(No Model.)

J. G. FROGNER.

DUMP CART.

No. 374,531. Patented Dec. 6, 1887.

Fig. 1.

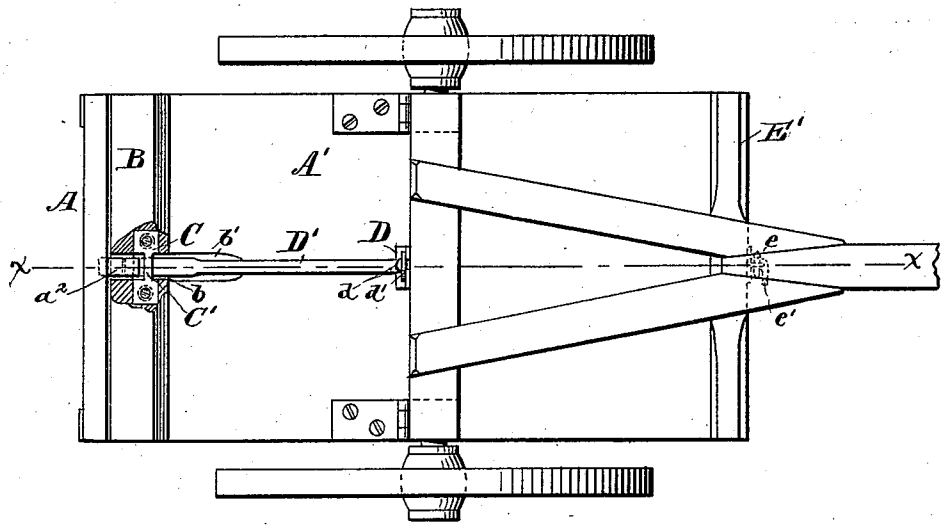
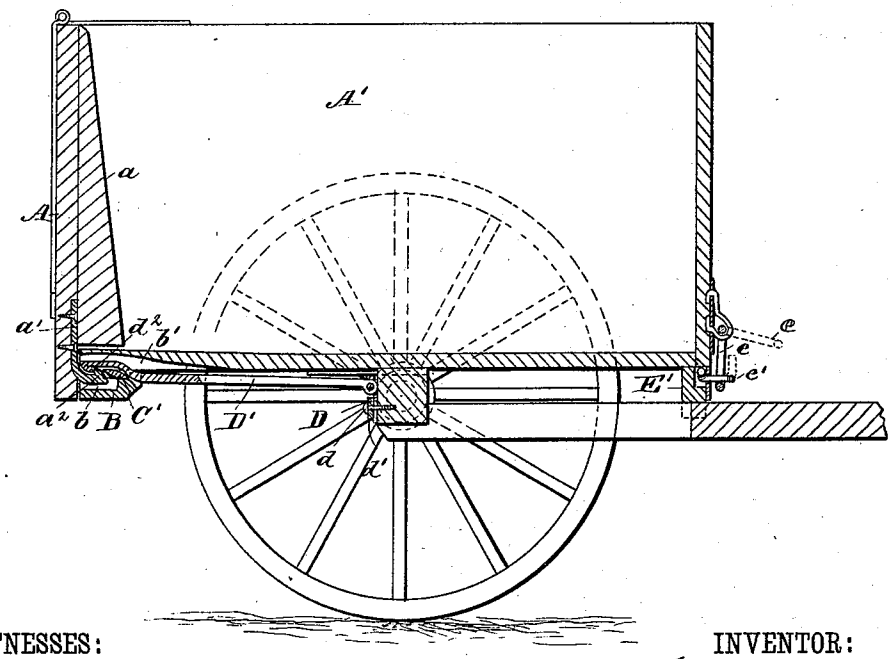


Fig. 2.



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JOHN GUNDERSON FROGNER, OF IOLA, WISCONSIN.

DUMP-CART.

SPECIFICATION forming part of Letters Patent No. 374,531, dated December 6, 1887.

Application filed July 23, 1887. Serial No. 245,098. (No model.)

To all whom it may concern:

Be it known that I, JOHN GUNDERSON FROGNER, of Iola, in the county of Waupaca and State of Wisconsin, have invented a new and Improved Dump-Cart, of which the following is a full, clear, and exact description.

My invention relates to an improvement in dump-carts, and has for its object to provide a means whereby the gate may be automatically opened and shut and locked by inclining the body from the front or bringing the same to a horizontal position.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

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

Figure 1 is a bottom plan view of the cart, partly in section; and Fig. 2 is a central longitudinal and vertical section on line *x x* of Fig. 1.

In carrying out the invention the tail gate A is hinged at the top to the sides of the body A′, the said gate being of a size to completely cover the end of the body and also the face of a transverse strip, B, attached to said body upon the under side, flush with the end. The strip B is provided with a central slot, *b*, and the bottom of the wagon-body with a similar and registering slot, *b′*, which slot *b′* is adapted to extend from the extreme rear of the body-bottom a distance forward toward the axle at an inclination downward. Between the body-bottom and the transverse strip B a metal plate, C, is securely held, as shown in Fig. 1, by screws or otherwise, which plate has a central reduced beveled portion, C′, adapted to span the registering slots *b* and *b′* near the front thereof, as illustrated in Fig. 2. To the rear face of the axle E, to which the body is hinged, and centrally said axle, a plate, D, is adjustably secured by means of a screw-bolt, *d*, provided with a washer, *d′*, passing through a vertical slot in said plate and into the axle, the washer *d′* engaging the plate at each side the slot. To the upper end of said plate D a rod, D′, is hinged, which rod, extending to the rear and into the recess *b′* to a bearing upon the bridge-plate C, is provided at the extremity with a hook, d^2, facing downward, the rod being offset where it crosses the reduced portion of the plate C, as shown in Fig. 2. The tail-gate A upon the inner face is provided with the vertical central wedge-shaped brace, *a*, largest at the bottom, the length of the brace being equal to the distance intervening the bottom boards of the cart and the top of the sides at the end, whereby when the tail-gate is closed the base of the brace will rest upon the bottom of the cart. (See Fig. 2.) Behind the brace *a* at the base the shank *a′* of a hook, a^2, is set in and attached to the inner face of the tail-gate, the said hook a^2 being made to face upward and extend forward at right angles to the tail-gate.

In operation, when the cart-body is held in a horizontal position, the gate will automatically close, and the hook a^2, upon the gate engaging the hook d^2 upon the rod D′, securely fastens said gate in its closed position, the rod D′ meanwhile resting upon the bridge-piece C. When the front of the body is raised so as to carry the same at an angle to the axle, the hinged rod D′ will be carried back, its offset portion passing over the plate C, whereby the hook d^2 is moved toward the upper wall of the slot *b′* and disengaged from the hook a^2, whereby the tail-gate is automatically opened during process of dumping. The gate may be made to open at an early stage of dumping, if desired, by simply adjusting the plate D vertically upward upon the axle, and at a late stage by carrying the plate D downward. The body A′ is held in a horizontal position by a link, *e*, suspended from the body at the front, passing over an L-shaped pin swiveled in the bolster-bar E′ when the arm of said pin is in a vertical position, (shown in dotted line, Fig. 2,) and the said link is retained in engagement with the pin by carrying the arm to a horizontal position, as shown in positive lines, same figure.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. In a dumping-cart, the combination, with the body hinged to the axle, a tail-gate hinged to the body at the top, and a hook attached at the lower inner side of said gate, of an adjustable plate secured to the axle, a rearwardly-extending bar hinged to said plate, having a

hook at the end adapted to engage the hook upon the tail-gate, substantially as shown and described, whereby when the body is in a horizontal position the gate is automatically locked and unlocked when inclined, as set forth.

2. In a dump-cart, the combination, with a hook attached to the tail-gate, of a bar pivoted to the axle below the hinge-pivot of the body-offset at its free end, and provided with a hook, and a plate attached to the body below the offset portion of said bar, substantially as set forth.

3. In a dumping-cart, the combination, with the body A, hinged to the axle, provided with a horizontal bottom slot, b', a transverse beam, B, having a slot, b, registering with the aforesaid slot b', a bridge-bar, C, spanning said slots and provided with a beveled portion, C′, a tail-gate, A, hinged to the body at the top, and a hook, a^2, attached to said tail-board, of the plate D, adjustably secured to the axle, the bar D′, hinged to said plate and provided with an offset and a hook, d^2, at its free end, all arranged to operate substantially as herein set forth.

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Witnesses:

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