

L. A. ASPINWALL.

Potato-Planter.

No. 50,890.

Patented Nov 14, 1865.

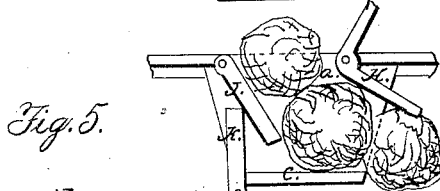
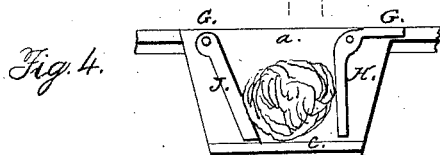
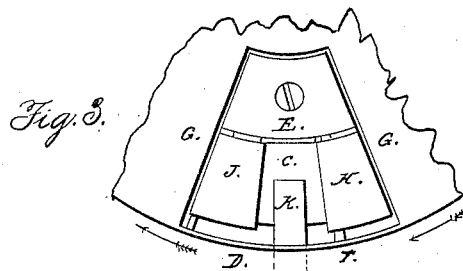
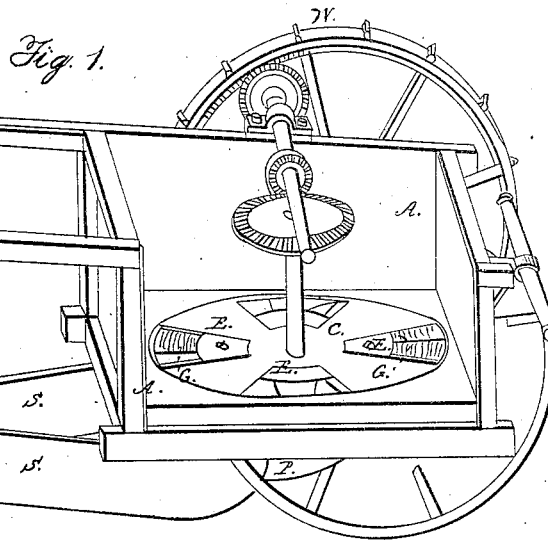
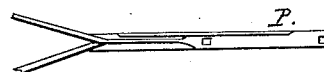
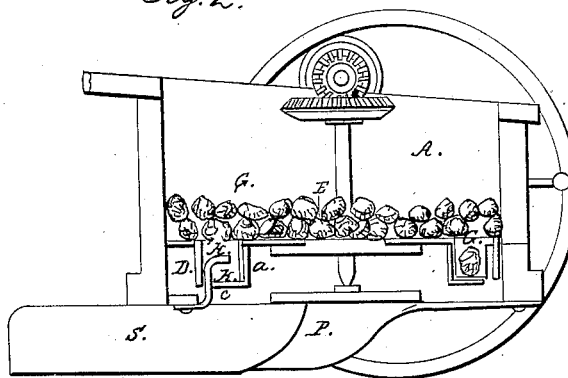


Fig. 2.



Witnesses:

Robt. H. D. W. H.
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Inventor:

L. A. Aspinwall

UNITED STATES PATENT OFFICE.

L. AUGUSTUS ASPINWALL, OF WATERVLIET, NEW YORK.

IMPROVEMENT IN POTATO-PLANTERS.

Specification forming part of Letters Patent No. 50,890, dated November 14, 1865.

To all whom it may concern:

Be it known that I, L. AUGUSTUS ASPINWALL, of the town of Watervliet, county of Albany, State of New York, have invented certain Improvements on a Potato-Planter for which Letters Patent of the United States were granted me on the 14th day of October, 1862; and I declare the following specification, with the drawings, forming part thereof, to be a full and complete description of my invention.

Figure 1 is a perspective view of the machine, the hither side of its box being represented as removed to show its interior construction; Fig. 2, a sectional view of the same as cut through its center longitudinally. Figs. 3, 4, 5 are parts of the machinery on an enlarged scale.

Similar letters denote the same parts of the apparatus.

By an inspection of the Letters Patent above referred to it will be seen that in general arrangement the machines are alike, consisting of a box or hopper for the seed-potatoes, A, having a revolving bottom, C, driven by one of the wheels W of the machine, with openings within it for the passage of the potatoes; also, a plow, P, to open a furrow, and a pair of scrapers, S, to close the earth over the furrow.

My improvements consist, first, in including the whole of the revolving bottom within the box, instead of cutting off a portion of that bottom, as is done by the partition B; second, by removing the lower plate of the revolving bottom and substituting for it the apparatus now to be described.

Openings G G, shaped as shown in the drawings, (they may be made rectangular, if preferred,) are made in the plate C, and a cell formed below them by a wall-piece, D, dropped down (see Fig. 2) from the periphery of the plate, the other side being inclosed, and a bottom formed by a piece, E, bent at a double right angle, *a* forming the wall, *c* the bottom, and *e* a strip by which the plate is secured to the plate, into which it is countersunk, in order to maintain its upper surface smooth, so as not to abrade the potatoes. The bottom *c* does not extend to the outside wall, D; leaving a space for the passage of a trip, K, to be described. Each end of this cell is closed by a trap-door or a valve hinged to the plate E and D. The

rear one, H, has a lower limb, which is the valve, hanging down perpendicularly, or nearly so, and an upper one lying level with the surface of the plate. The forward valve, J, hangs at an angle, the bottom backward with the bottom plate of the cell, and when turned upward fills, or nearly so, its top opening. Both valves open backward. The number of these cells will be determined by the size of the revolving plate and the gearing of the machine, in order to drop the potatoes at the proper intervals for the sowing.

It will be seen that the box A being filled with potatoes, each cell will receive one between its valves. It cannot slip out forward from the position of the valve J. To prevent it from slipping out backward, the upper limb of the valve H is made (and that is its purpose) heavy enough to hold it in place against the pressure of the potato.

To eject the potato at the proper time is the function of the trip K, above referred to, which is a metal bar fastened to the bottom bar of the machine, passing up between the outward wall and the bottom plate of the cell, and having a curved top, *k*, extending some distance across the cell. As the cell moves around in the direction shown by the arrows the trip is brought in contact with the valve J, by the lifting of which the potato lying in the cell is pressed backward against valve H, which lifts and passes the potato out, dropping it off the bottom of the cell into the furrow prepared by the plow P, to be covered up by the operation of the scrapers S. One effect of the valve J as it rises is to raise out of the cell any potato that may have wholly or partially dropped down on top of the lower one.

The position for the trip is to be regulated by the proper point for the delivery of the potato into the furrow.

By using plates to form the side and bottom of the cell, with the wall side *a* longer or shorter, it can be made to contain potatoes of different sizes, if needed.

The effect of these improvements will be, first, to dispense with the expense and weight of the lower plate of the revolving bottom; second, to save the potatoes from abrasion by the partition B of the box-hopper; third, to avoid the trouble of raising the upper plate of the revolving bottom to adjust the space be-

tween the upper shown plates for different sized or shaped potatoes; fourth, the making of an expansive chamber by the use of two trap-valves, thus providing for potatoes of different sizes and for cut potatoes; fifth, the effect of the valve H, as soon as the potato is pushed out of the cell, to compel it to drop down at once into the furrow into its proper place, instead of being carried an uncertain distance by the momentum of the moving cell, which is the case when the potato is simply dropped through a hole.

What I claim as my invention, and desire to

secure by Letters Patent, are the following devices, substantially as described, and for the purposes set forth in this specification.

1. The construction and arrangement of the chambers attached to the revolving plates, with their trap-valves.

2. The trip for opening the valves and discharging the potatoes.

L. AUGS. ASPINWALL.

Witnesses:

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A. V. DE WITT.