2 Sheets—Sheet 1.

B. A. WELDS.
Corn-Planter.

No. 211,448. Patented Jan. 14, 1879.

Fig. 1

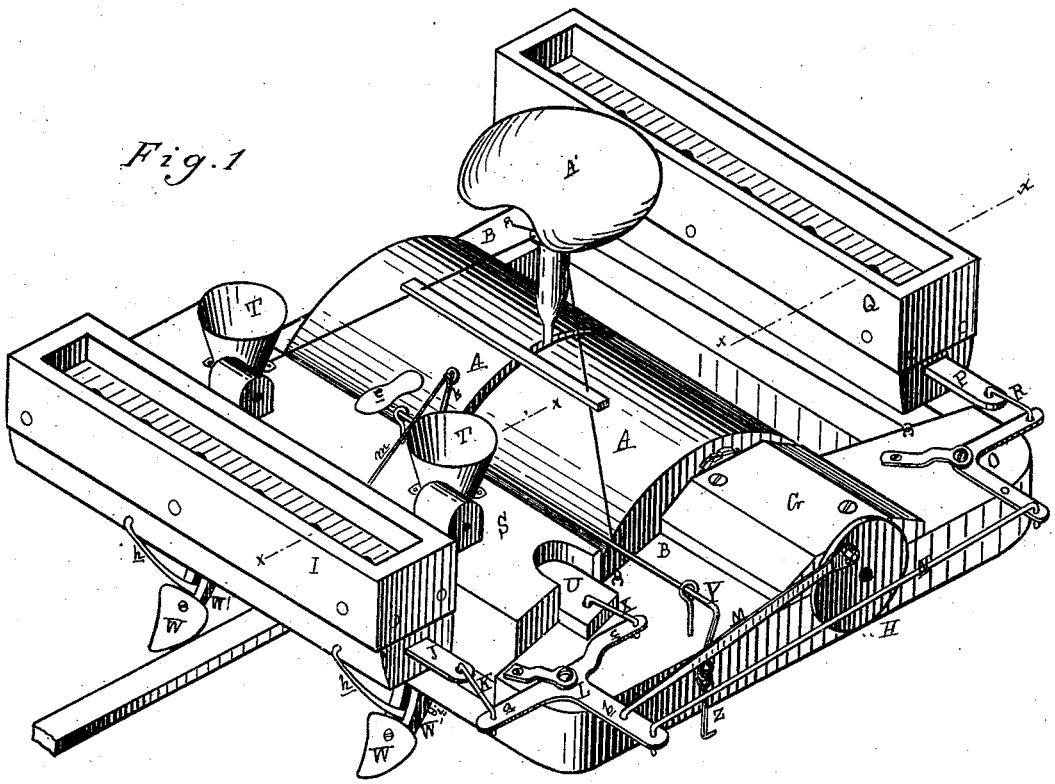
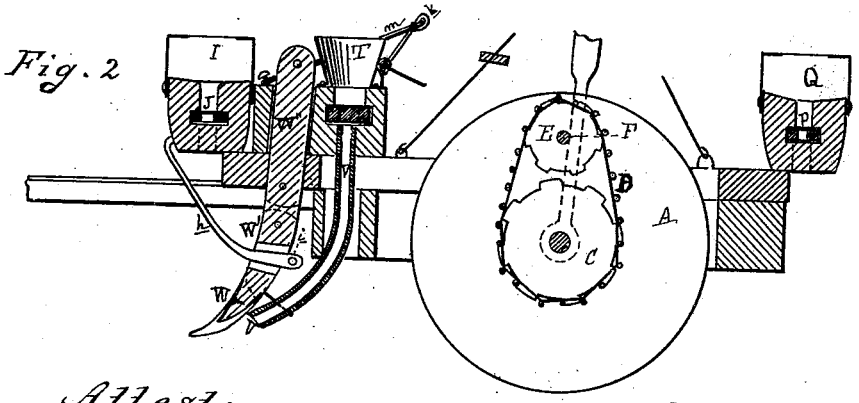


Fig. 2



Attest:
A. Barthel

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by Atty
Thos J Spragues

2 Sheets—Sheet 2.

B. A. WELDS.
Corn-Planter.

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Fig. 3

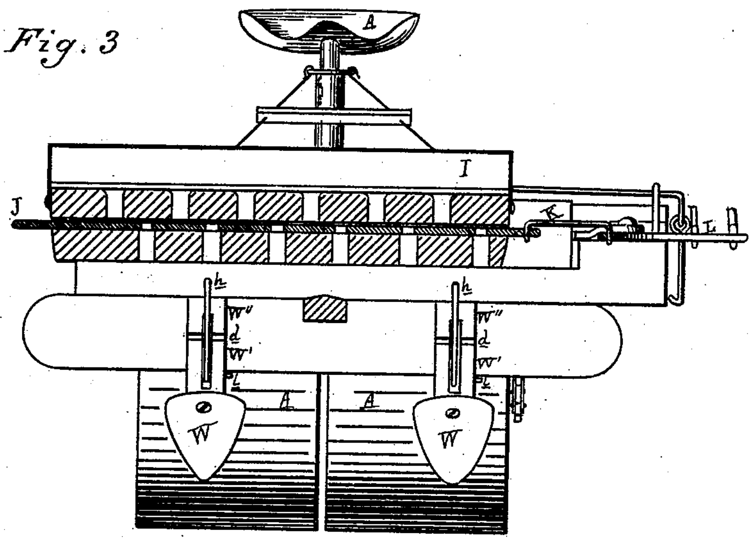
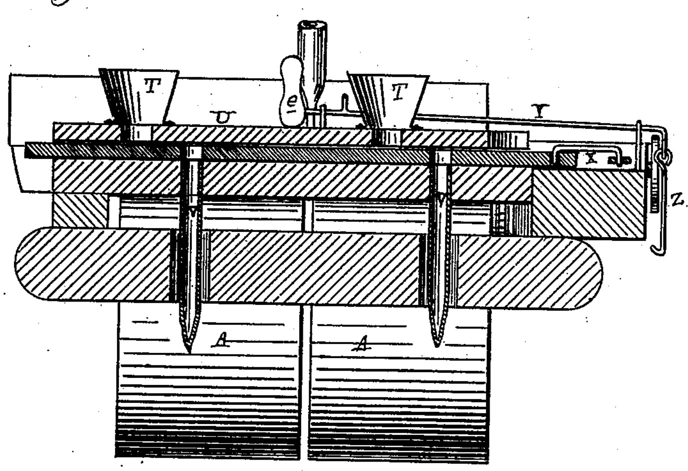


Fig. 4



Attest:

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Benj. A. Weld
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Thos. S. Sprague

UNITED STATES PATENT OFFICE.

BENJAMIN A. WELDS, OF READING, MICHIGAN, ASSIGNOR OF ONE-HALF HIS RIGHT TO GEORGE W. FITZSIMMONS, OF SAME PLACE.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. **211,448**, dated January 14, 1879; application filed July 17, 1878.

To all whom it may concern:

Be it known that I, BENJAMIN A. WELDS, of Reading, in the county of Hillsdale, State of Michigan, have invented an Improvement in a Combined Field-Roller, Seed and Plaster Sower, and Corn-Planter, of which the following is a specification:

The nature of this invention relates to new and useful improvements in a combined implement for planting and sowing seed and plaster, and a land-roller, so constructed that the devices for sowing are operated by the axis of the roller; and the invention consists in the means for operating the corn-planting slide by the foot of the driver, when such slide is disconnected from the crank worked by the moving parts of the machine.

In the drawings, Figure 1 is a perspective view of my improved device. Fig. 2 is a vertical section in the lines *x x*, Fig. 1, and an elevation of the end of the roller, with the frame removed. Fig. 3 is a vertical cross-section through the center of the seed-sower in front of the roller. Fig. 4 is a vertical cross-section through the center of the corn-planter, immediately in rear of the seed-sower.

In the accompanying drawings, which form a part of this specification, A represents a land-roller, journaled at each end within the frame B, and upon its shaft or axis, between the end of the roller and the frame, is rigidly secured the sprocket-wheel C, around which is the chain-gear D, to give motion to a similar sprocket-wheel, E, which is rigidly secured to the small shaft F, journaled through the box G, which shaft has secured upon its outer end the crank-wheel H.

Upon the front of the frame, and in front of the roller, is placed the seed-sower box I, of any of the usual constructions, where the seed passes through apertures in the bottom, which are opened for the passage of the seed, and in which said passage is alternately cut off by the reciprocating motion of a perforated slide, J. This slide is connected, by means of a removable rod, K, to the arm *a* of the double bell-crank L, and the arm *b* of said bell-crank is connected with a suitable wrist-pin upon the crank-wheel H by the removable pitman M, so arranged that in the forward motion of the roller and by means of the connections named a reciprocating motion is given to the slide J. A removable connecting-rod, N, communicates motion from the bell-crank L to the bell-crank O, pivoted at the rear part of the frame. The other arm of this latter bell-crank gives motion to a reciprocating slide, P, of the plaster-sower Q by means of the removable connecting rod R. This plaster-sower is of the usual construction of such devices, wherein the flow of the plaster is regulated by a reciprocating slide.

Immediately in rear of the seed-sower I is placed a corn-planter, S, which is of any of the known constructions, where the corn in the hoppers T is discharged into perforations or holes in the reciprocating-slide U, which, in its travel, receives from said hoppers the required amount of seed, and alternately delivers it to the conducting-tubes V, by means of which it is deposited at required intervals into furrows opened in the ground by the cultivator-teeth W. This slide U is connected with the arm *c* of the bell-crank L by the removable connecting-rod X. A crank-rod, Y, is journaled in suitable supports upon the frame, and its inner end provided with a foot or treadle-rest, *e*, and to its outer end is hung, by suitable loops, a hook connecting-rod, Z. The teeth W are secured to a bifurcated standard, W′, which is pivoted at *d* to a rigid standard, W″, suitably secured to the frame. Iron rods *h*, secured to the front of the frame, pass downward and rearward through the bifurcated standards, and wooden pins *i* pass through suitable holes in the rear ends of said rods *h*.

In practice, when it is desired to sow grass or other seed from the box I, the pitman M is connected, as described. If at the same time it is desired to sow plaster, the connecting-rod N connects the two bell-cranks L and O. When it is desired to plant corn, the pitman M is disconnected and the connecting-rod Z connected with the bell-crank at the point where the pitman M was disconnected. Then the motion given to the slide U will be controlled from the driver's seat A′ by the driver's foot upon the foot-rest *e*, so that he can discharge the corn at regular intervals, as desired, there being secured to the crank-rod Y an arm, *k*,

and an elastic spring, *m*, by means of which the opposite reciprocating motion of the slide is secured, the whole of the parts being so arranged that the operator at will can sow seed from the box in front of the roller; that he can sow such seed and plaster at the rear of the roller at will; that he can plant corn in front of the roller which covers it in the furrows made by the teeth; that he can plant corn, as described, and plaster his land at the same time, and so that he can perform each or all of the operations singly or all simultaneously. Should the teeth W strike a stone or other obstruction that would endanger the standards, the wooden pins *i* will break and allow the teeth to pass over the obstruction.

What I claim as my invention is—

In a combined machine, substantially as described, the corn-planting slide U, in combination with the bell-crank L, connected with said slide, the crank-rod Y, having foot-rest for the driver, the spring *m*, and the rod Z, for removably attaching such crank-rod with one arm of the bell-crank L, the several parts being constructed and arranged as set forth.

BENJAMIN A. WELDS.

Witnesses:
H. S. SPRAGUE,
C. H. S. HART.