No. 842,388. PATENTED JAN. 29, 1907.

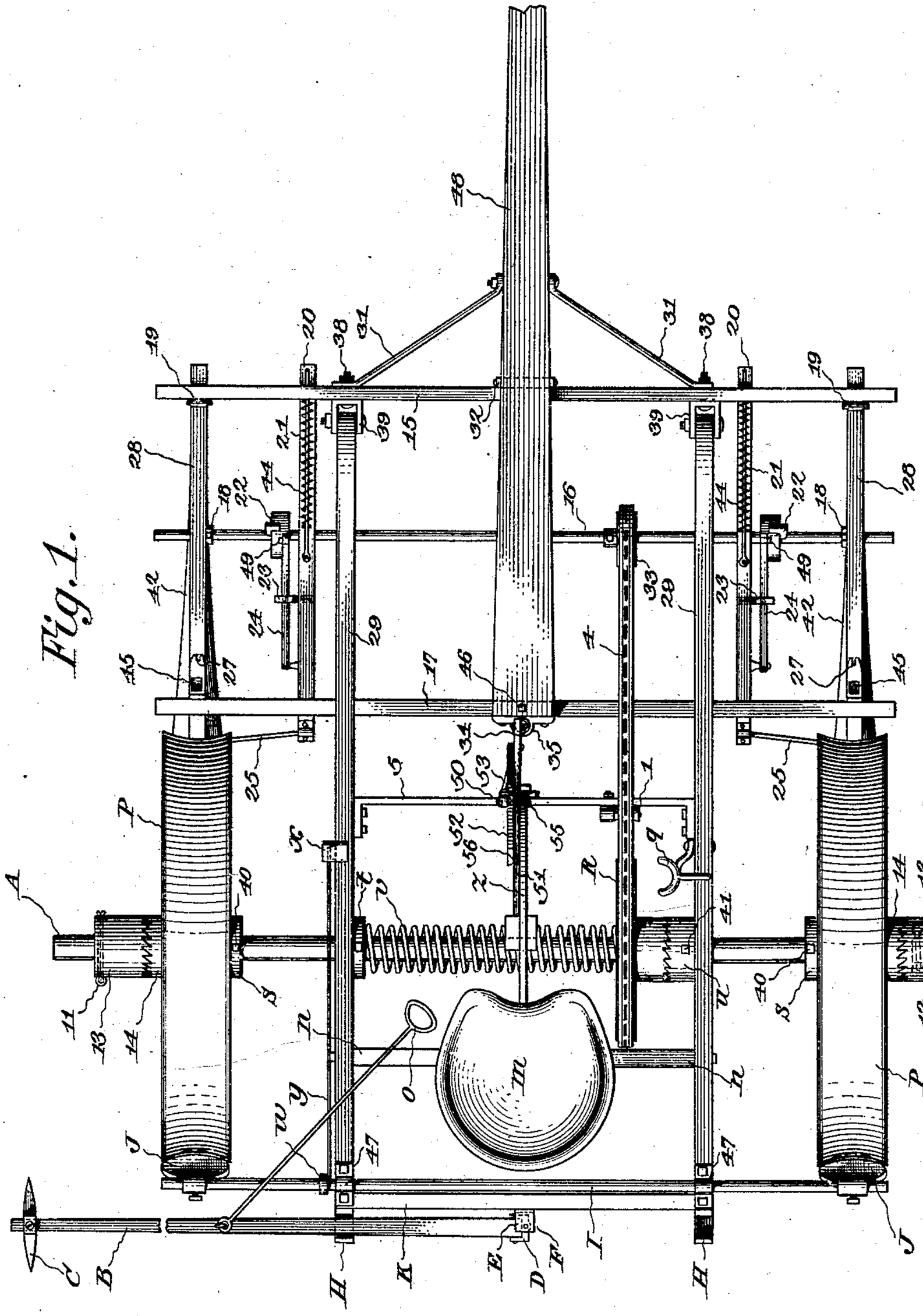
F. D. CUTSFORTH.

CORN PLANTING MACHINE.

APPLICATION FILED MAY 18, 1906.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses:

Antonia Whitney.

J. R. Garvan

Inventor:

Fred Dell Cutsforth

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2 SHEETS—SHEET 2.

Fig. 3.

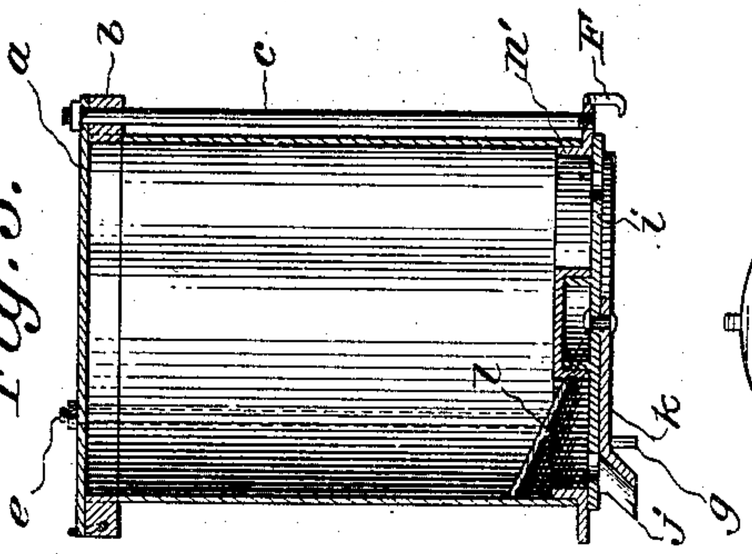

Fig. 4.

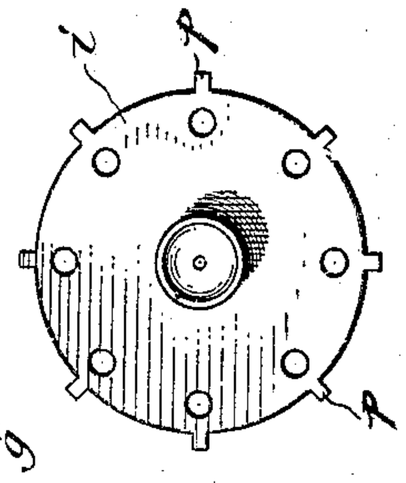

Fig. 5.

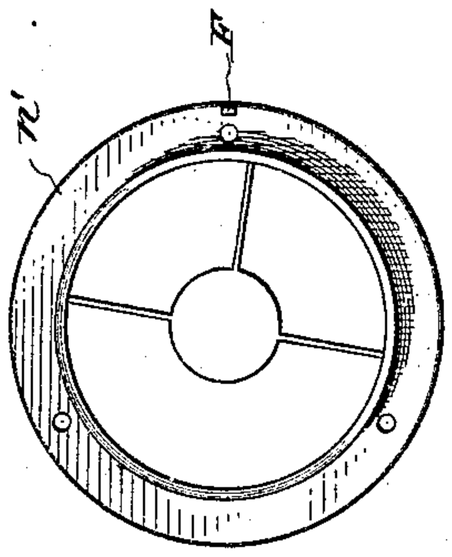

Fig. 6.

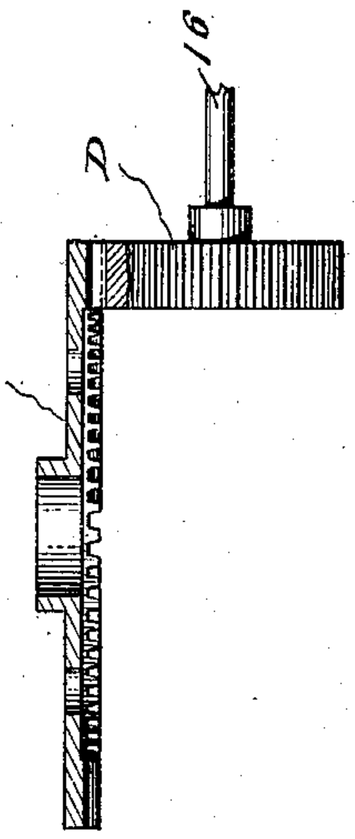

Fig. 2.

Witnesses:
Antone Whitney
J. R. Gavin

Inventor:
Fred D. Cutsforth

UNITED STATES PATENT OFFICE.

FRED DELL CUTSFORTH, OF CHETEK, WISCONSIN.

CORN-PLANTING MACHINE.

No. 842,388. Specification of Letters Patent. Patented Jan. 29, 1907.

Application filed May 18, 1906. Serial No. 317,648.

To all whom it may concern:

Be it known that I, FRED DELL CUTSFORTH, a citizen of the United States, residing at Chetek, in the county of Barron and State of Wisconsin, have invented a new and useful Corn-Planting Machine, of which the following is a specification.

This invention is a corn-planter, and more particularly one in which no check-wire is employed.

The object of the invention is to provide an improved checking mechanism to insure a positive check, together with other novel features of construction to be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan view with the seed cans or hoppers removed. Fig. 2 is a side elevation. Fig. 3 is a sectional view of the seed-can. Fig. 4 is a plan view of the dropping-plate. Fig. 5 is a bottom view of the seed-can, and Fig. 6 is a sectional elevation of a drilling attachment.

Referring specifically to the drawings, the drive-wheels P of the machine have each a clutch-hub 14, engageable with clutch-collars 13 on the axle A, which are held in engagement with said hubs 14 by a spring 12. The collars 13 are slidable lengthwise on the axle, but are fastened by keys 11, so as to turn therewith. Collars S, fastened to the axle by set-screws 40, serve to properly space the wheels on the axle.

The frame of the machine comprises longitudinal side bars 29, mounted on the axle A. At or about the middle the side bars are connected by a cross-bar 5, and at their front ends they are connected by clevises 39 to a cross-bar 15, the clevises being secured to the latter bar by bolts 38. The rear ends of the side bars are connected by a cross-bar K. The seat *m* is supported on a curved standard *z*, extending from the cross-bar 5. Lateral braces for the seat are indicated at *n*.

The tongue 48 extends above the bar 15, and under said tongue is a casting 36, which is fastened at its front end to the bar 15, and to the rear end of the casting is secured a cross-bar 17. The tongue is secured to the bar 17 by a bolt 46. The front end of the casting 36 forms a clip 32 for securing the tongue to the bar 15. Lateral braces 31 extend from the tongue and are fastened to the bar 15 by the bolts 38.

The furrow-openers 42 are carried by brackets 28, secured at their front ends to the bar 15 and at their rear ends to the bar 17. The furrow-openers can be raised or lowered, according to the depth it is desired to plant. This is done by a foot-lever 51, pivoted at 55 to the standard *z*. To the front end of the foot-lever is secured one end of a spring 34, which is fastened at its opposite end to the rear end 35 of the casting 36. A hand-lever 50, having the same pivot as the foot-lever 51, is connected to the latter by a link 53. The hand-lever is locked by a latch 54, engageable with a segment-rack 52, secured on the pivot 55, and to the standard *z* at 56. The furrow-openers are wider at their rear ends than in front, and they are directly in front of the drive-wheels. The latter have a concave tread, so that when passing over the ground the soil is crowded to the center to cover the seed.

The seed can or hopper has a top *b*, a bottom *n'*, and a cover *a*. The top and bottom are connected by bolts *e* and *c*. Secured to the bottom *n'* is the rotatable dropping-plate *i*, and fitting on the bottom of said plate is the bottom plate *k*, having a spout *j*, which when the seed-can is in position on the machine communicates with the seed-tube 45. The seed-can has a depending pin *g*, which is extended into a slot 27 in the top of the bracket 28, and also a hook F, engageable with an eye 19 on the cross-bar 15, whereby the can is mounted on the machine. The dropping-plate has the usual circle of openings through which the seed drops into the spout *j* when the plate is rotated. The plate also has radially-projecting fingers *p* for a purpose to be hereinafter described. On the inside of the seed-can is a downwardly-slanting plate *l*, extending from the back of the can to the center and forming a slide and a cut-off for the seed.

At 16 is indicated a transverse shaft which is supported in the brackets 28 and secured against lengthwise movement by collars 18. To the shaft is fastened a sprocket-wheel 33, which is connected by a chain 4 to a sprocket-wheel R, which is loose on the axle A. A suitable chain-tightener 1 is provided. The sprocket R has a clutch-hub which is pressed by a spring *v* into engagement with a clutch-collar *u*, fastened to the axle by a set-screw 41. The spring *v* is coiled around the axis between the sprocket R and a collar *t*, secured to the axle. The collar *t* also serves to

prevent lengthwise movement of the axle. A suitable device *q* is provided for separating the clutch members and throwing the machine out of gear.

On the shaft 16 is secured a trip 22, which is positioned so as to strike the fingers *p*, projecting from the dropping-plate *i*, when the shaft is rotated, thereby rotating the plate and bringing its openings successively over the spout *j*, through which the seed is discharged into the seed-tube 45. The lower end 43 of the tube is closed by a pivoted gate 25, which is opened at intervals to permit the seed to drop into the furrow. The gate is connected to the rear end of a longitudinal slide-bar 20, which is supported by the cross-bars 15 and 17. On the hub of the trip 22 is a catch 49, engageable with a hook-bar 24, pivoted on one side of the slide-bar 20. When the shaft 16 is rotated, the catch 49 engages the hook-bar 24, thus pulling the bar 20 forwardly, which by reason of its connection with gate 25 causes the latter to open to drop the seed into the furrow. When the catch is released, the slide-bar is pulled rearwardly to close the gate by a spring 21, coiled around a rod 44, extending from said bar and through an opening in the bar 15. Said rod also serves as a guide for the slide-bar. A spring 23 is also employed for holding the hook-bar 24 in engagement with the catch 49, thus insuring a positive catch.

From the foregoing description it will be seen that when the machine is driven across the field the shaft 16 will be rotated from the axle A by the sprockets 33 and R and the chain 4, which operates the dropping-plate and the gate on the seed-tube to drop the seed into the furrow at regular intervals.

Journaled in boxes 47 at the rear ends of the bars 29 is a shaft I, which carries mud-scrapers J. The scrapers are brought into contact with the wheels by pressure on a foot-lever *x*, which is connected by a rod *y* to a crank-arm *w* on the shaft I.

The marker-shoe C is carried by a stem B, secured to the machine by a clevis D, connected to a swiveling clevis E, carried by the bar K. At the rear ends of the bars 29 are hooks H, in which the marker-stem is supported when in use. The marker can be changed from one side of the machine to the other without the operator leaving his seat by means of a rod secured to the stem B and having a grip O. This rod extends to a convenient position beside the seat *m*. When the marker is not in use, it can be elevated by placing the grip *o* in a hook L, extending from the rear end of the standard *z* below the seat.

In Fig. 6 is illustrated a drilling attachment, in which E′ is a dropping-plate, having on its under side gear-teeth which mesh with a pinion D, adapted to be placed on the shaft 16, the check-row mechanism heretofore described being first removed.

I claim—

1. In a corn-planter, a seed-tube having a pivoted gate at its lower end, a slide-bar having a connection with the gate, a hook pivoted to the slide-bar, and a wheel-driven shaft having a catch engageable with the hook for actuating the slide-bar to open the gate.

2. In a corn-planter, a wheel-driven shaft having a hub thereon provided with a projecting trip and a catch, a rotatable dropping-plate having projecting fingers engageable by the trip, a seed-tube having a pivoted gate at its lower end, a slide-bar having a connection with the gate, and a hook pivoted to the slide-bar and engageable by the aforesaid catch.

FRED DELL CUTSFORTH.

Witnesses:

ANTONE WHITNEY,

HENRY D. CUTSFORTH.