

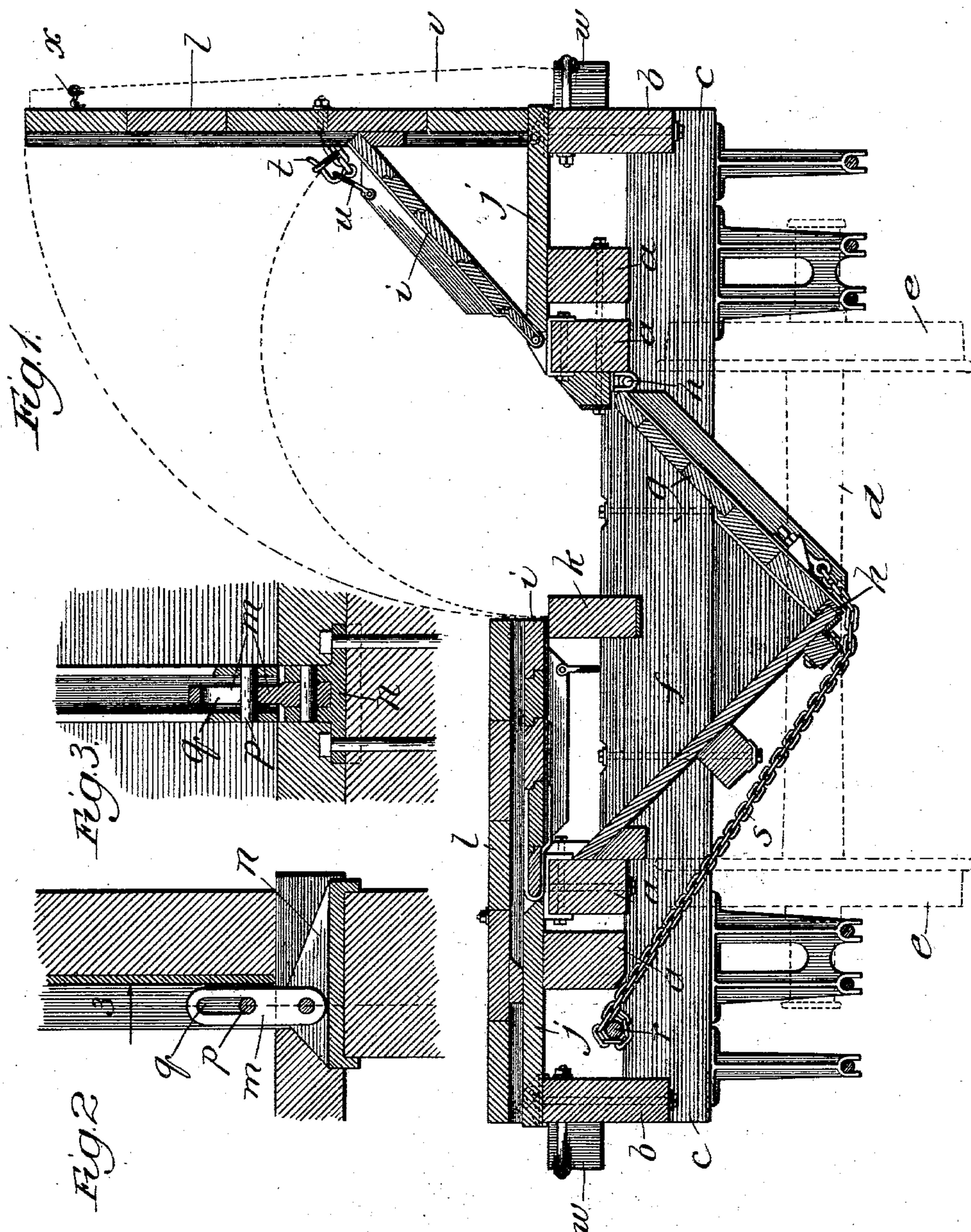
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O. W. MEISSNER.
DUMP CAR.

APPLICATION FILED JULY 11, 1903.

NO MODEL.



Witnesses:
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UNITED STATES PATENT OFFICE.

OTTO W. MEISSNER, OF CHICAGO, ILLINOIS, ASSIGNOR TO RODGER BALLAST CAR COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

DUMP-CAR.

SPECIFICATION forming part of Letters Patent No. 753,506, dated March 1, 1904.

Application filed July 11, 1903. Serial No. 165,139. (No model.)

To all whom it may concern:

Be it known that I, OTTO W. MEISSNER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Dump-Cars, of which the following is a specification.

This invention relates to that class of dump-cars known as "Rodger ballast-cars," and particularly to the construction and arrangement by which such car may be made convertible and used as a center-dump car of the Rodger type, as a flat-bottom gondola car, and as a platform-car, all of which will more fully hereinafter appear.

The principal object of the invention is to provide a simple, economical, and efficient convertible dump-car.

The invention consists principally in a convertible dump-car in which there are combined a supporting-framework, a V-shaped hopper portion extending lengthwise of the car with its apex at or near the longitudinal center thereof and formed in two portions, a lower V portion secured to the supporting-framework and extending below the same, and an upper portion foldably secured to the supporting-frame portion above the same, so as to form the upper portions of the inclined sides of the hopper when in one position and complete the flat floor of a gondola car when in a second position, and foldable side boards pivotally secured to the supporting-framework of the car above the floor portion to form the sides of a gondola car when in one position and to be swung to a second position to form a platform car.

The invention consists, further and finally, in the features, combinations, and details of construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a cross-sectional view of one type of car as it appears when constructed in accordance with these improvements, showing half of the car with the parts arranged in one position, so as to form a flat platform-car, and the other half in position to form a center-dump car of the Rodger type; Fig. 2, an enlarged sectional detail of the link mechanism by which the fold-

able side boards are pivotally secured in position, and Fig. 3 a sectional detail taken on line 3 of Fig. 2 looking in the direction of the arrow.

In illustrating and describing these improvements I have only illustrated and will here describe that which I consider to be new, taken in connection with so much as is old as will properly disclose the invention to others and enable those skilled in the art to practice the same, leaving out of consideration other and well-known mechanisms which if set forth herein would only tend to confusion, prolixity, and ambiguity.

In constructing a car in accordance with these improvements I provide a supporting-framework, preferably having a plurality of longitudinal sills *a*, two side sills *b*, and cross-beams *c*, tied together in any convenient or usual manner and supported in the ordinary way upon a car-axle *d*, having ordinary car-wheels *e*.

To form a convertible dump-car, I provide a V-shaped hopper portion and arrange it lengthwise of the car, with its apex at or near the longitudinal center, to form what is known as a "hopper-bottom center-dump car." This hopper portion is made in two portions—a lower V-shaped part having one inclined side *f* rigidly attached to the framework of the car and another side, *g*, pivotally secured to the framework at *h* and meeting the fixed side at an apex below the supporting-framework of the car. The foldable inclined section *g* forms a discharging-door and is provided at its lower end with an angle-iron *h*, which in a measure forms a pocket (see Fig. 1) to receive the lower end of the fixed section, and thus permit of a slight opening movement of such swinging door without any discharge of material. The second portion of the hopper is arranged above the supporting-framework of the car and formed of two foldable sections *i*, that are pivotally secured to such framework and adapted to be folded upwardly and outwardly, as shown to the right of Fig. 1, to form portions of the inclined sides of the hopper-bottom when in one position, and again to be folded downwardly and laid in a

flat plane, as shown to the left of Fig. 1, to form a continuation of or part of the flat floor *j* of a gondola car. When laid in a flat plane, these parts rest upon a center beam *k*, that
 5 may be removed when the car is used as a center-dump car. To complete this type of car, side boards *l* are provided and pivotally secured to the supporting-framework at the upper outer sides, so that they may be ar-
 10 ranged in a vertical position, as shown to the right of Fig. 1, to complete a flat-bottom gondola car or the sides of a center-dump car of the Rodger type, and again in a second position may be laid in a flat plane, as shown to
 15 the left of said figure, so as to form a platform-car.

A plurality of links *m* is provided, pivotally secured to brackets *n* on the framework of the car and having pivotal connection with
 20 pins *p* on the lower edges of said side boards. These links are slotted at *q*, where they have their pivotal connection with the pins on the lower edges of the side boards, so as to permit the necessary play for said boards to be
 25 laid in a flat plane or arranged in vertical position, as shown in the drawings.

To open and close the discharging-door *g*, a rock-shaft *r* and chain *s* are provided, as shown in Fig. 1, all in the usual manner. A
 30 hook *t* and link *u* are provided to hold and lock the upper inclined portions of the hopper and the vertical side boards in position. When the car is to be used as a flat-bottom gondola car, side stakes *v* are provided and in-
 35 serted in the metal stake-pockets *W*. Hooks and staples *x* or other suitable means may be used to lock said side boards to the stakes.

I claim—

1. In a convertible dump-car, the combination of a supporting-framework, a V-shaped
 40 hopper extending lengthwise of the car and formed in two portions—a lower portion and an upper foldable portion arranged to be folded into a flat plane and complete the floor of
 45 a gondola car or opened to complete the inclined sides of a hopper-car, and side boards pivotally secured to the framework of the car to form the sides of either a gondola or hopper car in one position and to be swung to a
 50 second position to convert the car into a platform-car, substantially as described.

2. In a convertible dump-car, the combination of a supporting-framework, a V-shaped
 55 hopper portion extending lengthwise of the car and formed in two portions—a lower V portion secured to the supporting-framework and extending below the same and an upper portion formed of two swinging sections foldably secured to the supporting-frame portion
 60 above the same so as to form the upper portion of the inclined sides of the hopper in one position and complete the flat floor of a gondola car when in a second position, and side boards pivotally secured to the supporting-
 65 framework of the car above the floor portion

to form the sides of a gondola car when in position and to be swung into a flat plane in a second position to form the flat floor of a platform-car, substantially as described.

3. In a convertible dump-car, the combination of a supporting-framework, a V-shaped
 70 hopper portion extending lengthwise of the car and formed in two parts—a lower V-shaped part formed of one fixed and one swinging section attached to the supporting-framework
 75 of the car below the same, an angle-iron on the lower end of the swinging section to form a recess to receive the lower end of the fixed section and an upper portion formed of two swinging sections pivotally secured to the
 80 framework of the car above the same so as to form the upper portions of the inclined sides of the hopper when in one position and to be laid in a flat plane when in a second position
 85 to form parts of the flat bottom of a gondola car, and side boards foldably secured to the framework of the car above the same and arranged when in one position to form the sides of a flat bottom gondola or center-dumping
 90 car and to be swung or folded into a second position over the upper portions of the hopper and laid in a flat plane to form the floor of a platform-car, substantially as described.

4. In a convertible dump-car, the combination of a supporting-framework, a V-shaped
 95 hopper portion extending lengthwise of the car and formed in two parts—a lower V-shaped part having one fixed and inclined section rigidly attached to the supporting-framework of the car below the same and a second
 100 swinging inclined section pivotally secured to the supporting-framework and provided with an angle-iron at the lower end to form a recess to receive the lower end of the fixed section, and an upper portion formed of two swinging
 105 sections pivotally secured to the framework of the car above the same so as to form the upper portions of the inclined sides of the hopper when in one position and to be laid in a flat plane when in a second position to form
 110 parts of a flat bottom for a gondola car, side boards foldably secured to the framework of the car above the same and arranged when in one position to form the vertical sides of a flat-bottom gondola or center-dumping car and to
 115 be folded into a second position over the upper portions of the hopper and laid in a flat plane to form the floor of a platform-car, and a plurality of links pivotally secured to the supporting-framework and the side boards and
 120 having a slotted engagement with the lower ends of the vertical side boards to permit the foldable operations thereof, substantially as described.

5. In a convertible dump-car, the combination of a supporting-framework, a V-shaped
 125 hopper portion extending lengthwise of the car and formed in two parts—a lower V-shaped portion secured to the framework of the car and extending below the same and an
 130

upper portion formed of two swinging sections
pivotaly secured to the supporting-frame-
work of the car above the same so as to form
the upper portions of the inclined sides of the
5 hopper when in one position and parts of a flat
bottom for a gondola car when in a second
position, and swinging side boards pivotaly
secured to the supporting-framework of the
car above the same so as to form vertical side
boards for either a flat-bottom gondola or cen- 10
ter hopper-dumping car when in one position
and the flat floor of a platform-car when in a
second position, substantially as described.

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