

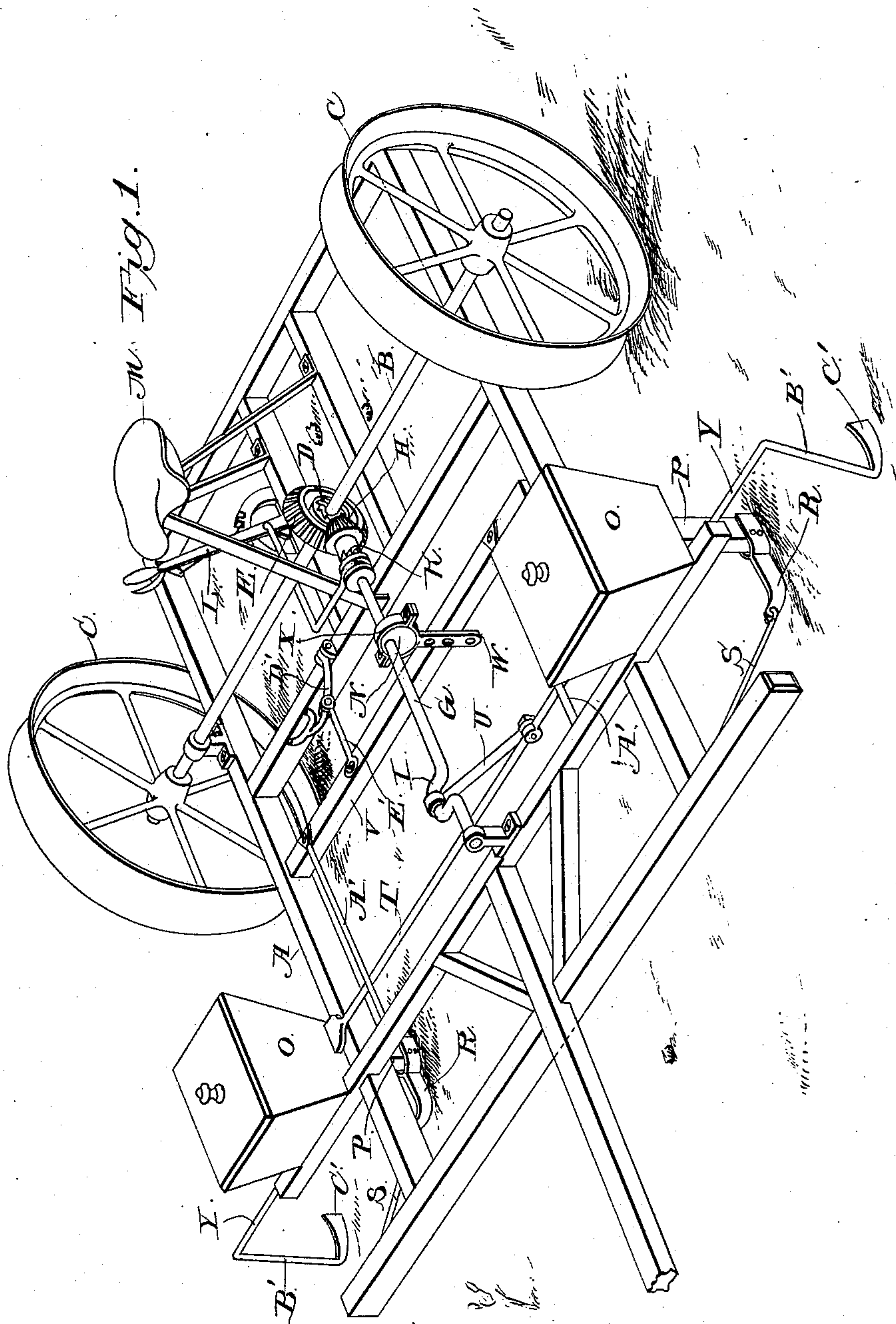
(No Model.)

2 Sheets—Sheet 1.

E. N. WILLIAMS.
CHECK ROW CORN PLANTER.

No. 376,125.

Patented Jan. 10, 1888.



Witnesses

M. E. Fowler
J. W. Garner

Inventor
Emery N. Williams

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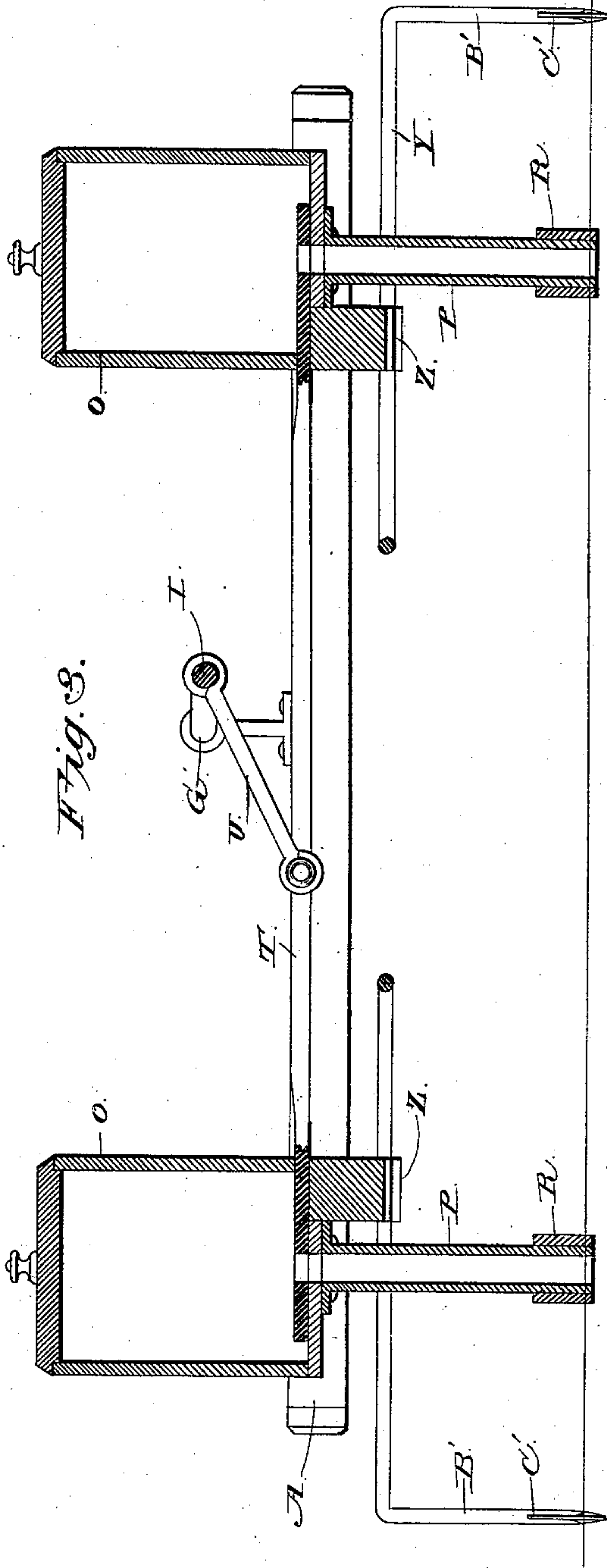
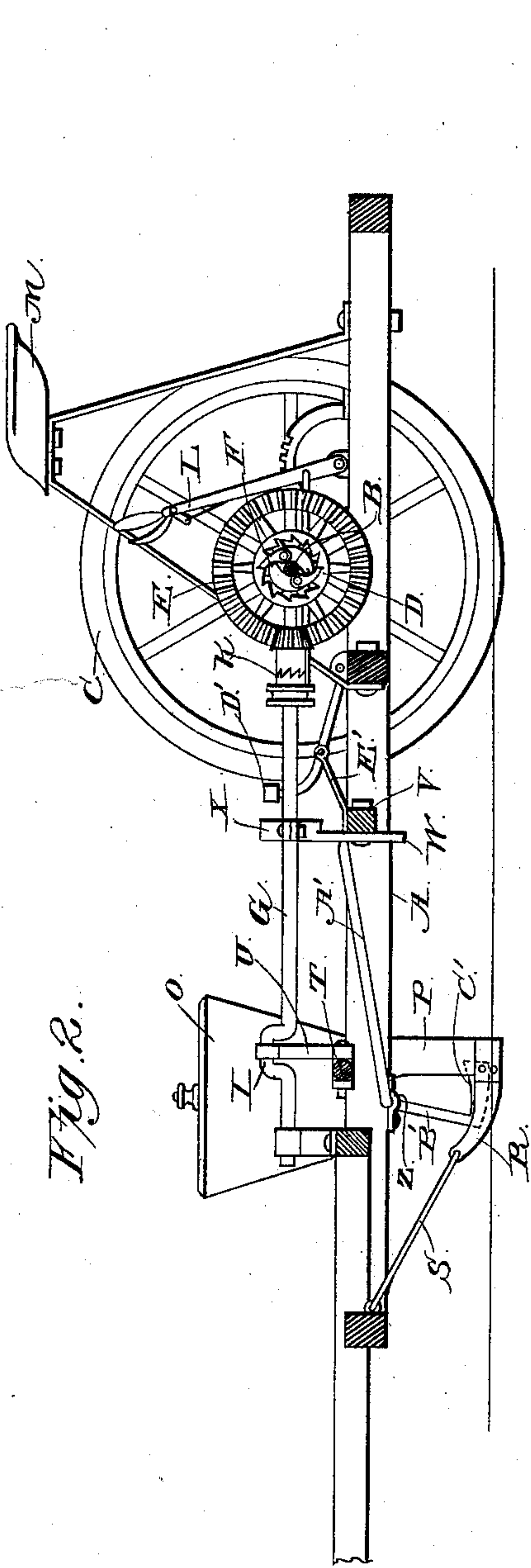
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UNITED STATES PATENT OFFICE.

EMRY N. WILLIAMS, OF BONITA, KANSAS.

CHECK-ROW CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 376,125, dated January 10, 1938.

Application filed November 4, 1887. Serial No. 254,304. (No model.)

To all whom it may concern:

Be it known that I, EMRY N. WILLIAMS, a citizen of the United States, residing at Bonita, in the county of Johnson and State of Kansas, have invented a new and useful Improvement in Check-Row Corn-Planters, of which the following is a specification.

My 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 accompanying drawings, Figure 1 is a perspective view of a check-row corn-planter embody my improvements. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a vertical transverse sectional view of the same.

A represents a rectangular frame, at a suitable distance from the rear end of which is journaled a shaft, B, provided with driving and supporting wheels C. At the center of this shaft is loosely secured a miter-wheel, E, having ratchet-teeth D. Spring-actuated pawls F, pivotally connected to the axle or shaft, engage the ratchet-teeth, and thereby cause the wheel E to rotate with the shaft when the machine is going forward and permit the wheel E to be turned loosely on the shaft when the latter is stationary.

G represents a longitudinal shaft, which is journaled in suitable bearings on the center of the frame, is provided at its rear end with a miter-pinion, H, that meshes with the wheel E, and has a crank, I, formed near its front end.

K represents a clutch with which the shaft G is provided, and which is adapted to throw the wheel H in and out of gear with the wheel E. A lever, L, is connected to the said clutch and is arranged at a convenient distance from the driver's seat M.

N represents an eccentric, which is rigidly secured to the shaft G about midway between the wheel H and the crank I.

O represents a pair of seed-hoppers, which are of the usual form, and are secured to the sides of the frame A, near the front end thereof and in advance of the wheels C. From the under sides of these hoppers depend spouts

P, to which are secured runners R, that have their front ends connected to the front cross-bar of frame A by means of rods S.

T represents a seed-slide, which is of the usual construction and is adapted to alternately open and cover the discharge openings in the seed-hoppers, and is connected to the crank I by means of a pitman, U.

V represents a transverse bar, which is suspended from the eccentric N by means of a link, W, that depends from an eccentric-strap, X. The said link W is provided with a series of openings, by means of which the bar V may be secured thereto at any desired vertical adjustment.

Y represents a pair of rock-shafts, which are journaled transversely in suitable bearings, Z, secured to the frame under the seed-hoppers. The said rock-shafts have at their inner ends rearwardly-extending arms A', that are connected to the bar V, and are provided at their outer end with depending arms B', to which are attached markers C'.

From the foregoing description it will be understood that when the shaft G rotates reciprocating motion will be imparted to the seed-slide, and vertical reciprocating motion will be imparted to the bar V by the eccentric, thereby causing the said bar to rock the shafts Y, and consequently cause the markers C' to be raised and lowered. The crank I and the eccentric are so timed that the marker will be lowered, and thereby caused to engage the earth and mark the same at the same instant that the seeds are dropped by the planting mechanism, and thereby the markers will mark the hills, so that they may be readily distinguished.

D' represents a foot-lever, which is pivoted or hinged to one of the cross-bars of the frame A, near the driver's seat, and is connected to the bar V by means of a rod, E'. The function of this foot-lever is to enable the cross-bar V to be depressed, so as to lower the marker C' and actuate the said seed-slide when the markers do not align with the rows of hills previously planted, thus enabling the operator to cause the machine on starting a new row to drop the seeds exactly in line with the hills already planted. When the bar V is depressed by the foot-lever D', as before described, the eccentric N is caused to partly rotate, so as to

operate the seed-slide, as before stated, this partial rotation of the eccentric causing the shaft G to partially rotate in a retrograde direction, and thereby causing the wheel E to be
5 turned backward on the shaft B without affecting the said shaft.

Having thus described my invention, I claim—

1. The combination of the rotating shaft G, having the crank I, connected to the planting mechanism and provided with the eccentric N, and the rock-shafts Y, journaled beneath theseed-hoppers, having the markers C and the rearward extensions A', connections between
15 the said extensions, and the eccentric, whereby the said rock-shafts are simultaneously oscillated, substantially as described.

2. The combination, with a corn-planter having the rotating shaft G, of the rock-shafts Y, having the markers C' and the arms A', the bar V, connecting the said arms, the eccentric secured to the shaft G, and the link W, depending from the said eccentric and adjust-
20 ably secured to the said bar V, substantially as described.

3. In a corn-planter, the combination of the rotating shaft G, having the eccentric N and the crank I, the seed-slide, the pitman connecting the same to the crank I, the rock-shafts

Y, having the markers C' and the rearward
30 extensions A', the bar V, connecting said extensions and connected to the eccentric, the lever D', and the rod E', connecting the same to the bar V, for the purpose set forth, substantially as described.
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4. The combination, in a check-row corn-planter, of the frame A, shaft B, journaled thereto and having the wheels C, the wheel E, loosely secured on the shaft, the pawl and ratchet connecting the said wheel to the said
40 shaft when the latter rotates in one direction, the operating shaft G, having the pinion engaging the wheel E and provided with the eccentric and the crank, the seed-slide, the pitman connecting the same to the crank, the
45 rock-shafts Y, having the markers and provided with the arms A', the cross-bar V, connecting the said arms, connections between the eccentric and the said cross-bar, and the lever D', adapted to rotate the shaft G independently
50 of the shaft B, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

EMRY N. WILLIAMS.

Witnesses:

C. V. TAUMLEY,

J. E. WILLIAMS.