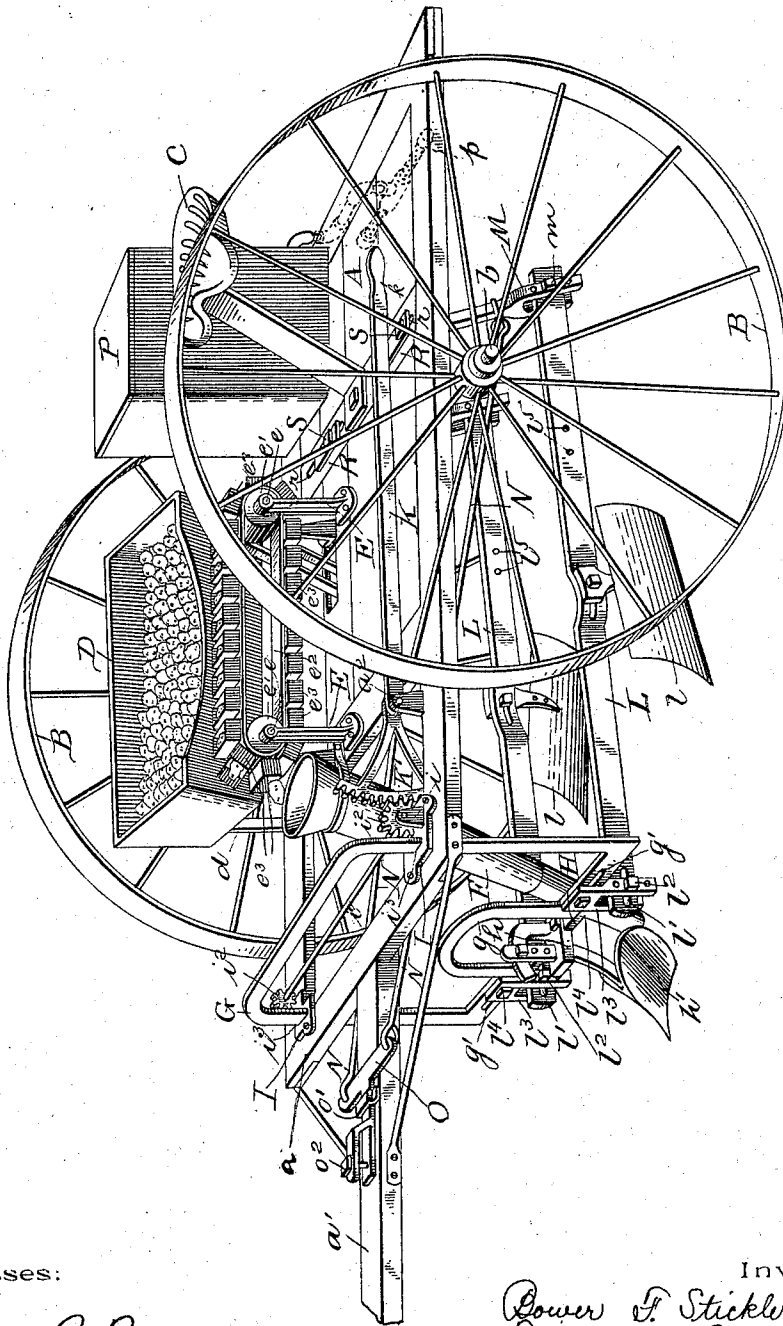


(No Model.)

B. F. STICKLER & F. D. BELL.
POTATO PLANTER.

No. 577,810.

Patented Feb. 23, 1897.



Witnesses:

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UNITED STATES PATENT OFFICE.

BOWER F. STICKLER AND FREDERICK D. BELL, OF HORNELLSVILLE, NEW YORK, ASSIGNORS TO SAID BELL.

POTATO-PLANTER.

SPECIFICATION forming part of Letters Patent No. 577,810, dated February 23, 1897.

Application filed September 6, 1895. Serial No. 561,623. (No model.)

To all whom it may concern:

Be it known that we, BOWER F. STICKLER and FREDERICK D. BELL, citizens of the United States, residing at Hornellsville, in the county of Steuben and State of New York, have invented certain new and useful Improvements in Potato-Planters; and we do declare the following to be a full, clear, and exact description of the invention, such as

will enable others skilled in the art to which it appertains to make and use the same, reference being had to the letters of reference marked on the accompanying drawing, which forms a part of this specification.

Our invention relates to improvements in potato-planters, and some of the objects of our invention are to provide a machine which will open the row, drop the potatoes singly into said row, and cover up the hill or row at the same time. We attain these objects by means of the mechanism illustrated in the accompanying drawing, which is a perspective view of a potato-planting machine provided with our improvements.

Similar letters of reference designate like parts.

In the drawing the letter A represents the frame or body of the machine, the front portion of which is open, and to the front bar or head *a* thereof is secured the tongue or pole *a'*.

B designates the wheels upon which the frame A is mounted, which are provided, as usual, with an axle *b*.

C designates a seat suitably secured upon the frame or body, upon which the driver or operator sits when using the machine.

D denotes a box or other suitable receptacle supported in a tilted or oblique position by means of legs or braces *d*, secured to the frame or body A. This box or receptacle D is designed to be filled with potatoes and to act as a receiver therefor, from whence the potatoes may be distributed to the cups *e*³, secured to the belt *e*², by the hand of the driver; or said box D may be provided with means to automatically discharge the potatoes therein into said cups.

E refers to the vertical supports secured to the frame or body A and forming the bearings for the axles *e*, upon which the belt-pul-

leys *e'* and the driving-pulley, having belt connection with the axle *b*, are mounted. Upon the pulley-wheels *e'* revolves the endless belt *e*², provided with cups *e*³, each of which is adapted to receive a potato or a slice thereof from the hand of the driver or directly from the box or receptacle D and convey the same to a pipe or dropper F, into which each potato is deposited.

F represents a tube or dropper consisting of a pipe or tube suitably secured to the frame A and extending obliquely from beneath the cup-belt *e*² to the rear of the former or opener *h'*. This tube or dropper F increases in diameter toward the upper end, which is flared outwardly to catch the potatoes as they drop from the delivering-cups *e*³. If desired, the said tube or dropper F may be constructed in two parts or sections adapted to telescope or slide one within the other, in order that the lower end thereof may be adjusted to any desired distance from the ground.

G has reference to a vertical metal or other frame adapted to slide vertically within the slots *i*³ in the metal plates I, secured upon the forward portion of the frame A. The lower portion of the frame G is arched in the center at *g*, and on either side of said arch are horizontal slots *g'*, and upon the inner sides of the frame G are projections or teeth.

H denotes a cross-piece, preferably of metal, uniting the lower portion of the arch *g* and having its ends secured to the frame G by bolts or otherwise. To this cross-piece H is secured the guide-piece *h*, to which is adjustably secured the opener *h'*, of the usual construction.

I designates metal plates secured at the front corners of the frame A, which are provided with vertical supports *i*, in which are journaled the ends of the rod *i'*, carrying the gear-wheels *i*², which engage the teeth (not shown) upon the inner portion of the side pieces of the frame G.

K indicates a lever pivoted to the frame A at *a*², one end of which is provided with a handle *k* and the other end having a segment-rack K', which engages the wheel *i*², whereby the frame G can be elevated or depressed, as desired.

L denotes horizontal rods or bars having

concave depressions midway of their length, in which is a horizontal slot, through which passes a bolt, whereby the concave sheet-metal wings l are adjustably secured. These rods or bars L are provided at one end with a slot l' , through which passes an adjusting-bolt l^2 , which secures said bars L to the U-shaped guides l^3 , which are adjustably secured to the lower portion of the frame G by bolts l^4 , passing through the slots g' therein. The opposite ends of the bars L are adjustably supported between the bifurcated ends of the depending rods M by means of the bolts m .

M represents the depending rods, the lower ends of which are bifurcated to receive the bars L , and the upper ends are pivotally secured to the under side of the frame A , thereby affording to said bars a lateral motion.

N designates rods connecting the bars M with the outer ends of the plate O , secured to the tongue or pole a' , whereby the draw or pull of the horses comes directly upon the rods L .

O denotes a T-shaped plate secured beneath the clamping-piece o' on the tongue a' and having a bifurcated end adapted to secure the doubletree, which is secured therein by the bolt o^2 .

P refers to a tank or reservoir adapted to contain paris-green or other substance and which is provided with a sprinkler p , constructed to distribute the contents of said tank upon the potato-plants for the purpose of destroying insects and the like.

The operation of the machine is as follows: The box D is filled with potatoes and the machine is then put in motion, whereupon the potatoes are fed from the box D into the cups e^3 and are conveyed to the mouth of the dropper F , into which they are separately deposited, whence they are dropped into the furrow made by the opener h' and are covered or killed by the wings or plates l . The opener h' is capable of vertical adjustment in the guide, and both the opener and the wings or plates l are adapted to be vertically adjusted by raising or lowering the lever K . The bars L are also capable of vertical and horizontal adjustment by moving the bolts l^2 , l^4 , and m , passing through the ends of the bars L .

We do not confine ourselves to the particular construction or arrangement of the several parts, as the same may be varied without departing from the invention, and we may change the material of which the several parts are made.

We may also provide a transverse metal plate R , to be secured upon the rear portion of the frame or body A , and having longitudinal slots r , through which pass the adjusting-eyebolts S , to which are secured the upper ends of the depending rods M , thus affording rear lateral adjustment of the bars L .

We claim—

1. In a machine for planting potatoes, the combination with a pair of wings or plates, of mechanism for independently adjusting them vertically and laterally and adjusting mechanism common to both of said wings or plates.

2. In a potato-planting machine, the combination with an opener, means for dropping the potatoes, and concave plates in the rear of the opener, of mechanism for independently adjusting the opener and either of the plates, and mechanism for adjusting said elements simultaneously.

3. In a potato-planting machine, the combination with an opener, dropper and potato-conveying mechanism, of concave plates in the rear of the dropper, mechanism for independently adjusting the plates laterally, mechanism for independently and vertically adjusting the opener, and mechanism for simultaneously vertically adjusting the opener and plates.

4. In a potato-planting machine, the combination with an independently-adjustable opener, a dropper and receiver, and means for conveying the potatoes from the receiver to the dropper, vertically-adjustable horizontal bars adjustably connected through intermediate mechanism with the opener, and plates or wings carried by said bars.

5. In a potato-planting machine, the combination with an adjustable opener, dropper, receiver and a conveying-belt, of belt-actuating mechanism, independently-adjustable plates designed to hill the potatoes, and adjusting mechanism common to the opener and plates.

6. In a potato-planting machine, the combination with an adjustable frame, of an opener adjustably carried thereby, a dropper and receiver in the rear of the opener and a conveyer operatively connected with the axle of the machine, and plates designed to hill the potatoes adjustably supported by the adjustable frame.

7. In a potato-planting machine, the combination with an adjustable frame, of an opener adjustably carried thereon, horizontal bars adjustably connected to the adjustable frame, plates carried by said bars, and means for adjusting the adjustable frame.

8. In a potato-planting machine, an opener, horizontal bars, adjustable plates or wings secured to said bars for covering the potatoes and connecting-rods bringing the pull or draw of the horses directly upon frame carrying said bars, as described.

In testimony whereof we affix our signatures in the presence of two witnesses.

BOWER F. STICKLER.
FREDERICK D. BELL.

Witnesses:

C. L. THOMAS,
GEO. L. TUBBS.