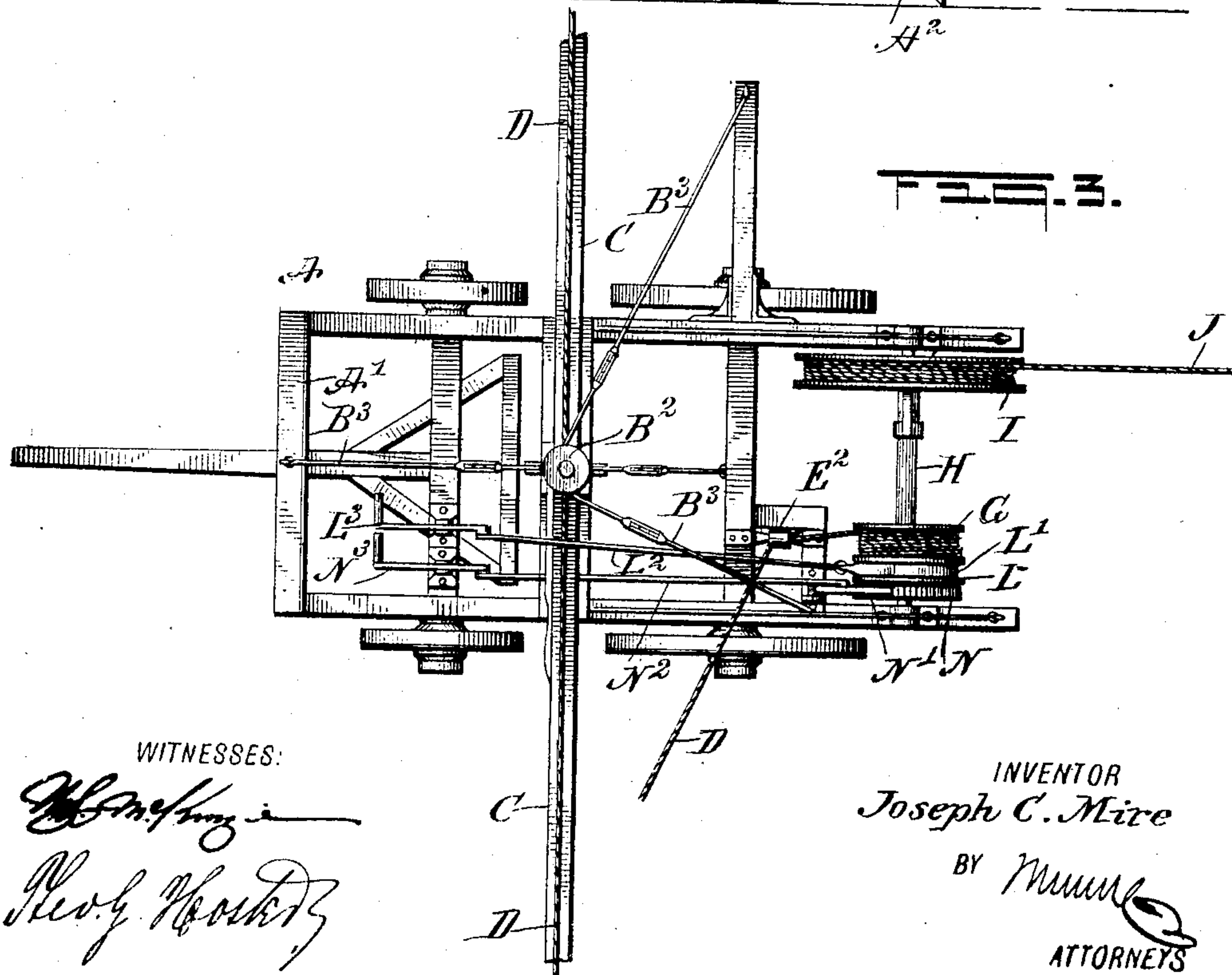
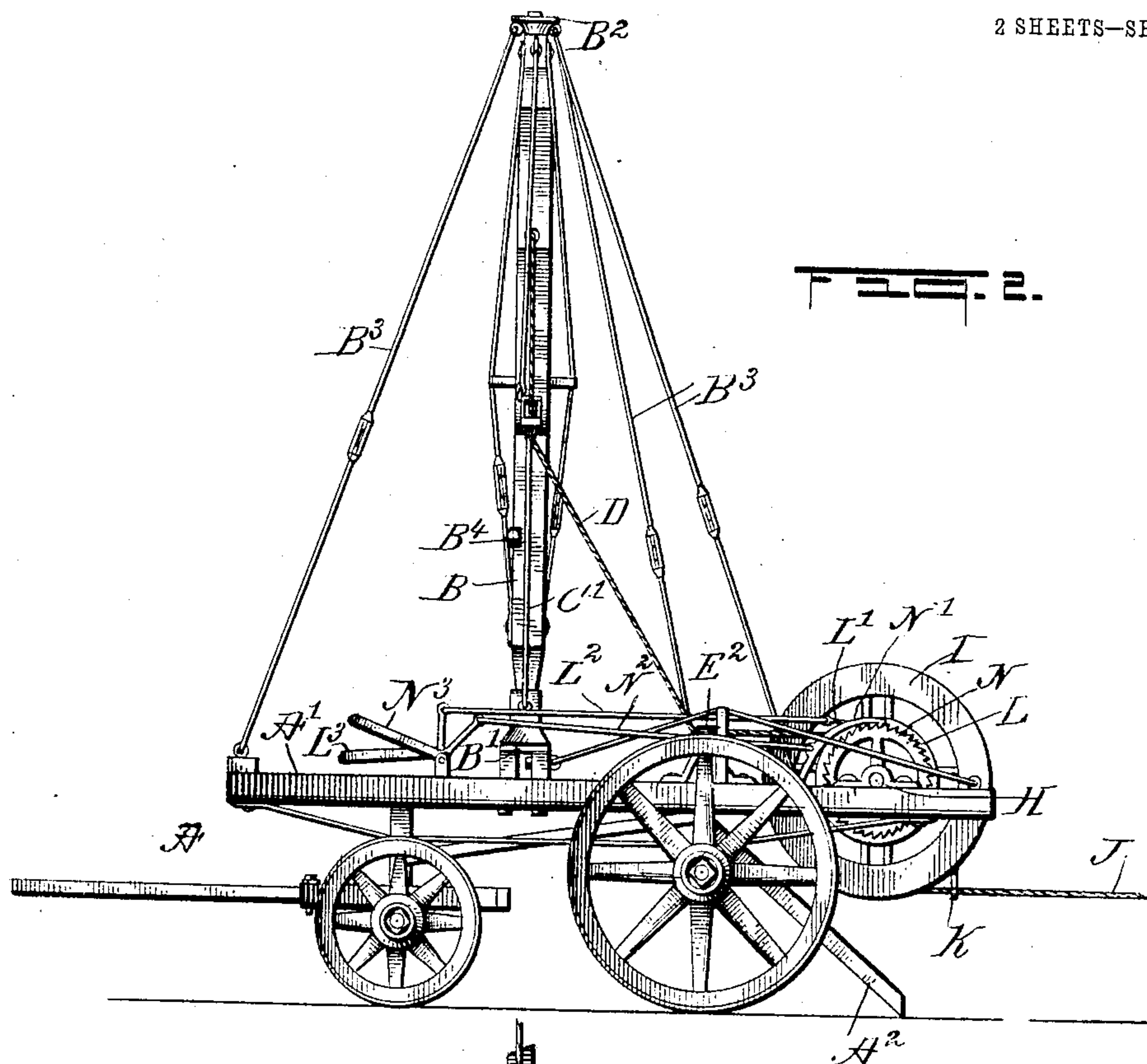




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LOADER.

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2 SHEETS—SHEET 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## LOADER.

No. 804,026.

Specification of Letters Patent.

Patented Nov. 7, 1905.

Application filed October 15, 1904. Serial No. 228,562.

*To all whom it may concern:*

Be it known that I, JOSEPH CLEMENT MIRE, a citizen of the United States, and a resident of Belle Helene, in the parish of Ascension and State of Louisiana, have invented a new and Improved Loader, of which the following is a full, clear, and exact description.

The invention relates to loading and unloading; and its object is to provide a new and improved loader, more especially designed for conveniently and quickly loading sugarcane, hay, or like material into wagons, carts, or other vehicles, the loader being simple and durable in construction, easily manipulated, readily moved about a field, and requiring but little manual labor to handle large quantities of the material in a comparatively short time.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is an end view of the improvement. Fig. 2 is a side elevation of the same. Fig. 3 is a plan view of the same. Fig. 4 is a face view of the load-carrier in an open position, and Fig. 5 is a like view of the same in a closed position.

On the body A' of a wheeled vehicle A of any approved construction is secured a step B' for the lower end of a post or mast B to turn in, the upper end of the said post being journaled in a cap B<sup>2</sup>, held in place by adjustable supporting-rods B<sup>3</sup>, connected with the wagon-body A'. The post or mast is preferably trussed to give it the desired strength, and on the said post is secured a handle B<sup>4</sup>, adapted to be taken hold of by the operator for turning the said post. On the post B is secured a slightly-inclined boom C, extending beyond both sides of the post and connected at its lower end by braces C' with the top and bottom of the post B, as plainly indicated in Fig. 1. A hoisting-rope D extends over the top of the boom and passes over pulleys E and E', journaled on the ends of the said boom, the said rope carrying at one end a load-carrier F, and the other end of the said rope passes through an eye E<sup>2</sup> (see Fig. 3) and then winds and unwinds from a drum G, secured on a shaft H, journaled in suitable bearings attached to the body A' of the vehicle A. On the shaft

H is secured an upright drum I, on which winds and unwinds a pull-rope J, extending through a guide K, attached to the body A'. To the outer end of the pull-rope J is attached a horse or other animal to pull on the rope J, so as to rotate the drum I, and with it the shaft H and drum G, for the latter to wind up the hoisting-rope D to lift the load-carrier F, and with it the load, so as to raise the load from the ground and bring the same to the desired height above the wagon, cart, or other vehicle to be loaded.

It is understood that when the carrier F and its load are hoisted from the ground then the operator, by taking hold of the handle B<sup>4</sup>, can turn the post B, so as to swing the boom C around to bring the carrier F and its load directly over the vehicle, the carrier F then being opened, as hereinafter more fully described, to release its load, for the latter to drop into the wagon, cart, or other vehicle to be loaded. After the load is released from the carrier F the animal is backed up, so as to allow the drum I, shaft H, and drum G to revolve in a reverse direction for the hoisting-rope D to unwind and the load-carrier F to descend back to the ground for taking up another load. In order to control the returning movement of the shaft H, a break device is provided consisting of a brake-drum L, secured on the shaft H and engaged at its periphery by a brake-band L', fastened at one end to the body A' and connected at its other end by a link L<sup>2</sup> with a foot-lever L<sup>3</sup>, fulcrumed on the body A' and under the control of the operator standing on the said body. Now by the operator pressing the foot-lever L<sup>3</sup> the brake-band L' is applied on the peripheral face of the brake-drum L to check the speed of the shaft H and the drums G and I. On the shaft H is also secured a ratchet-wheel N, adapted to be engaged by a gravity-pawl N', fulcrumed on the body A' and serving to hold the shaft H from returning after the load is hoisted from the ground, and the post B is turned to swing the boom C into the desired position for unloading over the wagon, cart, or other vehicle. When this position has been reached, the pawl N' is swung out of engagement with the ratchet-wheel N to allow the load to descend, and in order to control the pawl N' the latter is connected by a link N<sup>2</sup> with a foot-lever N<sup>3</sup>, fulcrumed on the body A' adjacent to the foot-lever L<sup>3</sup> and likewise under the control of the operator.

In order to hold the vehicle A against acci-



dental movement while the animal pulls on the pull-rope J, a back-stop A<sup>2</sup> is provided, held on the body A' and engaging the ground, as will be readily understood by reference to

5 Figs. 1 and 2.

The load-carrier F (shown in detail in Figs. 4 and 5) is preferably in the shape of a fork, having the fork members F' F<sup>2</sup> movably connected with each other at F<sup>3</sup> and having extension-arms connected by links F<sup>4</sup> F<sup>5</sup> with a  
10 loop F<sup>6</sup>, adapted to be hooked onto a hook O, projecting from a bar O', hung on the end of the hoisting-rope D. Now when the fork members F' and F<sup>2</sup> are in an open position, as shown in Fig. 4, the loop F<sup>6</sup> can be disengaged from the hook O after the hand-lever P, fulcrumed on the bar O', has been lifted.  
15 In order to close the members F' and F<sup>2</sup> of the fork, the said members are pivotally connected with links Q and Q', pivotally connected with each other at Q<sup>2</sup> and with a link Q<sup>3</sup>, connected by a link Q<sup>4</sup> with the bar O'. When the members F' and F<sup>2</sup> are in a closed position, as shown in Fig. 5, then the loop F<sup>6</sup> is in engagement with the hook O, and after the load is  
20 hoisted and moved over the wagon, cart, or other vehicle to receive the load then the operator swings the hand-lever P upward and disengages the loop F<sup>6</sup> from the hook O, and as the carrier F is now suspended from the bar O' by the links Q<sup>4</sup> and Q<sup>3</sup> it is evident that the said links exert a pull on the links Q Q' to cause the latter to straighten out—that is, to move the members F' and F<sup>2</sup> into  
25 an open position to disengage the load. The latter now drops into the wagon, cart, or other vehicle to be loaded.

The device is used as follows: The vehicle A is drawn by a team to the desired place in  
40 the field, and then an animal is hitched to the pull-rope J and the load-carrier F is moved in engagement with the load and closed by hooking the loop F<sup>6</sup> onto the hook O. When this has been done, the animal on the pull-rope J is started forward, so as to unwind the pull-rope J from the drum I, thus rotating the latter, the shaft H, and the drum G for the latter to wind up the hoisting-rope D to raise the load-carrier F and its load from the  
45 ground. The operator now takes hold of the handle B<sup>4</sup> and turns the post B to swing the boom C and with it the hoisting-rope D, load-carrier F, and its load around until the load is directly over the wagon, cart, or other vehicle to be loaded. When this position has been reached, the animal on the pull-rope J is backed up, and the operator in manipulating the foot-lever L<sup>3</sup> actuates the brake mechanism so that the load-carrier F and its load  
50 gradually descend until the load is in the wagon, cart, or other vehicle to be loaded. When this is done, the lever P is swung upward by the operator directing the loading of the vehicle, so that the loop F<sup>6</sup> can be disengaged from the hook O to allow the fork mem-

bers F' and F<sup>2</sup> to open. The carrier F is then returned to the next load, and the above-described operation is then repeated.

Having thus described my invention, I claim as new and desire to secure by Letters Patent— 70

1. A loader comprising a wheeled vehicle, a post mounted to turn at its lower end on the said vehicle, a cap supported from the vehicle and in which the upper end of said post is journaled, a boom supported on the said post and  
75 extending beyond both sides of the post, a hoisting-rope passing over pulleys at the ends of the boom, a load-carrier at one end of the said hoisting-rope, a hoisting-drum journaled on the said vehicle and on which winds the other end of the said hoisting-rope, an operating-drum for rotating the said hoisting-drum, and a pull-rope on the said operating-drum, for rotating the latter. 80

2. A loader comprising a wheeled vehicle, a post mounted to turn on the said vehicle, a boom supported on the said post and extending beyond both sides of the post, a hoisting-rope passing over pulleys at the ends of the boom, a load-carrier at one end of the said  
85 hoisting-rope, a hoisting-drum journaled on the said vehicle and on which winds the other end of the said hoisting-rope, an operating-drum secured on the shaft of the hoisting-drum for rotating the said hoisting-drum, a pull-rope on the said operating-drum, for rotating the latter, and a manually-controlled brake mechanism for the said hoisting-drum, the said mechanism comprising a brake-drum secured on the shaft of the hoisting-drum, a  
90 brake-band engaging said brake-drum, and a foot-lever connected by a link with said brake-band. 95

3. A loader comprising a wheeled vehicle, a post mounted to turn at its lower end in a step  
105 on the said vehicle, a cap in which the upper end of said post is journaled, adjustable supporting-rods for the cap connected with the body of the vehicle, a boom supported on the said post and extending beyond both sides of the post, a hoisting-rope passing over pulleys at the ends of the boom, a load-carrier at one end of the said hoisting-rope, a hoisting-drum journaled on the said vehicle and on which winds the other end of the said hoisting-rope,  
110 an operating-drum for rotating the said hoisting-drum, a pull-rope on the said operating-drum, for rotating the latter, a ratchet-wheel on the shaft of the said hoisting-drum, and a manually-controlled pawl for the said ratchet-wheel, to hold the latter and the hoisting-drum against accidental return movement after the load is hoisted and the post is to be turned. 115

4. A loader comprising a wheeled vehicle, a post mounted to turn at its lower end in a step  
125 on the said vehicle and provided with a handle for turning the same, a cap supported from the vehicle and in which the upper end of the post is journaled, an inclined boom supported 130



on the said post, a hoisting-rope extending over the top of the boom and passing over pulleys at the ends of the boom, a load-carrier at one end of said hoisting-rope, a hoisting-drum 5 journaled on the said vehicle and on which winds the other end of the said hoisting-rope, an operating-drum secured on the shaft of the hoisting-drum for rotating the said hoisting-drum, a pull-rope on the said operating-drum 10 for rotating the latter and a brake mechanism for the hoisting-drum.

5. A loader comprising a wheeled vehicle, a post mounted to turn at its lower end on said vehicle, a cap in which the upper end of the 15 post is journaled, adjustable supporting-rods for the cap connected with the body of the ve-

hicle, an inclined boom supported on the said post and extending beyond the sides of the same, the lower end of said boom being connected by braces with the top and bottom of 20 the post, a hoisting-rope passing over pulleys at the ends of the boom and connected at one end with a load-carrier, and hoisting means with which the other end of said rope is connected. 25

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH CLEMENT MIRE.

Witnesses:

C. D. GONDEAU,  
C. A. JONES.