No. 730,886. PATENTED JUNE 16, 1903.

J. V. DOMINGUE.

DUMP CAR.

APPLICATION FILED OCT. 29, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

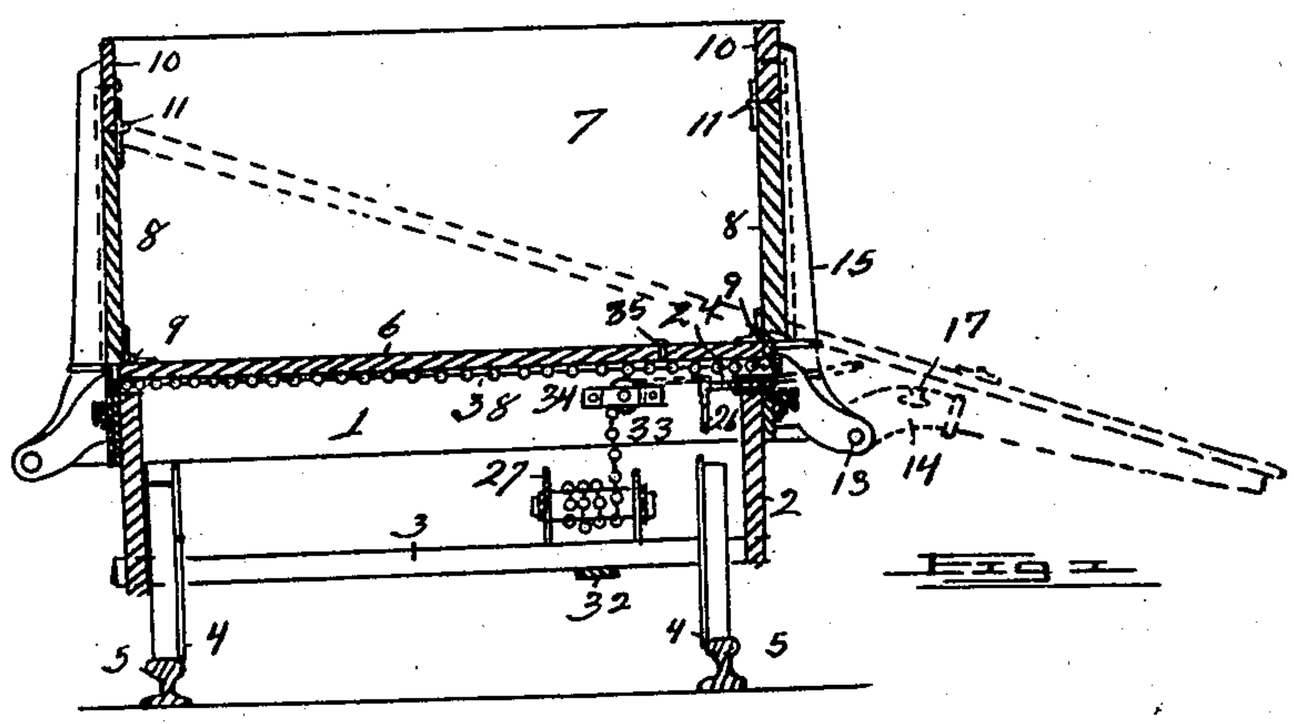

Fig. 1.

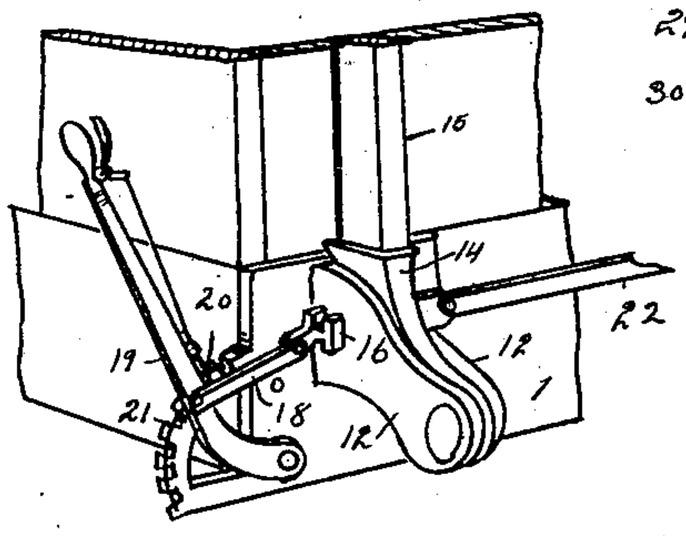

Fig. 2.

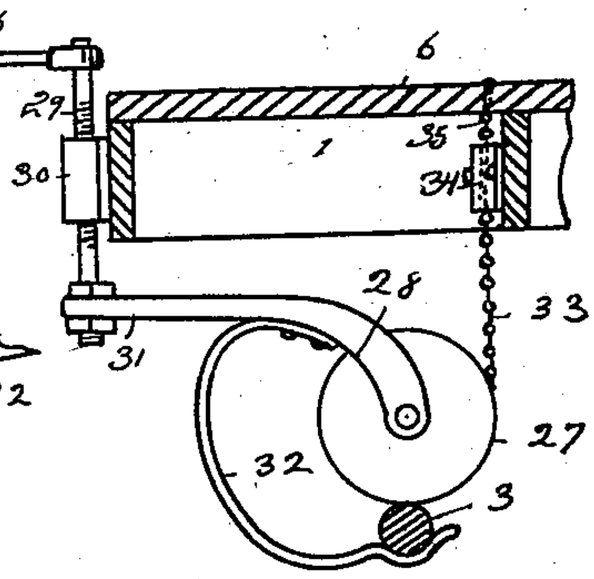

Fig. 3.

Witnesses
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NO MODEL. 2 SHEETS—SHEET 2.

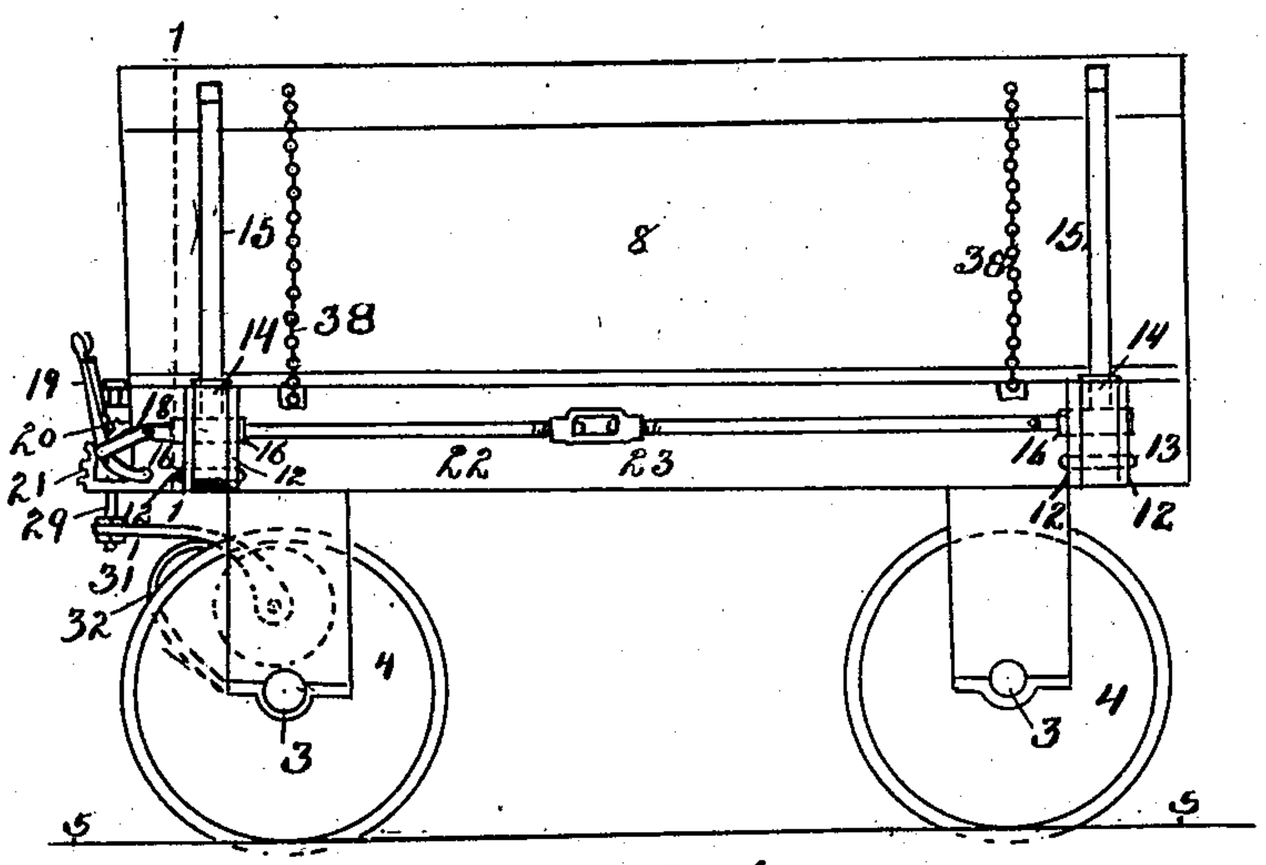

Fig 4

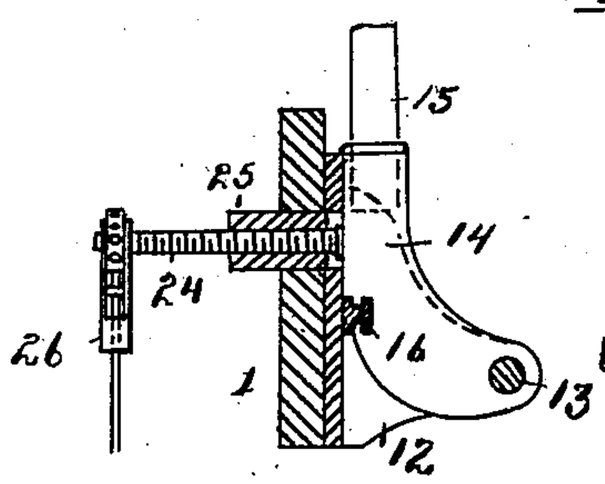

Fig 5.

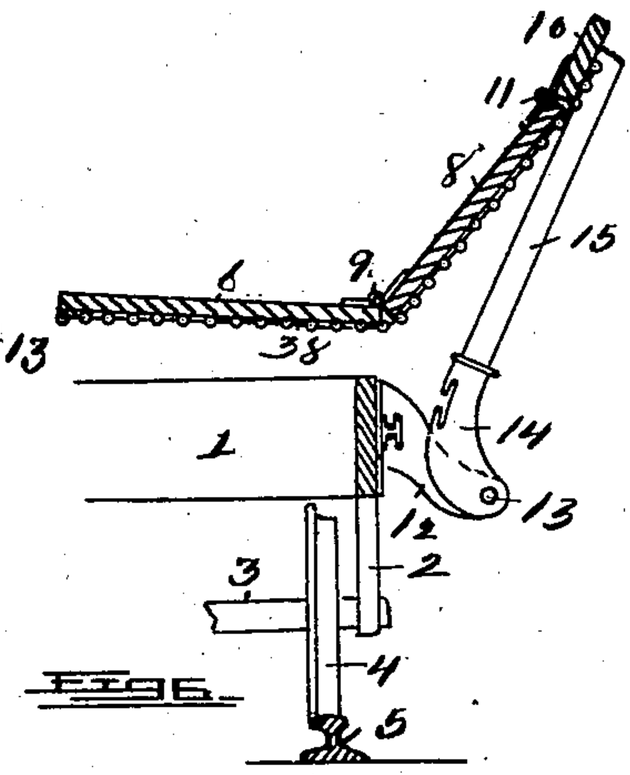

Fig 6.

Witnesses
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No. 730,886. Patented June 16, 1903.

UNITED STATES PATENT OFFICE.

JOHN V. DOMINGUE, OF POINTE A LA HACHE, LOUISIANA.

DUMP-CAR.

SPECIFICATION forming part of Letters Patent No. 730,886, dated June 16, 1903.

Application filed October 29, 1902. Serial No. 129,214. (No model.)

To all whom it may concern:

Be it known that I, JOHN V. DOMINGUE, a citizen of the United States, residing at Pointe a la Hache, in the parish of Plaquemines, State of Louisiana, have invented certain new and useful Improvements in Dump-Cars; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to a dump-car; and it consists in the construction and arrangement of parts hereinafter fully set forth.

The object of the invention is to provide simple and efficient means for dumping the contents of a car therefrom by a movement of the sides and bottom thereof and for returning said movable parts to their normal position after the load has been discharged.

The above object is attained by the structure illustrated in the accompanying drawings, in which—

Figure 1 is a vertical transverse section through a car embodying my invention, as on line 1 1 of Fig. 4. Fig. 2 is an enlarged detail in perspective of one of the corners of the car. Fig. 3 is an enlarged detail in section, showing the spool for returning the bottom and sides of the car after its contents has been dumped. Fig. 4 is a side elevation of the car. Fig. 5 is an enlarged detail in section, showing the application of a ratchet-screw or jack for the purpose of forcing outwardly the hinged wall of the car when discharging a load. Fig. 6 is a detail, part in section, showing the car in the act of dumping.

Referring to the figures of reference, 1 designates the framework of the car, to which are attached the depending blocks 2, in which the axles 3 are journaled, said axles carrying the ordinary flanged wheels 4, adapted to run upon a suitable track 5.

The frame of the car is perfectly rectangular, and supported upon said frame is a movable bottom 6. Between the ends 7 of the car are the sides 8, which are formed in two sections, the lower and larger section being hinged at 9 to the bottom, and the upper section being hinged at 11 to the upper edge of the lower section.

Projecting from the frame 1 of the car, on each side thereof, are the parallel brackets 12, between which are pivoted at 13 the arms 14, having sockets which receive the stanchions 15. The upper sections 10 of the sides are made rigid to said stanchions, while the sections 8 are detached therefrom, but are caused to move therewith through the hinges 11, which unite the sections 8 to the sections 10. The arms 14, being pivoted between the brackets 12, are adapted to swing outwardly upon their pivots to cause the sides and bottom to assume an inclined plane, as shown in Fig. 1, and thereby discharge the contents of the car therefrom.

Both sides of the car are equipped in the same manner, therefore enabling the load to be dumped on either side, as desired.

When the stanchions 15 are locked in a vertical position, the sides are held perpendicular, so as to enable the car to retain the load placed therein. The stanchions are locked in a vertical position by means of a sliding key 16, adapted to slide in a confining way in the brackets 12 and to engage in the key-seat 17 in the inner edge of the arm 14 when said arm is raised, so as to cause the key-seat therein to register with the way in the bracket in which said key lies. Pivoted to the outer end of said key is a connecting-bar 18, which is in turn pivoted to a lever 19, carrying a spring-actuated plunger 20, adapted to engage the notches of the circle-bar 21, whereby said lever may be locked in any desired position. By drawing outward on said lever the key will be withdrawn from the seat in the arm 14, thereby unlocking said arm from the brackets and leaving it free to swing outwardly and carry the stanchion therewith. In order that both stanchions on the same side of the car may be unlocked at the same time, a connecting-bar 22 is employed, which extends between and is attached to the keys 16, whereby said keys may be actuated simultaneously, as will

be well understood. In the bar 22 is a turn-buckle 23 for adjusting it longitudinally. It will now be seen that through the operation of the lever 19 the keys 16 may be withdrawn from the key-seats in the arms 14 to unlock them and that by a return movement of said lever said keys may be again caused to enter the key-seats in said arms to lock them in a vertical position.

Owing to the location of the pivot upon which the stanchions swing it is necessary to force the arms 14 outwardly after they are unlocked in order to cause them to swing to the position shown by dotted lines in Fig. 1 and carry the sides and bottom into an inclined position. To force said arms outwardly, I employ screw-jacks 24, adapted to screw through threaded sleeves 25 in the frame and bear against the arms 14, as shown in Fig. 5. Upon the end of the screw 24 is a ratchet-lever 26 of any well-known construction, by means of which said screw may be actuated. Owing to the position of the screws 24 they can only be operated by means of the ratchet-lever, as they are adjacent to the floor of the car. By turning these screws they force the arms 14 outwardly upon their pivots and cause the stanchions 15 to swing in the arc of a vertical circle, thereby causing the hinged bottom and sides to assume an inclined position, as before described.

On referring to Fig. 1 it will be seen that the stanchions upon the opposite side to that on which the dump is being made remain in a vertical position and support the movable section of the side and bottom, so as to cause said parts to assume the desired position.

For the purpose of returning the bottom and sides after dumping the contents from the car a spool 27 is employed, journaled in a suitable fork 28 and suspended under the frame of the car by means of a screw 29, threaded in a sleeve 30, fixed to said frame, the lower end of said screw being swiveled at 31 to said fork. Secured to the under side of said fork is a strong spring 32, which curves downwardly and embraces the axle 3. Wound upon said spool is a chain or cable 33, which passes over the pulley 34 and is attached at 35 to the bottom 6 of the car. Attached to the upper end of the screw is a lever 36, by means of which it may be turned. When the car is dumped, the chain or cable 33 winds off of the spool as the bottom of the car slides outwardly to assume the position shown by dotted lines in Fig. 1. When it is desired to restore said parts, the car is first placed under motion in order to rotate its axle, when, by means of the screw 29, the spool is forced into frictional contact with said axle and rotated to wind thereon the cable 33 and draw the floor or bottom of the car back to its normal position, causing the stanchions to assume a vertical position and restore the car to the condition shown by solid lines in Fig. 1, in which position the parts may be locked by the keys 16, as before described.

Attached to the upper sections 10 of the sides of the car are the chains 38, which pass under the bottom of the car and serve to flexibly connect the sides and relieve the hinges from undue strain in the operation of dumping.

Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a dump-car, the combination with the frame, of the movable bottom and sides mounted on the frame, there being a hinged connection between the sides and bottom, means for projecting said hinged parts laterally to cause all of them to stand in the same inclined plane, and means for restoring said parts to their normal position.

2. In a dump-car, the combination with the frame, of the movable bottom, the movable sides hinged to the bottom and comprising an upper and a lower section, hinges uniting the sections of the sides, movable stanchions supporting the sides and rigidly attached to the upper sections thereof, means for swinging the stanchions to move the hinged sides and bottom into an inclined position to discharge the load, and means for restoring said parts to their normal position.

3. In a dump-car, the combination with the frame, of a movable bottom, the movable sides hinged to the bottom, said sides comprising an upper and a lower section, stanchions supporting the sides and attached at their upper ends to the upper sections thereof, brackets mounted on the frame between which the lower ends of the stanchions are pivoted, a movable key for locking the stanchions to the brackets, and means for moving said key to unlock said parts.

4. In a dump-car, the combination with the frame, of the bottom and sides hinged together, stanchions supporting the sides and pivoted at their lower ends to swing outwardly, means for locking said stanchions to maintain them in a vertical position, and means for unlocking said stanchions.

5. In a dump-car, the combination with the frame, of the movable bottom and sides hinged together, means for supporting said sides in a vertical position, means for swinging either side outwardly and carrying the bottom and remaining side into alinement therewith, and means for restoring said parts to their normal position.

6. In a dump-car, the combination of the movable bottom and movable sides hinged to said bottom, pivoted supports for said sides adapted to enable them to swing outwardly and downwardly to dump the contents of the car, the connection between the sides and bottom causing said bottom to move laterally and tilt into alinement with the extended

sides, a rotary spool, a cable wound upon said spool and attached to the bottom, and means for rotating said spool to draw upon the bottom and restore the parts to their normal position.

7. In a dump-car, the combination with the frame, of the axle supported therein, movable sides and a movable bottom hinged together, a spool adapted to have frictional contact with the axle, a cable wound upon said spool and attached to the movable bottom, substantially as set forth.

In testimony whereof I sign this specification in the presence of two witnesses.

JOHN V. DOMINGUE.

Witnesses:

EDMOND LACROIX,

JOSEPH COMEY.