

(No Model.)

S. HACKETT
HAND PLANTER.

No. 460,010.

Patented Sept. 22, 1891.

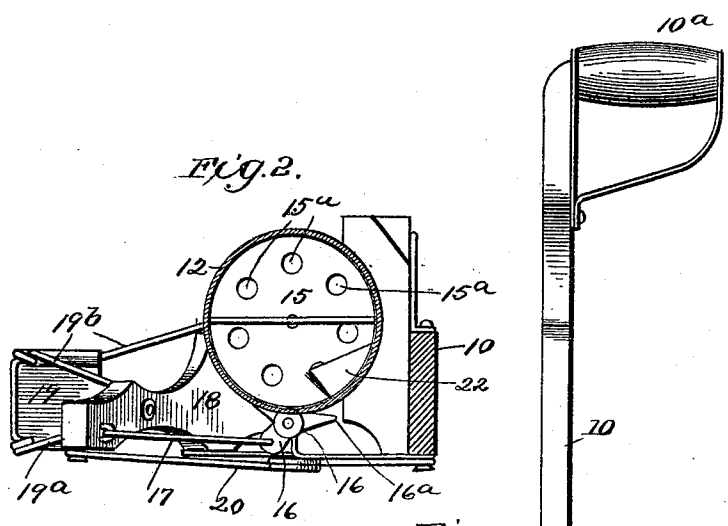
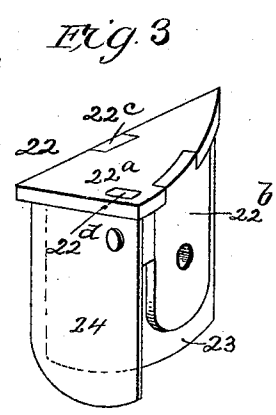
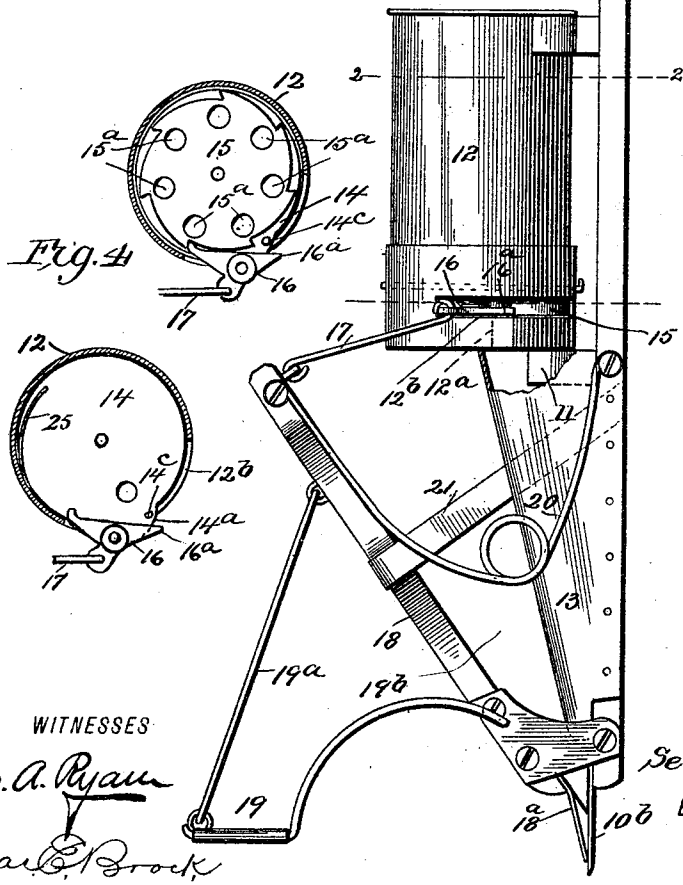


Fig. 1.



WITNESSES

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SETH HACKETT, OF BRONSON, MICHIGAN.

HAND-PLANTER.

SPECIFICATION forming part of Letters Patent No. 460,010, dated September 22, 1891.

Application filed December 15, 1890. Serial No. 374,832. (No model.)

To all whom it may concern:

Be it known that I, SETH HACKETT, of Bronson, in the county of Branch and State of Michigan, have invented a new and useful Improvement in Hand-Planters, of which the following is a specification.

This invention relates, generally, to planters, and more particularly to that class thereof known as "reciprocating hand-planters;" and it has for its object to provide a machine consisting of a few and simple parts, and one which can be operated with one hand.

With these objects in view my invention consists in the peculiar construction of the various parts and their novel combination or arrangement, as will be more fully hereinafter described and claimed.

In the drawings forming a part of this specification, Figure 1 is a side view of my improved planter. Fig. 2 is a top plan view of the hopper and feed-disk. Fig. 3 is a detail view of the shield, and Fig. 4 shows details of the ratchet mechanism.

In carrying out my invention I employ a standard 10, to the upper end of which is secured a handle 10^a, and at the lower end of said standard is secured a blade or plate 10^b. A transverse beam 11 is secured to one side of the standard a short distance below the middle of the same, and upon said beam is arranged a hopper 12, having a single perforation 12^a in the bottom of the same, adapted to feed grain to the downwardly-tapering delivery-chute 13, secured to the standard 10 beneath the beam 11, said beam being cut away or perforated beneath the perforation in the hopper to permit the grain to enter the delivery-chute.

A circular plate 14 is pivoted upon the bottom of the hopper at the center of the same, said plate having an ear 14^a projecting without the side of the hopper through a slot 12^b made in the side of the same. A revolvable feed-disk 15 is arranged upon the plate 14, said disk having a series of perforations 15^a near the outer edges of the same and a series of ratchet-teeth produced upon its periphery, the number of teeth corresponding to the number of perforations for obvious reasons. In order to revolve the feed-disk 15, I employ a pawl 16, pivoted upon the ear 14^a, said pawl being essentially angular in shape,

one arm being adapted to engage the ratchet-teeth. The other arm projects outwardly, and to this is secured a link-rod 17, whereby the plate 14 is vibrated back and forth, thereby throwing the pawl into and out of engagement with the ratchet feed-disk and intermittently moving the same. A spring-pawl 25, located within the hopper, prevents a return movement of the disk 15. The plate 14 is provided with a single perforation, which is adapted to register with the perforation in the bottom at the same time that one of the perforations in the feed-disk registers with said perforation, thereby establishing a discharge-passage to the feed-delivery chute. The pawl is also provided with a rear extension 16^a, adapted to engage a stop-pin or stud 14^b, arranged upon the ear 14^a, whereby the rearward movement of the pawl is limited and rubbing against the teeth of the disk prevented as the plate moves rearward. A lever-arm 18 is pivotally connected at its lower end with the lower end of the standard 10, a blade or plate 18^a being secured at the lower end of said lever-arm, the upper end being connected with the link-rod 17, as clearly shown. A fulcrum-foot 19 is connected with the lever-arm by means of the rods 19^a and 19^b, said foot being adapted to rest upon the ground, and by tilting the standard toward the lever-arm the blades which have been previously inserted in the ground while in contact with each other will be forced apart, allowing any grain that may be in the delivery-chute to pass into the ground, and as the standard recedes from the lever-arm the plate will be moved forward, and the pawl will engage the ratchet-disk and move the same the distance of one tooth, thus bringing another feed-perforation in register with the perforations in the plate and bottom of hopper. A bow-spring 20 is employed to keep the lever-arm and standard apart, and a bail 21 is passed around the lever-arm and secured to the standard 10 to prevent the spring forcing them too far apart.

In order to prevent choking of the machine, I employ a shield 22 of novel form, (shown in detail in Fig. 3,) said shield being arranged upon the interior of the hopper above the discharge-opening in the same and being sufficiently elevated to permit the revolution

of the feed-disk. This shield consists of an essentially triangular metal plate 22^a, having a depending lug 22^b, by means of which it is secured to the side of the hopper, depending lugs 22^c and 22^d being produced at the edges of the other sides of the plate, the lug 22^c being produced near the middle of its side, while the lug 22^d is produced at the end adjacent to the lug 22^a. A thin plate or wing 23 is secured to the lug 22^b, and to the lug 22^d is secured a similar plate 24, the outer ends of said plates resting against the sides of the hopper, leaving a slight opening between their inner ends, and the inner lower corners of said plates are curved or cut away to permit anything that may get under the shield to escape. The shield is placed over the discharge-opening in the hopper to prevent a surplus of grain being discharged, the plate 23 serving to sweep away any surplus of grain from out of the perforation in the disk; but should anything be passed under the shield it may be passed out between the plates without damaging the machine.

The hopper may be made in any desired number of sections, said sections being connected by means of a transverse pin passing through the hopper, as clearly shown.

Having thus described my invention, what I claim is—

1. In a hand-planter, the combination, with a delivery-chute secured thereto, of a lever-arm pivoted to the standard, a fulcrum-foot secured to the lever-arm, a perforated plate arranged in the bottom of the hopper, a pawl pivoted to said plate, a link-rod connecting

the said pawl and lever-arm, and a ratchet feed-disk arranged to turn upon the plate, substantially as shown and described.

2. In a corn-planter, the combination, with the hopper and the perforated revolving feed-plate arranged therein, of the shield attached to the side of the hopper and consisting of a triangular plate having depending lugs, and the guard-plates secured to the inner sides of the plate, said guard-plates being arranged to bear upon the sides of the hopper and leave an opening between their adjacent ends, substantially as shown and described.

3. The shield herein shown and described, consisting of the triangular plate having depending lugs, and the guard-plates secured to the inner side of the plate, said guard-plates being arranged to bear upon the sides of the hopper and leave an opening between their adjacent ends, substantially as shown and described.

4. The combination, with a hopper having a discharge-opening in the bottom and a slot in the side, of a perforated plate pivoted to the bottom of hopper and having an ear projecting through the slot in the same, a disk having a series of perforations therein and ratchet-teeth upon its periphery, a pawl pivoted to the ear of the plate, and a link-rod connected to the outer end of said pawl, substantially as shown and described.

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Witnesses:

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