

(No Model.)

2 Sheets—Sheet 1.

E. J. GORDON.
COMBINED POTATO PLANTER AND MARKER.

No. 544,220.

Patented Aug. 6, 1895.

FIG. 1.

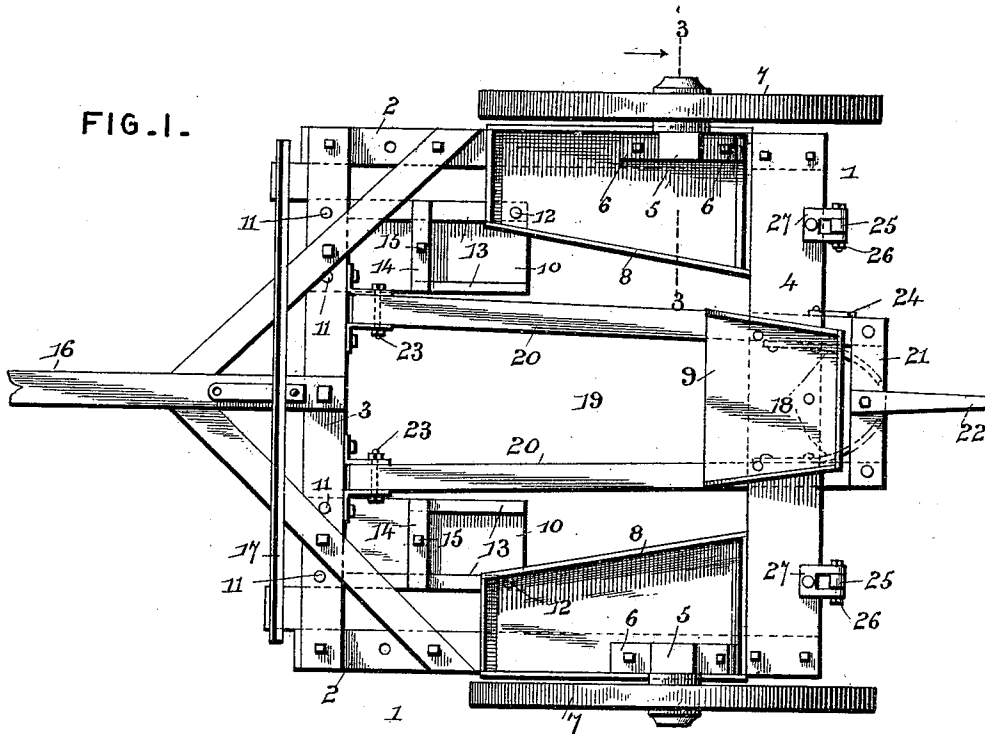


FIG. 2.

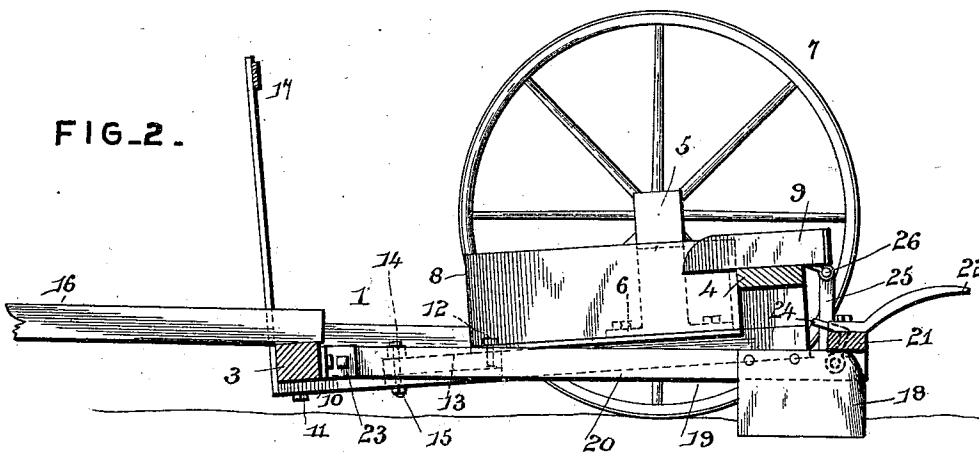
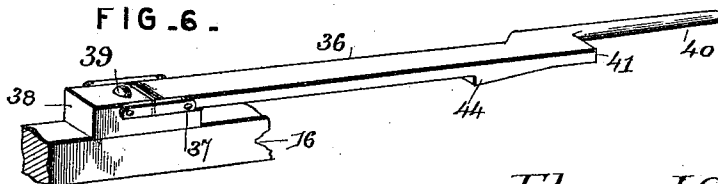


FIG. 6.



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Witnesses

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FIG. 4.

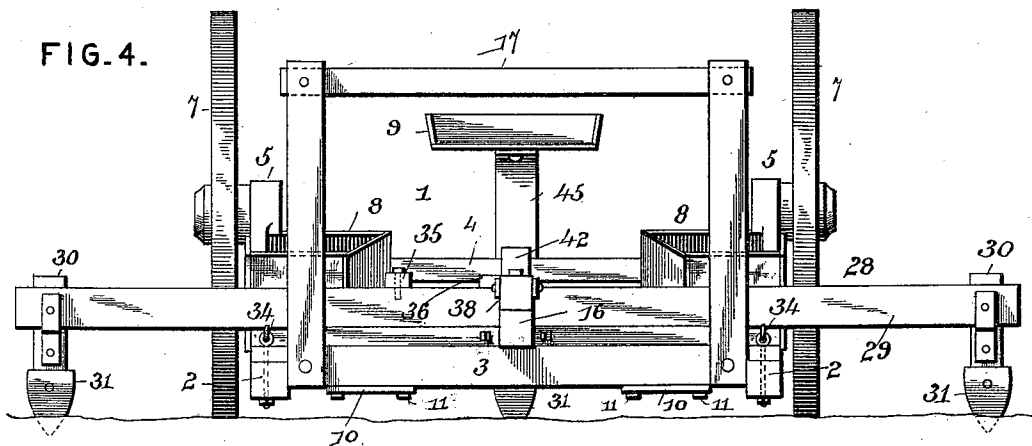


FIG. 5.

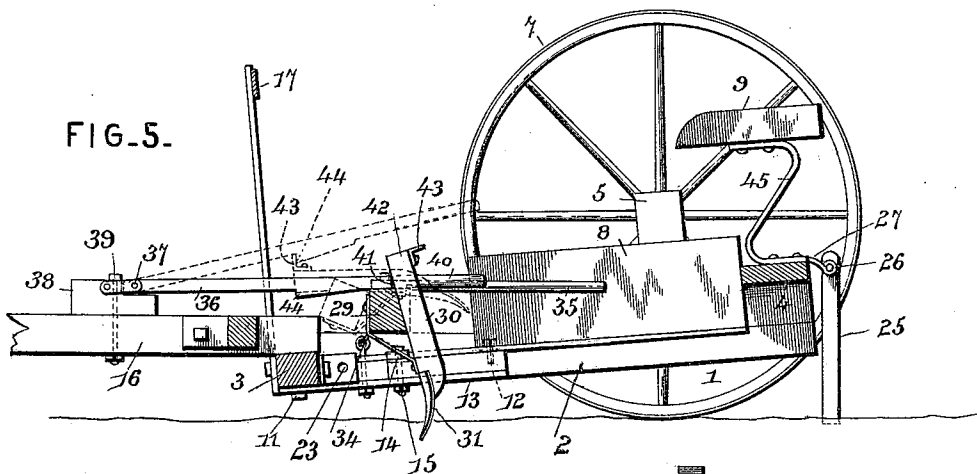


FIG. 7.

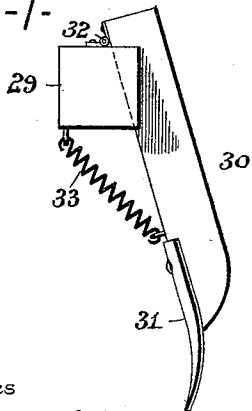
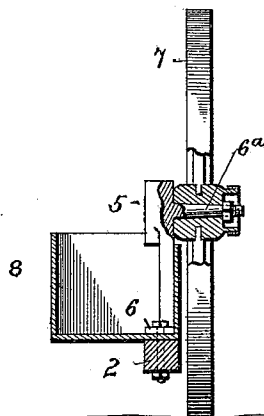


FIG. 3.



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UNITED STATES PATENT OFFICE.

ELONSO J. GORDON, OF GREENVILLE, MICHIGAN, ASSIGNOR OF TWO-THIRDS
TO THOMAS J. POTTER AND RUFUS F. SPRAGUE, OF SAME PLACE.

COMBINED POTATO-PLANTER AND MARKER.

SPECIFICATION forming part of Letters Patent No. 544,220, dated August 6, 1895.

Application filed February 11, 1895. Serial No. 537,952. (No model.)

To all whom it may concern:

Be it known that I, ELONSO J. GORDON, a citizen of the United States, residing at Greenville, in the county of Montcalm and State of Michigan, have invented a new and useful Hand-Dropping Potato-Planter, of which the following is a specification.

This invention relates to a hand-dropping potato-planter; and it has for its object to provide a new and useful machine of this character that shall possess special advantages for planting seed-potatoes.

To this end the main and primary object of the present invention is to construct a machine that will enable the operator to place or deposit the seed-potato in position for covering, and thereby obviating the many objections to the ordinary method or system of "dropping" the seed-potato at the point where it is to be covered, such dropping of the seed-potatoes being not entirely positive, inasmuch as the same are liable to either roll out of the furrow or to a position not in the direct path of the coverers.

With these and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts, hereinafter more fully described, illustrated, and claimed.

In the drawings, Figure 1 is a plan view of a machine constructed in accordance with this invention with the parts adjusted for planting. Fig. 2 is a central longitudinal sectional view of the same. Fig. 3 is a transverse sectional view thereof on the line 3 3 of Fig. 1. Fig. 4 is a front elevation of the machine with the parts adjusted for using the same as a marker. Fig. 5 is a central longitudinal sectional view thereof, showing the marker attachment in both of its adjusted positions. Fig. 6 is a detail in perspective of the adjustable catch-bar attachment for the adjustable marker attachment. Fig. 7 is a detail end view of the marker attachment, showing a modified manner of attaching the marker-feet to the hinged marker-beam.

Referring to the accompanying drawings, 1 designates a substantially rectangular frame consisting, essentially, of the opposite paral-

lel frame side bars 2, and the front and rear end bars 3 and 4, respectively, connecting the opposite ends of the parallel side bars. At a point adjacent to the rear-end frame-bar 4 are located the opposite upwardly-disposed wheel-standards 5. The wheel-standards 5 are provided at their lower ends with the attaching feet or flanges 6, that are secured on the upper sides of the frame side bars 2, and near their upper ends the said wheel-standards are provided with the outwardly-disposed spindles 6^a, on which are mounted the supporting-wheels 7. By reason of mounting the frame 1 on the wheels 7 in the manner described it will be noted that the said frame is disposed in very close proximity to the ground, so that the operator on the frame can simply lay or place the seed-potato on the ground where it is to be covered without dropping the same, the dropping of seed-potatoes being attended with many objections.

Arranged at opposite inner sides of the frame 1, directly adjacent to the inner sides of the wheels 7 and against the rear-end frame-bar 4, are the opposite seed-boxes 8. The opposite seed-boxes 8, which are closed at the bottom, are open at the top and may be conveniently secured directly on top of the frame side bars 2 by the same bolts that fasten the feet or flanges of the wheel-standards in position at opposite sides of the frame, and located between the seed-boxes 8 is the operator's seat 9. The operator's seat 9 is suitably arranged on the rear-end frame-bar 4 between the boxes 8, so that the seed-potatoes that are placed in such boxes will be within easy reach of the operator, so that without any extra exertion the operator can take the seed-potatoes from either of the boxes 8 and place the same on the ground directly below the center of the frame 1 and in front of the seat 9.

In front of the operator's seat 9 is arranged a pair of spaced rest-boards 10. The spaced rest-boards 10 are detachably secured at their front ends to the under side of the front-end frame-bar 3 by means of the screws or bolts 11, and the inner ends of said rest-boards may be additionally secured to the under side of the seed-boxes 8 by means of the screws 12. By thus arranging the rest-boards 10 the same

are disposed within the front part of the frame 1, at the opposite sides thereof, and said rest-boards are provided on their upper sides with the parallel cleats 13, on which are arranged
 5 foot-rests 14, that are secured in position on the cleats by means of the bolts 15 passing through said foot-rests and the rest-boards. The said foot-rests afford conveniently-disposed rests for the feet of the operator occu-
 10 pying the seat 9, so that the operation of planting can be carried on comfortably.

The machine-frame 1 has connected with the front end thereof an ordinary draft-tongue 16, to which draft-animals are hitched in the
 15 ordinary way, and at the front end of the machine-frame may also be arranged a suitable line-support 17, which will lift the lines for the draft-animals above and out of the way of the person who is feeding the seed-potatoes in front of the seat 9. After the seed-
 20 potatoes have been placed on the ground in the manner referred to the same are covered by a pair of covering-shovels 18, that are arranged for adjustment below the rear-end
 25 frame-bar 4 of the machine.

The covering-shovels 18 are simply curved metal blades that are convergently disposed rearwardly toward each other, and the said blades are secured within the rear end of an
 30 adjustable coverer-frame 19. The adjustable coverer-frame 19 essentially consists of the opposite beams 20, connected at their rear ends by a transverse connecting-bar 21, to which bar is connected a handle 22, which
 35 provides for holding the coverers properly in the ground when the machine is working. The separate spaced beams 20 of the coverer-frame 19 are detachably and pivotally secured at their front ends, as at 23, to the inner side
 40 of the front-end frame-bar 3, and when the machine is being carried over the ground and the planting is not being carried on the rear end of the coverer-frame, carrying the coverer-shovels, may be supported above and out of
 45 contact with the ground by means of an L-shaped supporting-latch 24, pivoted to one of the beams 20 and adapted to be engaged over the rear-end frame-bar 4 of the machine.

Arranged at opposite sides of the seat 9 on
 50 the rear-end frame-bar 4 of the machine are the opposite depending swinging spacing-feet 25. The spacing-feet 25 are pivoted at their upper ends on the pivot-bolts 26, mounted in the outer bifurcated ends of the bracket-
 55 plates 27, secured at their inner ends on top of the rear-end frame-bar 4. When the machine is being carried over the ground for planting purposes, the same takes two courses, one at right angles to the other, in the usual
 60 way, to provide for planting the potatoes in rows, and on each successive course one of the swinging or self-adjusting spacing-feet 25 returns in the outside wheel-track of the pre-
 65 ceding course and serves to accurately space the rows.

Preceding the planting operation it is, of

course, necessary to mark out the field in one direction in order to provide for planting the potatoes in rows, and to provide for thus marking out the field the coverer-frame is detached
 70 from the machine-frame and the marker attachment 28 is fitted in place. The marker attachment 28 essentially consists of a single continuous beam 29, to which is attached at regularly-spaced intervals a series of marker-
 75 feet 30, carrying at their lower ends marking teeth or points 31, that provide for making the necessary mark in the ground. The marker-feet 30 may be attached to the marker-beam 29 in any suitable manner, and, as illustrated
 80 in Fig. 7 of the drawings, the said feet may be pivoted at their upper ends, as at 32, to one side of the beam 29 and may have connected thereto suitable springs 33, that provide for normally maintaining the same in a
 85 proper marking position, while at the same time allowing the teeth or points to automatically adjust themselves to inequalities of the ground.

The marker-beam 29 is adapted to be ar-
 90 ranged transversely on the machine-frame 1, directly in rear of the front-end frame-bar 3, and at its front lower edge the said marker-beam is provided with detachable hinge connections 34 with the opposite frame side bars
 95 2, so that by grasping the adjusting-handle 35, attached to the beam 29 at one side of its center, the said beam may be turned or rocked in order to raise or lower the marker-feet, as may be desired. In either of its adjusted po-
 100 sitions the said marker-beam is secured by means of the adjustable catch-bar 36. The adjustable catch-bar 36 is pivoted at its front end, as at 37, to a pivoted attaching-block 38, that is pivotally and detachably secured on
 105 the tongue 16 by means of the bolt 39. At its rear end the said catch-bar 36 is provided with an adjusting-handle 40 and with a catch-shoulder 41, that is adapted to engage in front of the stop projection 42, projected
 110 above the upper side of the beam 29, and this engagement of the catch-bar with said stop projection 42 serves to hold the marker-beam in position with the marker-feet lowered. The stop projection 42 is preferably the upper
 115 end of the central one of the marker-feet 30 and is provided at one side with a catch-flange 43, that is adapted to be engaged by the intermediate catch-shoulder 44, formed on the under side of the catch-bar 36 at an interme-
 120 diate point, and this engagement of the catch-bar with said catch-flange holds the marker-beam 29 turned in a position with the feet 30 off of the ground. The block 38 allows the bar 36 to be swung laterally to provide for
 125 the engagement thereof with the stop projection 42.

When the marker attachments are in place on the machine-frame, it is necessary to elevate the seat 9, so that it may be occupied by
 130 the driver of the team, and to provide for this a suitable seat-support 45 is secured to the rear-

end frame-bar 4 and the seat 9 arranged on the upper end of the said seat-support.

In operating the machine for marking, the field is marked in one direction only, and in planting it is simply necessary to place the seed-potato in position for covering at every point where the course of the machine intersects one of the row-marks previously made at right angles to the direction of travel of the machine.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. In a hand dropping potato planter, a wheeled frame mounted to travel in close proximity to the ground, seed boxes arranged at directly opposite sides of the frame and provided with closed bottoms, and an operator's seat supported at a point between the seed boxes, whereby the operator can conveniently reach the seed potatoes in either box by hand and also place the same on the ground between the boxes, substantially as set forth.

2. In a hand-dropping planter, the combination of the machine frame, opposite upwardly disposed wheel standards secured on opposite sides of the frame and provided near their upper ends with outwardly disposed wheel carrying spindles, seed boxes secured on opposite sides of the frame adjacent to the wheels, an operator's seat secured on the rear end of the frame between the seed boxes, a coverer frame pivotally and detachably connected at its front end to the front end of the machine frame and carrying at its rear end, in rear of the operator's seat, a pair of rearwardly convergent covering shovels, a handle attached to the rear end of the coverer frame, a latch connected to the rear end of the coverer frame and adapted to detachably engage over the rear end frame bar, and self-adjust-

ing spacing feet attached to the rear end of the frame at both sides of the operator's seat, substantially as set forth.

3. In a hand-dropping planter, the combination of the machine frame having opposite upwardly disposed wheel standards provided near their upper ends with wheel carrying spindles, oppositely located seed boxes, an operator's seat arranged on the rear end of the frame between the seed boxes, a coverer arranged to work below and in rear of said seat, bracket plates attached to the rear end of the frame at both sides of the planter's seat, and depending swinging spacing feet pivotally suspended from their upper ends in said brackets, substantially as set forth.

4. In a machine of the class described, the combination of the wheeled machine frame having a draft tongue at its front end, a transverse marker beam detachably hinged at its front lower edge on the front end of said machine frame, said marker beam carrying a series of depending marker feet and being provided at a central point with a stop projection having a catch flange at one side, an adjusting handle attached to said marker beam at one side of its center, an attaching block pivotally mounted on the draft tongue in front of the marker beam, and an adjustable catch bar pivotally connected at its front end to said pivoted attaching block and provided at its rear end with an adjusting handle, and a catch shoulder adapted to engage in front of the stop projection of the marker beam, said adjustable catch bar being further provided on its under side at an intermediate point with an intermediate catch shoulder adapted to engage with the catch flange of said stop projection, substantially as set forth.

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

ELONSO J. GORDON.

Witnesses:

PAUL VAN DENISE,
W. W. SLAWSON.