

No. 612,053.

Patented Oct. 11, 1898.

G. W. PENN & G. W. PENN, JR.

CAR.

(Application filed Apr. 5, 1898.)

(No Model.)

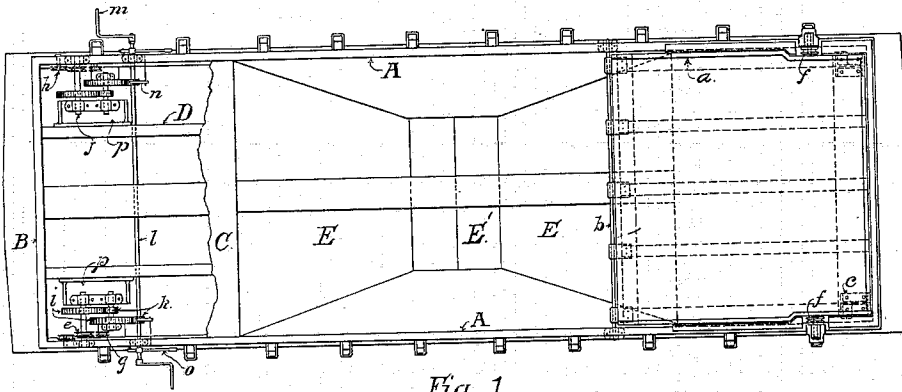


Fig. 1.

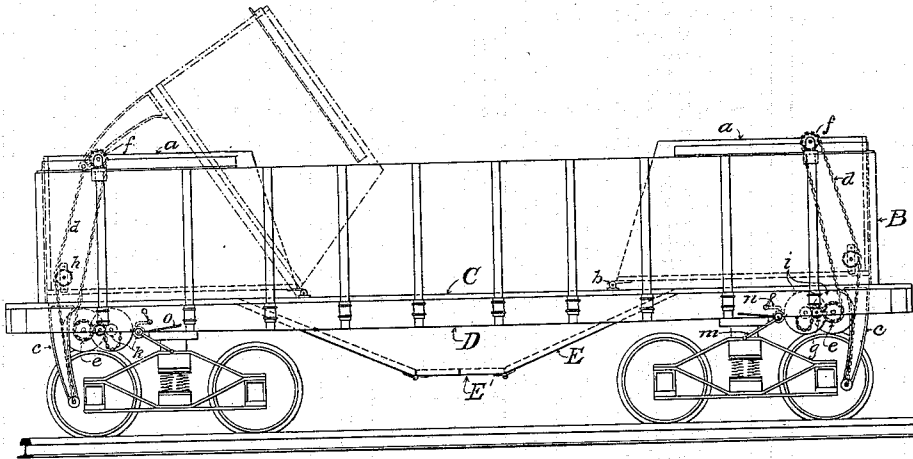


Fig. 2.

WITNESSES:

*A. J. Robins*  
*H. Mac Farthy*

INVENTORS:

*George W Penn*  
*George W. Penn Jr*  
 BY  
*Benjamin Price*  
 ATTORNEY

# UNITED STATES PATENT OFFICE.

GEORGE W. PENN AND GEORGE W. PENN, JR., OF BALTIMORE, MARYLAND,  
ASSIGNORS OF THREE-FIFTHS TO JAMES S. WHITELEY AND CHARLES H.  
BROWN, JR., OF SAME PLACE.

## CAR.

SPECIFICATION forming part of Letters Patent No. 612,053, dated October 11, 1898.

Application filed April 5, 1898. Serial No. 676,538. (No model.)

To all whom it may concern:

Be it known that we, GEORGE W. PENN and GEORGE W. PENN, Jr., of the city of Baltimore, in the State of Maryland, have invented a new and useful Improvement in Cars, of which the following is a full description.

The accompanying drawings illustrate the invention, of which—

Figure 1 is a top or plan view of a railway-car provided with devices for dumping coal or other freight. Fig. 2 is a side view of the same car, showing the hopper located at the bottom, the dumping-boxes at the end of the car, the one to the right in position for holding the material to be dumped and the other, to the left, represented in dotted lines, showing the position of box when discharging its contents.

A represents the body of the car; B, the end; C, the floor, and D the longitudinal beams.

The car, as represented in the drawings, is provided with the hopper E, having its trap E'. At each end of the car is provided a tray or box *a*, hinged upon the floor of the car, as shown at *b*, and these trays or boxes, in conjunction with the space between their hinged ends, represent the holding part or capacity of the car. Suitably journaled in the frame of the car is the rod *l*, provided with the cranks *m* and the pinions K and check-pawl *n*. These pinions are arranged to mesh with a suitable gearing, which turns the sprocket-wheel *e*, over which runs the sprocket-chain *d*. On the top of the car is placed the sprocket-wheel *f*, around which the chain *d* passes, and the other end of this chain is secured to the end of an arm *c*, projecting from the box *a* below the car-body, but arranged to be out of the way of the moving parts of the car. This arm is projected, as shown, so as to give sufficient lift above the top of the car to the box *a*. This arm is an important feature of the construction, as by viewing Fig. 2 it will be seen that the box *a* may be tilted at almost any angle to secure at all times a ready and prompt discharge of its contents.

The box *a* is provided at its upper side edges with flanges *a*<sup>2</sup>, as shown in both figures of the drawings. These flanges overlap the upper edges of the car side, and thereby prevent the contents of the box from getting between its sides and the sides of the car.

Supposing the car to be charged with coal, which fills the entire car-body, including both of the hinged boxes, it will be seen that by opening the trap E' the car will discharge its contents, leaving only that portion of the contents contained in the boxes to be discharged. By turning the crank *m* and hoisting the rear ends of these boxes they are lifted until the contents run out in a line directed immediately over the hopper E. Thus the entire car is discharged without shoveling or other manual labor.

What we claim, and desire to secure by Letters Patent, is—

1. A car-body provided with a discharge-hopper E, and the trap E' in combination with two end boxes having their inner ends hinged at a point beyond the junction of the hopper with the bottom of the car, the arm *c* attached to the boxes at their rear ends and projecting below the body of the car and hoisting devices attached to the arms, whereby the boxes are tilted at any desired angle to discharge the contents.

2. In combination with a railway-car provided with the hopper E, a hinged box provided at its rear end with the arm *c* and the sprocket-chain *d* passing over the sprocket-wheels *f* and *e*, and a gearing for turning the sprocket-wheel *e* actuated by the crank *m*, whereby the hinged box is tilted at any desired angle to insure a free discharge of its contents.

3. A car-body provided with a discharge-hopper E and the trap E', in combination with two end boxes hinged at their inner ends at a point beyond the junction of the inclined sides of the hopper with the bottom of the car, the flanges *a*<sup>2</sup> attached to the upper sides of the boxes, arranged to project over the upper edges of the walls of the car and means for tilting the boxes at an angle to insure a free discharge of its contents.

Signed at Baltimore city, in the State of Maryland, this 26th day of March, A. D. 1898.

GEORGE W. PENN.  
GEORGE W. PENN, JR.

Witnesses:

FELIX R. SULLIVAN,  
G. D. NEAVITT.