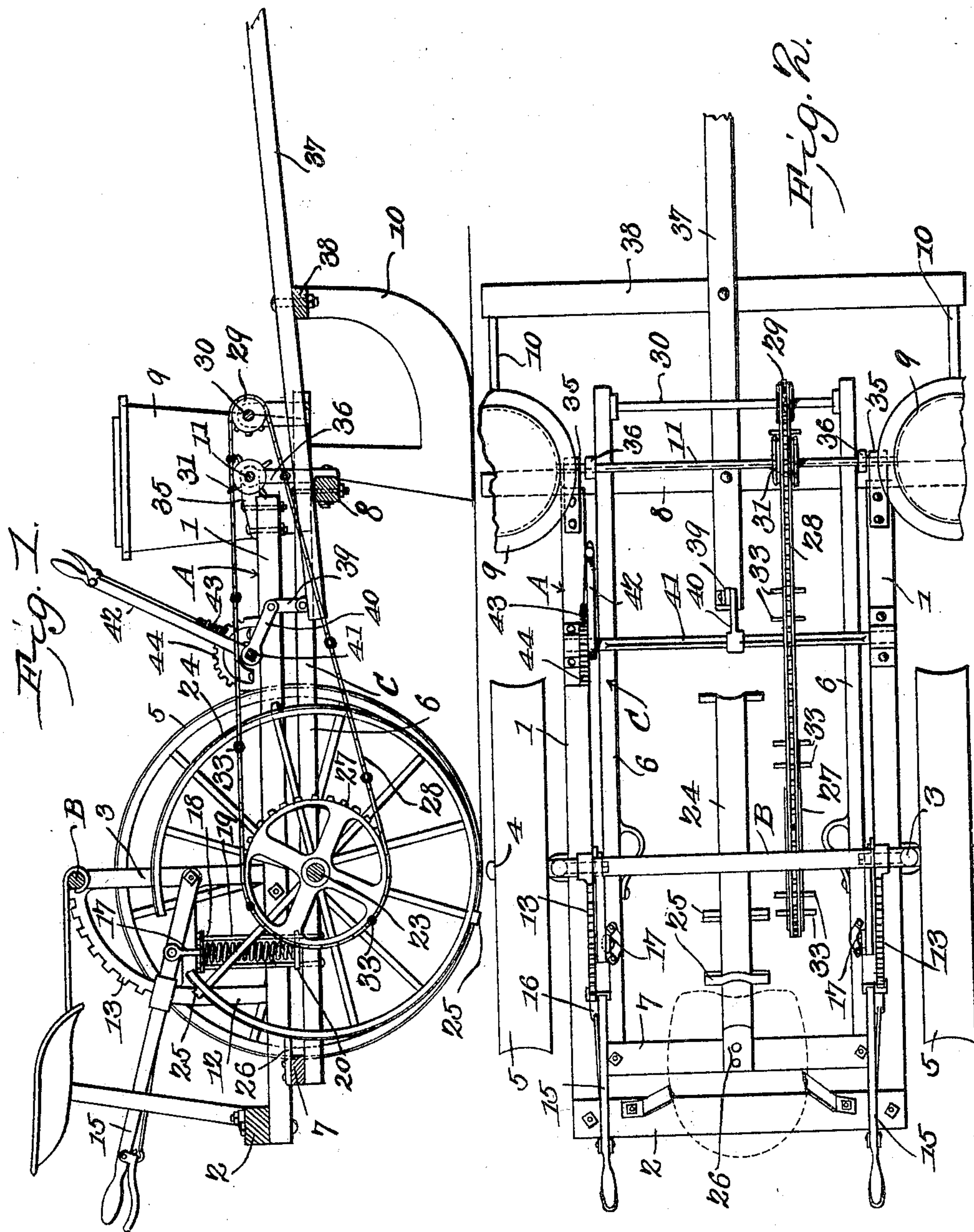


No. 812,666.

PATENTED FEB. 13, 1906.

J. L. MILLER.
CHECK ROW CORN PLANTER.
APPLICATION FILED DEC. 4, 1905.

2 SHEETS—SHEET 1.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

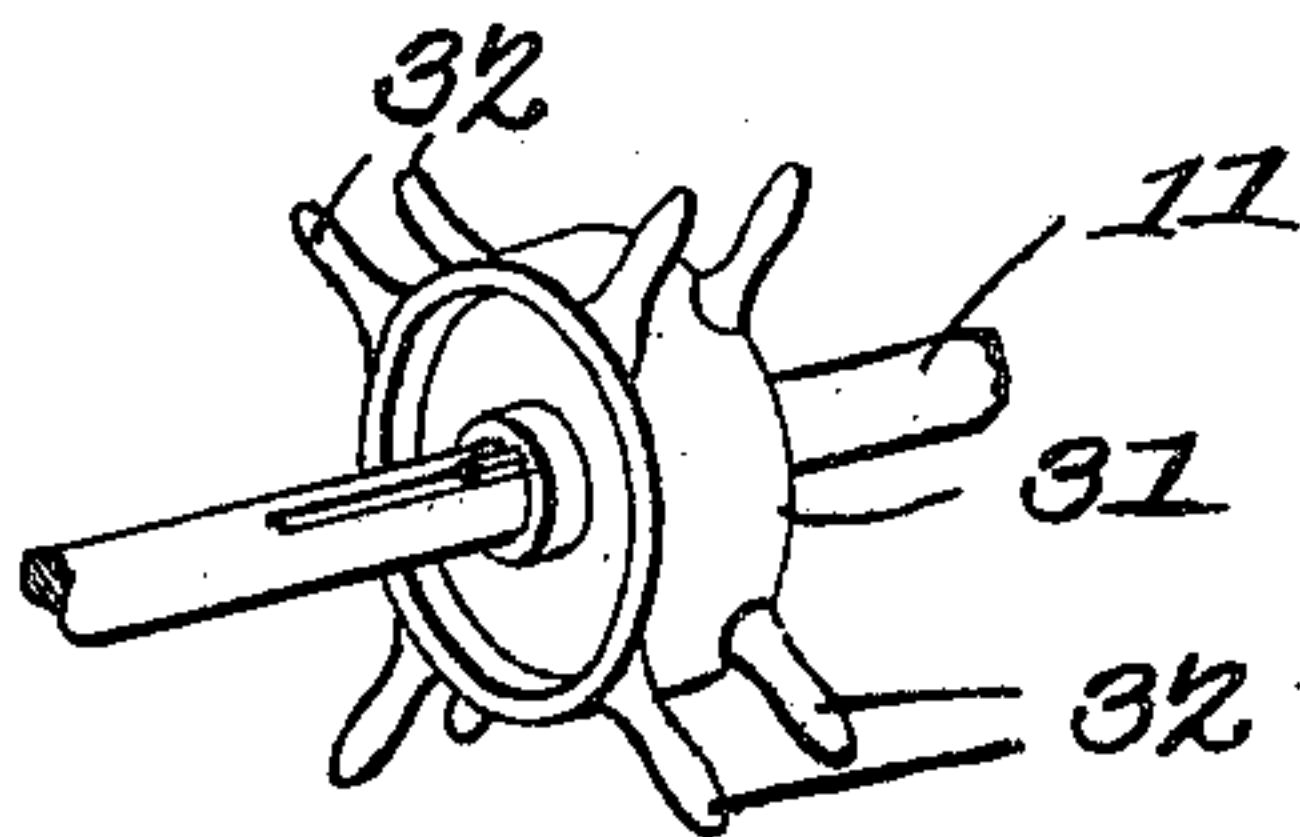
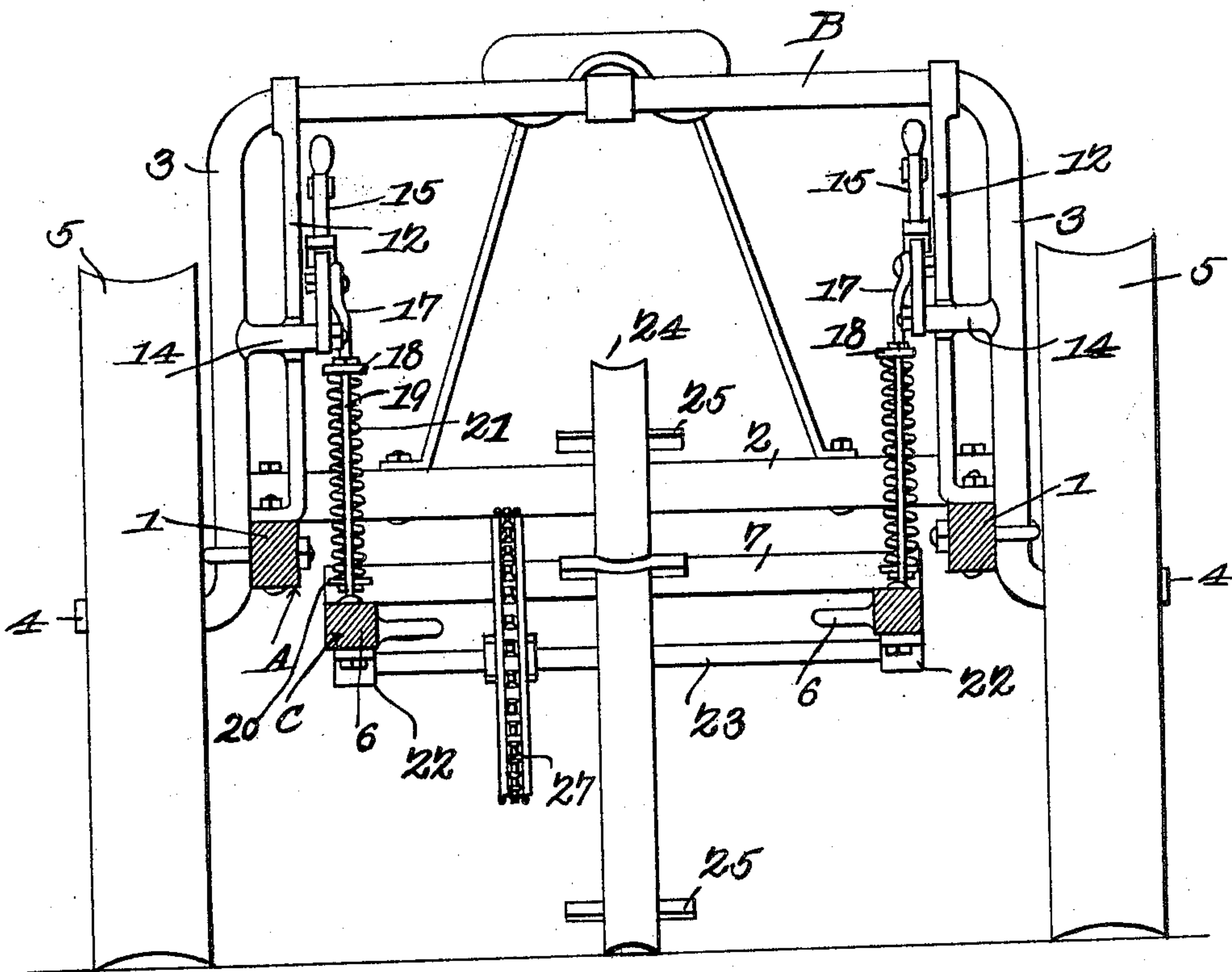


Fig. 4.

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UNITED STATES PATENT OFFICE.

JOHN LEE MILLER, OF WOOD RIVER, NEBRASKA.

CHECK-ROW CORN-PLANTER.

No. 812,666.

Specification of Letters Patent.

Patented Feb. 13, 1906.

Application filed December 4, 1905. Serial No. 290,267.

To all whom it may concern:

Be it known that I, JOHN LEE MILLER, a citizen of the United States, residing at Wood River, in the county of Hall and State of Nebraska, have invented a new and useful Check-Row Corn-Planter, of which the following is a specification.

This invention relates to check-row corn-planters; and the objects of the invention are to simplify and improve the construction and operation of this class of machines and to insure perfect regularity in the process of planting, so that the seed shall be deposited in hills located at equal distances apart throughout the field without regard to such inequalities as may exist in the surface of the land.

With these and other ends in view, which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations, and modifications within the scope of the invention may be made when desired.

In the drawings, Figure 1 is a longitudinal sectional view of a check-row corn-planter constructed in accordance with the principles of the invention. Fig. 2 is a top plan view of the same. Fig. 3 is a transverse vertical sectional view taken in front of the axle and looking in a rearward direction, and Fig. 4 is a perspective detail view.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

In the construction of this improved corn-planter there is employed a main or wheel frame A, in the construction of which are included side members 1 1 and a rear bar 2, serving to space and connect the side members. The latter are connected securely with the side members 3 of an arched axle B, which is constructed in the usual manner with spindles 4, upon which the transporting-wheels 5 are supported for rotation.

In connection with the outer frame A there is used an inner frame C, comprising side members 6 6, spaced and connected by a rear cross-bar 7. This inner frame supports near

its front end a cross-bar 8, which is extended beyond the side members of the outer frame and which carries the seedboxes or hoppers 9 and the runners or furrow-openers 10. The hoppers receive the ends of a transverse shaft 11, that serves to actuate the seed-dropping mechanism, which may be of any desired construction and which has not been illustrated, as it forms no part of the present invention.

Upon the side members of the outer frame are supported uprights 12, the upper ends of which are curved forwardly to constitute segment-racks 13, the upper terminals of which are connected with the arched portion of the axle-beam adjacent to the side members 3 of the latter. Said side members are provided with studs 14, upon which are pivoted hand-levers 15, having spring-actuated stop members 16, engaging the segment-racks. Connected with the levers 15 are link-rods 17, which extend through plates 18, connected with the side members 6 of the inner frame by means of upright bolt members 19, securely connected with the side members 6 of the inner frame and serving as guides for the vertically-sliding plates 20, which are fixed upon the lower ends of the link-rods 17. Springs 21 are coiled upon said link-rods between the plates 18 and 20, said springs serving to resiliently support the weight of the rear portion of the frame C.

The frame C is provided with boxes 22, supporting a transverse axle or shaft 23, carrying a ground-engaging wheel 24, which is provided with equidistantly-disposed markers 25. The latter are embedded in the rim of the wheel 24, and said markers, as well as the rim of the wheel, are made concave and engaged by a scraper 26, supported upon the rear cross-bar 7 of the frame C for the purpose of keeping the periphery of the wheel, as well as the marking devices, free from adhering dirt. This is extremely important, for the reason that it is the periphery of the ground-engaging wheel 24 which determines the distance between the hills, and any substance adhering to the periphery of said wheel would cause an undesirable deviation. The wheel 24 is fixed upon the axle 23, which latter rotates in the boxes 22. The shaft 23 carries a sprocket-wheel 27, which is connected by a link belt 28 with a sprocket-wheel or idler 29, supported for rotation by a shaft 30, near the front end of the frame C. The upper lead of the link belt 28 engages a disk 31, mounted upon the operating-shaft 11, said

disk being provided with a plurality of pairs of radially-extending arms 32, that are adapted to be intermittently engaged by tappets 33, connected at intervals with the links of the chain or belt 28. The tappet-carrying links may be variously spaced in the chain or link belt according to the frequency with which it is desired to actuate the operating-shaft, it being understood that at each operation of the latter the seed-dropping mechanism will be actuated.

The side members 1 1 of the frame A are provided with forwardly-extending brackets 35, affording bearings for the shaft 11, which extends into the hoppers and operates the seed-dropping mechanism. The cross-bar 8, which connects the front ends of the side members 6 of the frame C, is provided with upwardly-extending brackets 36 that are pivoted upon the shaft 11, which latter thus serves to form a hinge connection between the frames A and C. The tongue or draft-bar 37 is secured upon the cross-bar 8 and upon a cross-bar 38, which connects the front ends of the runners. Said tongue is extended rearwardly and is connected by means of a link 39 with an arm 40, extending from a rock-shaft 41, which is supported in bearings upon the side members of the frame A, said rock-shaft being provided with a hand-lever 42, whereby it may be operated. The lever 42 has a stop member 43, adapted to engage a rack-segment 44, whereby said lever and its related parts may be secured at various adjustments.

By manipulating the lever 42 it will be readily seen that the front end of the frame C, with the runners carried by said frame, may be raised or lowered, as may be desired, the front end of the tongue being supported by the team to form a fulcrum. At the same time the rear end of the frame C, carrying the operating-wheel 24, is capable of independent adjustment by the means provided for the purpose, as hereinbefore described.

As will be seen from the foregoing description, the construction of this improved corn-planter is very simple. The planting mechanism may be thrown out of operation by simply elevating the rear end of the frame C by the means herein described until the wheel 24 is supported beyond the possibility of contacting with the ground. The marking members 25 upon the wheel 24 are disposed so as to make indentations in the ground in alinement with the hills where the seeds are dropped, and it is obvious that said marking members by forming such indentations will enable the driver or operator to satisfy himself at any

time that the machine is operating in perfect alinement.

Having thus described the invention, what is claimed is—

1. A main frame having an arched axle and transporting-wheels upon the latter, uprights supported upon the side members of the frame and having rack-segments connected with the axle, levers pivoted upon the side members of the axle-arch and having stop members engaging the rack-segments, an auxiliary frame having an earth-engaging operating-wheel, and means including links connecting said auxiliary frame with the levers.

2. In a corn-planter, a main-wheel frame having an arched axle, an auxiliary frame, an axle supported for rotation in the auxiliary frame and having a ground-engaging operating-wheel, uprights supported in the side members of the main frame and having terminal-segment-racks connected with the axle-arch, levers pivoted upon the side members of the latter and having stop members engaging the racks, links pivoted upon the levers and having plates at their free ends, springs coiled upon said levers and supported upon said plates, and means connected with the side members of the auxiliary frame and supported upon said springs.

3. In a corn-planter, a main frame having supporting-wheels, an auxiliary frame, an axle journaled in the auxiliary frame and having a ground-engaging wheel, hoppers and runners supported at the front end of the auxiliary frame, brackets connected with the main frame, an operating-shaft journaled in said brackets and extended into the hoppers, brackets connected with the auxiliary frame and having bearings for the operating-shaft, a tongue connected with the auxiliary frame, a rock-shaft supported upon the main frame and having an operating-lever and an arm, a link connecting said arm with the rear end of the tongue, means for securing the rock-shaft at various adjustments, independent means for effecting vertical adjustment of the rear end of the auxiliary frame including spring means for pressing the free end of said frame in a downward direction, and means for transmitting motion from the axle of the auxiliary frame to the operating-shaft.

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

JOHN LEE MILLER.

Witnesses:

JAMES WILLIAMS,
DAISY B. INGRAHAM.