

No. 661,449.

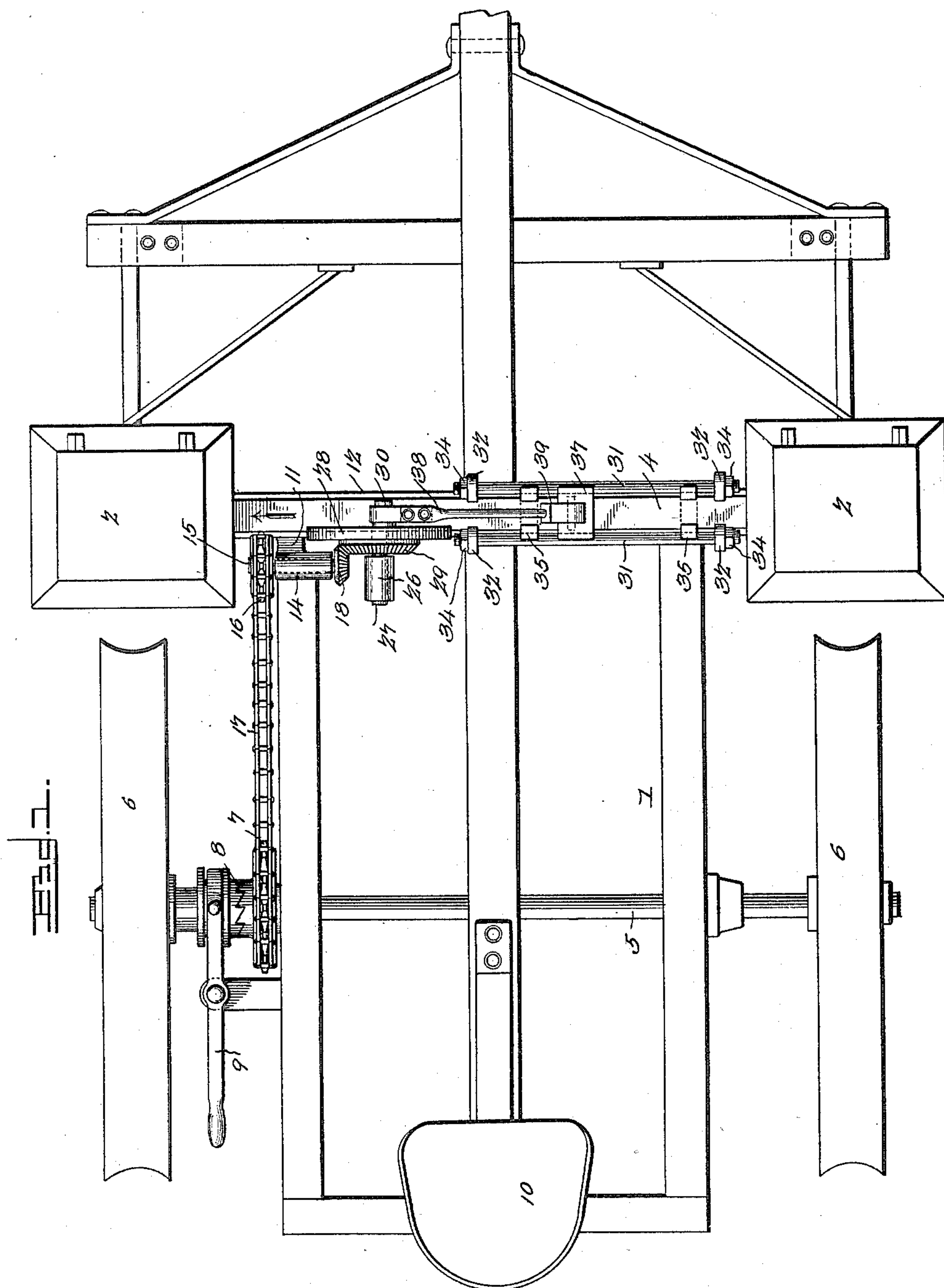
Patented Nov. 6, 1900.

C. H. HALL.
CORN PLANTER.

(Application filed July 21, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

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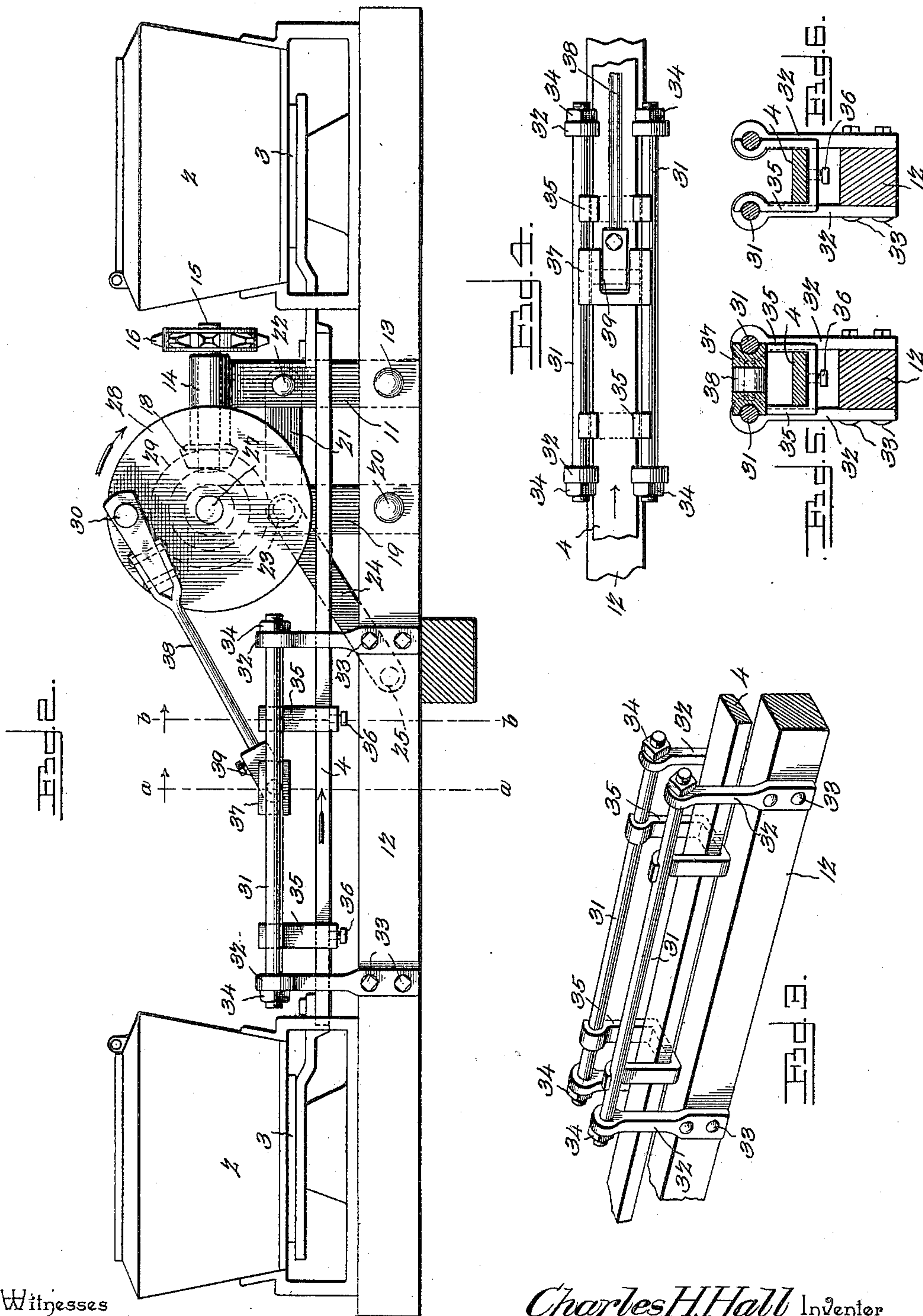
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UNITED STATES PATENT OFFICE.

CHARLES H. HALL, OF FRANKFORT, INDIANA.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 661,449, dated November 6, 1900.

Application filed July 21, 1900. Serial No. 24,435. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. HALL, a citizen of the United States, residing at Frankfort, in the county of Clinton and State of Indiana, have invented a new and useful Corn-Planter, of which the following is a specification.

My invention is an improved corn-planter, and relates particularly to the mechanism for reciprocating the bar that operates the seed-slides, the object of my invention being to effect improvements whereby the stroke of the reciprocating bar may be regulated at will and whereby the seed-slides are positively operated under all conditions and the distance between the planted hills may be predetermined.

My invention consists in the peculiar construction and combination of devices hereinafter fully set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a top plan view of the corn-planter embodying my improvements. Fig. 2 is a detail front elevation of the same. Fig. 3 is a detail perspective view showing the parallel guides, a portion of the operating-bar, and the adjustable tappet-yokes which travel on the said guides and support the said bar. Fig. 4 is a detail top plan view of the same, together with the cross-head and pitman. Fig. 5 is a detail sectional view taken on the line *a a* of Fig. 2. Fig. 6 is a similar view taken on the line *b b* of Fig. 2.

The frame 1 of the corn-planter is of the usual construction and supports the seed-boxes 2, in which operate seed-slides, (indicated at 3 in Fig. 2,) which seed-slides may be of any suitable construction and form no part of my present improvements. The seed-slides are actuated by a reciprocating bar 4, as is usual in machines of this class, and my improvements are limited to means for actuating the said operating-bar.

The shaft or axle 5, which supports the rear portion of the frame 1, is provided with the usual traction and supporting wheels 6, and on the said shaft is a loose sprocket-wheel 7, which when engaged by the clutch 8 is fast to and rotates with the shaft 5. The said clutch may be thrown into or out of engage-

ment with the sprocket-wheel 7 by a lever 9, which is within reach of the driver stationed on the seat 10.

A vertical standard 11 is bolted on the rear side of the cross-bar 12 of the machine-frame, as at 13, and said standard is provided at its upper end with a bearing 14, in which is journaled a shaft 15. Said shaft has at its outer end a sprocket-wheel 16, which is connected to the sprocket-wheel 7 by an endless sprocket-chain 17, and at the inner end of the said shaft 15 is a beveled pinion 18. A vertical standard 19 is also secured on the rear side of the cross-bar 12 by a bolt 20, said standard being at a suitable distance from the standard 11 and connected thereto by a link-bar 21 on the rear side of standards 11 19 and secured thereto by bolts 22 23. A brace-bar 24 has its upper end secured on the bolt 23, and said brace-bar extends inwardly and is inclined downwardly and has its lower end bolted to the rear side of the cross-bar 12, as at 25. In the upper end of the standard 19 is a bearing 26, which is at right angles to the bearing 14, and in which is journaled a stub-shaft 27, that is provided at its front end with a crank-wheel 28. On the rear side of the said crank-wheel is a beveled gear-wheel 29, which is engaged by the bevel-pinion 18. A crank-pin 30 is secured to the crank-wheel 28 at any required distance from the center thereof.

A pair of parallel guide-bars 31 are secured at a suitable distance above the cross-bar 12 by vertical brackets 32, the said brackets having their lower portions bolted on the front and rear sides of the cross-bar 12, as at 33. The ends of the guide-bars 31 pass through openings in the upper ends of the brackets 32 and are provided with nuts or caps 34, which are screwed on the threaded extremities of the guide-bars, as shown. A pair of U-shaped tappet-yokes 35 engage and slide upon the guide-bars 31 and depend therefrom, and the said tappet-yokes support the reciprocating bar 4, which operates the seed-slides, and are adjustably secured thereon by means of bolts or screws 36. A cross-head 37 is channeled on opposite sides to receive the guide-bars 31 and is supported by and travels on the said guide-bars. A pitman 38 has one end attached to the crank-pin 30 and the other end

attached to the cross-head, as at 39, and it will be understood that the cross-head is reciprocated when the machine is in operation and at points near the ends of its stroke will engage the tappet-yokes 35, and thereby impart reciprocating motion to the operating-bar 4. The said bar will be moved in one direction as the cross-head completes its stroke in one direction, will remain stationary while the cross-head is traveling in the opposite direction, and as the cross-head nears the limit of its reverse stroke reverse motion will be imparted to the operating-bar 4 by the engagement of the cross-head with the appropriate tappet-yoke. The extent of the stroke of the operating-bar, and hence the degree of movement of the seed-slides, may be regulated by adjusting the tappet-yokes toward or from each other on the operating-bar 4. By appropriately proportioning the sizes of the gears 18 and 29 the distance between the hills of planted corn in the rows may be regulated, as will be understood.

It will be understood from the foregoing description and by reference to the drawings that my improved means for operating the bar 4 may be attached to and used upon a corn-planter of any existing type in which the seed-slides are actuated by reciprocating bars, the standards 11 and 19 being detachably secured to the cross-bar 12 by means of bolts, and the brackets 32, which support the guide-bars, being also detachably secured to the cross-bar by means of bolts.

Having thus described my invention, I claim—

1. In a corn-planter, the combination with a seed-slide-operating bar, of a pair of tappet-yokes adjustable thereon and secured thereto, parallel guides on which said tappet-yokes reciprocate, a cross-head on said guides adapted to actuate the tappet-yokes at the limits of the strokes of the cross-heads, a crank-wheel, means to rotate the same, and a pitman connecting said crank-wheel to said cross-head, substantially as described.

2. In a corn-planter, the combination of a seed-slide-operating bar, a pair of tappet-yokes adjustable thereon and secured thereto, parallel guides on which said tappet-yokes reciprocate, a cross-head on said guides, a crank-wheel, a pitman connecting said crank-wheel to said cross-head, a counter-shaft geared to the shaft which carries the crank-wheel, said counter-shaft having a sprocket-wheel, a sprocket-wheel on the driving-shaft of the planter, an endless sprocket-chain connecting said sprocket-wheels, and a clutch to lock the driving sprocket-wheel to and release the same from the said driving-shaft, substantially as described.

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

CHARLES H. HALL.

Witnesses:

LEWIS A. GUNZ,
WILL E. CLARK.