(No Model.)

B. PHELPS.

CORN PLANTER.

No. 284,664. Patented Sept. 11, 1883.

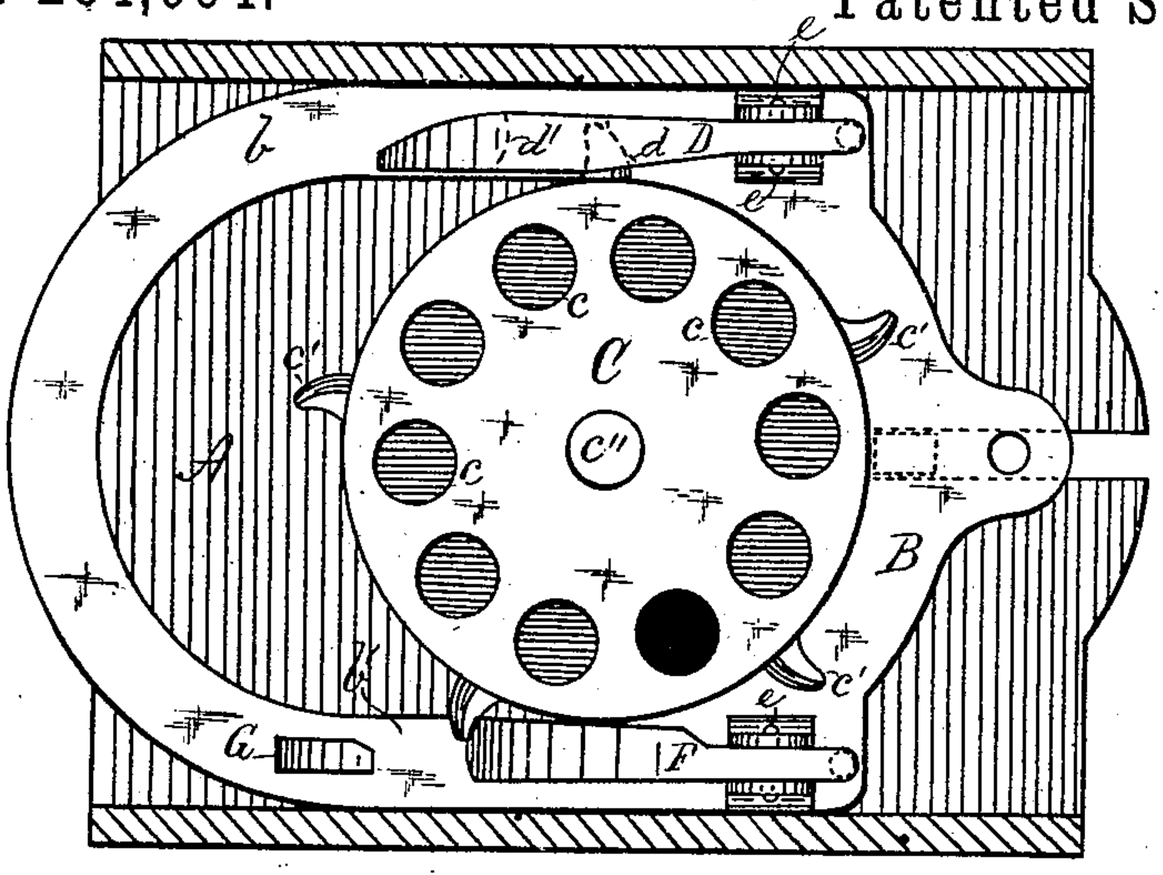

Fig. 1.

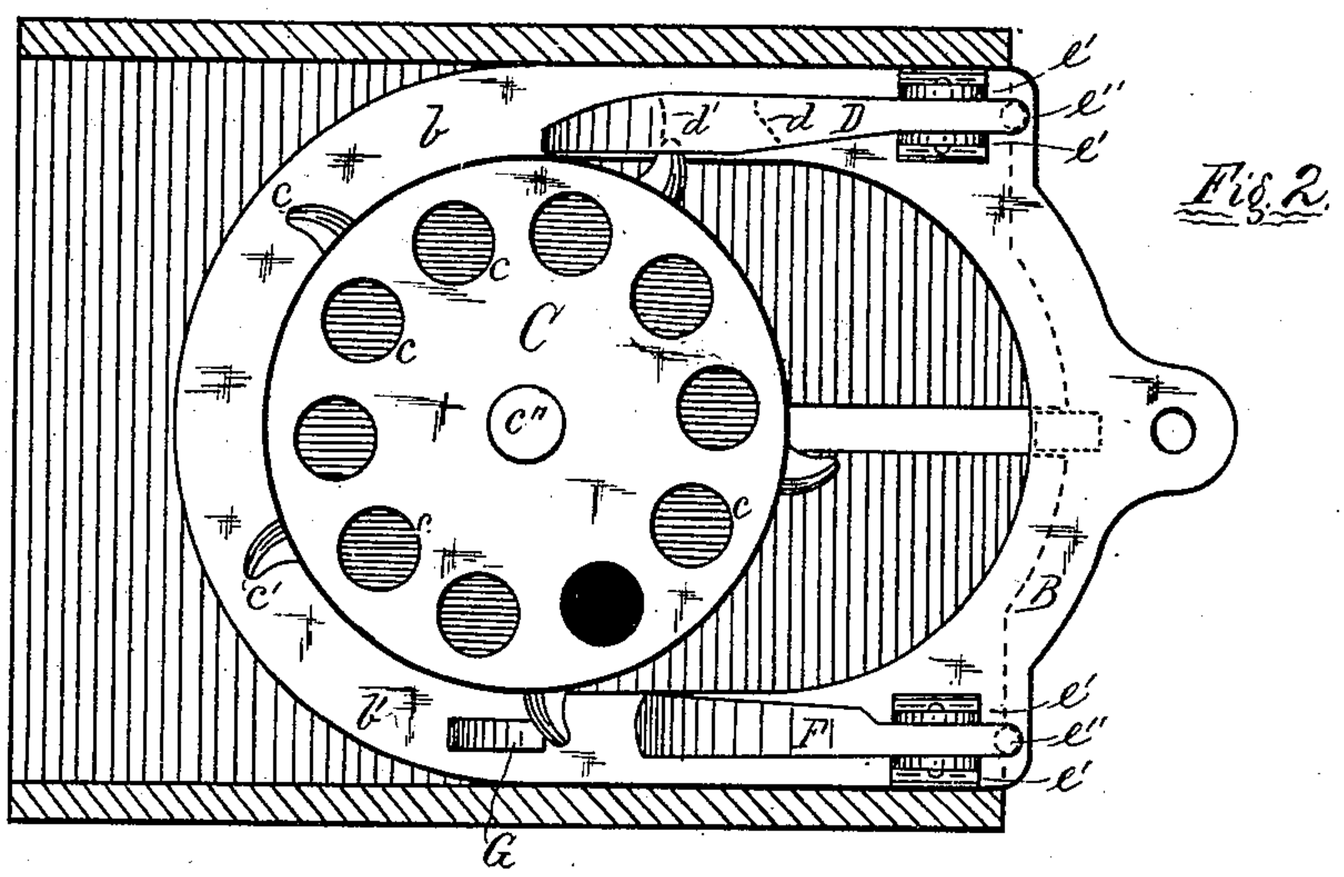

Fig. 2.

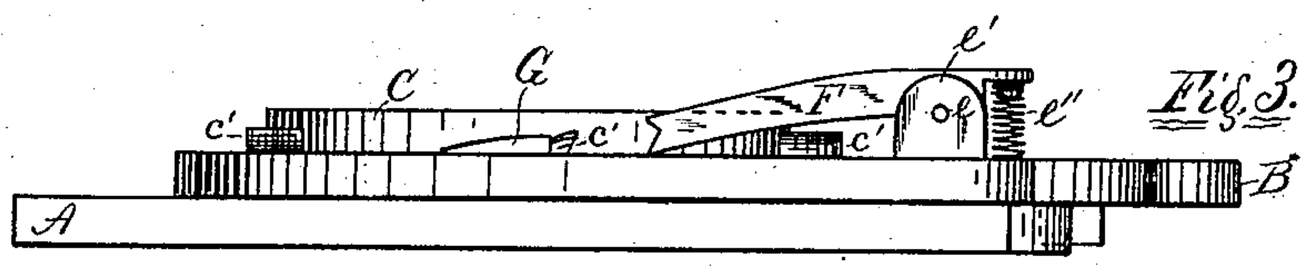

Fig. 3.

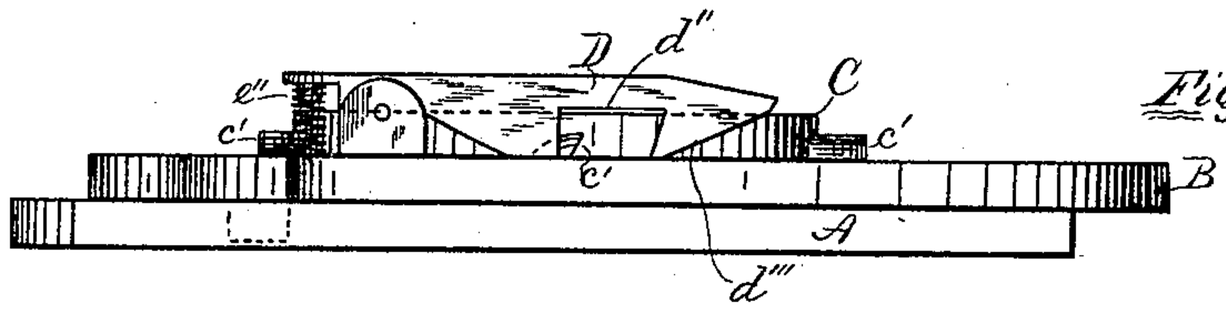

Fig. 4.

Witnesses:
B. R. Richards.
Henry Bashens

Inventor:
Byron Phelps,
By W. B. Richards, Atty.

UNITED STATES PATENT OFFICE.

BYRON PHELPS, OF MOLINE, ILLINOIS, ASSIGNOR TO THE DEERE & MANSUR COMPANY, OF SAME PLACE.

CORN-PLANTER.

SPECIFICATION forming part of **Letters Patent No. 284,664**, dated September 11, 1883.

Application filed January 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, BYRON PHELPS, a citizen of the United States, residing at Moline, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Corn-Planters; and I do hereby 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.

This invention relates to corn-planters of that class in which an intermittent rotary motion is imparted to the seed-wheel by a reciprocating slide bar or plate; and the invention consists in constructions and combinations hereinafter described and claimed.

The accompanying drawings illustrate the bottom of an ordinary planter seed-box and slide-bar, and one method of applying my invention thereto, but do not show the ordinary cap and other parts above the seed-wheel and slide.

Figure 1 of the drawings is a top plan showing the slide at the left-hand end of its throw. Fig. 2 is a top plan showing the slide at the right-hand end of its throw. Fig. 3 is an elevation of the front side of Fig. 2. Fig. 4 is an elevation of the rear side of Fig. 1.

Referring to the drawings by letters, the same letter indicating the same part in the different figures, A represents the bottom of the seed-box, and B a slide adapted to reciprocate thereon in the ordinary manner. The slide B has two limbs or arms, *b b'*; C, the seed-wheel, with circular series of seed-holes *c* and radial lugs *c'*. The seed-wheel is journaled at *c''* above and to a disk, (not shown,) which is located between the arms *b b'* of the slide.

D is a pawl, hinged by a bolt, *e*, between standards *e'*, which project upward from the arm *b*, and is held down to the limb *b* by a spring, *e''*, beneath its extended heel end. The pawl D has lugs *d d'*, formed by making a recess, *d''*, in its under side, and has a sloping side, *d'''*, from the lug *d'* to the end of the pawl.

F is a pawl hinged to the arm *b'* in same manner as pawl D to arm *b*, and with its pawl end in same direction as the pawl D.

G is a lug projecting upward from the arm *b'* a short distance from the end of the pawl F. The pawls D and F are arranged with their ends pointing in same direction.

At Fig. 1 the slide B is shown as having made a complete throw or movement toward the left hand, and in doing so the end of the pawl F came in contact with a lug, *c'*, and gave a movement to the seed-wheel, by means of which movement a lug, *c'*, on the other side of the seed-wheel passed beneath the sloping side *d'''* of the pawl D, and, coming in contact with the lug *d* on the pawl, thereby arrested the movement of the seed-wheel, with a seed-hole coincident with the discharge-opening, (shown in black in the drawings, (and in proper position for dropping the charge of seed in the ordinary manner. In moving the slide from the position last described to make a throw to the right hand, which throw is shown completed at Fig. 2, the lug *d'* came in contact with the lug *c'*, which was in the recess *d''*, and thereby gave another movement to the seed-wheel, which movement was arrested by a lug, *c'*, coming in contact with the lug G at the proper time to again discharge seed, and a repetition of these throws of the slide in both directions thus gives an intermittent rotary motion to the seed-wheel and effects the seed-dropping as the seed-wheel is brought to rest at termination of each of its movements. When the slide B is in position shown at Fig. 1 and is then moved toward the right hand a partial throw, and thereby gives only a partial movement to the seed-wheel, and the slide is then returned again to the position shown, the lug *d* will come in contact with the lug *c'*, which is in the recess *d''*, and will thereby turn the seed-wheel backward into the position shown at same figure, and ready for the action of the lug *d'* at next movement of the slide toward the right hand. When the slide is in position shown at Fig. 2, and a partial throw thereof is made toward the left hand, and a partial movement given thereby to the seed-wheel, and the slide then returned

toward the right hand, the lug G will come in contact with the lug c', acted on last by the pawl F, and, moving the seed-wheel backward, will restore it to the position shown at said figure. The foregoing backward movements of the seed-wheel, after partial movements of the slide, will prevent the slide and seed-wheel "locking" together, and insure regularity in dropping seed.

I do not herein claim, broadly, the lug G and pawl F, located with reference to each other as shown; nor do I claim, broadly, the pawl D, having lugs d d', adapted to coact with the lugs on the seed-wheel, as both of those features are shown, described, and broadly claimed in applications for patents which I have made of even date herewith; but

What I claim herein as new is—

1. In combination with the seed-wheel having lugs c', and the slide-bar having limbs b b', the pawl D, having lugs d d' located on one limb of the slide-bar, and the pawl F and lug G, located on the other limb, substantially as and for the purpose specified.

2. In combination with the seed-wheel having radial lugs, and slide-bar having a limb on each side of the seed-wheel, a pawl, D, constructed substantially as described, and hinged to one limb of the slide, a pawl, F, hinged to the other limb, and a lug, G, substantially as and for the purpose specified.

3. In combination, a seed-wheel with radial lugs, a slide-bar with two limbs or sides, a pawl adapted to push and to pull on the seed-wheel, hinged to one limb of the slide-bar, and a pawl adapted to push alone, hinged to its other limb, substantially as and for the purpose specified.

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

BYRON PHELPS.

Witnesses:

J. T. BROWNING,

E. S. GUNNELL.