(No Model.) 3 Sheets—Sheet 1.

G. & R. J. BOGUSCH.

A. ZINCKE, Administrator of said R. J. BOGUSCH, deceased.

DUMPING CAR.

No. 416,393. Patented Dec. 3. 1889.

Fig. 1.

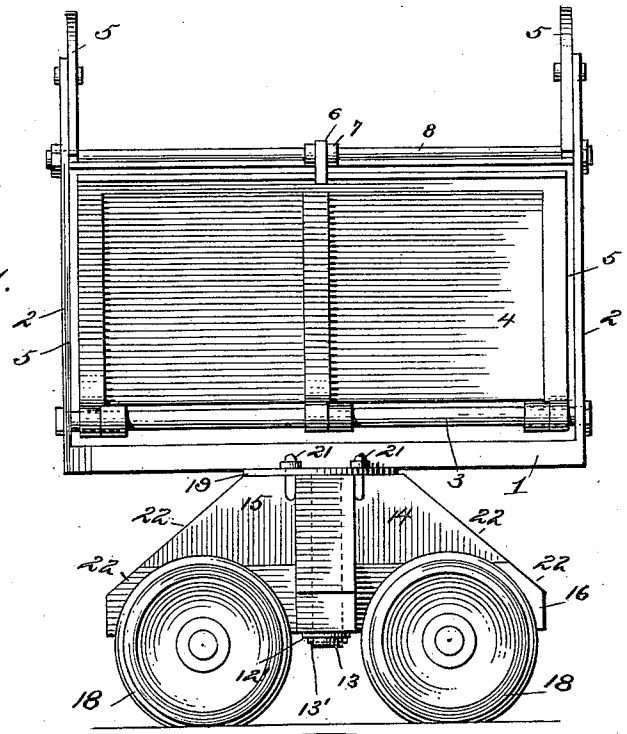
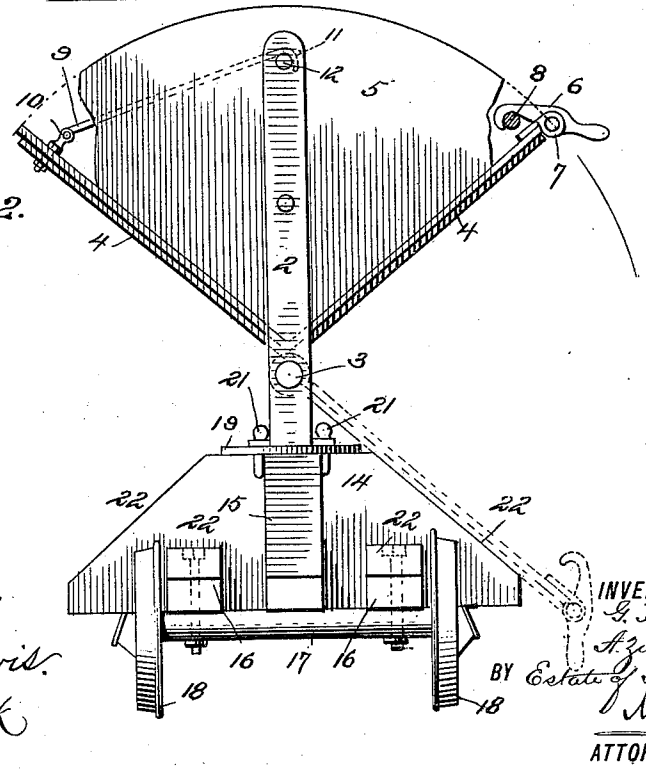


Fig. 2.



WITNESSES:

H. R. Davis.

C. Bedgwick

INVENTOR:

G. Bogusch

A. Zincke Admr of

Estate of R. J. Bogusch

BY Munn & Co

ATTORNEYS.

N. PETERS. Photo-Lithographer. Washington, D. C.

(No Model.) G. & R. J. BOGUSCH. 3 Sheets—Sheet 2.

A. ZINCKE, Administrator of said R. J. BOGUSCH, deceased.

DUMPING CAR.

No. 416,393. Patented Dec. 3, 1889.

Fig. 3.

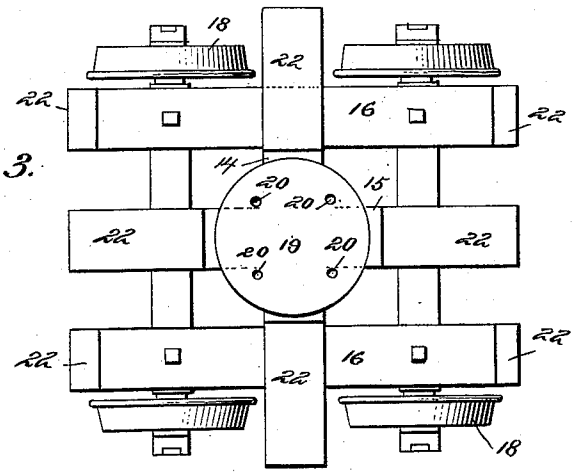


Fig. 4.

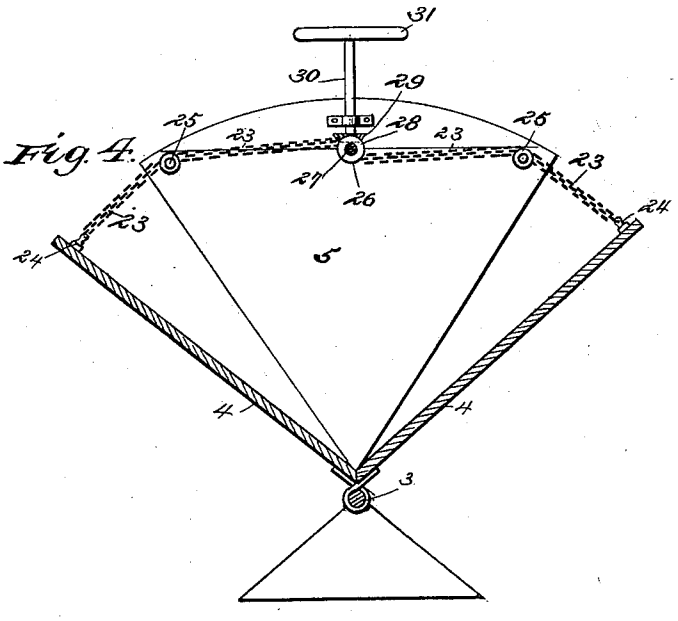
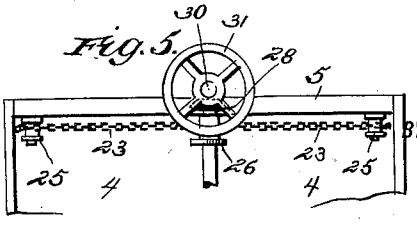


Fig. 5.



WITNESSES:

W. R. Davis

C. Sedgwick

INVENTOR:

G. Bogusch

A. Zincke Administrator

of Estate of R. J. Bogusch

BY Munn & Co

ATTORNEYS.

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 3 Sheets—Sheet 3.

G. & R. J. BOGUSCH.

A. ZINCKE, Administrator of said R. J. BOGUSCH, deceased.

DUMPING CAR.

No. 416,393. Patented Dec. 3, 1889.

Fig. 6.

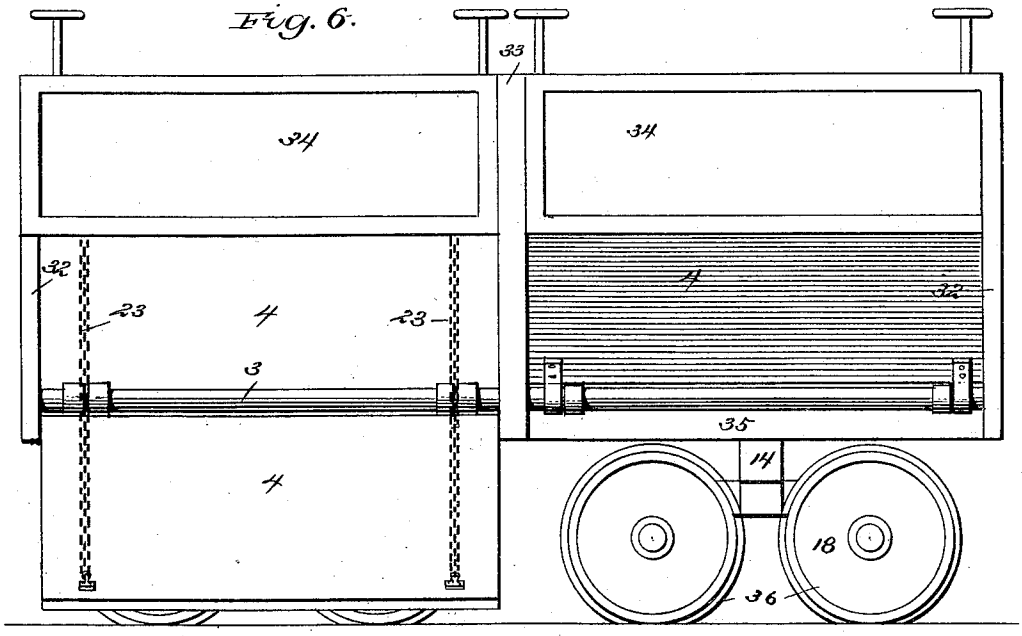
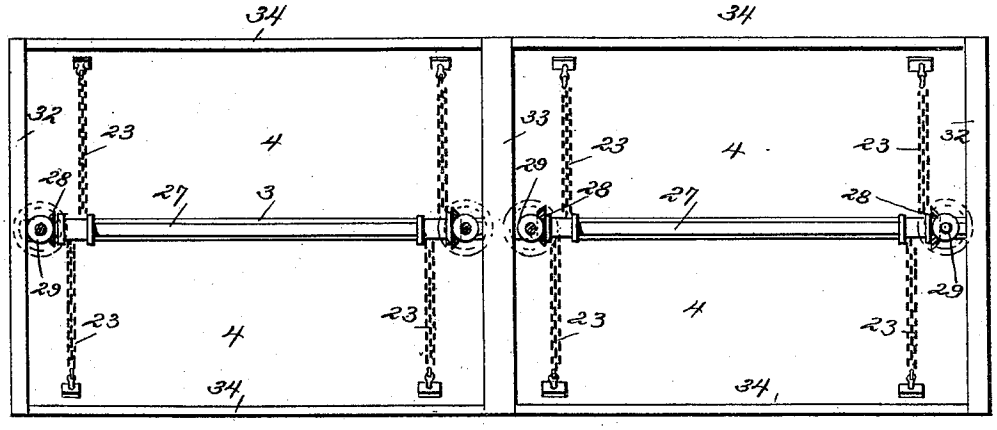


Fig. 7.



WITNESSES:

W. R. Davis.

C. Sedgwick

INVENTOR:

G. Bogusch

A. Zincke Administrator

BY of Estate of R. J. Bogusch

Munn & Co

ATTORNEYS.

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

GUSTAV BOGUSCH, OF VALLECILLO, MEXICO, AND AUGUST ZINCKE, OF LLANO, TEXAS, ADMINISTRATOR OF ROBERT J. BOGUSCH, DECEASED.

DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 416,393, dated December 3, 1889.

Application filed June 15, 1889. Serial No. 314,380. (No model.)

To all whom it may concern:

Be it known that we, GUSTAV BOGUSCH, of Vallecillo, Nuevo Leon, Mexico, and AUGUST ZINCKE, of Llano, Texas, administrator of ROBERT J. BOGUSCH, deceased, have invented a new and Improved Dumping-Car, of which the following is a full, clear, and exact description.

This invention relates to dumping-cars, and has for its object to provide a dumping-car by means of which the contents of the car may be readily discharged.

The invention consists in a dumping-car constructed and arranged as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a side view of a dumping-car constructed in accordance with this invention. Fig. 2 is an end view thereof, partly broken away. Fig. 3 is a plan view of this truck with car-body removed. Fig. 4 is a vertical transverse section of the car-body, showing mechanism for closing the dumping portions of the car. Fig. 5 is a plan view of a portion of the car-body with mechanism for closing the dumping portions of the car. Fig. 6 is a side view showing the car-body formed with two compartments, the bottom of one being open and the other closed; and Fig. 7 is a plan view thereof with the bottom closed.

In the construction of the car the car-body is preferably formed of wrought metal and the truck-frame of wood. The car-body consists of a bar 1, having at its ends the uprights 2, in which are mounted and secured the ends of a rod 3, extending lengthwise over the bar 1 and having hinged thereto at their lower edges the metallic doors 4, forming the sides and double or V-shaped inclined bottom of the car. The ends of the car are formed by means of sector-shaped metallic plates 5, fastened to the uprights 2. When closed, the doors 4 abut against the inclined edges of the plates 5, and may be held in closed position by any suitable means, either by means of a hook-arm 6, pivoted to a bracket 7 on the upper edge of doors 4 and engaging a rod 8, having its ends secured in the plates 5, as shown at the right in Fig. 2, or by means of a rod 9, pivoted at one end to a projection 10 on the doors 4 and having a hooked end 11, engaging a rod 12, mounted in the uprights 2, as shown at the left in Fig. 2.

The car-body is pivoted on the truck so as to be turned and its contents discharged in any direction by means of a bolt 13, projecting downward from bar 1, extending through a hole in the truck, and held in place by a washer 12′ and pin 13′. The truck is constructed with the wooden beams 14 and 15, crossing each other and secured together, the beam 15 being mounted in and secured to the beams 16, to which is bolted the axle 17, carrying the car-wheels 18. The top of the bolt 13 is formed with a circular plate 19, resting on the cross-beams 14 and 15 and having a series of holes 20. The plate 19 rotates with the bolt 13 when the car-body is turned on the truck, and the car-body is held at any position to which it may have been turned by means of pins 21, projecting through holes 20 and into holes in the cross-beams 14 and 15. In order to support the doors 4 in an inclined position when the doors are open, the cross-beams 14 and 15 and the ends of the beams 16 are formed with the inclined surfaces 22.

While the doors 4 may be raised by hand, a hoisting mechanism of any suitable kind is preferably employed, and, as shown in Figs. 4 and 5, consists of chains 23, connected at one end to lugs 24 on the doors 4, passing over pulleys 25 at the top of the end plates 5, and wound about a drum 26 on a shaft 27, having its bearings in the end plates 5, and a bevel gear-wheel 28, meshing with a bevel gear-wheel 29 on the vertical shaft 30, mounted on one of the end plates 5 and having a hand-wheel 31. By this means the doors 4 may be readily and easily raised to closed position after the contents of the car have been discharged.

When it is desired to unload the car, one of the doors 4 may be unfastened and lowered, as shown in dotted lines, Fig. 2, or both doors, as shown in dotted lines in Fig. 4. The door 4 when opened is supported in downwardly-inclined position on inclined surface

22 of one of the beams 14 and 15, thereby causing the load to be quickly dumped. By turning the car-body upon the truck the doors 4 are brought into position to discharge the load in any direction.

By means of the mechanism above described for hoisting the doors 4 the contents of the car may be gradually discharged by slowly lowering the doors 4.

To provide long cars, the car-frame may be extended lengthwise and a number of compartments, with the doors 4, ends 5, and attachments, as hereinbefore described, mounted on a series of trucks similar to the truck shown in Fig. 1. In this construction the compartments or double car-bodies are formed with square ends 32, a square partition 33 separating the compartments, and side frames 34 connecting the partition 33 with the ends 32, the ends 32 and partition 33 extending below the side frames 34.

The doors 4 and their operating mechanism are similar to the construction set forth in the single cars. The ends 32 and the partition 33 are mounted on a longitudinal bar 35, which in turn is mounted on beams 14, with inclined surfaces 22, similarly to the single-car construction. The beams 14 are, however, rigidly fastened to the car-trucks 36, as the double car-bodies do not turn on their supports.

The several parts of the car may be bolted together, so as to be readily taken apart for repair or to be packed and shipped.

The car may be used for various purposes, such as loading and unloading coal, dirt, sand, &c., and for use about mines, quarries, shipping, &c.

By means of this invention a simple, durable, and effective dumping-car is provided.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. A dumping-car comprising uprights, ends secured to the uprights, and sides hinged at their lower edges between the said uprights, substantially as described.

2. A dumping-car comprising uprights, sector-shaped ends secured to the uprights, a rod extending between the uprights, and sides hinged to the said rod, substantially as herein shown and described.

3. A dumping-car having fixed sector-shaped ends and inclined sides hinged at their lower edges and forming a V-shaped bottom to the car, substantially as described.

4. A car having inclined sides hinged at their lower edges, and a truck located beneath the inclined sides and having inclined supporting-surfaces on which the sides may rest at an incline when in open position, substantially as described.

5. A dumping-car having its body pivoted on the truck and constructed with fixed ends and hinged sides, substantially as described.

6. A dumping-car having its ends fixed and its sides hinged at their lower edges to the bottom of the car-body, and mechanism for raising and lowering the sides, substantially as described.

7. A dumping-car comprising uprights, sector-shaped ends secured to the uprights, a rod extending between the uprights, sides hinged to the rod, and means for raising and lowering the sides and holding them raised, substantially as described.

8. A dumping-car body constructed with a V-shaped body consisting of horizontal bar 1, with uprights 2 at its ends, and a pivot-pin with plate 19, having perforations 20, fixed sector-shaped ends 5, mounted on uprights 2, inwardly-inclined doors 4, forming the sides and bottom of the car, hinged to a rod 3, mounted in uprights 2, and fastening devices for holding the doors 4 in closed position, substantially as shown and described.

9. A dumping-car constructed with a V-shaped body consisting of horizontal bar 1, with uprights 2 at its ends, and a pivot-pin with plate 19, having perforations 20, fixed sector-shaped ends 5, mounted on uprights 2, inwardly-inclined doors 4, forming the sides and bottom of the car, hinged to a rod 3, mounted in uprights 2, and fastening devices for holding the doors 4 in closed position, and a truck consisting of the cross-beams 14 and 15, mounted on the longitudinal beams 16, to which are bolted the axles 17, carrying wheels 18, the beams 14 and 15 having holes corresponding in size with holes 20, and the beams 14, 15, and 16 having inclined surfaces 22, on which the doors 4 may rest, with pins 21, for engaging holes 20 and holes in beams 14 and 15, and pivot-pin 13, projecting through a hole in beams 14 and 15 and secured by a pin 13′, substantially as described.

10. The combination, with the inwardly-inclined doors 4 of a V-shaped car-body, hinged at their lower edges to the car-body, of the hoisting-chains 23, passing over pulleys 25 on the car-body, and a drum 26, on which the inner ends of chains 23 are wound, having bevel-wheel 28, meshing with bevel-wheel 29 on vertical shaft 30, mounted on the car-body and having a hand-wheel 31, substantially as described.

GUSTAV BOGUSCH.
AUGUST ZINCKE,
Administrator of Robert J. Bogusch, deceased.

Witnesses to the signature of Gustav Bogusch:
E. W. BOGUSCH,
WILLIAM DONALD.

Witnesses to the signature of August Zincke:
WM. MATHEWS,
T. J. WATKINS.