

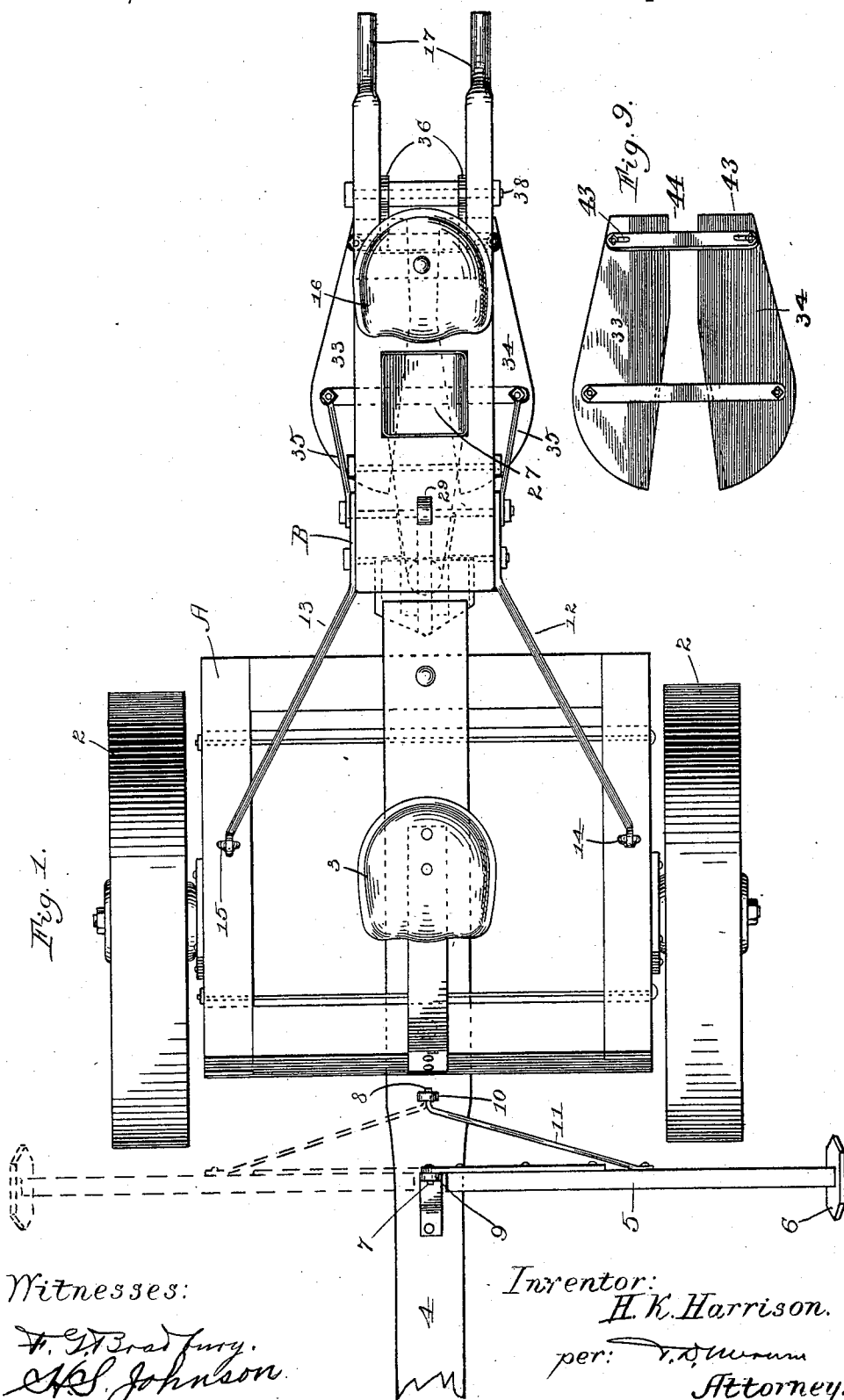
(No Model.)

3 Sheets—Sheet 1.

H. K. HARRISON.
POTATO PLANTER.

No. 568,442.

Patented Sept. 29, 1896.



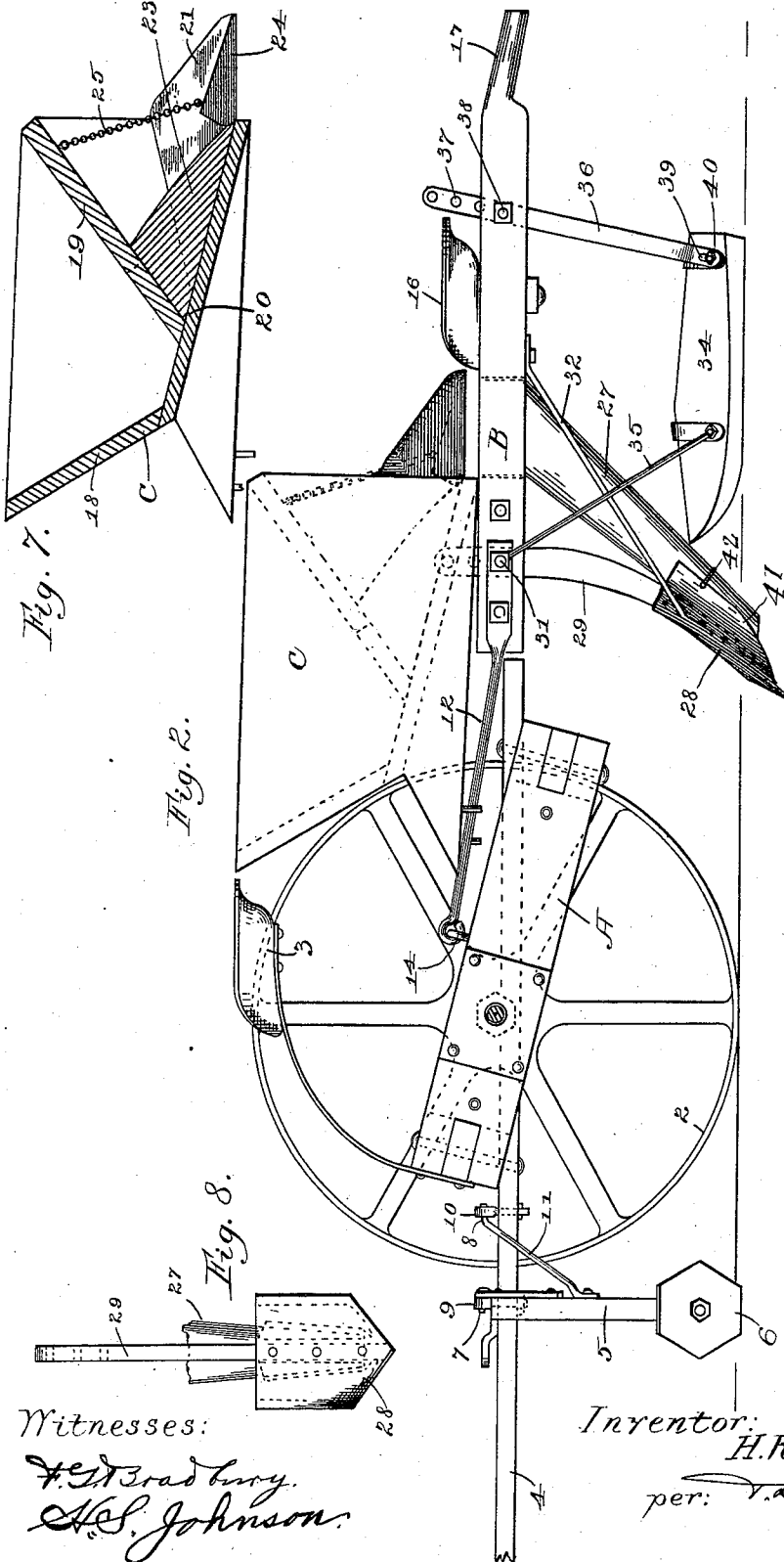
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No. 568,442.

Patented Sept. 29, 1896.



Witnesses:

H. S. Bradbury.
H. S. Johnson.

Inventor: *H. K. Harrison.*
per: *T. D. Wainwright*
Attorney.

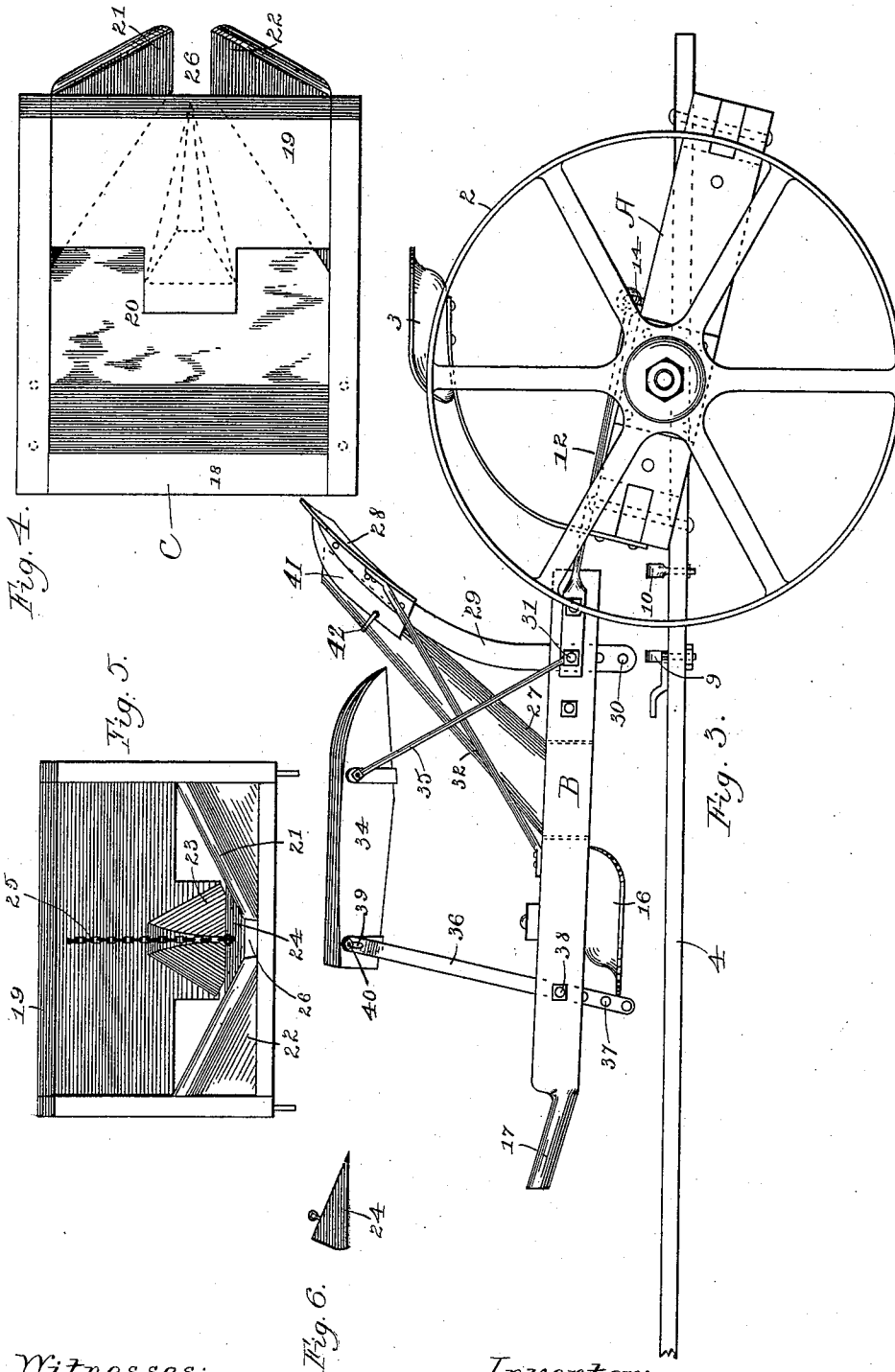
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POTATO PLANTER.

No. 568,442.

Patented Sept. 29, 1896.



Witnesses:

F. M. Bradbury
A. S. Johnson

Inventor:

H. K. Harrison
per: *V. D. Menden*
Attorney.

UNITED STATES PATENT OFFICE.

HARRIS K. HARRISON, OF POMME DE TERRE, MINNESOTA.

POTATO-PLANTER.

SPECIFICATION forming part of Letters Patent No. 568,442, dated September 29, 1896.

Application filed November 18, 1895. Serial No. 569,335. (No model.)

To all whom it may concern:

Be it known that I, HARRIS K. HARRISON, of Pomme de Terre, Grant county, Minnesota, have invented certain Improvements in Potato-Planters, of which the following is a specification.

My invention relates to improvements in potato-planters; and it consists in the features of construction hereinafter particularly described and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of my machine. Fig. 2 is a side elevation, one of the carrying-wheels being removed to show the frame. Fig. 3 is a side elevation with the planting attachment folded forward over the pole of the vehicle. Fig. 4 is a detail plan view of the hopper. Fig. 5 is a rear end view of the hopper. Fig. 6 is a detail of the stop-block, which is adapted to rest in the spout of the hopper, so as to stop the flow of potatoes therefrom. Fig. 7 is a vertical longitudinal section of the hopper. Fig. 8 is a detail of the plow, and Fig. 9 is a detail of the adjustable converging shoes.

In the drawings, A represents the main or relatively-fixed frame mounted upon the carrying-wheels 2. 3 is the driver's seat mounted on said frame, and 4 the pole or tongue.

5 represents the marker-arm, carrying the marker-disk 6 and pivoted to the pole by means of the gudgeons 7 and 8, turning in the ears or clips 9 and 10, the gudgeon 8 being preferably carried by the spring-rod 11, so that the marker-arm can be readily disconnected from the pole.

B is the planter-frame, having its brace-rods 12 and 13 hooked into the eyes 14 and 15 upon the main frame, in which they turn as hinges in the adjustment of the frame and in the adaptation to inequalities of the surface of the ground and in the folding of the planter-frame over the pole, as shown in Fig. 3.

The frame B is provided both with the operator's seat 16 and with handles 17, so that the operator, while the machine is being turned at the end of the row, may take hold of the handles and raise up the frame B.

C is the removable hopper, having its front and rear walls 18 and 19 inwardly inclined. The bottom 20 is inclined toward the rear end

and fitted with the converging side wings 21 and 22, forming a chute, an open space being left between the wings to allow the potatoes to drop through. On each side of the hopper the rear wall 19 is cut away near the bottom to allow the potatoes to drop through into the chute, the wedge-shaped block 23 being centrally arranged in the rear of the wall 19, thus forming a conduit on each side.

In order to stop the flow of potatoes whenever desired, I provide a wedge-shaped stop-block 24, which fits accurately between the wings 21 and 22, so as to close the opening between them, and is supported by means of a cord or chain 25, by which it is permanently attached to the hopper, but allowing it to be thrown aside when the machine is in use.

The hopper is mounted, as shown in Fig. 2, with the spout immediately in front of the seat 16, so as to be in a convenient position for the operator riding upon the seat. Arranged directly beneath the opening 26 is the spout 27, preferably of sheet metal, forwardly inclined and extending down nearly or quite to the surface of the ground. In front of the same is the plow 28, adjustably hung upon the frame by means of the standard 29, having a series of holes 30 to receive a bolt or pin 31, by means of which it is connected to the frame. Connected to the rear of the plow 28, upon each side of the spout 27, is the flange or wing 41, the spout being held in place between said wings by the wire 42, connected to each wing, passing around the spout. These wings serve to keep the dirt from falling back into the furrow so as to interfere with the dropping of the potatoes. This plow is preferably twisted or given a lateral incline, so as to throw the dirt more to one side than the other, and is held firmly against the thrust of the soil by means of the brace-rods 32. Arranged directly in the rear of the spout 27 is a pair of converging shoes 33 and 34, supported at the forward end by braces 35 and at the rear by the adjustable standards 36, having bolt or pin holes 37 to receive the bolts 38, by means of which they are adjustably connected to the frame. The lower ends of the standards 36 are outturned, and are preferably provided with slots 39, registering with the slots 43 in the bar 44, which connects the rear ends of the covering-shoes, whereby

the spread of the rear ends of the shoes may be adjusted by means of the securing-bolts 40, passing through the slots.

In operation the marker-arm 5 is thrown either to the right or to the left, according to the direction in which the machine is driven, so as to mark the position of the next row. The operator, sitting upon the rear seat, and the block 24 being thrown out of the way, feeds the potatoes into the spout so as to properly distribute them in the row, the plow forming the furrow into which they are dropped and the shoes 33 and 34 covering them in the furrow. The depth of the furrow and the spread of the shoes are adjusted to suit the work being done, the weight of the rider serving to drive the plow in the ground to form a furrow of sufficient depth, the weight being distributed between the plow and the covering-shoes 20 by the proper adjustment of the standards 29 and 36.

I claim—

1. In a machine of the class described, the combination with the main or vehicle frame, its carrying-wheels and seat, of the planting-attachment frame in the rear of said main frame, the brace-arms connected to said planting attachment and hinged to the sides of said main frame, whereby said planting attachment may be supported in normal position in the rear of the main frame, or may be folded over the same when not in use.

2. In a machine of the class described, the combination with the main or vehicle frame, and the seat upon the same, of the planting-attachment frame hinged to said main frame, and supported thereby in position at the rear of the machine, and adapted to be folded over said seat upon the front of the machine when not in use.

3. In a machine of the class described, the combination with the plow and delivery-spout, of the pair of covering-shoes converging toward their rear ends, the bars adjust-

ably connecting said shoes and allowing the ends of the same to be separated to alter the angle of convergence thereof, and the vertically-adjustable brace connecting the shoes with the supporting-frame.

4. In a machine of the class described, a hopper comprising in combination the inclined bottom and oppositely-inclined transverse wall having openings between the same and the bottom on each side of a wedge-shaped block centrally arranged in the rear of said wall, the converging wings on each side of said block forming converging conduits, and the wedge-shaped block removably fitted to the opening between said wings, so as to close the same.

5. In a machine of the class described, a hopper comprising in combination the inclined bottom, the wedge-shaped block centrally arranged at the rear side of the rear wall of the hopper, said rear wall having an opening on each side of said block, the converging wings on each side of said block forming converging conduits, and the wedge-shaped block removably fitted to the opening between said wings so as to close the same.

6. In a machine of the class described, the combination with the main frame, and the planting-attachment frame hinged to the rear thereof by brace-arms, of the removable hopper, arranged over the planting attachment and arms, comprising in combination the inclined transverse wall having openings through the same, the wedge-shaped block at the rear of said wall intermediate of the openings, and the wings on each side of said block, forming converging conduits from said openings.

In testimony whereof I affix my signature in presence of two witnesses.

HARRIS K. HARRISON.

Witnesses:

ANDREW O. OFSTHUN,
WM. C. BICKNELL.