J. JOHNSON.
Check-Rower.

No. 198,116. Patented Dec. 11, 1877

Fig. 1.

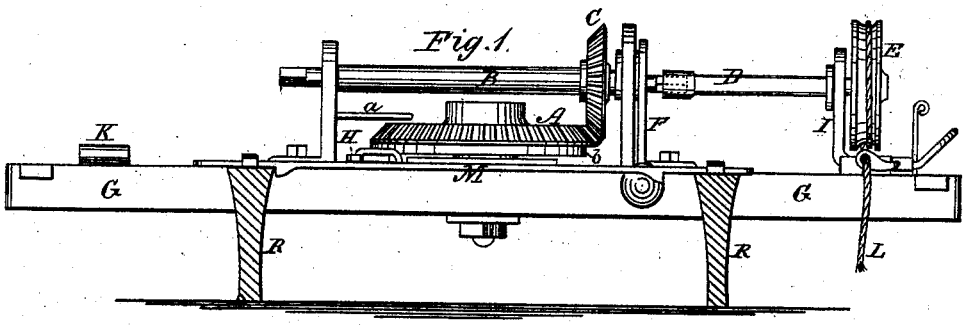


Fig. 2.

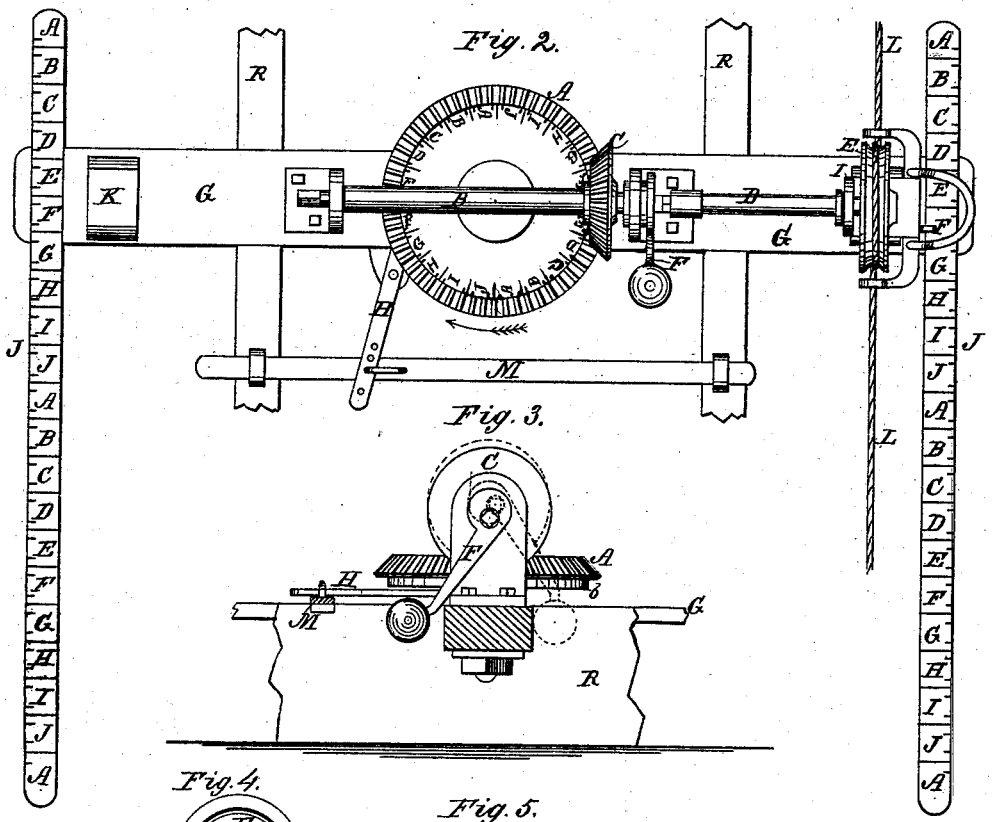


Fig. 3.

Fig. 4.

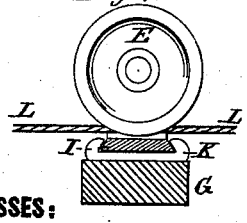
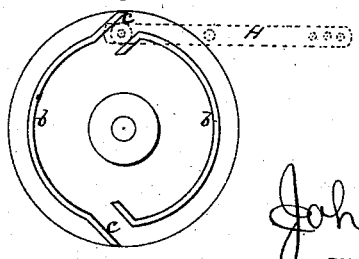


Fig. 5.



WITNESSES:

W. W. Hollingsworth

Amos W. Hart

INVENTOR:

John Johnson

BY

Munn & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN JOHNSON, OF PANA, ILLINOIS.

IMPROVEMENT IN CHECK-ROWERS.

Specification forming part of Letters Patent No. **198,116**, dated December 11, 1877; application filed August 9, 1877.

To all whom it may concern:

Be it known that I, JOHN JOHNSON, of Pana, in the county of Christian and State of Illinois, have invented a new and useful Improvement in Check-Rowers; and I do hereby declare that the following is a full, clear, and exact description of the same.

This machine is an improvement in the class of check-rowers in which the action of the seed-slides and the times of dropping the seed are regulated by a cord or chain passing over a wheel on the machine, and fastened to movable stakes at each end of the field.

The improvement relates to the construction and combination of parts, as hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a sectional elevation; Fig. 2, a plan view, showing my improved check-row apparatus. Fig. 3 is a cross-section, and Figs. 4 and 5 details.

The several parts or devices composing the check-row and dropping mechanism are attached to a horizontal bar, G, which connects the two runners or furrow-openers R. A is a large bevel-gear, provided with an interrupted flange, *b*, Fig. 5, one section of which has its ends turned outward, and the other its ends turned inward, thus forming open ways *c* on opposite sides of the gear. The seed-slide bar M is reciprocated by the vibration of the lever H, and the latter is operated by its arm, which carries a friction-roller, running in contact with the flange *b*, and passing alternately in and out through the ways *c*. Thus the outer end of lever H is moved to the right or left each time its arm strikes one or the other of the bent ends of the flange-sections *b*, but remains at rest while said arm is traversing the concentric or circular portion of the flange. The wheel A is inscribed on the upper side with two sets of letters, the same being arranged concentrically. Each set includes the letters from A to J, inclusive. The same sets of letters are also inscribed on each of the bars J, which are attached to the respective ends of the cross-bar G, parallel to the runners R. The wheel A is operated by a driving-shaft, B, and bevel-gear C, supported in suitable bearings above or over the wheel A. The journal of shaft B, which is contiguous to the gear C, enters an eccentric-bearing, having a weighted arm, F. By this arrangement the contiguous end of the shaft B can be raised by throwing the weighted arm F into the position shown, and in dotted lines, Fig. 3, thus throwing the gear C out of mesh with wheel A, for a purpose hereinafter explained.

D is a detachable section of shaft B, but placed in alignment therewith. The flanged pulley E is mounted on its outer end, and the rope or chain L passes around it. The ends of the latter are, in practice, fastened at opposite sides of the field, and as the machine is drawn along the friction of the rope with the pulley rotates the shaft D B, and thereby reciprocates the seed-slide bar M.

The inner end of section D is bored or recessed to form a socket, to receive the squared or polygonal end of the shaft B. Its outer end is supported in a standard, I, having a dovetailed foot, which fits in a socket, K, attached to the end of bar G. Thus the shaft-section D and its attached pulley may be detached and changed in position from one side of the machine to the other.

The operation of the machine is as follows: When the planter stops at the end of the field see what letter on the wheel A is under the pointer *a*, as shown at J in Fig. 1; then make a mark on the ground under the corresponding letter J on the bar J, which mark will be the starting-point; then slip off the detachable section D of driving-shaft B, and turn the planter around; then take the detached section D of shaft with rope and slip it on again in proper place on the other side of the machine; then set the rope in proper position, making it secure by any suitable fastening. Next, see what letter on the side bar J comes even with the mark on the ground, and turn the center-wheel A until the corresponding letter comes to the pointer *a*, which is done by raising the lever F, thereby throwing the wheel C out of gear with A, and allowing the wheel A to turn with ease, and, when the corresponding letter reaches the pointer *a*, drop the lever F. This gears up the machine ready to start, and by thus properly starting the machine the grain is deposited in straighter rows than it is possible to place it by hand-dropping.

I do not claim, broadly, the combination of

a cam-wheel and seed-slide, and fixed bars marked with numbers or letters corresponding to numbers or letters on the wheel; but

I claim—

1. In a check-row corn-planter, the combination of the bevel-gear wheel, arranged horizontally, and provided on its under side with the interrupted pendent flange *b*, having bent ends forming ways *c*, the seed-slide, and its vibrating lever H, whose free end works in contact with the flange on its inner and outer side alternately, all as shown and described.

2. In a check-row corn-planter, in combination with wheel A for operating the seed-slide, the shaft B, carrying gear C, and the eccentric bearing, having arm F, as shown and described, for the purpose specified.

3. In a check-row corn-planter, the combination, with the shaft B, of the detachable shaft-section D, the bearing, and the socket K, all as shown and described.

JOHN JOHNSON.

Witnesses:

EDWARD B. FRENCH,

WILLIAM WANSBROUGH.