

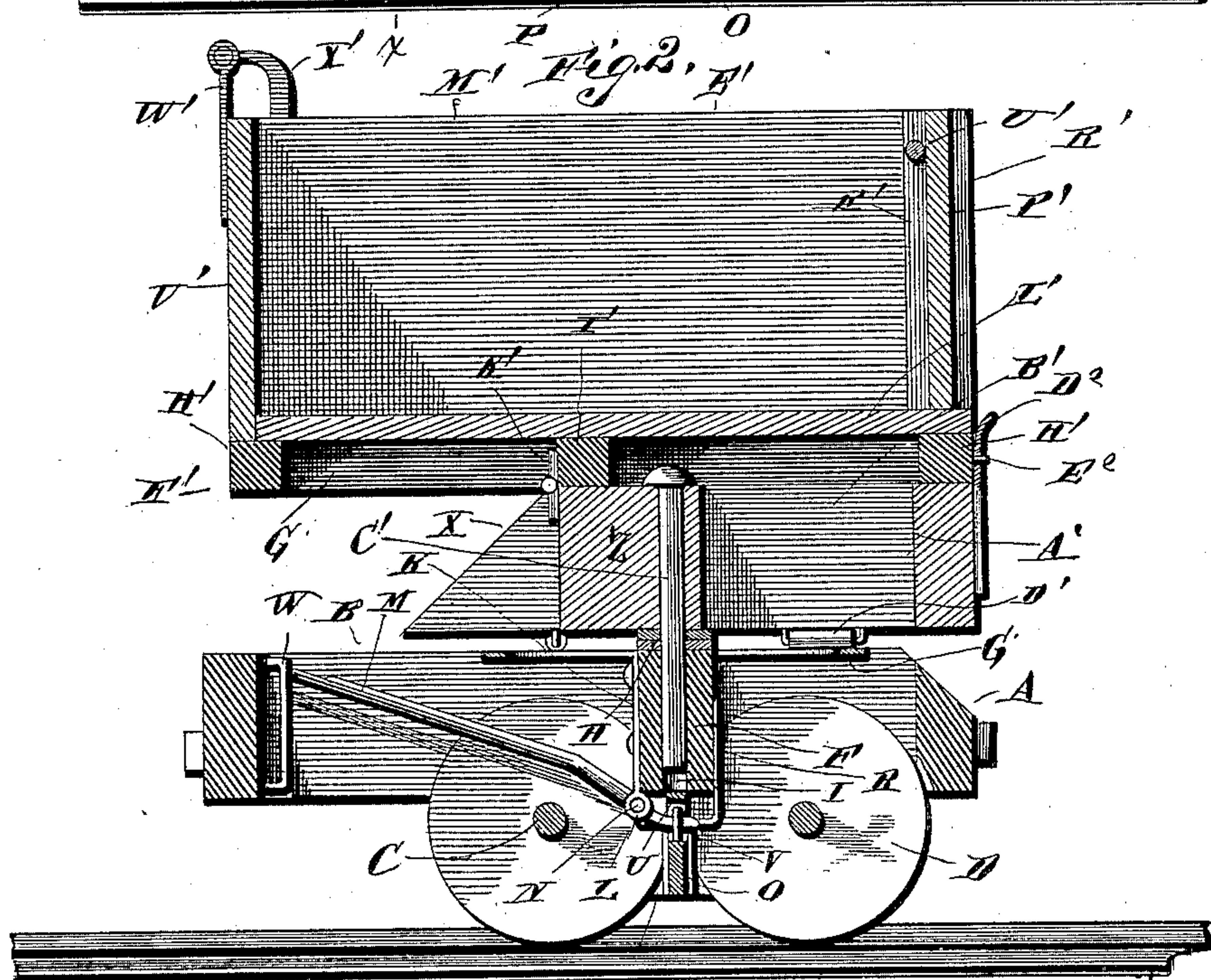
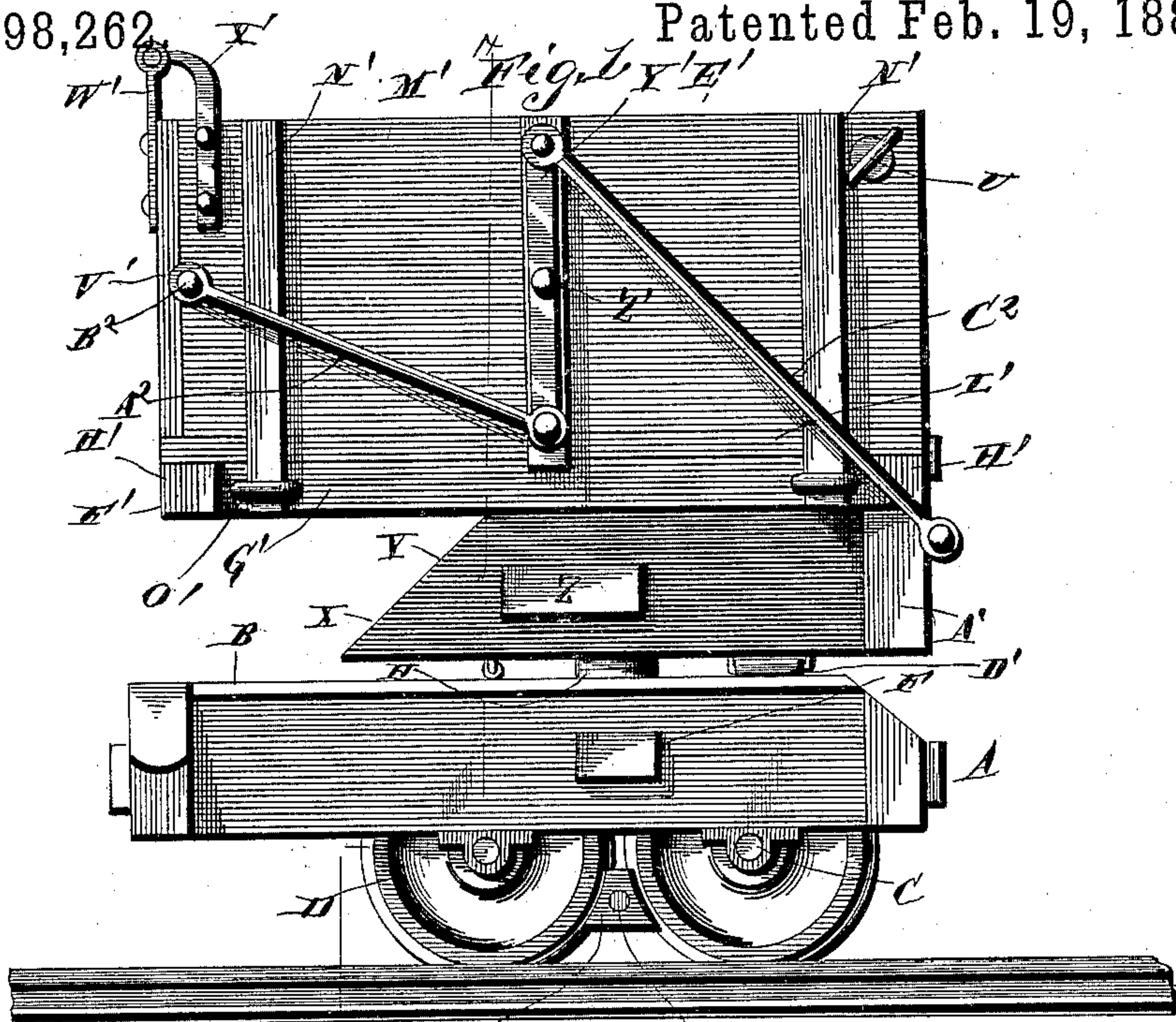
(No Model.)

2 Sheets—Sheet 1

C. C. KING.  
DUMPING CAR.

No. 398,262

Patented Feb. 19, 1889.



Witnesses.

*O. B. Taylor,*  
*Dever*

*P*

Inventor.

*C. C. King*

By *his* Attorneys

*C. A. Snow*

(No Model.)

2 Sheets—Sheet 2.

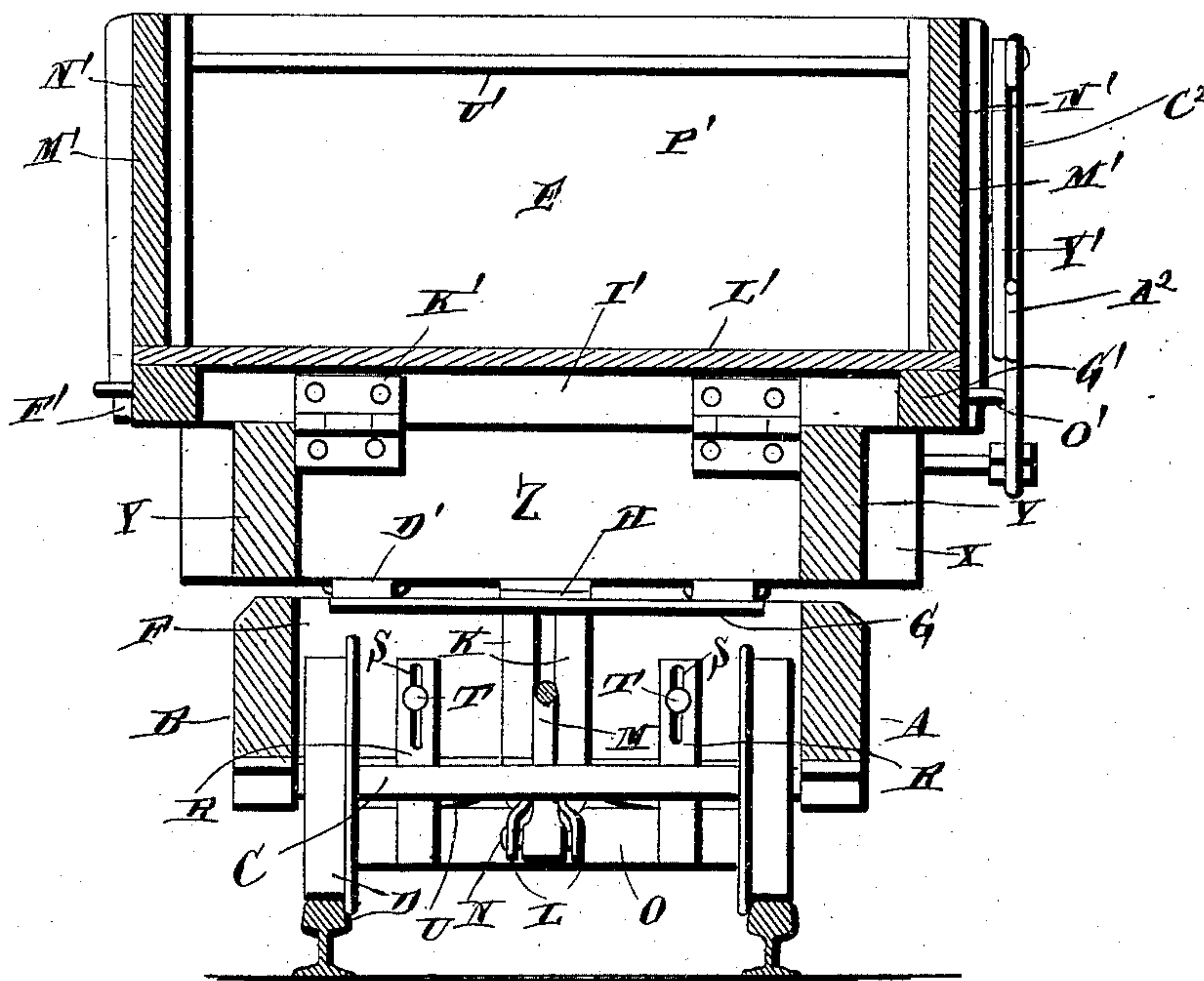
C. C. KING.

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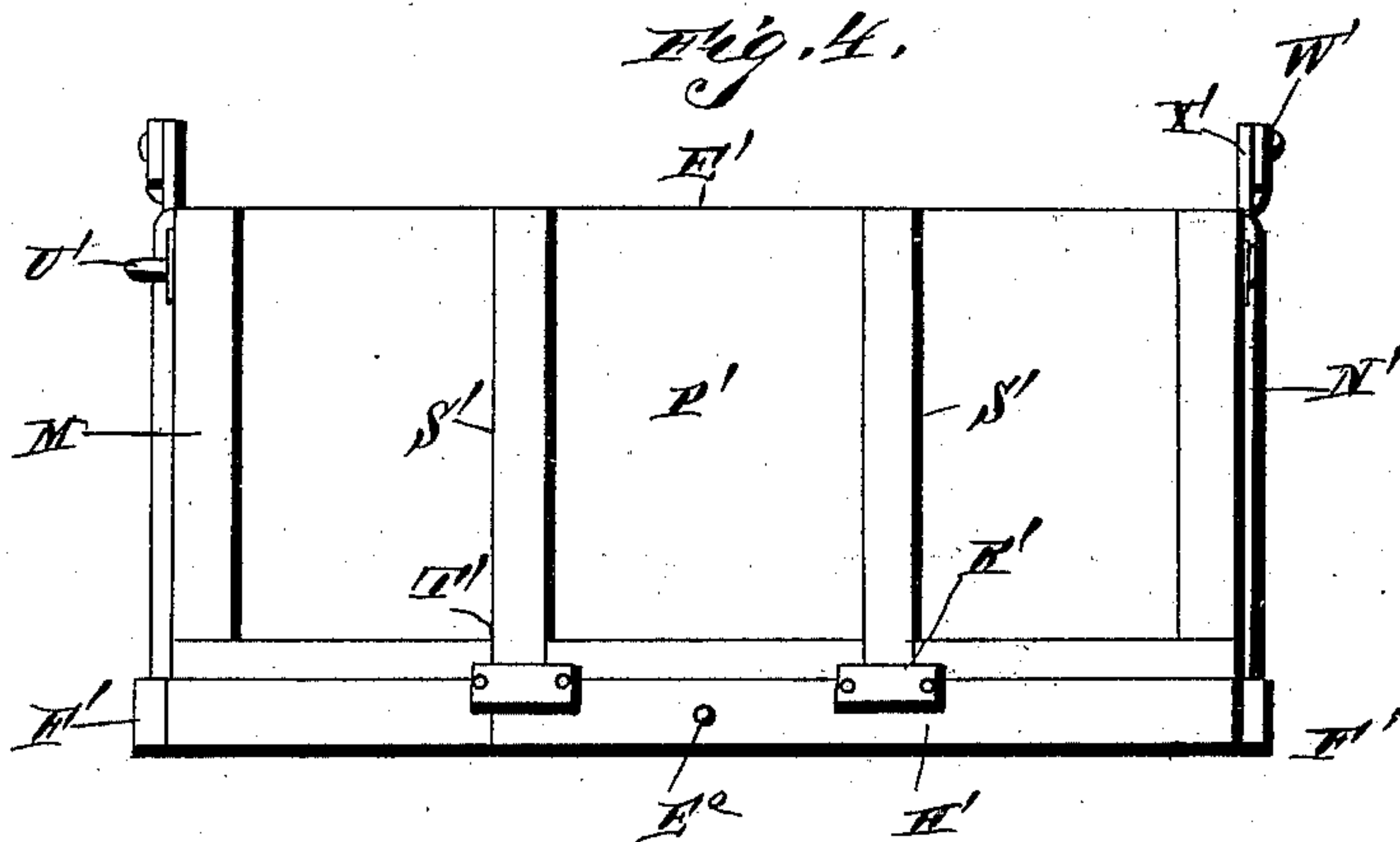
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*Fig. 3.*



*Fig. 4.*



Witnesses.

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# UNITED STATES PATENT OFFICE.

CARLOS CURTIS KING, OF MONTEZUMA, INDIANA.

## DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 398,262, dated February 19, 1889.

Application filed July 6, 1888. Serial No. 279,167. (No model.)

### *To all whom it may concern:*

Be it known that I, CARLOS CURTIS KING, a citizen of the United States, residing at Montezuma, in the county of Parke and State of Indiana, have invented a new and useful Improvement in Dump-Cars, of which the following is a specification.

My invention relates to an improvement in dump-cars; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a dump-car embodying my improvement. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a transverse sectional view taken on the line  $xx$  of Fig. 1. Fig. 4 is a detail view.

A represents a truck, which comprises a rectangular frame, B, and the axles C, journaled under said frame near one end thereof, and provided with the usual flanged wheels, D.

F represents a transverse bar, which connects the side beams of the truck-frame and is arranged midway between the axles, and on the upper side of the said beam is secured a circular track, G, and a circular plate, H, which is arranged concentrically with the track, and has a central opening that registers with the vertical central opening, I, in the cross-beam.

K represents a pair of straps, which are arranged in a vertical position and secured to one side of the cross-beam F at the center of the same. The lower ends of the said straps depend from the said frame, and are twisted at right angles to form ears L, between which is fulcrumed a lever, M, by means of a pin or bolt, N, which passes through aligned openings in the said ears and in the said lever.

O represents a brake-beam, which is provided at its ends with brake shoes or blocks P, that are arranged between the peripheries of the wheels. The said brake-beam is provided near its ends on opposite sides with vertical arms or hangers R, the upper ends of which are on opposite sides of the cross-beam F, and are provided with vertical slots S, which are engaged by studs or pins T, which project from the sides of the cross-beam, the said studs or pins serving to guide

the arms R in a vertical direction, and hence permitting the brake-beam and the blocks attached thereto to be raised and lowered.

U represents a semi-elliptic leaf-spring, which is arranged under the center of the cross-beam S, and has its ends bearing on the upper side of the brake-beam O at points between the hangers R. The function of this spring is to keep the brake-beam normally depressed, so that the brake shoes or blocks are out of contact with the wheels of the truck.

On the upper side of the brake-beam O, at the center thereof, is an eye or keeper, V, which is engaged by the short end of the lever M. The outer end of the latter is flattened and provided at one side with an edge which is adapted to engage either of a series of notches on one side of a vertical rack or keeper, W, which is secured in one end of the truck-frame. By this means the lever may be maintained in any desired position, so as to secure the same when it has been operated to cause the brake to be applied to the wheels, as will be readily understood.

X represents a rectangular turn-table frame, which comprises a pair of parallel beams, Y, a cross-beam, Z, which connects the same near one end, a cross-beam, A', which connects the opposite ends of the beams Y, and a central crossed or bridge bar, B', which connects the centers of the beams Z and A'. From the center of the beam Z depends a king-bolt, C', which engages the opening I in the truck, and thereby serves to horizontally pivot the turn-table frame thereon. On the under sides of the beams Z and B' are arranged anti-friction rollers D', which bear upon the circular track G and support the turn-table frame. The ends of the beams Y, which project beyond the outer sides of the cross-beams E, are beveled or inclined on their upper sides, as shown.

E' represents the car box or body, the construction of which is as follows:

F' represents a rectangular frame, which comprises a pair of parallel beams, G', and a pair of parallel beams, H', arranged at right angles thereto, the ends of said beams G' and A' being mortised and tenoned together, as shown. The beams G' are connected at a



point near their centers by a cross-beam, I'. K' represents hinges, which connect the said cross-beams I' to the cross-beam Z of the turn-table frame, as shown.

5 L' represents a platform, which forms the bottom of the car-body, and is secured on the frame F'.

M' represents two sides of the car-body, which are arranged opposite each other and provided with standards N', that have their lower ends inserted in keepers O' on opposite sides of the frame F'.

P' represents one side of the car-body, which has its ends inserted between cleats R' on the opposing faces of the sides M', at one end thereof, and is provided with standards S', which have their lower ends inserted in sockets T' in one side of the platform.

This side P' is thereby adapted to be readily removed from between the sides M'.

U' represents a tie-bolt, which connects the upper corners of the sides M' and bears against the inner side of the side P', the function of the said tie-bolt being to clamp the sides M' against the ends of the sides P'.

V' represents an end-gate, which is provided at its ends with hangers W', the upper ends of which project above the upper side of the end-gate and have inwardly-projecting pintles, which are pivoted in eyes or openings that are formed at the upper outwardly-projecting ends of brackets X', which are secured to the sides M'.

Y' represents a lever, which is centrally fulcrumed on a bolt, Z', which projects from the center of one side M'. A<sup>2</sup> represents a link-rod which connects the end of the said lever to a pin, B<sup>2</sup>, that projects from one side of the end-gate, and C<sup>2</sup> represents a link-rod which connects the opposite ends of the said lever with a pin or bolt that projects from one side of turn-table frame.

The operation of my invention is as follows: By means of the turn-table frame being centrally pivoted on the truck-frame the same may be turned in a horizontal direction thereon, so as to arrange the pivoted end-gate of the car box or body over any side or end of the truck from which it may be desired to dump the contents of the box. By reason of the car box or body being hinged on the turn-table frame the same is adapted to be tilted onto the inclined ends of the beams Y, as will be readily understood. When the said

box or body is thus inclined, the link-rod C<sup>2</sup> draws upon the upper end of the lever Y', so as to turn the latter on its pivotal bolt, and the lower end of said lever thrusts the link-rod A<sup>2</sup>, which is connected to the end-gate, and thereby automatically opens the said end-gate and causes the same to discharge the contents of the car. When the latter is caused to reassume its normal horizontal position, the said lever and link-rods serve to automatically close the end-gate.

On one side of the turn-table frame is secured a spring-hasps, D<sup>2</sup>, which is adapted to engage a stud, E<sup>2</sup>, that projects from the rear side of the frame F', the function of said hasp and stud being to lock the car box or body when the same is in its normal horizontal position on the turn-table frame.

Having thus described my invention, I claim—

1. The combination of the frame, the car box or body thereon and adapted to incline or tilt, the end-gate pivoted or hinged at its upper side to one side of the car box or body, and connections, substantially as described, between the said end-gate and the fixed portion of the frame, whereby when the box or body is tilted the end-gate will be automatically opened, substantially as described.

2. The combination of the frame, the car box or body hinged thereon and adapted to tilt or incline, the end-gate hinged or pivoted to one side of the car box or body, the lever Y', fulcrumed on the car box or body, the link-rod A<sup>2</sup>, connecting the same to the end-gate, and the link-rod C<sup>2</sup>, connecting the opposite end of the lever to a fixed point on the frame, for the purpose set forth, substantially as described.

3. The combination of the truck having the circle, the turn-table frame pivoted on the truck and having the rollers bearing on the circle, and the car box or body hinged to the turn-table frame and adapted to tilt or incline thereon, and the catch or lock for holding the car box or body from tilting, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

CARLOS CURTIS KING.

Witnesses:

H. B. GRIFFITH,  
W. L. RAMEY.