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B. H. PUGH.

POTATO PLANTER.

APPLICATION FILED SEPT. 24, 1907.

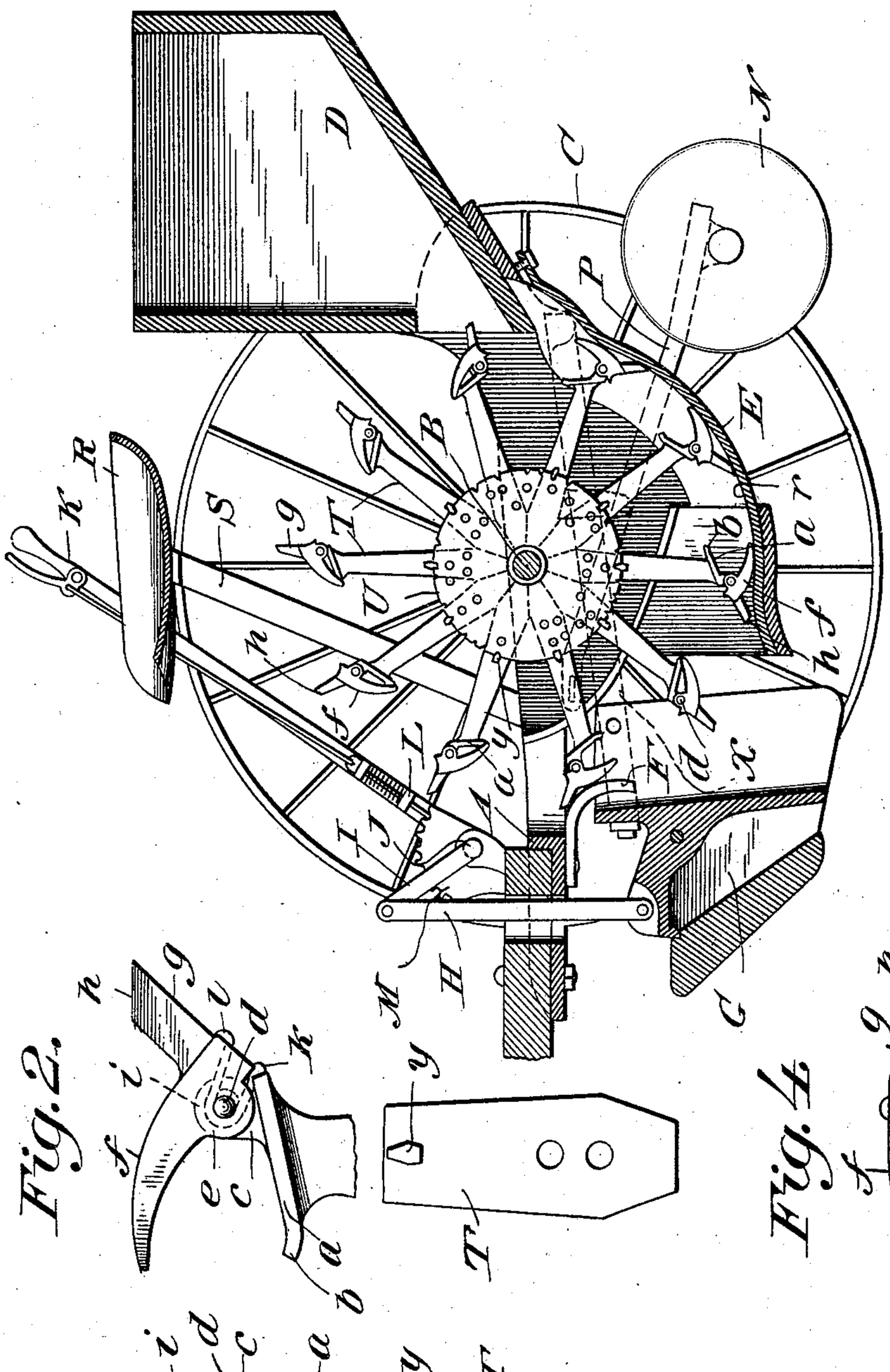


Fig. 1.




Fig. 2.




Fig. 3.

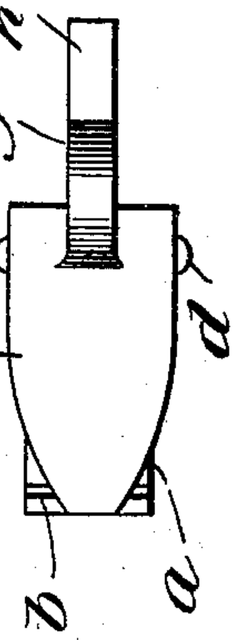


Fig. 4.

Witnesses

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## POTATO-PLANTER.

No. 891,370. Specification of Letters Patent. Patented June 23, 1908.

Application filed September 24, 1907. Serial No. 394,346.

*To all whom it may concern:*

Be it known that I, BURTON H. PUGH, citizen of the United States, residing at Topeka, in the county of Shawnee and State of Kansas, have invented new and useful Improvements in Potato-Planters, of which the following is a specification.

My invention pertains to potato planters; and it consists in the peculiar and advantageous construction hereinafter described and particularly pointed out in the claims appended.

In the drawings accompanying and forming part of this specification: Figure 1 is a longitudinal vertical section of the potato planter constituting the preferred embodiment of my invention. Fig. 2 is a broken side elevation on an enlarged scale showing one of the picker arms of the planter. Fig. 3 is a front elevation of the same with the picker in its open position, and Fig. 4 is a plan view of the picker arm.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which:

A is the main frame of my novel planter in which is journaled an axle B carrying traveling wheels one of which is shown in Fig. 1 and lettered C. In addition to the said axle B, the main frame A is provided with a hopper D for pieces of potato, a trough E arranged to describe a portion of a circle and extending downward and forward from the lower forward portion of the hopper, and a tappet F disposed above and in front of the forward end of the trough E. Agitating means, not shown, may be arranged in hopper D when deemed expedient.

G is a shoe of the ordinary or any other approved construction. The said shoe is connected through a link H with a crank arm I on a rock shaft J, and the said rock shaft which is journaled in suitable bearings on the frame A is also provided with a hand lever K carrying a detent L arranged to coöperate with a segmental rack M on the main frame A with a view of adjustably fixing the shoe G at various heights to meet different conditions of soil.

For the purpose of covering the pieces of potato dropped in the manner presently described, the main frame A is provided with concave disks connected through arms with said frame and arranged at opposite sides of the path of the shoe G. One of the said disks is shown in Fig. 1 and lettered N, and its arm is lettered P. The arm P is pivoted to frame A and connected to one of the shoe bars *x* to move therewith.

R is a driver's seat arranged on a support S rising from the main frame A.

T T are picker arms extending radially from the axle B and fixed to the axle, preferably by being bolted to a circular plate U fixed in any approved manner directly upon the axle. The said picker arms T are identical in construction and for this reason a detailed description of the picker arm illustrated in Figs. 2 to 4 will suffice to impart a definite understanding of all. The said picker arm, Figs. 2 to 4, is provided with a lug *y* seated in a notch of the disk to hold the arm against lateral movement, and is also provided at its outer end with a forwardly and downwardly inclined platform *a* on which is a forward lip *b* and from the rear portion of which rise parallel apertured lugs *c* to receive a transverse bolt *d*. On the said transverse bolt is pivoted the depending side portions *e* of a retaining member *f* from which extends upward and rearward an arm *g* which is preferably beveled, as indicated by *h*. In addition to serving for the pivotal connection of the retaining member *f*, the transverse bolt *d* serves to support a coiled spring *i* which is coiled about the bolt, between the lugs *c*, and has two arms, one of which *k* is engaged with the rear end of the platform *a*, and the other *l* of which is engaged with the rear end of the retaining member *f*, as best shown in Fig. 2.

By virtue of the construction described it will be seen that the retaining member *f* may be opened against the action of the spring *i* to the position shown by full lines in Fig. 2, so as to permit of the reception of a piece of potato between the platform *a* and the retaining member *f;* and it will also be seen that when the retaining member *f* is released the spring *i* will operate to move the said retaining member to the position shown by dotted lines in Fig. 2, and in that way effect the secure clasping of the piece of potato between the platform *a* and the retaining member. It will further be seen that when the retaining member *f* is in a position below the platform *a* and is opened, the piece of potato is free to drop from the said platform.

As will be noted by reference to Figs. 2 to 4, the picker arms of my novel planter are simple in construction and reliable in operation and are well adapted to withstand for an indefinite period the rough usage to which

the picker arms of potato planters are ordinarily subjected.

In the practical use of my novel potato planter, the hopper D is charged with pieces of potato, and the machine is driven along the row to be planted. Incident to the said movement of the machine, the series of picker arms T will rotate with the wheels C with the following results: As the retaining members *f* of the picker arms travel up the concentric portion *r* of the trough E, the arms *g* of said retaining members will hold the same open after the manner shown in Fig. 1 so that pieces of potato received in the trough E from the hopper D will drop between the platforms *a* and the retaining members *f* of the picker arms. Then as each picker arm moves out of engagement with the trough E, the retaining member *f* of said arm is closed upon the piece of potato by the action of the spring *i*, and hence the piece of potato is carried upward, forward and downward until the arm *g* of the retaining member *f* contacts with the tappet F. As the said arm *g* wipes past the said tappet F, the tappet will obviously open the retaining member *f* so as to release the piece of potato at a point that will enable the same to drop through the shoe G to the ground. Immediately subsequent to the discharge of the piece of potato the picker arm will move out of engagement with the tappet F, whereupon the spring *i* will close the retaining member *f*. Said retaining member *f* will obviously remain closed until its arm *g* again contacts with the trough E when the operation described will be repeated.

It will be gathered from the foregoing that during the operation of the planter, the picker arms T require no attention; also, that the said picker arms are entirely automatic in their action and that they serve to transfer the pieces of potato from the trough E to the shoe G without liability of injuring the said pieces or dropping the same before they are positioned above the shoe G.

The construction herein illustrated and described constitutes the preferred embodiment of my invention, but it is obvious that in the future practice of the invention such changes or modifications may be made as fairly fall within the scope of the invention as defined in the claims appended.

Having described my invention, what I claim and desire to secure by Letters-Patent, is:

1. The combination in a potato planter, of a frame, a hopper carried thereby, a shoe also carried by the frame and arranged in advance of the hopper, a trough connected with the frame and extending downward and forward from the hopper and arranged to receive pieces of potatoes from said hopper, a tappet connected with the frame and arranged above the shoe, devices for transferring pieces of potato from the trough to the shoe; the said devices being movable in an orbit adjacent to the trough and the tappet and being each made up of a platform inclined inward in the direction of movement of the devices and having a lip at its forward end and also having parallel lugs on its rear portion, a transverse bolt arranged in said lugs, a retaining member having side portions pivoted through the bolt to the lugs of the platform and also having an arm *g*, and a spring coiled about the bolt and having its arms engaged with the rear ends of the platform and retaining member, and means for moving the said devices in the said orbit.

2. The combination in a potato planter, of a frame, an axle journaled in bearings on the frame, a hopper carried by the frame, a shoe also carried by the frame and arranged in advance of the hopper, a trough connected with the frame and extending downward and forward from the hopper and arranged to receive pieces of potato from said hopper, a tappet connected with the frame and arranged above the shoe, covering means carried by the frame and arranged in rear of the shoe, and devices for transferring pieces of potato from the trough to the shoe; the said devices respectively comprising an arm fixed to and extending radially from the axle, a platform arranged at the outer end of the arm and inclined inward in the direction of movement of the arm and having a lip at its forward end and also having outwardly extending lugs on its rear portion, a transverse bolt arranged in said lugs, a retaining member having side portions pivoted through the bolt to the lugs of the platform and also having an arm *g*, and a spring coiled about the bolt and having arms engaged with the rear ends of the platform and retaining member, for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

BURTON H. PUGH.

Witnesses:
A. T. DANIELS,
C. P. BOLMAR.