

W. ATKINS.

DUMP WAGON.

APPLICATION FILED MAY 1, 1906. RENEWED JUNE 7, 1909.

946,791.

Patented Jan. 18, 1910.

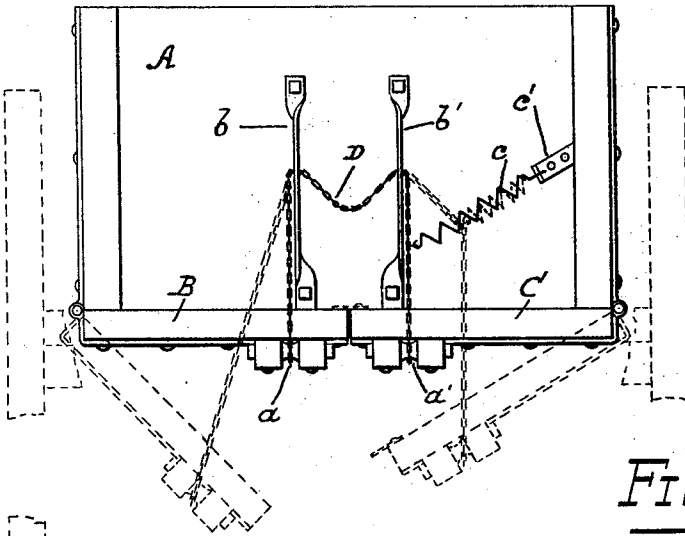


Fig. 2.

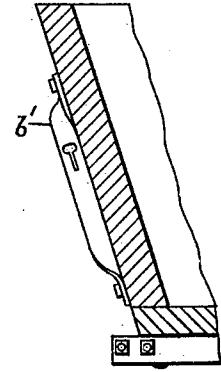


Fig. 3.

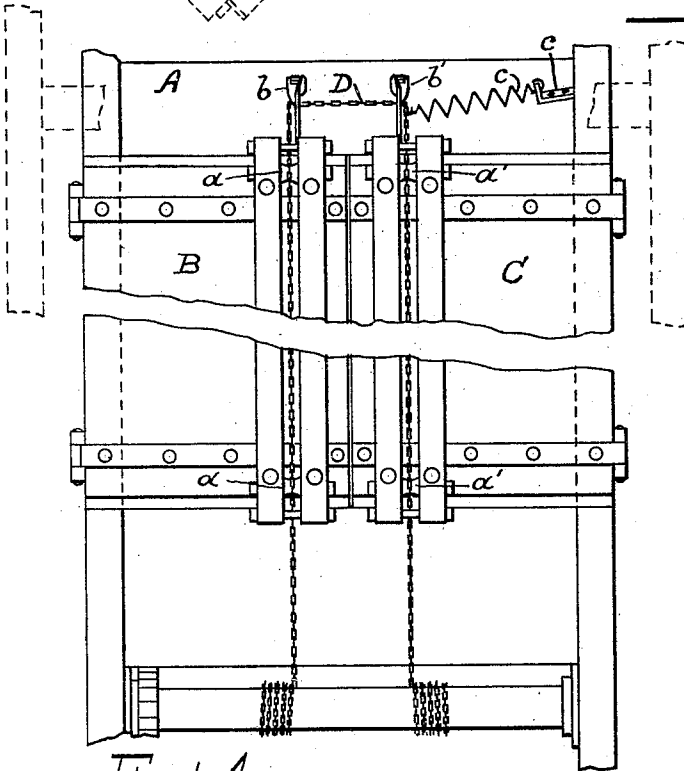


Fig. 1.

WITNESSES.

Harry Meyler
Surah E. Odell

INVENTOR.

William Atkins
by W.C. Johnston
his Attorney

UNITED STATES PATENT OFFICE.

WILLIAM ATKINS, OF AUBURN, NEW YORK.

DUMP-WAGON.

946,791.

Specification of Letters Patent.

Patented Jan. 18, 1910.

Application filed May 1, 1906, Serial No. 314,667. Renewed June 7, 1909. Serial No. 500,740.

To all whom it may concern:

Be it known that I, WILLIAM ATKINS, a citizen of the United States, residing at Auburn, in the county of Cayuga and State of New York, have invented a new and useful Improvement in Dump-Wagons, of which the following is a specification.

My invention relates to that class of dump wagons from which the load is discharged through movable drop-doors forming the bottom of the wagon-body; and the object of my invention is to so construct and control the movement of the drop-doors that when they are being closed, one drop-door will be raised to a closed position ahead of the other, so that all possibility of an incomplete closing of both drop-doors, because of any portion of the load being caught between their edges, is avoided.

Similar letters refer to similar parts in all the views.

In the drawings, Figure 1 is a bottom plan view of a wagon-body embodying my improvements, and Fig. 2 is a rear elevation of Fig. 1, and Fig. 3 is a side elevation of a part of my improvement.

A is the wagon-body to which is hinged on opposite sides, drop-doors B and C. The drum and ratchet common to this type of wagon are mounted on the forward part of the wagon-body, and attached to the drum is a chain D which passes down beneath the bottom of the wagon formed by the drop-doors B and C, and under suitable guide rollers *a*, *a'* secured to the under side of each of the drop-doors B and C. A chain D is held at the rear of the wagon by link stops *b*, *b'*, of a common and well known construction. If, as ordinarily constructed, the length of the chain on each of the drop-doors, from the engagement of the chain with the link stop to its connection with the drum were equal, the doors B and C would close or be raised simultaneously, and any portion of the material composing the load, particularly if of a plastic and adhesive nature, might interfere to prevent a complete closing of the drop-doors B and C. In order to overcome this defect, and without in any way shortening the length of the chain beneath either of the drop-doors from the engagement of the link stop to the drum, I attach to the rear end of the wagon-body a spring *c*, one end of which engages with a casting *c'*, the other end being attached to one of the links of the chain D, at a point

between the link stop and one of the drop-doors. I do not confine myself to the location of the spring as shown in the drawing, for it is obvious that it would operate to advantage upon either side of the rear of the wagon-body. The spring *c* is not of sufficient strength to interfere with the dumping of the load, but when the latter has been discharged from the wagon through the dropping of the doors B and C, the chain on that side of the wagon where it is connected with the spring *c*, will be drawn up by this resilient connection, and the drop-door operated by the chain on that side of the wagon, will be raised after it has been released from the weight of the load, and held in a position in advance of the other drop-door, so that as the chain is wound upon the drum to close the bottom, the drop-doors, instead of rising to a closed position simultaneously, will be closed one in advance of the other, as shown by the dotted lines in Fig. 2.

The link-stops *b*, *b'* are composed of metallic straps fastened at each of their ends to the wagon-body, and having, as shown in each strap, a hole through which the raising chain D passes; a slot is formed in each strap below each of the holes and opening thereinto, so that it can be readily seen that as the chain is being drawn through the holes and it is necessary or desirable to check it at any point, any of the links, or, rather, any one of them in a perpendicular position, may be moved down in the slot, thus stopping any further drawing of the chain; this form of link stop is old and well known in the art, and no claim is made to cover it.

I am aware that other devices have been employed to close the drop-doors composing the bottom of a dump-wagon, one in advance of the other, but I believe that by employing a resilient device such as I have shown and described, a more effective operation of the drop-door is secured.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a dump wagon, the combination of a wagon-body having bottom drop-doors, means to raise said drop-doors from a dropped position, and resilient means connected with the raising means and to the wagon-body at the rear of the latter to raise one drop-door in advance of the other.

2. In a dump wagon, the combination with

the main wagon body, of drop doors for the same, chains for raising and holding said doors and a spring tending to flex one of said chains to vary the position of the door connected with said chain in respect to the other, substantially as described.

3. In a dump wagon, the combination with the main wagon body, of drop doors for said body, chains for raising and holding said doors and a spring connected to one of said chains tending to draw the same to one side to raise the door connected to said chain above the other when the wagon is unloaded, substantially as described.

4. In a dump wagon, the combination of

a wagon body having bottom drop-doors, a chain to raise one of said drop doors connected to the said wagon body and a spring connected to the said wagon body and to the chain between the connection of said chain to the wagon body and its connection with the drop door, substantially as described.

In testimony whereof I hereunto set my hand, this 28th day of April 1906, in the presence of two attesting witnesses.

WILLIAM ATKINS.

Witnesses:

HARRY MYLEN,
SARAH E. ODELL.