

(No Model.)

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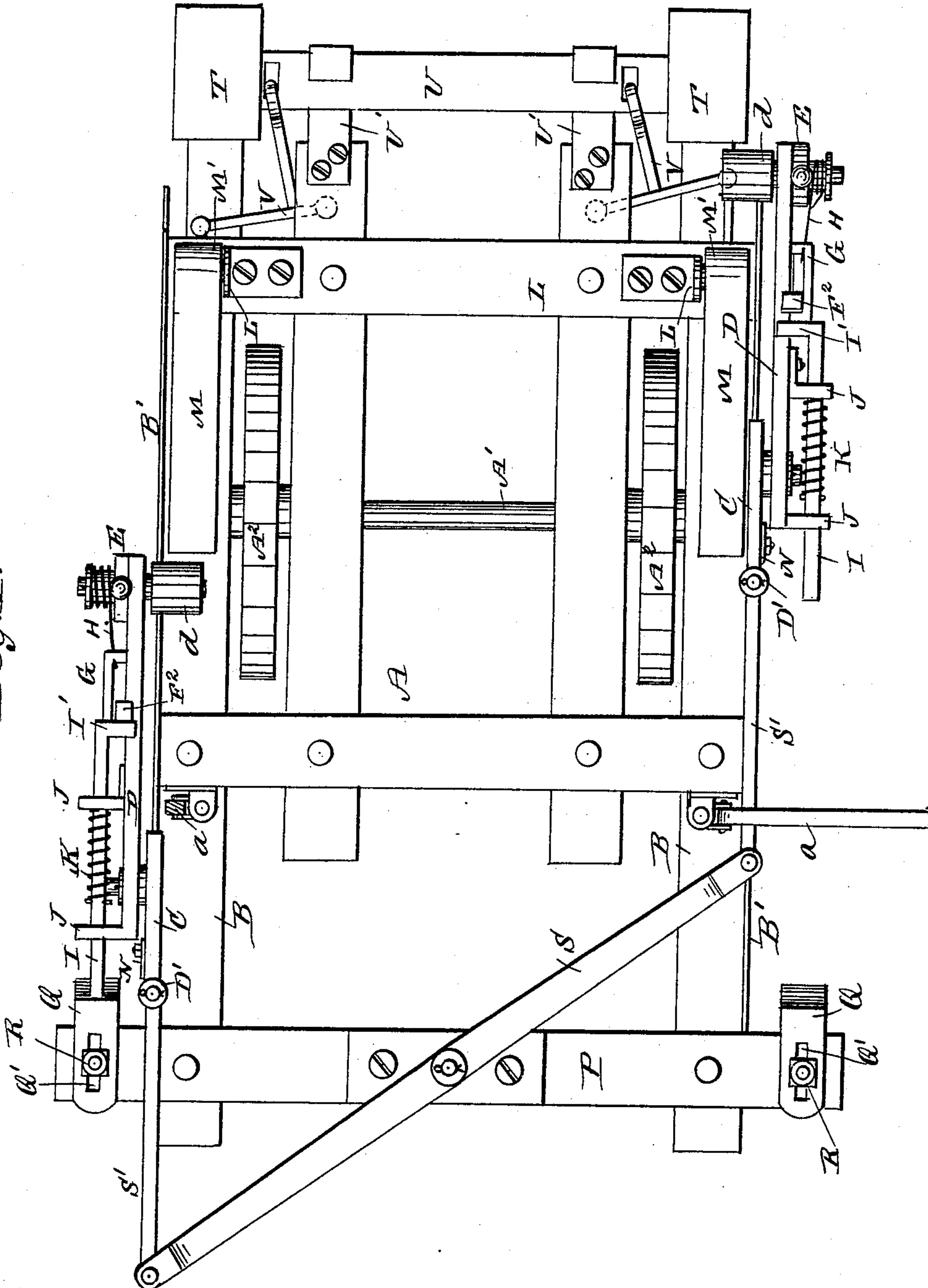
F. H. RYBACEK.

CORN PLANTER.

No. 326,525.

Patented Sept. 15, 1885.

Fig. 1.



WITNESSES:

Geo. G. Hoster
C. Sedgwick

INVENTOR:

F. H. Rybacek

BY

Munn & Co

ATTORNEYS.

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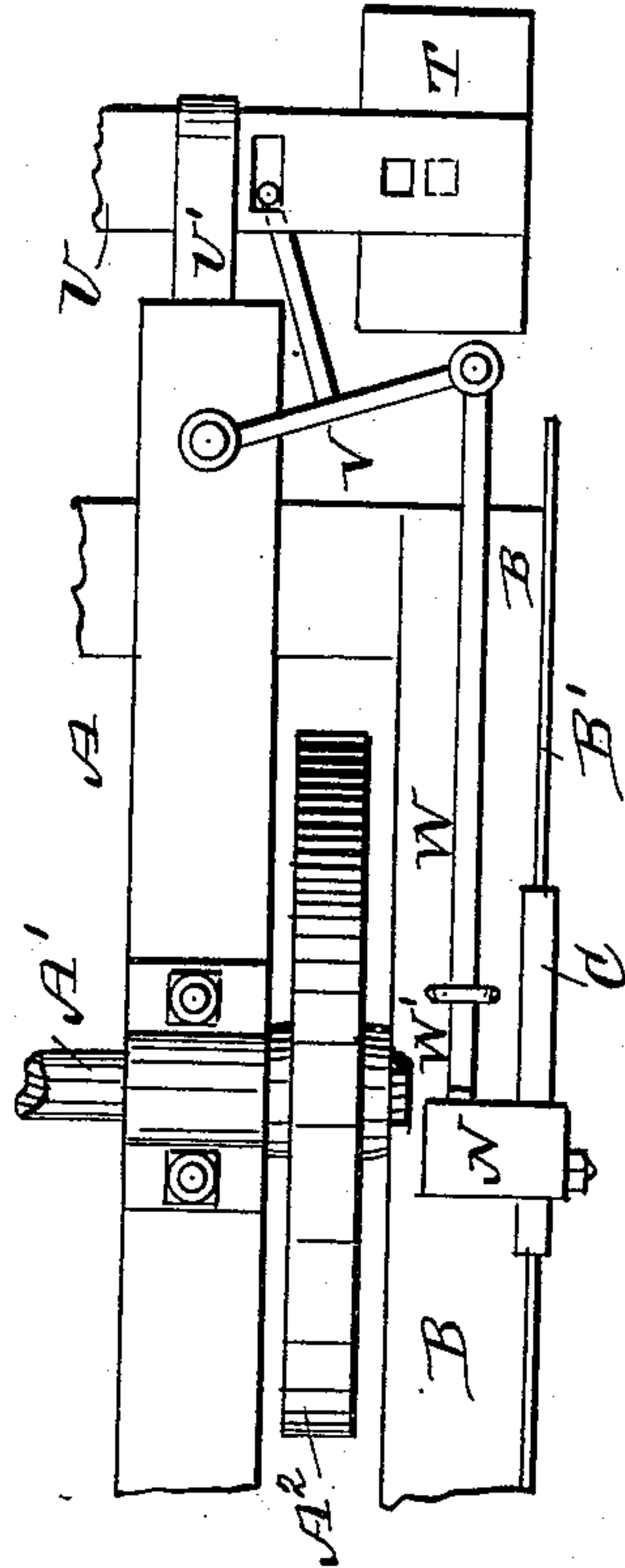
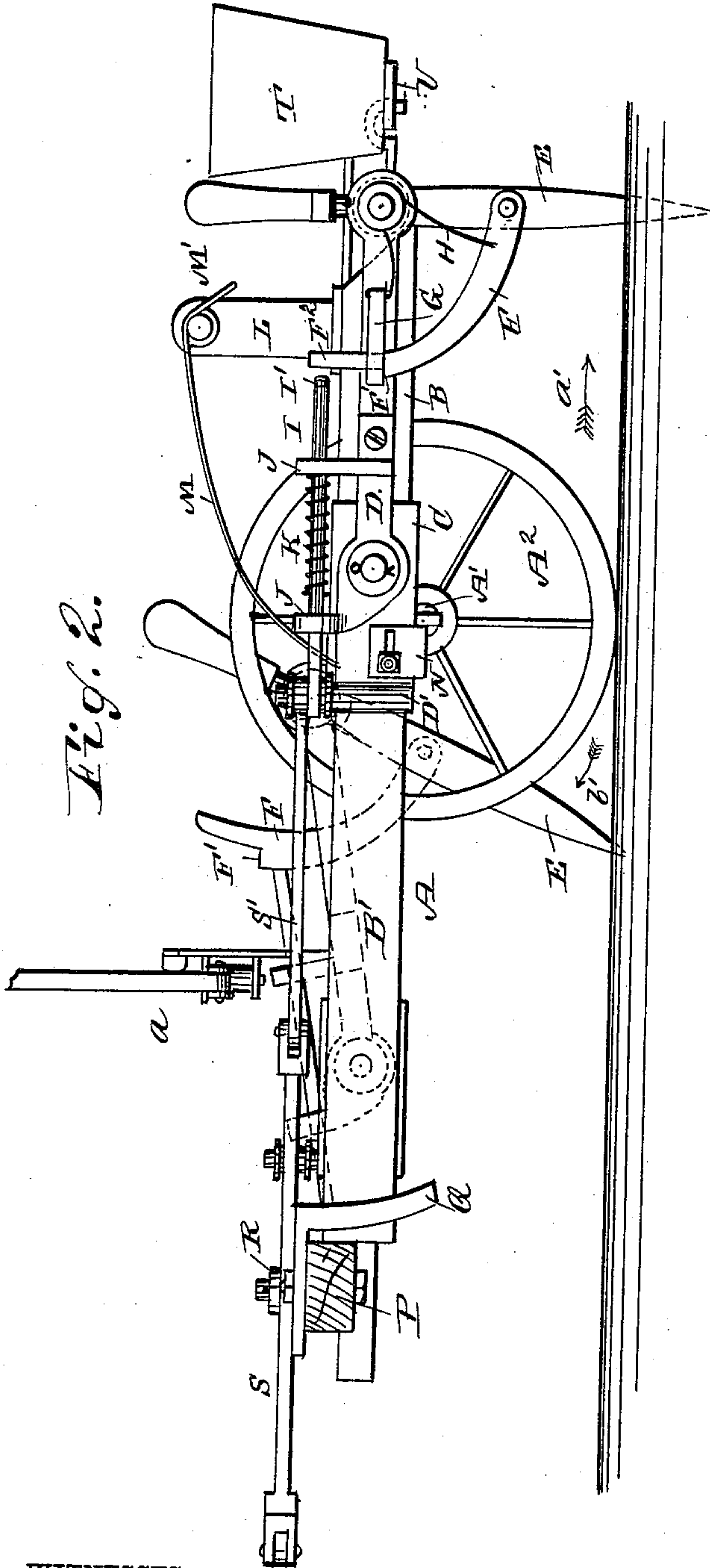
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UNITED STATES PATENT OFFICE.

FRANK H. RYBACEK, OF RIVERSIDE, IOWA.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 326,525, dated September 15, 1885.

Application filed June 30, 1885. (No model.)

To all whom it may concern:

Be it known that I, FRANK H. RYBACEK, of Riverside, in the county of Washington and State of Iowa, have invented a new and Improved Corn-Planter, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved corn-planter in which the dropping attachment is operated entirely independent of the wheels.

The invention consists in a corn-planter having a seed-dropper operated by sliding clips, which are operated by levers having daggers which enter the ground and thus move the clips, whereby the seed-dropper is operated independent of the wheels.

The invention also consists in parts and details and combinations of the same, as will be fully set forth hereinafter.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improved corn-planter. Fig. 2 is a side view of the same, parts being in section. Fig. 3 is a detail plan view of the under side of the dropping attachment.

The frame A rests upon the axle A', on which the wheels A² are mounted.

Outside of each wheel a side bar, B, is held on the frame, and on the outer side of each side bar, B, a metal plate, B', is held, the edges of which project slightly beyond the top and bottom of the bars B.

On each plate B' a sliding clip, C, is mounted, the top and bottom of which are bent over the top and bottom edges of the plate B', to hold the said clips on the plate.

On each clip a lever, D, is pivoted, which projects towards the front of the machine, and to the free end of each lever D a dagger, E, is pivoted, and to each dagger a curved arm, F, is pivoted a short distance below the pivot of said dagger, the arm being provided with a shoulder, F', in its rear edge at the upper end, and with a lateral projection or lug, F², on the inner side at the upper end. The arm F passes under a guard, G, on the outer side of the lever D.

A spring, H, is held on the pivot of the dagger, and has one end held on the lever D

and the other end on the arm F, and presses the arm against the rear end piece of the guard G.

A rod, I, having its front end, I', bent rectangularly, is mounted to slide in apertured lugs J on the lever D, and is surrounded by a spiral spring, K, between the lugs, which spring presses the rod toward the rear. The rod I is mounted in such a manner that it cannot turn on its longitudinal axis.

On the front of each bar B a standard, L, is secured, on the upper end of which an inclined and bent track-bar, M, is pivoted, which has the downwardly-inclined part M' at the front end.

On each clip C a plate, N, is held, which extends under the bar B and slides with the clip.

On the rear cross-bar, P, of the frame an angle-piece, Q, is held at each end, the top shank of each angle-piece having a longitudinal slot, Q', through which a bolt, R, is passed in the cross-bar P. The downwardly-inclined shank is in front of the cross-bar.

A lever, S, is pivoted centrally on the bar P, and its ends are connected by rods S' with pins D' on the clips C.

On the front of the frame the hoppers T are held, and into side slots in the same the ends of a reciprocating bar or plate, U, pass, which is mounted to slide in clips U' on the front end of the frame.

Angle-levers V are pivoted on the under sides of the side pieces of the frame A, and each has the end of one shank passed through a slot in the bar U, and the end of the other shank connected with a sliding rod, W, on the under side of the bar B, the rear ends, W', of the rods W being bent downward.

a a are the marker-levers pivoted to standards on the frame.

The operation is as follows: The machine is drawn in the direction of the arrow *a'*. One dagger, E, rests in the ground, and as it cannot move forward with the machine its roller *d*, moving on the top edge of the plate B', rolls under the track-plate M, and that end of the lever S connected with the said dagger is moved to the rear end. The dagger on the other side is moved up the other track-plate M and to the front. The first-mentioned dagger remains in the ground until the rod I, on that

lever D to which the said dagger is pivoted, is struck by an angle-piece, Q, whereby the rod I is pushed to the front, and its front end, I', strikes the upper end of the arm F, connected with the dagger in the ground, whereby the arm F is pushed forward and its shoulder F' is disengaged from the rear end piece of the guard G, thus permitting the dagger to tilt in the direction of the arrow b', whereby its lower end is pulled out of the ground by the forward movement of the machine. By this time the other dagger has dropped from the front end of its track, and its point enters the ground. The dagger that has just been tilted is swung in the inverse direction of the arrow b' by the spring H, and is locked in place as the shoulder F' of its arm engages the rear end piece of the guard G. As the other dagger is in the ground, the one that has just been raised out of the ground will be moved forward and up its track by the action of the other dagger on the lever S and rods S'. When the dagger arrives at the front end of its track M, it drops into the ground, and the other dagger is moved to the front and raised, and so on alternately, whereby the sliding clips C are reciprocated alternately. When the clips C move to the front, their plates N strike the inner angle ends of the rods W and push them forward. The rods W on the opposite sides of the machine are thus moved forward alternately, and when one moves forward the other is moved back, and so on. Thereby the feed-bar U is reciprocated and the seed dropped from the hoppers. The dropping device is thus operated entirely independent of the wheels.

The plates Q can be adjusted a greater or less distance forward or back, so as to trip the arm F sooner or later, thus causing the dagger to be tripped sooner or later.

The distance the corn-hills are to be from each other can thus be adjusted.

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

1. A corn-planter provided with sliding pivoted levers for operating the seed-dropper, and having daggers pivoted to said levers, substantially as herein shown and described.

2. The combination, in a planter, of sliding clips on the sides, levers pivoted to the clips, daggers pivoted to the levers, and sliding rods operated by the clips and connected with the seed-dropper, substantially as herein shown and described.

3. The combination, in a planter, of sliding clips, levers pivoted to the clips, daggers pivoted to the levers, a seed-dropper operated from the sliding clips, and pivoted curved track-plates up which the pivots of the daggers can slide, substantially as herein shown and described.

4. In a corn-planter, the combination, with

the frame, of sliding clips on the same, levers pivoted to the clips, daggers pivoted to the levers, locking-arms on the daggers, and devices for automatically releasing the locking-arms of the daggers, and a seed-dropper operated by the clips, substantially as herein shown and described.

5. In a corn-planter, the combination, with the frame, of sliding clips on the same, levers pivoted to the clips, a dagger pivoted to each lever, the locking-arms F, pivoted to the daggers, the sliding rods I, and the adjustable pieces Q on the frame, substantially as herein shown and described.

6. In a corn-planter, the combination, with the frame, of sliding clips on the same, levers pivoted to the clips, daggers pivoted to the levers, arms F, pivoted to the daggers, the sliding rods I, and the slotted angular pieces Q, held by bolts on the frame, substantially as herein shown and described.

7. In a corn-planter, the combination, with the frame, of sliding clips on the same, levers pivoted to the clips, daggers pivoted to the levers, the arms F, pivoted on the daggers, and having the shoulders F' and lugs F'', the springs H, the guards G, the sliding rod S', and a seed-dropper operated by the clips, substantially as herein shown and described.

8. In a corn-planter, the combination, with a frame, of the clips, levers pivoted to the clips, daggers pivoted to the levers, a lever pivoted on the frame-rods connecting the opposite ends of the lever with the clips, and a seed-dropper operated by the clips, substantially as herein shown and described.

9. In a corn-planter, the combination, with a frame, of the sliding clips C on the same, the levers D, pivoted to the clips, the daggers E, pivoted to the levers, the lever S, the rods S', connecting the ends of the lever S with the sliding clips, the tracks M, the standards L, on which they are pivoted, and a seed-dropper operated from the sliding clips, substantially as herein shown and described.

10. In a corn-planter, the combination, with a frame, of the seed-dropper bar U, the levers V, the sliding rods W, connected with the same, sliding clips on the frame, and levers provided with daggers pivoted to the sliding clips, substantially as herein shown and described.

11. A corn-planter connected with a seed-dropper, sliding clips for operating the same, and levers for operating the sliding clips direct from the ground and independent of the wheels, substantially as herein shown and described.

FRANK H. RYBACEK.

Witnesses:

ANTHONY TRISKA,
WENEIL RIHA.