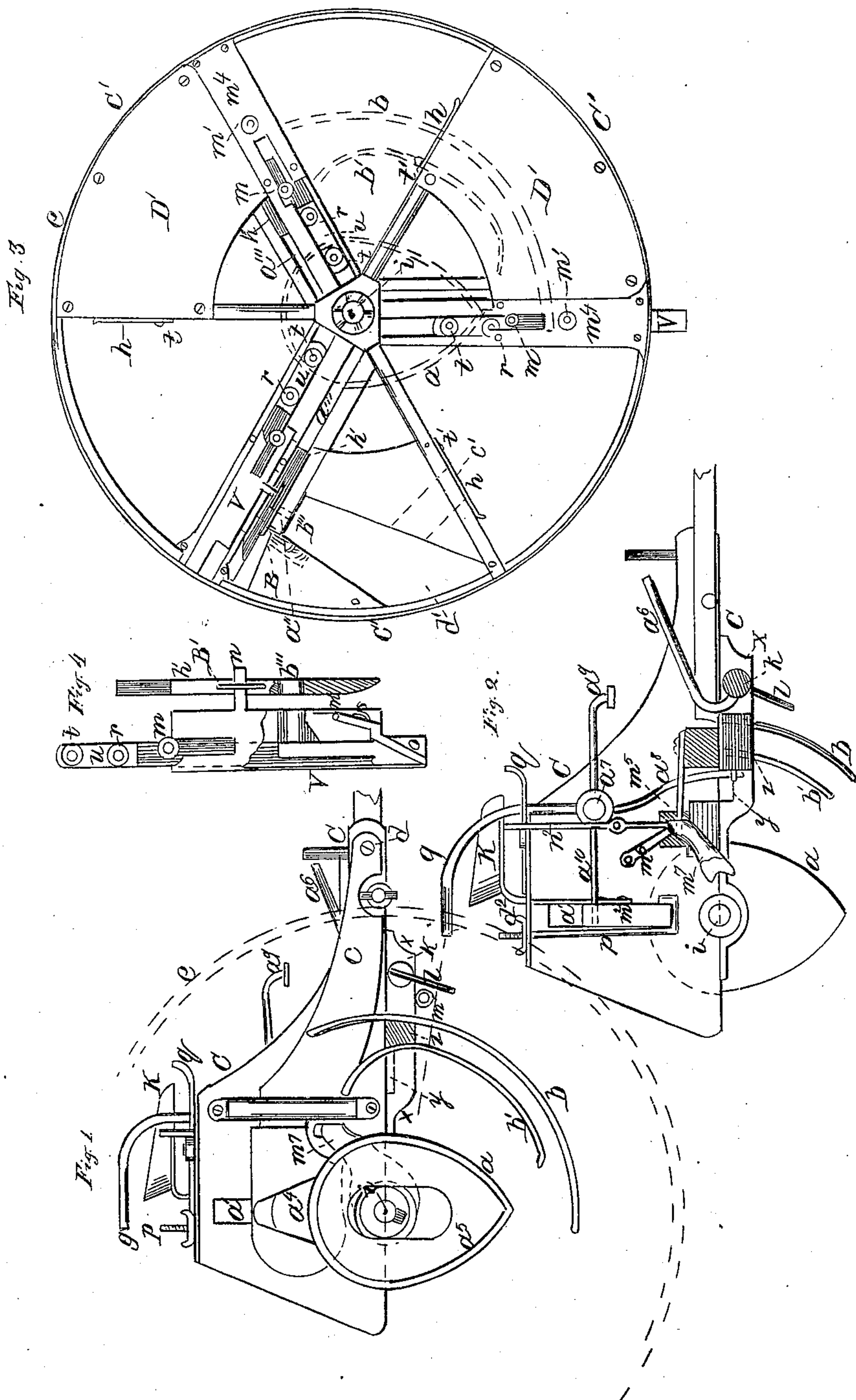


W. H. McCormick,

## Corn Planter.

No. 92200.

*Patented July 6. 1869*



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WILLIAM H. McCORMICK, OF MUNCIE, INDIANA.

Letters Patent No. 92,200, dated July 6, 1869.

## IMPROVEMENT IN CORN-PLANTERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM H. McCORMICK, of Muncie, in the county of Delaware, and State of Indiana, have invented a new and useful Improvement in Corn-Planters; and I do hereby declare the following to be a full, clear, and exact description of the same, sufficient to enable others skilled in the art to which my invention appertains, to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a side view of the right-hand side of the machine.

Figure 2 is longitudinal section.

Figure 3 is an inside view of the wheels, showing the seed-cells and planting-plungers.

Figure 4 is an elevation, in section, of the plungers.

Similar letters indicate like parts in all the figures.

My invention relates to improvements in corn-planters, hereinafter more fully set forth.

In the accompanying drawings—

C C is the main frame of the machine, which is pivoted to the axle *i*.

*e e* are the wheels, between the spokes of which are placed the corn-cells C' C' C', leaving alternate spaces between the spokes where no seed-cells are located.

D' D', fig. 3, are plates fitting over said cells, and securely fastened to the wheel, to prevent the escape of seed.

*h h* are slides, pivoted at *t*, and covering the passages *c'*, for the introduction of seed to the seed-cells.

*d*, fig. 3, is a passage for the seed, which falls by gravity, as the wheel rotates, through the opening *a'*.

*h'* is a perforated stop, which has a reciprocating movement in a slot, *a'''*, and which has an opening, *b'''*, through which the seed passes through suitable openings into the hollow plunger V.

B is a brush, which presses the seed through the opening *b'''* in the stop *h'*.

*u*, figs. 3 and 4, is a plunger, operating within the hollow plunger V, and designed, at the proper time, to force the seed from the hollow plunger V.

*o* is a gate, pivoted at *m'*, fig. 4, and pressed against the inner side of the hollow plunger V by the spring *s*, thereby retaining the seed in the hollow plunger until the descent of the plunger *u*.

The perforated stop *h'* is connected with the hollow plunger V by means of the staple B', on the stop *h*, and the projecting arm *n*, on the plunger V, so that the stop has a reciprocating movement with the plunger V.

*t* and *r* are friction-rolls on the plunger *u*, and *m* is a friction-roll on the plunger V, against which the brake *t* acts.

*c c* are arms, pivoted to the front part of the main frame at *d d*, fig. 1, and provided at their rear ends with projections *a'*, to which are attached the cams *a*, which are slotted at their centre, the axle *i* passing through said slots.

The slotted cam *a* has a projecting rim, *a'*, which lies between the friction-rollers *t r* of the plunger *u*.

As the cam *a* rotates in the forward movement of the machine, the plunger *u* is thus drawn out and, from the centre towards the circumference of the wheel, thereby at the proper time forcing the seed from the hollow plunger V.

*b b'* are curved arms, attached to the cross-bar *z*, the latter working in the slot *y* in the bracket *x*, which is attached to the main frame.

In the forward movement of the machine, the hollow plunger is advanced and retracted by the action of the curved arms *b b'* upon the friction-roller *m*, which moves between them, said roller *m* being on the hollow plunger V.

*m'* is a friction-roll, attached to the plate *m'*.

*l*, fig. 1, is a brake-arm on the shaft *k*, operated by the foot-lever *a'*, and acts as an ordinary brake.

*g*, fig. 2, is a lever, attached to the rock-shaft *a'*, the latter having its bearings in the sides of the frame.

An arm, *a''*, is also attached to the rock-shaft *a'*, at its upper end, and at its lower end the arm *a''* is connected with the cross-bar *z*, working in the slot *y* of the bracket *x*.

*a'' a''*, fig. 2, are rods, attached to the rock-shaft *a'*, and to the cross-piece *m''*, which works in the slot *a'* in the frame C.

*a'* is a foot-lever attached to the rock-shaft *a'*.

K is the driver's seat, attached to the plate *a''*, at its upper end, the lower end of said plate being attached to the cross-piece *m''*.

By this arrangement of parts, the driver in his seat can, by operating either the foot-lever *a'*, or the hand-lever *g*, or both, prevent the operation of the plungers V and *u*, the slot in the cam *a* permitting said cam to be elevated or lowered.

*p p* are rods passing under the sliding bar *m''*, to which the driver's seat is attached.

On the upper ends of these rods are nuts, by means of which the rods can be adjusted so as to support the bar *m''* at different elevations, thus regulating the depth of planting.

The bar *m* is kept down, after it has been regulated, by the weight of the driver in his seat.

*n'* is a lever, the upper end of which is situated near the driver's seat, the lower end of which is attached to the sliding bar *m'*, fig. 2, the latter being pressed outwardly by the spring *m''*.

To the sliding bar *m'* is attached the clutch-lever *m'*, which grasps a grooved pulley on the axle of the driving-shaft.

The ordinary feather on the axle and slot in the circumference is employed.

*q* is a pivoted arm, for holding the lever *g* in either position.

Having thus fully described my invention,

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



1. The covered seed-cells  $C' C'$ , consisting of the slides  $h h$ , passages  $c'$ ,  $d'$ , and  $b''$ , and brush  $B$ , substantially as described.

2. The perforated stop  $h'$ , in combination with the brush  $B$  and openings in the hollow plunger  $V$ , constructed and operated substantially as described.

3. The hollow plunger  $V$ , in combination with the gate  $o$  and spring  $s$ , substantially as described.

4. The hollow plunger  $V$ , in combination with the plunger  $u$ , working therein, constructed and operated substantially as described.

5. The slotted cam  $a$ , in combination with the curved arms  $b b'$ , and friction-rollers  $t r m$ , on the plungers  $u$  and  $V$ , substantially as described.

6. The cross-piece  $z$ , working in the slot  $y$ , arm  $a^8$ , and foot-lever  $a^9$ , in combination with the rock-shaft

$a'$ , arm  $a^{10}$ , and cross-piece  $m^2$ , working in the slot  $a'$ , as and for the purpose set forth.

7. The cross-bar  $m^3$ , lever  $n^2$ , and spring  $m^4$ , in combination with the clutch-lever  $m^1$  and grooved pulley on the main axle, substantially as described.

8. The combination of the foot-lever  $a^3$ , rock-shaft  $K$ , arm  $l$ , and friction-roller  $m'$ , substantially as described.

9. In combination with the cross-bar  $m^2$ , the driver's seat  $K$ , and rods  $p p$ , substantially as described.

To the above specification of my invention, I have signed my name, this 30th day of April, 1869, in the presence of two subscribing witnesses.

Witnesses:

W. H. McCORMICK.

JOHN C. MATTHEWS,

JOHN L. MCCLINTOCK.