

T. W. BURK.

PLANTER.

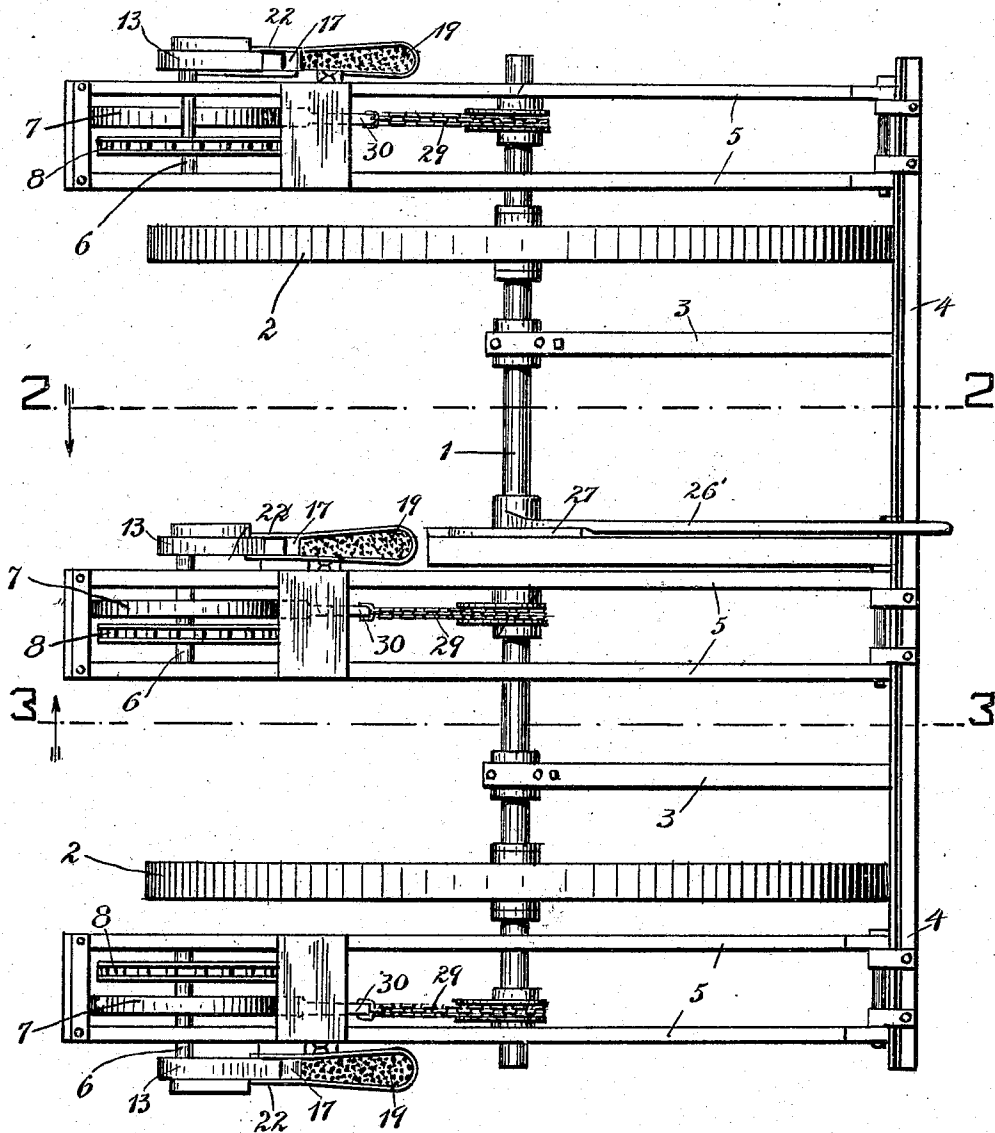
APPLICATION FILED DEC. 21, 1908.

937,224.

Patented Oct. 19, 1909.

3 SHEETS—SHEET 1.

FIG. 1.



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3 SHEETS—SHEET 2.

FIG. 2.

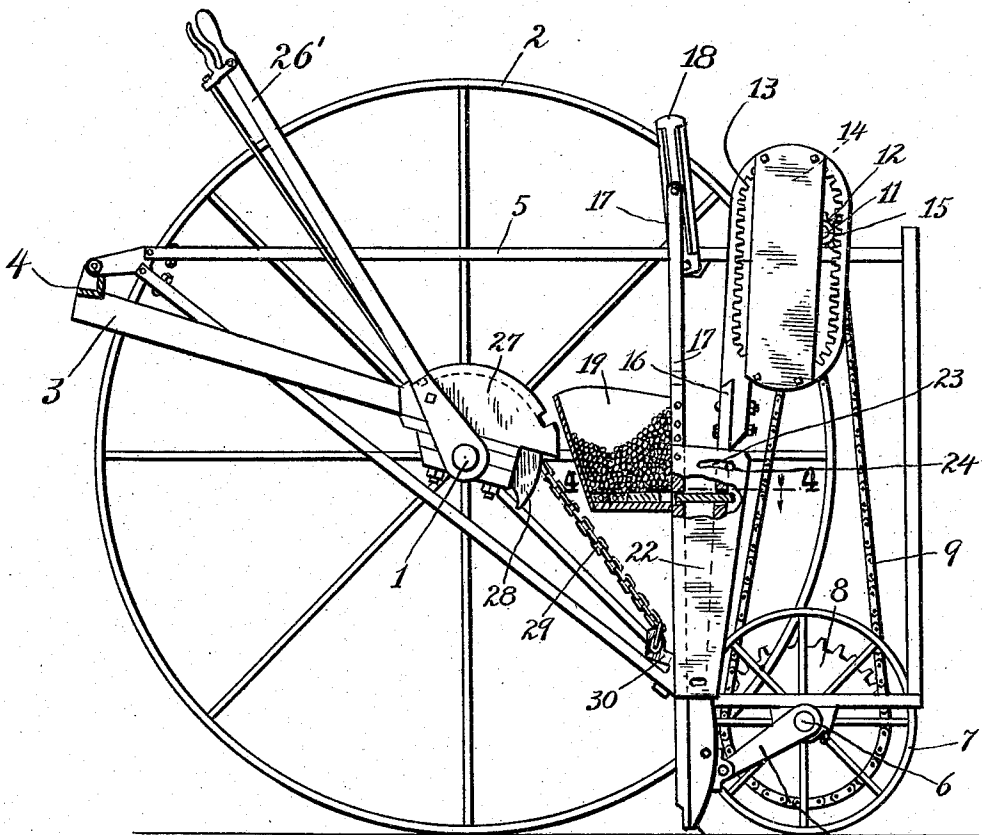
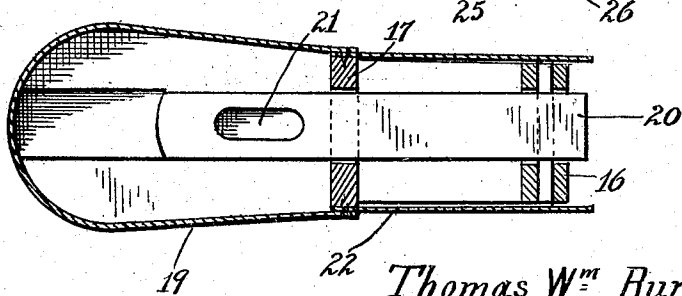


FIG. 4.



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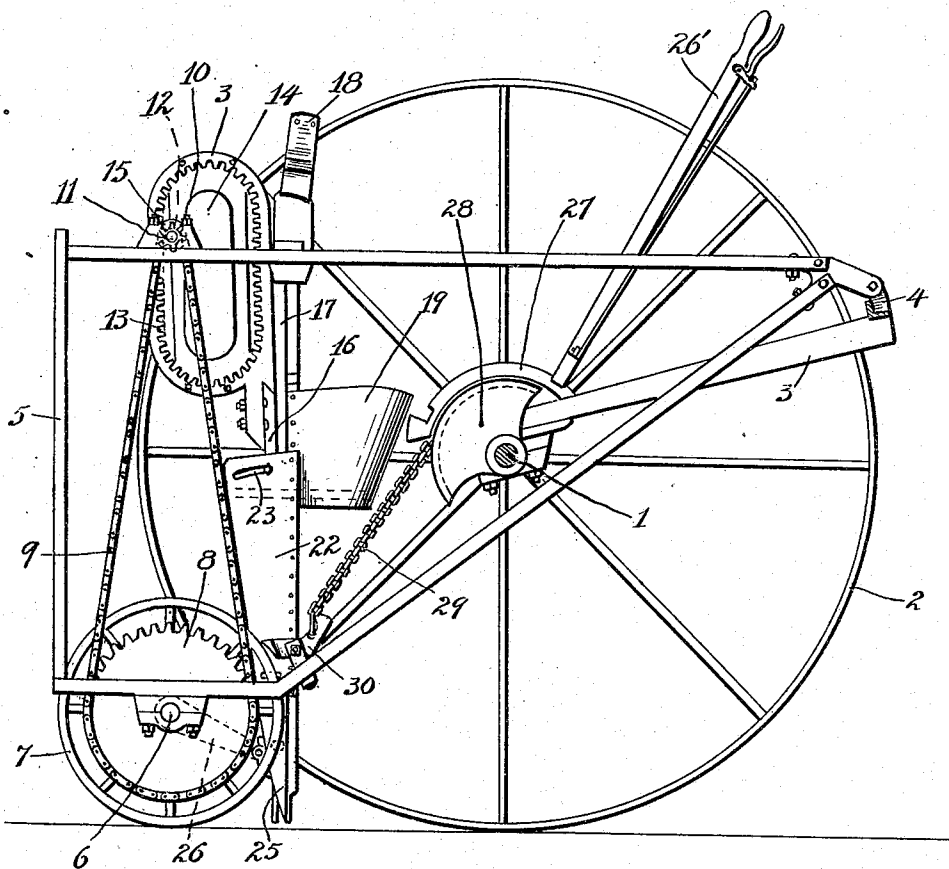
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3 SHEETS—SHEET 3.

FIG. 3.



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UNITED STATES PATENT OFFICE

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PLANTER.

937,224.

Specification of Letters Patent.

Patented Oct. 19, 1909.

Application filed December 21, 1908. Serial No. 468,671.

To all whom it may concern:

Be it known that I, THOMAS WILLIAM BURK, a subject of the King of Great Britain, residing at Belleville, county of Hastings, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Planters; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention to be hereinafter described relates to seeders or planters, and particularly to grain planters and similar machines.

In order to more clearly disclose the construction, operation and use of the invention, reference should be had to the accompanying drawings forming part of the present application.

Throughout the several views of the drawings, like reference characters designate the same parts.

In the drawings: Figure 1 is a plan view of the machine; Fig. 2 is a left-hand side elevation taken on line 2—2 of Fig. 1; Fig. 3 is a right-hand side elevation taken on line 3—3 of Fig. 1; and, Fig. 4 is a sectional view through the seeding box, showing the slide in plan.

An axle 1 is loosely mounted in supporting wheels 2, and on this axle are revolvably mounted forwardly extending supporting members 3, to the upper ends of which are rigidly fastened transverse beams 4, to which, in turn, are pivotally connected skeleton frames 5, carrying in their lower ends short axles 6, on which are secured drive wheels 7. To the short axles 6 are also secured sprocket wheels 8, over which a sprocket chain 9 passes. The upper end of this sprocket chain passes around and drives a sprocket pinion 10, carried on a short shaft 11 journaled in a block mounted on the upper member of the skeleton frame 5. On the opposite end of the shaft 11 is secured a second pinion 12, which meshes with and drives a yoke-shaped rack 13. The center of this rack is provided with an elliptical cam or guide plate 14, which engages a gear wheel 15 on the extreme end of the shaft 11, and so prevents disengagement of the pinion 12 and rack 13. The pinion 12 acts, of course, to reciprocate the rack 13 and also to move it forward or backward as it reaches the end of each vertical movement.

From the rack 13 extends a bar 16, which

is pivotally connected near its lower end to a second and somewhat smaller bar 17, the upper end of which has a sliding connection with the skeleton frame 5, by means of a pin on the bar, which plays freely in a guideway formed in the block 18, pivotally secured to the upper member of the skeleton frame 5. The bar 17 carries a seed box 19, having a grooved bottom, in which is slidably disposed a plate 20, having a seed pocket 21. This slidable plate is pivotally connected at one end to the bar 16, and consequently, as the bar 16 is moved laterally toward and from the bar 17, the slidable plate will be automatically inserted and withdrawn from the seed box, delivering a pocket full of seed at regular intervals. In order to guide the seed from the pocket to the desired spot, side plates 22 have been provided. These plates are secured to the bar 17 and extend slightly beyond the bar 16 when in its rearmost position. The plates are provided with arcuate slots 23 for the free movement of pins 24 carried by the bar 16. At the pivotal connection, bars 16 and 17 are slightly spaced apart to allow passage of grain therebetween. At the extreme lower ends these two bars meet when the bar 16 is in its rearmost position, and a drill or shoe 25 may be secured to the bar 17 to make a hole and deliver the seed from between the lower ends of the bars 16 and 17, thereinto.

In order to aid in the reciprocation of the bars 16 and 17, a crank 26 is fixed to the short axle 6 and has its outer end pivotally connected to the lower end of the bar 16. The rack and pinion 12 and 13 and the crank arm 26 are so proportioned and positioned as to act simultaneously in reciprocating the two bars 16 and 17. Furthermore, the pinion 12 is so disposed, relatively to the ends of the rack 13, as to engage the toothed end portions of the rack and cause lateral movement of the bar 16 at each end of a vertical movement of the same.

Lateral movement of the bar 16 when in raised position, serves to force the slide 20 into the seed box 19 for a charge of grain, and at the same time slightly separate the lower ends of the bars 16 and 17, to allow dropping of the seed into the upper end of the shoe or drill 25. Reverse lateral movement of the bar in its lowered position serves to bring the lower ends of the bars 16 and 17 together, so that grain cannot pass between them, and at the same time acts to withdraw

the slide 20 from the box 19, dropping a charge of seed through the opening 21 and between the bars 16 and 17. This charge will be held between the bars 16 and 17 until the next lateral movement of the bar 16, which movement will allow the seed to drop into the grain drill or shoe 25.

Loosely mounted on the axle 1 is a brake lever 26, provided with a locking pawl adapted to engage the notches in a rack bar 27 which extends rearwardly from the member 3. To this brake lever is secured a grooved arc plate 28, to which is secured one end of a chain 29, or similar flexible connection, the opposite end of the chain being connected to a brake 30, which operates upon the tread of the drive wheel 7 to retard or prevent its action, as may be desired.

It is thought that the construction, operation and use of the invention will be clear from the preceding detailed description.

Changes may be made in the construction, arrangement and disposition of the several parts of the invention, without in any way departing from the field and scope of the same, and it is meant to include all such within this application, wherein only a preferred form has been disclosed.

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

1. A planter of the character described, comprising a supporting axle, skeleton frames carried thereby, bars pivotally connected and reciprocally mounted in said frame, a seed box carried by one of said bars, means for moving one of said bars laterally, a slide connected to said laterally movable bar and adapted to take seed from said seed box, and means for raising and lowering said bars at regular intervals.

2. A planter of the character described, comprising a supporting axle, skeleton frames mounted thereon, pivotally connected reciprocable bars mounted in said frames, a seed box carried by one of said bars, and means actuated by the other of said bars for delivering seed from said seed box, and means for reciprocating said bars.

3. A planter of the character described, comprising a supporting axle, skeleton frames mounted thereon, pivotally connect-

ed reciprocable bars mounted in said skeleton frames, a seed box carried by one of said bars, side plates inclosing the lower portions of said bars to form a grain passage therebetween, means for moving one of said bars laterally toward and from the other of said bars, and means operated by the lateral movement of said bar and adapted to deliver grain from said seed box to the passage between said bars.

4. A planter of the character described, comprising a supporting axle, skeleton frames carried thereby, pivotally connected reciprocable bars mounted in said skeleton frames, a seed box carried by one of said bars, means for reciprocating said bars, means for moving one of said bars laterally toward and from the other of said bars, and means for retarding the movement of said reciprocable bars.

5. A planter of the character described, comprising a supporting axle, skeleton frames carried thereby, pivotally connected reciprocable bars mounted in said skeleton frames, a seed box carried by one of said bars, a slide carried by the other of said bars, means for moving said last-named bar laterally toward and from the first-named bar to operate said slide and deliver grain between said bars, and means for retarding or preventing movement of said reciprocable bars.

6. A planter of the character described, comprising a supporting axle, skeleton frames carried thereby, pivotally connected reciprocable bars mounted in said skeleton frames, a seed box carried by one of said bars, a grain delivering device connected to the laterally movable bar and adapted to be actuated by movement of the same, mechanism for moving said laterally movable bar toward the other bar as it reaches the lower limit of its vertical movement and moving it laterally away from the other of said bars as it reaches the upper limit of its vertical movement.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

THOMAS WILLIAM BURK.

Witnesses:

CHARLES WILLIAM BURK,
WILLIAM JAMES SIMPSON.