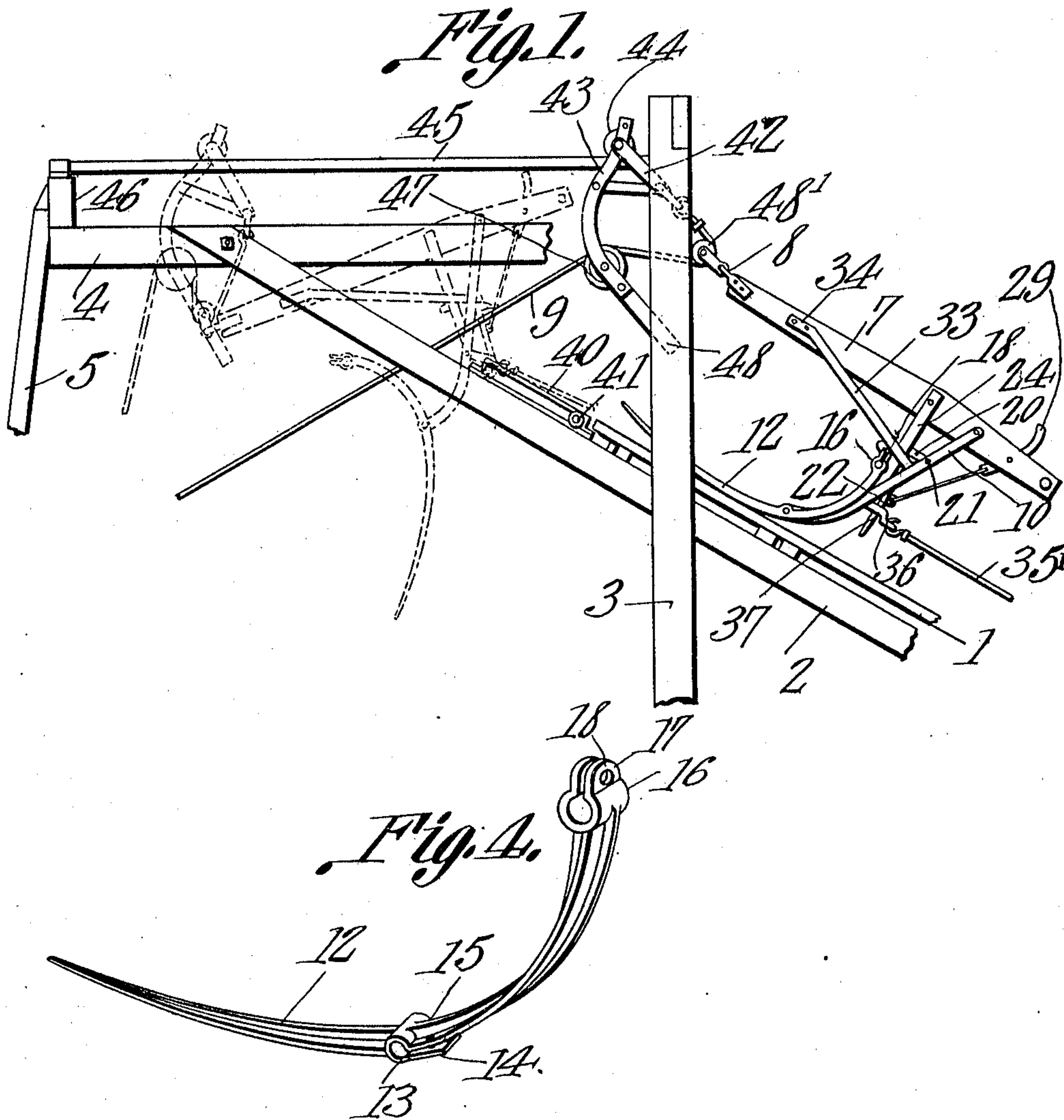


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Patented Apr. 11, 1911.

2 SHEETS—SHEET 1.



Witnesses

J. P. Tomlin
W. H. C. Clarke.

Fred Hollowell,
Inventor

by

C. A. Snow & Co.
Attorneys

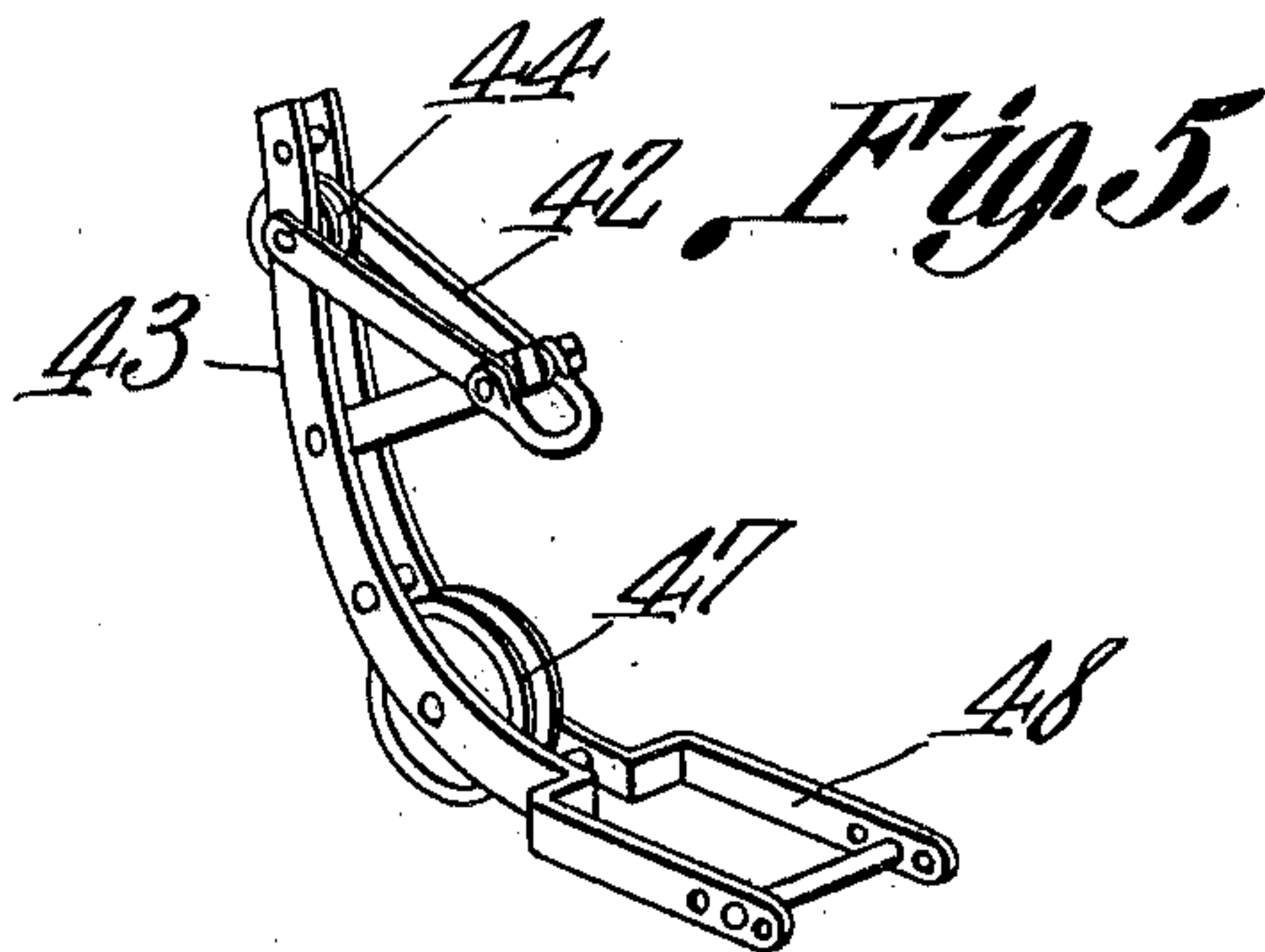
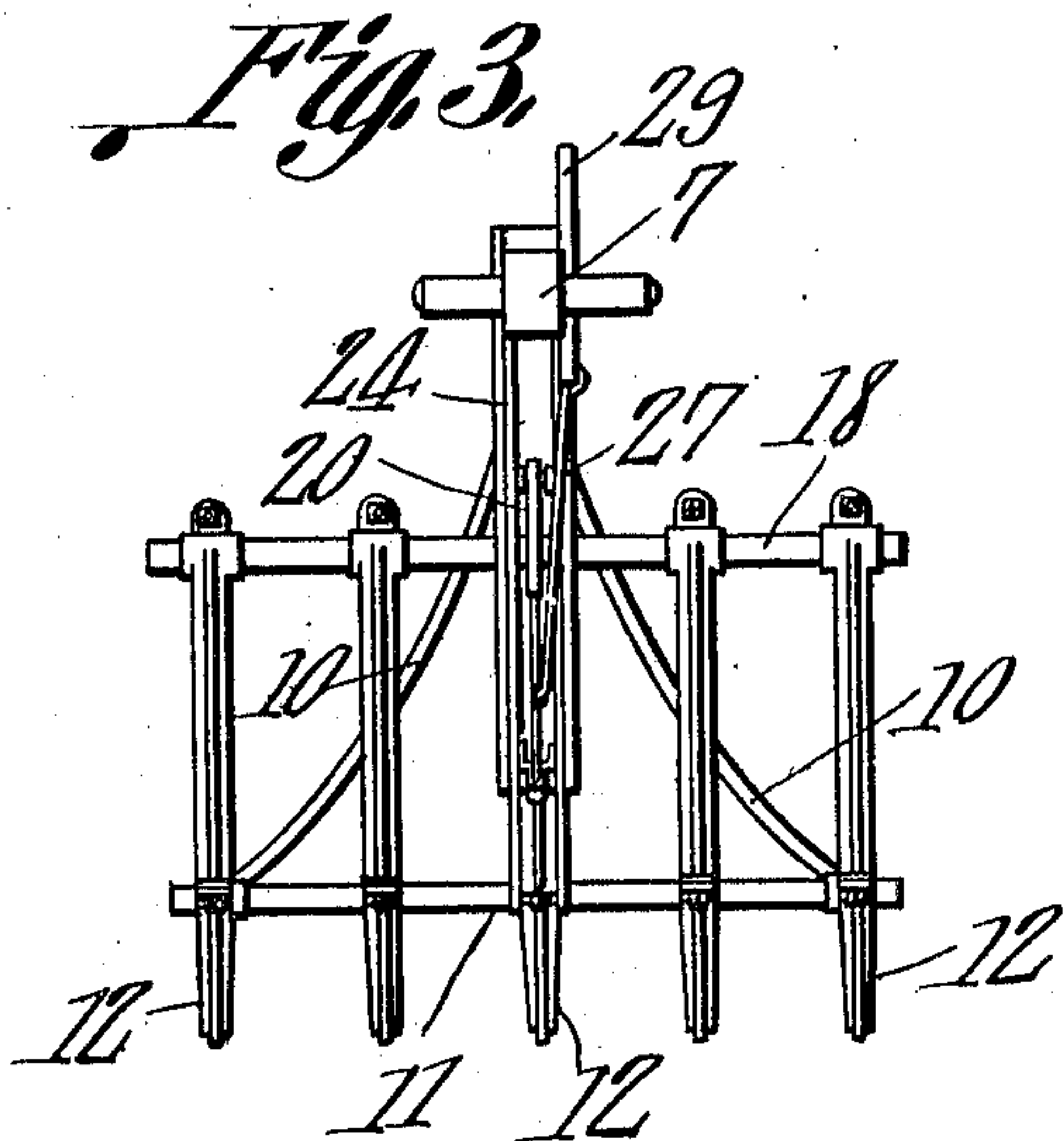
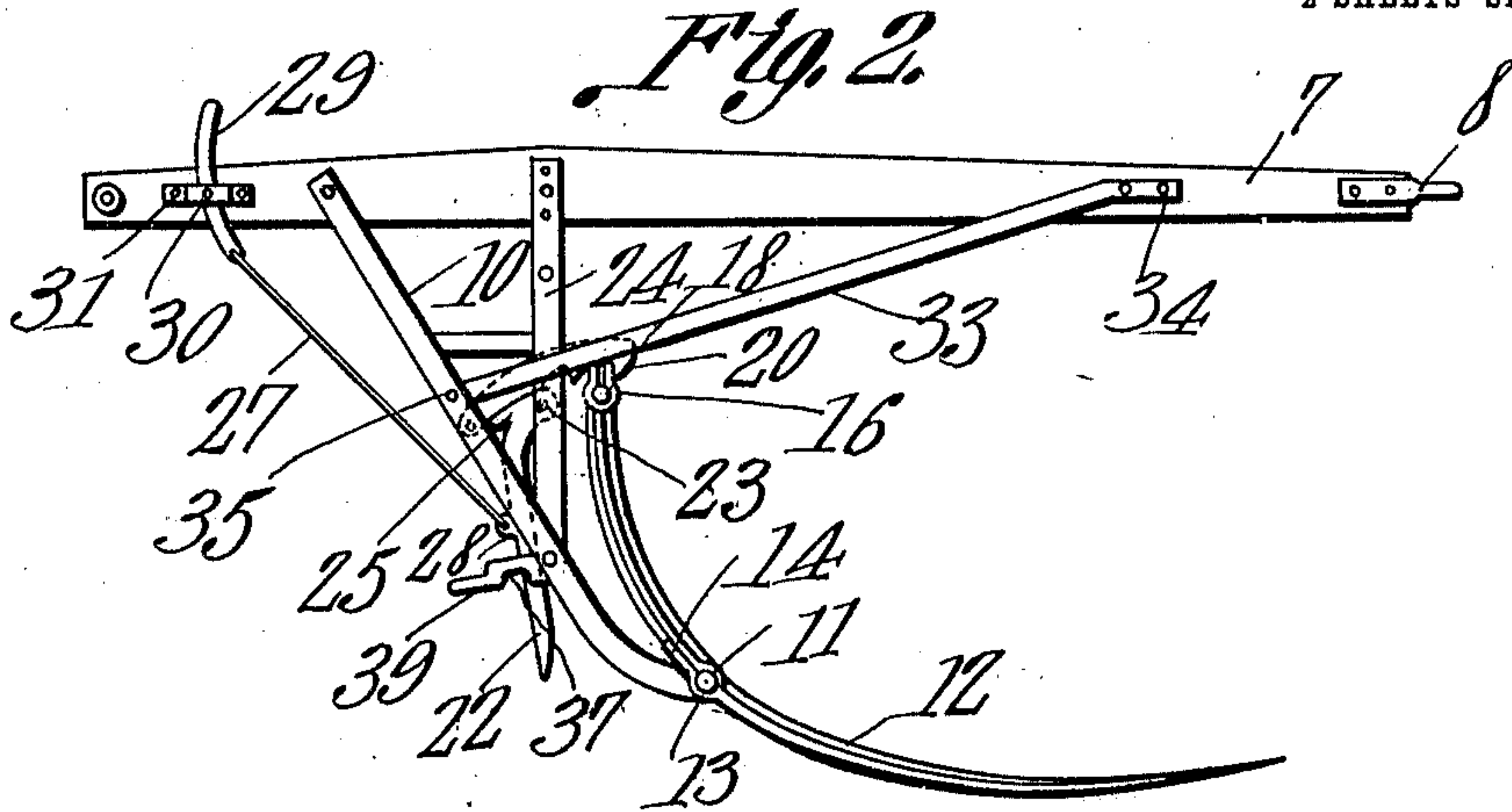
Attorneys

F. HOLLOWELL.
MANURE LOADER.
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2 SHEETS—SHEET 2.



Witnesses

J. H. Gentry
W. H. Clarke

Fred Hollowell,
Inventor

by

C. A. Snow & Co.
Attorneys

UNITED STATES PATENT OFFICE.

FRED HOLLOWELL, OF ORLEANS, INDIANA.

MANURE-LOADER.

989,262.

Specification of Letters Patent.

Patented Apr. 11, 1911.

Application filed May 16, 1910. Serial No. 561,574.

To all whom it may concern:

Be it known that I, FRED HOLLOWELL, a citizen of the United States, residing at Orleans, in the county of Orange and State of Indiana, have invented a new and useful Manure-Loader, of which the following is a specification.

This invention relates to loading apparatus, and is particularly intended for loading manure onto wagons or for stacking it in piles.

The object of the invention is to provide means for raking or gathering up manure or similar material, hoisting it to a suitable height and automatically dumping it into a wagon or other receptacle or forming it into a pile or stack.

A further object of the invention is to provide an improved form of gatherer or carrier for the manure and other material.

With the foregoing and other objects in view which will appear as the description proceeds the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of the claims without departing from the spirit of the invention.

In the accompanying drawing forming part of this specification:—Figure 1 is a side elevation showing the upper end of the incline or frame by means of which the material to be dumped is elevated. Fig. 2 is a side elevation of the improved manure gatherer or carrier. Fig. 3 is an end elevation thereof. Fig. 4 is a detail perspective view of one of the tines of the carrier. Fig. 5 is a detail view of the traveler frame for supporting the beam of the gatherer when it is in dumping position as indicated by the dotted lines in Fig. 1.

Like reference numerals indicate corresponding parts in the different figures of the drawing.

The reference numeral 1 indicates an inclined platform up which the manure loader is drawn in order to elevate it to a proper point to permit the manure to be dumped into a wagon or onto a pile. The platform 1 is supported upon the inclined frame pieces 2 which at their upper ends are connected with the standards 3 and the cross pieces 4, said cross pieces being supported at one end upon the standard 3 and at the

other end upon a bracing member or support 5.

The manure loader or gatherer as shown in Figs. 2 and 3, comprises a longitudinal beam 7 with the forward edge of which is connected a shackle 8 to which is secured the rope or cable 9 by means of which the manure gatherer and carrier is first drawn over the surface from which the manure is to be collected and is then drawn up the incline 1 and caused automatically to dump at the upper end thereof. Extending downward from the beam 7 is a pair of frame pieces 10 with the lower end of which is pivotally connected a cross bar 11. The cross bar 11 has clamped thereon a plurality of tines or fork members 12 such as are shown in Fig. 4, each of said tines being formed with a split ring portion 13 having a flange 14 which is clamped by means of a bolt 15 with the adjoining portion of the tine. The pivot bar 11 extends through the split rings 13 of the different tines and said rings are securely clamped on said bar 11 by means of the bolts 15. It will be obvious that any number of tines 12 can be mounted upon the pivot bar 11 and that said tines can be removed in the event that they become broken or otherwise in need of repair so that new tines can be substituted. Each of the tines 12 is provided at the upper rear end thereof with a split ring 16, the two portions of the split ring having lugs 17 which are perforated to receive a bolt by means of which said split rings can be clamped upon an upper cross bar 18 in order to form a strong rigid fork arrangement.

The means for preventing the manure loader tines from tipping upon the frame 10, preferably consists of a latch 20 which is pivoted at 21 upon the frame pieces 10 and is provided with two notches either of which is adapted to engage the upper cross bar 18 so as to hold the manure loader in the position shown in Fig. 2 while it is being drawn across the surface to be cleaned. The forward notch of the latch member 20 is engaged with the cross bar 18 when it is desired that the manure loader shall project deeply into the manure. When it is desired to draw the manure loader across the surface to be cleaned without dipping too deeply, the second notch in the latch 20 is engaged with the cross bar 18 as will be apparent. The means for releasing the latch 20 preferably consists of a trigger member

22 which is pivotally mounted at 23 upon a pair of frame pieces or braces 24 which extend downward from the beam 7 to the frame piece 10. The trigger 22 is provided with a rearwardly extending cam portion 25 which rests against the lower surface of the latch 20 so that when the trigger 22 is thrown rearwardly in the manner hereinafter described, the cam member 25 will elevate the latch 20 and thus disengage it from the cross bar 18 so as to permit the manure loader to dump. For the purpose of permitting the manure loader to be dumped by hand whenever desired, a link rod 27 is connected at its lower end at 28 with the trigger 22 and at its upper end is connected with a hand lever 29 which is pivoted at 30 upon a bracket 31 mounted on the beam 7. The frame pieces 10 are securely braced by means of the diagonally extending rods or braces 33 which are connected at their forward ends at 34 with the beam 7 and at their rear ends at 35 with the frame pieces 10.

The means for drawing the manure loader backward down the incline 1 after it has dumped its load, preferably consists of a cord or cable 35' which is connected with a shackle member 36 pivotally mounted upon the frame piece 10. The shackle member 36 is formed with a hook portion or shoulder 37 for a purpose which will presently appear.

Secured to the frame pieces 2 adjacent the upper end of the inclined platform 1 are traveler brackets 40 in which is slidably mounted a cross rod 41. The cable 9 by means of which the manure loader is drawn up the incline, is connected with a V-shaped frame-work 42 mounted upon the side arms 43 of a traveler frame. Journaled between the side arms 43 of the traveler is a wheel 44 which rolls upon a traveler rod 45 extending between the standards 3 at one end and a cross piece 46 of the frame at the other end. The traveler 43 is provided adjacent the lower end thereof with a pulley 47 and a stirrup member 48. The cable 9 extends over the pulley 47 and at an intermediate point is connected with a pulley 48' which is secured to the shackle 8 of the beam 7 of the manure loader. The cable 9 serves to draw the manure loader up the incline 1 until the parts reach the position shown in Fig. 1 after which the traveler 43 moves along the rod 45 until the trigger 22 of the manure loader engages the cross bar 41. The parts move in this position until the cross bar 41 is stopped at the other end of the traveler brackets 40. The continued movement of the parts causes the trigger 22 to be moved rearwardly until the latch 20 is disengaged from the cross bar 18 and the manure loader is dumped. When the parts are in this dumped position, the hook portion or shoulder 37 of the shackle 36 is in engagement

with the cross bar 41 and this prevents the manure loader from dropping downward at the upper end of the incline 1. The forward end of the beam 7 drops into the stirrup member 48 of the traveler 43 and is thus supported in the dotted line position illustrated in Fig. 1. The cable 35' is then manipulated so as to draw the manure loader backward onto the upper end of the incline 1, and said manure loader is then hauled down the incline and back into position for a new load.

The improvements of the present invention are strong, simple, durable and comparatively inexpensive in construction as well as thoroughly efficient and practical in operation. The device quickly gathers up the manure or other material and hoists it to the proper height, after which it is automatically dumped into the wagon or onto the pile located therebeneath.

What is claimed as new is:—

1. A manure loader having a cross bar, and a plurality of tines detachably connected therewith.

2. A manure loader having a plurality of cross bars and a plurality of tines detachably connected therewith.

3. A manure loader having a plurality of cross bars, and a plurality of tines each having split rings detachably connected with the cross bars.

4. A manure loader having a plurality of cross bars, and a plurality of tines, each of said tines having a pair of split rings provided with tightening bolts, said split rings being engaged with said cross bars and held thereon by means of said bolts, whereby individual tines can be removed and replaced whenever desired.

5. A manure carrier comprising a frame, a cross bar pivotally connected therewith, a plurality of tines mounted on said cross bar, a second cross bar connecting the rear ends of all of said tines with each other, and a latch mounted on said frame and engaging said second cross bar for preventing tilting movement of said tines.

6. A manure loader having a frame, a cross bar pivotally connected therewith and having a plurality of tines mounted thereon, a second cross bar connecting the rear ends of said tines, a latch mounted on said frame and engaging said second cross bar for holding said tines against tilting movement, and a trigger for releasing said latch.

7. A manure loader having a manure carrier comprising a frame, a cross bar pivotally connected with said frame, a plurality of tines mounted on said cross bar, a second cross bar connecting the rear ends of all of said tines with each other, a latch pivotally mounted on said frame and engaging said second cross bar for holding said tines against pivotal movement, a trigger piv-

otally mounted on said frame and having a cam member adapted to engage said latch for releasing it from its engagement with said cross bar to dump said loader.

5 8. A manure loader having a frame, a plurality of tines mounted on said frame, a cross bar connecting the rear ends of all of said tines with each other, a latch engaging said cross bar and having a plurality of
10 notches therein, a trigger for releasing said latch, and a shackle member mounted on said frame adjacent said trigger and having a hook member thereon for the purpose specified.

15 9. A manure loader comprising a frame, a cross bar pivotally mounted thereon, a plurality of tines mounted on said cross bar, a second cross bar connecting the rear ends of all of said tines with each other, a latch
20 engaging said second cross bar for holding said tines against pivotal movement, a trigger for releasing said latch, and a hand lever connected with said trigger for releasing the latch by hand.

25 10. A manure loader comprising a frame

having a main beam, a plurality of frame pieces extending downwardly from said beam, a cross bar pivotally connected with said frame pieces, a plurality of tines mounted on said cross bar, a second cross bar 30 connecting the rear ends of all of said tines with each other, a latch pivotally connected with said frame and engaging said second cross bar, a trigger pivotally mounted on said frame and having a cam member for 35 releasing said latch, a shackle member mounted adjacent the lower ends of said trigger member and having a hook portion thereon for supporting said frame when in dumping position, a hand lever mounted on 40 said beam, and a link connecting said hand lever with said trigger for releasing said latch.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature 45 in the presence of two witnesses.

FRED HOLLOWELL.

Witnesses:

THOMAS J. WRIGHT,

OLIVER N. STEPHENSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
