

(No Model.)

T. S. GRANDSTAFF.
CORN PLANTER.

No. 554,262.

Patented Feb. 11, 1896.

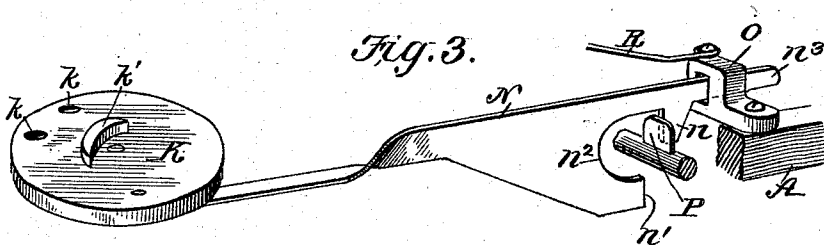
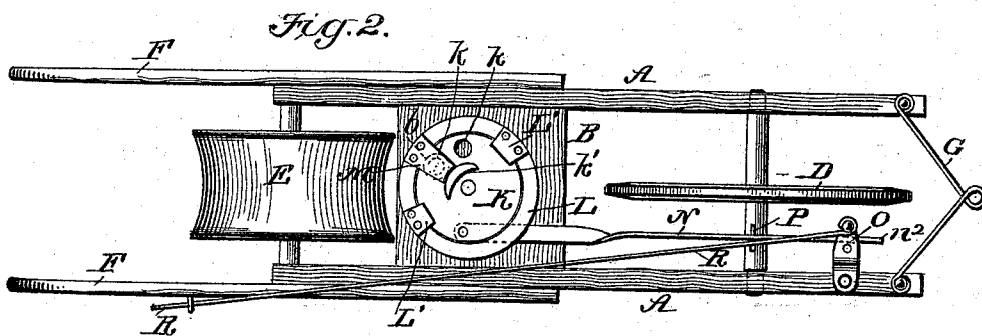
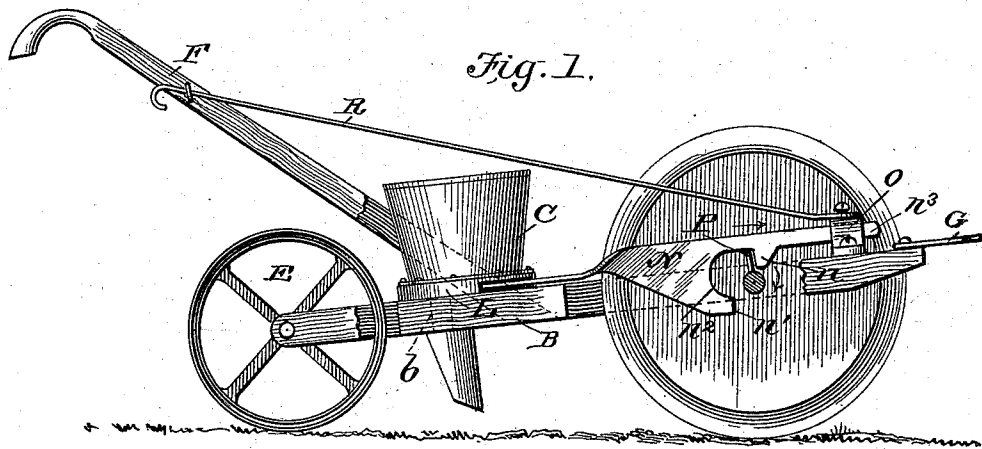
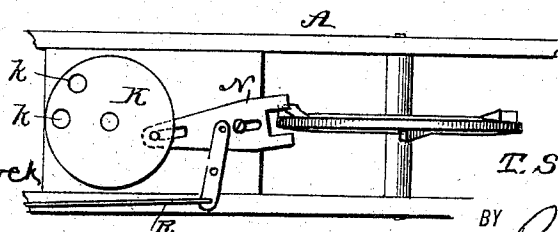


Fig. 4.



WITNESSES:

Chas. B. Brock
J. N. Griffin

INVENTOR

T. S. Grandstaff.

BY

Robt. A. Lacey

ATTORNEYS

UNITED STATES PATENT OFFICE.

THOMAS SPENCER GRANDSTAFF, OF BEHAM, PENNSYLVANIA.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 554,262, dated February 11, 1896.

Application filed October 18, 1895. Serial No. 566,103. (No model.)

To all whom it may concern:

Be it known that I, THOMAS SPENCER GRANDSTAFF, of Beham, in the county of Washington and State of Pennsylvania, have
5 invented an Improved Corn-Planter, of which the following is a specification.

This invention relates generally to corn-planters, and particularly to that class thereof known as "walking - planters," which are
10 drawn forward by a horse and guided by a man the same as a plow.

The object of this invention is to provide a planter of this description which shall be exceedingly simple in construction and efficient in operation, and also durable in all its
15 parts.

Another object is to provide an improved means for operating the dropper-plate and seed-hopper, whereby a positive motion of said hopper-plate is obtained.
20

Another object is to provide improved means for throwing the plate-operating mechanism out of gear, so that said plate will not be operated, as when crossing roads, turning
25 at the end of the furrow, &c.; and a still further object is to provide an improved construction of hopper and seed-plate whereby the operation of said plate is facilitated.

With these various objects in view my invention consists in the peculiar construction of the various parts and the novel manner of combining or arranging said parts, all of which will be fully described hereinafter, and pointed out in the appended claims.
30

In the drawings forming a part of this specification, Figure 1 is a side elevation, partly in section, showing one form of my improved planter. Fig. 2 is a top plan view, the hopper being removed. Fig. 3 is a detail view of the dropper-plate and operating mechanism. Fig. 4 is a detail view of a somewhat modified form of construction.
35

In constructing a planter in accordance with the principles of my invention I employ
45 a main frame composed of parallel beams A, between which is arranged a platform B, upon which is mounted the hopper C. An operating-wheel D is mounted upon an axle journaled between the forward ends of the
50 beams, and between the rear ends of the beam is mounted a covering-wheel E, said wheel having a concaved periphery for the

purpose of forming a hill over the planted corn.

Handles F are attached to the side beams 55 for the purpose of guiding the planter. A clevis G is attached to the forward ends of the beams to which the draft-bar or whiffletree is connected for the purpose of holding the horse or other animal. 60

The platform B has an opening *b* formed therein, and depending therefrom is the feed or delivery chute, being constructed with or without an opening point or tooth, as desired.

The hopper C has a vibrating dropper-plate K provided with two openings *k*, which are alternately brought into register with the opening *b* to drop the grain. This plate K is arranged within a ring or band L bolted to the platform B, and to prevent any upward
65 movement of the plate I provide inwardly-projecting lugs *L'*, attached to the band or ring L, which prevent any such movement. 70

Adjacent to the openings *k* and upon the upper face of the plate K is arranged a curved boss or guide *k'*, which contacts with an operating-plate M, attached to the ring L and projecting inward as far as the outer edge of said boss or guide, said covering-plate being intended to cover one of the apertures *k* when
75 it is brought into register with the aperture *b*, so that only a definite quantity of grain is discharged at definite intervals, as it will be understood that were it not for such a plate there would be a continuous discharge so long
80 as the apertures *k* and *b* were in register. 85

In order to oscillate the dropper-plate, I provide a pitman N, connected at its rear end to the under side of the said plate, and near its forward end said pitman is provided with a depending lug *n*, a shoulder *n'*, and a cut-out portion *n²* between said shoulder and lug, the purpose of which will be explained later on. The extreme end of the pitman is reduced considerable as shown at *n³*, and works through
95 a pivoted guide-block O, attached to the top side of beam near the forward end.

The blade or feather P is attached to the axle of the front wheel, and as said wheel is moved forward said plate is adapted to first
100 contact with the depending lug *n* and move said pitman forward, and then contact with the shoulder *n'* and through the pitman rearward, said pitman remaining stationary dur-

ing the time the blade is moving from the lug to the shoulder and from the shoulder to the lug.

When it is desired to throw the pitman out of operation, it is only necessary to swing the pivoted guide-block to one side or toward the beam. In order to do this, I employ a hand-rod R, which extends rearward within reach of the operator.

10 In Fig. 4 I have shown a somewhat modified form of operating-gear, which consists in providing a series of inclined projections near the periphery of the draft-wheel, which projections alternately engage the opposite ends
15 of a forked rocking lever, connected with the drop-plate, and for the purpose of throwing said lever in and out of engagement I employ a second lever and hand-rod to move said lever backward out of the path of the inclined
20 projections.

It will thus be seen that I provide an exceedingly cheap, simple, and durable form of planter, which can be used for planting corn, cotton or other grain, or, if desired, could be
25 employed as a fertilizer-distributor.

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

1. In a corn-planter the combination of the
30 main frame and hopper, of an oscillating

dropper-plate, pitman-rod connected therewith, said pitman-rod having the depending lug n , and the forwardly-projecting shoulder n' , and the cut-out portion n^2 intermediate said lug and shoulder, the forward end of said pitman-rod being reduced as at n^3 , the pivoted guide-block and operating-rod connected therewith, the operating-shaft, the feather mounted thereon, said feather being adapted to move the lug and pitman forward, and also
40 press the shoulder and pitman rearward, substantially as shown and described.

2. The combination with the main frame and hopper of the ring upon which said hopper is secured, the dropping-plate pivoted in
45 said ring, the lugs L' attached to said ring and projecting over the edges of the plate, the covering-plate, and the curved boss or guide formed upon the upper face of the drop-plate near the center of the same, and adapted
50 to bear against the inner edge of the covering-plate, and the pitman for oscillating said plate, substantially as shown and described.

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

THOMAS SPENCER GRANDSTAFF.

Witnesses:

GEO. W. MCCAMMON,
V. B. CURSON.