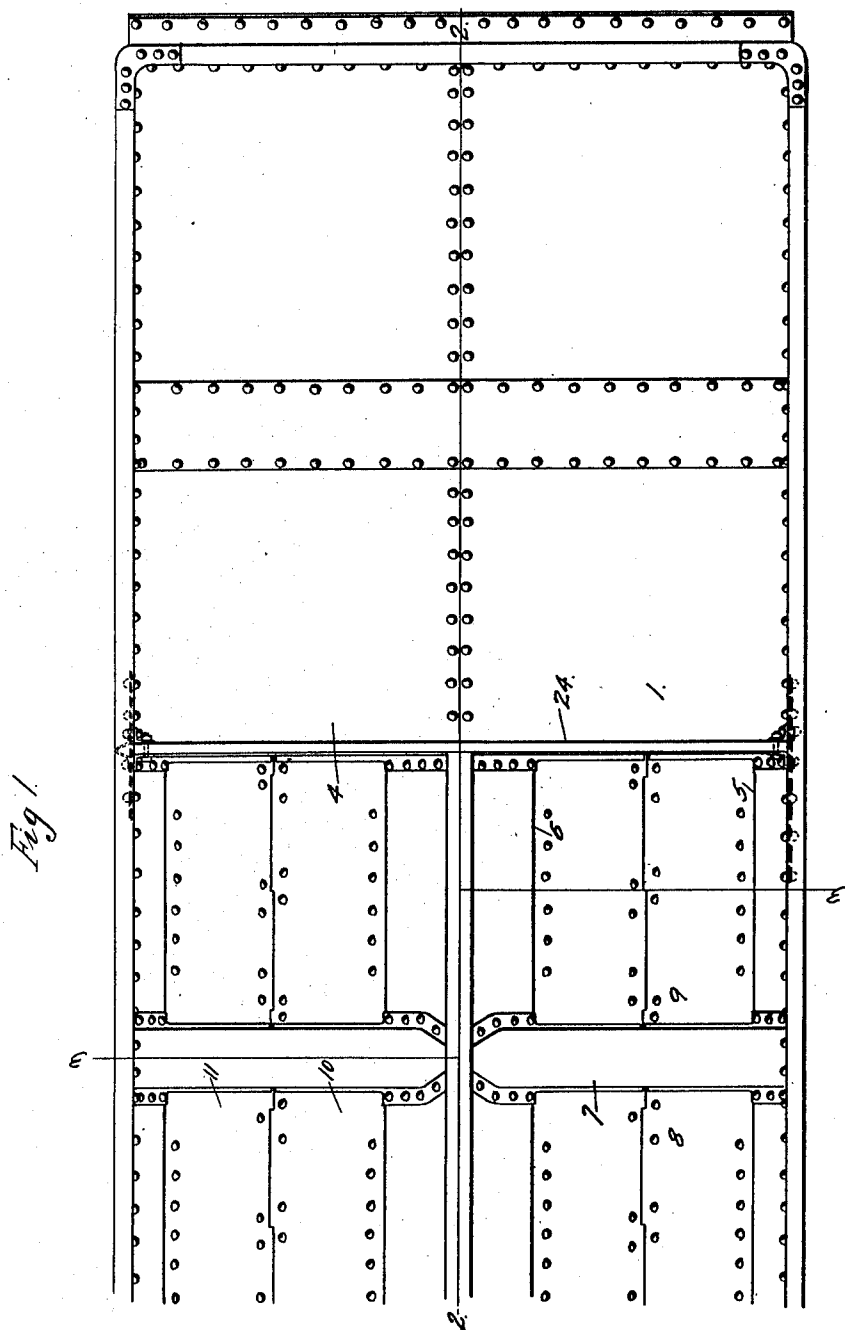


A. CAMPBELL.
DUMP CAR.
APPLICATION FILED APR. 28, 1910.

974,471.

Patented Nov. 1, 1910.

3 SHEETS—SHEET 1.



WITNESSES:
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3 SHEETS—SHEET 2.

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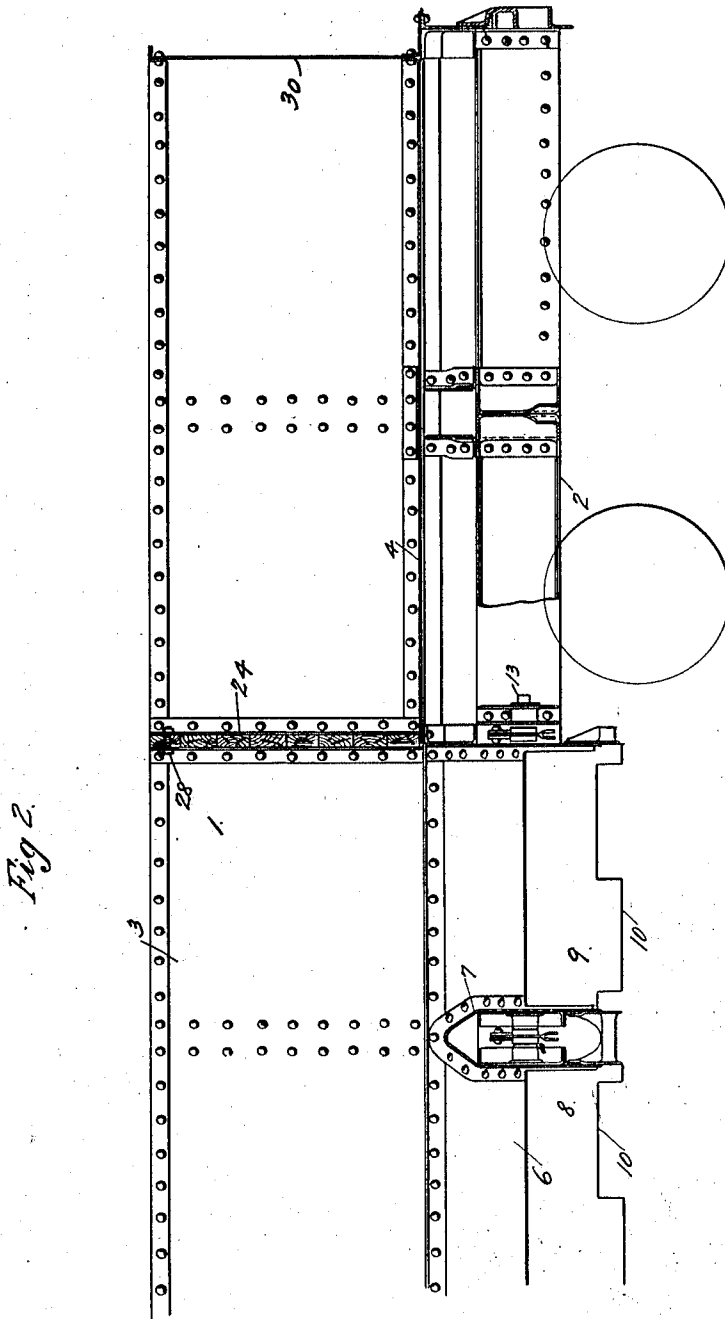


Fig. 2.

WITNESSES:

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INVENTOR

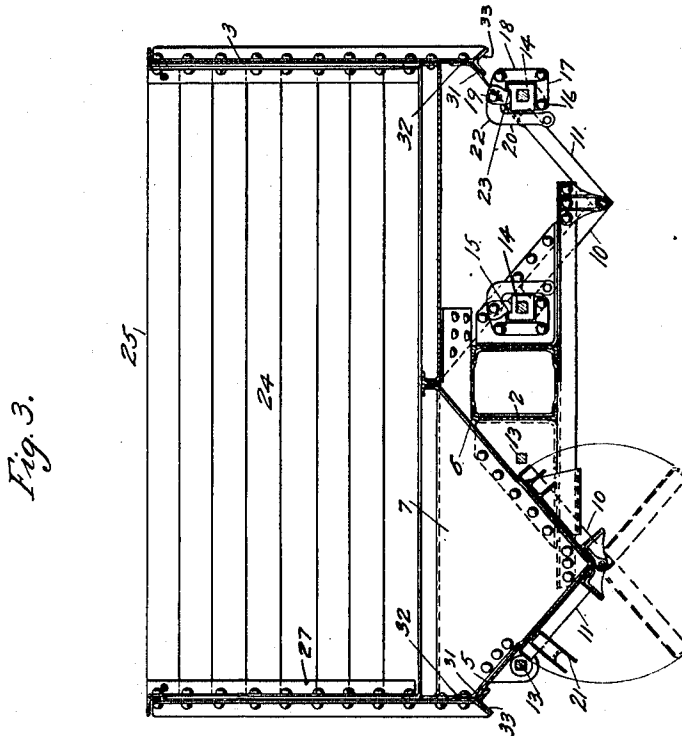
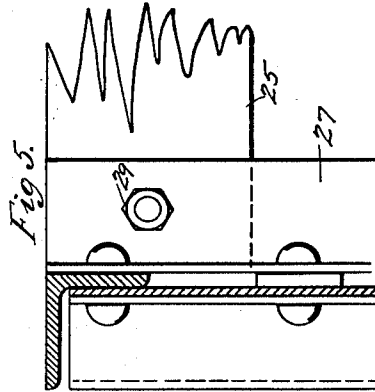
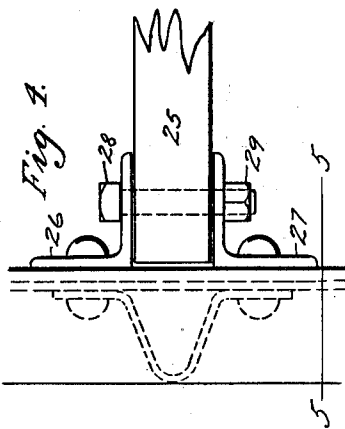
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

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DUMP-CAR.

974,471.

Specification of Letters Patent.

Patented Nov. 1, 1910.

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To all whom it may concern:

Be it known that I, ARGYLE CAMPBELL, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Dump-Cars, of which the following is a specification.

My invention relates to improvements in dump cars.

10 The object of my invention is to provide an improved construction of dump car, which will be adapted for use either as a car for ballast or other heavy materials where the full load or tonnage can be carried at the central portion of the car body between the trucks, or for coal or other like materials where the full load or tonnage requires the whole length of the car body.

20 My invention consists in the means I employ to practically accomplish this object or result as herein shown and described and more particularly specified in the claims.

In the accompanying drawing forming a part of this specification, Figure 1 is a plan view of my improved dump car, only half the length of the car body being shown for convenience of illustration, as both halves are duplicates of each other. Fig. 2 is a vertical section on line 2—2 of Fig. 1, certain parts being shown in elevation. Fig. 3 is a cross section on line 3—3 of Fig. 1. Fig. 4 is an enlarged detail plan view and Fig. 5 is a detail section on line 5—5 of Fig. 4.

35 In the drawing, 1 represents the body of the car, 2 the center sills, 3 the upright sides, 4 the floor sheets, 5, 5 the longitudinal side hopper sheets, 6, 6 the central, longitudinal hopper sheets, 7 the transverse hopper sheets between the door openings 8, 9, 8, 9 on each side of the center sills.

Each of the door openings-8, 9 on each side of the middle line of the car is closed by a pair of doors 10, 11, hung in V shape and 45 each hinged at the bottom of the V on a longitudinally extending hinge pin or pintle 12. When the inner door 10 of either pair or of both pairs are open, the load may be centrally dumped. When the outer door 11 of either pair or both pairs is opened, the load may be dumped to the side. The doors may be operated or opened and closed by any suitable door operating mechanism. That 50 illustrated in the drawing, and which I prefer to use, comprises four longitudinally ex-

tending operating shafts 13, two of which extend longitudinally adjacent to the upright sides of the car, and the remaining two of which extend longitudinally adjacent to the center sills of the car underneath the 60 central hopper sheets. Each of these operating shafts is furnished with a winding drum 14, preferably a four sided one, and having a locking shoulder 15 on the face which is uppermost when the doors are 65 closed, and provided with pivot lugs 16 connected by links 17, 18, 19, 20 with the bridge member 21 which connects the ends of adjacent doors on each side of the transverse hopper sheets 7, the winding drums being 70 located under the transverse hopper sheet, as will be readily understood from Fig. 2 of the drawing. The link 20 has a bend 22 to cause it to properly over-hang the winding drum and operating shaft, and the intermediate link 19 has a locking shoulder 23 to cooperate with the locking shoulder 15 on the winding drum. 75

The double V shaped hoppers formed by the inclined side and central longitudinal 80 hopper sheets, and which extend substantially the length of the clear space between the inner truck wheels materially increases the load carrying capacity of the car body at the central portion thereof above the hopper sheets, so much so that the ordinary one hundred and ten thousand pounds load of ballast can be contained in the portion of the car body over the dump door openings and hopper sheets. And to enable the entire 90 load to be automatically dumped when the car is used for hauling ballast or other like materials, I provide the car body with a removable partition 24 at each end of the inclined longitudinal side and central hopper 95 sheets. This removable partition 24 preferably consists of wood boards 25 which are slipped into place between angle irons 26, 27, riveted to the upright sides of the car body and between which upright angle 100 irons the removable partition may be readily inserted. Bolts 28, having threaded nuts 29, are preferably inserted through the upright angle irons, and the uppermost board 25 of the partition to more securely retain 105 same in place.

When the car is used for hauling coal or other like material, requiring substantially the full length of the car body to haul the desired or standard load or tonnage, the re- 110

movable partition 24 is taken out and the boards thereof may be laid in the bottom of the car or kept in the car yard, as may be desired, thus enabling the coal or other like load to extend the full length of the car body or from one of the permanent upright ends 30 to the other. And when the car is thus used as a coal car, substantially two thirds or such matter of the coal may be automatically dumped through the dump door openings, either centrally or to the side as may be desired. The upright side sheets 3 of the car body have flanges 31 at their lower longitudinal edges underlapping the longitudinal side hopper sheets 5, 5. And these side hopper sheets have flanges 32 lapping the upright side sheets of the car body and the angle irons 33 further strengthen and reinforce the upright side sheets of the car body and the side hopper sheets at their junction, thus giving a very strong and rigid construction to serve as the side sills of the car body.

I claim:—

1. In a dump car, the combination with a dump car body having upright sides and ends, and provided with a flat floor at the end portions of the car body and two longitudinally extending V shaped hoppers at the middle portion of the car body between the trucks, one on each side of the longitudinal center line, of a plurality of pairs of V hung doors, the doors of each pair being hinged at their lower meeting ends to adapt the car for both side and central dumping, and a removable partition between the hopper portion and the flat floor portion of the car body to adapt the car for use either as a ballast car or as a coal car, and means for removably supporting said partition in the car body substantially as specified.

2. In a dump car, the combination with a car body having permanent upright sides and ends and provided with a flat floor portion at each end, and a middle hopper dump portion having door openings and dump doors for closing said openings, and a removable transverse partition between the hopper

dump portion and the flat floor portion of the car body, and means for removably supporting said partition in the car body substantially as specified.

3. In a dump car, the combination with a car body having permanent upright sides and ends and provided with a flat floor portion at each end, and a middle hopper dump portion having door openings and dump doors for closing said openings, and a removable transverse partition between the hopper dump portion and the flat floor portion of the car body, the upright sides of the car each having an angle iron secured thereto to receive said removable transverse partition, said partition comprising a plurality of separately removable boards substantially as specified.

4. In a dump car, the combination with a dump car body having permanent upright sides and ends, a middle portion furnished with dump door openings and doors for closing said openings, and a permanent floor portion at each end of the car body, of a removable transverse partition extending between the permanent flat floor portion of the car body and the middle dump door opening portion thereof, and means for removably supporting said partition in the car body substantially as specified.

5. In a dump car, the combination with a dump car body having permanent upright sides and ends, a middle portion furnished with dump door openings and doors for closing said openings, and a permanent floor portion at each end of the car body, of a removable transverse partition extending between the permanent flat floor portion of the car body and the middle dump door opening portion thereof, the upright sides of the car body having angle irons secured thereto to receive said removable partition, said partition comprising a plurality of separately removable pieces substantially as specified.

ARGYLE CAMPBELL.

Witnesses:

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