(No Model.)

S. M. DRAKE & C. LINDER.

CORN PLANTER.

No. 374,242. Patented Dec. 6, 1887.

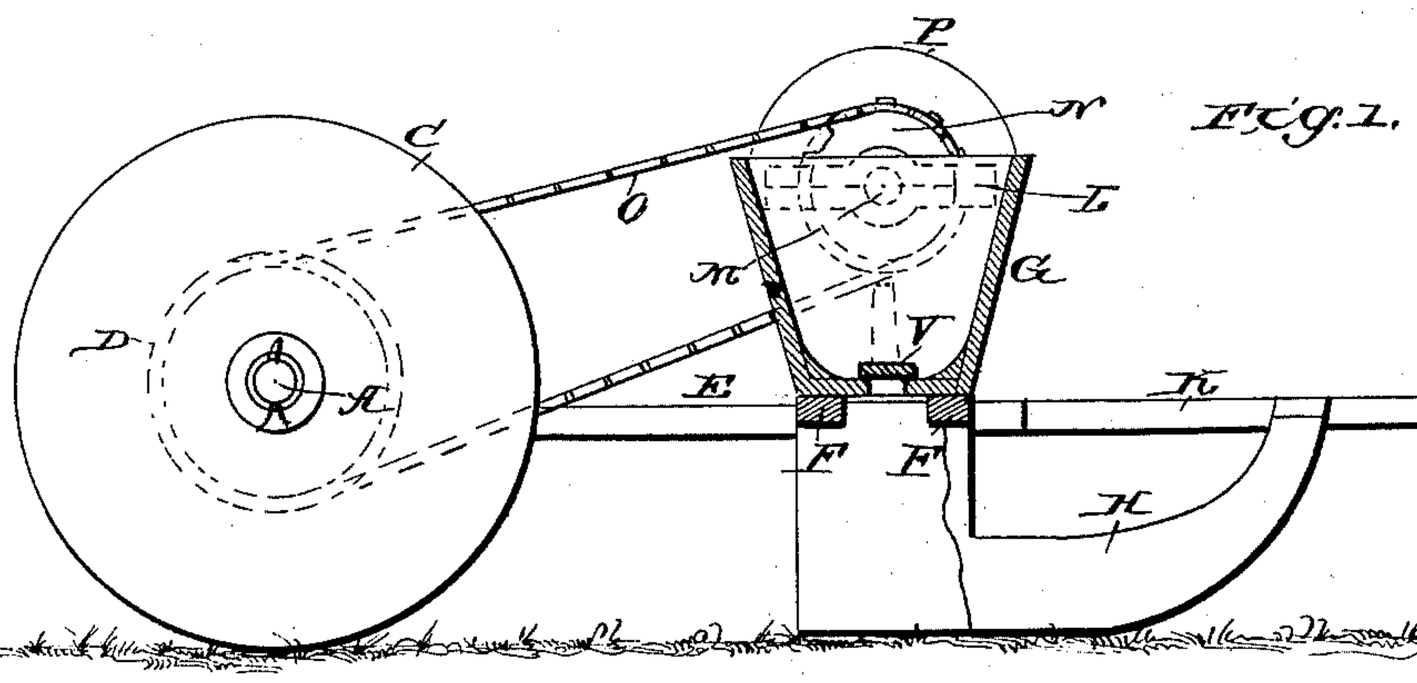

Fig. 1.

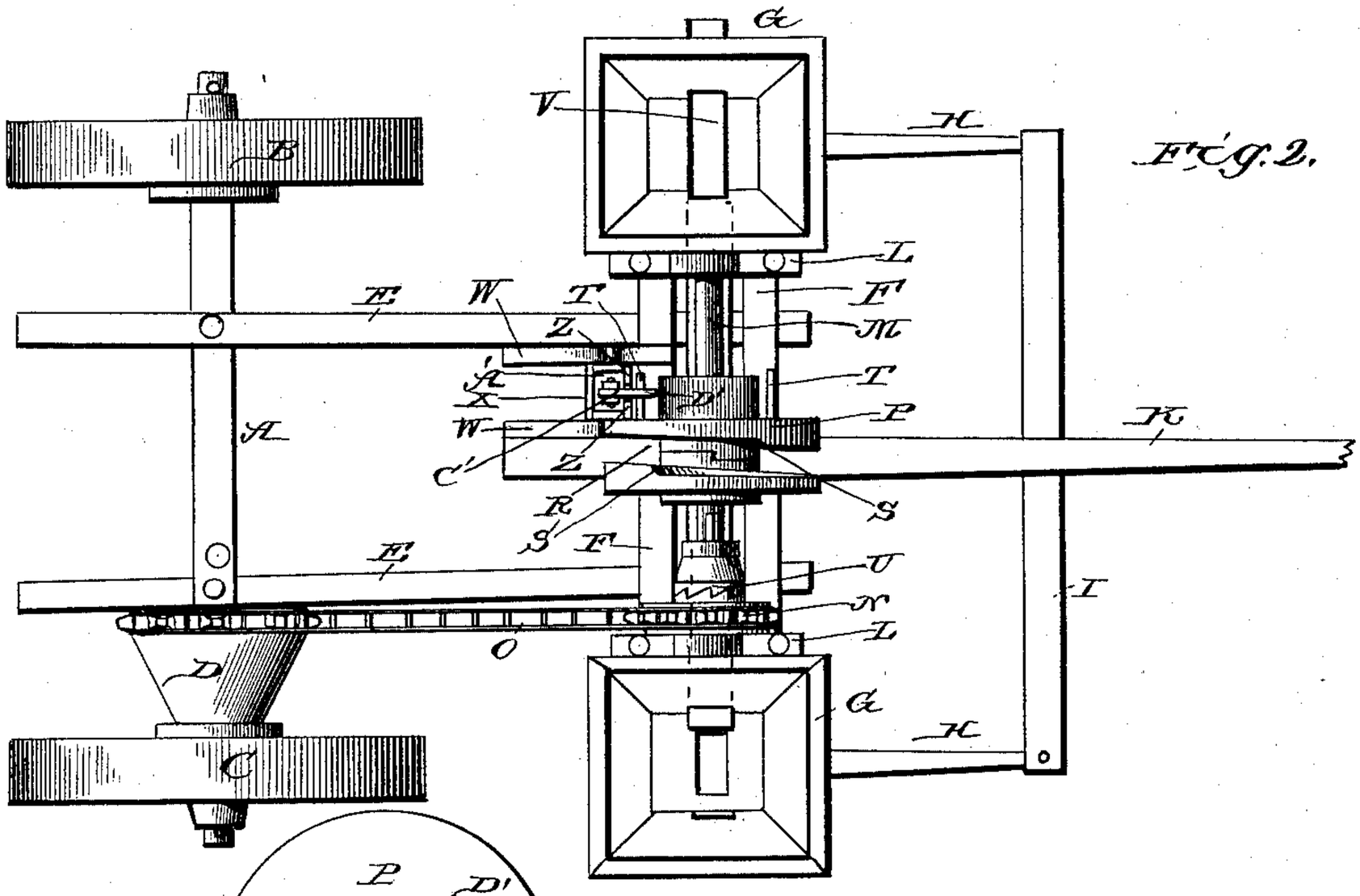

Fig. 2.

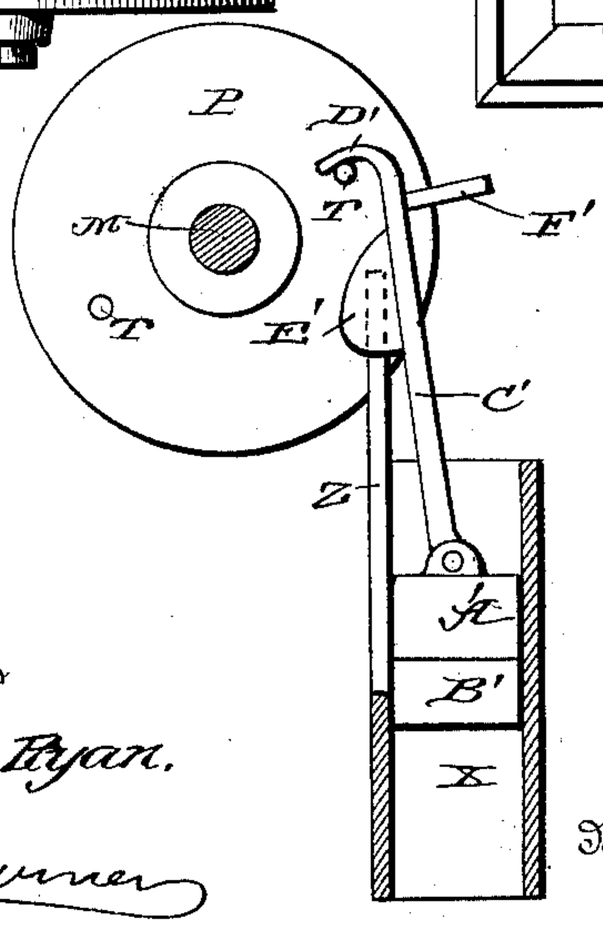

Fig. 3.

Witnesses
Joseph A. Ryan.
J. W. Garner

Inventor
Samuel M. Drake
Charles Linder.
By their Attorneys
C. A. Snow & Co

UNITED STATES PATENT OFFICE.

SAMUEL M. DRAKE AND CHARLES LINDER, OF KANSAS CITY, MISSOURI.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 374,242, dated December 6, 1887.

Application filed June 25, 1887. Serial No. 242,522. (No model.)

To all whom it may concern:

Be it known that we, SAMUEL M. DRAKE and CHARLES LINDER, citizens of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented a new and useful Improvement in Check-Row Corn-Planters, of which the following is a specification.

Our invention relates to an improvement in check-row corn-planters; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is partly a side elevation and partly a vertical longitudinal sectional view of a corn-planter embodying our improvements. Fig. 2 is a top plan view of the same. Fig. 3 is a detail view.

A represents the axle, on which are journaled the usual supporting-wheels, B C.

D represents a pulley or sprocket-wheel, which is rigidly secured to the wheel C.

E represents a pair of forward extending bars, which converge at their front ends and are secured to the axle A. The front ends of the said bars are secured to the under side of a pair of parallel transverse bars, F. On the ends of the said transverse bars are supported hoppers G, which are provided with the usual discharge-openings in their lower sides, which openings communicate with vertical seed-spouts formed in the rear ends of runners H, which project forward from the bars F. The said runners have their front upper ends connected by a transverse bar, I.

K represents a draft tongue or pole, which has its rear ends arranged between the converging front ends of the bars E and converge to the centers of the bars F and I.

On the inner ends of the hoppers G are secured bearing-boxes L, in which is journaled a shaft, M. On one end of the said shaft is loosely mounted a wheel or pulley, N, which is connected to the wheel or pulley D by means of an endless belt or chain, O.

To the center of the shaft M is attached a cam-wheel, P, which is provided with a diagonal peripheral groove, R, in opposite sides of which are offsets or shoulders S. From each side of the cam at diametrically-opposite points project tappet-pins T.

U represents a sliding clutch, which is feathered on the shaft M, and is adapted to engage the pulley N, so as to lock the same to the shaft.

V represents a slide-bar, which extends from one hopper to the other, and has its ends reduced in size and passed through openings in the inner ends of the hoppers and bearing upon the bottoms thereof, and thereby adapted to alternately open and close the discharge-openings in the hoppers.

Between the opposing sides of one of the bars E and the tongue, just in rear of the cross-bars F, are secured bearing-blocks W.

X represents a box or guideway, which is rectangular in cross-section, and is provided at its center with projecting trunnions that are journaled in the box W. From the upper end of the box or guideway X projects a pair of arms, Z, a suitable space or opening being left between the said arms.

A′ represents a plunger, which fits in the guideway or box X, and has its lower end provided with a weighted tamping-bar, B′.

C′ represents an arm which is pivoted to the upper end of the plunger A′, and is provided at its upper extremity with a hook, D′. At a suitable distance below the said hook on the front side of the said arm is an offset or shoulder, E′. From the rear side of the said arm, at a suitable height above the upper end of the plunger, is a rearwardly-projecting arm, F′, which is adapted to strike against the upper end of the box or guideway X, and thereby limit the downward movement of the pivoted arm and the plunger.

The operation of my invention is as follows: When the machine is drawn forward and the clutch is caused to engage the pulley N, the said pulley is caused to rotate by being connected to the driving-pulley D, and consequently imparts rotary motion to the shaft M. This causes the obliquely-arranged peripheral groove in the cam P to reciprocate the slide-bar V first in one direction and then in the contrary direction, and thereby cause the seeds to be dropped from the hoppers into the furrows made by the runners. Inasmuch as the tappet-pins T are arranged at opposite points on the cam and correspond with the offsets or inclines thereof, it follows that as the cam rotates, the tappet-pins successively engage the

hook of the pivoted arm C′ and thereby raise the latter, and consequently elevate the plunger in the box or guideway X. When the pin reaches the upper side of its path, as the cam rotates, the offset or shoulder E′ strikes against the hub of the cam and thereby causes the hook to be disengaged from the tappet-pin, when the plunger and the arm C′ instantly descend in the guideway or box X, thereby causing the weighted tamping-bar to make a depression in the earth to register the point at which the seeds were planted.

Having thus described our invention, we claim—

1. In a check-row corn-planter, the combination of the shaft M, the rotating cam P thereon, having the oblique slot and the tappet-pins T, the reciprocating slide-bar having the arm engaging the slot, and the vertically-movable plunger guided in a suitable way and having the hook-arm C′ at its upper end, adapted to successively engage the tappet-pins as the wheel P rotates, substantially as described.

2. The combination, in a check-row corn-planter, of the rotating shaft M, having the wheel P to actuate the seed-planting mechanism, said wheel being provided with the tappet-pins T, and the vertically-movable plunger guided in a suitable way and provided at its upper end with a hook-arm, C′, adapted to successively engage the tappet-pins as the wheel P rotates, the said arm C′ having the offset or shoulder E′ to trip its hook from the pins P, substantially as described.

3. The combination, in a check-row corn-planter, of the rotating shaft M, having the wheel P, provided with tappet-arms T, the guideway or box X, pivoted in suitable bearings and provided at its upper end with the arm F′, the plunger movable vertically in the said guideway or box, and the arm C′, pivoted to the upper end of the plunger and provided with the hook to engage the tappet-pins and the offset or shoulder E′, for the purpose set forth, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

SAMUEL M. DRAKE.
CHARLES LINDER.

Witnesses:
WILLIAM J. ELLIOTT,
JAMES W. PERKINS.