J. H. FARMER.

CORN-DRILL.

No. 185,735. Patented Dec. 26, 1876.

Fig. 1.

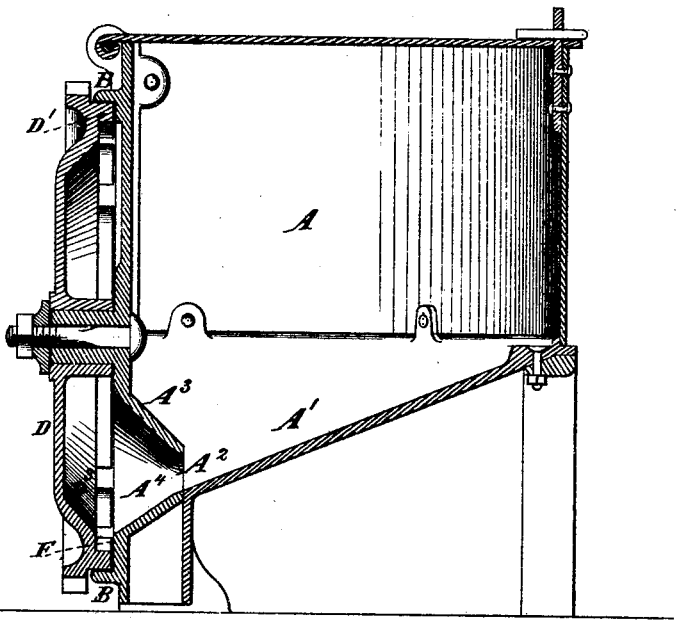


Fig. 2.

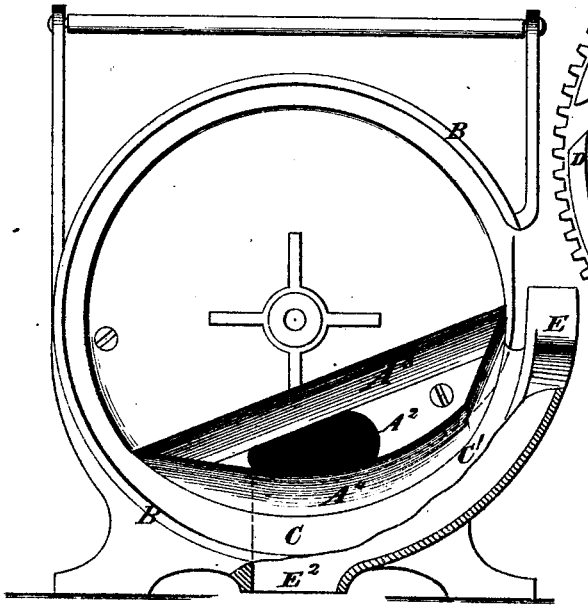


Fig. 3.

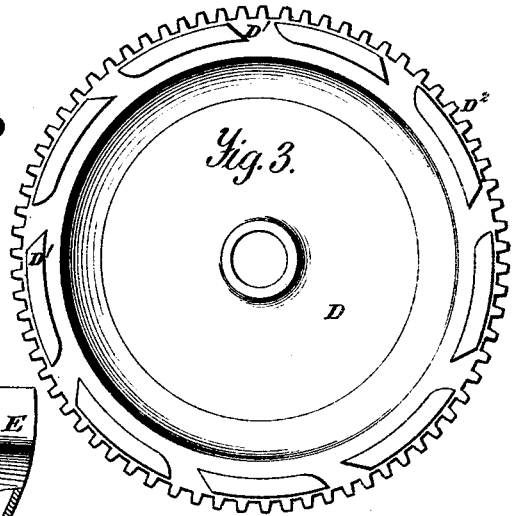
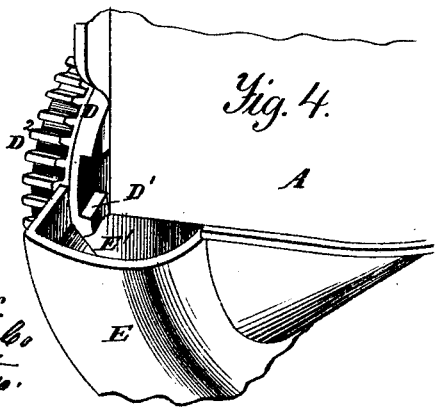


Fig. 4.



Witnesses.
A. Ruppert Jr.
D. C. Cowl

J. H. Farmer.
Inventor.
by E. G. Holloway & Co
Attys.

UNITED STATES PATENT OFFICE.

JOHN H. FARMER, OF RICHMOND, INDIANA, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO WAYNE AGRICULTURAL COMPANY, OF SAME PLACE.

IMPROVEMENT IN CORN-DRILLS.

Specification forming part of Letters Patent No. **185,735**, dated December 26, 1876; application filed November 27, 1876.

To all whom it may concern:

Be it known that I, JOHN H. FARMER, of Richmond, in the county of Wayne and State of Indiana, have invented a new and useful Improvement in Corn-Planters, of which the following is a specification:

My invention is intended to be applied to that class of corn-planters in which the grains are delivered singly in rows by a drill; and consists in the use of an elevating-wheel so constructed that the grains will be taken one by one from the hopper and delivered singly in the drill-row. The peculiarities of construction will be made the subject of the following specification and claims.

In the annexed drawing, Figure 1 is a vertical section through the axis of the wheel. Fig. 2 is an elevation of the hopper with the wheel removed. Fig. 3 is an inner elevation of the wheel; and Fig. 4 is a perspective view, showing the discharge-spout and feed-wheel, as seen from the rear diagonally.

The same letters are employed in all the figures in the indication of the same parts.

The shelled corn is placed in a hopper, A, having an inclined bottom plate, A^1, leading down to a discharge-aperture, A^2. A recess is formed in the face of the hopper, in front of the aperture A^2, by the converging plates or surfaces A^3 A^4. An annular flange, B, projecting from this face of the hopper, forms a recess to receive the feed-wheel D, inclosing its flange around the entire periphery, except where it is cut away at the top of the feed-spout E, to permit the escape of the grains.

Below the inclined face A^4 is a vertical face, C, gradually diminishing in width to C′. The wheel D fits into the recess of the hopper, turning on a stud, made hollow to receive a bolt for securing the wheel in its place. On the inner face of wheel D, near the rim, is a flange, D^1, cut away at intervals to form recesses to receive the seeds below, and raise them to the discharge-spout. The form of these sections is plainly shown in Fig. 3. At the end which carries up the grains the sectional flanges are beveled, as shown. The object of this is to form, between the inclined end of the flanges D^1 and the flange B, a recess sufficient to contain one grain of corn and no more. All other grains taken up in the narrow channel F, formed between the wheel and the wall C, will, as they are raised by the revolution of the wheel to the narrow wall at C′, fall out of the recesses in the wheel, and drop to the bottom of the hopper. The inclined face A^4 will deliver the seeds to the recess F, and its narrowness will only permit them to enter edgewise, so that, as the wheel revolves, the grains will be caught in the pockets between the sectional flanges D^1. One grain will be neatly packed in the chamber formed by the inclined face of D^1, and the others will fall back upon the surface A^4. Those retained will, with the ascent of the wheel, fall into the spout E as soon as they pass the feather-edge at E^1, and be discharged below at E^2 into the seed-tubes, or other delivering mechanism. The inclined face of D^1 insures the fall of the seeds as soon as they pass above the edge of the flange B, cut away at the spout E for the purpose.

I have illustrated what I regard as the best form of elevator; but it is evident that cups to receive a single seed may be attached to wheel D, and made to deliver the seed at spout E. I do not, however, claim, broadly, any form of elevating-wheel for the purpose of planting corn, as elevators for delivering several seeds have been employed.

The wheel D is inclined at D^3 to deliver the grain to the channel F, in conjunction with the inclined surface A^4. The teeth D^2 mesh into the driving-pinion.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of a seed-hopper and the vertical wheel D, running on a horizontal axis, having buckets formed by inclined faces, to first separate a single grain, and then lift and deliver it to the seed-spout, substantially as set forth.

2. The wheel D, constructed with sectional flanges D^1, with angular faces, in combination with the peripheral flange B, cut away at the seed-spout E, substantially as set forth.

3. In combination with the separating and elevating wheel D, the channel F, formed be-

tween the wheel and hopper, substantially as set forth, so as to arrange the grains of corn upon their edges.

4. In combination with the channel F, the inclined surfaces D^3 and A^4, for delivering the grain, substantially as set forth.

5. In combination with the hopper and aperture A^2, the chamber formed between the hopper and the wheel D, for supplying grain first taken from the hopper to the elevating-wheel, substantially as set forth.

6. The combination of the hopper, the wheel, constructed as described, for separating and delivering single grains, and the spout E, arranged to receive the grain at near the level of the axis of the wheel, and deliver it below at E^2, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN H. FARMER.

Witnesses:

D. P. HOLLOWAY,

A. RUPPERT.