

(No Model.)

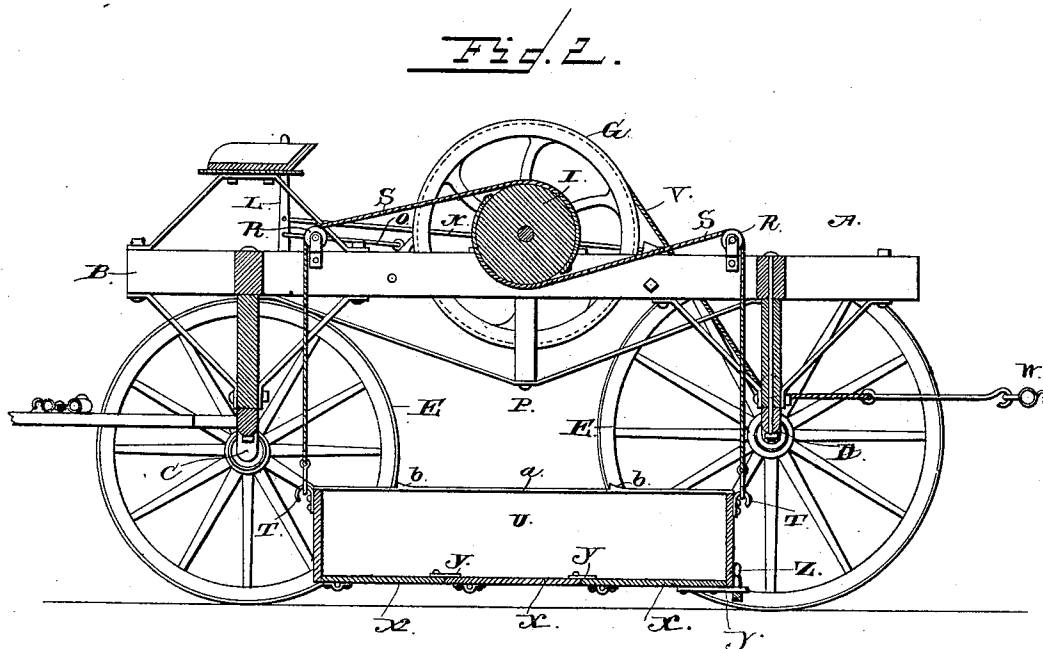
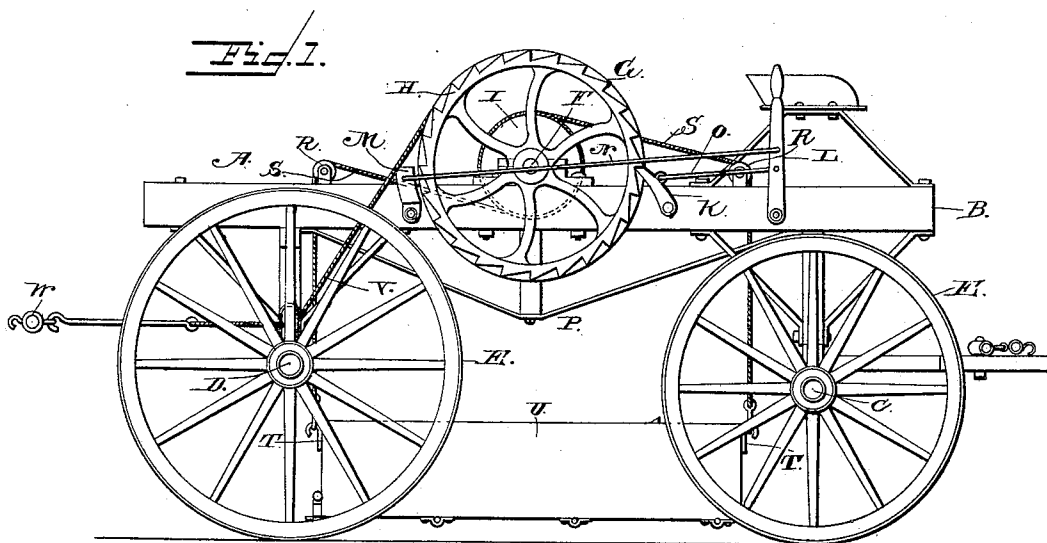
2 Sheets—Sheet 1.

D. MARRS.

WAGON FOR HAULING DIRT.

No. 367,009.

Patented July 19, 1887.



Witnesses
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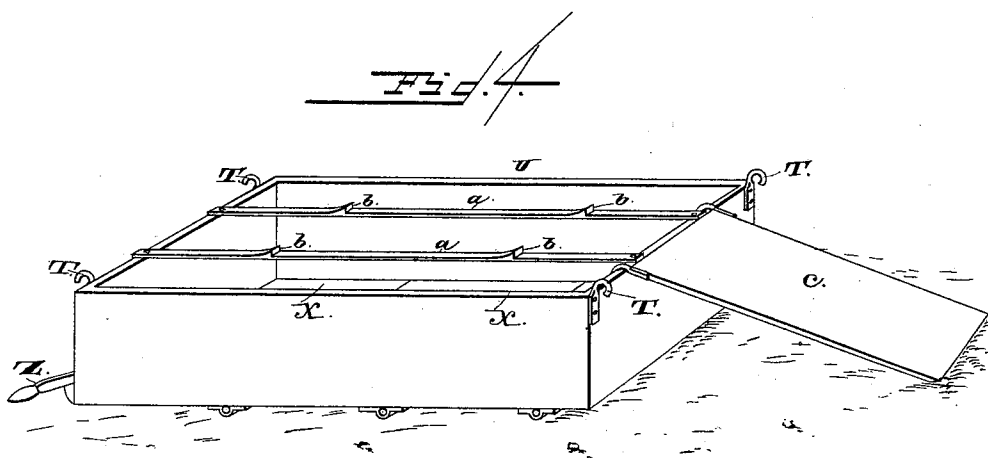
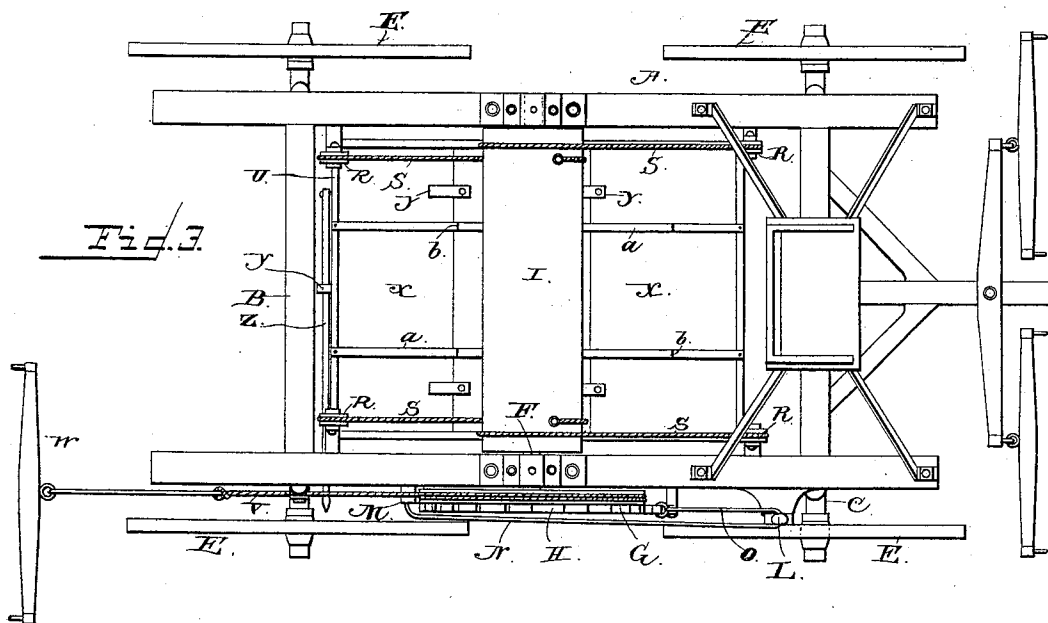
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2 Sheets—Sheet 2.

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WAGON FOR HAULING DIRT.

No. 367,009.

Patented July 19, 1887.



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UNITED STATES PATENT OFFICE.

DANIEL MARRS, OF LINCOLN PRECINCT, JEFFERSON COUNTY, NEBRASKA,
ASSIGNOR OF ONE-HALF TO JOHN SCHROEDAR, OF SAME PLACE.

WAGON FOR HAULING DIRT.

SPECIFICATION forming part of Letters Patent No. 367,009, dated July 19, 1887.

Application filed November 12, 1886. Serial No. 218,713. (No model.)

To all whom it may concern:

Be it known that I, DANIEL MARRS, a citizen of the United States, residing at Lincoln Precinct, in the county of Jefferson and State of Nebraska, have invented a new and useful Improvement in Wagons for Hauling Dirt, of which the following is a specification.

My invention relates to an improvement in wagons for hauling dirt; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a side elevation of a wagon embodying my improvements. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a top plan view. Fig. 4 is a detailed perspective view of the box.

A represents a vehicle having the raised platform B, the front and rear axles, C and D, and the supporting-wheels E, journaled on the spindles of the axles. It will be observed that the platform is supported at a considerable height above the axles.

F represents a transverse shaft, which is journaled in suitable bearing-blocks secured at the center of the platform. To one end of the said shaft is rigidly attached a large wheel, G, which is provided with a peripheral groove or drum, and has the ratchet-teeth H.

I represents a drum, which is attached to the central portion of the shaft between the side beams of the frame or platform A.

K represents a pawl, which is pivoted to the platform and engages the ratchet-teeth of the wheel G. Near the front end of the platform is pivoted a hand-lever, L.

M represents a brake-block, which is pivoted to the platform and is adapted to bear against the rear side of the wheel G. A rod, N, connects the said brake to the lever, and a rod, O, connects the pawl with the said lever, so that by moving the latter forward the pawl will be tripped and caused to disengage the ratchet-wheel G, and the brake will at the same instant be applied to the rear side of the said wheel.

P represents a supporting-truss which depends from the lower side of the platform or frame A and serves to strengthen the same. In front and rear of the shaft F and journaled to the frame or platform are pulleys R.

S represents elevating ropes or chains which

pass over the said pulleys and have their inner ends attached to the drum I. The depending ends of the said ropes or chains are provided with hooks which are adapted to engage suitable hooks, T, with which the box U is provided.

V represents a rope or chain which is coiled in the peripheral groove of the wheel G and passes rearwardly and downwardly from the wagon, being guided by suitable pulleys, and the rear end of the said rope or chain is provided with a hook adapted for the attachment of a singletree, W. To the front axle of the wagon is attached the usual draft-pole or tongue. The bottom of the box U is composed of a series of pivoted sections, X, each of which is provided at its free edge with a tongue, Y, adapted to engage the opposing side of the adjacent section. One of the said tongues on the section which is at one end of the box projects beyond the outer end of the box and is engaged by a lever, Z.

From the foregoing description it will be readily understood that by tripping the lever Z the pivoted sections forming the bottom of the box will swing downwardly, thereby opening the bottom of the box and discharging the contents thereof upon the ground.

On the upper side of the box are arranged longitudinal rods *a*, which are provided near the ends of the box with shoulders or stops *b*, that project upwardly.

c represents an inclined platform which is adapted to be attached to one end of the box.

My invention is particularly adapted for use in moving the earth from excavations, and the operation of my invention is as follows: The box is placed on the ground, the inclined platform *c* is attached to one end thereof, and one of the usual scrapers, which are employed for collecting and removing loose dirt, is driven toward the box U, after it is filled with dirt and is drawn upon the platform *c*. One of the horses attached to the scraper passes on one side of the box U and the other horse passes on the opposite side thereof, and thus the scraper is drawn upon the upper side of the box and is guided onto the rods *a*. As soon as the front edge of the scraper comes in contact with the stops or shoulders *b* the dirt is dumped, thereby throwing its contents into

the box U, and the scraper is then drawn from the same and the process repeated until the box U is entirely filled. The wagon is then driven over the box, the elevating ropes or chains S have their hooks attached to the hooks on the ends of the box, and a horse is attached to the whiffletree W at the rear end of the rope V. This horse is caused to walk away from the rear end of the wagon, thereby uncoiling the rope V on the wheel or drum G, and thereby causing the shaft F and the drum I to rotate, thus winding the ropes or chains S upon the drum I and raising the box U, thereby suspending the latter under the platform or frame A. The pawl K automatically engages the ratchet-teeth of the wheel V and thus supports the box when raised, and the whiffletree W is then detached from the hooks at the rear end of the rope V. The wagon is then drawn by its team to the place where it is desired to dump the contents of the box, and this is done by tripping the lever Z, as before described. In order to lower the box to the ground after its contents have been dumped, the driver moves the lever L forward, thus causing the pawl to disengage the wheel G, and at the same time applies the brake M to the said wheel, so as to prevent the box from being lowered too rapidly. As the box descends, the wheel G and drum I are of course rotated, thereby uncoiling the ropes or chains S from the drum I and coiling the rope V upon the wheel G, the said ropes or chains S and V being coiled upon their respective drums in opposite directions.

Any desired number of boxes U may be employed with one of the wagons, so that while one box is being transported when loaded another box may be filled at the same time.

Having thus described my invention, I claim—

1. The combination of the wagon having the hoisting-drum, and the box U, detachably secured to the hoisting-drum and impended from the wagon, the said box having the shoulders on its upper side, and the incline at one end of the box, for the purpose set forth, substantially as described.

2. The combination of the box U, with the rods *a* on the upper side thereof, and having the shoulders *b* and the incline *c* at one end of the box, whereby an ordinary dump-scraper may be drawn onto the box and caused to discharge its contents therein, substantially as described.

3. The combination of the wagon, the drum I, journaled therein, the wheel G, attached to the drum and having the ratchet-teeth, the pawl K, engaging the ratchet-teeth, the brake-block M to bear against wheel G, the lever connected to the pawl, and the brake-block to disengage the pawl from and apply the brake to the wheel G simultaneously, the elevating ropes or chains S, attached to the drum I and wound thereon, and the rope V, attached to the wheel G and wound thereon in the opposite direction from the ropes or chains S, for the purpose set forth, substantially as described.

4. The combination of the hoisting-drum having the detent, the brake, and the lever connected to the detent and brake to trip the former and apply the latter simultaneously, for the purpose set forth, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

DANIEL MARBS.

Witnesses:

J. T. THOMPSON,
ADDA E. BALDWIN.