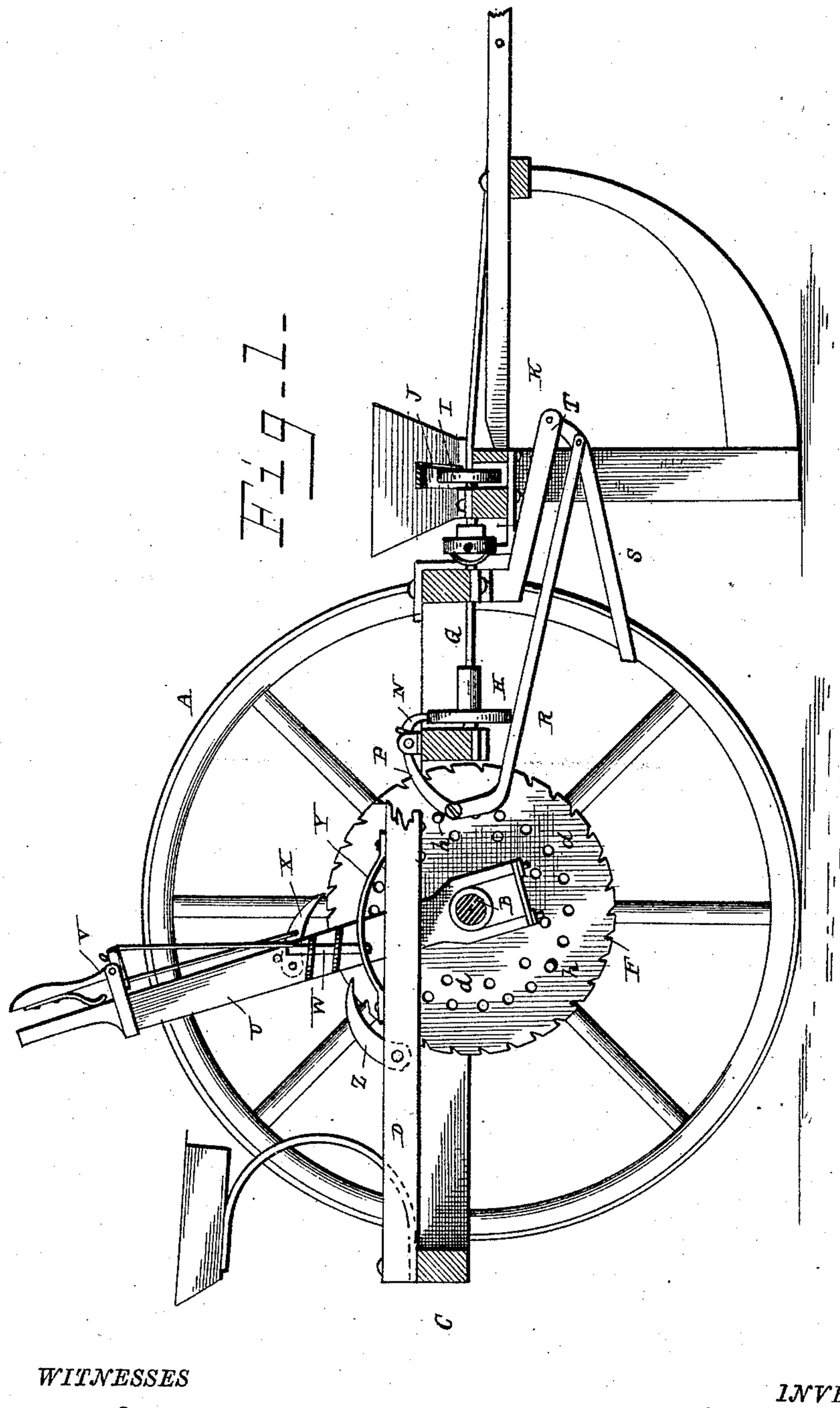
(No Model.) 3 Sheets—Sheet 1.

W. H. HORNOR & A. CROTCHETT.

CORN PLANTER.

No. 312,853. Patented Feb. 24, 1885.



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(No Model.) 3 Sheets—Sheet 2.

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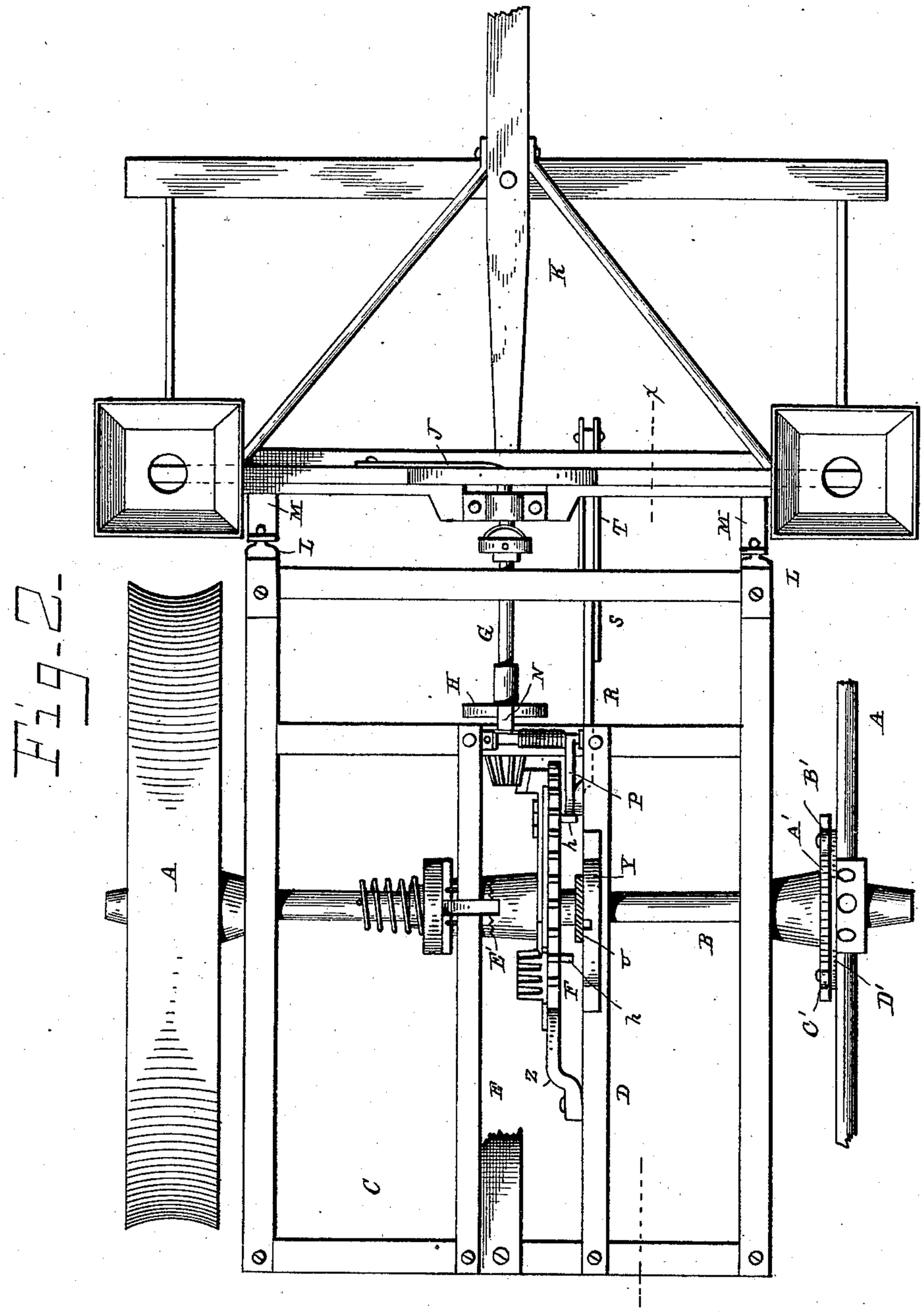

FIG. 2.

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Fig. 3.

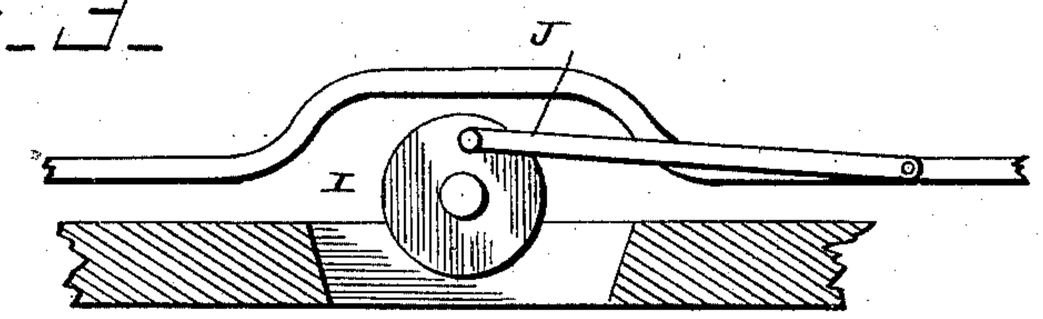


Fig. 4.

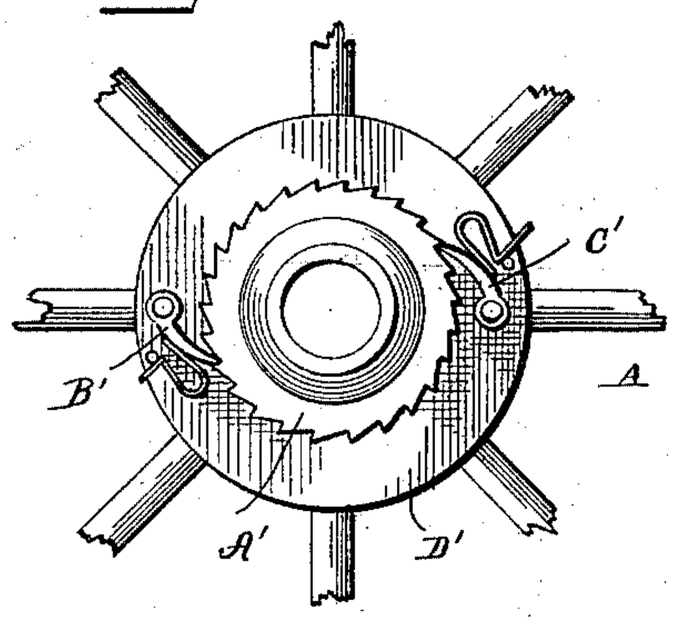


Fig. 5.

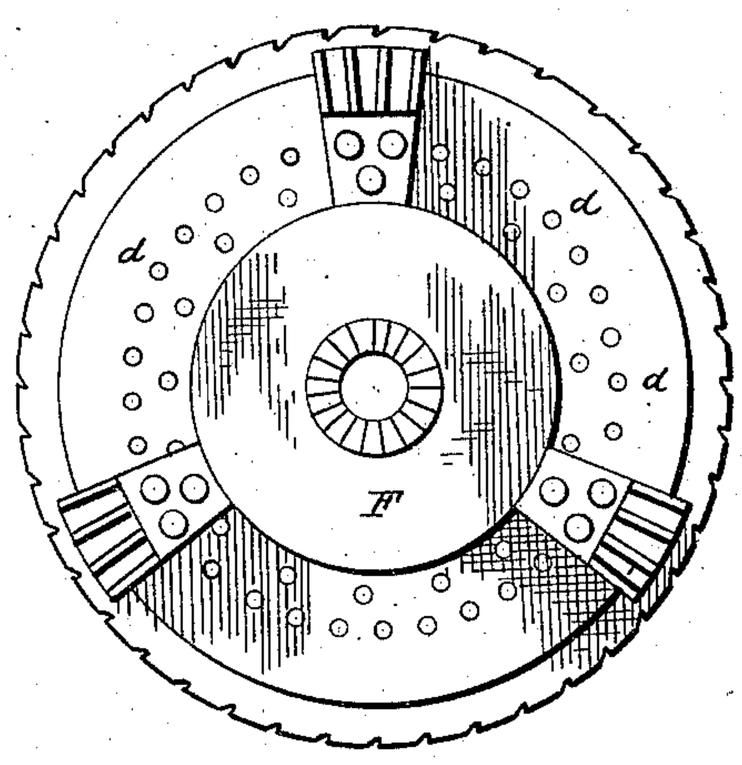
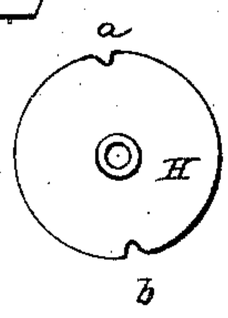


Fig. 6.



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UNITED STATES PATENT OFFICE.

WILLIAM H. HORNOR AND AL. CROTCHETT, OF BAXTER SPRINGS, KANSAS.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 312,853, dated February 24, 1885.

Application filed September 5, 1884. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM H. HORNOR and AL. CROTCHETT, citizens of the United States, residing at Baxter Springs, in the county of Cherokee and State of Kansas, have invented certain new and useful Improvements in Corn-Planters, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain improvements in corn-planters; and it has for its objects means to provide a more convenient and simplified method of planting the corn and marking the furrows. These objects we attain by the means illustrated in the accompanying drawings, in which—

Figure 1 represents a sectional view through the line *x x* of Fig. 2. Fig. 2 represents a top view of the planter, with part in section. Fig. 3 represents a front view of a portion of the operating mechanism. Fig. 4 represents a view of a portion of one of the wheels, with the driving mechanism attached thereto. Fig. 5 represents a view of one of the operating-wheels, and Fig. 6 represents a view of the stop-wheel.

The letter A indicates the main wheels of the planter, loosely mounted upon the axle B, on which is also mounted a frame, C, consisting of two longitudinal beams and three cross-beams, and resting upon the center cross-beam and the rear cross-beam are two beams, D and E. Between these beams, and loosely mounted on the axle, is a wheel, F, having notches on its periphery and cog-segments secured to one side. These segments have teeth projecting from their surface, so that when in position said teeth are at about right angles to the plane of the wheel F.

Hinged to the beam E is a foot-lever, which operates a clutch, E′, engaging with the wheel F.

Extending longitudinally of the planter, and from the middle cross-beam to the front beam, is a shaft, G, having on one end thereof a cog-wheel, which engages the cog-segments on the wheel F, and between the two cross-beams mentioned above is a wheel, H, having the notches *a b* thereon. The front end of this shaft G is hinged by a knuckle-joint to a short shaft, which is journaled in suitable bearings, and having a wheel, I, thereon, which is connected to the dropping mechanism by the arm J. These latter portions are situated upon the frame K, which is hinged to the main frame by the hooks L and eyes M. (Shown in the drawings.) This frame K also carries the seed-hoppers and the openers.

Situated on the middle cross-beam, and between the beams D and E, is mounted in bearings a combined spring-pawl, N, and lever P, the pawl operating in connection with the notched wheel H, and the lever, extending downwardly, has connected to its lower end a bent arm, R, which is connected to the marker S, pivoted between the extended bearings T.

Loosely mounted on the axle beside the wheel F is a lever, U, having pivoted at its upper end a spring double lever, V, and connected to the short arms of the lever are rods to operate a bolt, W, and pawl X. The pawl engages with the notches on the periphery of the wheel F, and the bolt engages with a notch in the segment-bracket Y, situated upon the beam D. On this beam is also pivoted a pawl, Z.

To the axle, near one of the main wheels, is secured a ratchet-wheel, A′, which is operated by the spring-pawls B′ C′, which are pivoted to a plate, D′, secured to the wheel.

The wheel F is perforated, as indicated by the letter *d*, and through these perforations are passed the bolts which secure the cog-segments to the wheel, and one bolt of every segment is extended through on the other side, forming the pins *h*, which operate the marker.

The operation of our invention is as follows: When the pawls are engaged with the ratchet-wheel A′ and the clutch E′ is engaged, and the planter is moved forward, the main wheels cause the mechanism to operate, the wheel F rotates, operating the dropping mechanism through the cog-segments, and the pins extending on the opposite side operate the marker, the marker and the dropping mechanism operating together—that is, when the pins *d* strike the lever P it releases the pawl N from the notch on the wheel H, allowing the cog-segments to turn the shaft G by engaging the cog-wheel thereon, the pawl slipping into the other notch in the wheel H and allowing the dropping mechanism to operate. During this stage of proceedings the lever U is in a vertical position, being held by the

bolt W, and when the planter arrives at the end of a row and commences another row, if the marker is not prepared to strike when the planter is parallel to the rows just marked, the clutch E′ is released, the bolt W is operated, and by the double lever, which at the same time causes the pawl X to engage with the wheel F, moving it forward, marking the ground parallel with the previous marks without the planter moving.

When desired, the planter can be removed from place to place without operating the mechanism by removing the pawls from engagement with the ratchet-wheel A′.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a corn-planter, an operating-wheel having cog-segments on one side for operating the dropping mechanism, and pins on the other side, said pins being a continuation of the bolts or devices securing the segments, and operating the marking mechanism, substantially as set forth.

2. The combination, with an operating-wheel having ratchet-teeth on its periphery, of a lever having on it a short spring-actuated lever, a pawl engaging with the said wheel, and a bolt engaging in a segmental bracket, the shorter lever being connected to and operating both pawl and bolt, substantially as and for the purpose specified.

3. The combination, with an operating-wheel having section of cogs, and the dropping mechanism, of two shafts connected by a knuckle-joint, one of the shafts being provided with a cog-wheel, the other having a wheel mounted thereon and connected to the dropping mechanism by an arm, all arranged to operate substantially as described.

4. The combination, with an operating-wheel having cog-segments on one side or surface, of a shaft carrying a gear-wheel which intermeshes with and receives intermittent rotation from the said cog-segments, and also a notched wheel, a shorter shaft connected to the other shaft and carrying a wheel which connects to and operates the dropping mechanism, and a spring-actuated pawl engaging normally in the notched wheel, substantially as and for the purpose specified.

5. The combination, with an operating-wheel having cog-segments on one side or surface and projecting pins on the other side or surface, of a shaft carrying a gear-wheel and a notched wheel, and a combined spring-actuated pawl and lever, said lever engaging with the pins and lifting the pawl from the notches, substantially as and for the purpose specified.

6. The combination, with an operating-wheel having cogs on one side and pins on the other, of a shaft carrying a gear-wheel, and a notched wheel, a spring-actuated pawl pivoted to the frame and having an extended lever-arm, and a marker pivoted to the frame and connected to the said lever by an arm pivoted at the connecting-points, the whole operating substantially as and for the purpose specified.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM H. HORNOR.
AL. CROTCHETT.

Witnesses:
E. B. CORSE,
J. W. HORNOR.