(No Model.) 2 Sheets—Sheet 1.

J. A. DE WANDELAER.

DUMPING WAGON.

No. 345,775. Patented July 20, 1886.

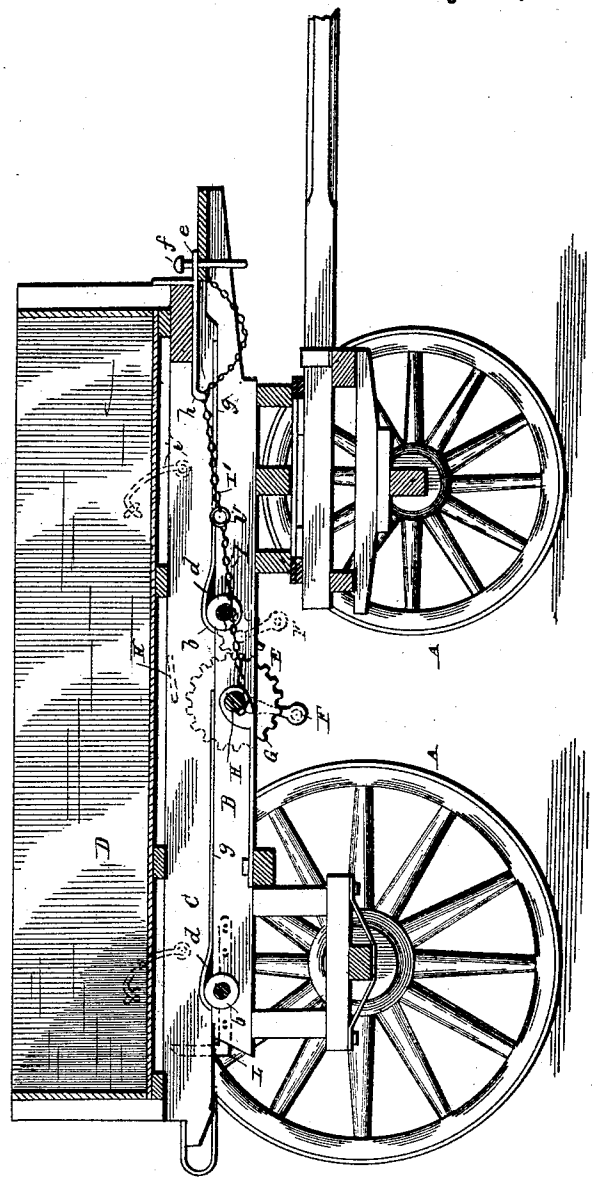


Fig. 1.

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Fig. 2.

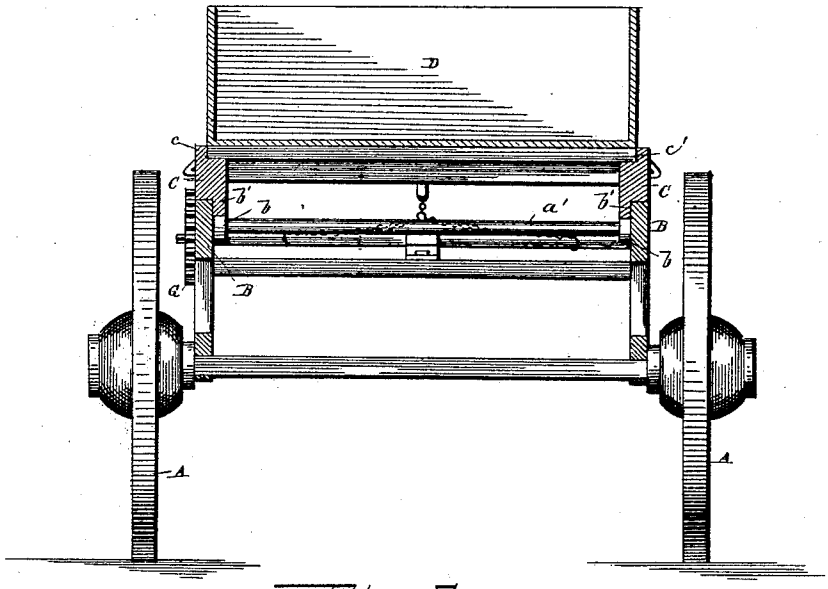
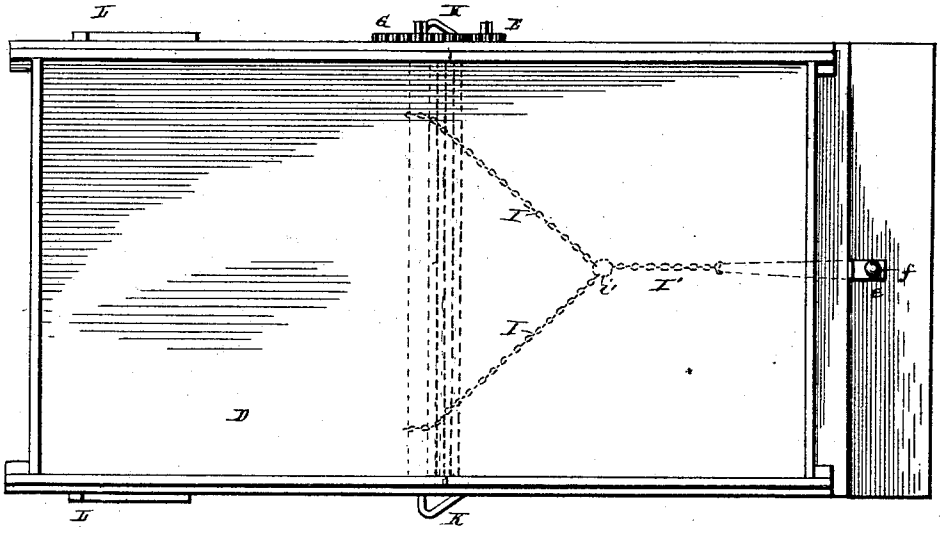


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN A. DE WANDELAER, OF WASHINGTON, DISTRICT OF COLUMBIA.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 345,775, dated July 20, 1886.

Application filed October 17, 1885. Serial No. 180,126. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. DE WANDELAER, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Dumping-Wagons, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in dumping-wagons.

The object of my invention is to provide a dumping-wagon for the transportation of brick and other material, which can be readily manipulated to unload the same with but very little exertion to the operator.

My invention consists of a rectangular frame rigidly secured to the running-gear of the wagon, and having friction-wheels on which the body is moved, said body, or frame which supports the body, being provided with concave recesses or depressions on the under side in which the friction-wheels rest when the body is in position for being moved.

My invention consists, further, in certain devices by which the body of the wagon is slightly raised onto the friction-rollers before it is pushed back to the tilting-point, as will more fully hereinafter appear.

Referring to the drawings, Figure 1 is a longitudinal sectional view of my improved dumping-wagon. Fig. 2 is a rear view of the same. Fig. 3 is a top or plan view.

In the transportation of brick from the kilns to the point where they are to be used they are oftentimes injured and broken and their commercial value impaired through frequent handlings and the rough usage incident to the use of the ordinary dumping-wagons. This is specially true in the handling of front brick unless they are moved with great care by the hands of the workmen, two or three bricks at a time; but this process is slow and expensive. I obviate in a great measure the breaking of bricks by the use of my improved dumping-wagon, which I will now proceed to describe in detail.

A indicates the wheels, and B the frame, mounted thereon in any suitable or convenient manner, the frame B being cut away at the lower edge, as shown at *b'*, so as to fit inside of the frame A, and by which means the frame C is held from lateral displacement when the wagon is used on rough and uneven roads. The upper edge of the frame C is also cut away on its upper side, as shown at *c'*, to receive the body D of the wagon.

b are friction-rollers mounted on the shafts or rods *a'* in the frame B, two friction-rollers on each side of the frame being preferred, the function or office of said rollers being to support the frame C and bed D, and to facilitate the movement of said frame or bed to the tilting-point when the frame C is moved or raised so as to be supported by the friction-wheels, as will now be described.

d are semicircular or concave cavities formed on the under side of the frame B, into which the friction-rollers project when the bed is in the proper position for the wagon to be moved. This allows the frame C to rest firmly on the top of the frame B throughout its entire length, the front end of the body or frame being secured to the frame B by means of the metal strap or bar *e* and bolt *f*, or by means of any other suitable fastening device. The lower side of the frame C is faced with metal straps *g*, which extend up into the cavities *d* and prevent the friction-wheels from wearing or cutting the under side of the frame.

E is a pinion-wheel mounted in suitable bearings in the frame C and adapted to be turned by means of a removable winch or crank, F. The pinion-wheel E meshes with a larger pinion-wheel, G, secured to the outer end of the shaft H, said shaft H being mounted in suitable bearings in the frame B and extending across said frame.

I is a chain, both ends of which are secured to the shaft H, the central portion of said chain being provided with a ring or enlarged link, *i'*, to which one end of the chain I' is attached, the other end of chain I' being secured to the front end of frame B, as shown.

The rear end of the bar *e* is formed into a hook, *h*, adapted to receive one of the links of the chain I', and when it is desired to move the body D and frame C the chain I' is placed on the hook *h*. The winch or crank is placed on the axis of the pinion E and turned. This forces the body D and frame C backward, and at the same time raises the frame C and body D onto the rollers or wheels until the frame C

is entirely free from the frame B, and is supported by the friction-wheels only. The body and frame are then readily pushed back until the projections K come in contact with the stops L, which is the pivotal point of the body and frame, and during this backward movement of the body and frame, which is effected by the hand of the operator, and not by the turning of the crank, the slack in the chain I causes it to free the chain I' from the hook *h*, and permit the body to be tilted to dump or deposit its load.

The axes of both pinion-wheels are adapted to receive the winch or crank F, so that it can be changed from one to the other, and when it is desired to turn the shaft H to wind the chain thereon the winch or crank is applied to the axis of the small wheel, thus taking advantage of the power gained by the well-known principle of the intermeshing of gear-wheels; but when it is desired to unwind the chain from the shaft H the winch or crank is applied to it. I will remark in this connection that I prefer to use the handle of the winch to secure the front end of the frame C to the frame B, instead of using the pin or bolt *f*, and the advantage arising from this use is that the operator is always sure to unlock the parts before he can use the winch to raise the frame and body onto the friction-rollers, which is a necessary preliminary step in the process of unloading or dumping the wagon-body.

I have described the body D as being secured to the frame C; but in practice I find it desirable to make the body detachable, and secure it to the frame C by the hooks *i*, (shown in dotted lines in Fig. 1,) so that when the frame is rolled back and dumped, the hooks unfastened, and the running-gear moved forward, the body will be gradually and safely lowered onto the ground and left there until the bricks are used therefrom, other bodies being provided which can be placed on the wagon and hauled to the kiln to be refilled. This is an important feature incident to my invention, as it enables me to handle the brick in bulk without having to move them so much by hand, thus saving time and labor, and reducing the risk or liability to break or chip the brick.

In the construction of large buildings, where the brick and mortar are to be raised on an elevator, I find it convenient and desirable to make my wagon-bodies in two or more sections, as indicated by dotted lines in Fig. 3, said sections being detachably secured together, so they can be readily separated the one from the other. These sections or compartments may be made to hold about five hundred bricks, so that when desirable one of these sections can be placed on the elevator and raised onto the building, thus reducing the number of times the bricks are handled to two from the time they leave the kiln until they are placed in the wall.

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

1. In a dumping-wagon, a rectangular frame secured to the running-gear, having friction-wheels mounted therein, in combination with a movable frame having concave recesses in its lower side, and a removable body mounted in the movable frame, substantially as and for the purpose set forth.

2. The body-supporting frame having the recesses formed in its lower side, and having the metal strips or facings extending up into the recesses, in combination with the rectangular frame secured to the running-gear, having the friction-wheels mounted therein, substantially as and for the purpose set forth.

3. In a dumping-wagon, a rectangular frame secured to the running-gear, having friction-wheels in the top thereof, a supplemental frame which supports the body of the wagon, having recesses to receive the friction-rollers, in combination with the shaft H, chain I, pinion-wheels, and winch or crank, substantially as and for the purpose set forth.

4. In a dumping-wagon, a rectangular frame secured to the running-gear, a frame made movable in the permanent frame, and a removable body mounted in the movable frame, whereby the body with its load can be carefully deposited on the ground, as set forth.

5. In a dumping-wagon, the body D, made in sections, as described, and resting loosely on a movable frame, to be moved back by said frame and deposited on the ground, as set forth.

6. The combination of the movable and permanent frames, the shaft H, operated by the pinion-gears, and the chain I, secured to said shaft and to the movable and permanent frames, substantially as described, whereby one portion of said chain is held slack to allow the movable frame to be moved and raised, and to be tightened by a further movement of the body and frame, and to release or unlock the chain from the movable frame by such further movement, as set forth.

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

JOHN A. DE WANDELAER.

Witnesses:
S. SINSABAUGH,
H. A. HALL.