

No. 840,454.

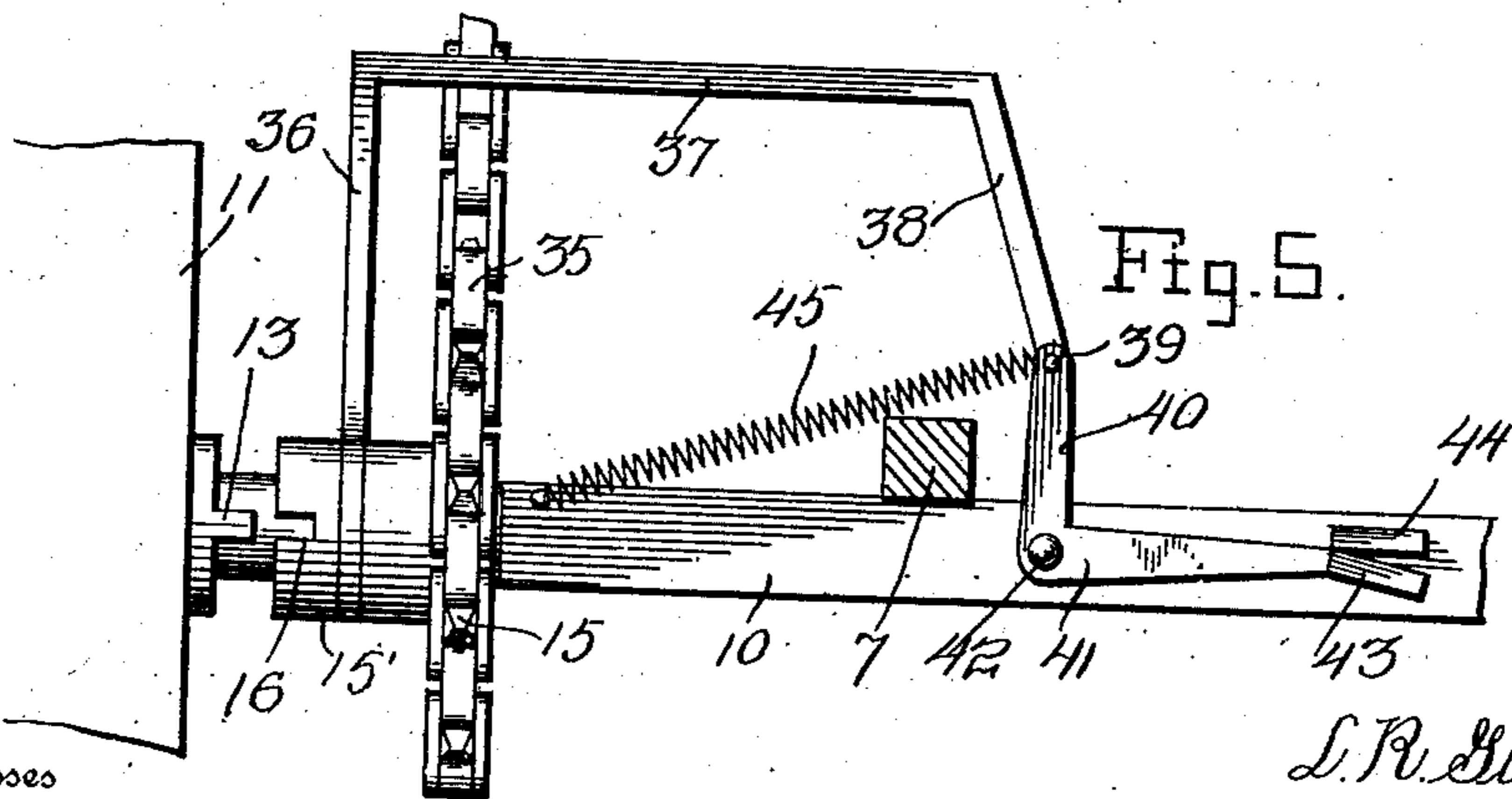
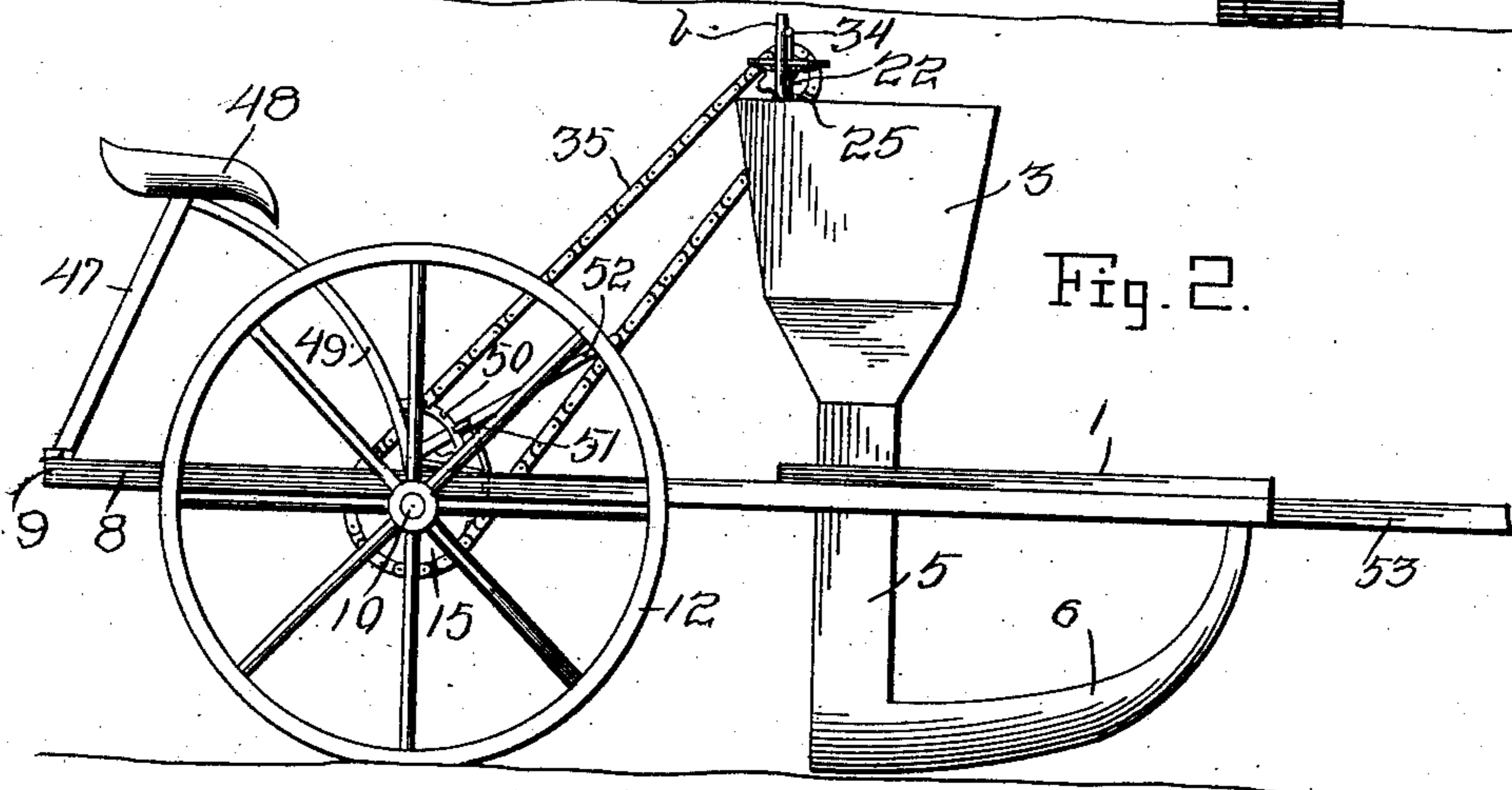
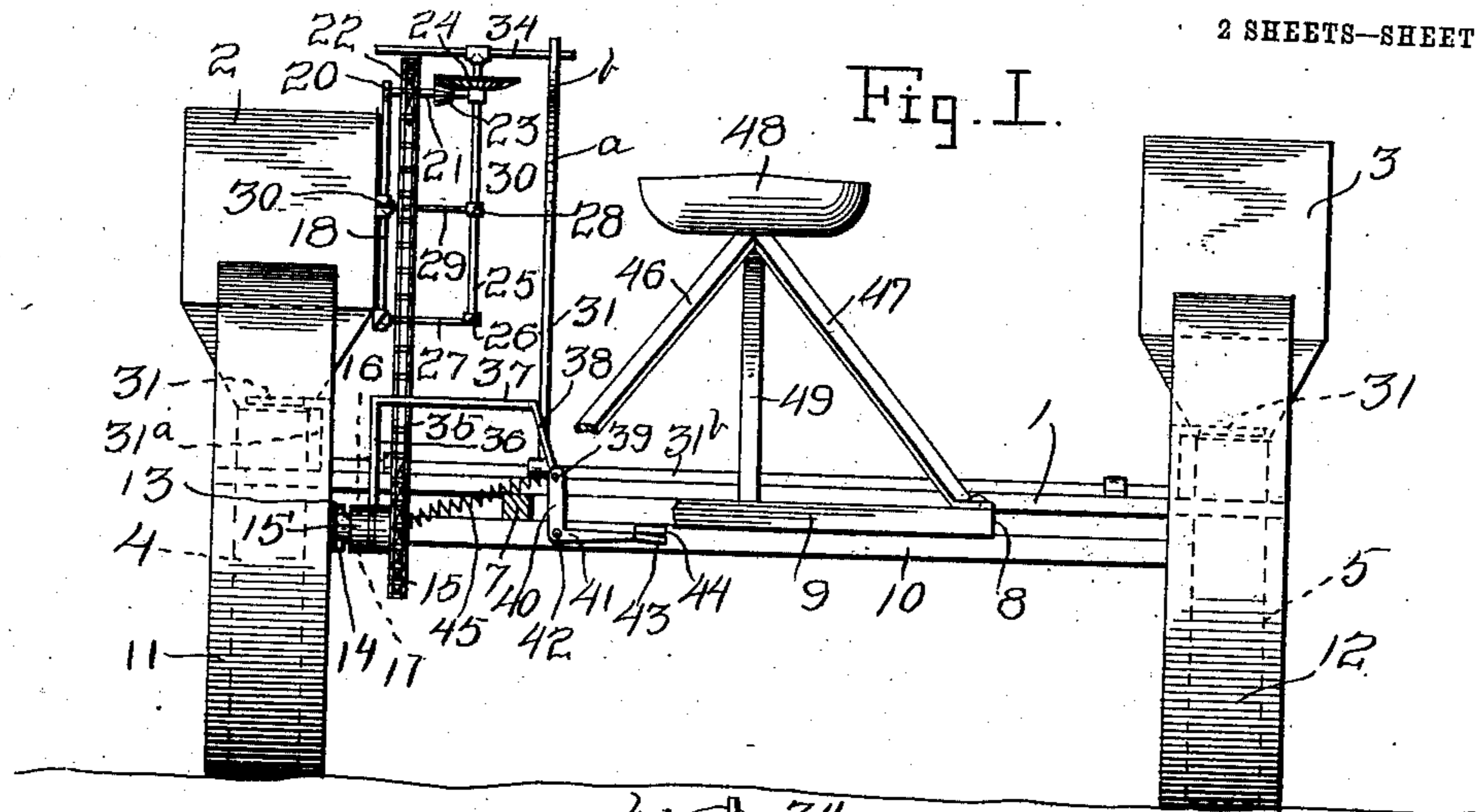
PATENTED JAN. 1, 1907.

L. R. GILCHRIST.

CORN PLANTER.

APPLICATION FILED AUG. 11, 1905.

2 SHEETS—SHEET 1.



Witnesses
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E. M. Balford

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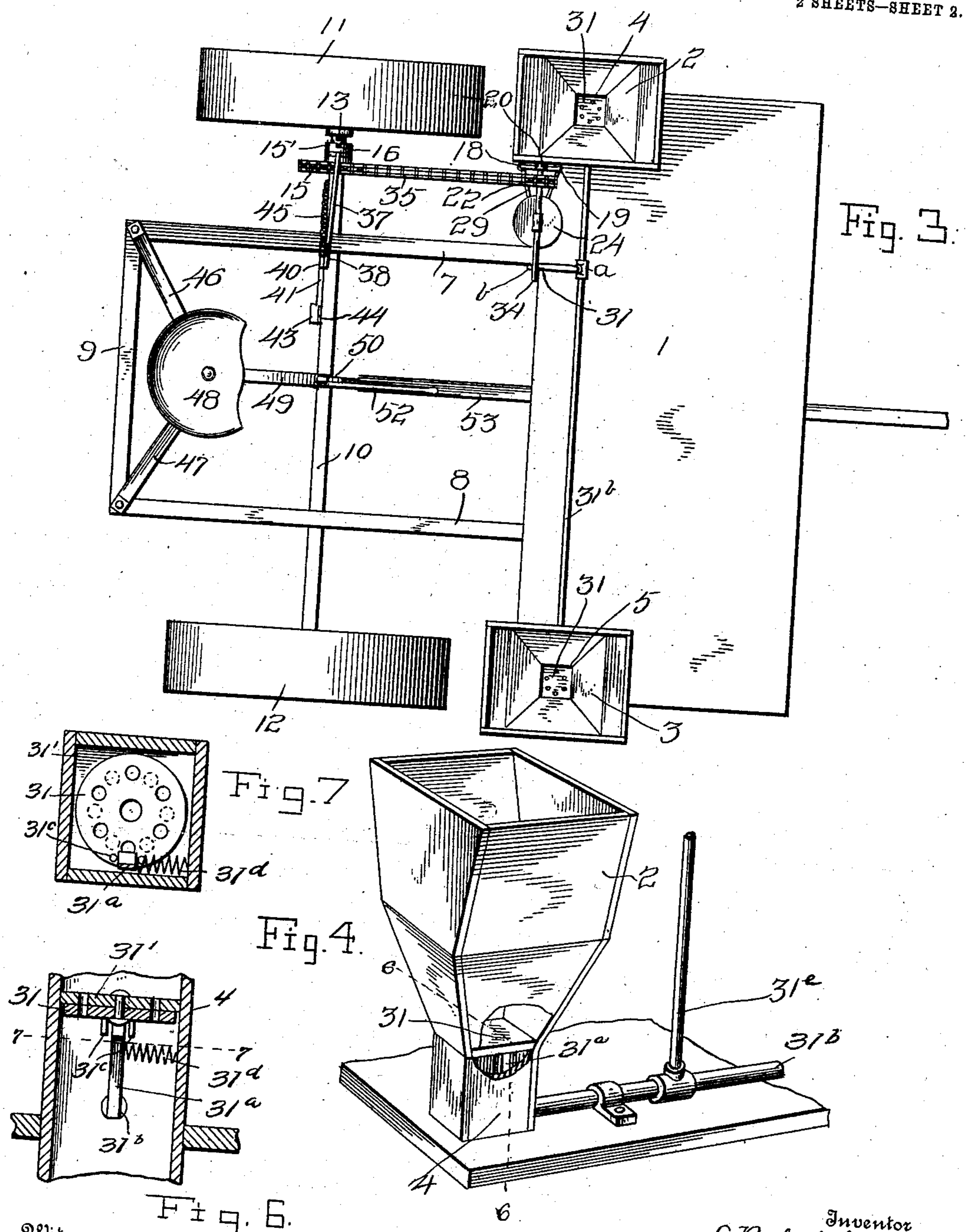
By *Charles Chandler*
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B. K. Reichenbach.
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UNITED STATES PATENT OFFICE.

LOGAN R. GILCHRIST, OF EMDEN, ILLINOIS.

CORN-PLANTER.

Patented Jan. 1, 1907.

No. 840,454.

Specification of Letters Patent.

Application filed August 11, 1905. Serial No. 273,736.

To all whom it may concern:

Be it known that I, LOGAN R. GILCHRIST, a citizen of the United States, residing at Emden, in the county of Logan, State of Illinois, have invented certain new and useful Improvements in Corn-Planters; and I do hereby 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.

This invention relates to corn-planters, and more particularly to the seed-dropping mechanism therefor.

The object of the invention is to provide means to automatically drop seed at intervals and to provide means whereby said seed-dropping mechanism may be readily thrown into and out of operation.

In the accompanying drawings, in which like numerals of reference indicate similar parts throughout the several views, Figure 1 is a rear elevation of a planter, showing my invention applied thereto. Fig. 2 is a side elevation of the same. Fig. 3 is a top plan. Fig. 4 is a detail perspective view of a hopper, parts of the same being broken away. Fig. 5 is a detail view illustrating the clutch-face of one of the ground-wheels and of the sprocket-wheel and the means for throwing the said clutch-faces into and out of operative position. Fig. 6 is a detail sectional view on the line 6-6 of Fig. 4. Fig. 7 is a detail section on the line 7-7 of Fig. 6, showing the oscillating plate in bottom plan.

Referring to the drawings, 1 designates a platform upon the rear corners of which are mounted hoppers 2 and 3, provided with spouts or chutes 4 and 5, respectively. The said chutes have their lower ends extended below said platform and connected to the rear ends of furrow-openers 6, whose forward ends curve upwardly for engagement with the under surface of the platform 1 adjacent the front edge thereof.

Secured to the platform 1 and extending rearwardly therefrom are parallel sills 7 and 8, connected at their rear ends with a cross-piece 9. Secured to the under side of said sills and extending transversely thereof is an axle 10, and upon the said axles are mounted ground-wheels 11 and 12. The hub of the ground-wheel 11 is provided with ribs 13 and 14, which are adapted to be engaged in recesses 16 in a sleeve 15', carrying a sprocket-

gear 15, whereby the said sleeve and its sprocket-wheel may be revolved with the said ground-wheel 11.

Secured to the side of the hopper 2 in any suitable manner is an upright consisting of legs 18 and 19 and a bight portion 20. Journalled in the bight portion 20 of the upright is a horizontal stub-shaft 21, carrying a sprocket-wheel 22 and a bevel-gear 23, which meshes with a bevel-gear 24 on a vertical shaft 25, mounted in a step-bearing 26 forward on the end of a bracket 27, which extends laterally from the standard 18. The brackets 27 and 29 are vertically adjustable on the U-shaped member by means of set-screws 30.

Mounted in the chute of each hopper at a point slightly above the platform 1 is a fixed rectangular perforated plate 31', and disposed below this plate and journaled thereto is a circular perforated plate 31. Secured to the bottom of the said plate 31 is a pair of depending lugs 31^c, between which is engaged a hook 31^a on a rock-shaft 31^b, mounted in suitable bearings upon the platform 1. Secured to and extending upwardly from the said rock-shaft is an arm 31^e, which is inclined upwardly to a point adjacent its upper end and then perpendicular, as shown at *b*. The said arm is located in the path of movement of a cross-piece 34, secured at the upper end of the shaft 25 and arranged to revolve therewith to trip the said arm 31^e, thereby rocking the shaft 31^b. As this shaft is rocked the hook 31^a engages the lugs 31^c, causing the plate 31 to oscillate, a spring 31^d being connected to the said hook 31^a and on one side of the chute 4, as shown, for returning the said hook to its normal position, it being understood that the perforations in the two plates 31 and 31' are so arranged as to register when the said plate is oscillated.

Connecting the sprocket-wheels 15 and 22 is a sprocket-chain 35, and it will be understood that as the sprocket-wheel 15 is carried around with the ground-wheel 11 the sprocket 22 is rotated, thereby rotating shaft 21, carrying the bevel-gear 23 and the gear 24, causing the shaft 25 to revolve.

To the collar 15', carrying the sprocket-gear 15, is loosely connected one end of a member 36, having a right-angularly-bent portion 37, provided at its end with an inclined portion 38, which is pivoted, as at 39

to one arm of a bell-crank lever 40, which is pivoted to the axle 10, as at 42. The other arm of the bell-crank lever (indicated at 41) is provided with a foot-piece 43, which when depressed moves the clutch member 15' to throw the mechanism of the machine out of gear. To hold the lever 40 in its depressed position, a lug 44 is provided on the axle 10 and a spring 45 is connected to the pivot 39 and to the said axle to automatically return the parts to their normal position when the said lever is released from the said lug.

Secured to the rear ends of the sills 7 and 8 and convergent upwardly are posts 46 and 47, upon the upper ends of which is secured a seat 48, there being a curved standard 49 secured at its lower end to the axle 10 and at its upper end to the under face of the seat 48. A segmental rack 50 is secured at one of its ends to the said standard 49 and at the other of its ends to a draft-beam 53, a lever 52, provided with a pawl 51, being arranged, as shown, for engagement with said segmental rack.

25 What is claimed is—

1. A corn-planter comprising a wheeled frame including a platform, hoppers provided with chutes carried by said platform, a fixed plate disposed in the chute of each hopper, said plate being provided with perforations, an oscillating plate carried by the first-named plate, said oscillating plate being provided with perforations, lugs carried by the oscillating plate, a rock-shaft mounted upon said platform trip members carried by said rock-shaft at each of its ends, said members being arranged for engagement with the said lugs when the said shaft is rocked, and means for rocking said shaft.

40 2. A corn-planter comprising a wheeled frame, a platform carried by said frame, hoppers provided with chutes arranged upon said platform, a fixed and an oscillating plate mounted in the said chutes, lugs carried by the said oscillating plates, a rock-shaft mounted upon said platform, said rock-shaft being provided at each of its ends with trip members arranged for engagement with the said lugs, a vertical shaft carried by one of said hoppers, means for rotating said shaft, arms carried by said shaft, and an arm carried

by said rock-shaft and arranged for engagement by the arm on said vertical shaft.

3. A corn-planter comprising a wheeled frame, a platform mounted upon said frame, 55 hoppers provided with chutes arranged upon said platform, a fixed perforated plate mounted in the chute of each hopper, oscillating plates carried by said fixed plates, said oscillating plates being provided with perforations arranged for registration at times 60 with the perforations in the said fixed plates, lugs carried by said oscillating plates, a rock-shaft carried by said platform, trip members carried by said shaft at each of its ends, said 65 trip member being arranged for engagement with the said lugs, an arm carried by said rock-shaft and extending upwardly therefrom, a vertical shaft mounted upon one of said hoppers, means for rotating said shaft, 70 arms carried by the upper end of said shaft and extending in opposite directions therefrom, the said arm on the said rock-shaft being arranged for engagement by the said arm on the vertical shaft, and means for returning 75 said rock-shaft to its normal position.

4. In a corn-planter the combination with a wheeled frame of a platform carried thereby, of hoppers including chutes arranged upon said platform, fixed perforated plates 80 mounted in said chutes, oscillating plates carried by said fixed plates, said oscillating plates being provided with perforations arranged to register at times with the perforations in the said fixed plate, lugs carried by 85 said oscillating plate, a rock-shaft mounted upon said platform, trip members carried by said rock-shaft at each of its ends and arranged for engagement with the said lugs, an arm carried by said rock-shaft, means carried by one of said hoppers for engagement 90 with said arm whereby the said shaft is rocked, and a spring connected to said trip member and the said chute for returning the said rock-shaft to its normal position. 95

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

LOGAN R. GILCHRIST.

Witnesses:

CYRUS McCORMICK,
PETER McLELLAN.