

No. 705,053.

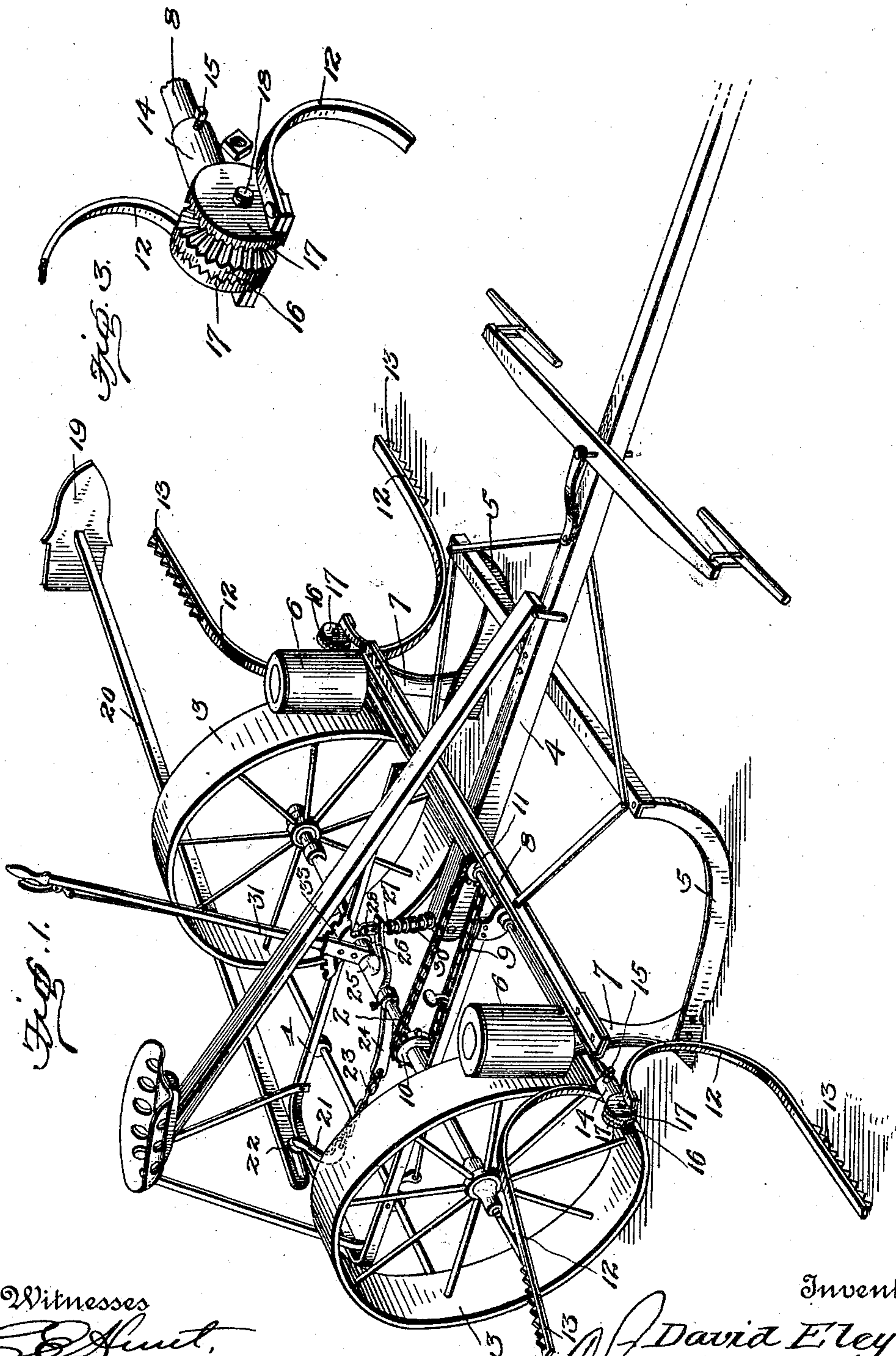
Patented July 22, 1902.

D. ELEY.  
CORN PLANTER.

(Application filed Feb. 24, 1902.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses  
*C. A. Hunt,*  
*Wilbur Hauer.*

Inventor  
*David Eley*  
By *Chas. R. Miller* Attorney

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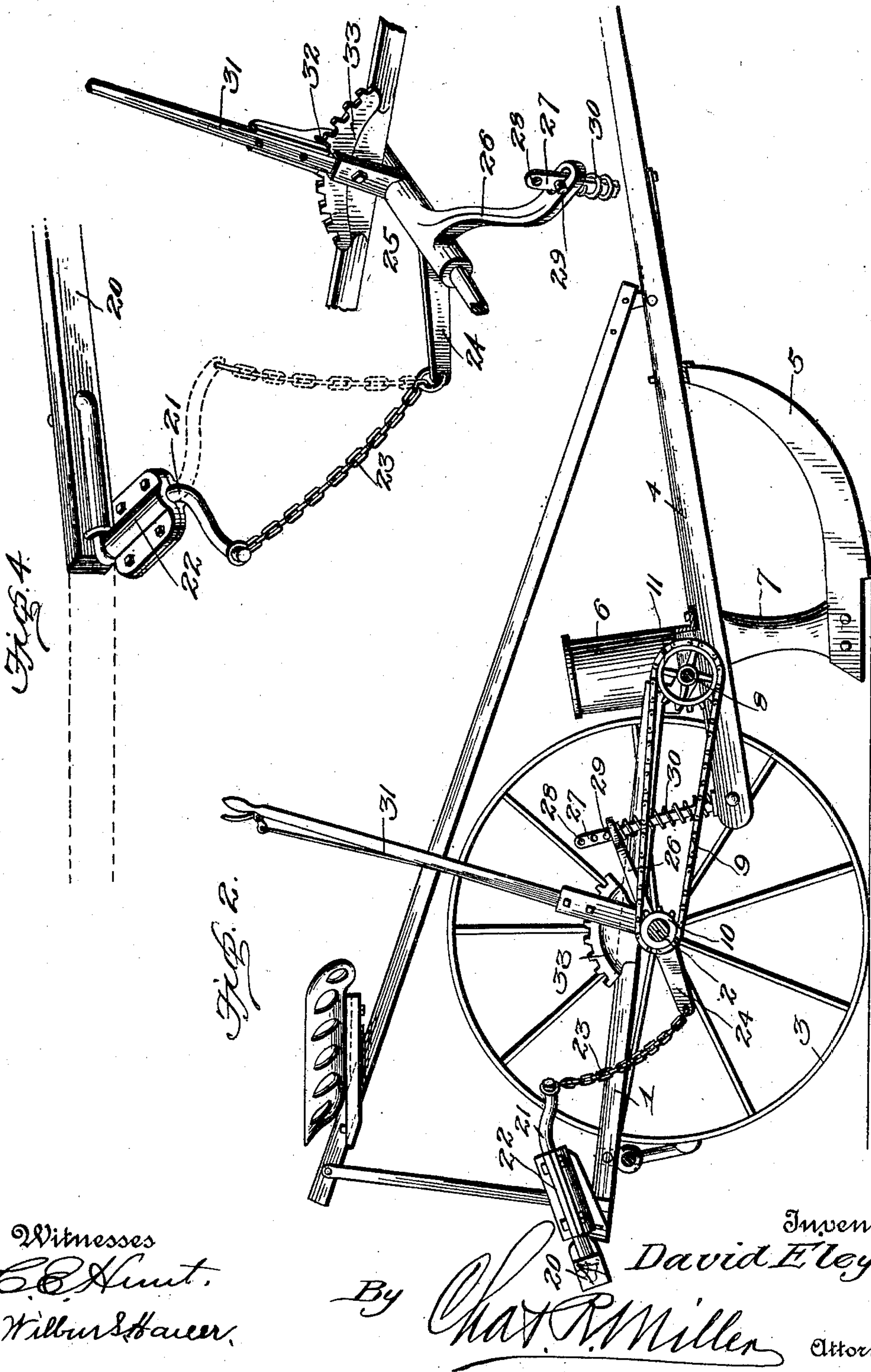
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Wilbur Hauer.

Inventor  
David Eley—  
By *Charles R. Miller* Attorney



# UNITED STATES PATENT OFFICE.

DAVID ELEY, OF LAKEFORK, OHIO.

## CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 705,053, dated July 22, 1902.

Original application filed April 18, 1901, Serial No. 56,391. Divided and this application filed February 24, 1902. Serial No. 95,333. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID ELEY, a citizen of the United States, residing at Lakefork, in the county of Ashland and State of Ohio, have  
5 invented new and useful Improvements in Corn-Planters, of which the following is a specification.

This invention relates to corn-planters, and particularly to markers therefor, and the  
10 present application is a division of my prior application, filed April 18, 1901, Serial No. 56,391.

The object of the invention is to provide improved marking devices to mark the point  
15 of deposit of the seed; also, to provide improved means for gaging the distance between rows and for regulating the depth of penetration of the soil by the runners.

With this and other objects in view, which  
20 will readily appear as the nature of the invention is better understood, the same consists in certain novel features of construction and combination and arrangement of parts, which will be hereinafter fully described, de-  
25 fined in the appended claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a corn-planter embodying my invention. Fig. 2 is a vertical longitudinal section of the same.  
30 Fig. 3 is a detail view illustrating the adjustable connection of a marker with the transverse shaft. Fig. 4 is a perspective view showing the controlling devices of the reversible gage or guide which gages the distance  
35 between the rows.

Referring now more particularly to the drawings, the numeral 1 represents the frame; 2, the drive-shaft or axle; 3, the carrying and covering wheels; 4, the draft-tongue or pole;  
40 5, the furrow-opening shoes or runners, which open the soil to receive the seed; 6, the seed-hoppers, and 7 the discharge-tubes or seed-chutes, connected at their upper ends to the hoppers and at their lower ends to said shoes.

The dropping mechanism of the two hoppers receives motion from a transverse shaft  
45 8, journaled at the front portion of the frame 1 and suitably geared to the drive-shaft or axle 2. In the present instance the gearing shown consists of a sprocket-chain 9, engag-  
50 ing sprocket-wheels 10 and 11 on said shafts,

whereby the shaft 8 receives motion from the shaft 2. The dropper mechanism is not here-  
in shown, as it forms no part of the present invention.

The markers 12 are arranged in pairs upon  
55 each end of the transverse shaft 8, and each marker consists of a curved or serpentine-shaped spring-blade provided at its outer end with a series of teeth or spurs 13, which are  
60 adapted to penetrate the ground to mark the point of the dropping of the seed. The markers of each pair are arranged upon diametrically opposite sides of the shaft 8 to come into  
65 contact with the ground alternately; one at each half-revolution of the shaft, and are secured to said shaft in the following manner: Upon the end of the shaft is secured a sleeve  
70 or collar 14, fixed thereto by a set-screw 15, carrying an outwardly-projecting disk 16, the opposite faces of which are corrugated or serrated. The inner ends of the markers 12 are  
75 rigidly secured to corresponding disks 17, the inner faces of which are corrugated to interlock with the corrugated faces of said disk 16. A pin or bolt 18 passes through these disks  
80 and removably connects them, so that the disks 17 may be withdrawn from engagement with the disk 16 and turned to adjust the markers of each pair toward and from each  
85 other to adapt them to strike the ground with greater or less force, according to the condition of the ground, whether hard or soft, to make clear and distinct marks. The spring  
metal of which the markers are made ren-  
ders them sufficiently flexible to ride over  
stones and other obstructions without strain  
or injury.

It will be readily understood from the fore-  
going description that the markers operate  
90 fast or slow in accordance with the speed of movement of the dropper mechanism and that as the shaft 8 revolves fast or slow the markers are caused to strike the ground closer  
95 or farther apart, corresponding to the intervals between the dropping of each charge of seed.

A gage-plate or runner 19 is provided to  
make a mark to drive by and is mounted upon  
100 the outer end of a reversible bar 20, which is mounted so as to be swung to operate upon  
either side of the machine. The inner end



of this rod or bar 20 is secured to one of the arms of a double crank-shaft 21, mounted in a bearing 22 on the frame 1. The other arm of this shaft is connected by means of a chain 5 23 to a rearwardly-projecting arm 24 on a sleeve 25 upon the shaft 2. This sleeve has also a forwardly-extending arm 26, which is slotted to receive a guide and connecting piece 27, fixed upon the rear end of the pole 10 or tongue 4, which guide-piece is formed with one or more openings 28 for the reception of a stop-pin 29, which limits the extreme depth of penetration of the soil by the runners 5. A coil-spring 30 surrounds the guide-piece 27 15 and presses upon the tongue 4 to force the runners into the ground, while permitting them to ride over stones and other obstructions without injury. Connected to the sleeve 25 is an adjusting and reversing lever 31, 20 which is fitted with a pawl 32, coöperating with a rack 33 on the frame 1 to hold said lever in adjusted position. By throwing this lever to the front or rear the rod or arm 20 may be elevated from either side of the machine on which it is working to a point be- 25 yond the center or perpendicular, so as to allow it drop by gravity to bring the shoe or runner 19 into contact with the ground to operate upon the other side of the machine, 30 as will be readily understood by reference to Fig. 4 of the drawings. The lever 31 is also used to raise the runners 5 out of the ground at the same time it raises the gage 20 or to put greater pressure upon the spring 30 to 35 force the runners deeper into the soil. It will be readily understood that pressure is placed upon said spring by adjusting the lever forwardly.

From the foregoing description, taken in 40 connection with the accompanying drawings, the construction, operation, and advantages of my improved marker for corn-planters will, it is thought, be readily apparent without requiring a more extended explanation.

45 Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

50 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a corn-planter, markers coaxially arranged in pairs on opposite sides of the 55 planter-frame, and means for adjusting the

markers of each pair on their axes toward or away from each other to strike the ground with greater or less force, substantially as described.

2. In a corn-planter, the combination with 60 the frame; of markers comprising curved spring-metal bars carrying marking devices at their free ends and adjustably connected at their inner ends to be moved toward and away from each other to strike the ground 65 with greater or less force, substantially as described.

3. In a corn-planter, the combination with the frame and a shaft mounted transversely upon the frame, of markers mounted in pairs 70 upon each end of the shaft, said markers comprising curved spring-metal bars provided at their inner ends with corrugated or serrated disks, a double corrugated or serrated disk upon the shaft end to engage the same, 75 and means for connecting said disks to permit them to be adjusted to move the markers of each pair toward or away from each other to strike the ground with greater or less force, 80 substantially as described.

4. In a corn-planter the combination with a frame having shoes, and a tongue adjustable vertically to regulate the depth of penetration of said shoes; of a guide and connecting piece upon the rear end of the tongue, 85 a bar adapted to project laterally from the frame, a gage-runner carried by said bar for gaging the distance between rows, a double crank-shaft mounted upon the frame and to one of the arms of which the bar is connected, 90 an oscillatory sleeve having front and rear arms, a flexible connection between the rear arm of the sleeve and other arm of the crank-shaft, the said front arm of the sleeve having a sliding engagement with said guide and 95 connecting piece on the tongue, a coil-spring surrounding the guide and connecting piece and adapted to be compressed by the sliding sleeve-arm to force the shoes deeper into the soil, a lever for adjusting the sleeve, and 100 means for locking the lever in adjusted position, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing 105 witnesses.

DAVID ELEY.

Witnesses:

L. P. ZIMMERMAN,  
W. A. DOW.