

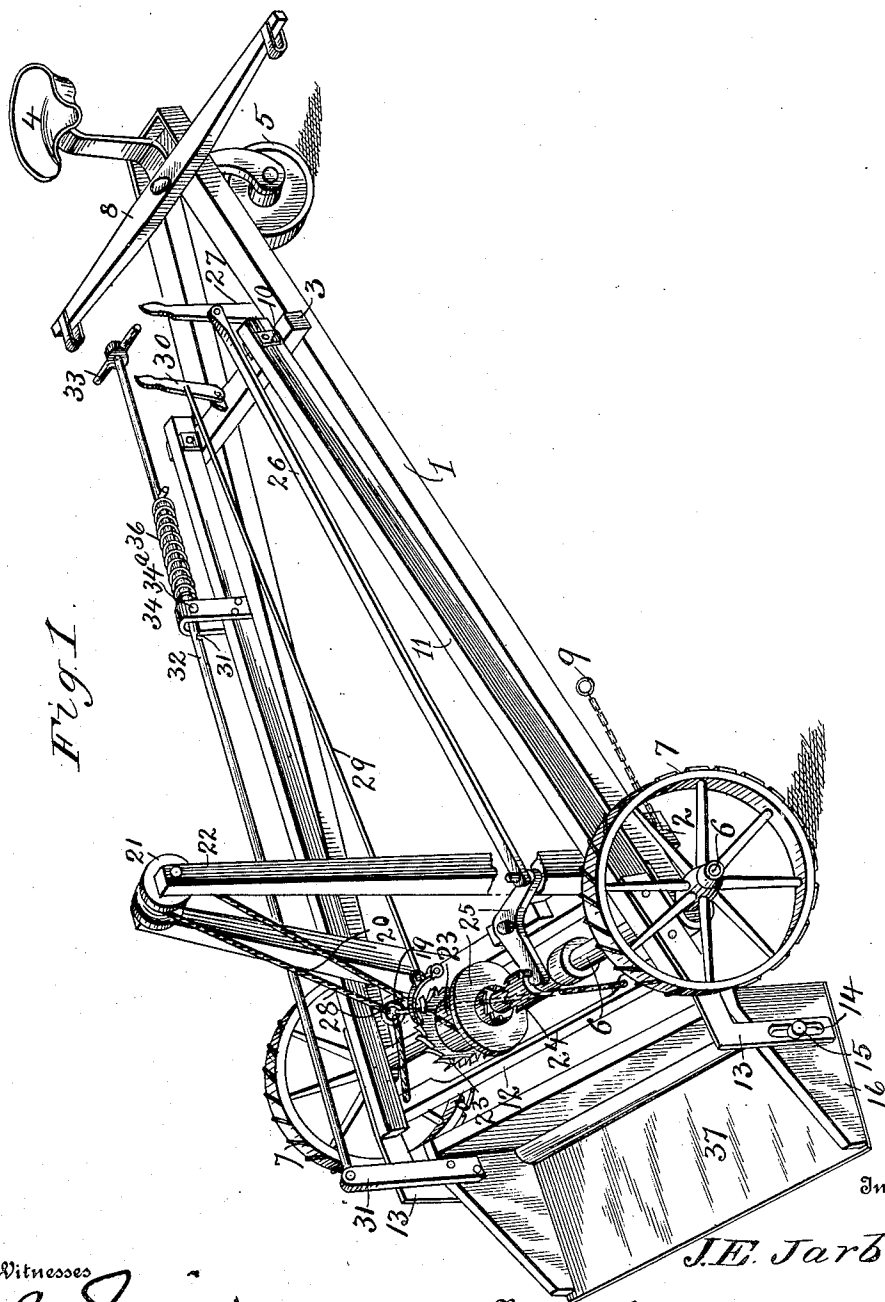
No. 890,061.

PATENTED JUNE 9, 1908.

J. E. JARBOE.
LOADER.

APPLICATION FILED OCT. 29, 1907.

2 SHEETS—SHEET 1.



Inventor

J. E. Jarboe.

Witnesses

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By

R. H. ... Attorneys

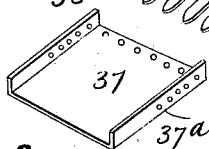
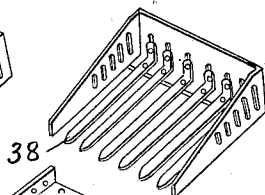
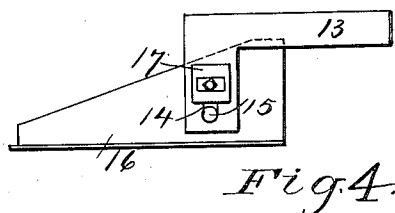
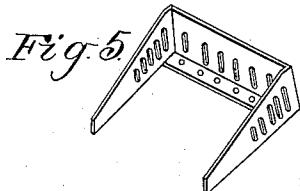
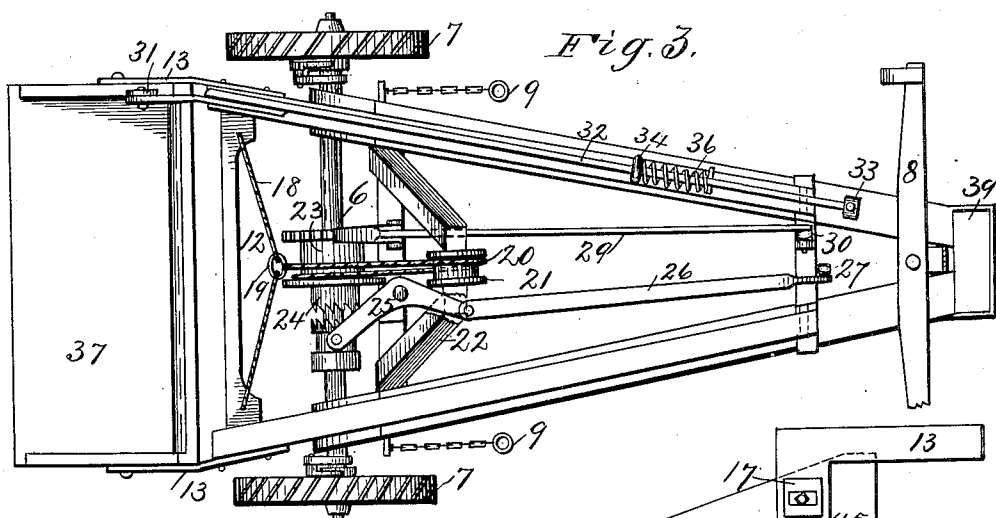
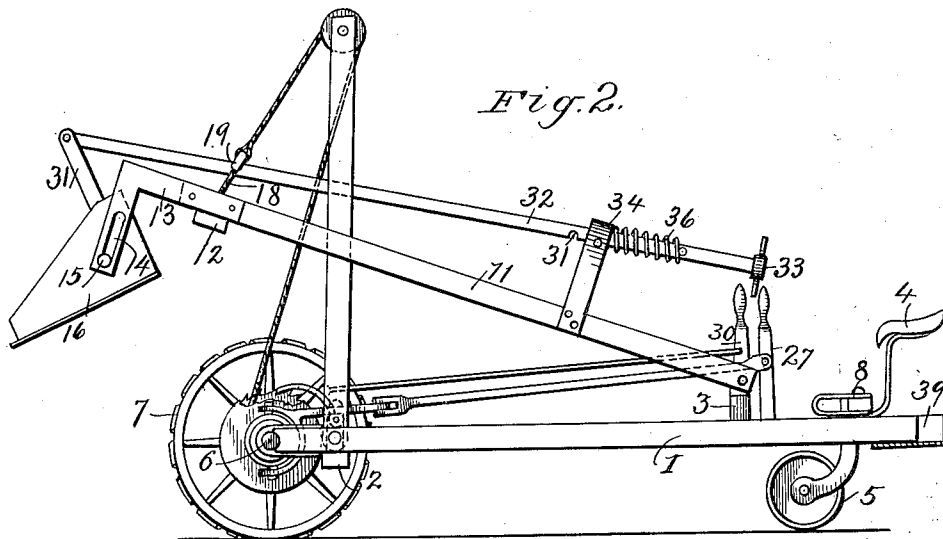
No. 890,061.

PATENTED JUNE 9, 1908.

J. E. JARBOE.
LOADER.

APPLICATION FILED OCT. 22, 1907.

2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN E. JARBOE, OF RED CLOUD, NEBRASKA.

LOADER.

No. 890,061.

Specification of Letters Patent.

Patented June 9, 1908.

Application filed October 29, 1907. Serial No. 399,751.

To all whom it may concern:

Be it known that I, JOHN E. JARBOE, citizen of the United States, residing at Red Cloud, in the county of Webster and State of Nebraska, have invented certain new and useful Improvements in Loaders, of which the following is a specification.

This invention has for its object an improved construction of loader of that type which embody a scoop designed to scrape fertilizer, or the like, as the machine travels forwardly and raise the loaded scoop to an elevated position at which the load can be dumped, and the invention consists in certain constructions, arrangements and combinations of the parts that I shall hereinafter fully describe and then point out the novel features in the appended claims.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of my apparatus; Fig. 2 is a side elevation thereof; Fig. 3 is a top plan view; Fig. 4 is a detail side elevation of a modified form of scraper that may be employed; and, Figs. 5, 6 and 7 are detail perspective views of other modifications relative to the scraper formation.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

My improved loader embodies a framework which in the present instance comprises forwardly diverging longitudinal beams 1, a front cross beam 2, and a rear cross beam 3. 4 designates the driver's seat at the rear of the framework.

5 designates a caster-wheel at the rear of the framework and 6 an axle which is mounted at the front of the framework and on which the front traveling wheels 7 are journaled. These wheels 7 are formed with ratchet hubs, so that the axle 6 will be turned when the machine travels forwardly, but will have no motion imparted to it when the machine travels rearwardly as the steam is backed.

8 designates the doubletree which is pivoted at its middle to the framework in the rear of the rear cross beam 3, and 9 designates the hold-backs secured to the front ends of the longitudinal beams 1.

Preferably U-shaped brackets 10 are mounted upon the rear cross beam 3, and arms 11 are pivotally mounted at their rear ends in the respective brackets 10, to swing about horizontal axes. The arms 11 are connected together at their front ends by a cross bar 12. Hangers 13 project forwardly and downwardly from the front ends of the arms 11 and are formed with slots 14 designed to accommodate the outwardly projecting pins 15 secured to two sides of the scoop 16. The plate 17 is designed to straddle each of the pins 15, said plate being secured by a thumb nut or the like in an adjustable manner to the hangers 13 so as to increase or decrease the size of the slot 14 and thereby regulate the amount of vertical play of the scoop with respect to the hangers. A bail 18 is secured to the cross-bar 12 of the arms 11, said bail being provided with a ring 19 and the cable 20 is connected at one end to said ring and extends over a pulley or sheave 21 journaled in the upper ends of standards 22 mounted upon the front cross beam 2 of the framework.

The other end of the cable 20 is connected to a drum 23 to wind thereon, said drum being mounted loose on the front axle 6. The drum 23 is formed with a clutch member designed for engagement with a movable clutch member 24 splined or otherwise slidably mounted on the axle, and held to turn therewith.

25 designates a shipper bell crank lever which is fulcrumed at its elbow on the front cross beam 2 and which is provided with the usual yoke encircling a collar on the clutch 24 so as to effect the engagement of the clutch with the drum or the disengagement of the two to either couple the drum to the axle or allow the drum to run free. A link 26 connects one arm of the shipper lever 25 to a hand lever 27 fulcrumed on the rear cross beam 3. A detent 28 is adapted to engage a ratchet 23^a formed on one head of the drum 23 and said detent is connected by means of a cord or rope 29 to another hand lever 30 fulcrumed on the rear cross-beam 3.

The scoop 16 is provided at one side with an upwardly extending post 31 having a rear-

wardly extending end to which a latch rod 32 is connected. The latch rod 32 is provided at its rear end with a handle 33 and extends through a guide loop 34 secured to and projecting upwardly from one of the swinging arms 11. This guide loop is provided with a transverse pin 34^a designed for engagement in either one of two keepers or notches 35 formed in the lower edge of the latch rod 32.

10 A spring 36 encircles the latch rod at the rear of the guide loop 34 and bears against such loop and against a cross pin or collar in the latch rod, with a tension to move the latch rod rearwardly.

15 The scoop 16 may be provided with a solid bottom 37 formed with side flanges 37^a secured by bolts to the sides of the scoop frame and designed to rest upon and be secured to a bottom flange of the frame. The

20 bolts preferably extend through vertical slots in the scoop frame, so as to provide for a limited vertical play of the bottom of the scoop. If desired, this solid bottom, which is detachable, may be removed and tines 38

25 substituted therein, the said tines being secured by bolts or the like in the scoop frame, as shown.

In the practical operation of my improved loading machine, the team hitched to the

30 machine is driven forwardly with the scoop resting upon the ground, either to grade a road, or elevate fertilizer, or any other material, with the scoop resting upon the ground and the clutch drawn out of engagement

35 with the drum. During this portion of the operation, the latch rod is held in engagement with the pin 34^a so as to hold the scoop rigid, as against any tilting or dumping movement, on the pins 15 as an axle. When

40 the scoop has been filled, the driver will push forwardly upon the hand lever 27 to effect the engagement of the clutch with the drum, which, up to this point has been uncoupled from the axle. This coupling of the drum to

45 the axle will manifestly effect the winding up of the cable upon the drum and cause the arms 11 to be raised, the pawl or detent 28 running free over the ratchet 23^a on the drum. When the scoop has thus been elevated to the desired point, the operator will

50 pull rearwardly upon the hand lever 27 and uncouple the drum from the axle, while the detent of course will hold the arms at the required elevation. The scoop may now be

55 dumped of its load by the operator disengaging the latch rod from its pin 34^a and the weight of the load will cause the scoop to tilt to discharge its contents at any desired point or into any desired receptacle. The

60 scoop may then be lowered upon its supporting arms and the operation repeated as often as desired. The weight of the filled scoop is, of course, greater than the tension

of the spring 36, but as soon as the scoop has been relieved of its load, the said spring will act to bring the scoop back to normal position and move the latch rod rearwardly into engagement with the pin 34^a, to thereby hold the scoop rigid for a subsequent operation. If desired, the operator may keep one

70 hand on the rear end of the latch rod during the scraping or scooping operation, to insure that the latch rod will not become disengaged from the pin 34^a.

If desired, a box 39 may be secured to the rear end of the framework, to add weight to the machine.

Having thus described the invention, what is claimed as new is:

1. In a machine of the character described, the combination of a framework, vertically movable arms pivotally mounted on the framework, a scoop pivotally mounted between the free ends of said arms, means for raising and lowering the arms on the framework, the scoop being provided with an upwardly extending post, a guide loop secured to and projecting upwardly from one of the arms, a latch rod mounted to slide through said loop and connected at its front end to the post, said latch rod being provided with a keeper and the loop being provided with a cross pin designed for engagement with said keeper, and an expansion spring secured to the rear end of said latch rod and bearing against said loop and designed to move the latch rod rearwardly in the loop, as and for the purpose set forth.

2. In a machine of the character described, the combination of a traveling support or framework, arms pivotally mounted thereon to swing in vertical planes, the front free ends of said arms being provided with hangers, a scoop pivotally mounted upon hangers and located between the same, means for raising and lowering the arms with the scoop, a post secured to and projecting upwardly from one side of the scoop, a latch rod connected to said post and extending rearwardly therefrom, and means for rigidly connecting the said latch rod to one of said arms, whereby to hold the scoop against turning on the hangers.

3. In a machine of the character described, the combination of a framework, traveling wheels upon which said framework is mounted, a front axle mounted in the framework and adapted to be driven upon the forward movement of the wheels, a drum mounted on said axle, a detent and ratchet adapted to hold said drum against backward movement, means for freeing the detent from the drum, means for coupling and uncoupling the drum from the axle, arms pivotally mounted at their rear ends on the framework to swing in vertical planes, standards

projecting upwardly from the front of the
framework, a pulley journaled in the upper
ends of said standards, a cable secured at
one end to the free end of the arms, said
5 arms being connected together for simultaneous movement, the other end of said
cable being mounted to wind on the drum, a
scoop pivotally mounted upon the front
ends of said arms, and means for rigidly

connecting said scoop to one of the arms, 10
whereby to prevent the scoop from tilting.

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

JOHN E. JARBOE. [L. s.]

Witnesses:

A. J. ELLEN,
I. H. HOLMES.