(No Model.) 2 Sheets—Sheet 1.

A. JOHN.

CORN PLANTER.

No. 301,498. Patented July 8, 1884.

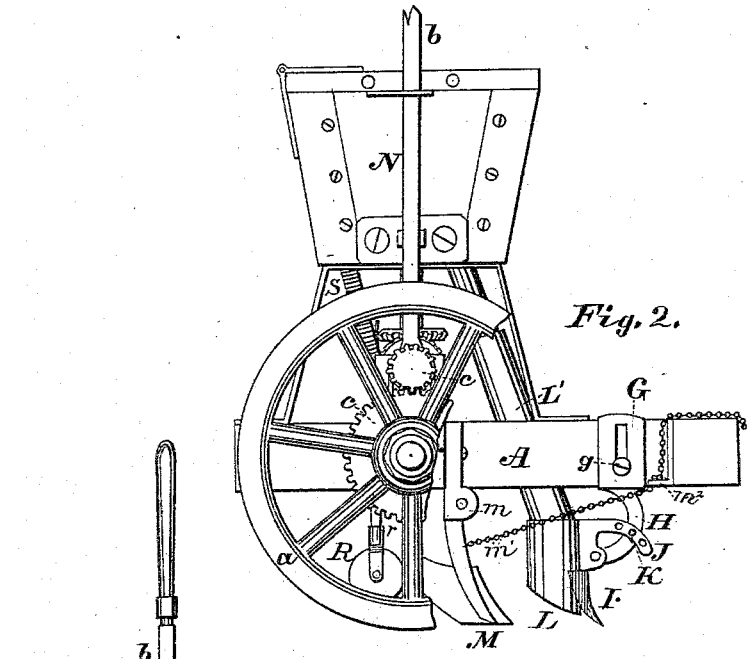

Fig. 2.

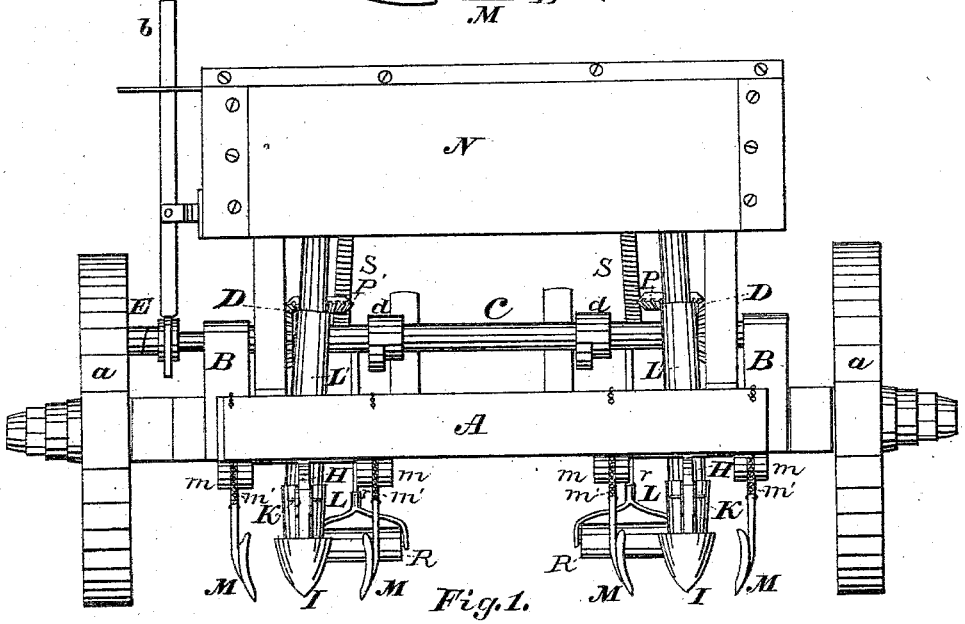

Fig. 1.

Witnesses:
G. W. Phillips
Niclas Wollhold

Inventor.
August John by
Read N. Bond Atty

(No Model.) 2 Sheets—Sheet 2

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CORN PLANTER.

No. 301,498. Patented July 8, 1884.

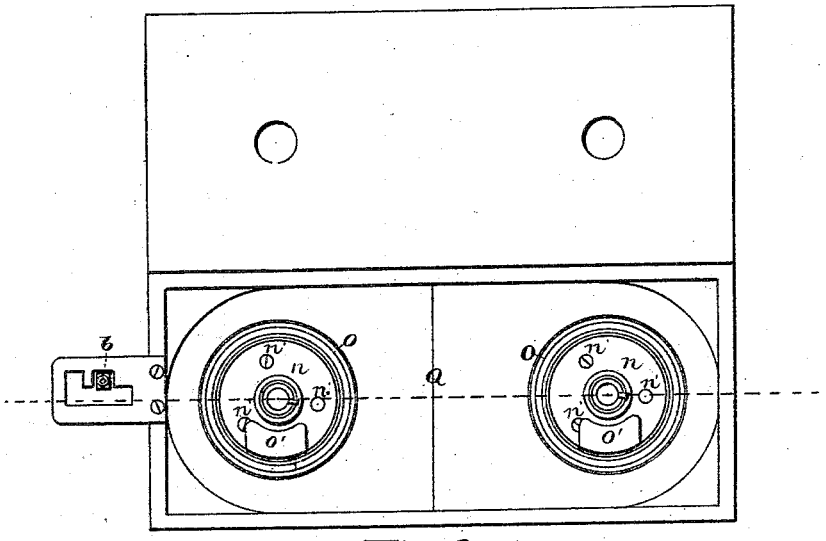

Fig. 4.

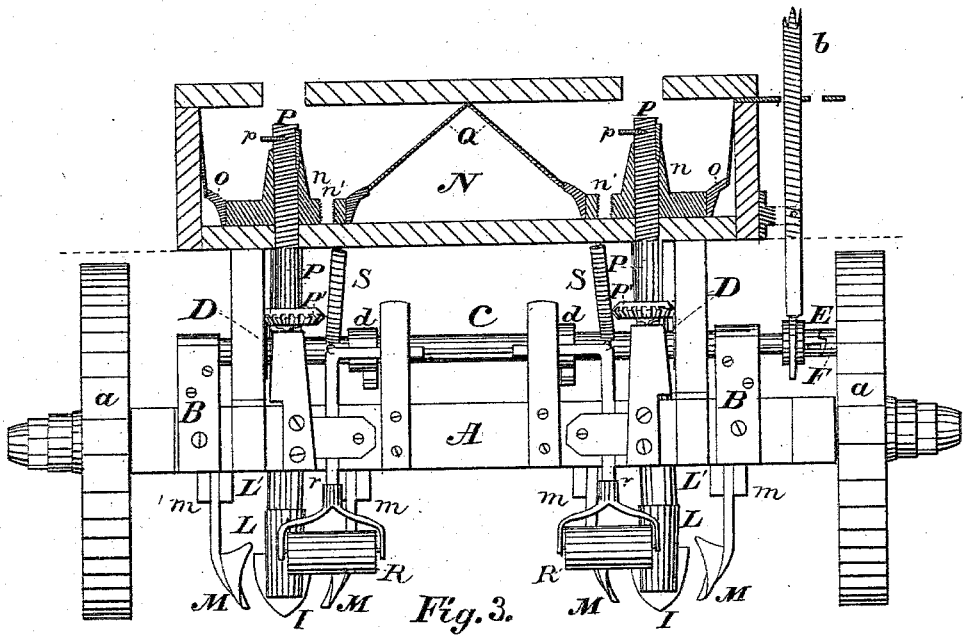

Fig. 3.

Witnesses:

Niclas Wollbold
G. W. Phillips

Inventor.
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Fred W. Bond
Atty

UNITED STATES PATENT OFFICE.

AUGUST JOHN, OF MASSILLON, OHIO, ASSIGNOR OF FIVE-SIXTHS TO JOSEPH JOHN, GEORGE W. PHILLIPS, NICHOLS WOLLBALD, JOHN PROSSER, AND JOHN BINGHAM, ALL OF SAME PLACE.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 301,498, dated July 8, 1884.

Application filed January 10, 1884. (No model.)

To all whom it may concern:

Be it known that I, AUGUST JOHN, a citizen of the United States, residing at Massillon, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Corn-Planters; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 is a front view of the machine; Fig. 2, an end view; Fig. 3, a side view, showing longitudinal section of the grain-box; and Fig. 4, a top view of grain-box, showing its cover removed.

The present invention has relation to certain new and useful improvements in corn-planters; and the object thereof is to improve the general construction whereby the operation of the planter is more effective and can be readily controlled by the driver with comparatively little difficulty.

The invention consists in the details of construction substantially as shown in the drawings and hereinafter described and claimed.

Similar letters indicate corresponding parts in each of the figures.

In the accompanying drawings, A represents the frame to which the several parts are attached, and is constructed in the usual manner of constructing frames for corn-planters of this class, the wheels *a* turning on spindles of the ordinary kind.

To the top or upper side of the axle are attached the posts B, said posts being provided with suitable bearings for the shaft C, motion being communicated to said shaft C by means of the cog-wheels *c*. (Seen in Fig. 2.) The shaft C is provided with the beveled gear-wheels D, the cams *d*, and the ratchet-clutch E, said ratchet-clutch being so arranged that it will slide back and forth on the shaft C a short distance, its movements being limited by a pin rigidly attached to said shaft, said pin passing through an elongated slot in said ratchet-clutch, and by this arrangement will cause the shaft C to revolve when said clutch is connected to the collar F, as seen in Fig. 3, said collar F and wheel *c* turning on the shaft C when disconnected by means of the lever *f*.

The forward portion of the frame A is provided with two adjustable frames, G. (Best seen in Fig. 2.) The upper part of this frame is provided with a slot through which passes the bolt or screw *g*, said slot being for the purpose of regulating the depth of the furrow. The lower portion of these frames is provided with bent or curved arms H, to the bottom or lower ends of which are riveted the shovels I in such a manner that said shovels will turn on said arms. The top or upper part of these shovels I is provided with bent or curved bifurcated arms J, (best seen in Fig. 2,) said arms being provided with a number of holes, *j*, and are for the purpose of regulating the angle of the shovels I, said shovels being held in the desired position as to their degree of angle by means of the wooden pin K, which passes through the arms H and J. (Best seen in Fig. 1.) The object in using a wooden pin for this purpose is in case any obstruction should bear against the shovels I said pins K will break before any harm can be done to said shovels and their attachments.

To the rear of the shovels is attached a short hollow tube, L, which is for the purpose of receiving the lower end of the flexible tube L′ and conducting the grain to the furrow made by the shovels I after passing through the flexible tube L′.

To the rear of the shovels I, and upon either side of the same, are covering-shovels or mold-boards M, said parts being held in proper position by means of the hinged or jointed supports *m* and the chains *m′*, said supports *m* being attached to the frame A by suitable clamping bolts or screws. A slot is provided in the top or upper portion of said supports, and is for the purpose of adjusting the covering-shovels or mold-boards *m*. The forward ends of the chains *m′* are held in the desired position by means of eyes and wooden

pins m^2, wooden pins being used so that they may break in case any obstruction bears against the covering-shovels.

To the frame A is attached the grain box or hopper N, as shown in the drawings. The bottom or lower part of the same is provided with the dropper-wheels *n*. (Best seen in Figs. 3 and 4.) These dropper-wheels are provided with the desired number of openings, *n'*, for the passage of grain, said openings having screw-threads to receive and hold screws, which are for the purpose of regulating the space between the hills. If it is desired to have the hills from three to four feet apart, all the openings are closed but one in each of the dropper-wheels by means of screws adapted to fit into the openings *n'*. These dropper-wheels *n* are surrounded by a collar or band, O. The portion of this collar or band directly over the flexible tube L' is provided with a shield, O', which is for the purpose of preventing grain from entering the openings *n'* when they are directly opposite the flexible tube L'. The top or upper sides of the dropper-wheels *n* are provided with collars, which are for the purpose of attaching said dropper-wheels *n* to the vertical shafts P. The top or upper portions of these shafts P are provided with the pins *p*, said pins being so arranged that their outer ends will be directly over one of the openings *n'* in the dropper-wheels *n*, said pins being for the purpose of indicating to the operator the location of the openings *n'* with reference to the flexible tube L'.

To the bottom or lower ends of the shafts P are attached, in the ordinary manner, the beveled gear-wheels P', which gear into the wheels D, thereby communicating motion to the dropper-wheels *n*.

The grain-box N has an inverted-V partition, Q, which is for the purpose of distributing the grain over the dropper-wheels *n*, and may be made of sheet-iron or any other suitable material.

For the purpose of indicating to the operator the location of the grain after it has been planted, hill-markers R are provided, (best seen in Fig. 3,) said markers consisting of sheet-rollers attached to the arms *r*. These arms extend some distance above the axle, their upper ends being provided with horizontal portions, which cause the hill-markers to be forced downward by the cams *d*, said hill-markers being held above the ground by the springs S after having marked a hill. It will be seen that by this arrangement the operator is enabled to row the hills both ways.

I am aware that the broad idea of dropper-wheels is not new, as they are shown in Patent No. 69,449, granted, October 1, 1867, to myself and Joseph Krebs; also, the hill-markers as they are shown in Patent No. 71,493, granted, November 26, 1867, to Joseph John; but

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

1. The combination, with shaft P, of the dropper-wheel *n*, formed with a series of openings for the passage of grain, and provided with plugs to close the desired number of said openings, and pins *p* in shaft P, and in line with one of the openings in the dropper-wheel, to indicate the location of said openings, substantially as described.

2. The combination of the frame A, the frame G, slotted at its upper end, and secured to frame A by means permitting its vertical adjustment, and formed with the perforated rearwardly-curved arm H, and the shovel I, formed with the forwardly-curved arm J and pivoted to the arm H, substantially as described.

3. The combination of the supports *m*, vertically adjustable on frame A, the covering-shovels hinged to the lower ends of said supports, and the chains *m'*, connected to said covers, and secured at a point forward of the shovels to the frame A by a breakable pin, m^2, substantially as described.

4. The combination of axle C, provided with cams *d*, the sliding arms *r*, provided with rollers R at their lower ends, and having their upper ends extended horizontally to a point opposite cams *d*, and springs S, for lifting said arms after they have been depressed by said cams, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in presence of two witnesses.

AUGUST JOHN.

Witnesses:
G. W. PHILLIPS,
FRED W. BOND.