

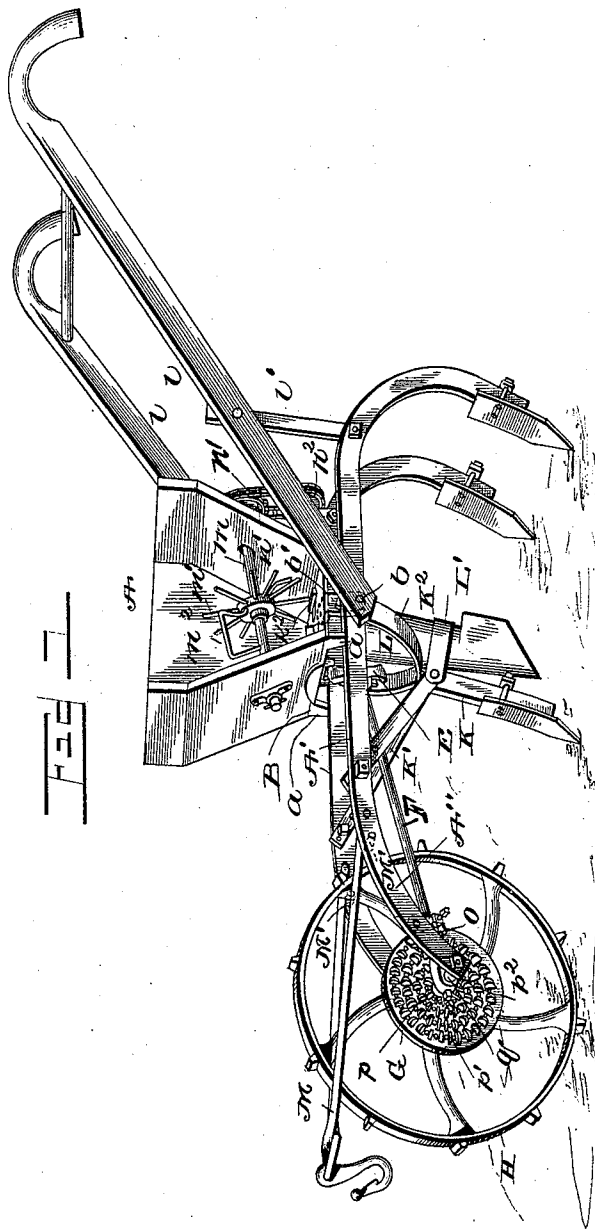
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4 Sheets—Sheet 1.

J. W. LEHR.
COTTON AND CORN PLANTER.

No. 478,441.

Patented July 5, 1892.



Witnesses

John Davie
J. H. Gummell

Inventor

By Joseph W. Lehr
Attorneys,
Myers & Co.

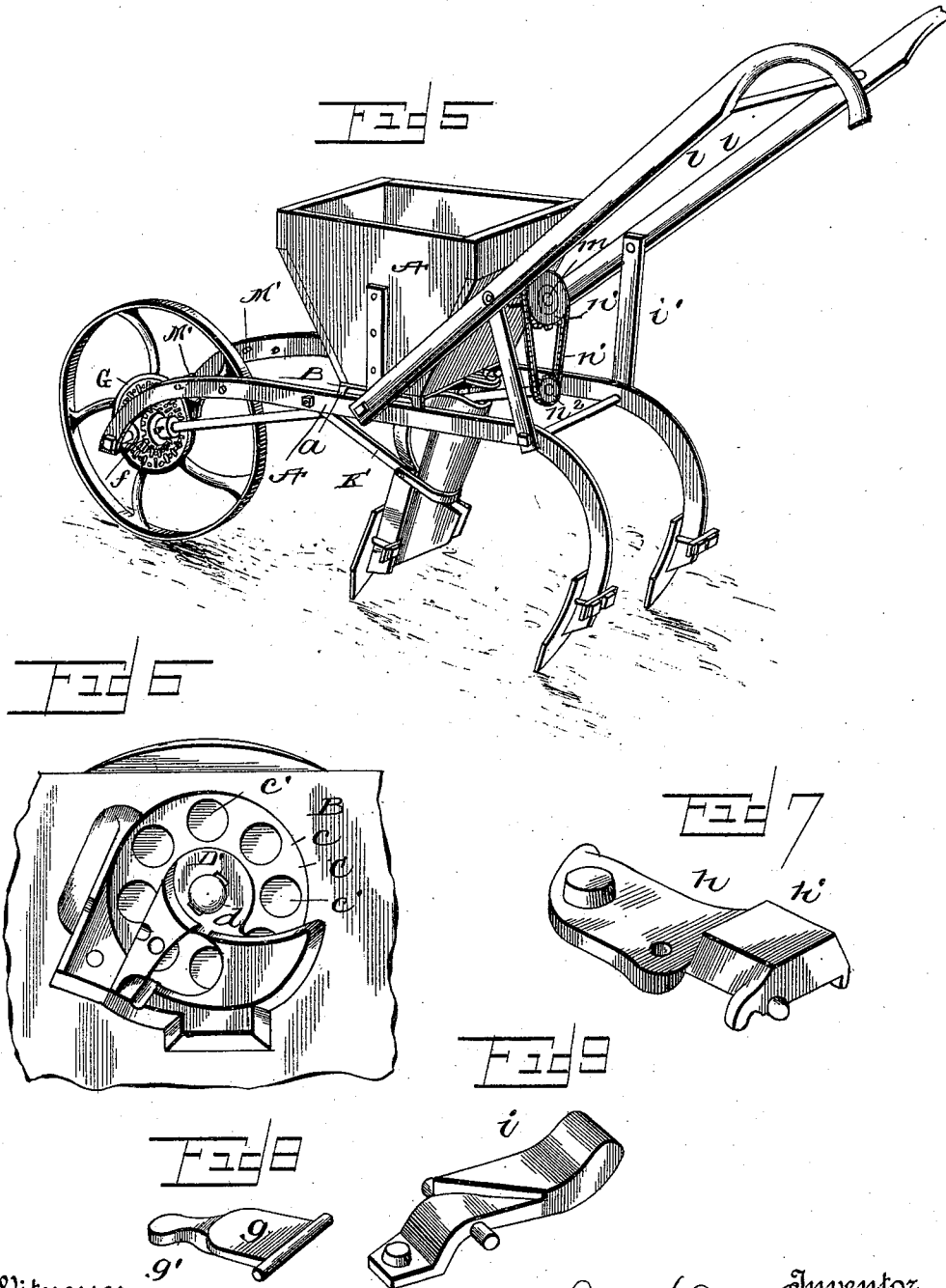
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John Janice
Joseph Gummel

Inventor
Joseph W. Lehr
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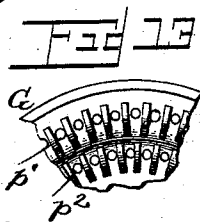
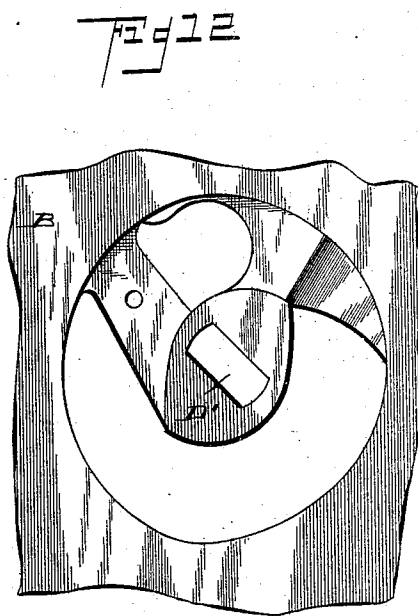
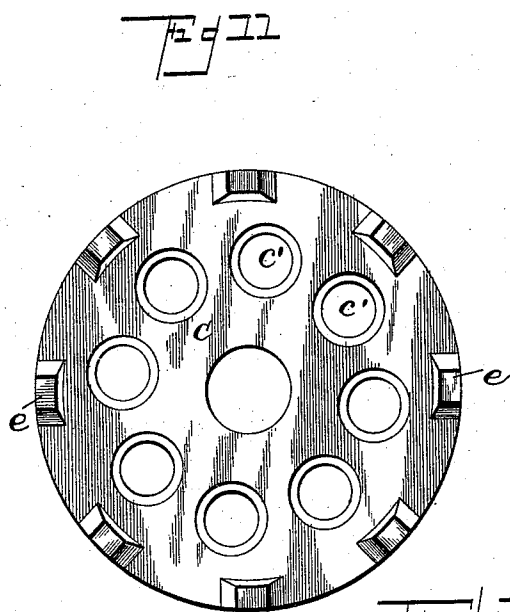
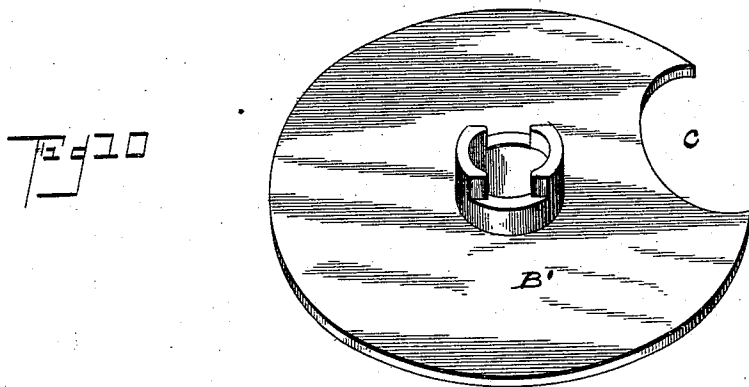
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4 Sheets—Sheet 4.

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COTTON AND CORN PLANTER.

No. 478,441.

Patented July 5, 1892.



Witnesses

John D. Smith
Joseph H. Ginnell

By

Joseph W. Lehr
Attorneys
Myers & Co

Inventor

UNITED STATES PATENT OFFICE.

JOSEPH W. LEHR, OF FREMONT, OHIO, ASSIGNOR TO THE LEHR AGRICULTURAL COMPANY, OF SAME PLACE.

COTTON AND CORN PLANTER.

SPECIFICATION forming part of Letters Patent No. 478,441, dated July 5, 1892.

Application filed January 21, 1892. Serial No. 418,834. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH W. LEHR, a citizen of the United States of America, residing at Fremont, in the county of Sandusky and State of Ohio, have invented certain new and useful Improvements in Cotton and Corn Planters, of which the following is a specification, reference being had therein to the accompanying drawings.

10 My invention relates to an improved combined corn and cotton planter; and it consists in the novel combination and arrangement of parts, substantially as hereinafter fully disclosed, and pointed out in the claim.

15 In the accompanying drawings, Figure 1 is a side view of my improved combined corn and cotton planter. Fig. 2 is a sectional elevation thereof. Fig. 3 is an enlarged detached view of the bottom plate or casting of the seed-hopper. Fig. 4 is an inverted view thereof. Fig. 5 is a perspective view of my planter, taken from a rear elevational point. Fig. 6 is an enlarged upper side view of the bottom plate or casting B. Fig. 7 is a perspective view of the housing for the pawl *g* and the spring *g*² of the seed-disk C. Fig. 8 is a perspective view of said pawl *g*. Fig. 9 is a perspective view of the cut-off *i* to prevent overcrowding of the seed-carrying perforations of the disk C. Fig. 10 is a perspective view of the fixed disk B', adapted to coact with the revolving disk C to drop the seed through its peripheral notch *c*. Fig. 11 is an under side view of the seed-dropping disk C. Fig. 12 is an under side view of the bottom plate B. Fig. 13 is a broken detailed view of the cogged disk G.

25 In the embodiment of my invention I provide the usual seed-hopper A, which is mounted upon the beams A' A', having their rear end portions curved downward and forming shovel-standards, one among other ordinary ways for that purpose.

30 B is the bottom plate or casting for the hopper A, having at its corners pendent projections or lugs *a a*, adapted to rest upon the beams A', the hopper being held firmly in position by means of bolts *b b*, passed through said beams and bracket-like straps *b' b'*, pendent from the side of hopper and bottom plate or casting B. In the bottom plate or casting

B, having a circular opening *c* for receiving the corn which is dropped through a series of perforations, is the revolving disk, presently more fully referred to.

55 B' is a disk fixedly secured a short distance below the bottom plate or casting B by a bolt *d*, passing through and held to said disk and also passed up through and held in an oblong opening D' in said bottom plate, said disk having a peripheral notch or recess *c*.

60 C is the revolving distributing disk or plate arranged upon the bolt *d* between the fixed disk B' and the bottom plate or casting B and having, as above intimated, a series of openings *c' c'*, through which the corn is dropped.

65 The under side of the revolving disk C is cast or provided with a series of pendent teeth or lugs *e*, by which it is revolved through the action, preferably, of the prongs or arms of a cam-like wheel E, adjustably held by a set-screw *e'* on the driving-shaft F, suitably limited in its movement and journaled in brackets or hangers *f*, secured to the seed-hopper at the bottom side.

75 The openings in the revolving seed-dropping disk C are successively engaged by a tooth or projection *g'* on a pawl-like arm *g*, suitably pivoted in the bottom plate or casting B and pressed into engagement with said disk by a spring *g*, acting upon said pawl or arm and suitably housed with the latter by a raised casting or portion *h* on said bottom plate, and a still further raised extension *h'* of said raised portion *h*.

80 Arranged in the circular opening *c* of the bottom plate or casting B is a spring-pressed cut-off *i*, adapted to prevent the overcrowding of the seed-carrying perforations of the revolving disk C and suitably held to its place by the casting *h'*.

85 The bottom plate or casting B at its rear side is provided with the cotton-dropping opening *j*, adapted to be regulated in size by a slide *k*, fitted in a depressed plate-like projection *k'* and a cross-piece *k*², integral or cast in one piece with the bottom plate or casting, said slide having a longitudinal slot *k*³, through which passes a bolt *k*⁴, having a winged nut *k*⁵ to provide for holding said slide at the required point of adjustment in regulating the size of the cotton-dropping

opening. An upraised rib-like guide k''' of the plate-like portion k' projects into the slot k^3 of the slide k to aid the guiding of the latter in its movement.

5 In the hopper A is arranged a shaft m , suitably journaled in the front and rear sides of said hopper and driven by an endless chain belt n , encompassing different sprocket-wheels $n' n^2$, secured on said shaft m and the driving-
10 shaft F, respectively. This provides for the driving of the shaft m at varying rates of speed, according as it may be desired to vary the dropping of the cotton-seed by exchanging the wheels $n' n^2$ one for the other. The shaft
15 m is armed with a series of radial spoke-like arms m' and a bail-like arm m^2 to force the cotton-seed when desiring to drop the same through its opening j .

The cotton-dropper is readily removed,
20 when desired, by unshipping the chain belt n .

The forward end of the driving-shaft F is provided with a beveled pinion o , adapted to engage, according to the speed required, any one of three circular series of cogs $p p' p^2$ on
25 the face of a disk G, secured to the axle q of the driving-wheel H, whose axle or shaft is journaled in and carries the downwardly-curved forward ends of the beams A'. The disk G has a series of apertures or perforations
30 r , Fig. 13, provided throughout between the series of cogs to permit the dirt taken up by said disk or dirt accidentally thrown thereon to work out therethrough, and thus prevent the clogging or impeding of the action of the cogs.

35 $l l$ are the handles connected to the beams A' by braces $l' l'$ and fastened by the same bolts as secure the hopper to said beams.

K is the front shovel-standard having also adjustable brace connections K' with the
40 beams A' to vary the pitch of penetration of the shovel in graduating the depth of the

furrow. The upper end of the shovel-standards K has a bail-like connection K² with the beams A', said bail-like connection also being
45 secured to the latter by the same bolts as connect the hopper and handles to said beams.

L is the seed boot or conductor suitably connected to the underside of the bottom plate or casting B and held by strap-like connection L' to the front shovel-standard, permit-
50 ting the adjustment of the same simultaneously with and in a corresponding inclination or pitch as said standard.

M is the bifurcated draft-hooked bar having its inner ends laterally extended engaging apertures in the beams A' and held hori-
55 zontally about by pins or pegs M', inserted below the arms of said draft-bar in additional apertures or perforations of said beams.

Having thus fully described my invention, 60 I claim—

The combination of the hopper-bottom plate having a circular opening therethrough and a depressed plate-like projection k' , a slotted slide k , arranged in the latter and adapted to
65 receive a guide-lug k''' on said projection, a bolt and nut $k^4 k^5$ to regulate the adjustment of said slide, a serially-perforated disk having pendent teeth or cogs, the fixed periph-
70 erally-notched disk B', the spring-pressed pawl-like arm pivoted in said bottom plate, the housing having an extension for inclosing said pawl-like arm and its spring, the pronged wheel, the driving-shaft, and the disk G, geared
75 to said shaft, substantially as specified.

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

JOSEPH W. LEHR.

Witnesses:

E. L. BOGUE,
C. B. CARR.