

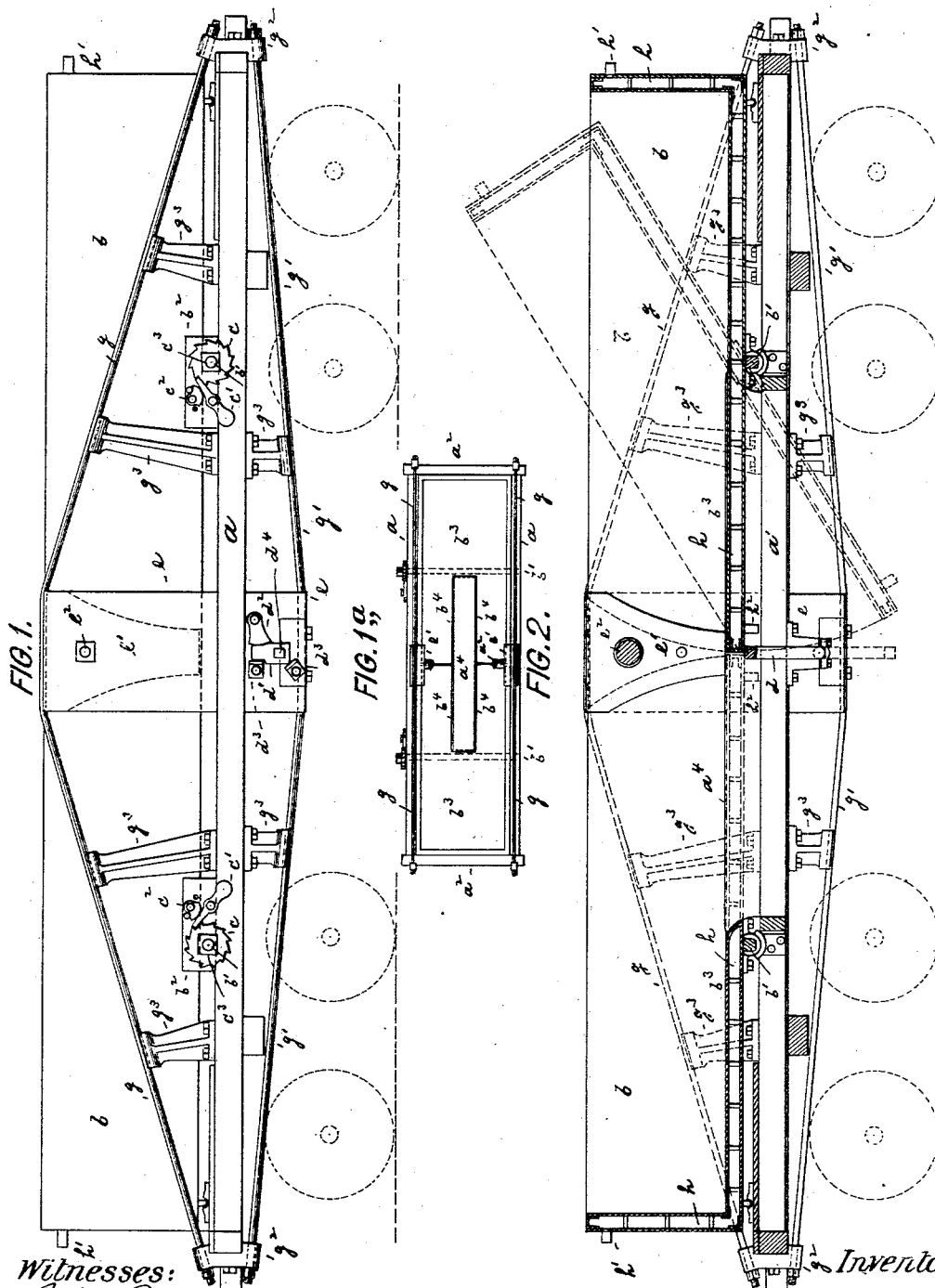
(No Model.)

2 Sheets—Sheet 1.

G. T. MORRIS.  
DUMPING CAR.

No. 525,741.

Patented Sept. 11, 1894.



Witnesses:  
John Becker  
Theodore Becker.

Inventor:  
George T. Morris  
by his attorneys  
Rooder & Briesew

(No Model.)

2 Sheets—Sheet 2.

G. T. MORRIS.  
DUMPING CAR.

No. 525,741.

Patented Sept. 11, 1894.

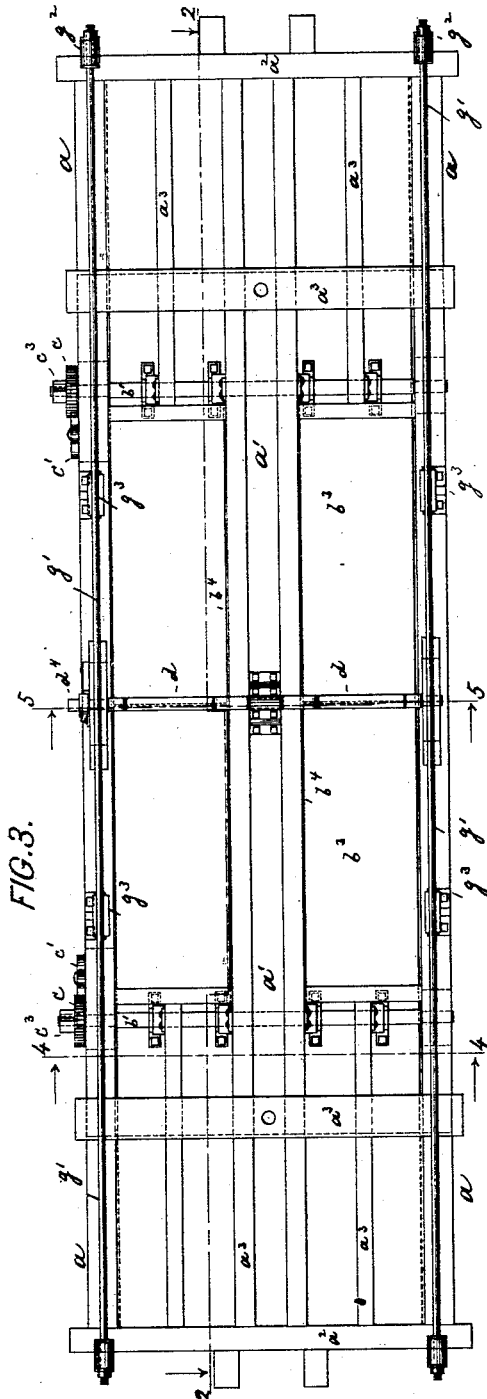


FIG. 3.

Witnesses:  
John Becker.  
Theodore Becker.

FIG. 5.

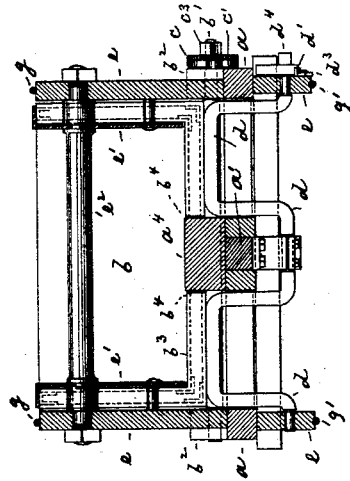
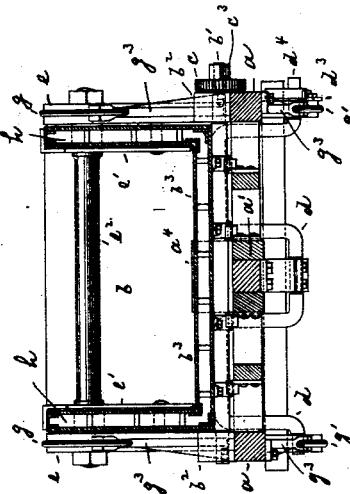


FIG. 4.



Inventor.

George T. Morris  
by his attorneys  
Rooder & Brien

# UNITED STATES PATENT OFFICE.

GEORGE T. MORRIS, OF GUTTENBERG, NEW JERSEY.

## DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 525,741, dated September 11, 1894.

Application filed April 5, 1894. Serial No. 506,399. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE T. MORRIS, of Guttenberg, Hudson county, New Jersey, have invented an Improved Freight-Car, of which  
5 the following is a specification.

This invention relates to a freight car of peculiar construction and having a divided box which will discharge its entire contents when tilted.

10 In the accompanying drawings: Figure 1 is a side elevation of my improved freight car; Fig. 1<sup>a</sup>, a top view of the same on a reduced scale; Fig. 2, a vertical longitudinal section  
15 on line 2, 2, Fig. 3; Fig. 3, a bottom view of the car; Fig. 4, a cross section on line 4, 4, Fig. 3, and Fig. 5 a cross section on line 5, 5, Fig. 3.

The letters *a*, represent the side sills; *a'*, the center sill and *a*<sup>2</sup>, the end sills of a freight  
20 car, reinforced by suitable bottom timbers *a*<sup>3</sup>.

The box of the car is divided transversely at the center, so that two separate sections *b*, are formed. Each of these sections is provided at or near the center with a shaft *b'*,  
25 turning in bearing blocks *b*<sup>2</sup>, secured to the side sills *a*. The shafts *b'*, carry at one end a ratchet wheel *c*, engaged by a pawl *c'*, which in turn is engaged by an eccentric *c*<sup>2</sup>.

The bottom *b*<sup>3</sup>, of each section *b*, is slotted  
30 at the center, as at *b*<sup>4</sup>, (Fig. 1<sup>a</sup>) so that the bottom is able to straddle the center sill *a'*, when the boxes are tilted. In order to form a flush surface at this opening, the center sill *a'*, is provided with a central projection  
35 *a*<sup>4</sup>, (Fig. 5) that extends upward flush with the surface of bottom *b*<sup>3</sup>. At their junction, the two bottoms *b*<sup>3</sup>, are jointly supported upon an arm *d*, made of a double U shape, so as to  
40 straddle the center sill, and to reach up to the bottoms *b*<sup>3</sup>, to the right and left thereof. This arm is pivoted to the center sill and also to side pieces *e*, projecting upwardly and downwardly from the side sills *a*. At one of  
45 its ends the arm *d*, carries a finger *d'*, engaged by a dog *d*<sup>2</sup>, and limited in its motion by stops *d*<sup>3</sup>.

In order to dump the car, the dog *d*<sup>2</sup>, is first swung aside and then the arm *d*, is revolved by a wrench applied to a squared head *d*<sup>4</sup>.

In this way the inner ends of the bottoms *b*<sup>4</sup>, 50 are left unsupported. Next, the eccentrics *c*<sup>2</sup>, are swung aside to liberate the pawls *c'*, and the latter are swung out of engagement with the ratchet wheels *c*. A wrench is now applied to squared heads *c*<sup>3</sup>, of shafts *b'*, so  
55 as to tilt the boxes *b*, inward, which operation may be facilitated by stepping upon the inner unsupported ends of the boxes. It will be seen that in this way both boxes discharge their entire contents automatically  
60 beneath the center of the car, which is the object desired.

The inner upright edges of boxes *b*, are rounded or cut away (dotted lines Fig. 1) to permit the proper motion of the boxes. 65 These edges are covered by suitable face plates *e'*, secured to the side pieces *e*, and connected by a transverse rod *e*<sup>2</sup>.

In order to brace the car, I employ the outer brace rods *g*, *g'*, that extend over the  
70 top and bottom of the side pieces *e*, and are connected at their ends to caps *g*<sup>2</sup>, secured to the ends of side sills *a*. The rods *g*, *g'*, may be connected to such sills by the diagonal braces *g*<sup>3</sup>.

If desired the sides, ends and bottom of the boxes *b*, may be provided with double walls, to form a steam jacket *h*, having inlet *h'*, and outlet *h*<sup>2</sup>. Steam is admitted into this jacket during cold weather to thaw the frozen con-  
80 tents of the car.

What I claim is—

1. The combination in a freight car of a divided pivoted box with a center sill *a'*, a pair of central supporting shafts, and with a bent  
85 revoluble arm that supports the free ends of the box sections, substantially as specified.

2. The combination in a freight car of a divided pivoted box with central supporting shafts, and intermediate supporting arm and  
90 a pair of face plates *e'*, that extend over the inner ends of the box sections, substantially as specified.

3. The combination in a freight car having side sills and a center sill with a divided box  
95 having a slotted bottom adapted to straddle the center sill and shafts *b'*, supported on the side sills, substantially as specified.

4. The combination in a freight car having side sills and a center sill, with a divided box having a slotted bottom and with a pivoted arm *d*, for supporting the inner ends of the  
5 bottom, substantially as specified.
5. The combination in a freight car of the following elements: side sills, a center sill, a

divided box, shafts *b'*, arm *d*, sides pieces *e*, and brace rods *g*, *g'*, substantially as specified.

GEORGE T. MORRIS.

Witnesses:

F. V. BRIESEN,  
WILLIAM SCHULZ.