

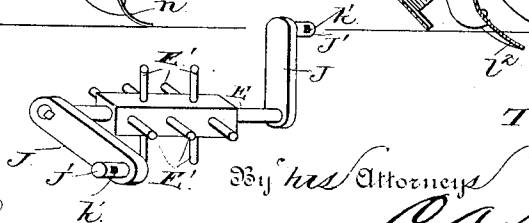
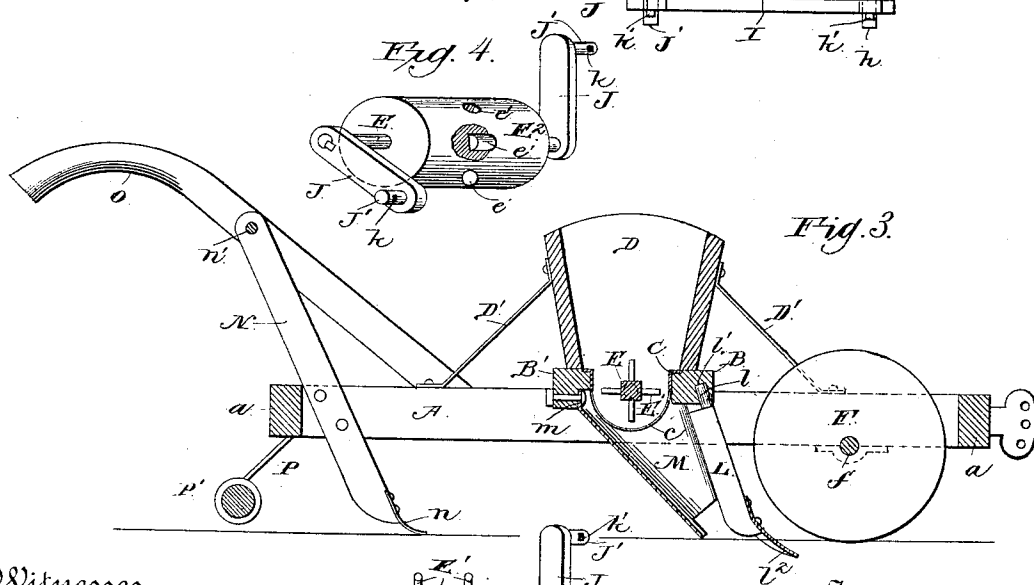
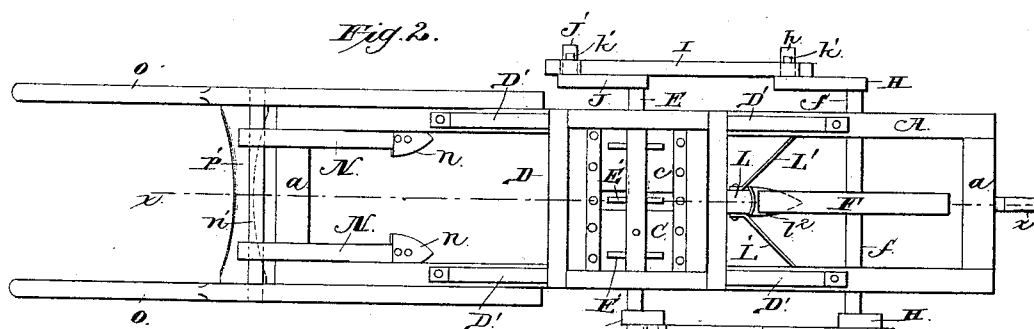
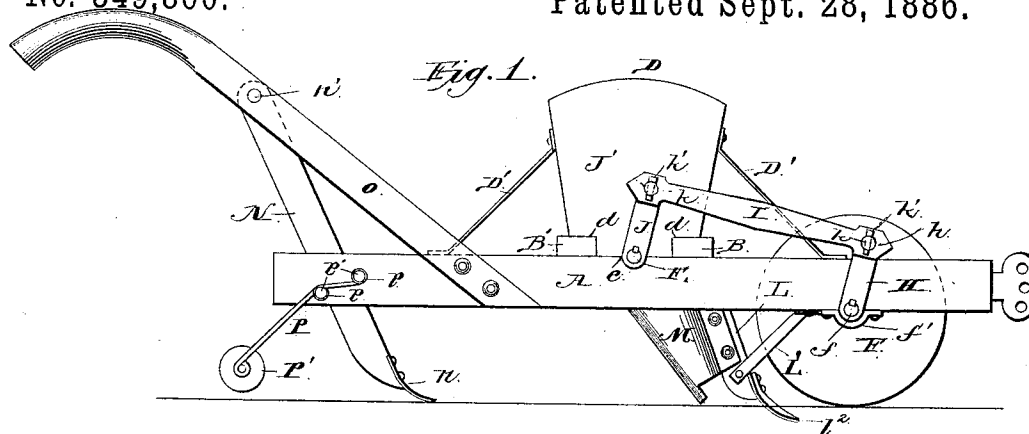
(No Model.)

T. J. SAVAGE.

PLANTER.

No. 349,860.

Patented Sept. 28, 1886.



Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS J. SAVAGE, OF VALLEY CREEK, TEXAS.

PLANTER.

SPECIFICATION forming part of Letters Patent No. 349,860, dated September 28, 1886.

Application filed March 22, 1886. Serial No. 196,123. (No model.)

To all whom it may concern:

Be it known that I, THOMAS J. SAVAGE, a citizen of the United States, residing at Valley Creek, in the county of Fannin and State of Texas, have invented a new and useful Improvement in Planters, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in seed-planters; and it consists of the peculiar and novel construction and combination of parts, substantially as hereinafter fully set forth, and particularly pointed out in the claim.

The object of my invention is to provide an improved planter for dropping corn or cotton-seed, which shall be very simple, strong, and durable in its construction, thoroughly effective and reliable in operation, and comparatively cheap and inexpensive of manufacture.

A further object of my invention is to provide a seed-planter with means whereby the strain on the rotating cylinder or the scraper is equalized and reduced to a minimum, and to provide improved means for effectually covering the seed after they have been deposited.

In the accompanying drawings, Figure 1 is a side elevation of my improved seed-planter. Fig. 2 is a top plan view thereof. Fig. 3 is a longitudinal vertical sectional view on the line *xx* of Fig. 2; and Figs. 4 and 5 are detail perspective views of the interchangeable corn and cotton-seed dropping devices.

Referring to the drawings, in which like letters of reference denote corresponding parts in all the figures, A designates the side beams of my improved seed-planter, which are arranged parallel with each other and connected together at their front and rear ends by cross-beams *a*, which are suitably secured in place.

B B' designate two transverse beams, which are secured to the side beams, A, near their middle, and at a suitable distance apart, and to these transverse beams B B' are secured the side edges of a metallic bottom, C, of the hopper D, said bottom being curved transversely, as shown more clearly in Fig. 3, and provided with a slot, *c*, for the proper discharge of the seed from the hopper. This hopper is detachably secured in place on the frame A B B', and at the lower corners the walls of the hopper are notched, as at *d*, the lower edges of the side walls of the hopper intermediate of the

notches resting on the side beams, A, and against the inner opposing faces of transverse beams, and the lower edges of the end walls of said hopper resting on the upper faces of the transverse beams B B'. The hopper is thus seated on the frame of the machine, and it is braced and held in place by rods or braces D', one end of each of which is secured to the hopper, near the upper edge thereof, and the opposite end thereof is bolted to the side beams of the frame.

Intermediate of the transverse beams B B', the side beams, A, and end walls of the hopper are provided with bearings *e*, for rounded or circular ends of a transverse shaft, E, which is journaled and held in place therein, and this shaft is provided longitudinally with a series of radial teeth or fingers, E', or with a drum, E'', having a series of cups, *e'*, in its periphery, as clearly shown in Figs. 4 and 5.

When the machine is to be used for planting cotton-seed, the shaft having the radial fingers E' is fitted in the bearings *e* of the machine; but when corn is to be planted the shaft with the radial fingers is removed by displacing the hopper and its braces and substituting for said shaft the shaft shown in Fig. 4, having the drum E'', with its cups *e'*.

F designates a drive-wheel that has its shaft *f* journaled in proper bearings, *f'*, on the side beams, A, and this drive-wheel is arranged between the side beams, immediately in front of the hopper and in contact with the ground, so that it will be rotated when the machine is drawn along, the front transverse beam of the frame having a clevis connected thereto for the attachment of the draft-animal. The shaft *f* of the drive-wheel is extended beyond the bearings, and to the said extended ends of the shaft are secured cranks H, which are set at right angles to each other, and carry at their free ends a crank-pin, *h*, to each of which is connected one end of a connecting rod or pitman, I, one of which is arranged on each of the side beams, exteriorly thereto. The ends of the shaft E are extended beyond the bearings *e*, and provided with crank-arms J, that are arranged at right angles to each other, and carry crank-pins J' at their free ends, to which are connected the free ends of the pitmen I. These crank-pins H J' are provided with transverse apertures *k*, through

which are passed keys *k'*, to retain the ends of the pitmen thereon, and at the same time they allow the latter to be easily and readily detached to remove the shaft *E*, whereby the machine can be adapted to sow different classes of seed.

L designates a standard, which is provided at its upper end with a tenon, *l*, that fits into a mortise, *l'*, formed in the beam *B*, and the standard *L* is arranged immediately in front of the slot *c* in the bottom of the hopper, and it is provided with an opening blade or shovel, *l'*, to open the furrow to permit the seed from the hopper to enter therein. This standard is braced and held in position by means of rods *L'*, connected to the lower end thereof and the side beams, *A*; and to the standard is bolted the free edges of a conducting or delivery spout, *M*, that leads from the hopper. This spout or tube is bent or formed from a single piece of sheet metal, and it is made tapering in form, the upper edges being curved concentric with the hopper bottom, and having a tongue, *m*, that is bolted to the beam *B'*, thus causing the enlarged end of the tube to extend entirely across the bottom of the hopper to catch all the seed that drops therefrom.

N designates vertical standards, which are arranged in inclined positions in rear of the hopper and suitably bolted to the rear ends of the side beams, *A*, of the frame. The lower ends of these standards are provided with shovel-blades *n*, that serve to cover the corn or seed dropped from the hopper with soil, and the upper ends of the standards are connected and braced by a tie bar or rod, *n'*.

The machine is provided with handles *O*, for guiding the same, the lower ends of which are secured to the side beams, and which are secured to the tie bar or rod *n'* at points intermediate of their length.

P designates spring or resilient arms, which are provided with coils or loops *p* at their upper ends, and through these loops are passed headed pins or bolts *p'*, to secure the arms to the rear ends of the side beams of the frame. The arms are extended rearwardly and downwardly of the frame, and in their free ends are journaled pins or studs of a pressure-roller, *P'*,

which is provided with a longitudinally-curved or concave face for securely and firmly packing the soil over the seeds that have been dropped from the hopper and covered by the blades *n*.

The operation of my invention will be readily understood from the foregoing description, taken in connection with the drawings.

It will be observed that I provide a machine which can be easily and readily adapted for use as a corn or cotton planter, and that the changes can be very conveniently and quickly performed. By the peculiar arrangement of the cranks and pitmen the strain is equalized on the shaft *E* and reduced to a minimum, and the spring or resilient standards or arms serve to exert the proper degree of force or pressure on the roller *P'* to firmly pack the soil.

The machine is light, simple, and strong in its construction, and it is cheap and inexpensive of manufacture.

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

In a seed-planter, the combination of a frame having the transverse beams *B B'*, a removable hopper resting on the beams, a curved slotted bottom secured at its edges to the beams, a removable shaft, *E*, having means, substantially as described, for dropping or agitating the seed, and the cranks at its ends, a drive-wheel journaled in the frame and having cranks *H*, the pitmen *I*, intermediate of the cranks on the shaft *E* and the drive-wheel and detachably connected with the shaft *E*, a standard, *L*, carrying the opening-blade and depending from the beam *B*, and the conducting-spout *M*, secured to the beams, and the standard *L*, substantially as described, for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

THOMAS J. SAVAGE.

Witnesses:

J. R. MAUPIN,
D. A. EDWARDS.