C. E. COE.

Corn-Planter.

No. 210,753. Patented Dec. 10, 1878.

Fig. 3.

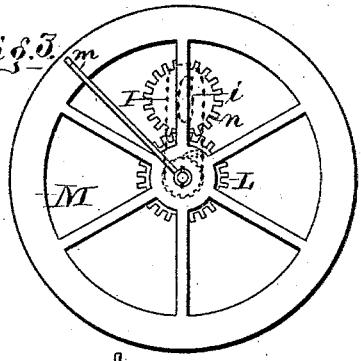


Fig. 2.

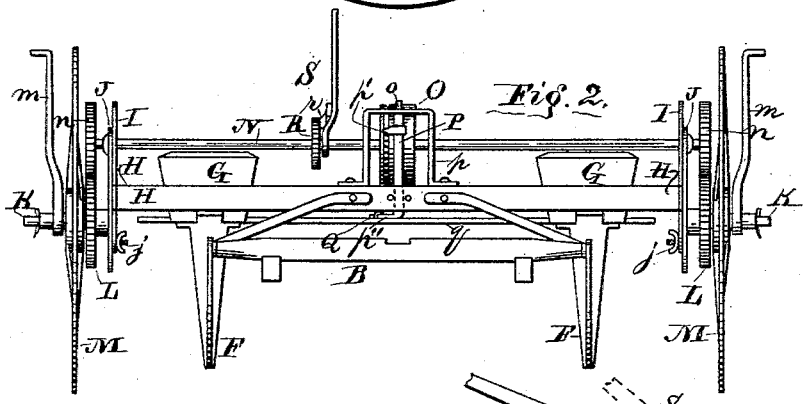


Fig. 4.

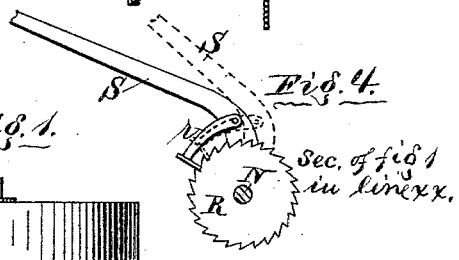
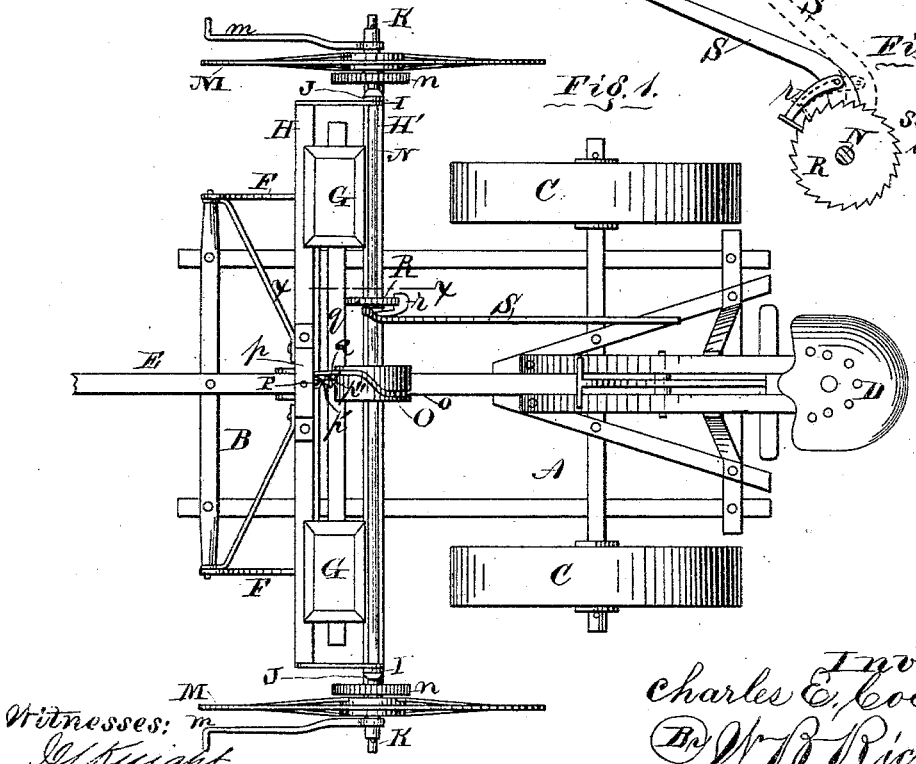


Fig. 1.



Witnesses:
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By W. B. Richards,
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UNITED STATES PATENT OFFICE.

CHARLES E. COE, OF ELMWOOD, ILLINOIS.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. **210,753**, dated December 10, 1878; application filed April 5, 1878.

To all whom it may concern:

Be it known that I, CHARLES E. COE, of Elmwood, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Corn-Planters; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a top-plan view of a machine embodying my invention. Fig. 2 is a front elevation. Figs. 3 and 4 are detail views, hereinafter referred to.

My invention relates to improvements in check-row attachments to corn-planters—check-rowers of that class in which wheels which come in contact with the ground are used to impart motion to the seed-slides; and the invention consists in certain new and improved devices, consisting of a transverse shaft carrying a cam-grooved disk, geared and arranged to operate with the check-row wheels, and with an oscillating bar, which transmits motion to the seeding devices of a corn-planter.

Referring to the drawing by letters, letter A represents the rear frame, B the forward frame, C the wheels, D the driver's seat, E the draft-pole, F the runners, and G the seed-boxes, of an ordinary corn-planting machine. H H′ are two bars fixed transversely on the forward frame, E, for supporting the operating parts of my improvement. At each end of the bars H are fixed vertical standards I, with slots *i* in their upper portions, as shown by dotted lines at Fig. 3.

J is a plate, attached, one to each standard I, by means of a set-screw, *j*, which passes through a slot in the lower end of the standard, and by which the vertical position of the plate J may be adjusted on said standard. The plate J has a projecting stud, K, on the inner end of which a spur-pinion, L, is fixed, and on its outer end a wheel, M, is journaled, and connected with the pinion L by an ordinary ratchet and click, (shown by dotted lines at Fig. 3,) so that as the wheel M is rotated by contact with the soil it will rotate the pinion L, but will not affect the pinion when turned in the opposite direction. The wheels M have thin sharp rims or outer edges, so that they will cut into the soil as the machine is drawn foward, and thus insure a more regular rotation than flat-rimmed wheels, which are affected more or less by hard and soft soil. Each wheel M has an ordinary marker, *m*, adjustably attached thereto.

N is a shaft, extending across the machine through the slots *i* in the standards I, and is journaled at each end in suitable bearings in the upper ends of the plates J, and has on each extreme end a pinion, *n*, which gears with a pinion, L. Mid-length on the shaft N is a disk, O, with a cam-groove, *o*, in its periphery.

P is a vertical rock-shaft, journaled in suitable bearings in the bar H, and in a bracket, *p*, which is fixed on the bar H. An arm, *p′*, projects from the shaft P, and its outer end rests in the cam-groove *o*, and another arm, *p″*, projects from the same shaft, and passes through a loop, Q, on the bar *q*, which is the ordinary reciprocating bar, connecting the seed-slides in the seed-boxes G.

R is a ratchet-wheel fixed on the shaft N, and S is a lever journaled on the same shaft near the ratchet R, and is provided with a pivoted pawl, *r*. The lever S extends back to within reach of the driver on his seat.

As the machine is drawn forward, the wheels M, by contact with the soil, will be rotated, and in turn rotate the shaft N, and the cam-groove *o* will oscillate the shaft P, which will reciprocate the bar *q* in the evident manner, and thus actuate the seeding mechanism.

The markers *m* will leave impressions in the soil at each deposit of seed, and by keeping these marks in line the check-row planting may be properly effected.

In starting in at the end of the rows, and at any other places, the driver may, without moving from his seat, bring the check-row devices to register with the check-rows by taking hold of the lever S and throwing it forward, and then, by pulling it backward, as shown at Fig. 4, rotate the shaft N, and with it the wheels M and markers *m*, until the markers *m* register with their previous impressions.

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

1. The shaft N, having a cam-grooved disk, O, and pinions *n*, in combination with wheels M, pinions L, shaft P, and arms *p' p''* and bar *q*, substantially as described, and for the purpose specified.

2. The combination of the shaft N, cam-grooved disk O, rock-shaft P, lever S, pawl *r*, and ratchet R, arranged to operate in manner substantially as and for the purpose specified.

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

CHARLES E. COE.

Witnesses:

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