

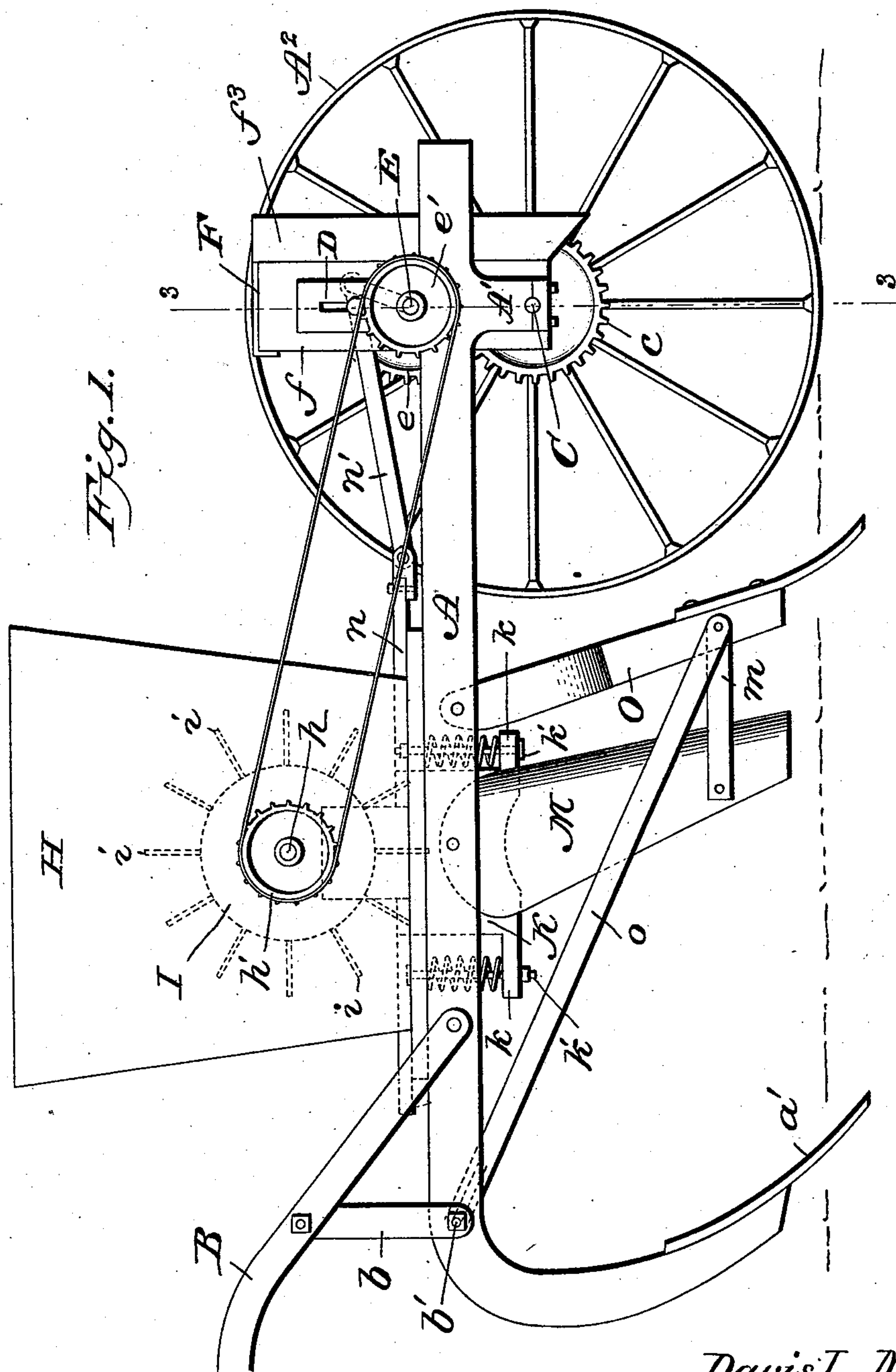
(No Model.)

2 Sheets—Sheet 1.

D. L. MABRY.
SEED PLANTER.

No. 549,805.

Patented Nov. 12, 1895.



WITNESSES
L. S. Elliott
E. Johnson

Davis L. Mabry
INVENTOR

by *[Signature]*

Attorney

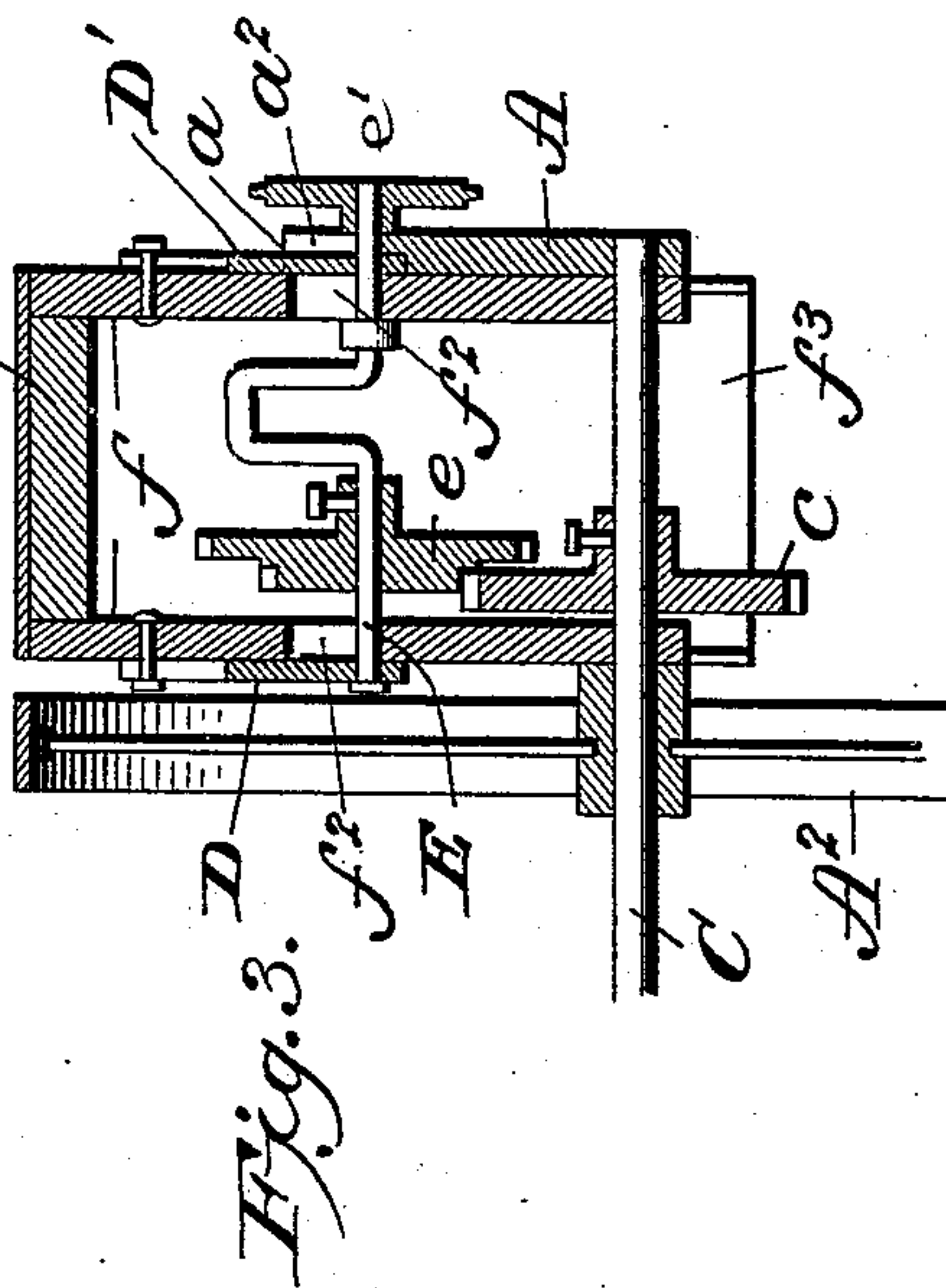
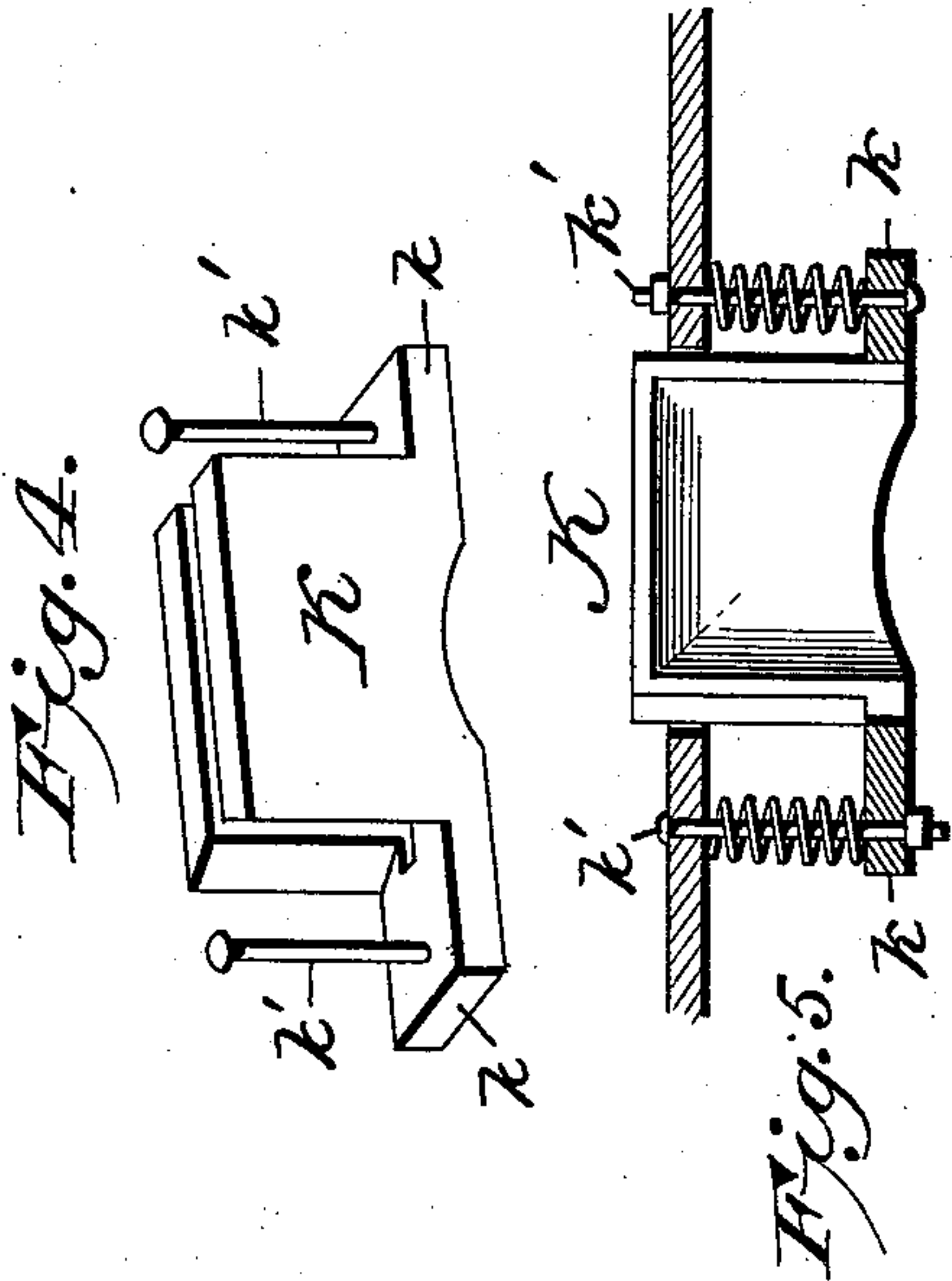
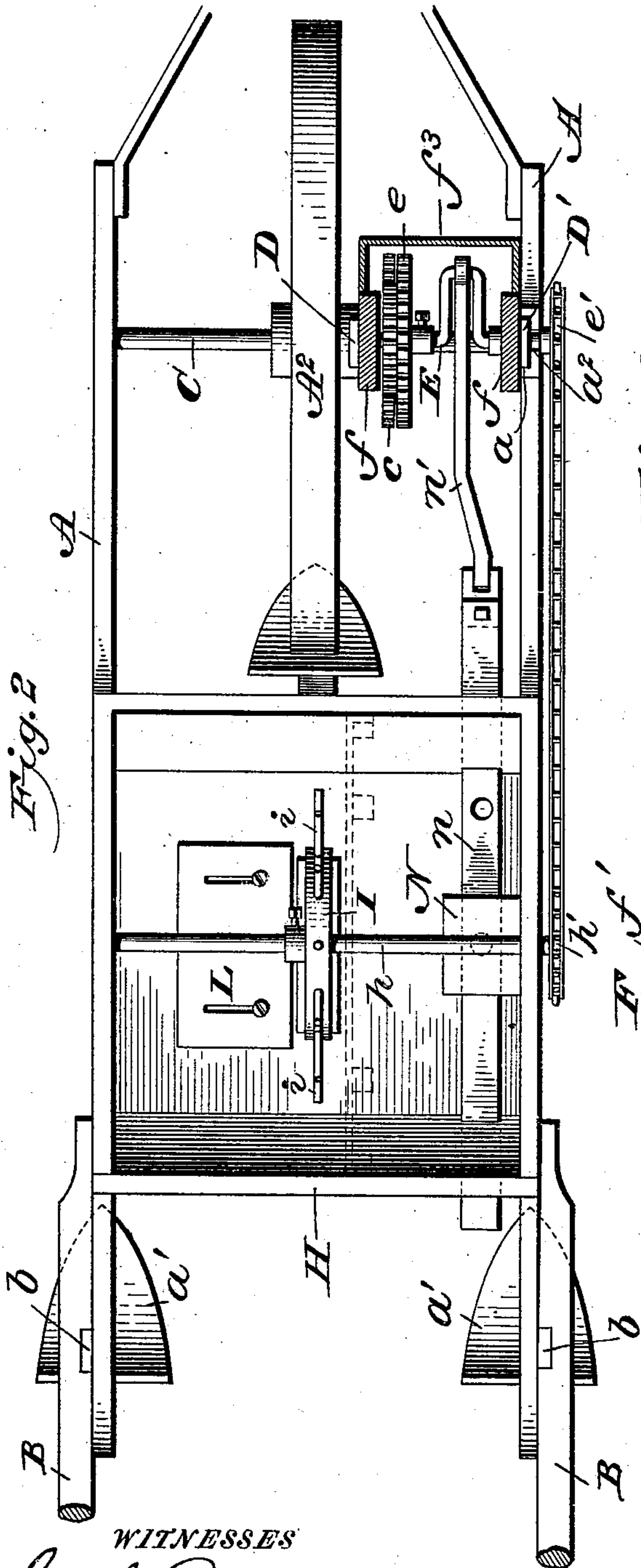
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2 Sheets—Sheet 2.

D. L. MABRY.
SEED PLANTER.

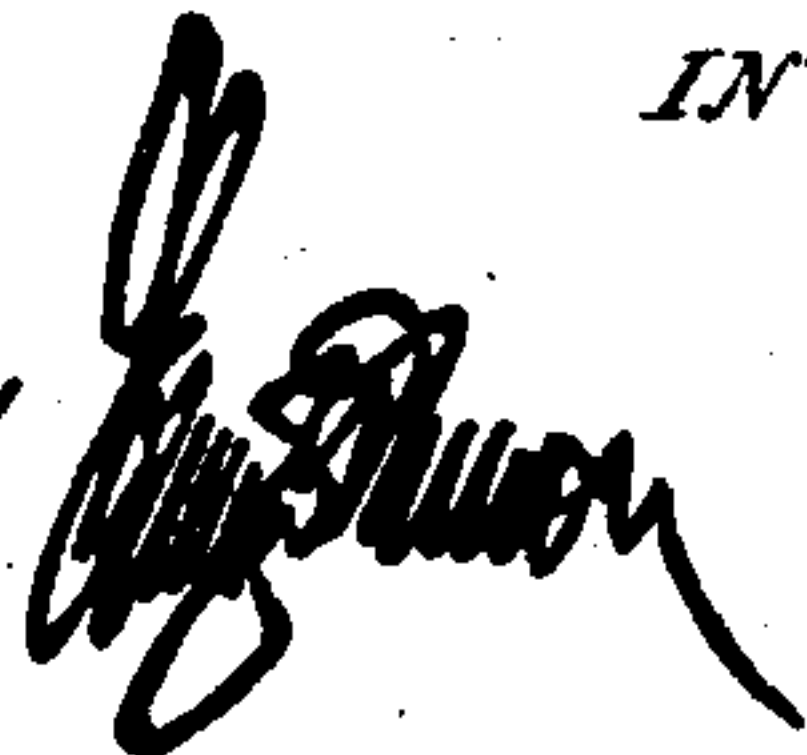
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by  Attorney

UNITED STATES PATENT OFFICE.

DAVIS L. MABRY, OF BLOSSOM, TEXAS, ASSIGNOR OF ONE-HALF TO J. A. BREWER, OF SAME PLACE.

SEED-PLANTER.

SPECIFICATION forming part of Letters Patent No. 549,805, dated November 12, 1895.

Application filed August 30, 1895. Serial No. 561,008. (No model.)

To all whom it may concern:

Be it known that I, DAVIS L. MABRY, a citizen of the United States of America, residing at Blossom, in the county of Lamar and State of Texas, have invented certain new and useful Improvements in Seed-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 of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a seed-planter of improved construction which can be used for planting corn, peas, and cotton; and it consists in the construction, arrangement, and combination of the parts, as will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of a planter constructed in accordance with my invention. Fig. 2 is a plan view partly in section. Fig. 3 is a detail sectional view on the line 3 3 of Fig. 1. Fig. 4 is a detail perspective view of the block or casting in which is formed one of the seed-openings, and Fig. 5 is a vertical sectional view showing the manner of supporting the block or casting.

A A designate the longitudinal side pieces of the planter, the forward ends of which are provided with downwardly-extending portions A', which support bearings for a transverse axle C, upon which the supporting-wheel A² is mounted, and the rear ends of the side pieces are curved downwardly and are provided at their lower ends with shovels or cultivators a'. The clevis or draft attachment is attached to the forward ends of the side pieces or longitudinal beams A A, so as to extend in front of the supporting-wheel. Near the rear ends of the side pieces are attached handles B, which are braced at an intermediate portion by bars b, connected to the side pieces by bolts b'.

The inner side of one of the longitudinal beams A, on a line with the depending portion A' thereof, is provided with a vertical recess a, opening into which is a transverse slot a², and to the inner side of this beam, so as to overlie the recess a, is secured a frame or housing F, consisting of side pieces ff, connected to each other at their upper ends by a cross-piece f', said frame or housing being further supported by the axle of the supporting-wheel passing through the lower ends of the side pieces thereof. The side pieces of the frame F are provided with vertical slots f² on a line with the recess and slot in the longitudinal side beam A, and through the slots pass the ends of a horizontal crank-shaft E, which has bearings in the lower ends of vertically-adjustable plates D and D', attached to the side pieces of the frame F by set-screws which pass through slots therein, the lower end of the plate D' lying in the recess a. By supporting the crank-shaft in this manner a vertical adjustment of the same can be readily accomplished for the purpose hereinafter described. Upon the crank-shaft E is mounted a double gear-wheel e, presenting practically two gear-wheels, one of which is of larger diameter than the other, and with both of these gear-wheels is adapted to mesh a gear-wheel c, mounted upon the axle C of the supporting-wheel, the gear-wheel c meshing with the smaller gear-wheel when the crank-shaft E is lowered and with the larger gear-wheel when the shaft is raised and the double gear-wheel moved in position for such engagement. This provides for driving the crank-shaft E from the axle of the supporting-wheel at a higher or lower rate of speed. Upon the outer end of the crank-shaft E is mounted a sprocket-wheel e', from which extends a sprocket-chain for driving part of the seed-dropping mechanism, hereinafter described.

The frame or housing F is provided with a front plate f³, which is attached to the cross-piece f' and is adapted to protect the gearing located within said housing.

H designates the hopper, which is supported upon the longitudinal beams A A and is pro-

vided with a transverse shaft *h*, having bearings in the side pieces thereof. One end of the shaft *h* projects beyond the hopper and is provided with a sprocket-wheel *h'*, over which the sprocket-chain from the sprocket-wheel *e'* passes. Upon the shaft *h* within the hopper is mounted a disk *I*, having radial arms or teeth *i*, and beneath the disk the bottom of the hopper is cut away to receive a block or casting *K*, said block or casting having projecting portions *k*, through which bolts *k'* pass for connecting the same to the hopper, helical springs being placed upon the bolts and interposed between the block and bottom of the hopper to hold the block or casting down. The block or casting *K* is provided with a vertical slot, which is contracted at its upper end and sides, as shown in Fig. 5, and through this slot the radial arms or teeth *i* of the disk *I* pass to force the seed into the enlarged portion of the slot, from which it passes into a spout *M*. It will be noted that, the block or casting *K* being attached to the bottom of the hopper by the bolts and interposed springs, as hereinbefore described, the upper part of the block can be raised and lowered in the hopper, so that the arms or teeth on the disk can enter the slot to a greater or less extent, thus regulating the amount of seed forced into the spout. The rear end of the block is beveled inward, as shown in Fig. 4, so as to guide the arms to the slot, as well as to collect the seed at the mouth of the slot. The hopper is also provided with a laterally-movable plate *L*, which can be moved over the block *K*, so as to cut off the opening therein.

N designates a block or housing which is secured to the bottom of the hopper *H*, and through this block or housing passes a reciprocating seed-slide *n*, having the usual openings, which register with an opening beneath the block or housing. The seed-slide passes through the ends of the hopper, and the forward end of the same is connected by a pitman-rod *n'* to the crank portion of the shaft *E*, so that it will be operated in the usual manner from said shaft. In practice the reciprocating seed-slide may be used for planting one kind of seed and the rotary disk for planting another kind, and when this is done a division-board is placed in the hopper, as shown in dotted lines, Fig. 2.

The seed-spout *M*, hereinbefore referred to, communicates with the openings of both the seed-dropping mechanisms and is connected at its lower end to the shovel-standard *O* by means of a bar *m*, the standard being bifurcated at its upper end and pivoted to the longitudinal beams *A A*. The standard is braced at its lower end by rearwardly-projecting bars *o*, which are connected to the longitudinal beams *A* by the bolts *b'*, said bolts passing through slots in the bars, so that the inclination of the standard *O* can be changed to vary the depth the shovel carried thereby

will enter the ground, and as the seed-spout is connected to the standard the inclination of the same will be correspondingly varied.

The device hereinbefore described provides a simple, cheap, and effective machine for planting different kinds of seed at the same time.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a walking seed planter, the axle upon which the supporting-wheel is mounted having a gear-wheel, of a frame or housing *F* suitably supported and provided with vertical slots in the side pieces thereof, a crank shaft *E* the ends of which pass through the vertical slots, and bars *D* and *D'* vertically adjustable upon the side pieces of the frame and provided with bearings at their lower ends for the crank-shaft, together with gearwheels of different diameters mounted upon the crank-shaft and adapted to mesh with the gearwheel on the axle of the supporting-wheel by raising and lowering the crank-shaft, substantially as shown and for the purpose set forth.

2. A changeable gear for seed planters, comprising an upright frame or housing *F* rigidly connected to one of the longitudinal side pieces of the frame and to the axle upon which the supporting-wheel is mounted, a crank-shaft vertically adjustable in slots in the side pieces of the frame, means for retaining the crank-shaft in an adjusted position, and gearwheels of different sizes mounted on the crank-shaft and adapted to mesh with a gearwheel on the axle of the supporting-wheel, substantially as shown and for the purpose set forth.

3. In a seed planter, the combination, of a rotary toothed disk located within the hopper and mounted on a shaft journaled in the side pieces thereof, the bottom of the hopper having an opening below the toothed disk; and a block or casting *K* located in the opening in the bottom of the hopper and having a portion which projects into the hopper and apertured lugs *k* through which pass spring-encircled bolts for connecting the casting to the hopper, the casting having a vertical slot which is contracted at its upper edges and the forward part of the casting being inwardly beveled, substantially as shown and for the purpose set forth.

4. In a planter, the combination with the longitudinal beams *A A* connected at their forward ends to the axle of the supporting-wheel and provided at their rear ends with a handle, of a hopper mounted on the longitudinal beams and having a reciprocating seed-slide and a rotary toothed disk which operates in the slot or feed opening in an adjustable block let into the bottom of the hopper, together with changeable gear driven from the axle of the supporting-wheel and comprising a vertically adjustable crank-

shaft having a sprocket-wheel and gearwheels
of different diameters which are adapted to
mesh with a gearwheel on the axle of the sup-
porting-wheel, the crank-shaft being con-
5 nected to the seed dropping mechanism, sub-
stantially as shown and for the purpose set
forth.

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

DAVIS L. MABRY.

Witnesses:

J. M. BOONE,
G. B. LAURANCE.