

(No Model.)

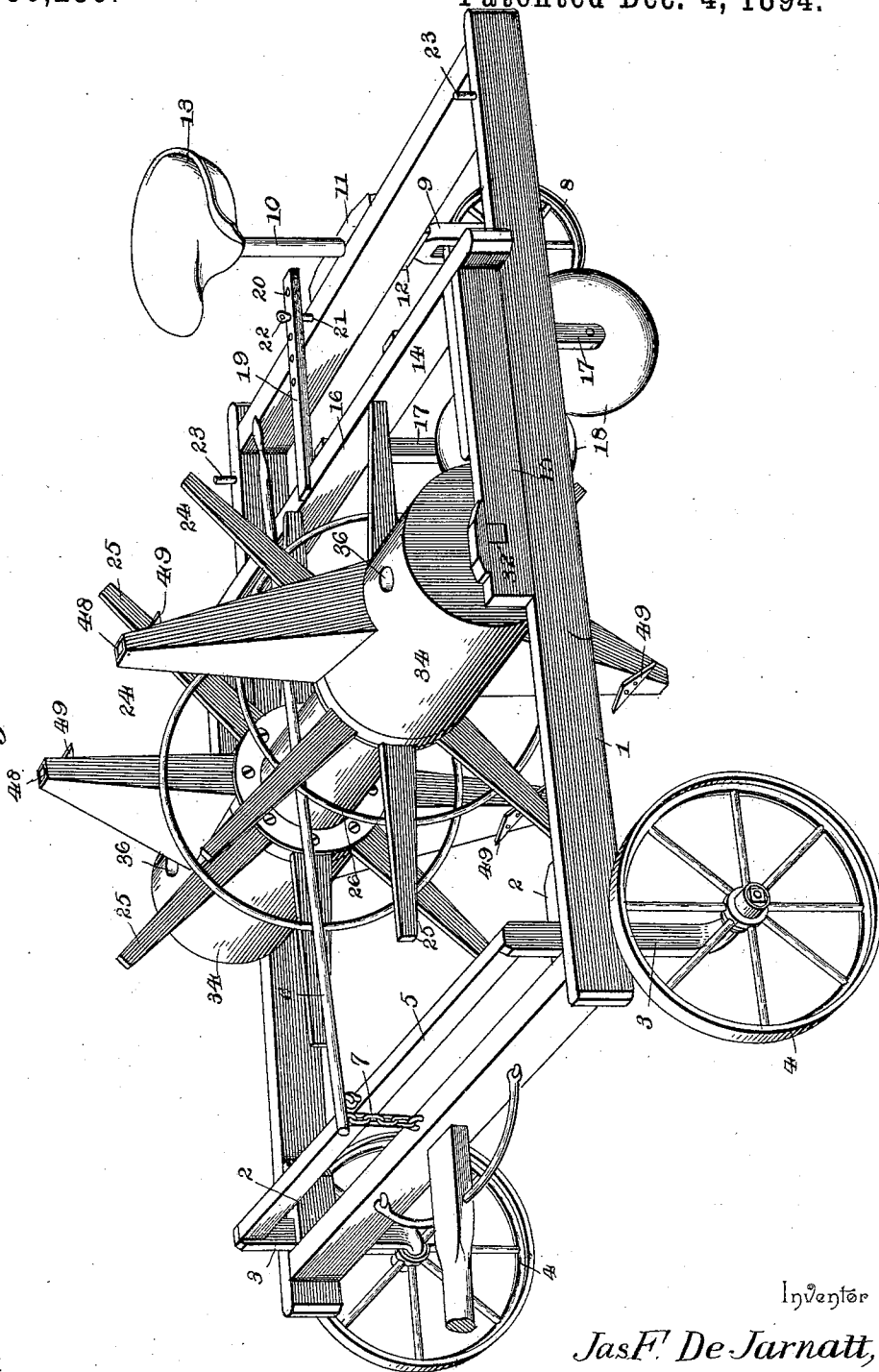
2 Sheets—Sheet 1.

J. F. DE JARNATT.
CHECK ROW CORN PLANTER.

No. 530,259.

Patented Dec. 4, 1894.

Fig. 1.



Witnesses

Chas. A. Ford.

[Signature]

By his Attorneys.

[Signature]

Inventor
Jas F. De Jarnatt,

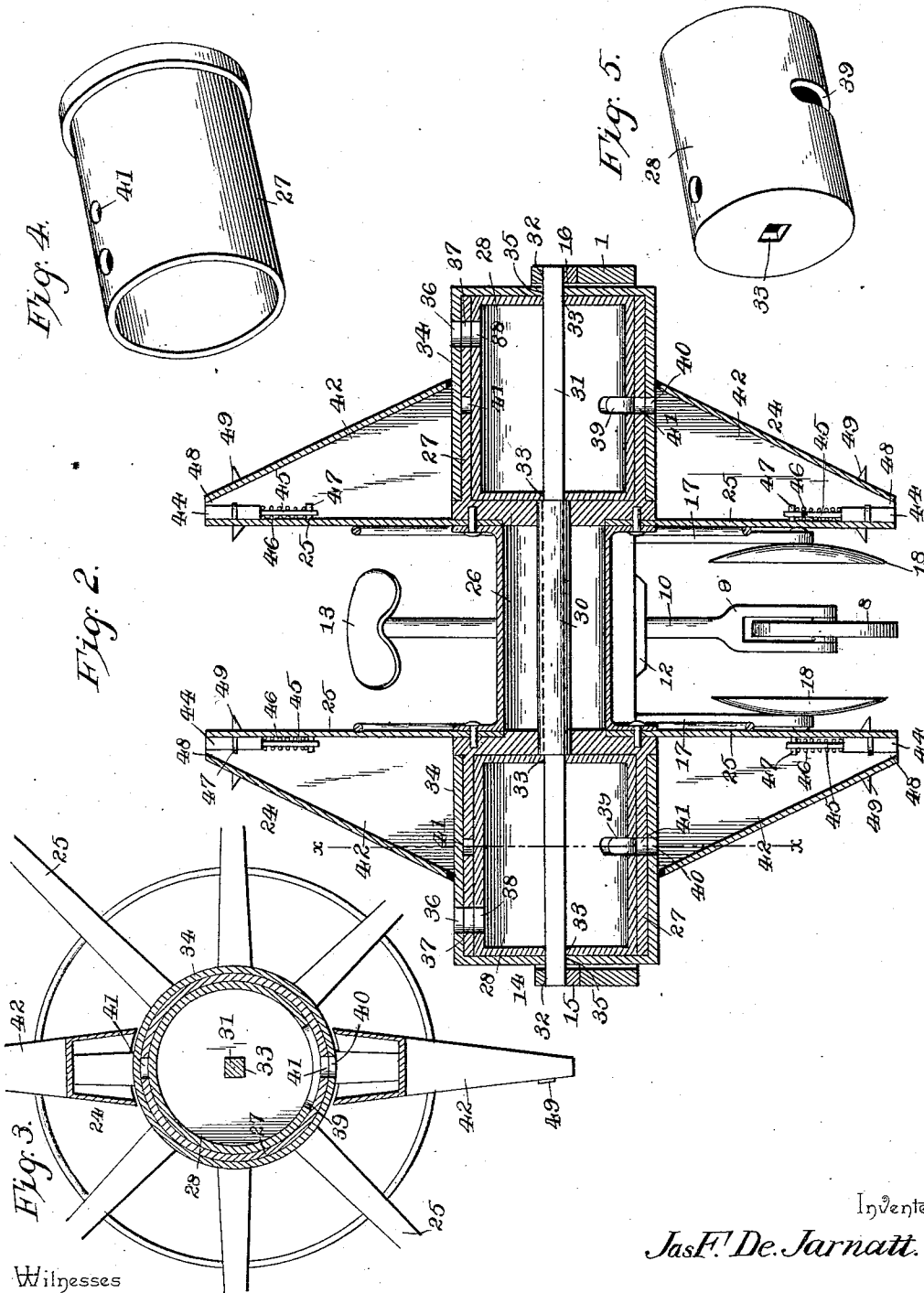
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UNITED STATES PATENT OFFICE.

JAMES FRANCIS DE JARNATT, OF LAMAR, MISSOURI.

CHECK-ROW CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 530,259, dated December 4, 1894.

Application filed June 14, 1894. Serial No. 514,575. (No model.)

To all whom it may concern:

Be it known that I, JAMES FRANCIS DE JARNATT, a citizen of the United States, residing at Lamar, in the county of Barton and State of Missouri, have invented a new and useful Check-Row Corn-Planter, of which the following is a specification.

My invention relates to corn-planters, and it has for its object to provide a simple construction of planter, whereby the proper checking and regularity of movement of the planting mechanism may be attained without the use of check-wires or cables.

Further objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings: Figure 1 is a perspective view of a check-row corn planter embodying my invention. Fig. 2 is a transverse section taken parallel with and in the plane of the axis of the operating-wheels. Fig. 3 is a detail vertical section on the line $x-x$ of Fig. 2. Fig. 4 is a detail view of the hub of an operating-wheel. Fig. 5 is a similar view of a seed-box.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates the main or supporting frame of the planter provided at its front end with vertical guides 2, in which are fitted standards 3 bearing ground-wheels 4, said standards being connected at their upper ends by a cross piece 5, to the center of which is fulcrumed a lever 6 connected by means of a link or chain 7 with the front beam of the main or supporting frame. The depression of the rear end of this lever causes the elevation of the front end of the supporting frame. The rear end of the supporting frame is carried by means of a guiding-wheel 8, the yoke 9 of which is provided with a vertical stem 10 fitted in a bearing 11 at the center of the rear bar of the main frame and provided with a shoulder 12, upon which said rear bar rests. Fixed to this stem above the plane of the main frame of the machine is the driver's seat 13 and by swinging this seat to the right or left the rider may direct the machine to bring it into proper alignment with the rows.

Mounted slidably upon the main or supporting frame of the machine is an auxiliary or adjustable frame 14 having side bars 15 and a connecting cross-bar 16, and depending from this cross-bar upon opposite sides of its center are standards 17 bearing the dish-shaped covering or hilling wheels 18. Said adjustable or auxiliary frame is secured in the desired position with relation to the main frame by means of an arm 19, which extends backward from the cross-bar 16, and is provided with a series of perforations 20, one of which is adapted to be arranged in registration with a socket 21 in the rear beam of the main frame for the reception of a locking pin 22. Stops 23 are also provided upon the side beams of the main frame to limit the rearward movement of this auxiliary or adjustable frame. Supported by the auxiliary or adjustable frame in advance of said covering-wheels are the operating or spider-wheels 24, which are of the rimless construction, and consist of a series of radial spokes 25 connected to a hub 26, which in the construction illustrated is common to the two wheels, whereby said wheels rotate simultaneously. Secured to the outer sides of these operating or spider-wheels are the cylindrical sleeves 27, which are open at their outer ends and receive the cylindrical seed-boxes 28.

The hub of the operating wheels is mounted rotatably upon the boxing 30 fitted upon an angular shaft 31, said shaft being extended laterally beyond the above described seed-boxes, and fitted in angular seats 32 near the front ends of the side arms of the auxiliary or adjustable frame, and the seed-boxes which are provided with closed ends have angular openings 33 formed in said ends to engage this angular shaft, whereby the seed-boxes are held stationary during the rotation of the sleeves 27 and the operating-wheels.

Inclosing the sleeves 27 are the cylindrical shells 34 having open inner ends and closed outer ends provided with angular central openings 35 which receive and fit the shaft 31.

The construction of both sets of seed-boxes, contiguous operating wheels, and shells is identical, and therefore a specific description of one will suffice to give a clear understanding of the invention. The shell is provided at its upper side with an opening 36, which is adapted when the sleeve 27 is in proper posi-

tion to register with a similar opening 37 in the latter, said opening 36 being permanently in registration with an opening 38 in the upper side of the seed-box, and therefore when said opening 37 in the sleeve registers with the openings 38 and 36 seed may be introduced into the seed-box.

The seed-box is provided in its under side with an elongated opening or slot 39 which registers permanently with an outlet opening 40 in the outer shell, and the sleeve which acts in the capacity of a rotary slide for controlling the outlet of grain from the seed-box is provided at diametrically opposite points with gage openings 41, which are successively brought into registration with the openings 36 and 39 to open communication between said openings, and thus allow the escape of grain. The reason for elongating the opening 39 is to enable the grain within the seed-box to pass out through said opening and into the opening 41 before said opening 41 reaches registration with the outlet opening 40 in order to prevent choking and insure the proper outlet of the grain.

Attached to each operating or spider-wheel are the seed-chutes 42, and in the construction illustrated in the drawings each operating-wheel is provided with two diametrically opposite chutes, the upper enlarged ends of which are disposed respectively opposite and in the position to receive grain from the gage openings 41 when the latter are brought into registration with the outlet openings 40. Thus as the operating-wheel rotates by the contact of its spokes or arms with the ground, the seed-chutes are brought successively into registration with the outlet opening 40 just as the gage openings are arranged in registration with said openings 40 and 39, and therefore grain is successively fed into the chutes and conveyed by the latter to the ground.

Located in the outlet end of each seed chute is a plunger 44 having a stem 45, upon which is coiled a spring 46 bearing at its upper end against a stop 47. This plunger fits loosely in the outlet 48 of the chute, and its actuating spring is sufficiently light to allow the plunger to be repressed when the end of the chute is brought in contact with the ground, but when the chute is elevated the plunger reassumes its normal position and thus expels any earth which may have remained in said outlet opening which would prevent the choking of said chute. Each seed-chute is provided with a marker 49 which indicates the hills as they are planted.

This being the construction of the improved planter, the operation thereof, briefly stated, is as follows:—To avoid running the machine forward or backward or turning the operating wheels by hand in order to place the first hill at the desired point in the row, I employ the auxiliary adjustable frame above described, which may be moved forward or rearward to secure the necessary adjustment. As

the operating or spider-wheels rotate by contact with the ground the seed-chutes are alternately brought into registration with the outlet openings of the shells at the same time that the gage-openings in the sleeves carried by said operating-wheel register with said outlet openings, and as the seed descends through the chute the discharge openings at the lower ends of the same are opened by the repression of the plungers.

It will be understood that in practice, various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit of the invention or sacrificing any of the advantages thereof.

Having described my invention, what I claim is—

1. In a corn planter, the combination with a supporting framework, of an operating wheel, a seed-chute carried by the operating-wheel, a stationary cylindrical seed-box arranged concentric with the axis of the operating-wheel, and a sleeve carried by the operating-wheel, arranged concentric with the said seed-box, and provided with a gage opening adapted to register with the outlet-opening in the seed-box when the seed-chute reaches its operative or discharging position, substantially as specified.

2. In a corn-planter, the combination with a supporting framework, of an operating-wheel, a seed-chute carried by the operating wheel, a stationary cylindrical seed box provided in its lower side with an outlet-opening, a sleeve inclosing the seed-box and provided with a gage-opening opposite the inner end of the seed-chute, and a stationary shell inclosing said sleeve and provided with an outlet opening in registration with the outlet opening of the seed-box, substantially as specified.

3. In a corn-planter, the combination with a supporting-framework, of an operating-wheel, a plurality of seed-chutes carried by said wheel, a stationary cylindrical seed-box provided in its lower side with an outlet-opening, and a sleeve carried by the operating-wheel mounted rotatably upon the seed-box and provided opposite each seed-chute with a gage opening adapted to register with the outlet-opening in the lower side of the seed-box, substantially as specified.

4. In a corn-planter, the combination with a supporting framework provided with opposite angular seats, of a transverse angular shaft fitting in said seats, an operating-wheel having a box fitted upon an intermediate portion of said shaft, seed-chutes carried by the operating wheel, a stationary cylindrical seed-box arranged concentric with the axis of the operating-wheel and provided at its opposite extremities with angular openings fitted upon said shaft, a sleeve carried by the operating-wheel and inclosing the seed-box, said sleeve being provided with gage-openings adapted to register with an outlet-opening in the underside of the seed-box, and a shell inclosing

the sleeve provided in its lower side with an outlet opening registering with the outlet-opening in the seed-box and provided in its outer end with an angular opening fitted upon
5 said shaft, substantially as specified.

5. In a corn-planter, the combination with a main supporting frame, of an auxiliary adjustable frame mounted thereon, seed feeding devices carried by said auxiliary adjustable frame and adapted to be moved forward and rearward or parallel with the direction of movement of the machine, and means for adjusting said auxiliary adjustable frame, substantially as specified.

15 6. In a corn-planter, the combination with a main supporting frame provided at its rear end with a guide-wheel and planting mechanism

anism mounted upon and carried by said framework, of standards slidably fitted in vertical guides at the front end of the supporting frame and connected at their upper ends
20 by a cross-bar, ground-wheels mounted upon said standards, and a lever fulcrumed upon the cross-bar connecting said standards and flexibly connected to the supporting frame, 25 substantially as specified.

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

JAMES FRANCIS DE JARNATT.

Witnesses:

GID F. PORTER,
CHESTER E. UPTON.