

No. 610,609.

Patented Sept. 13, 1898.

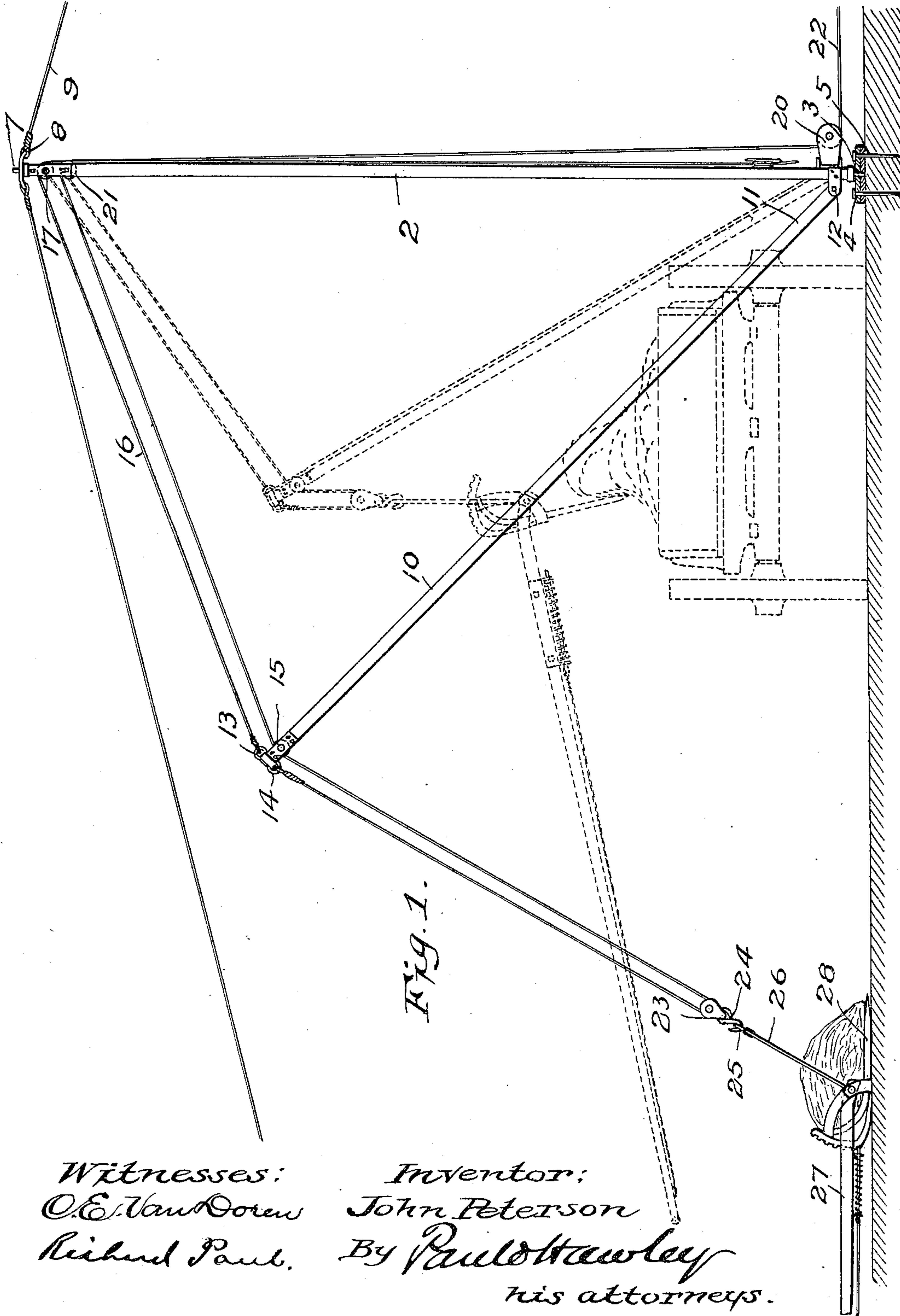
**J. PETERSON.**

**MANURE GATHERER AND LOADER.**

(Application filed Aug. 18, 1897.)

**2 Sheets—Sheet 1.**

(No Model.)



Witnesses:  
O.E. Vandoren  
Richard Paul.

Inventor;  
John Peterson  
By Paul H. Hawley  
his attorneys.

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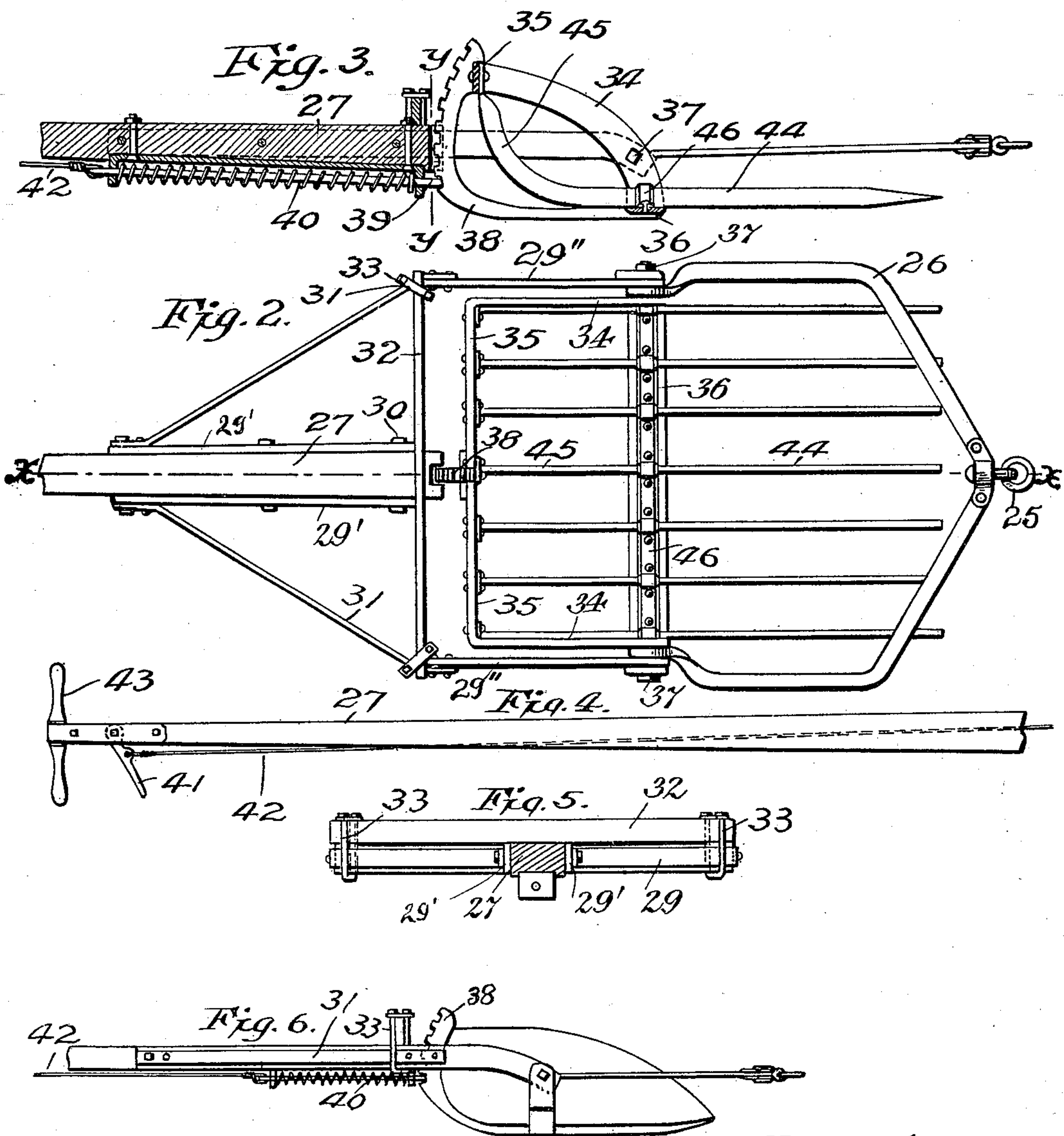
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# UNITED STATES PATENT OFFICE.

JOHN PETERSON, OF ST. PETER, MINNESOTA.

## MANURE GATHERER AND LOADER.

SPECIFICATION forming part of Letters Patent No. 610,609, dated September 13, 1898.

Application filed August 18, 1897. Serial No. 648,641. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN PETERSON, of St. Peter, in the county of Nicollet and State of Minnesota, have invented a certain new and  
5 Improved Manure Gatherer and Loader, of which the following is a specification.

My invention relates to manure-loaders, and particularly to that class in which each apparatus includes a derrick and fork.

10 The object of my invention is to provide a simple and cheap device which may be made or bought by farmers, the cost thereof placing the same within the reach of an individual.

A further object of the invention is to provide a derrick and fork which may be handled  
15 by one or two men and may be operated both quickly and easily; and a further object of the invention is to provide a comparatively light and compact device which may be easily  
20 transported from place to place and set up ready for use within a very few minutes.

My invention consists generally in the combination, with a mast, of a boom pivoted at the lower end thereof and a dumping fork  
25 or shovel suspended from or connected with said mast and boom by suitable tackle, whereby said fork or shovel may be drawn toward said mast and raised and swung into any desired position, and means for locking said fork  
30 or shovel, said fork being adapted to tilt or rotate to discharge its contents and to automatically return to its normal position.

Further, the invention consists in detail constructions and in combination of parts, as  
35 hereinafter described, and pointed out in the claims.

The invention will be more readily understood by reference to the accompanying drawings, forming a part of this specification, and  
40 in which—

Figure 1 is an elevation of apparatus embodying my invention. Fig. 2 is an enlarged plan view of the fork. Fig. 3 is a vertical section of the same on the line X-X of Fig.  
45 2. Fig. 4 is a plan view of that portion of the handle not shown in Fig. 2. Fig. 5 is a transverse vertical section on the line Y-Y of Fig. 3, and Fig. 6 illustrates a dumping-shovel in place of a fork.

50 As shown in the drawings, 2 represents the mast, which at the foot is provided with a pivot-pin 3, held in a foot-block 4, fastened

to the ground by pins or stakes 5. The upper end of the mast is provided with the pin 7, on which there is a plate 8, to which are  
55 attached the upper ends of three or more guy-ropes 9. In this way the mast is held upright and will support the load on the boom 10. This boom has its lower end 11 pivoted in the ears or block 12, provided near the lower end  
60 of mast 2, and at its upper end the boom is provided with rings 13 and 14 and also with a sheave 15. The boom-hoisting rope 16 is fastened in the ring 13 and extends from thence over a sheave 17 in the top of the  
65 mast and has its free end fastened on a cleat at the lower part of the mast. The boom when once adjusted is not often raised or lowered, but simply swings with the mast, which latter rotates in the block 4 and the plate 8.  
70 At the lower end of the mast there is a sheave 20, swiveled thereto, and in the upper end of the mast there is a fixed sheave 21. These carry the draft-rope 22, which passes up the mast and down to the end of the boom. From  
75 the sheave 15 the rope is carried down and around a pulley-block 23 and thence back up to a fastening in the eye 14. The block 23 is provided with a hook 24 to engage a swivel-eye  
80 25 on the bail 26 of the large fork. This fork comprises a frame rigidly secured on the long handle 27 and carrying the fork proper between its arms. The construction of the fork will be best understood by reference to Figs.  
85 2 to 4, where it will be seen that the frame comprises bars 29, extending laterally from the end of the handle 27 and provided with oppositely-turned right-angled extensions 29' and 29'', the latter being secured to the handle 27 by bolts 30. 31 31 are braces for the  
90 frame, having one end secured to the handle and the other to the bars 29 at the junction of the extension 29' therewith. The frame is further strengthened by the employment of a metal cross-beam 32, resting upon the top  
95 of the handle 27 and secured by clips 33 to the ends of the bar 29. The bail 26 is pivoted to the ends of the two arms of the frame or fork, and the same pivots or bolts 37 are made to secure the tilting fork or scraper.  
100 The fork has a bent frame or cradle portion comprising the downwardly-bent arms or ends 34, the raised back strip 35, and the bottom bar 36, which bar, it will be noticed, is



considerably below the pivot-bolts 37. 38 is a quadrant or toothed rack secured on the back of the fork, frame, or cradle to be engaged by the lock-bar 39, arranged upon the under side of the handle 27. The bar is impelled forward by a spring 40 and may be drawn back by a small lever 41, provided on the outer end of the handle and connected to the lock-bar by a wire or rod 42. The handle or beam 27 is preferably provided with cross-handles 43. The fork-teeth 44 have upwardly-curved rear ends 45 and at the top are flattened, so as to be riveted to the bar 35. The teeth are secured to the bottom bar 36 by strap-clips 46, riveted to said bar. Flat iron is preferably used for the teeth, and the ends of the teeth are preferably sharpened, so that they will easily enter a pile of the material. In place of the fork I may substitute a scoop or scraper having a solid bottom and sides, as shown in Fig. 6. The pivot-point of the fork is so disposed that the fork will naturally return to its locked position when empty; but when a load of material is on the fork the weight, being more upon the forward ends of the teeth than upon the rear ends, causes the fork to dump automatically when it is unlocked.

The operation of my device is as follows:

30 The mast is erected and the wagon is driven under the boom, which latter is adjusted at the proper height. The ropes are carried through the sheaves to the pulley on the fork-bail, and the apparatus is ready for use. The horse is hitched to the draft-rope 22, and with one man to attend to the horse and another man grasping the handles of the fork-frame the manure, dirt, or other material may be easily and quickly conveyed from a point distant from the mast to a point beneath the boom, after which the continued movement of the horse will elevate the fork. When the fork arrives at the proper elevation, the man in charge of the same will pull or push upon the long handle to swing the fork and the boom over the wagon and then draw back on the short lever 41 to release the fork, whereupon its contents will be dumped into the wagon or car. The handle is of such a length that it remains in the hands of the operator at all times. When the material slides from the fork, the fork will at once tip back, and, being locked by the return of the bolt, is ready to be deposited on the ground and drawn back into position to take on a new load.

The apparatus may be used for digging in wet places and for many other purposes other than that of loading manure from stable-yards.

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

1. The combination, with a mast and a boom pivoted thereto, of means for supporting said mast in a vertical position and permitting same to rotate, a hoisting-tackle, a bailed fork or scoop pivoted upon a long handle, by which handle the movement of the same is directed, and means in connection with said handle for locking said fork, or scoop, and for unlocking same to permit the fork or scoop to tilt or rotate, and said fork being adapted to automatically return to its normal position after discharging its contents, substantially as described.

2. The combination, with the frame, of the handle, the fork pivoted in said frame and the strengthening-bar resting upon said handle and having its ends secured to said frame by suitable clips, substantially as described.

3. The combination, of the handle provided with the fork-frame, with the fork pivoted in said frame, and means upon the handle for locking said fork in said frame, said fork adapted to dump when loaded and released, and to automatically return when empty, substantially as described.

4. The combination, with a mast, and a boom pivoted thereto, of means for adjusting the elevation of said boom, a draft-rope or tackle provided in connection with said mast and boom, the fork or scoop provided with a bail connected with said draft-rope, means for locking the same, said fork being adapted to tilt or rotate to discharge its contents and to automatically return to its normal position, substantially as described.

5. The combination, with the fork-frame and handle, of the arms 34 pivotally secured thereto, the cross bars or strips 35 and 36, the fork-teeth 44 secured thereto, and the rack 38 secured to said cross bars or strips, and means engaging said rack to lock the fork and to permit tilting of the same, substantially as described.

In testimony whereof I have hereunto set my hand this 12th day of August, A. D. 1897.

JOHN PETERSON.

In presence of—

C. G. HAWLEY,

W. PIERCE COWLES.