

(No Model.)

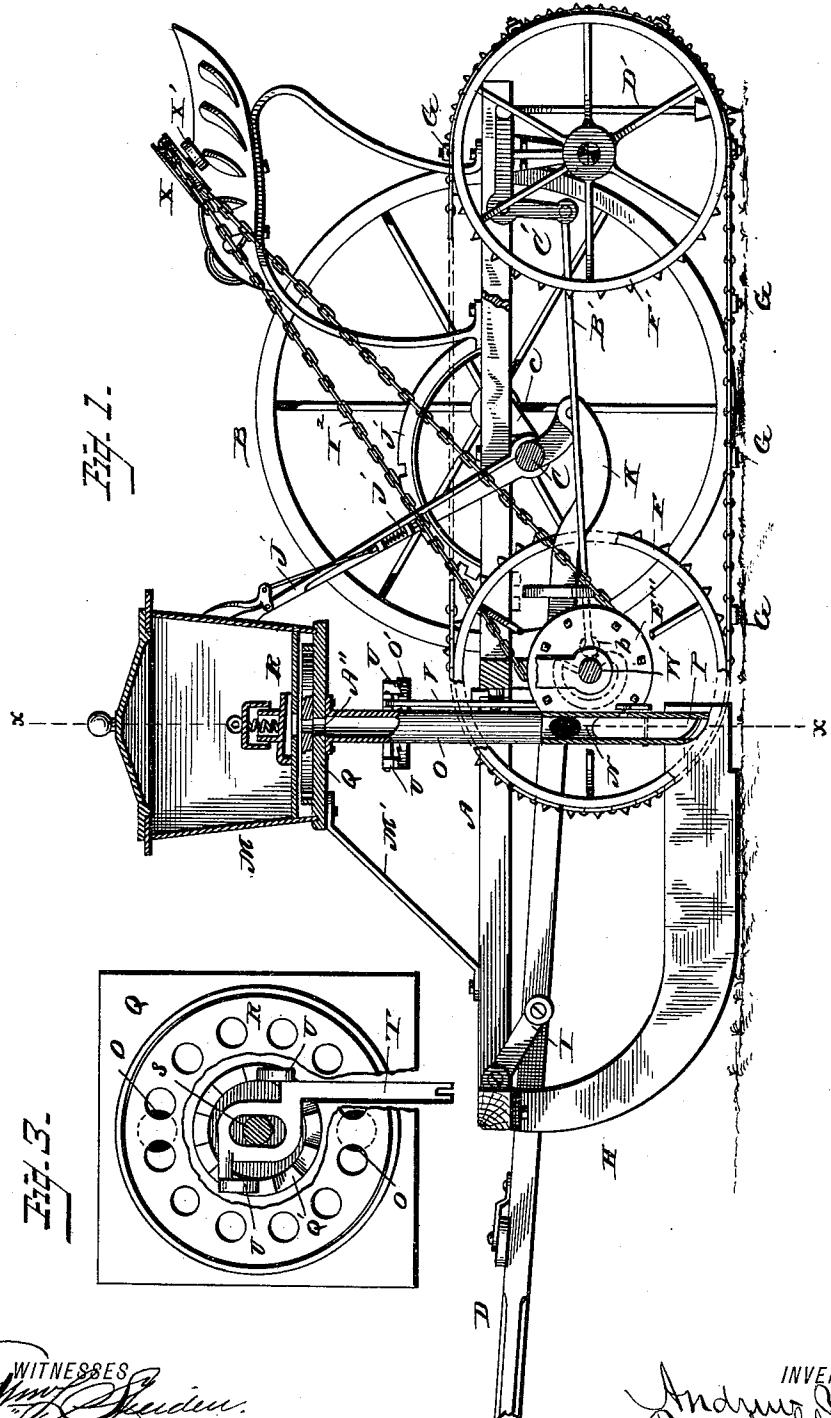
2 Sheets—Sheet 1.

A. YOUNT.

CORN PLANTER.

No. 332,469.

Patented Dec. 15, 1885.



WITNESSES
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INVENTOR
Andrew Count
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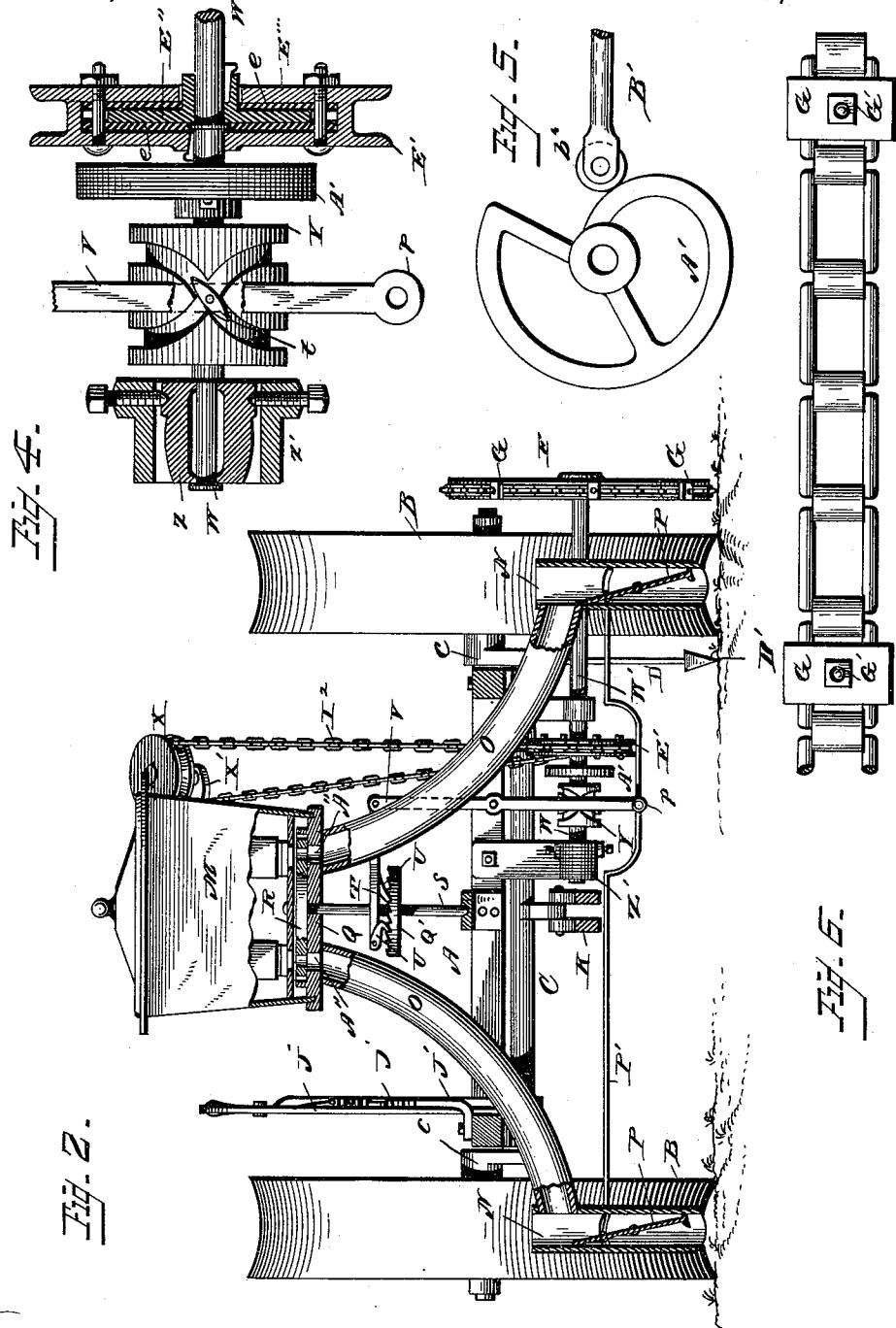
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UNITED STATES PATENT OFFICE.

ANDREW YOUNT, OF DENVER, INDIANA.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 332,469, dated December 15, 1885.

Application filed March 11, 1885. Serial No. 158,468. (No model.)

To all whom it may concern:

Be it known that I, ANDREW YOUNT, a citizen of the United States, residing at Denver, in the county of Miami and State of Indiana, have invented certain new and useful Improvements in Corn-Planters; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

15 My invention relates to an improvement in corn-planters; and it consists in the peculiar construction, arrangement, and combination of parts, as more fully hereinafter set forth and claimed.

20 Figure 1 is a side elevation, partly in section, and with portions broken away to show the details of construction. Fig. 2 is a transverse sectional detail. Fig. 3 is a top plan of the rotary feed-disk, with portions broken away to show its driving mechanism. Figs. 25 4, 5, and 6 are detail views.

The main frame A is supported in the rear upon the crank-axle C, provided with the drive-wheels B upon its crank-arms c, and 30 forward by the runners H. The tongue D is connected to the main frame by links I and K, the former joining the frame and tongue direct, and the latter joining the rear end of the tongue to the axle C. A lever, J, mounted upon the axle C, which is its fulcrum, its lower end connecting with the tongue and its upper end within easy reach of the driver, serves as a means to raise and lower the 35 main frame at will. By reason of the links I and K running in the same inclined position, the frame, in its rising-and-falling movement, will move in nearly parallel planes. The frame may be held at any desired position by the latch j of the lever J engaging a 40 notched segment, J', on the main frame.

45 Centrally supported by the bracket M' is the grain-hopper M, provided with a suitable cover. Its bottom Q is diametrically apertured, as at A", from each of which extends a conveyer, O, to a spout, N, one on either side of the machine and slightly in advance

of and in alignment with the tread of the carriage or carrier wheels. Resting upon the bottom Q, and attached to the upper end of a vertical shaft, S, is a revoluble disk, R, having apertures at stated intervals around close to its periphery, which register with the openings A" in the bottom of the hopper. Keyed to the shaft S is a ratchet-disk, Q', motion being communicated thereto by pawls 55 U, engaging the disk in opposite directions, and loosely attached to the opposite sides of a slotted arm, T, working on the shaft S. The outer end of the arm T connects with the end of a lever, V, pivoted to the main frame, its 60 lower end being provided with a swivel, t, which runs in the cam-grooves of the block Y, the latter being mounted upon a shaft, W, having one end journaled in a box, Z, swiveled in the hanger Z', attached to the main 65 frame, the other end having a grooved pulley, E', secured thereto. Said pulley is centrally recessed to receive a disk, E", keyed to the inner end of a shaft, W', in axial line with the shaft W, the two being held in frictional 70 contact by a disk, E'', sleeved on the hub of the disk E" and joined to the disk or pulley E' by bolts. The disk E" is of less diameter than the recess in the pulley, in order not to interfere with the bolts. To increase the 75 friction between the pulley and disk, leather washers e are interposed between the parts. To the outer end of the shaft W', which is mounted so as to have a free vertical movement in accordance with the unevenness of the 80 ground over which the machine is moving, is a sprocket-wheel, F, mounted so as to rotate with its shaft. An endless chain band provided with blocks G, secured thereto at stated intervals by bolts G', passes over this sprocket-wheel, and over a similar one, F', mounted 85 in a like manner in the rear of the machine. 90

In practice, the machine being drawn forward, the blocks G and the ends of their bolts G', contacting with the ground, will impart a 95 rotary movement to the shafts W' W, and to the cam-block Y, the latter oscillating the lever V, which in turn will reciprocate the arm T, thereby imparting an intermittent rotary movement to the disk R, which, as each successive opening registers with the openings A", will deposit its grain in the conveyers O 100

simultaneously, from which it will pass into spouts N, and there momentarily be detained by vibrating valves P, connected by a rod, P', and operated by an arm, p, attached to said 5 rod and working in the cam-grooves of the cam-block Y. It will be seen that the grain passes alternately on either side of the valves P, and that as it is retained on the one side that on the other is released, thus admitting of the 10 grain being deposited in the ground on either side of the machine at one and the same time.

As the grain is deposited in advance of and covered by the drive-wheels, it is necessary, in order to have the grain planted in rows, to 15 determine the points of deposit. This I accomplish by having a marker, D', to indent the earth at such points, connected to the horizontal arm of a bell-crank lever, C', pivoted to the main frame, its vertical arm being connected to a rod, B', carrying a friction-roller, b', on its outer end to engage a cam, A', secured to the shaft W, the parts being so timed and arranged that the marker D' will exactly indicate the spot where the grain is deposited. 20

25 As the deposit of the grain is regulated by the relative positions of the shafts W' W, which are united and caused to revolve together by frictional contact, this frictional contact is easily overcome and the relative 30 positions of the shafts regulated and adjusted by moving the pulley E' either to the right or left; and in order that this may be easily accomplished by the driver without leaving his seat an endless chain, I², is passed around the 35 pulley E', and over a pulley, X, mounted on an arm, X', branching from the driver's seat.

As the distances apart at which the grain is deposited depend upon the diameter of the sprocket-wheels, the same are made 40 interchangeable.

I claim—

1. The combination, with the shafts W' W' and friction-pulley clutch E' E'', of the endless chain I² and the pulley X, as and for the 45 purposes set forth.

2. In a corn-planter of the character described, the combination, with the main frame, its supporting wheels, and runners, of the draft-pole, the front link connecting the pole directly to the main frame, the rear link connecting it to a crank-axle, the hand-lever and latch, and the notched segment, as and for the 50 purposes described.

3. The combination, in a corn-planter, of a main frame, mounted as described, a grain-hopper centrally located and provided with laterally-curved conveyers leading to vertical discharge-tubes in line with the covering-wheels, the vibrating discharge-valves in the 55 said tubes, an intermittent grain-dropping disk on the perforated hopper-bottom, and the devices described for actuating the said disk, substantially as specified.

4. The combination of a grain-hopper having a perforated intermittently-rotating dropping-disk on a shaft, S, the ratchet-disk, the slotted arm-bearing pawls, the lever V, bearing a swivel, t, and a cam-block, Y, applied 60 on a shaft, W', mounted as described.

5. The combination, with the grain-spouts 70 N, of the vibrating valves P, their connecting-rod P', vibrating lever p, actuated as described, and transmitting intermittent rotation to the dropping-disk by devices described.

6. The combination, in a corn-planter, of the two shafts W' W', journaled in the same axial line and bearing a sprocket-wheel, with a compound friction-pulley, an accommodating bearing, Z, and a cam-block, substantially 75 as and for the purposes described.

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

ANDREW YOUNT.

Witnesses:

O. F. SNOOK,
JOHN TUDOR.