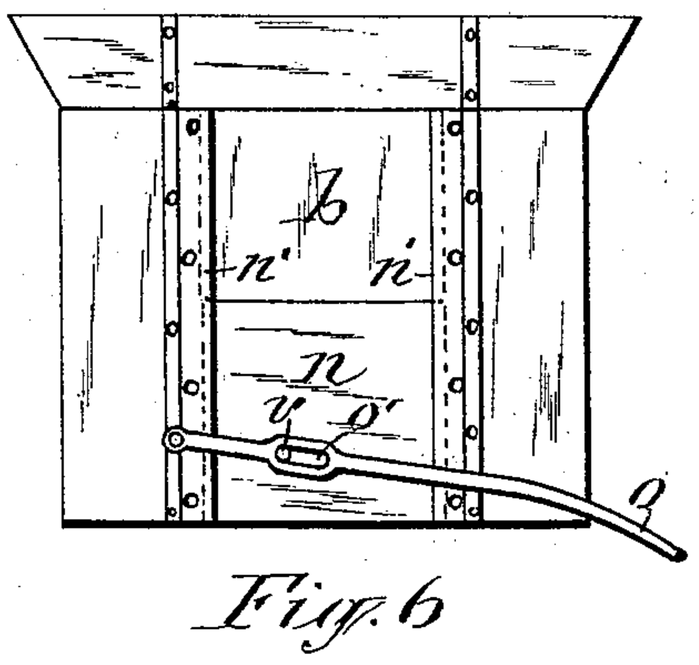


Fig. 6

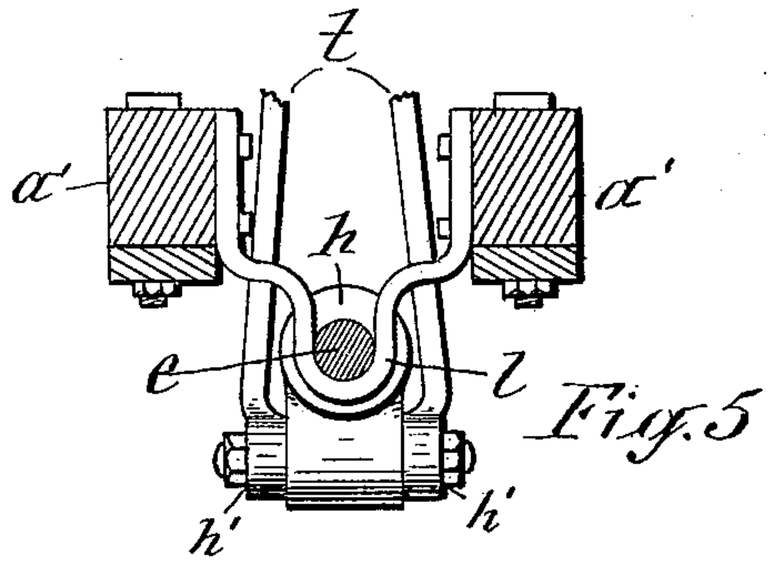


Fig. 5

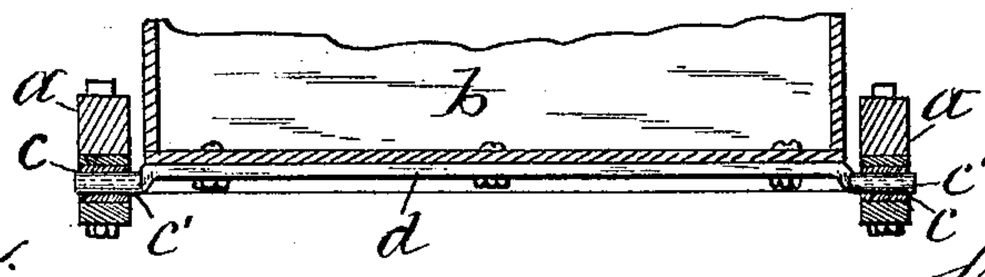


Fig. 4

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CHARLES S. PHARIS, OF SYRACUSE, NEW YORK.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 636,549, dated November 7, 1899.

Application filed August 28, 1899. Serial No. 728,660. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. PHARIS, a citizen of the United States, and a resident of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Dumping-Wagons, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the class of dumping-wagons in which the body is allowed to tilt endwise to discharge the load automatically through the rear end thereof.

The object of this invention is to provide a dumping-wagon which shall possess the following advantages, to wit: first, simple and inexpensive in construction; secondly, compact, strong, and durable; thirdly, support the wagon-body upon the axles adjacent to the wheels, and thus exert minimum strain on the axles and carry the load with safety; fourthly, have the dumping mechanism arranged in such a manner as to allow the wagon-body to extend over the front axle, and thus distribute the load more evenly over the two axles and carry the load more easily; fifthly, maintain the right-and-left screw of the dumping mechanism at a uniform elevation from the ground, and thus more convenient for the operator, and, sixthly, carry the dumping mechanism in such a position as to shield it by the body and conceal it when said body is in its normal position; and to this end the invention consists in the novel construction and combination of parts hereinafter described and claimed.

In the annexed drawings, Figure 1 is a side elevation of the part of a dumping-wagon which embodies my invention. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is an enlarged vertical transverse section on line X X in Fig. 2. Fig. 4 is a vertical transverse section on line Y Y in Fig. 1. Fig. 5 is a transverse section on line Z Z in Fig. 3; and Fig. 6 is a rear end view of the wagon-body, showing the discharge-gate.

Similar letters of reference indicate corresponding parts.

a represents a suitable body-supporting frame, which is mounted on the running-gear of the wagon and is carried over the two axles adjacent to the wheels to exert minimum strain on the axles. Said running-gear may be of any suitable construction and is merely indicated by dotted lines in Fig. 1 of the drawings.

b denotes the body, which is supported at its rear end portion or any suitable point back of the center of its length on the frame *a* by means of transverse pivotal bearings *c c*, which allow the body to be tilted from its horizontal or normal position to a rearwardly-inclined position, as represented by full lines in Fig. 1 of the drawings.

The aforesaid pivotal support of the body I preferably form of a stout steel bar *d*, extending across the under side of the body and rigidly secured thereto and terminating with journals *c'*, which ride in boxes *c c*, fastened to the frame *a*.

By locating the aforesaid support a proper distance from the rear end of the body the front end portion of said body is partly counterpoised and the operation of tilting is facilitated.

The arrangement of the mechanism for tilting the body constitutes one of the essential features of my invention, and it consists of the revoluble right-and-left screw *e*, which is disposed across the frame *a* under the front end portion of the body and is supported at its ends in bearings *f*, secured to said frame.

g represents a suitable hand-crank, which is adapted to be connected to one end of the screw *e* for turning it when required.

h h designate two nuts which are mounted on the two reversely-threaded end portions of the screw *e*. Directly over the said screw is a plate *i*, fastened to the under side of the body *b* in the center of the width thereof. The plate is formed with depending ears *i' i'*, in which are pivoted the ends of a transversely-disposed block *j*, which block is thus allowed to rock rearward and forward to accommodate itself to the variations of inclination of the toggle-levers *t t*, which are pivotally connected to said block and become gradually inclined toward the rear of the wagon during the elevation of the front end of the body. The lower ends of said toggle-levers are pivotally connected to the nuts *h h*, as shown at *h'*, and in the operation of turning the said screw said nuts are caused to travel endwise thereon, and when the screw

is turned in a direction to cause said nuts to approach each other they move the toggle-levers toward erect positions, and thereby lift the front end portion of the body. To brace the screw during said operation, I support the same at the center of its length in a bearing *l*, firmly secured to cross-bars *a' a'* of the frame *a*, as more clearly shown in Fig. 5 of the drawings.

It will be noted that by the described arrangement of the dumping mechanism in relation to the wagon-body the lifting strain of said mechanism is applied to the under side of the body and has a perfectly secure hold thereon, and the mechanism is shielded by the body and concealed when the body is in its normal position.

A gate *n* slides in vertical guides *n'*, secured to the rear end-board of the body, which is provided with an opening through which to discharge the load. For opening and closing said gate I pivot to the body *b* a lever *o*, which extends across the gate and is provided with a longitudinal slot *o'*, which is engaged with a lug *v*, projecting from the gate.

What I claim is—

1. The combination, with the two axles, of the body pivotally supported over the rear axle and extending over the front axle, a right-and-left screw journaled in bearings secured to supports carried stationary on the front axle adjacent to the wheels, means for turning said screw, and levers transmitting motion from said screw to the body as set forth.

2. The combination, with the two axles, of the body pivotally supported over the rear axle and extending with its front end over the front axle, a right-and-left screw journaled in bearings secured to stationary supports carried on the front axle adjacent to the wheels, means for turning said screw, nuts on the screw, levers extending from said nuts to the body and transmitting the weight of the front end portion of the tilted body directly to the screw, and a stationary bearing supporting the screw between the two nuts as set forth.

3. The combination of a frame mounted on the running-gear adjacent to the wheels, the body supported at its rear end portion on said frame by transverse pivotal bearings and extending with its front end portion over the axle, a right-and-left screw supported transversely and at a uniform elevation on said frame and under the front end portion of the body, means for turning said screw, nuts mounted on said screw, and toggle-levers extending from said nuts to the under side of the body as set forth.

4. In combination with the frame mounted on the running-gear, and the body supported at its rear end portion on said frame by transverse pivotal bearings, a right-and-left screw supported transversely on said frame under the front end portion of the body, a block pivoted transversely to a plate fastened to the center of the under side of the body, directly over the aforesaid screw, nuts on said screw, toggle-levers connected to said nuts and to the aforesaid block, and means for turning said screw as set forth.

5. In combination with the frame mounted on the running-gear, and the body supported at its rear end portion on said frame by transverse pivotal bearings, a right-and-left screw journaled transversely on said frame under the front end portion of the body, nuts on said screw, toggle-levers connected to said nuts and to the body directly over the screw, a bearing secured to the frame and supporting the screw at the center of its length, and means for turning the screw as set forth.

CHARLES S. PHARIS.

Witnesses:
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J. J. LAASS.