

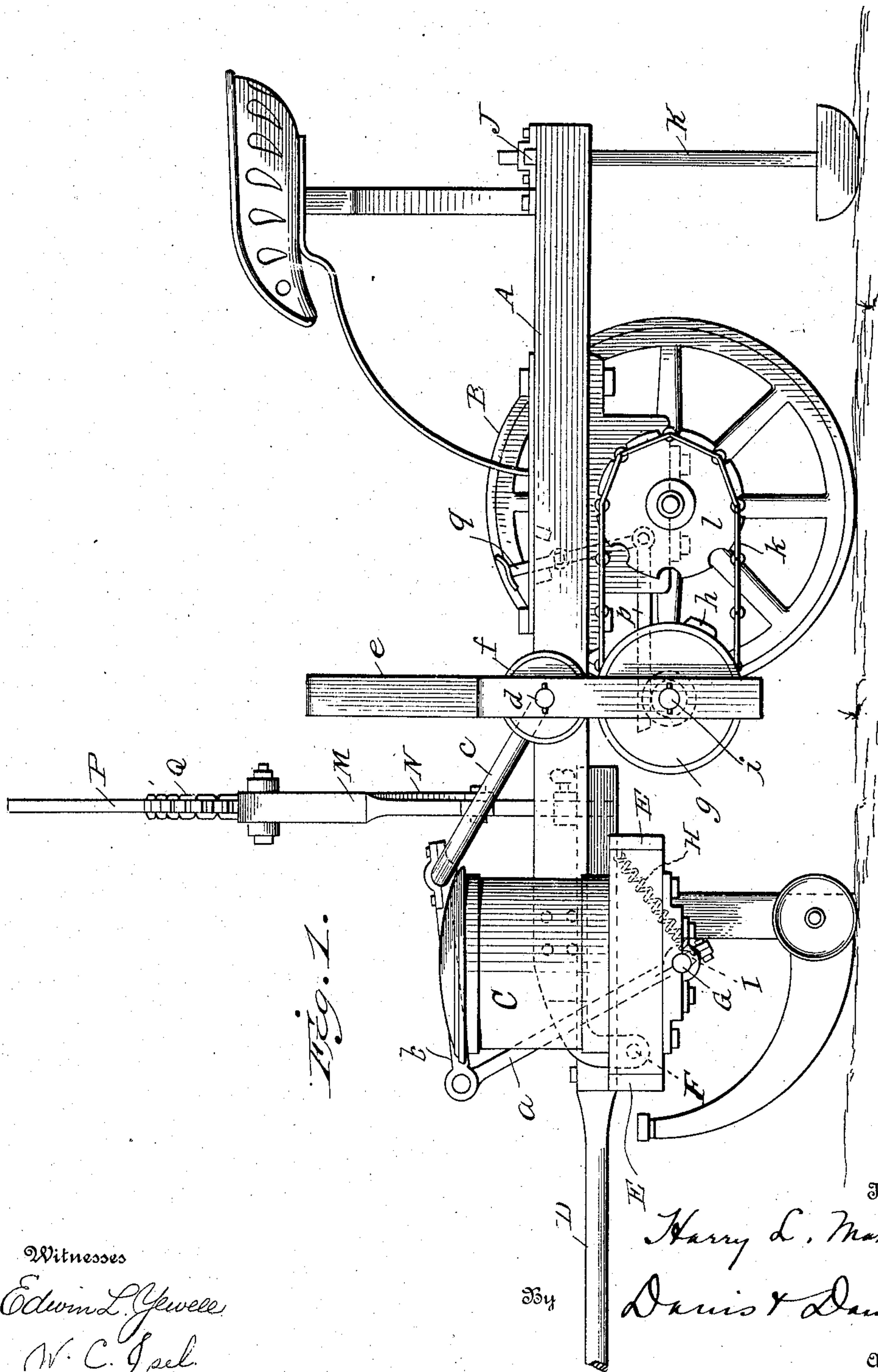
No. 790,145.

PATENTED MAY 16, 1905.

H. L. MAKELY.
CORN PLANTER.

APPLICATION FILED FEB. 13, 1905.

3 SHEETS—SHEET 1.



Witnesses

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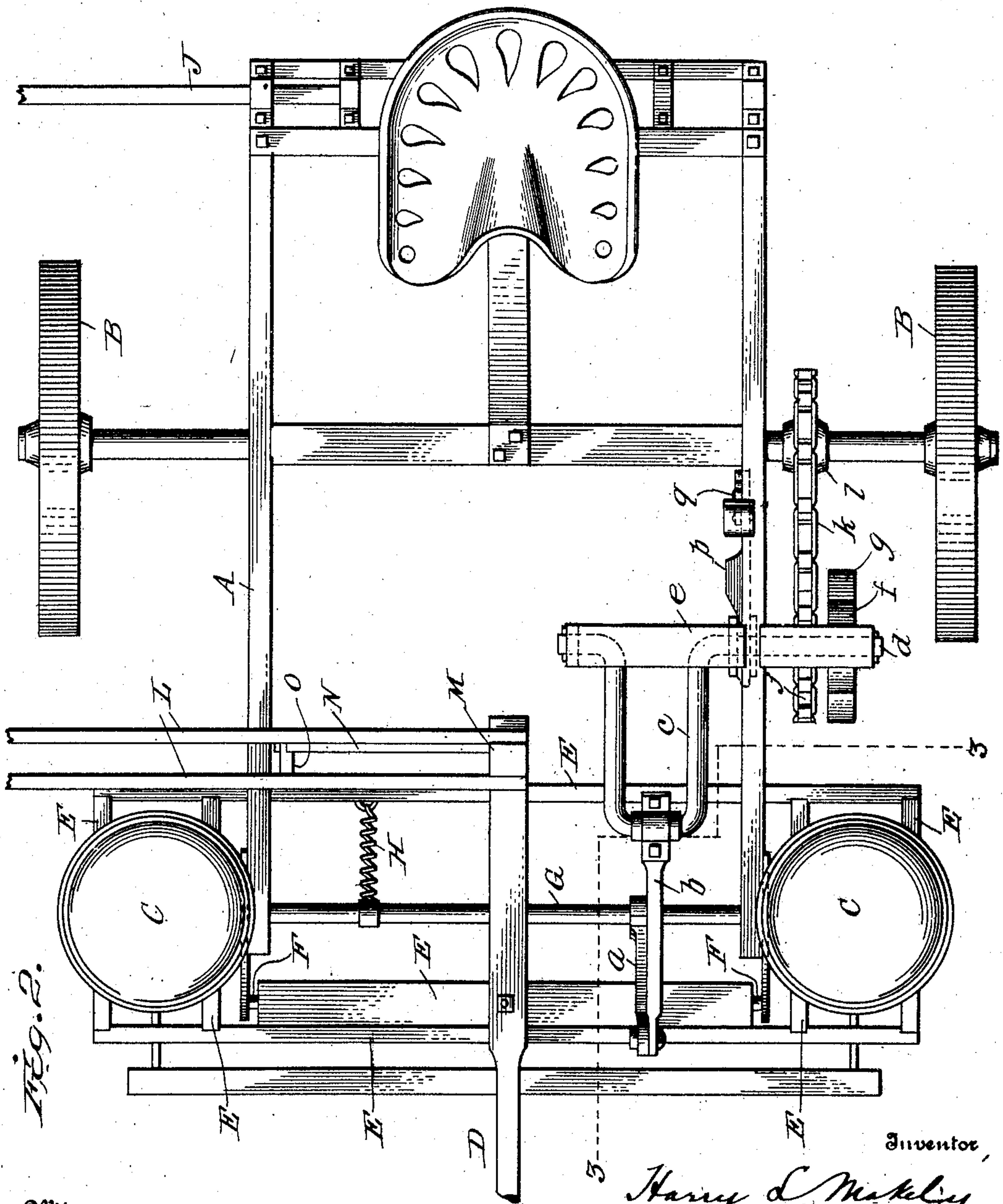


Fig. 2.

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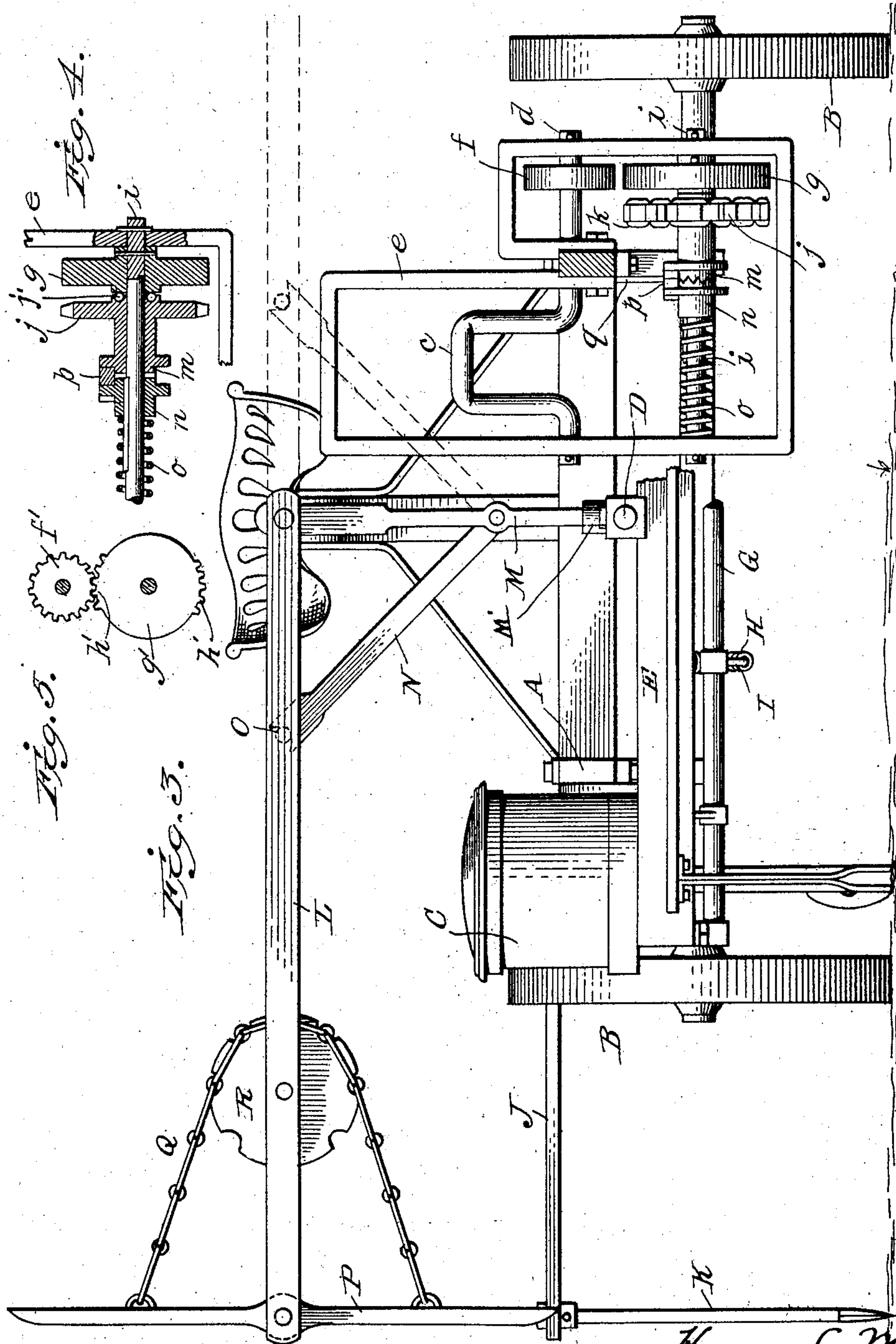
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UNITED STATES PATENT OFFICE.

HARRY L. MAKELY, OF CENTERVILLE, VIRGINIA.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 790,145, dated May 16, 1905.

Application filed February 13, 1905. Serial No. 245,464.

To all whom it may concern:

Be it known that I, HARRY L. MAKELY, a citizen of the United States of America, and a resident of Centerville, county of Fairfax, State of Virginia, have invented certain new and useful Improvements in Corn-Planters, of which the following is a full and clear specification, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of my improved planter; Fig. 2, a plan view thereof with projecting parts of the markers broken off for the purposes of better illustration; Fig. 3, a front elevation of the machine, parts being broken away on the dotted line 3 3 of Fig. 2 to better show the operating mechanism; Fig. 4, a detail section showing more clearly the gearing for operating the seed-dropper, and Fig. 5 a detail view showing a modified form of the gearing.

The object of this invention is to improve and simplify the mechanism for operating the seed-dropping devices, as more fully hereinafter set forth.

Referring to the drawings by reference characters, the letter A indicates the rear or wheel frame of the machine, which may be of the usual construction and which is mounted on the usual transporting-wheels B. The seed-hoppers C are mounted on the usual front or runner frame, composed of bars or beams E and pivotally connected at F to the forward end of the rear or wheel main frame in the usual manner. The tongue D is attached, as is usual, to the frame E.

The seed-operating rock-shaft G is constructed in the usual manner and journaled in the frame E. This shaft is held in its normal position by a retracting-spring H, connected at its forward end to a part of the frame E and at its rear end to a depending part I, carried by the shaft. The letter J designates a bar carrying the usual row-marker K.

Attached to rock-shaft G is a forward and upward extending arm a, whose upper end is connected by a link b to a crank-arm c, carried by a shaft d, this shaft being journaled in an upright frame e, attached to the main

frame. Attached to shaft d is a small friction-wheel f. A large wheel g is affixed to a counter-shaft i, journaled in the frame e immediately below and parallel to the shaft d, and on the face of this wheel g is an elastic projection h, which when said wheel g is rotated contacts with the periphery of wheel f and partially rotates the same.

The wheel g is driven from the axle of the machine by means of a sprocket-wheel l on the axle and a sprocket-wheel k on shaft I, connected to wheel l by a sprocket-chain k. The sprocket-wheel j is loosely mounted on shaft i, and between it and the wheel g is arranged a series of antifriction-balls j'. The inner face of wheel j is provided with a hub portion, which is notched or ratcheted on its face to form one member, m, of a clutch device, the other member, n, being slidable on shaft i and pressed toward the member m by a coil-spring o, the part n being rotatable with shaft i by reason of a feather-and-spline connection. To separate the clutch members m n, I provide a wedge p, which is adapted to be forced in between annular flanges on said members by means of a foot-lever q, arranged within convenient reach of the driver and by means of which the driver may readily stop or start the feeding devices at will.

It will be observed that when the clutch members are in engagement the wheel g will be caused to rotate and that at each revolution of this wheel g the elastic projection h will engage the periphery of the wheel f and partially turn it. The turning of wheel f throws back the crank c and through the medium of link b and arm a rocks the seed-operating shaft, and as soon as the projection h passes out of engagement with wheel f the spring H draws the parts back to their normal position ready for another operation. Instead of the friction device h it is evident that I may employ cog-teeth h', as shown in Fig. 5, and employ a cog-wheel f' instead of the friction-wheel f. It is also obvious that one or more of the parts h or sets of teeth h' may be used on the wheel f without departing from the spirit of my invention.

When the wedge p is forced forward to separate the clutch members, the pressure of the sprocket-wheel j will be against wheel g , and in order that the friction generated by this pressure shall not be sufficient to carry around the operating-wheel g I introduce the antifriction-balls j' . The friction caused at this point, while it will not be sufficient to operate the seed-dropping devices, will be sufficient to carry the wheel g around far enough to bring its projection h into contact with wheel j ready for immediate operation when the driver withdraws the wedge p . Thus bringing the engaging part h into position for immediate operation enables the driver to commence planting at the proper instant, as is obvious.

A post M is mounted in a socket M' on the frame of the machine, near the forward part thereof, and pivoted to the upper end of this post is a frame consisting of a pair of parallel bars L , this frame being supported in a horizontal position by means of a brace N , pivoted at its lower end to the post and engaging at its upper notched end a pin O , carried by this frame L . This frame L extends out laterally beyond the frame of the machine, and in its outer end is mounted a pivoted lever P , which has a movement transversely of the machine. The object of this device is to enable the driver to readily mark the point where the planting stops at the ends of the rows, these marks serving to accurately guide the operator in starting the new rows. When the driver desires to mark the ends of the rows, he removes prop N from pin O and lowers the bar L until the marking-lever P touches the ground. Then by vibrating the lever P a transverse mark is made in the soil. The operator may actuate lever P by taking hold directly of its upper end, or he may actuate it by means of a chain Q , attached to it above and below its pivot and running over a sprocket-wheel R , journaled in frame L , this operating-chain being for greater convenience of operation. This marking device may be changed over to the opposite side of the machine by simply swinging the frame L and prop N over to the position shown in dotted lines in Fig. 3, or the post M may be rotated by first lifting it out of its socket, as is evident.

Having thus described my invention, what

I claim, and desire to secure by Letters Patent, is—

1. In a seed-planter, the combination of a frame mounted on transporting-wheels, seed-dropping mechanism embodying a rock-shaft and means for holding this rock-shaft in normal position, an arm carried by this rock-shaft, a rocking crank-shaft journaled in the frame and connected to said arm, a wheel mounted on this crank-shaft, a counter-shaft journaled in the frame in parallel relation to said crank-shaft and provided with a projection adapted to engage the aforesaid wheel, a sprocket-wheel loosely journaled on the counter-shaft and connected to the main axle by driving means and provided with a clutch member having an annular flange, another flanged clutch member and a spring for normally actuating it, and a lever and wedge for separating the clutch members, substantially as set forth.

2. In a seed-planter, the combination of a frame mounted on transporting-wheels, said dropping mechanism embodying a rock-shaft and means for holding this rock-shaft in normal position, an arm carried by this rock-shaft, a rocking crank-shaft journaled in the frame and connected to said arm, a wheel mounted on this crank-shaft and having affixed to it a drive-wheel provided with a peripheral projection adapted to engage the projection on the aforesaid wheel, a sprocket-wheel loosely journaled on this counter-shaft adjacent to said wheel and having antifriction devices interposed between the wheels, this sprocket-wheel carrying one member of a clutch, the other member of said clutch being slidably mounted on a counter-shaft and normally pressed toward the first-named member, means under control of the driver for separating the clutch members, a sprocket-wheel on the axle of the machine and a sprocket-chain connecting this wheel with the sprocket-wheel on the counter-shaft.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 10th day of February, 1905.

HARRY L. MAKELY.

Witnesses:

D. W. BUCKLEY,
C. MAKELY.