(No Model.)

2 Sheets—Sheet 2.

R. MORRIS.

MAGAZINE FIRE ARM.

No. 376,901. Patented Jan. 24, 1888.

FIG. 4.

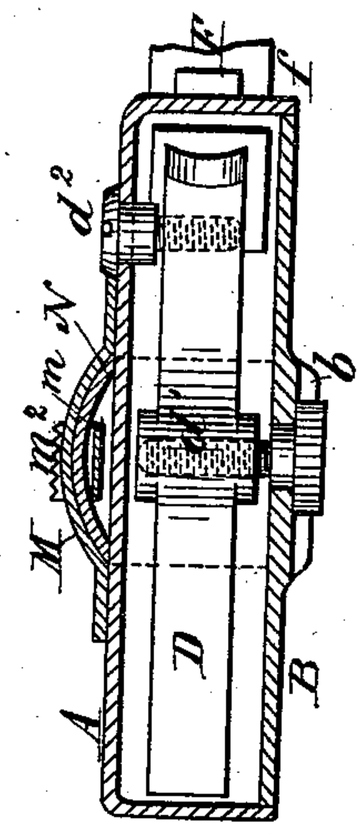
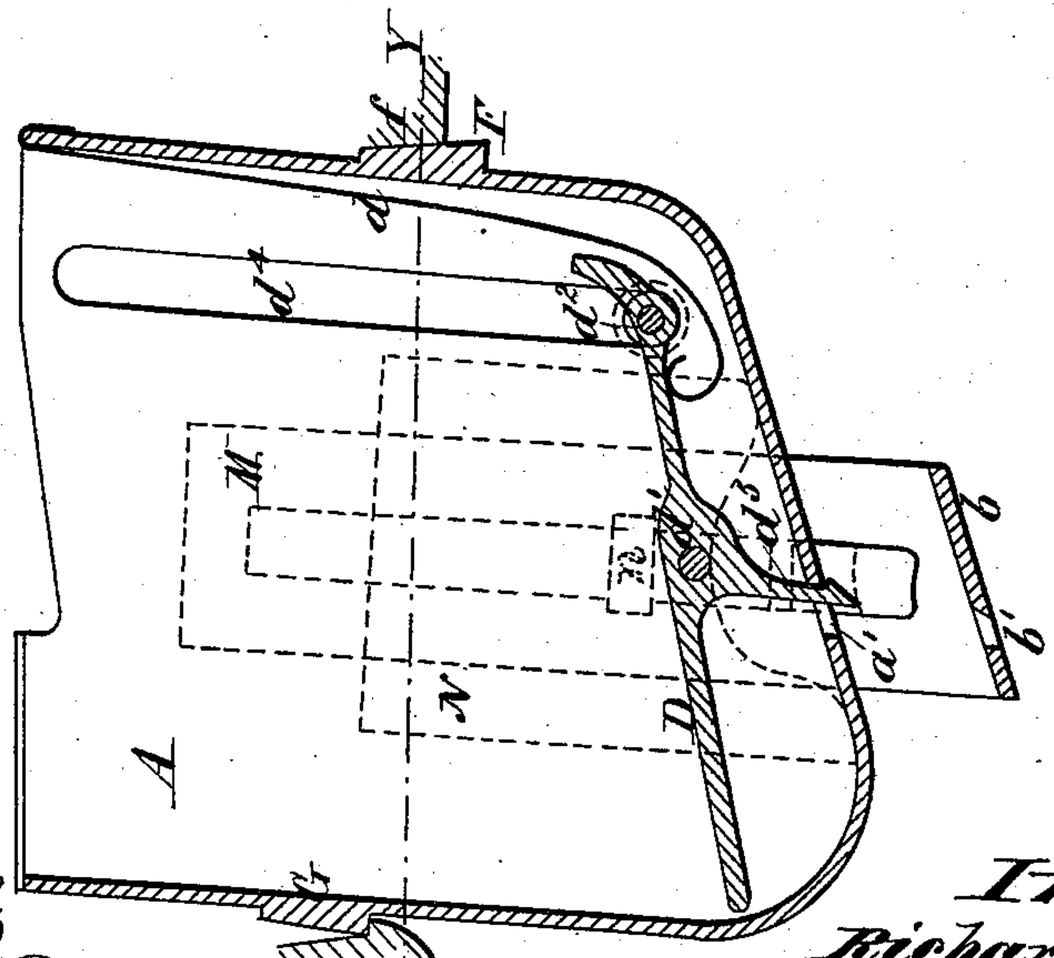


FIG. 3.

FIG. 2.



Witnesses.
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(No Model.)

2 Sheets—Sheet 2.

A. C. McEWEN.

DUMPING WAGON.

No. 376,902. Patented Jan. 24, 1888.

Fig. 3.

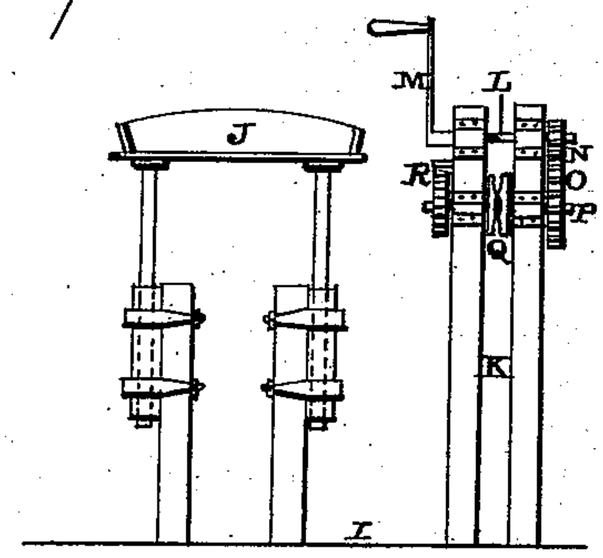

Fig. 4.

Witnesses.
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UNITED STATES PATENT OFFICE.

ADDISON C. McEWEN, OF JERSEY CITY, NEW JERSEY.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 376,902, dated January 24, 1888.

Application filed October 28, 1887. Serial No. 253,593. (No model.)

To all whom it may concern:

Be it known that I, ADDISON C. McEWEN, of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Dumping-Wagons; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in dumping-wagons; and it consists in, first, the combination of a windlass mounted upon the seat-platform, an operating-chain which extends therefrom, a shaft journaled upon the platform and provided with a sprocket-wheel and a worm, two operating-chains which are wrapped in opposite directions around the worm, guiding-pulleys, and pivoted body of the wagon, the two chains being fastened to the opposite ends of the wagon-body, so as to both dump the body and return it to position; second, the combination of the rear axle, the knees secured thereto, the plates secured to the knees and to the horizontal timbers which support the body, and the castings secured to the body, and which form the brackets, hinges, or joints upon which the body turns.

The object of my invention is to provide a mechanism by means of which the driver sitting upon his seat can dump the wagon-body and return it to position without having to dismount, either while the wagon is in motion or while standing still, and to provide for the wagon-body an automatically-moving tail-board, which, when the wagon-body is dumped, leaves its contents free to slide out.

Figure 1 is a side elevation of a wagon to which my invention is applied, the two near wheels being removed. Fig. 2 is a plan view of the wagon with the body removed. Fig. 3 is a front view of the seat-platform and its attachment. Fig. 4 is a detached view showing the mechanism by which the body is dumped and returned to position.

A represents the rear axle, to which the two knees B are clamped by means of iron straps or other suitable devices. To the upper ends of these knees B are secured the brackets C, which are formed of two cheek-pieces, which are secured to the knees B at their lower rear ends and to the horizontal timbers D, upon which the wagon-body E is supported. These cheek-pieces are separated from each other the thickness of the knees B, and in between the rear upper ends of the cheek-pieces are the castings F, which are secured to the under side of the center cross-piece, G, upon the under side of the body E. These castings F are preferably of the shape shown, and passing through these castings and the cheek-pieces C are the pivotal bolts G', upon which the body E turns. The knees B and cheek-pieces C serve both to connect the rear axle to the horizontal timbers D and to form a portion of the hinge or joint upon which the body is dumped.

Mounted upon the seat-platform I, and rising up beside the driver's seat J, are the two uprights K. Journaled upon the upper ends of these uprights is the shaft L, which is provided with a crank, M, upon one end and the pinion N upon the other. The crank M is within easy reach of the driver upon his seat J or while standing upon the platform I, thus enabling him to dump the wagon-body E either while the wagon is standing still or in motion, as may be desired. The pinion N meshes with the gear O upon the shaft P, which is provided with a sprocket-wheel, Q, at its center and a pawl and ratchet, R, on the opposite end from the gear O. Around the sprocket-wheel Q upon the shaft P and the sprocket-wheel S on the shaft T, journaled on the under side of the horizontal timbers D, passes the operating-chain U, which receives its motion from the windlass.

Upon the shaft T is placed the worm V, around which pass the two chains W X in opposite directions. The chain W is much shorter than the one X, and passes under the guiding-pulley Y upon the cross-timber Z, and has its rear end fastened to the under side of the wagon-body E. This chain W serves to draw the wagon-body back into position after having been dumped. When the shaft T is turned in one direction for the purpose of dumping the wagon, this chain W unwinds from the worm V for the purpose of allowing the front end of the body E to rise, as shown in dotted lines in Fig. 1. When the shaft T is turned in the opposite direction, this chain W is wrapped around the worm V and draws the body E back into position. The chain X

is much longer than the one W, and has its front end wrapped around the worm V in the opposite direction from the one W, and then passes back over the guiding-pulley A′ on the cross-timber B′, under the pulley C′ upon the rear axle, A, and has its rear end fastened to the screw-threaded rod D′, fastened to the under side of the body E. This rod D′ is made screw-threaded and provided with a nut upon one end, so that the chain X can be tightened or slackened, according to the amount of movement that it is desired that the body E shall have, and to take up any slack of the chain. When the shaft T is turned in one direction, the chain X is wound upon the worm V and a direct downward pull is exerted upon the rear end of the wagon-body E, which is unsupported at this end, for the purpose of dumping it, and when the shaft T is turned in the opposite direction the chain X is unwound from the worm V for the purpose of allowing the chain W to draw the body back into position. While the chain W is being wound upon the worm V the chain X is being unwound therefrom, and thus the body E is held supported between the two chains, so its movement will be controlled from first to last by the windlass.

Secured to each end of the cross-beam E′ is a rod, F′, upon the end of which is pivoted the rod G′, which is connected at its upper end to the horizontal rod H′, which extends along about parallel with the upper edge of the wagon-body E. Upon the wagon-body E is secured a support, I′, to the upper end of which the rod H′ is connected. To the rear end of the two rods H′, which extend along the upper edges of the wagon-body E, is secured the tail-board J′. Secured to the horizontal rods H′ are the rods K′, which extend downwardly at their rear ends, and are fastened to the lower ends of the tail-board J′. When the body E begins to dump, the support I′ moves with it, and this support forces the rods H′ endwise, carrying the tail-board J′ with them, and causing the rods G′ to assume the position shown in dotted lines. The endwise movement of the rods H′ moves the tail-board out of contact with the rear end of the body E, thus leaving room for the end of the body to sink downward, while the tail-board remains supported in the position shown in dotted lines. As the body E returns to position the movement of the support I′ causes the rods H′ K′ to have an endwise movement, and thus return the tail-board to position. The tail-board being automatic in its movement, the driver does not have to dismount for the purpose of operating it, as would otherwise be the case.

Having thus described my invention, I claim—

1. The combination of a windlass located upon the platform for the driver's seat, the operating-chain extending therefrom, a shaft provided with a sprocket-wheel, and a worm or drum, the two operating-chains which are wrapped in opposite directions around the worm or drum, the guiding-pulleys, and the pivoted wagon-body, substantially as shown.

2. The combination of the rear axle, the knees secured thereto, the cheek-plates secured to the knees and the timbers upon which the body is supported, the castings secured to the under side of the body, and the body, substantially as described.

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

ADDISON C. McEWEN.

Witnesses:
M. A. HENNESSEY,
V. V. MERSEREAU.