

No. 730,377.

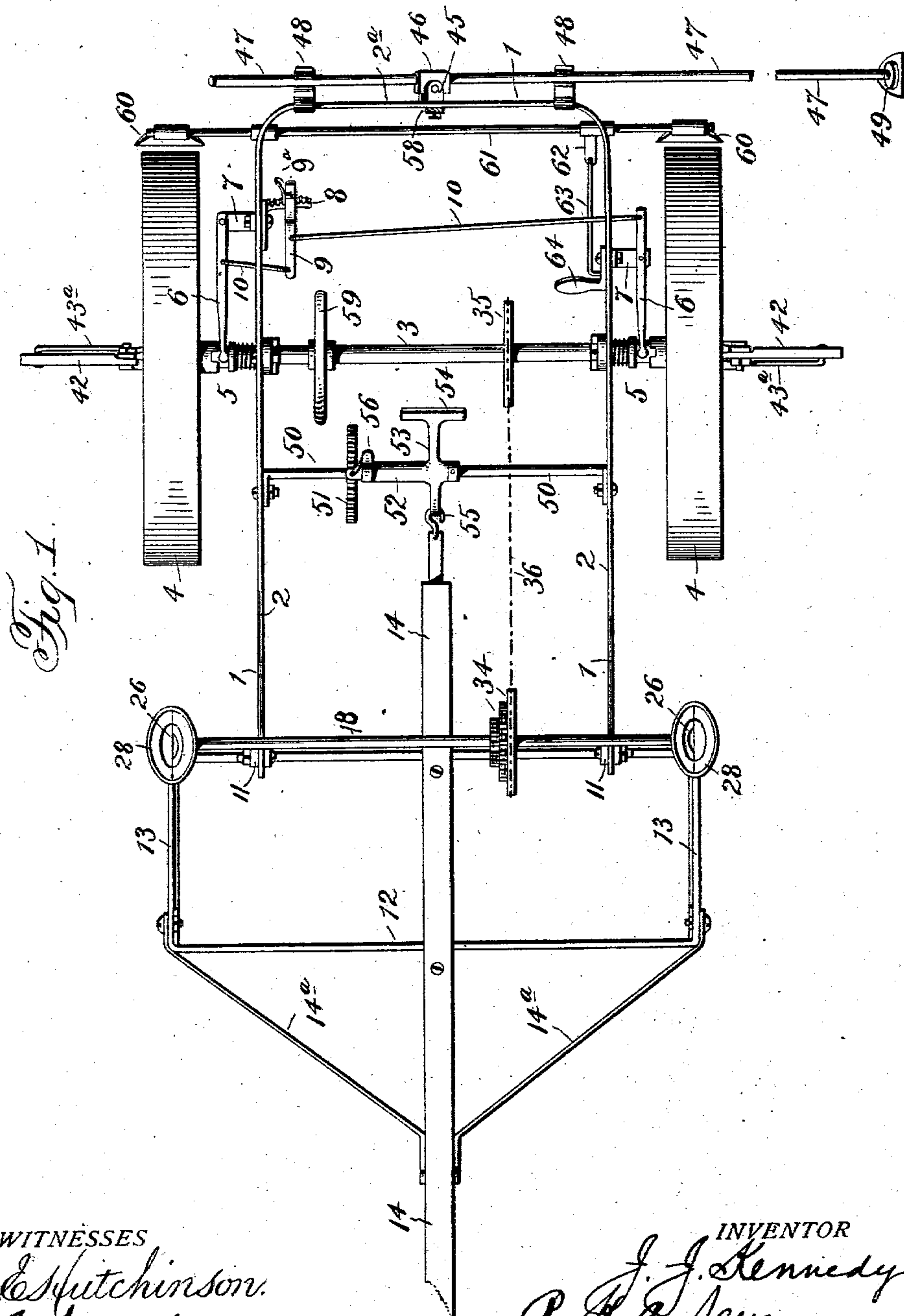
PATENTED JUNE 9, 1903.

J. J. KENNEDY.  
PLANTER.

APPLICATION FILED APR. 7, 1902.

NO MODEL.

3 SHEETS—SHEET 1.



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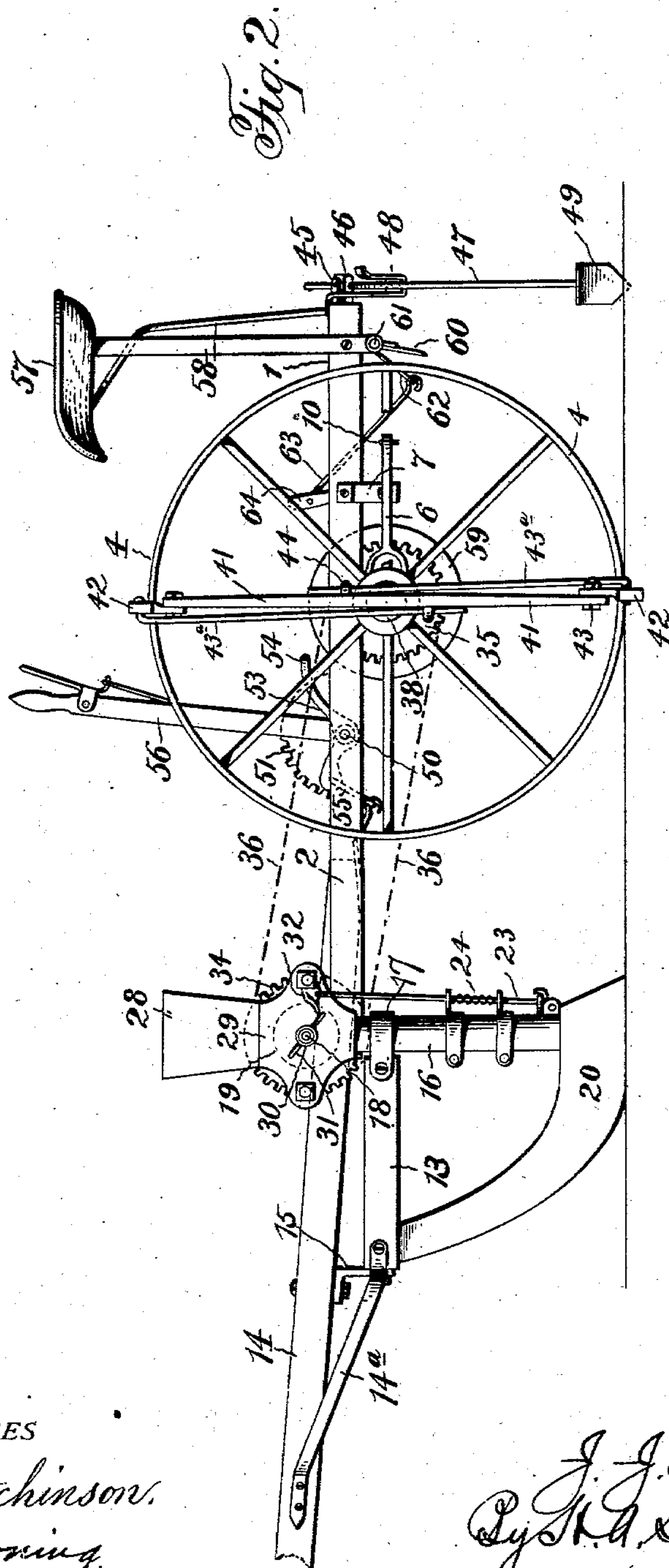
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3 SHEETS—SHEET 2.



WITNESSES

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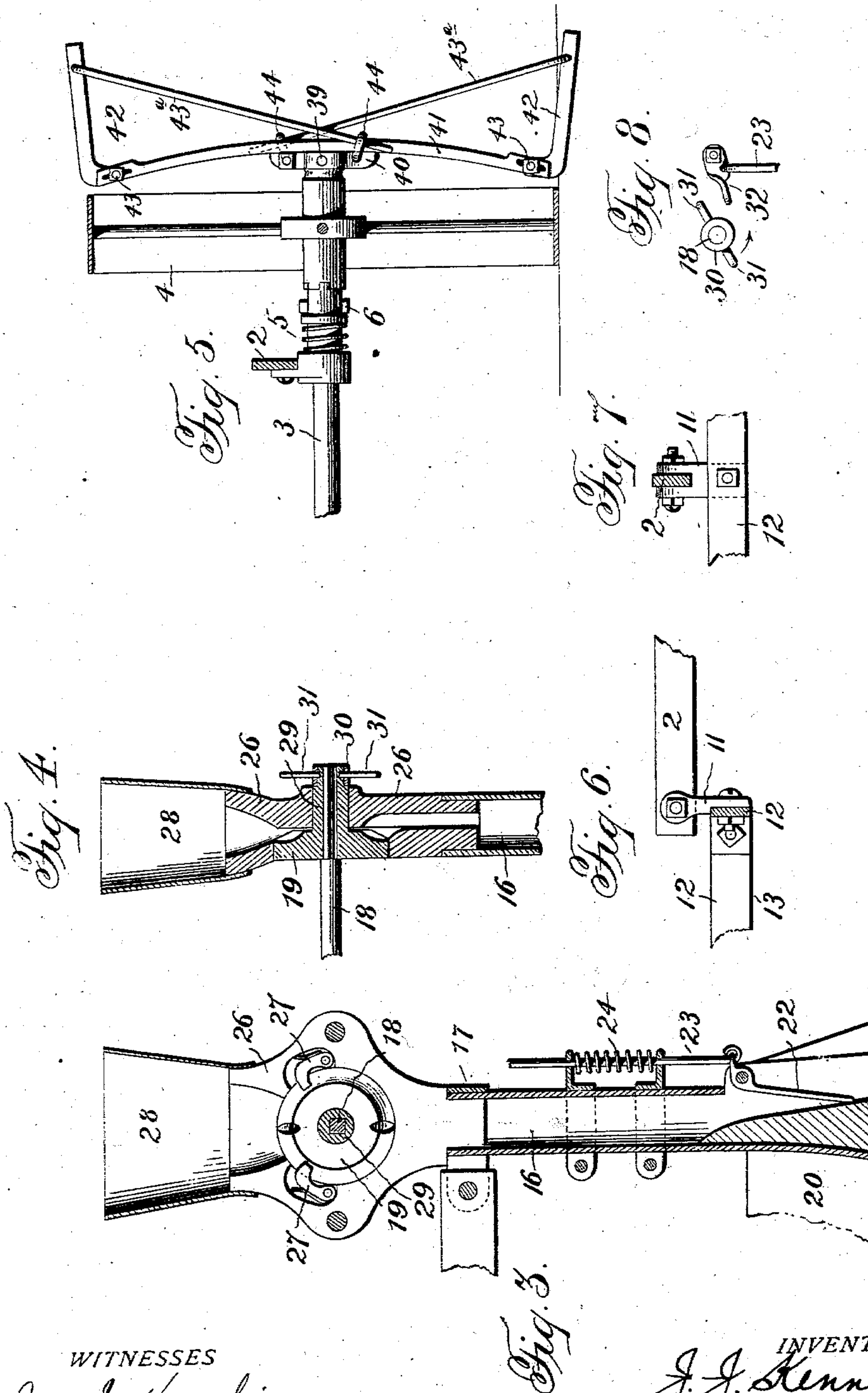
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3 SHEETS—SHEET 3.



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# UNITED STATES PATENT OFFICE.

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## PLANTER.

SPECIFICATION forming part of Letters Patent No. 730,377, dated June 9, 1903.

Application filed April 7, 1902. Serial No. 101,791. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES JOSEPH KENNEDY, a resident of Hanover, in the county of Jo Daviess and State of Illinois, have invented certain new and useful Improvements in Planters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in planters, and more particularly to wireless check-row corn-planters, the object of the invention being to provide improvements of this character which will effectually mark the cross-line where corn has been dropped and also mark where the next row is to be sown, and, further, to provide improved means for raising and lowering the shoes and to provide improved means for dropping the seed.

A further object is to provide improved markers to be connected to the outer ends of the axle and so constructed that they can be folded up out of the way when their operation is not desired.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view illustrating my improvements. Fig. 2 is a side view. Figs. 3 and 4 are sectional views of the seeding devices. Fig. 5 is a view illustrating the markers, and Figs. 6, 7, and 8 are views of various other details of construction.

1 represents the main frame of my improved planter, comprising parallel longitudinal bars 2 and rear cross-bar 2<sup>a</sup>, the bars 2 being provided with alined bearings for the axle 3, on which the drive-wheels 4 are mounted to revolve. On axle 3 and keyed thereto are spring-pressed clutches 5, adapted to be moved by levers 6 into and out of engagement with the hubs of wheels 4 to lock and release the wheels from the axle, and these levers 6 are pivoted to brackets 7, depending from the bars 2. A segment 8 is secured to one bar 2, and an operating-lever 9 is pivoted to a depending arm on said segment, and the lower end of the lever is bent at right angles and

has secured thereto rods 10, connecting therewith the free ends of levers 6, so that when said lever 9 is operated it will simultaneously operate both clutches. The lever 9 is provided with a detent 9<sup>a</sup> to lock the same at any adjustment on segment 8.

To depending links 11, secured to the forward ends of bars 2, the seeder runner-frame 12 is connected and comprises cross-bars 12, longitudinal bars 13, and brace-rods 14<sup>a</sup>, secured to the tongue 14, which latter is secured by brackets 15 to cross-bars 12 and projects inward between bars 2 for a purpose which will hereinafter appear.

The seed-dropping tubes 16 are secured by bands 17 to frame 12 at the juncture of inner bars 12 and longitudinal bars 13, and an angular shaft 18 is located at its ends in angular central openings in rotary droppers 19 in dropper-chambers 26, communicating with the seed-tubes, and said shaft projects across and above main frame 1. These seed-tubes 16 extend down into and are adapted to drop the seed into the split-heel portion of shoes 20, which latter are secured at their forward ends to the longitudinal bars 13. The lower ends of seed-tubes 16 are provided with hinged tongues 22 to cut off the escape of seed from the tubes, and these tongues are operated by rods 23, supported to slide in suitable bearings on the tubes, and coiled springs 24 are located on said rods to normally hold the tongues in their closed position.

The dropper 19 comprises a disk or cylinder revolved by shaft 18 and having pockets therein to carry the grain around chamber 26, in which chamber suitable spring-pressed cut-offs 27 are located to prevent more than a single grain or seed to be carried in the pocket and dropped into tube 16, and above this dropper-chamber 26 a hopper 28 is located and adapted to supply the seed or grain to the dropper from any suitable receptacle. (Not shown.) The disk 19 is made with trunnions 29, projecting through the side of chamber 26, and has secured thereon a ring 30, carrying fingers 31, adapted to be carried around by the rotation of the disk. A trip-arm 32 is pivoted to the outside of chamber 26 and is in the path of the fingers 31 and tripped thereby, and each rod 23 is pivotally attached at its upper end to a trip 32, so that when the



trips are raised by the fingers 31 they will raise tongues 22 and permit the seed to escape from tubes 16. When the seed has escaped, the springs 24 will return the rods, tongues, and trips to their normal positions.

A sprocket-wheel 34 is secured on shaft 18, and a sprocket-wheel 35 is secured on axle 3, said sprockets being connected by a chain 36 to transmit motion from the axle to shaft 18 to operate the seed-droppers. The sprocket-wheel 34 is in reality three sprockets of varying diameters cast integral. This is to permit the speed of rotation of shaft 18, as compared to that of axle 3, to be varied to suit different kinds of planting; but with the sprocket-chain on the largest sprocket 34 a seed will be dropped at every half-revolution of the axle on which my improved markers are secured, as will now be explained.

To each end of axle 3 where it projects beyond drive wheels 4 a sleeve 38 is secured by means of a pin 39, passed through aligned holes in the sleeve and axle, and this sleeve 38 is made with lugs 40, securely riveted to a bar 41 projecting to near the rim of the drive-wheel and slightly bowed, as shown, to dispose the ends near the wheel-rim. To the respective ends of this bar 41, marker-arms 42 are pivoted by means of bolts 43, which latter are passed through holes in the bar and in a right-angle projection on arms 42. When the arms are swung to a position approximately at right angles to bar 41, they can be secured in such position by rods 43<sup>a</sup>, pivotally connected to the arms near their outer ends and passed through the eyes or hooks of clamping-bolts 44, secured in the lugs 40, said bolts permitting the rods to slide when the arms are folded up against bar 41 and out of the way when not desired. These arms 42 are adapted to mark the position of the cross-rows, and as the dropper is adapted to drop two seeds at every complete turn of the drive-wheels and two marks from the arms 42 will appear at every revolution of the drive-wheel it will be seen that this marking will be absolutely accurate.

The rear cross-bar 2<sup>a</sup> of the main frame has secured centrally thereto a bracket 45, carrying a pivoted block 46, having a hole therein to receive a rod 47, which latter may rest in hooks 48 at either side of the frame and is provided at its free end with a marker 49 to be forced along the ground and mark where the next row is to be sown.

A cross-rod 50 is secured to the main frame between shaft 18 and axle 3 and has a segment 51 secured thereto and a sleeve 52 is mounted to turn on said rod. On this sleeve 52 a foot-lever 53 is secured between its ends, one end of the foot-lever made with a foot-rest 54 and the other end connected by a link 55 with tongue 14, so that when the foot-rest 54 is depressed by the operator the tongue 14, frame 12, shoes, and seed-tubes carried thereby will be raised and the latter elevated from the ground. On this sleeve

52 a lever 56 is secured and provided with a spring-pressed detent to lock the lever and segment together and hold sleeve 52 against turning and maintain the shoes elevated. The operator can raise the shoes by means of the lever 56 or the foot-lever, or both may be operated simultaneously to raise the shoes. The driver's seat 57 is supported on suitable standards 58 at the rear of frame 1 and in convenient position to permit ready access to the operating-levers.

A hand-wheel 59 is provided on axle 3 to permit the accurate adjustment of the marker-arms 42 to compel them to exactly mark the position where the seed is dropped.

Scrapers 60 are secured on a cross-rod 61, supported in bearings on main frame 1, and a crank-arm 62 on said rod is connected by a link 63 with a foot-lever 64, pivoted to frame 1 and in convenient reach of the operator to permit him to operate the scrapers and clean the wheel-rims whenever necessary.

The operation of my improvements is as follows: As the machine is drawn across the field the drive-wheels 4 turn axle 3 and the latter, through the medium of sprocket-wheels 34 and 35 and chain 36, transmits motion to shaft 18 and the latter turns disk-droppers to drop the seed into tubes 16, from which the seed is permitted to escape by the operation of trips 32, raised by fingers 31, two seeds being dropped at every complete revolution of the drive-wheels 4, and as the markers 42 will leave two impressions in the ground at each revolution of the wheels they can be so placed as to mark in alinement with the place where the seed is dropped, and hence indicate the cross-rows, while marker 49 will indicate where the next row is to be sown. When the machine is to be moved from place to place or is turning from row to row, the lever 9 is operated to throw the clutches 5, and hence permit drive-wheels 4 to turn without operating the axle and parts receiving motion therefrom. It will thus be seen that my improved planter is absolutely accurate in planting and the employment of checking-wires is dispensed with.

A great many slight changes might be resorted to in the general form and arrangement of the several parts described without departing from my invention, and hence I would have it understood that I do not wish to limit myself to the precise construction set forth, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. The combination with a planter, of a bar secured to the axle thereof, markers pivotally attached to the ends of said bar, a rod pivoted at one end to each marker, and clips for securing the inner ends of said rods to the bar in proximity to the axle.

2. The combination with a planter, of a



5 sleeve secured to the axle thereof, lugs on said sleeve, a bar secured to said lugs, markers pivoted to the free ends of said bar, a rod pivoted to each marker, and clips for securing the inner ends of said rods to the lugs on said collar.

10 3. In a planter, the combination with the axle, a sleeve secured thereto and lugs on said sleeve, of a bar secured between its ends to said lugs, markers pivoted to the free ends of said bar, clips attached to said lugs, and rods pivoted at their outer ends to the markers and passing through said clips.

15 4. In a planter, the combination with a frame and means thereon for dropping seed,

of a block pivoted to the rear end of the frame, hooks at each side of the block, a rod passing through the block and resting in either of these hooks and projecting to one side of the frame, and a marker on the outer end of this rod to be drawn along the ground and mark the line of the next row to be sown.

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

JAMES JOSEPH KENNEDY.

Witnesses:

M. J. KENNEDY,

J. G. GOODMAN.