

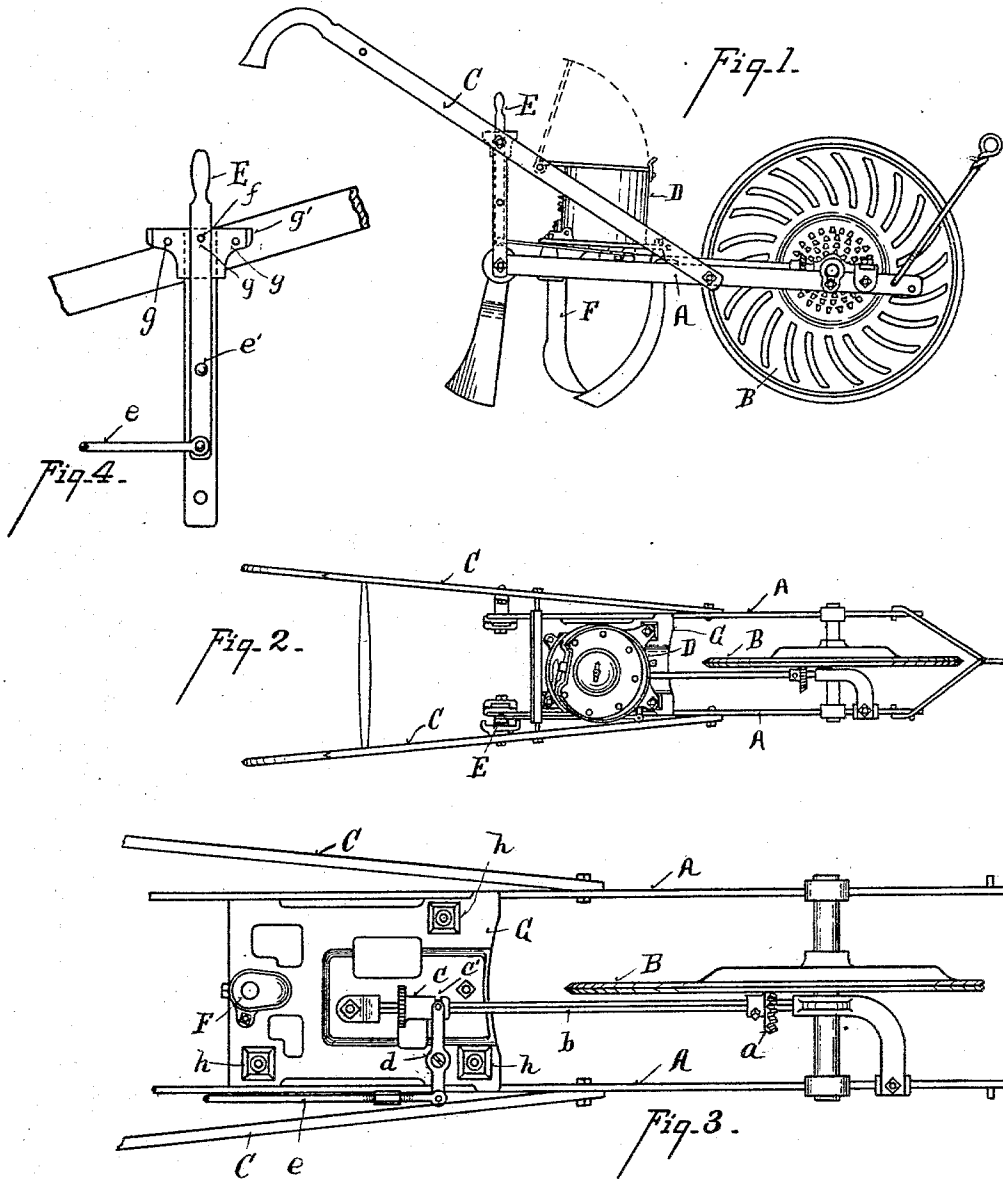
(No Model.)

2 Sheets—Sheet 1.

S. H. JONES.
CORN PLANTER.

No. 561,791.

Patented June 9, 1896.



Witnesses
C. M. Miles.
Oliver D. T. Kaiser.

Inventor
Sylvester H. Jones
By M. M. Bond
Attorneys

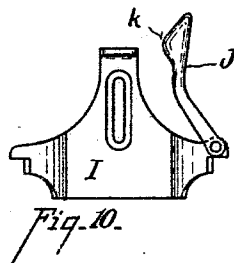
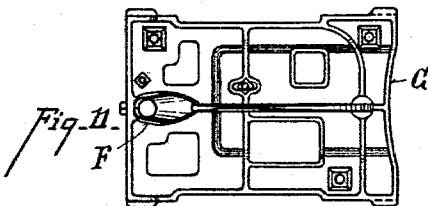
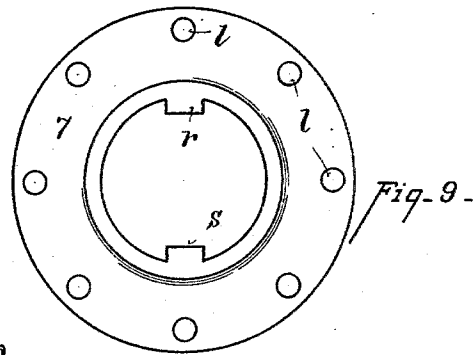
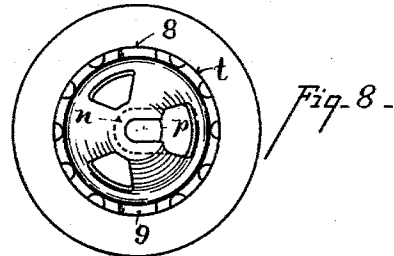
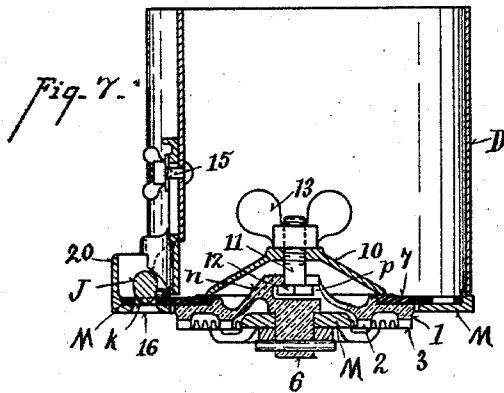
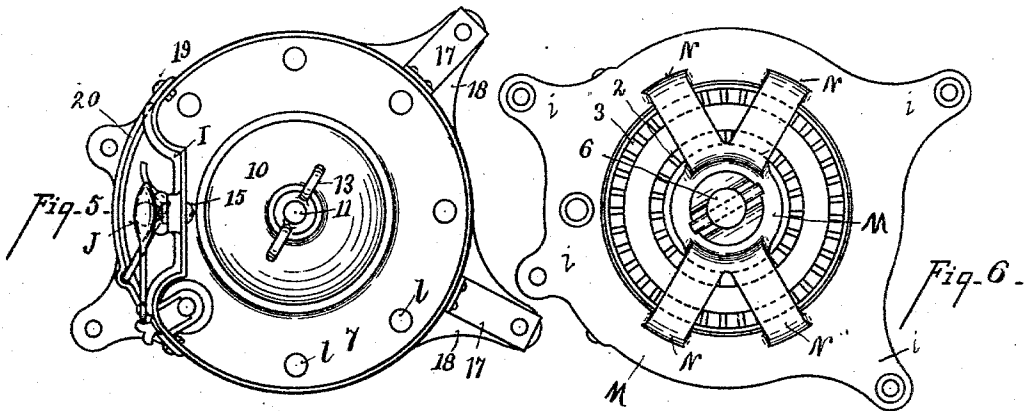
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2 Sheets—Sheet 2.

S. H. JONES.
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No. 561,791.

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Witnesses
C. M. Miles
Oliver B. H. H. H.

Inventor
Sylvester H. Jones
By Wood & Loft
Attorneys

UNITED STATES PATENT OFFICE.

SYLVESTER H. JONES, OF RICHMOND, INDIANA, ASSIGNOR TO THE HOOSIER DRILL COMPANY, OF INDIANA.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 561,791, dated June 9, 1896.

Application filed February 8, 1896. Serial No. 578,520. (No model.)

To all whom it may concern:

Be it known that I, SYLVESTER H. JONES, residing at Richmond, in the county of Wayne and State of Indiana, have invented certain new and useful Improvements in Corn-Planters, of which the following is a specification.

My invention relates to a corn-planter. One of its objects is to provide improved means for removing the seed-feeding disk from the seedbox without taking the same to pieces.

Another object of my invention is to provide improved means for changing the speed of said feeding-disk, and also for throwing the same out of gear to stop the feed; also, certain details of construction, all of which will be more fully set forth in the description of the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a side elevation of my device. Fig. 2 is a top plan view. Fig. 3 is an enlarged view of Fig. 2 with seedbox removed. Fig. 4 is a detail view of the shifting-lever. Fig. 5 is a top plan view of the seedbox detached. Fig. 6 is a bottom plan view of the same. Fig. 7 is a central section of Fig. 5. Fig. 8 is a top plan view of the gear-plate for driving the seed-disk. Fig. 9 is a plan view of the feeding-disk. Fig. 10 is a plan view of a detachable slide, which enables the feeding-disk to be removed from the seedbox. Fig. 11 is a bottom plan view of the frame-piece on which the seedbox is mounted.

A represents the side frames of the machine. B represents the pilot-wheel; C, the handle-bars; D, the seedbox; E, the shifting-lever for stopping, starting, and changing the speed of the feeding-disk.

It is often desirable to change the feeding-disk located at the bottom of the seedbox and to replace the same with another disk having a greater or less number of openings. For this purpose I employ a plate 1, having upon its lower face two concentric supporting-gears 2 and 3, with an intervening space between them sufficient to receive the driving-gear *c*, which meshes alternately with the gears 2 or 3. This plate carries the feeding-disk or dial-plate 7, which is detachably connected thereto as follows: *t* represents an an-

nular flange formed integral with said plate 1. It is provided with recesses 8 9, which receive the lugs *r s* of the feed-disk, which makes the engagement between the driving-plate and the seed-plate and causes them to revolve together. The seed-plate 7 is held in position by means of the conical plate 10, bolt 11, and nut 13. The head 12 of the bolt is detachably connected to the boss *n* of the driving-plate 1 by means of the slotted recesses *p*, as shown in Fig. 8.

In Fig. 7 the parts are shown secured together in position for use. The seedbox is secured in position by means of anchor-bolts passing through lugs 17 on the seedbox, which rest upon the arms 18, which are formed integral with the stationary plate M and forming a journal-bearing for the stud 6, upon which the gear-plate journals.

19 represents a bolt passing through the seedbox, at one end of the segmental annulus 20, that is formed integral with the stationary plate M, a nut being employed on the end of the said bolt to secure the seedbox at the rear side to the stationary plate M. Now in order to remove the seed-plate it is only necessary to remove the concentric disk 10 and raise the gate I, which normally rests on the seed-plate, and the feed-disk is removed up through the seedbox and another may be inserted in its place.

I represents a vertically-moving gate secured to the shell of the seedbox by means of bolt 15, passing through the slot in the stem of said gate. It is provided with a knocker-arm J, which is journaled to one ear of said gate and provided with a round point *k*, which is adapted to enter holes *l* in the plate a sufficient distance to force the seed through.

The feed-disk is rotated by means of a bevel-gear *a*, engaging with gear-teeth on the pilot-wheel B and transmitting motion through shaft *b* to gear *c*, beneath the seedbox. This gear is shifted forward and backward upon the shaft *b* by means of a yoke-lever *d*, the forward end of which is provided with pins to engage with the slots *c'* in the hub of gear-wheel *c*, which slides freely on shaft *b*.

e represents an adjustable link connecting the lever *d* with the hand-lever E. This lever is pivoted at *e'* to one of the frame-pieces, and

its upper end is provided with a pin *f* to engage with one of either of three holes *g* in the bracket *g'*, thereby holding the lever in the adjusted position. When the pin *f* is in the central opening, the gear *c* occupies the space between the gears 2 and 3, and the feed-disk remains stationary. If it is desired to revolve the disk rapidly, the operator throws the hand-lever *E* to the left in Fig. 1, thereby bringing the gear *c* into engagement with gear 2. If it is desired to revolve the disk slow, the hand-lever *E* is thrown in the opposite direction, and the gear *c* is brought into engagement with the gear 3.

16 represents an orifice in the bottom of the seedbox, through which the grain is dropped so as to fall into the seed-tube *F*, down which it passes into the ground.

G represents a cast frame-piece which is clamped between the side frames *A* and provided with suitable raised bosses *h*, to which the seedbox is secured by means of ears *i*. Plate *G* is also provided with a depressed central portion, forming, in connection with the seedbox, a housing for the gear *c*, and upon the under face it is provided with suitable bosses to receive and support the seed-tube and colter-guard. This supporting-plate *G* thus supports the seedbox and its self-contained dropping devices and also the seed-spout and colter-guard, making a very rigid construction and holding the parts in proper relation, at the same time being a cheap and convenient mode of assembling the parts together.

I claim—

1. The combination with the seedbox *D*, of the stationary supporting-plate *M*, the gear-supporting plate 1 provided on its under side with concentric gears 2, 3 and having on its top the annular flange *t* and recessed boss *n* provided with slot *p*, the feed-disk 7 connected with said gear-plate, conical plate 10, bolt 11 having its head 12 detachably engaged in the slotted and recessed boss of the gear-plate, the nut 13, and a driving-gear *c* movable into engagement with either of the gears 2 and 3 or to an inoperative position between said gears, substantially as described.

2. The combination with the seedbox *D*

and stationary plate *M*, of the gear-supporting plate 1 provided on its under side with concentric gears 2, 3 and having on its top the annular flange *t* provided with recesses 8, 9, the feed-disk 7 having lugs *r*, *s* engaged in said recesses, the conical plate 10 detachably bolted to the gear-supporting plate 1, and the driving-gear *c* movable into engagement with either of the concentric gears 2 and 3 or to an inoperative position between said gears, substantially as described.

3. The combination of the seedbox *D* having lugs 17, the stationary plate *M* provided with arms 18 to which said lugs of the seedbox are bolted, the gear-supporting plate 1 provided on its under side with journal 6 and concentric gears 2, 3, the feed-disk 7 connected with and carried by said gear-plate, and the driving-gear *c* movable into engagement with either of the concentric gears 2 and 3 or to an inoperative position between said gears, substantially as described.

4. The combination of the stationary supporting-plate *M* provided with segment 20, the seedbox *D* bolted to said plate and segment, the seed-tube *F*, the rotary feed-disk 7 provided with openings *l*, the vertically-adjustable gate *I*, and the weighted knock-arm *J* pivoted to said gate and provided with point *k* to engage the openings of the feed-disk, substantially as described.

5. The combination of the seedbox *D* having the supporting-plate *M*, the gear-plate 1 journaled in the plate *M* and provided with concentric gears 2 and 3, the feed-disk 7 detachably connected to said gear-plate, the pilot-wheel *B*, the shaft *b* geared with said wheel, the gear *c* carried by said shaft and movable thereon to engage either of the gears 2 and 3 or to occupy an inoperative position between said gears, the yoke-lever *d*, link *e*, lever *E* provided with pin *f*, and the bracket *g'* provided with series of holes *g* to receive said pin and lock the gear *c* in either of its adjusted positions, substantially as described.

In testimony whereof I have hereunto set my hand.

SYLVESTER H. JONES.

Witnesses:

F. J. CARR,
ED. J. MORGAN.