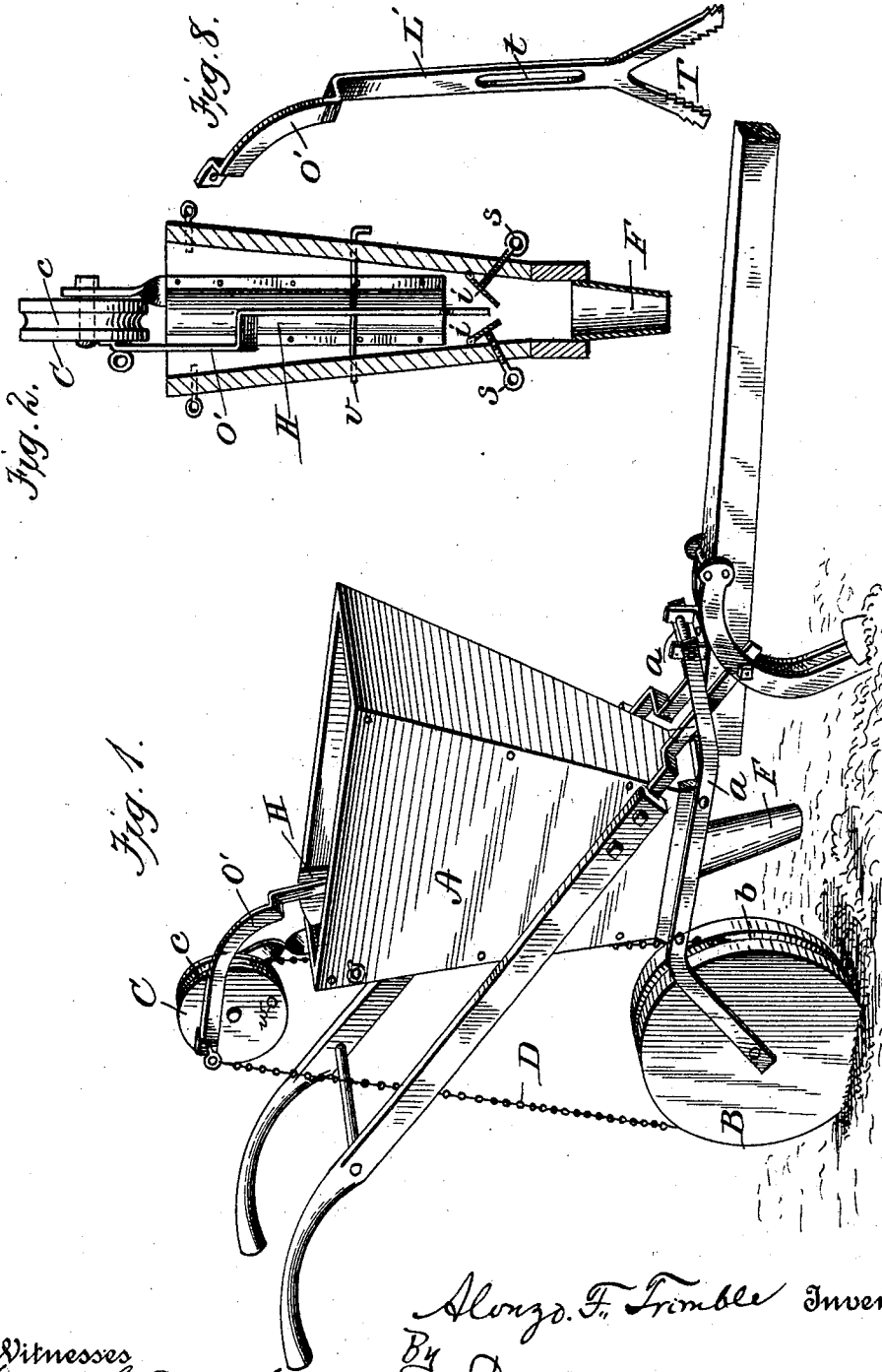


A. F. TRIMBLE.
SEED PLANTER.

(Application filed Nov. 14, 1900.)

(No Model.)

2 Sheets—Sheet I.



Witnesses
Frank L. Curand
Geo C. Poulton

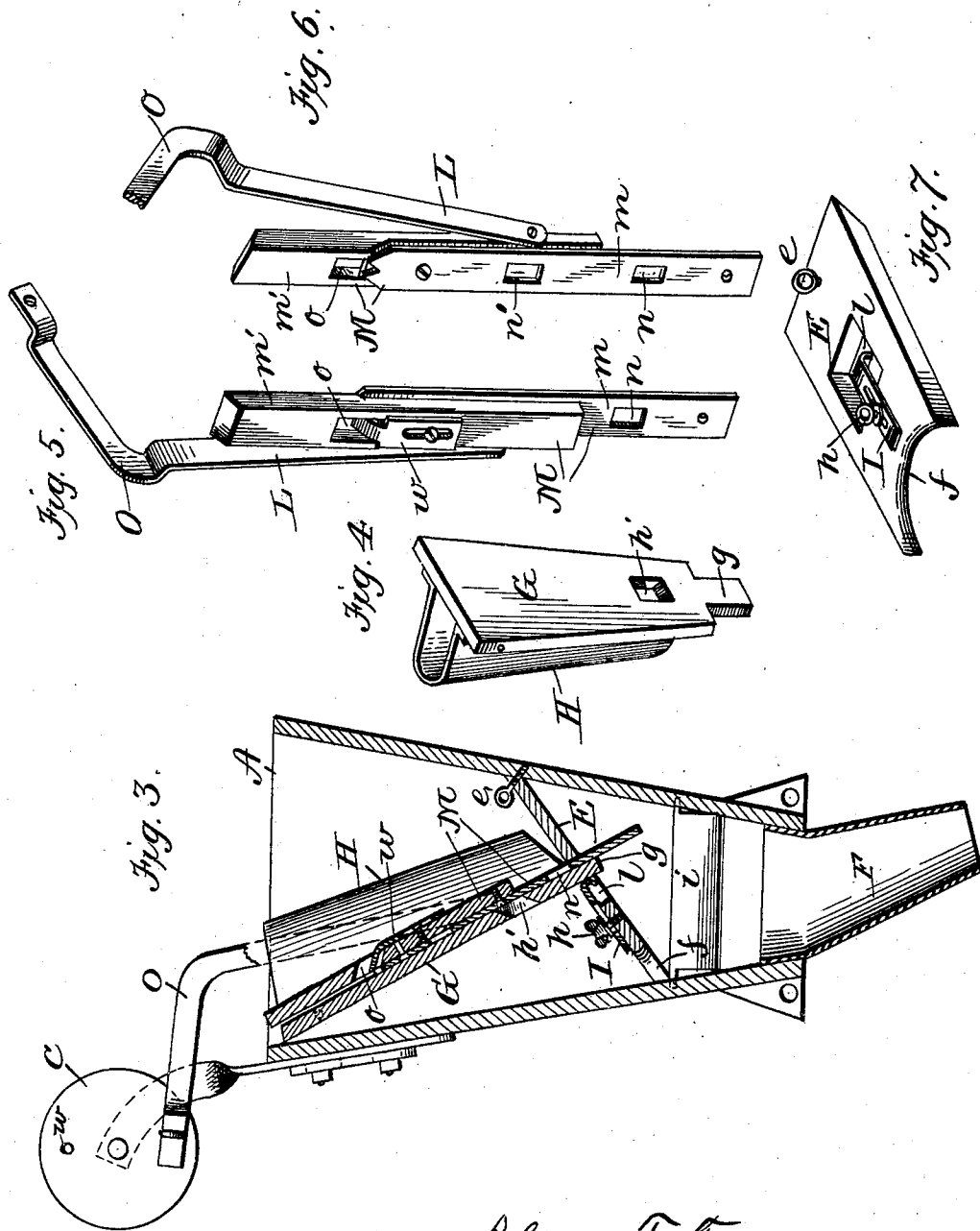
Alonzo F. Trimble Inventor
By Louis A. Yamell Attorney

A. F. TRIMBLE.
SEED PLANTER.

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2 Sheets—Sheet 2.



Witnesses
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 Geo C. Ponton

Alfred F. Trimble, Inventor
 By *[Signature]*
 Donald D. Yarnall, Attorney

UNITED STATES PATENT OFFICE.

ALONZO FRANKLIN TRIMBLE, OF LONEOAK, GEORGIA.

SEED-PLANTER.

SPECIFICATION forming part of Letters Patent No. 688,156, dated September 24, 1901.

Application filed November 14, 1900. Serial No. 36,485. (No model.)

To all whom it may concern:

Be it known that I, ALONZO FRANKLIN TRIMBLE, a citizen of the United States, residing at Loneoak, in the county of Meriwether and State of Georgia, have invented new and useful Improvements in Seed-Planters, of which the following is a specification.

This invention has relation to improvements in seed-planters, the same being constructed and adapted to be readily connected to the ordinary plows now in use; and it consists in the novel construction and arrangement of parts, as will be hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of my improved seed-planter. Fig. 2 is a transverse section of the hopper. Fig. 3 is a longitudinal section of the same. Fig. 4 is a perspective view of the seed-receptacle. Fig. 5 is a perspective view of the adjustable seed-regulator. Fig. 6 is a perspective rear view of the same. Fig. 7 is a perspective view of the hopper-bottom. Fig. 8 is a perspective view of the cotton-seed stirrer.

Referring to the drawings, the letter A designates the hopper, the surrounding walls of which may be made of any suitable material. To the bottom edges of the hopper and on the opposite outer sides thereof are secured the central or body portions of arms *a a*, having forward and rearward extensions, the rear ones of which have interposed and journaled between them a drive-wheel B, having its periphery provided with a surrounding groove or channel *b* for a purpose presently to be explained. The hopper A as constructed is adapted to be connected to any ordinary plow now in use, which is accomplished by connecting the forward ends of the extensions of the arms *a a* to the plow-beam, as shown. The body portion of the hopper is loosely mounted between the plow-handles without fastenings, whereby a ready and quick connection is made. Mounted on a suitable support to the rear wall of the hopper and extending above the same is a pulley or wheel C, having a peripheral groove *c* corresponding to that of the driving-wheel B, and connected within said grooves of the wheel B and pulley C is a chain D, which is adapted to impart motion to the seed-drop-

ping mechanism located within the hopper, the different parts of which I will now proceed to describe.

The letter E denotes the bottom of the hopper, arranged at any suitable inclined angle therein and secured to the front wall thereof by means of a thumb-screw *e* or other fastening. The bottom at its lower end is provided with an opening *f* of any well-known construction, preferably semicircular, as shown, through which the seeds drop and pass through the drill or spout F, located at the bottom of the hopper. The central portion of the bottom is further provided with a rectangular opening *l*, into which is passed the T-shaped end *g* of the rear wall G of the seed-receptacle H. This receptacle is pivoted at its upper end by its rear wall G to the side walls of the hopper, as shown in Fig. 2, whereby said receptacle can be adjusted to the desired angle required by means of a slotted plate I, having a thumb-screw *h* passing through the slot of the plate and into the bottom of the hopper. The rear wall G of the receptacle is provided with an inclined rectangular opening *h'* for the passage of the seed to the bottom of the hopper.

M represents a sliding seed-regulator located within the seed-receptacle H and adapted to have vertically-endwise movement therein by means of guides secured to the outer face of the rear wall G of the receptacle. This sliding seed-regulator is composed of two parts *m* and *m'*, connected together by screws or other fastenings. The part *m* is provided with two rectangular openings *nn'*, which are adapted to be adjusted to connect with a rectangular opening *o* in the part *m'*. The plate *m* is provided with an adjustment device in connection with the opening *o*, whereby to regulate the size of said opening for the passage of seeds of different sizes.

The letter L represents a shaft pivoted to one side of the back plate *m'* of the seed-regulator. The upper portion of the shaft is provided with a crank-arm O, pivotally connected to the pulley C by any well-known means. In planting cotton-seed I remove the bottom E and seed-regulator M and substitute in place thereof a shaft L', as shown in Fig. 8, said shaft having at its lower portion a serrated forked end, which facilitates and

forces the passing of the seed through the chutes *i i*. The shaft *L'* is connected within the walls of the hopper by means of a rod *v* passing through the side walls thereof and through an elongated slot *t* in said arm. A crank-arm *O'* of this shaft *L'* is designed to be connected to a second adjustment *w* on the pulley *C*, whereby to give vertically-endwise motion to the said shaft *L'*. In planting peas the two plates *m* and *m'* of the seed-regulator are separated and the opening *n* of the plate *m* is changed to connect with the opening *o* of the plate *m'*, the two plates being again secured together. In planting cotton-seed I provide the hopper, near the bottom of the inner side walls and on opposite sides thereof, with two hinged chutes *i i*, which are adapted to be adjusted to or from each other by means of thumb-screws *s s*, passing through the side walls of the hopper. I also substitute for the seed-regulator and its pivoted shaft *L* a shaft *L'*, as shown in Fig. 8, said shaft *L'* having at its lower extremity a serrated forked end, which facilitates the passage of the cotton-seed by forcing the same through the opening of the chutes *i i*. The shaft *L'* is connected within the hopper by means of a rod *v*, passing through the side walls of the hopper and through an elongated slot *t*, formed in the body of said shaft. A crank-arm *O'* of the shaft *L'* is designed to be connected to a second adjustment *w* on the pulley *C*, whereby to give vertical endwise movement to the said shaft *L'*.

I wish it to be understood that I do not claim in this application any part of the construction shown in my drawings and described in my specification relating to the cotton-seed planter, as I have filed a separate application for the same, dated February 7, 1901, Serial No. 46,387.

The operation of my invention is as follows: During the movement of the plow in making the furrow the drive-wheel *B*, having the chain *D* connected thereto and to the pulley *C*, and by means of the crank-arm *O* of the shaft *L*, connected to the said pulley *C*, produces a vertically-endwise movement of the seed-regulator, whereby the seed is evenly and thoroughly distributed at suitable intervals apart in the furrow, the drive-wheel *B* serving to cover the seed during its passage over the ground.

I wish it to be understood that I do not confine myself to the precise construction shown in my drawings and heretofore particularly described in my specification, but reserve to myself the right to make such alterations and changes therein for the better carrying out of my invention without departing from the essential features and the true principle and scope thereof.

Having described my invention and the operation thereof, what I claim is—

1. In a seed-planter, the combination with a hopper, provided on its outer side walls with arms, having forward and rearward extensions, a peripheral grooved wheel mounted between the rear extensions, and a peripheral grooved pulley journaled to the rear portion of the hopper, a drive-chain traveling in the grooves of the wheel and pulley whereby the wheel and pulley are rotated, the forward ends of said arms being detachably secured to the plow-beam and the hopper loosely mounted between the handles of the plow, substantially as specified.

2. In a seed-planter the combination with a hopper, having a peripheral grooved drive-wheel, with a peripheral grooved pulley journaled above the same, a chain mounted in the grooves of the wheel and pulley, an inclined bottom secured in the hopper, provided with an end opening and a central opening, a seed-receptacle, with a seed-regulator therein, mounted in the hopper, an adjustable slide for regulating the size of the central opening, a shaft pivoted to the seed-regulator, and a crank-arm on said shaft connected to said pulley substantially as specified.

3. In a seed-planter, the combination with a hopper, having mounted therein a seed-receptacle which is pivoted to the side walls of the hopper, of a seed-regulator mounted in the seed-receptacle having two adjustable plates, adapted to have vertical endwise movement within the receptacle, and the said plates of the said regulator, having interchangeable openings therein, substantially as specified.

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

ALONZO FRANKLIN TRIMBLE.

Witnesses:

S. A. DAVIS,
LEE JONES.