

(No Model.)

2 Sheets—Sheet 1.

M. O'CONNOR.
DUMPING CAR.

No. 463,956.

Patented Nov. 24, 1891.

Fig. 1.

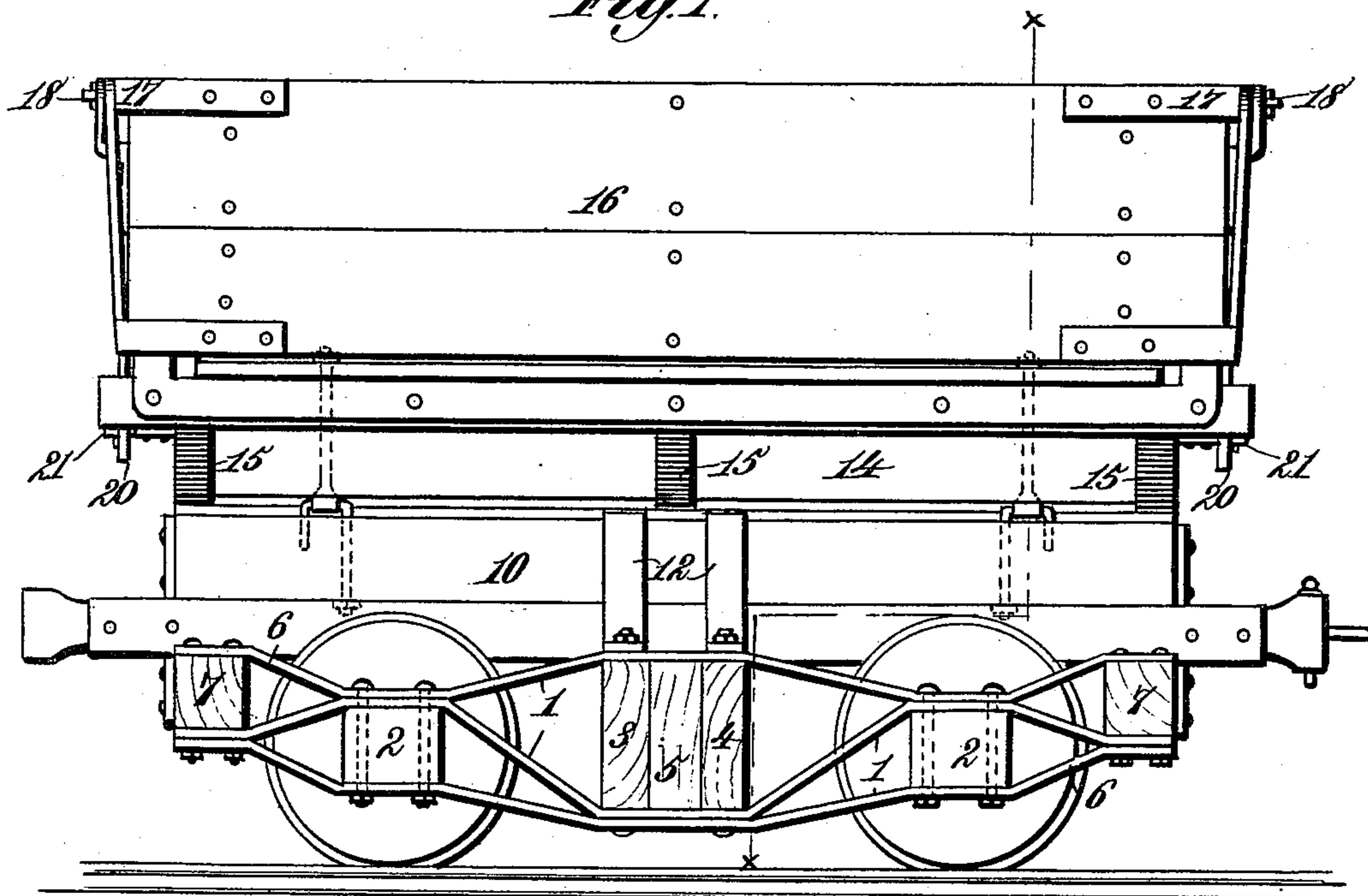
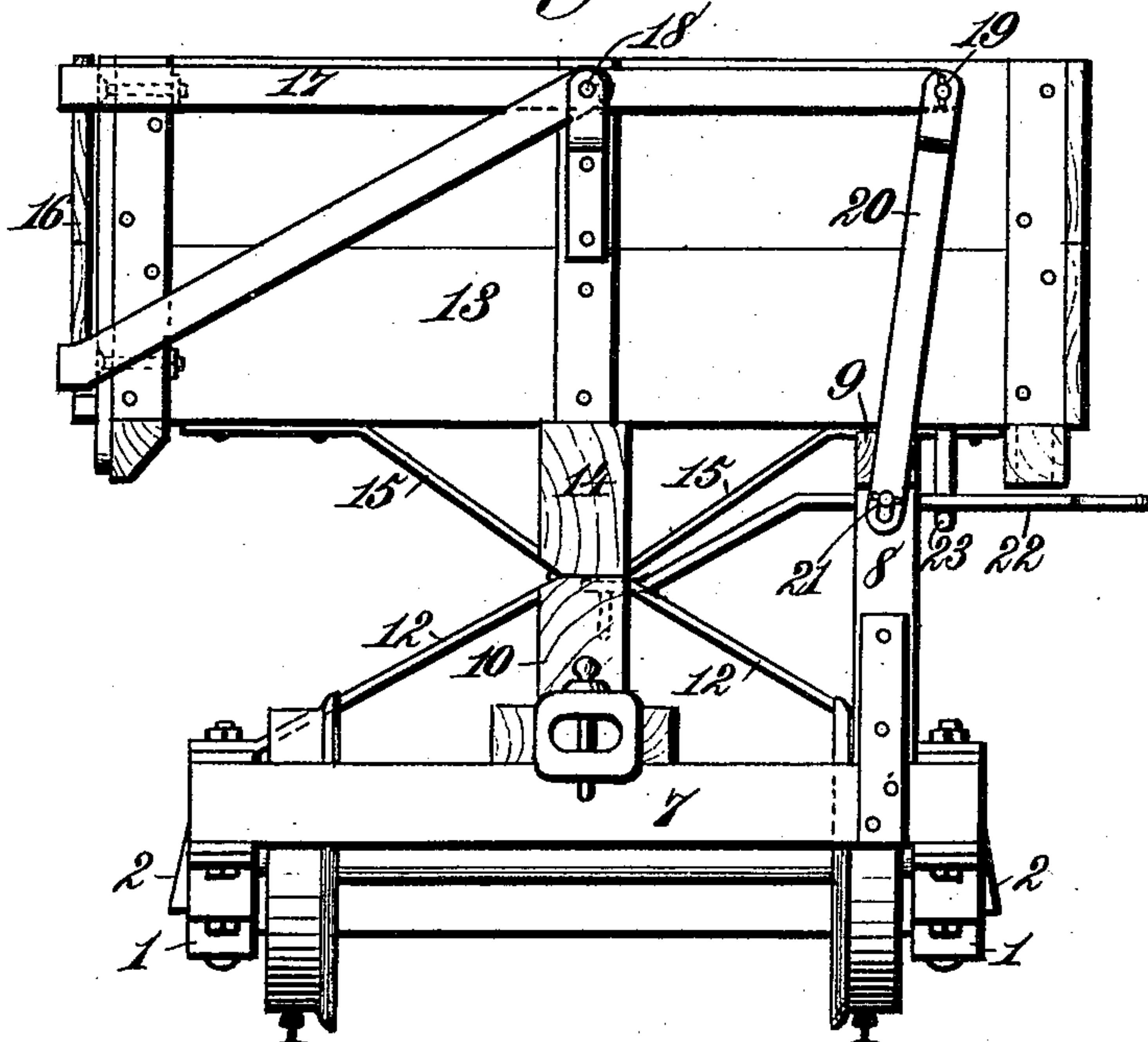


Fig. 2.



Witnesses.
Edw. Smith.

J. A. Rutherford.

Inventor.
Malachi O'Connor.

By *James H. Norris.*
Atty.

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2 Sheets—Sheet 2.

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Fig. 3.

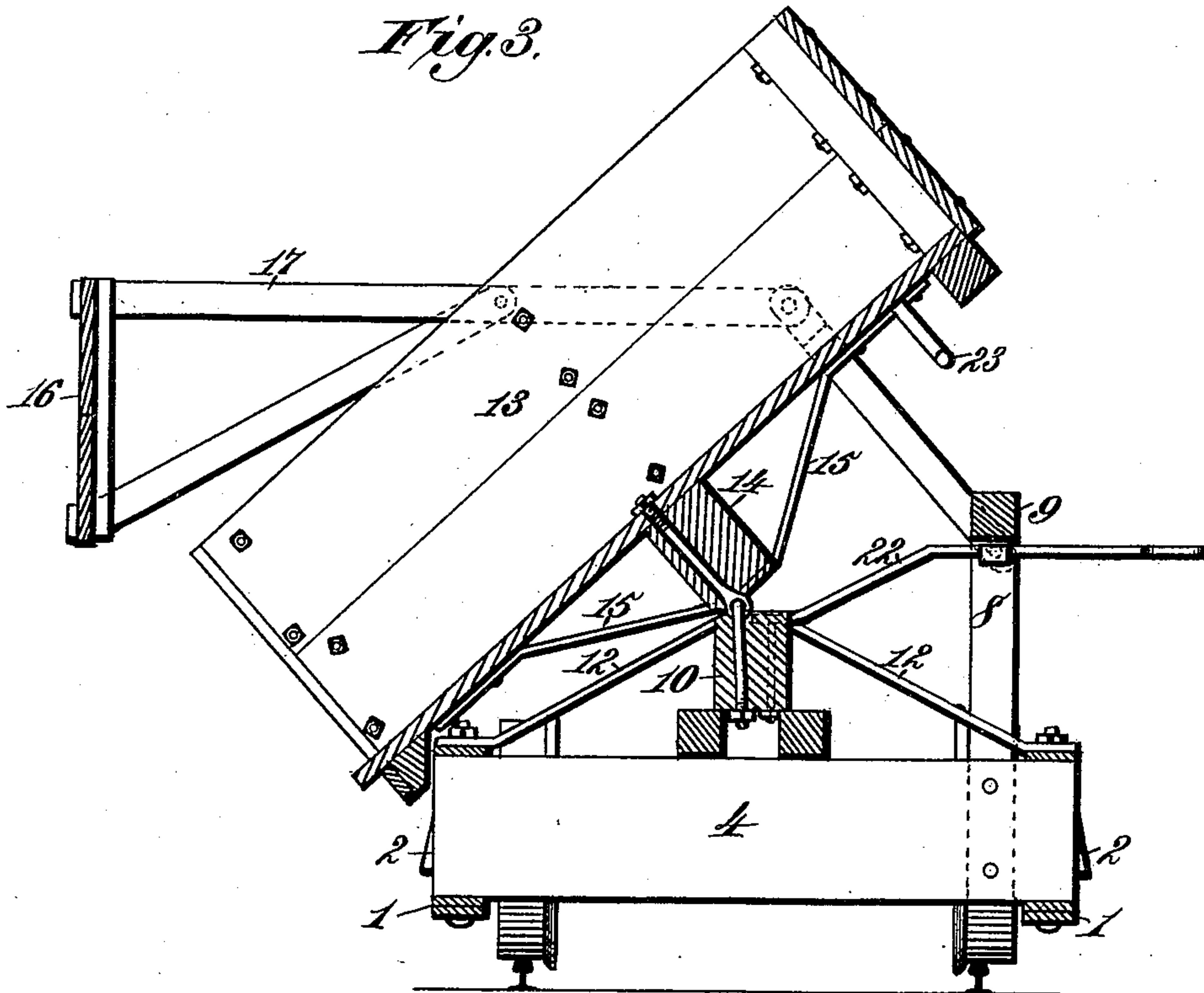
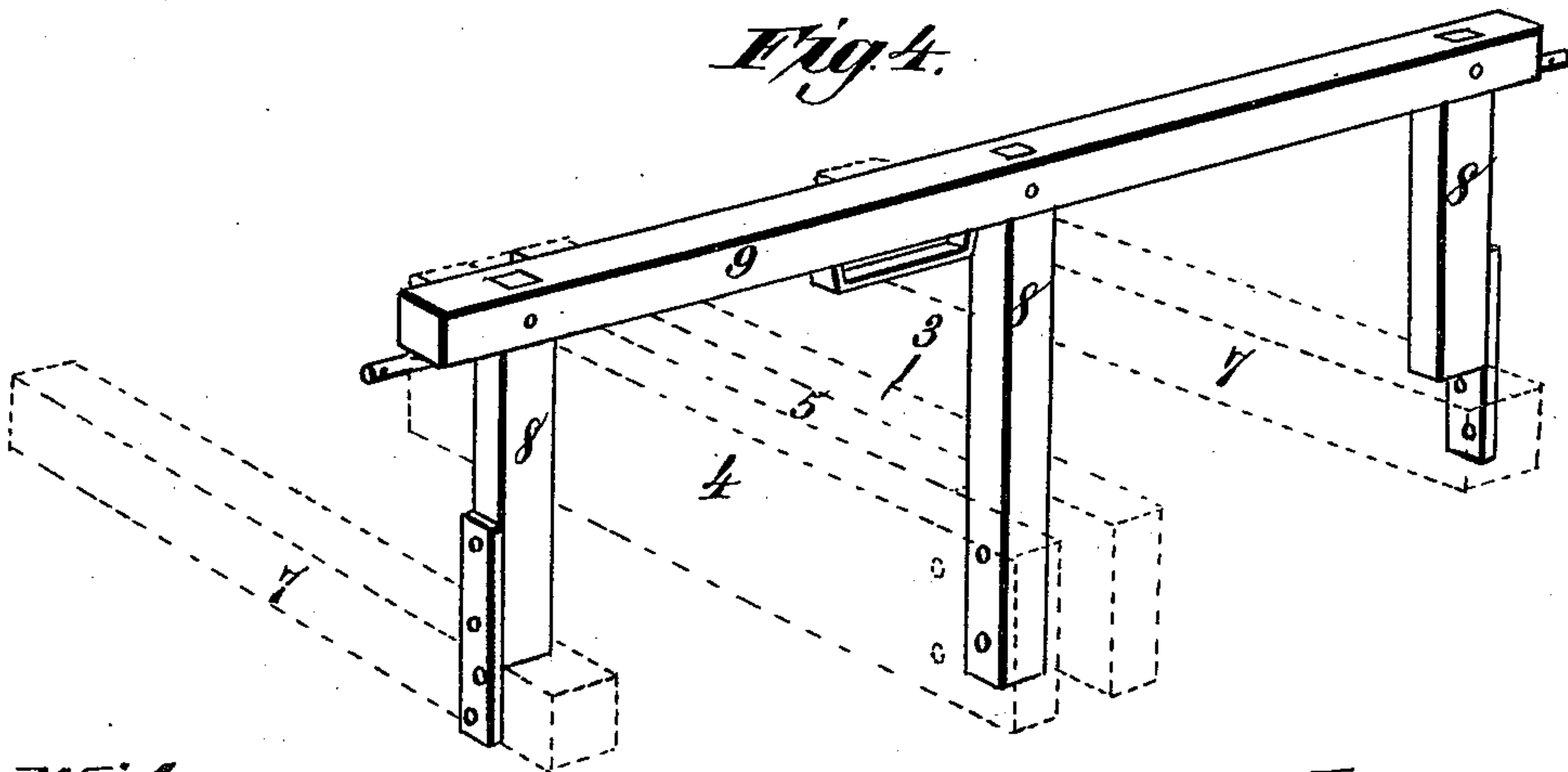


Fig. 4.



Witnesses.
Robert Emmett
J. A. Rutherford

Inventor.
Malachi O'Connor.
By *James L. Norris,*
Atty.

UNITED STATES PATENT OFFICE.

MALACHI O'CONNOR, OF OSWEGO, NEW YORK.

DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 463,956, dated November 24, 1891.

Application filed September 3, 1891. Serial No. 404,648. (No model.)

To all whom it may concern:

Be it known that I, MALACHI O'CONNOR, a citizen of the United States, residing at Oswego, in the county of Oswego and State of New York, have invented new and useful Improvements in Dumping-Cars, of which the following is a specification.

This invention has for its object to provide a novel dumping-car which possesses a strong, substantial, and durable truck having peculiar characteristics and of such construction as to properly, efficiently, and firmly sustain the tilting or dumping car-body in its normal horizontal position without employing complicated extraneous devices for this purpose.

The invention consists in the combination, with a tilting or dumping car-body having suitable gate mechanism, of a truck composed of metallic skeleton side frames extending at each end beyond the truck-wheels, and one frame having its extensions provided with standards or posts by which the car-body is firmly supported in its normal horizontal position.

The invention also consists in the combination, with a tilting or dumping car-body, of a truck composed of metallic skeleton side frames extended at each end beyond the truck-wheels, and one frame having its extensions provided with standards or posts on which the car-body rests when in its normal horizontal position, and a gate mechanism composed of arms pivoted to the standards or posts, levers pivoted at one end to said arms and to the car-body, and a gate secured to the opposite end of the levers and adapted to close one side of the car-body, whereby the gate is held suspended as the car-body tilts to dump the load.

The invention is illustrated by the accompanying drawings, in which—

Figure 1 is a side elevation of a dumping-car constructed in accordance with my invention. Fig. 2 is an end elevation of the same, showing the car-body in its normal horizontal position. Fig. 3 is a similar view showing the position of the parts when the car is tilted to dump the load. Fig. 4 is a detail perspective view to more clearly exhibit the standards or posts which support the car-body in its horizontal position.

In order to enable those skilled in the art to

make and use my invention, I will now describe the same in detail, referring to the drawings, wherein—

The numeral 1 indicate the metallic skeleton side frames of the car-truck. These frames are composed of suitably-shaped metal bars, which support the boxes 2 for the truck-wheel axles, and at or near the center such frames are connected by a cross-beam interposed between upper and lower members of the skeleton frames, and preferably composed of three contiguous sections 3, 4, and 5. The extremities of each skeleton frame are extended beyond the truck-wheels, as at 6, and these extensions support the cross-beams 7, which connect the ends of one skeleton frame with the ends of the opposite skeleton frame. The extensions 6 or the cross-beams 7 are provided with standards or posts 8, connected at their upper extremities by a longitudinal beam 9, for the purpose of firmly supporting the tilting or dumping car-body in its normal horizontal position, as indicated in Fig. 2. The cross-beams support a centrally-arranged longitudinal beam or sill-piece 10, which is connected with the sections 3 and 5 of the central cross-beam through the medium of the braces 12.

The tilting or dumping car-body 13 may be of any construction suitable for the conditions required, and is provided at its under side with a central longitudinal girder or beam 14, jointed at suitable points to the beam or sill-piece 10 in such manner that the car-body can tilt to the dumping position indicated by Fig. 3. The jointed or hinged connection between the beams 10 and 14 may be of any desired construction, but preferably is composed of eyebolts, as represented. The central longitudinal beam 14 is connected with the car-body by suitable braces 15, which are preferably arranged at the extremities and at the center of the car-body, as will be understood by reference to Fig. 1.

The gate mechanism of the car-body is composed of a gate 16, secured to one extremity of levers 17, pivoted at or near their center to the car-body, as at 18, and at their other extremity pivoted, as at 19, to the upper ends of swinging arms 20, which are pivoted to the standards or posts 8, as at 21, in such manner that when the car-body is tilted

to the dumping position indicated by Fig. 3 the levers 17 are held approximately in a horizontal position, and consequently the gate will be prevented from following the movement of the car-body, thereby opening the side of the car-body and permitting the contents thereof to discharge.

In the tilting of the car-body to the position indicated by Fig. 3, the arms 20 are swung to the action of the levers 17 incident to their being pivoted to the car-body, as at 18; but at the same time the arms 20 preserve the levers 17 in a horizontal position, or approximately so, for the purpose of holding the gate 16 suspended when the car-body is tilted to discharge the load.

When the car-body is in its normal horizontal position, it may be locked by any device suitable for the purpose; but I prefer to employ a catch-lever 22, pivoted to the central longitudinal beam 10 and adapted to engage a hook 23, secured to the car-body. The locking mechanism for the car-body may, however, be variously modified without changing the character of my invention.

The construction of the truck is simple and efficient and provides a strong, substantial, and durable structure, which is particularly useful in connection with a tilting or dumping car-body, while the end extensions of the metallic side frames beyond the truck-wheels are important features for the purpose of carrying the standards or posts 8, which sustain the car-body in its normal horizontal position.

By constructing the truck of arched metallic bars, as represented, it can be made

light in weight and possess the strength requisite for this character of cars.

Having thus described my invention, what I claim is—

1. The combination, with a tilting or dumping car-body having suitable gate mechanism, of a truck pivotally connected along its median line to the longitudinal center of the car-body and composed of metallic skeleton side frames extended at each end beyond the truck-wheels and having such extensions provided with standards or posts by which the car-body is supported in its normal horizontal position, substantially as described.

2. The combination, with a tilting or dumping car-body, of a truck pivotally connected along its median line to the longitudinal center of the car-body and composed of metallic skeleton side frames extending at each end beyond the truck-wheels and having such extensions provided with standards or posts 8, by which the car-body is supported in its normal horizontal position, and gate mechanism composed of swinging arms pivoted to the standards or posts, levers pivoted at one end to the arms and to the car-body, and a gate attached to the opposite end of the levers, substantially as described.

In testimony whereof I have hereunto set my hand and affixed my seal in presence of two subscribing witnesses.

MALACHI O'CONNOR. [L. S.]

Witnesses:

ALBERT H. NORRIS,
J. A. RUTHERFORD.