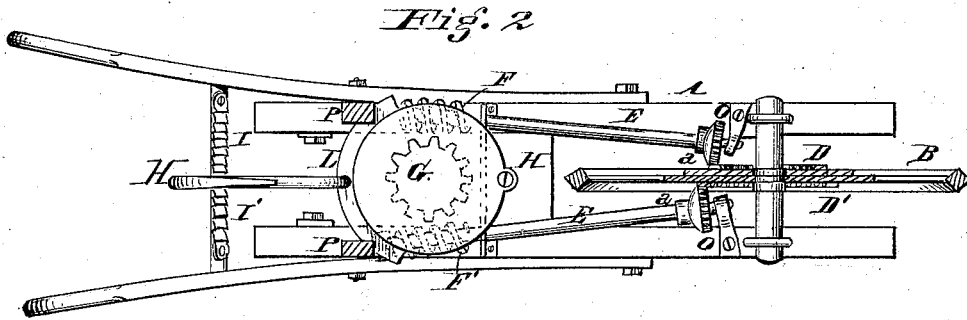
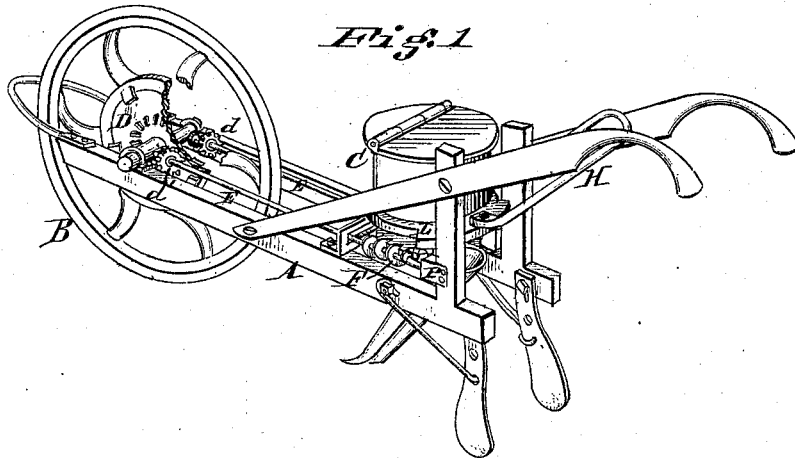


J. CAMPBELL.

PILOT-WHEEL CORN-PLANTER.

No. 169,621.

Patented Nov. 9, 1875.



Attest
Wm. A. S. S. S.
John O. Gara

Inventor
James Campbell
by Wood & Boyd
his Attorneys

UNITED STATES PATENT OFFICE.

JAMES CAMPBELL, OF HARRISON, OHIO.

IMPROVEMENT IN PILOT-WHEEL CORN-PLANTERS.

Specification forming part of Letters Patent No. **169,621**, dated November 9, 1875; application filed December 19, 1874.

To all whom it may concern:

Be it known that I, JAMES CAMPBELL, of Harrison, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Pilot-Wheel Corn-Drills, of which the following is a specification:

My invention relates to new devices for changing the speed of pilot-wheel corn-drills at the will of the attendant when the same is in operation; and consists in providing a pivoted grain-box with two sets of gearing and shafting—one upon each side of the pilot-wheel and seed-box—so that the seed-box may be instantly turned laterally on its pivot to drill the seed thicker or thinner, as desired, by employing either set of driving-gear, as desired.

Figure 1 is a perspective view of my improved drill, with parts of the driving-wheel broken off to show the gearing. Fig. 2 is a top plan view of the same, with sections broken off to show the relative position of the operative parts of the driving mechanism.

A represents the frame of the drill; B, the pilot driving-wheel; C, the grain-box; and D D', the driving-pinions, cast on each side of the driving-wheel B. Two or more rows of pinion-teeth may be employed, if desired. E E' represent shafts, mounted on brackets O P upon either side of the machine, as shown in Fig. 2. *a a* represent beveled spur-wheels, which are at all times in mesh with pinions D D'. The grain-box is pivoted to the frame at H by a single bolt passing loosely through the flange of the seed-box, so as to allow free lateral movement of the grain box on the pivot. G represents a pinion, adapted to mesh into worms F F' alternately, as desired. H represents a handle or bale, firmly secured to the rear of the seed-box. This handle bends over at the top, and hooks onto ratchet-bar I I', which is secured to the brace between the

drill-handles. This handle H may be secured or fixed in any one of the notches of ratchet I I' by means of a spring, or by means of a thimble.

When handle H is secured in the center of ratchet I I', as shown in Fig. 2, the seeding mechanism is not in gear, and the dropper-plate is stationary.

When the handle H is moved to the right, and secured in the notches of the ratchet-bar I, the seed-box C and gear G are moved to the right, bringing into mesh pinion G and worm F, and the speed of the dropper-plate is given by the gearing upon the right-hand side of the drill, and in a similar manner motion is obtained by the gearing upon the left-hand side of the drill, the construction of the two sets of gearing being such that one set revolves the dropper-plate more rapidly than the other, so that the attendant can instantly, while the drill is in operation, plant thicker or thinner, as he desires, by shifting from the right to the left hand driving-gear, without stopping the team for adjustment.

Having described my improvement, what I claim is—

1. The two sets of driving-gear, one upon each side of the frame, in combination with the pivoted grain-box C, adapted to shift the speed of the dropping mechanism while the drill is in operation, substantially as herein set forth.

2. In combination with the pivoted hopper, the shifting-lever H, and notched adjusting-bar, substantially as set forth.

In testimony whereof I have hereunto set my hand this 11th day of December, 1874.

JAMES CAMPBELL.

Witnesses:

E. E. WOOD,
JOHN O'GARA.