

(No Model.)

2 Sheets—Sheet 1.

J. D. BAER.
CORN PLANTER.

No. 370,595.

Patented Sept. 27, 1887.

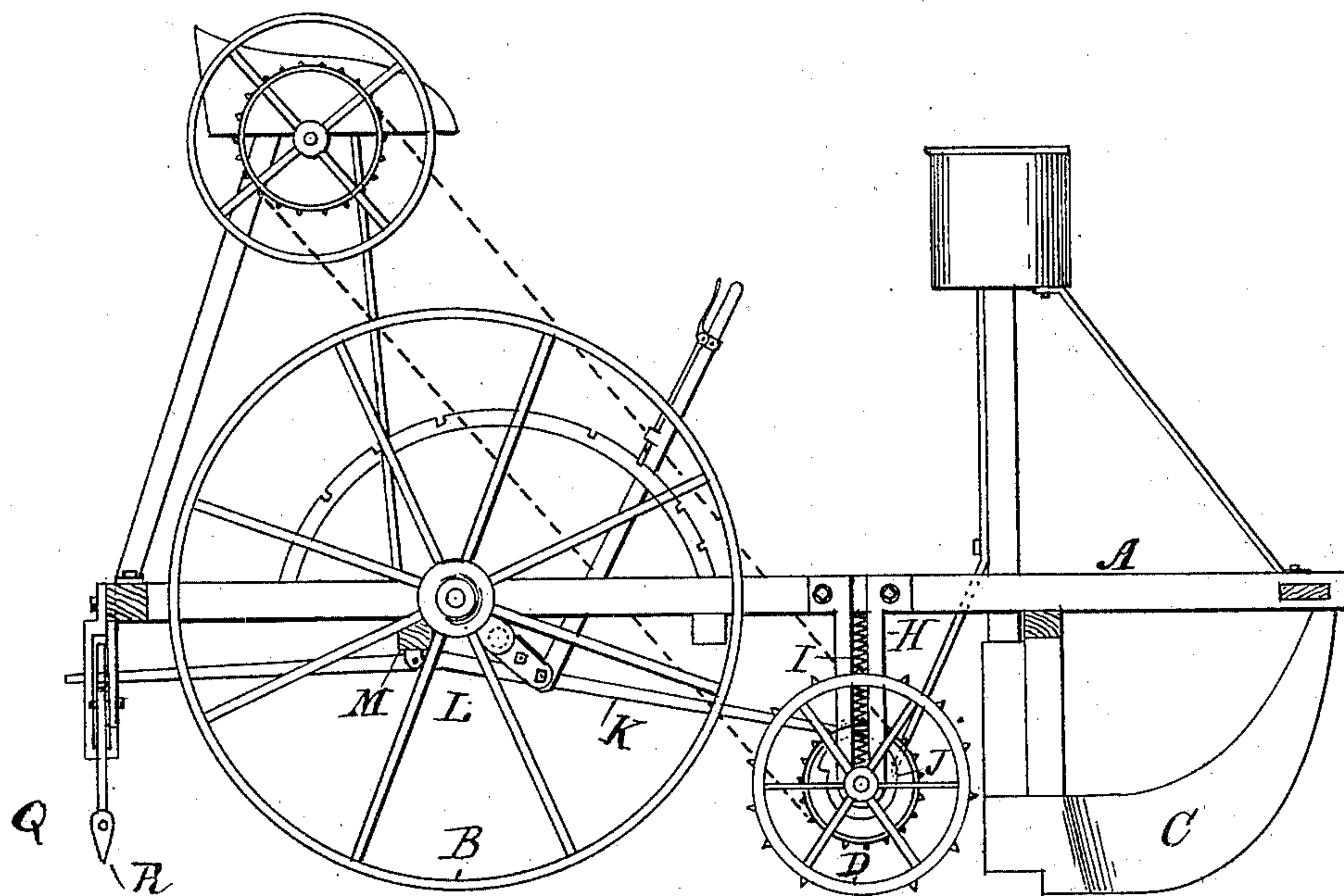
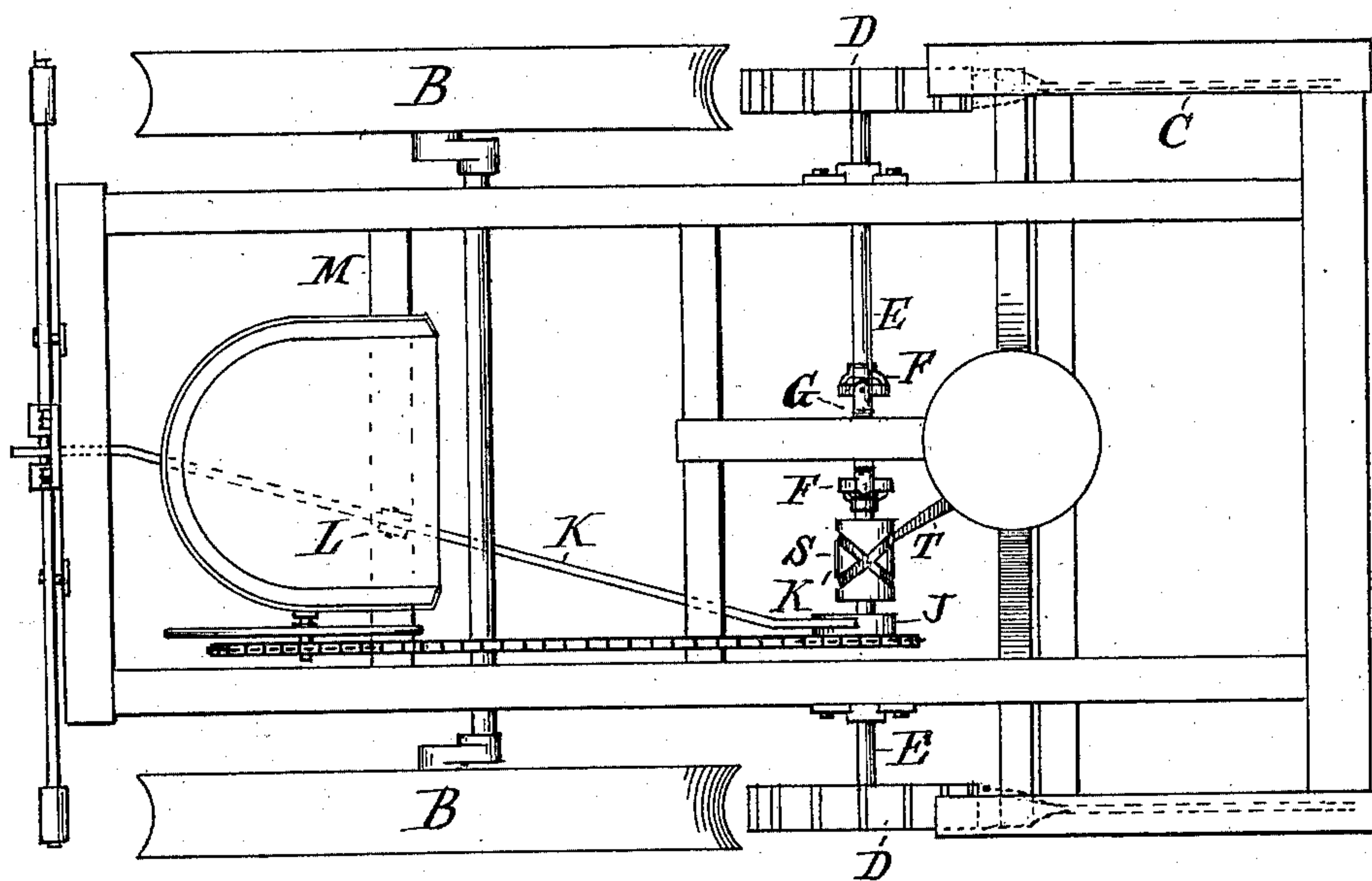


Fig. 1.



WITNESSES:

Fig. 2.

INVENTOR :

Robert Kirk.
M. Redman

John D. Baer

By *J. S. Zerk*
Attorney.

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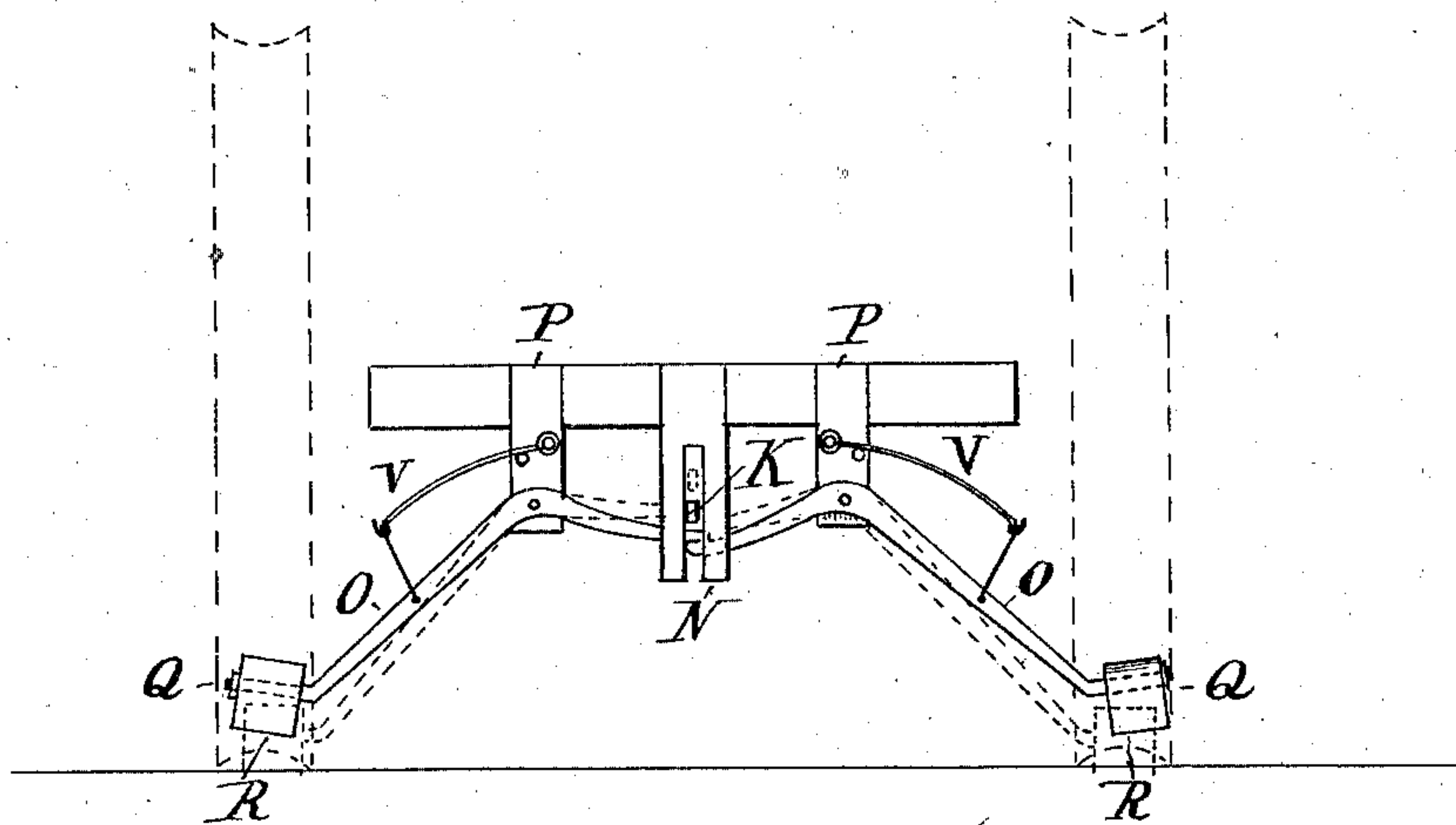


Fig. 3.

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UNITED STATES PATENT OFFICE.

JOHN D. BAER, OF DETROIT, MICHIGAN.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 370,595, dated September 27, 1887.

Application filed June 9, 1887. Serial No. 240,805. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. BAER, of Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Corn-Planters, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation of my improved corn-planter. Fig. 2 is a top view of the same; and Fig. 3, a view of the rear end of the frame, showing the marking device.

The object of my invention is to improve the planter (No. 332,469) issued to Andrew Yount, which patent is now owned by me, (see Liber Y 33, page 78 of Transfer of Patents;) and it consists in placing the two operating-wheels between the runners and carrying-wheels in line; in having these operating-wheels secured to axles which are centrally coupled to a shaft, so that the outer ends of the axles may be raised or lowered; in the manner of confining these axles so they can have vertical play in order to hold the wheels firmly on the ground at all times, which is accomplished by means of spiral springs in the open shaft-bearings; in a fulcrum-rod acting between a cam on one axle of the operating-wheel and lateral arms provided with hill-markers at the other end of the rod and rear of the planter, and in the general construction of the marker, all of which will now be fully set forth in detail.

As my invention is confined to the features above mentioned, it will not be necessary to describe in detail all the operative mechanism of the frame and of the dropping mechanism, except in so far as it is necessary to refer to those parts in order to understand the operation of the improvements made.

The frame A is mounted on suitable carrying-wheels, B B, which are located near the rear end of the frame, the wheels being preferably on the outside of the frame. The runners C are placed directly forward of each wheel and secured to the frame in the usual manner. Between the rear end of the runner and the supporting or carrying wheel is sufficient space, however, to locate a wheel, D, of suitable size to answer the purpose. A wheel of this character is placed between each runner

and carrying-wheel, as shown in Fig. 2. Each wheel is secured rigidly to the outer end of the axle or shaft E, and their inner ends are secured by means of universal couplings or joints F with a centrally-journaled shaft, G. The outer ends of these axles rest within vertical slotted guideways H, which are secured to the frame. A spiral spring, I, is placed within each slotted guideway between the axle E and the frame-piece A, in order to hold the outer end of the axle (which carries the operating-wheel D) on the ground when the planter passes over the soil. One of these axles E is provided with an eccentric cam-wheel, J, and extending back from this wheel to the rear end of the frame is a lever, K, which is centrally pivoted at L to a cross-beam, M, in the frame. This lever at its contact-point K' with the cam-wheel and for a short distance back is made thinner than the main body of the lever, so as to make it in a measure flexible. Referring now to Fig. 3, it will be observed that the rear end of this lever K, having a hook on it, or otherwise adapted for the purpose of engaging the arms of the marking device, projects through and rests in a vertically-slotted guide-piece, N.

O O represent two levers or arms hinged to brackets P P, which depend from the frame on each side of the guide-bracket K. Over the upper part of each arm is a guide-spring, V, to throw the arm to the ground with great force. The inner ends of these levers extend past each other below the lever K. Their outer ends are bent downwardly, and are each equipped with blocks Q. Each block is preferably made, as shown, with a dependent point or cutting-edge, R, and it is hinged on the lever O, so that when the outer end of the lever is depressed and the lower cutting-edge enters the ground it will swing on its pivot and free itself of the ground, in case the lever should not be immediately raised, as the machine travels forward.

It is obvious that the mechanism for operating this marker must be so arranged that the levers O O will be depressed and the marker-blocks Q Q enter the ground at such a point as will coincide with the location of the seed as deposited by the dropping mechanism. The blocks Q Q are timed with the

rotary dropping-disk, so that dropping the seed and marking are exactly simultaneous with each other. The dropping mechanism is also controlled and operated by either of the 5 axles E E by means of the cam-grooved wheel S and lever T; or by any other suitable means from these axles.

The operation is as follows: The operating-wheel, located directly behind the runner and 10 forward of the carrying-wheel, and being the same width, preferably, as the rear spreading end of the runner, and having also a downwardly-pressing spring, I, acting on its axle, will move within the track or depression formed 15 by the runner C. In this location it serves for two purposes: first, it presses the seed into the soil deeper than the furrow formed by the shoe of the runner, so that when the carrying-wheel B, which has a broader tire or tread 20 and concaved, passes over this furrow or depression the soil will be nicely and evenly gathered up over the seed so deposited, assuring a uniformity in the depth of planting, as well as preventing clods and other obstructions from passing between the runner and 25 carrying-wheel; and, second, the wheel D, on account of its direct contact with the comparatively level furrow made by the shoe or runner, constitutes a better medium from which to 30 control and operate the dropping mechanism.

What I claim as new is—

1. In seed-planters, a wheel for operating the dropping mechanism, located directly behind the runner and between the runner and 35 carrying-wheel, substantially as herein set forth.

2. In seed-planters, the combination of an

operating-wheel located between the runner and the carrying-wheel and on a line with each other, the carrying-wheel having a concave or 40 flat tire, and the runner, substantially as herein set forth.

3. In seed-planters, an operating-wheel located between the runner and carrying-wheel, 45 secured to the outer end of its axle, which has a vertical motion in a suitable guideway and provided with a depressing-spring, the inner end of said axle being attached to a suitable shaft by means of a universal joint, substantially as herein set forth. 50

4. In seed-planters, an operating-wheel located on the line between the runner and carrying-wheel and secured to an axle which has a vertical movement at its outer end, in combination with suitable cam-wheels or other 55 mechanism on said axle for transmitting motion to the hill-marking device, substantially as herein set forth.

5. In seeding-machines, a marker consisting of one or more levers carrying marker-blocks 60 hinged to the rear of the planter-frame and provided with a spring, the inner end of which lever comes in contact with and is operated by a flexible lever, which is manipulated by a cam-wheel or eccentric on the axle of the op- 65 erative wheel, substantially as herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand, this 7th day of March, 1887, in the presence of witnesses.

JOHN D. BAER.

Witnesses:

L. N. CLARK,
L. M. MILLER.