

(No Model.)

L. P. HILDEBRAND.
POTATO PLANTER.

No. 321,296.

Patented June 30, 1885.

Fig. 1.

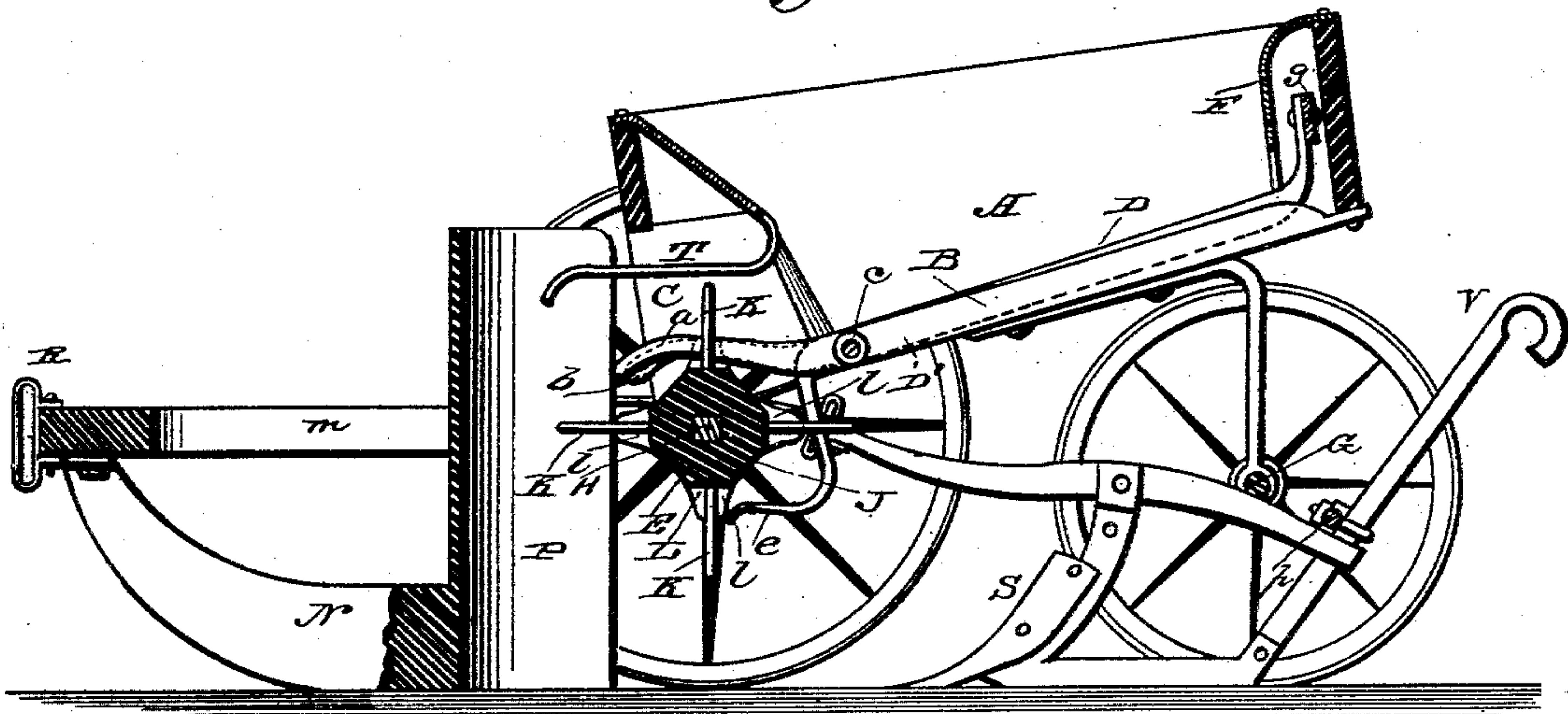
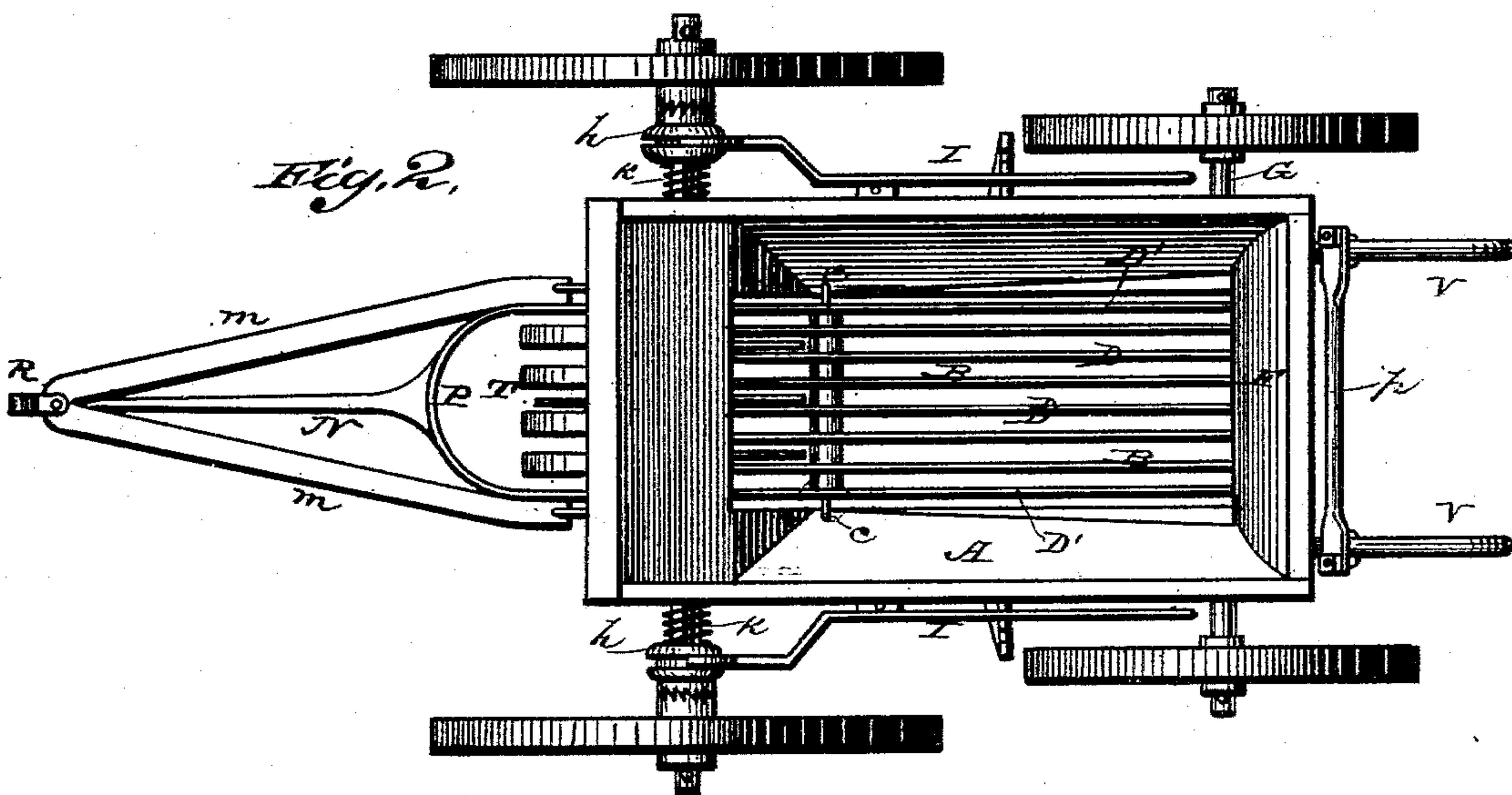


Fig. 2.



WITNESSES
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UNITED STATES PATENT OFFICE.

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POTATO-PLANTER.

SPECIFICATION forming part of Letters Patent No. 321,296, dated June 30, 1885.

Application filed January 23, 1885. (No model.)

To all whom it may concern:

Be it known that I, LOUIS P. HILDEBRAND, a citizen of the United States, residing at Decatur, in the county of Macon and State of Illinois, have invented certain new and useful Improvements in Potato-Planters; and I 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 accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a vertical sectional view of my device, and Fig. 2 is a plan or top view of the same.

This invention has relation to machines for planting potatoes; and it consists in the construction and novel arrangement of devices, all as hereinafter set forth, and pointed out in the appended claims.

In the accompanying drawings, the letter A designates the main box or holder in which the potatoes are placed, and which is provided with the bottom slats or longitudinal bars, B, which are secured to the frame and have the convex ends *a* in the throat C, forming, with the convex ends *b* of the rising or agitating slats or bars D, the floor thereof. This throat is an opening made in the front wall of the box, and its floor, as above stated, is formed by the ends of the slats or bars. Its upper wall is formed by spring-arms T, which are adapted to yield when an unusually large potato is being forced through the throat. The agitator-slats D and D' are secured to a transverse shaft, *e*, while the bars B are provided with openings through which said shaft passes, and which form bearings for the shaft, which is provided with lateral bearings *d*. The agitator-bars D' are at the sides of the floor of the hopper or box A, and they are provided with downwardly-bent ends *e* in front, which are engaged by the cams of the feeding-reel E, which extends transversely under the throat, being located under the convex ends of the bars B and D. The agitator-bars D and D' extend to the rear from the rock-shaft *e*, and their rear ends are secured to a transverse piece, *g*, which plays in a chamber in the rear of the hopper, said chamber being guarded by a shield,

F, which is formed with notch in its lower portion to provide for the play of the bars and to prevent the potatoes in the box from interfering with their movements, the bars B, D, and D' forming the bottom of the hopper, and inclined downward from rear to front, so that the potatoes are fed toward the throat by gravitation, as well as by the rising and falling action of the agitator-bars D and D'. The hopper is supported upon a rear axle, G, and upon a front axle, H. The latter axle is provided with clutch-sleeves *h*, which are actuated by springs *k* to engage the clutch-pins of the wheel-hubs, and levers I are provided to move said clutch-sleeves out of engagement with the clutch-faces of the hub when necessary at the end of the row in turning, and whenever it is desired to move the wagon forward without operating the planting mechanism. The axle H carries the prismatic body J of the feeding-reel, which is provided with the feeding-fingers K, which extend radially outward therefrom, and as said body turns move forward between the front ends of the bars or slats of the throat. The reel is also provided with the lateral cam-plates L, which have cam-projections *l* extending radially outward, and when the reel is turned by the rotation of the axle these cam-projections strike the downwardly-curved front arms, *e*, of the lateral agitator-bars D' and cause the rock-shaft *e* to move, throwing the rear or main portions of the agitator-bars D and D' upward, said bars falling after the cam-projections have passed by. In this manner an alternate rising and falling of the agitator-bars is set up, which causes the potatoes to move toward the throat, through which they are pressed one by one by the return of the fingers of the reel. This reel, as well as the convex ends of the floor-bars, stops the passage of the potatoes through the throat, except as they are forcibly fed through the same. In front of the front axle is the opener N, which is provided with the lateral brace-bars *m*, which support the vertical chute P, which is curved from side to side so as to present its concavity in rear toward the throat of the hopper. To this opener-frame, which is connected usually to the body of the machine by links, is attached the draft-clevis R. S S are lateral covering-shovels, whereof the beams are connected by links or other com-

mon devices to the front portion of the under part of the machine, said beams extending rearwardly under the hopper and having handles V, whereby they are guided by the operator following the machine, to properly cover the potatoes as they fall from the throat. These shovel-plows are usually connected by a transverse bar, p, which is pivoted at its ends to the plows, so that the latter will have free lateral movement.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. In a potato-planter, the combination, with a hopper-box supported on wheels, of rising and falling agitator-bars in the inclined floor of the box, substantially as specified.

2. The combination, with a hopper-box having a throat in its end, of the agitator-bars and the feeding-reel having cam-projections adapted to operate the agitator-bars, substantially as specified.

3. The feeding-reel consisting of the body, its radial feeding-fingers adapted to pass between the respective agitator-bars, and the lateral cams, in combination with the planter-box, its front axle, the clutch-sleeves, springs, and wheels, substantially as specified.

4. The combination, with the hopper-box and its front throat-opening, of the floor slats or bars having convex front ends forming the floor of the throat and the spring-fingers in the top of the throat, substantially as specified.

5. The combination, with the hopper-box having its floor-bars inclined downward from the rear to the front where the throat is located, of the agitator-bars alternating with the floor-bars, the feed-reel and cam, the axle carrying said reel, the rear axle, the opener and its chute in front, and the covering-shovels under the hopper-box having handles projecting in rear, substantially as specified.

6. The combination, in a potato-planter, of alternate fixed inclined bars and rising and falling agitator-bars, forming the bottom of the hopper, substantially as specified.

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

LOUIS P. HILDEBRAND.

Witnesses:

JACOB RUEHSAMER,
L. A. MILLS.