

APPLICATION FILED AUG. 31, 1908.

Patented Aug. 10, 1909.

Fig. 1.

Witnesses

George P.

George P. Ball

W. R. Hudson

By

Attorney, Attorneys

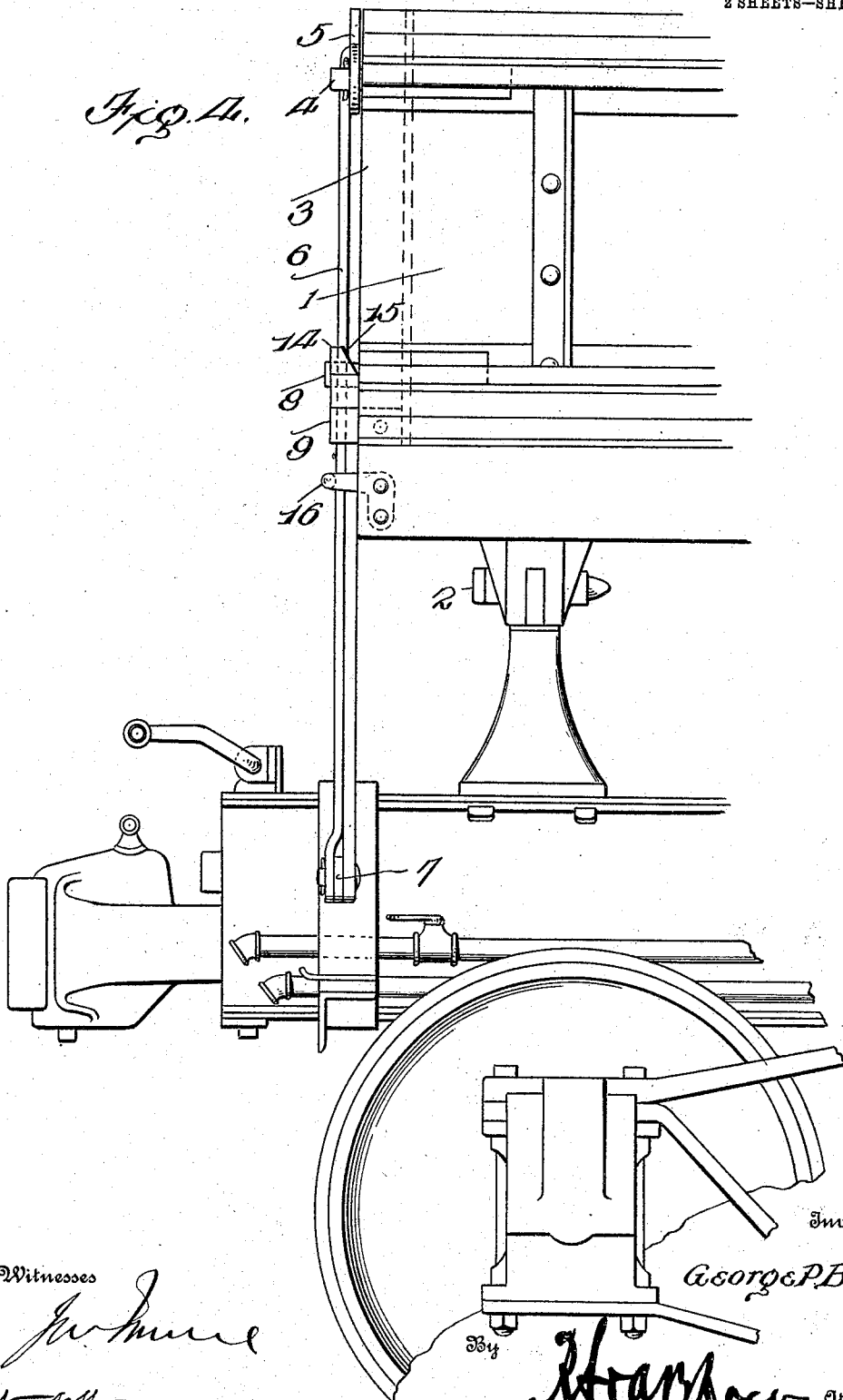
G. P. BALL.
DUMPING CAR.

APPLICATION FILED AUG. 31, 1908.

930,335.

Patented Aug. 10, 1909.

2 SHEETS—SHEET 2.



Witnesses

J. H. Munn
W. H. Woodson

Inventor

George P. Ball

By

W. H. Munn, Attorneys

UNITED STATES PATENT OFFICE.

GEORGE P. BALL, OF GATUN, PANAMA.

DUMPING-CAR.

No. 930,335.

Specification of Letters Patent.

Patented Aug. 10, 1909.

Application filed August 31, 1908. Serial No. 450,958.

To all whom it may concern:

Be it known that I, GEORGE P. BALL, citizen of the United States, residing at Gatun, Canal Zone, Panama, have invented certain new and useful Improvements in Dumping-Cars, of which the following is a specification.

This invention comprehends certain new and useful improvements in dumping cars of that type that embody a laterally tiltable body and displaceable sides or doors, and the invention consists in certain constructions and arrangements of parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings in which:

Figure 1 is an end elevation of a dumping car constructed in accordance with my invention; Fig. 2 is a detail side elevation of one part of the invention; Fig. 3 is a detail plan view thereof; and, Fig. 4 is a side elevation of the end portion of a car equipped with the invention.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawings by the same reference characters.

Referring to the drawings, the numeral 1 designates a laterally tiltable car body of any of the conventional constructions or designs, 2 the longitudinally extending axis about which the body of the car is mounted to rock, and 3 the displaceable sides or doors which are pivotally suspended as at 4 upon the outer ends of transversely extending supporting arms 5 secured to the ends of the car body and pivotally connected intermediate of their ends to the upper ends of the standards 6, said standards being supported at their lower ends upon beams 7 that are in turn mounted upon suitable supports on the truck or trucks of the car.

As ordinarily constructed, heretofore, dumping cars of this type have been provided with obliquely extending braces secured to the ends of the car body at the median line thereof and extending downwardly in opposite directions to pins 8 projecting outwardly from the displaceable sides 3 at the lower edges thereof. Manifestly these oblique braces limited the outer movement of the sides when the car body was being dumped, and to avoid the necessity for this connection and to permit the free outward swing of the sides as the body is tilted so as

to obtain an increase of the opening of the doors commensurate with the full width of the door for the outward passage of large rock or earth is the primary object of my present invention. And another object of the invention is to provide means for insuring at all times the proper alinement of the standards 6 causing them to be maintained in a squarely set position upon their supports on the car truck.

In carrying out my invention to obtain the objects just above named, I do away with the oblique braces above mentioned and secure to the ends of the car body transversely extending bars 9 preferably composed of soft steel and formed at their rear ends with apertures 10 to receive bolts 11 for anchoring them at one end to the car body, the said bars being also formed near their other ends with downwardly projecting apertured lugs 12 anchored by bolts 13 to the car body. The outer end of each bar 9 is projected upwardly as indicated at 14 to form a keeper for engagement with the latch pins 8 in order to hold the sides securely closed when the car body is in running position. These keepers are beveled on one side as indicated at 15 so as to overcome any slight lateral motion of the side thereby setting it squarely in the keeper when engaged therewith.

16 designates a grab iron for the use of train men in getting on or off the car; and, in addition to this function, it is to be noted, that these grab irons extend over the standards 6, and together with the bars 9, constitute guides whereby the standards are at all times caused to set squarely on their supports and maintained true.

From the foregoing description in connection with the accompanying drawings, it will be seen, that I have provided a very simple arrangement of parts, or appliances whereby when the car body is dumped, the bars 9 will at once be released from the pins 8 and the sides or doors 3 may swing freely outward so as to provide side openings the full width of the sides for the outward passage of large rock or earth, while in the dumping movement of the car body, the bars 9 in conjunction with the grab irons 16 guide the standards 6 and at all times maintain said standards in proper alinement, effectually preventing them from getting out of "true."

Having thus described the invention, what is claimed as new is:

1. In a dumping car of the type described,

the combination with the tiltable body and displaceable side, of supporting arms from which said side is suspended, standards secured to said arms, fulcra for said standards, the side being provided with a latch pin, and a bar secured to the car body and extending transversely thereof and serving as a guide for the adjacent standard, said bar being provided with a keeper designed to engage said pin.

2. In a dumping car of the type described, the combination with the tiltable body, and displaceable side provided with a latch pin, and the means for supporting said side, of a bar secured to the car body and formed with a keeper designed to engage said pin, one side of said keeper being beveled, as and for the purpose set forth.

3. In a dumping car of the type described, the combination with the tiltable body and

displaceable side the arms from which said side is suspended, the standards secured to said arms, and the fulcra for said standards, the side being provided with latch pins projecting outwardly from its ends, of transversely extending bars secured to the ends of the car body between the same and said standards and formed at their outer ends with keepers designed to engage said pins, and grab irons secured to the car body at the ends thereof and extending across and outside of said standards, as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE P. BALL. [L. S.]

Witnesses:

WILLIAM O. BOONE,
J. E. SHAW.