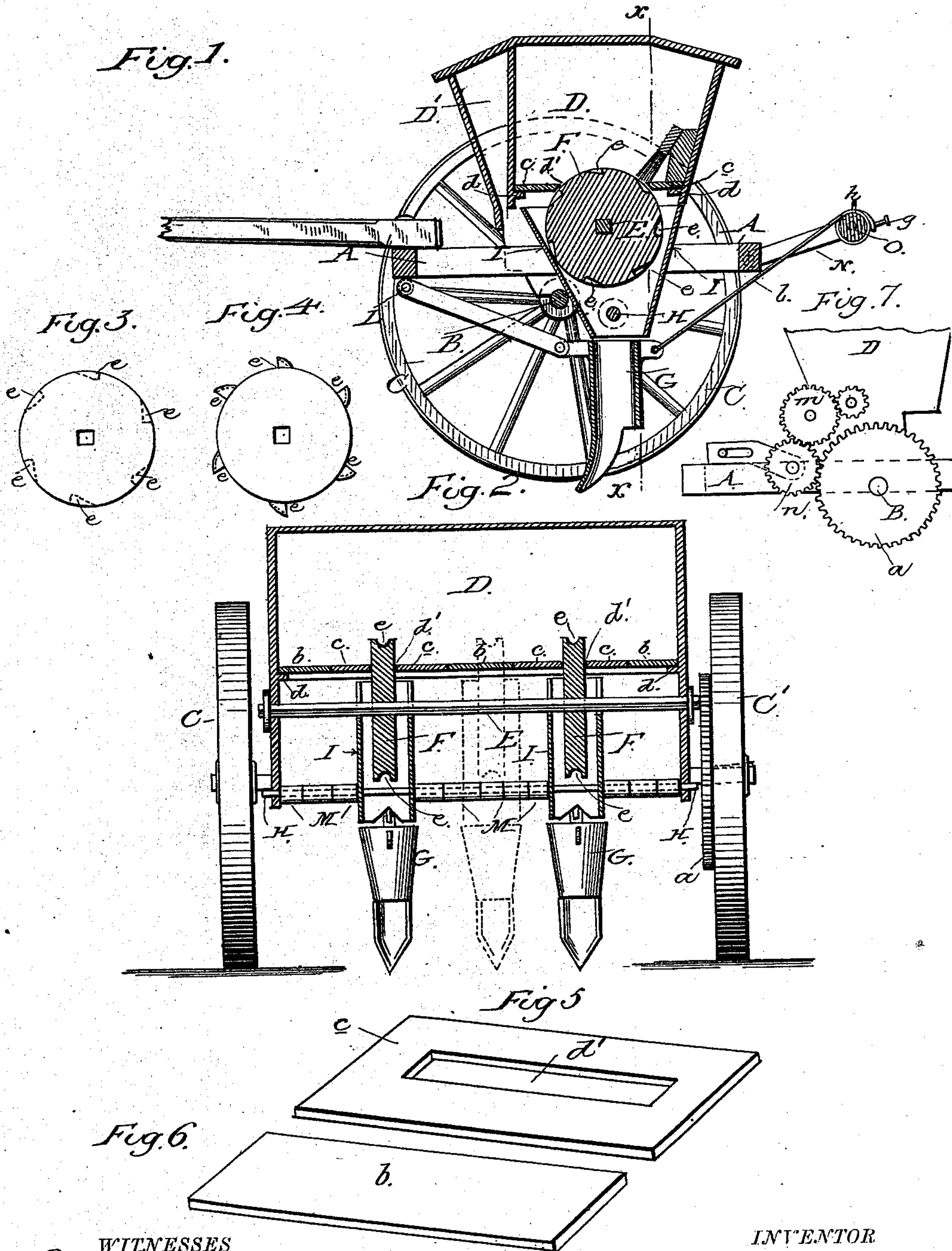


(No Model.)

J. S. DAVIS.
SEEDER AND PLANTER.

No. 413,613.

Patented Oct. 22, 1889.



WITNESSES
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UNITED STATES PATENT OFFICE.

JOHN S. DAVIS, OF MONTGOMERY, ALABAMA, ASSIGNOR OF ONE-HALF TO DANIEL S. TROY, OF SAME PLACE.

SEEDER AND PLANTER.

SPECIFICATION forming part of Letters Patent No. 413,613, dated October 22, 1889.

Application filed May 6, 1889. Serial No. 309,778. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. DAVIS, a citizen of the United States, residing at Montgomery, in the county of Montgomery and State of Alabama, have invented certain new and useful Improvements in Seeders and Planters, of which the following is a full and clear description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a sectional view taken through the machine. Fig. 2 is a cross-sectional view on the line *xx* of Fig. 1. Fig. 3 is a detail of one of the seed-distributing disks. Fig. 4 represents another form of seed-distributing disk. Fig. 5 is a detail of one of the slotted plates in which the seed-disks revolve. Fig. 6 is a detail of one of the plates *b*. Fig. 7 is a detail showing the gearing for operating shaft E.

My invention relates to certain improvements in seeders and planters. It is an improvement on Letters Patent No. 319,432, granted June 2, 1885, to myself and Daniel S. Troy; and my invention consists, essentially, in seed-distributing disks adjustably secured on a horizontal shaft, having their peripheries formed or provided with pockets or receptacles for the seed, and in brushes arranged contiguous to said wheels and removing the surplus seed adhering to the peripheries of the disks.

My invention also consists in forming the bottom of the seed-box of removable plates to accommodate the adjustments of the seed-disks, certain of said plates being slotted and fitted over the disks, my invention also consisting in the constructions and combinations of devices, which I shall hereinafter fully describe and claim.

To enable others skilled in the art to make and use my invention, I will now describe its construction and indicate the manner in which the same is carried out.

In the said drawings, A represents any well-known form of main frame, within which the main axle B is mounted, said axle carrying the supporting-wheels C C', one of which C' is keyed tightly to the axle and revolves with it, while the other is loose, and said axle car-

ries also a gear-wheel *a*, the purpose of which I will hereinafter fully indicate.

The seed-box D is supported upon the main frame, and may have a chamber D' in front of it for containing fertilizer, which may be distributed, when desired, in any suitable manner. The bottom of the seed-box D is formed of removable plates *b c* of the same or of different widths, and these plates are held in position by cleats *d*, arranged on the inner walls of the seed-box, as shown in Figs. 1 and 2. A shaft or rod E passes transversely across the seed-box near its bottom and carries any desired number of seed-distributing disks F, which are so mounted upon said shaft that their number may be varied, and they may be slipped along said shaft or adjusted toward and from each other, according to the width of the rows in which the seed is to be dropped. These disks pass upward through slots *d'* in the plates *c* of the bottom of the seed-box, and the periphery of each is formed with depressions or pockets *e*, into which the grain is received and thence carried to the underlying hoppers or grain-passages of the drills G; or, if desired, the pockets or receptacle *e* may be formed exterior of the periphery in the form of buckets, as shown in Fig. 4. From this construction it is manifest I am enabled to remove any one or more of the bottom plates *b*, and thereby increasing the distance between the adjacent seed-disks by moving the latter from each other on their shaft and placing the removed or other plates behind the adjusted seed-disk to complete the bottom.

If I desire to increase the number of seed-disks, I remove one or more of the plates *b*, and introduce a slotted plate *c* in its place, and also add another disk to the shaft by removing the latter and slipping the new disk endwise upon, and then after placing the shaft again in position adjust the said disk until its upper portion is fitted through the slotted plate which is designed to receive it. I am thus enabled to vary the number of seed-disks, and to so adjust them and the bottom of the seed-box as to plant in rows in any desired distance apart.

A rod H passes transversely across the ma-

chine at its lower rear position and supports the hoppers I, which receive the grain discharged from the seed-disks, and the said hoppers and the underlying drills G, whose drag-bars are hung upon a rod L at the front of the machine, are adjusted laterally on their shafts or rods, to vary the number of drills and hoppers used and to correspond to the adjustments and number of the seed-drills, whereby the grain when discharged from the seed-disks falls into the hoppers I, and from thence drops into the spouts of the drill in any well-known manner. To secure the adjustments of the hoppers and drills, I introduce on the rods H and L, and between the hoppers and drag-bars, suitable thimbles or sleeves M, which hold these parts in position.

At the rear of the seed-box is a frame N, carrying a roller O, having pins *g*, and guides *h*, for suitable cords or chains *l*, which connect with the drills and regulate the depth of penetration of said drills by the winding and unwinding of the cords or chains.

Motion is communicated to the shaft which carries the seed-disks through a gear-wheel *m*, which is driven by the gear-wheel *a* on the main axle, through the intervention of suitable idle gearing *n*, which is adapted to be thrown into and out of gear with the main driving-gear *a* in any well-known manner and for the usual purposes.

Having thus described my invention, what I

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

1. In seed-planters, a seed-box having its bottom formed of the removable plates *b* and the removable slotted plates *c*, a horizontal shaft, laterally-adjustable seed-disks thereon, and having their upper portions extending through the slotted plates, brushes operating against the peripheries of the disks, and the laterally-adjustable hoppers and drills, substantially as described.

2. An improved seeding-machine comprising the main axle having the fixed and loose bearing-wheels and carrying the gear-wheel *a*, the seed-box having its bottom formed of the adjustable and removable plates *b* and *c*, a laterally-extending shaft having seed-disks adjustable thereon, said disks having peripheral seed-receptacles, brushes operating against the peripheries of the disks, a gear on the shaft, and idle gearing between said gear and the gear *a*, laterally-adjustable hoppers and drills, with spacing-thimbles or sleeves between them, a roller at the rear of the machine, and a connection between the roller and drills, whereby the depth of the latter is regulated, substantially as described.

JOHN S. DAVIS.

Witnesses:

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