

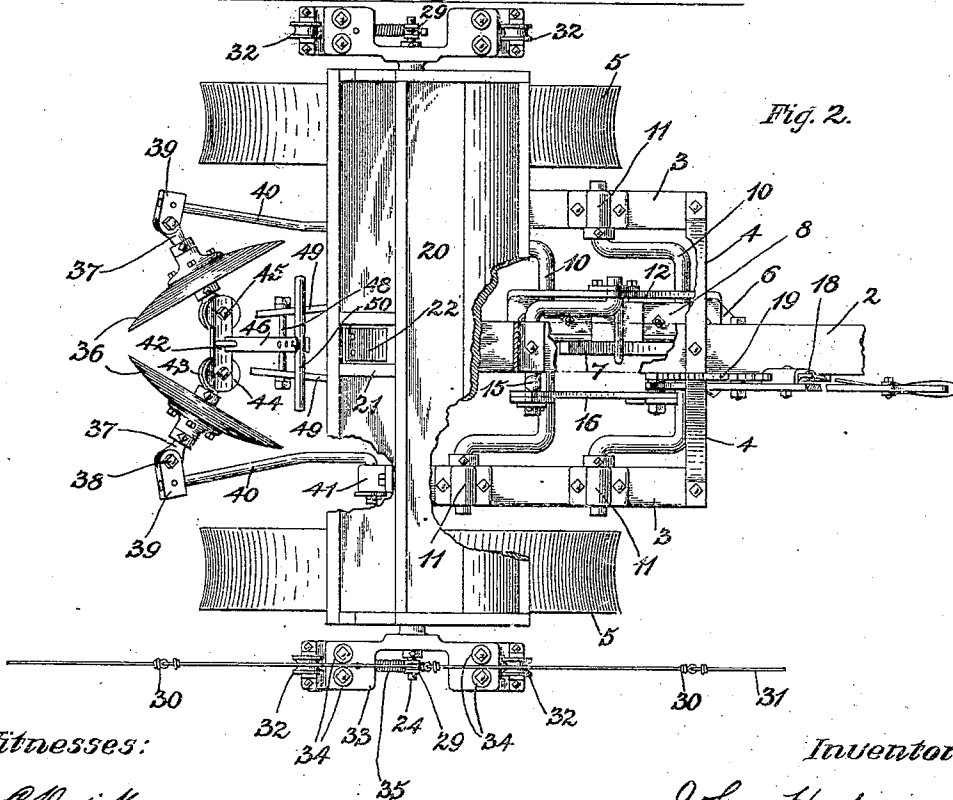
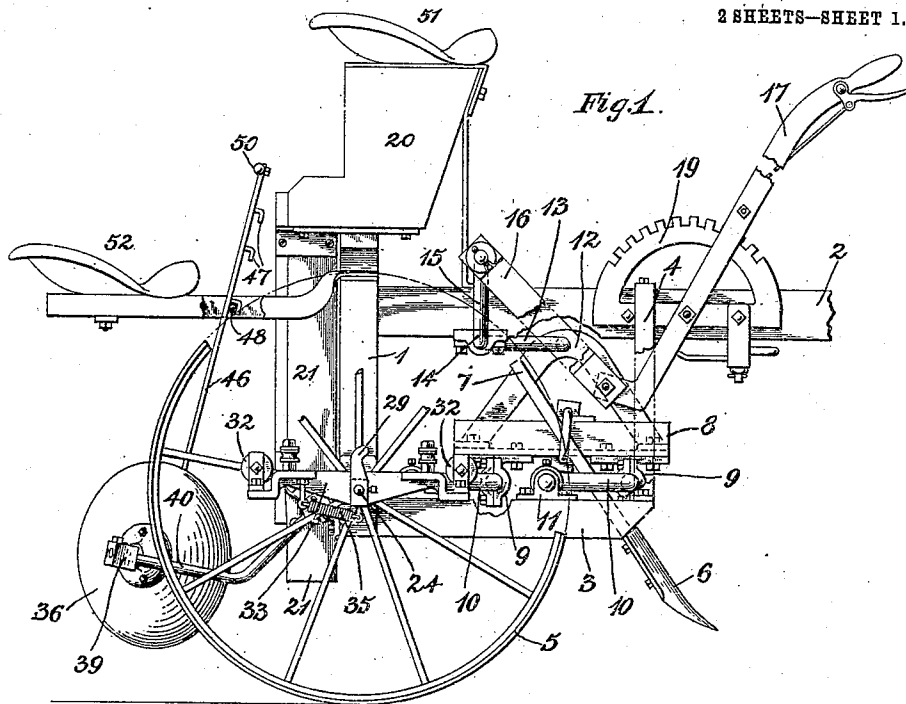
J. HADIE.
POTATO PLANTER.

APPLICATION FILED JUNE 3, 1909.

954,860.

Patented Apr. 12, 1910.

2 SHEETS—SHEET 1.



Witnesses:

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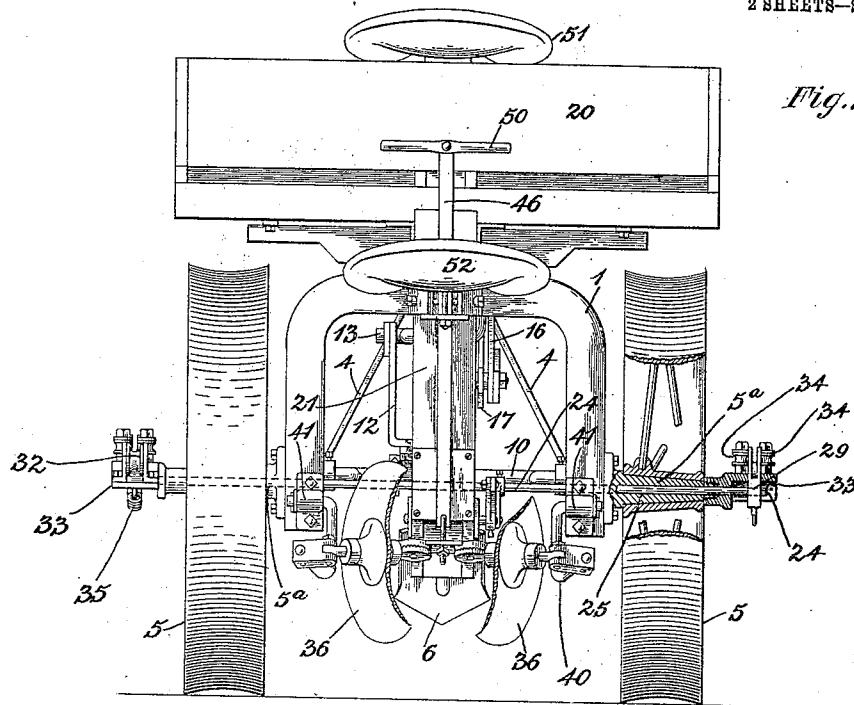


Fig. 3.

Fig. 4.

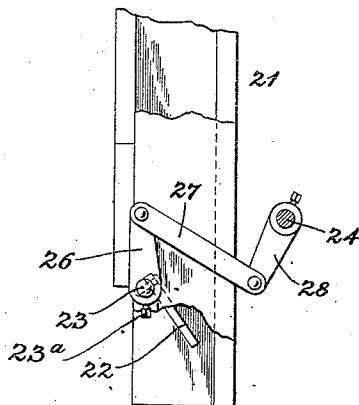
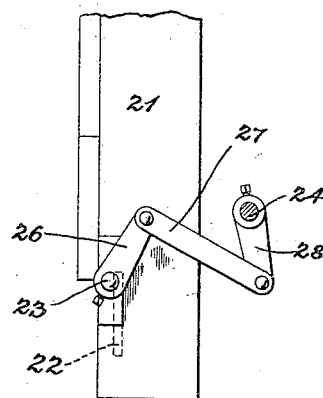


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN HADIE, OF ROCKFORD, ILLINOIS.

POTATO-PLANTER.

954,860.

Specification of Letters Patent. Patented Apr. 12, 1910.

Application filed June 3, 1909. Serial No. 499,863.

To all whom it may concern:

Be it known that I, JOHN HADIE, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Potato-Planters, of which the following is a specification.

One of the objects of this invention is to provide an improved seed-dropping mechanism.

Another object of the invention is to provide an improved means for supporting the shovel.

A further object is to improve the general construction of potato planters with a view to simplicity, durability and light draft.

In the accompanying drawings, Figure 1 is a side elevation, with parts in section, of one embodiment of my invention. Fig. 2 is a top plan view, with parts broken away. Fig. 3 is a rear elevation, with certain parts in section. Figs. 4 and 5 are detail views of the dropping mechanism.

In the embodiment which I have selected for illustration, the framework of the machine comprises an arch 1, a tongue 2, the rear end of which is rigidly secured to the upper portion of the arch 1 in any suitable way, two parallel bars 3 secured at their rear ends to the lower ends of the arched member 1, and two inclined braces 4 extending between the forward ends of the bars 3 and the tongue. The frame is supported upon carrying wheels 5, the hubs of said wheels being rotatably mounted upon stub axles 5^a rigidly fixed to the outer sides of the lower ends of the arched frame-member 1.

The mechanism for forming the furrow comprises, in this instance, a shovel 6, the standard 7 of which is secured to a beam 8. The standard 7 may be adjustably secured to the beam, if desired, in any suitable manner. Upon the under side of the beam 8 are two bearings 9 by means of which the beam is mounted upon two similar cranks 10 which cranks are mounted in bearings 11 upon the horizontal frame bars 3. The cranks 10 being of equal throw, it will be seen that the beam 8 will be maintained in a horizontal position throughout the movements of said cranks.

The means herein shown for rocking the cranks 10 to raise and lower the shovel 6 comprises a hanger or bracket 12 rigidly secured to the beam 8 and pivotally connected with one arm 13 of a bell-crank lever

14, said lever being pivotally carried by the tongue 2. The other arm 15 of said bell-crank lever is connected through the medium of a link 16 with the lower end of a hand lever 17 which is pivotally mounted upon the tongue 2 and carries a detent 18 (Fig. 2) arranged for engagement with a locking sector 19 fixed upon the tongue. When the hand lever 17 is in the position shown in Fig. 1, the shovel 6 is held up out of the ground. When said lever is swung rearwardly the bell-crank lever 14 is rocked to permit the beam 8 and the shovel 6 to swing downwardly upon the cranks 10. The depth of the shovel in the ground may be regulated as desired by shifting the hand lever 17 along the sector 19.

Upon the arched frame-member 1 is stationarily mounted the seed box 20, to the rear lower side of which is fixed the upper end of a discharge chute 21. In the lower end of said chute is mounted a closure 22, said closure being fixed to a rock shaft 23 so as to be adapted to swing into the closed position shown in Fig. 4 and the open position illustrated in Fig. 5. The shaft 23 for said closure is located near the rear side of the discharge chute. When the closure is in the closed position, it extends downwardly at an angle from its supporting shaft or pivot toward the front wall of the chute so that potatoes dropped singly down the chute shall lie adjacent to the front wall of the chute and, when released through the opening of the closure 22, shall fall directly into the furrow formed by the shovel 6. By disposing the closure at an angle when closed, the potatoes always lie upon the closure in the same place, to wit, adjacent to the front wall, and therefore always drop from the same place. Furthermore, since the potatoes lie near the lower end of the closure, they drop promptly upon the opening of said closure. All of these factors contribute to the distribution of the potatoes at equal distances apart in the furrow.

The means herein shown for operating the closure 22 at the proper times so as to cause potatoes to be planted at regular predetermined distances apart, comprises a rock shaft 24 extending from one side of the machine to the other and mounted within axial bearing openings 25 (Fig. 3) in the stub axles 5^a. Upon one end of the pivot shaft 23 is fixed an arm 26 which is connected by the link 27 with a crank arm

28 fixed on the rock shaft 24, thus when the shaft 24 is rocked, the closure 22 will be tilted to open or close the discharge chute 21. Upon the ends of the rock shaft 24 are fixed forks 29 arranged to be engaged by projections 30 upon a check wire or other suitable device 31 (Fig. 2). The check wire is guided by means of grooved vertically rotatable rollers 32 which are mounted upon the forward and rear ends of the frames 33, said frames being rigidly secured to the outer ends of the stub axles 5^a in any preferred manner. Between the rollers 32 upon each frame 33 are two pairs of horizontally rotatable grooved rollers 34, the wire running between the rollers 34 of each pair. The wire extends between the tines of the fork 29. After the fork 29 has been tilted rearwardly through the engagement of a projection 30 upon the check wire, the fork is restored to its normal vertical position, as shown in Fig. 1, by suitable means, such as a coiled spring 35 attached at one end to the lower end of the fork 29 and at its other end to the frame 33.

The means for closing the furrow comprises, in this instance, two covering disks 36 arranged at an angle with relation to each other and supported upon the shafts 37. One end of each of the shafts 37 is pivoted at 38 to a casting 39 which is fixed on the rear end of a rod 40, the forward end of said rod being pivotally attached to the arched frame-member 1 at 41. The other ends of the shafts 37 are attached to a connecting member 42 in such a way as to permit of varying the angle of inclination of the disks 36. I have herein shown serrated ends 43 formed upon the shafts 37 and adapted to engage similar ends 44 upon the connecting member 42, the serrated ends being clamped together in adjusted position by means of bolts 45. The covering disks 36 may be supported out of the ground by means of a rod 46 connected at its lower end to the connecting member 42 and having hooks 47 upon one side to engage with a bolt or rod 48 carried by the seat-supporting bars 49. Upon the upper end of the rod 46 is a handle 50.

The driver's seat 51 is herein shown as being mounted upon the seed box 20, a seat 52 for the person dropping the potatoes into the discharge chute being fixed to the bars 49.

In use, the cut potatoes are placed in the box 20, the shovel 6 adjusted by means of the hand lever 17 so as to form a furrow of the desired depth, and potatoes taken from the lower portion of the box 20 and dropped singly into the discharge chute 21. As the machine advances, the fork 29 engages with successive projections 30 upon the check wire 31, the shaft 24 being thereby periodically rocked to open the closure 22 to drop

the potatoes into the furrow at uniform distances apart. The spring 35 promptly closes the closure 22 after the fork 29 has passed out of engagement with the projection on the check wire. The disks 36 cover the potatoes in the furrow with earth.

If it be desired to drill the potatoes, the check-wire 31 is dispensed with, and the closure 22 secured in the open position in any suitable manner; for example, the set screw 23^a which fixes the closure with relation to the arm 26 may be loosened and the closure permitted to hang in the open position; or the springs 35 may be detached from the forks 29, and thus allow the closure to hang open.

I would have it understood that my invention is not limited to the details herein set forth, as many modifications will occur to persons skilled in the art.

I claim as my invention:

1. In a potato planter, in combination, a frame; axles on said frame; carrying wheels mounted on said axles, one of said axles being tubular; a rock shaft mounted in said tubular axle; seed-holding means comprising a pivoted closure; connections between said closure and the shaft, said shaft being arranged to be rocked in one direction by a check wire; and means for restoring said shaft.

2. In a potato planter, in combination, a frame; axles on said frame; carrying wheels mounted on said axles, one of said axles being tubular; a shaft rotatably mounted in said tubular axle; seed-holding means comprising a closure; connections between said closure and said shaft for operating the closure when the shaft is rotated; and a device on the shaft for engagement with actuating means.

3. In a potato planter, in combination, a frame comprising an arched member, a tongue fixed to the upper part of said arched member, and means connecting the lower ends of the arms of said arched member to said tongue; stub axles fixed to the outer sides of the lower ends of the arms of said arched member; carrying wheels on said axles; and furrow-making, seed-dropping, and seed-covering means operatively mounted on said frame.

4. In a potato planter, in combination, a frame comprising an arched member, a tongue fixed to the upper part of said arched member, and means connecting the lower ends of the arms of said arched member to said tongue; wheel-supporting means operatively associated with the lower ends of the arms of said arched member; carrying wheels on said supporting means; a seed box mounted upon the upper part of said arched member; a discharge chute connected with said seed box; furrow-making means supported by said tongue and said connect-

ing means; a seed-dropping device in the lower portion of said chute; check-row means for operating said device; and seed-covering means operatively attached to the
5 frame.

5. In a potato planter, in combination, a frame comprising an arched member, a tongue fixed to the upper part of said arched member, horizontal bars fixed to the lower
10 ends of the arms of said arched member, and members rigidly connecting the forward

ends of said bars to said tongue; stub axles fixed to the outer sides of the lower ends of the arms of said arched member; carrying wheels on said axles; furrow-making means
15 supported by said bars and tongue; and seed-dropping means and covering means operatively mounted on the frame.

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Witnesses:

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