

H. H. HARTSOCK.
Corn-Dropper.

No. 205,264.

Patented June 25, 1878.

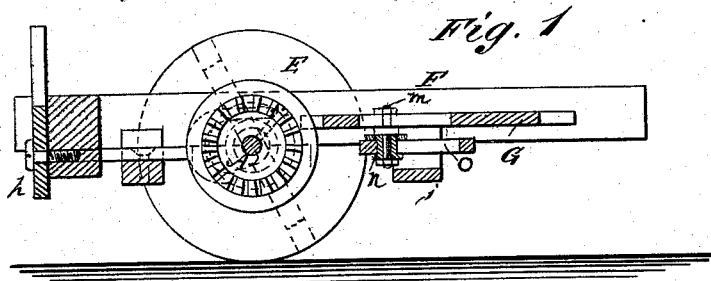


Fig. 1

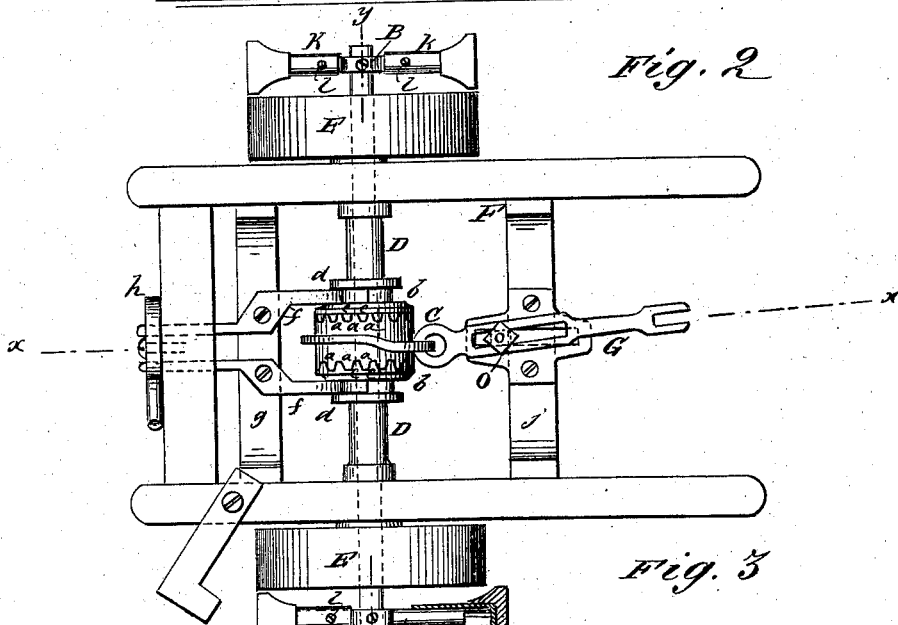


Fig. 2

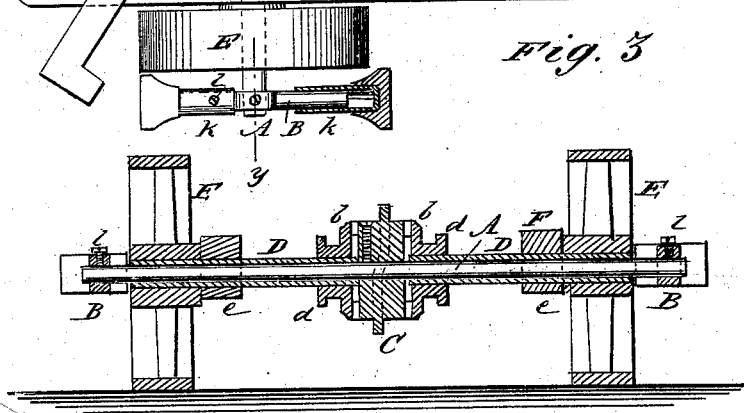


Fig. 3

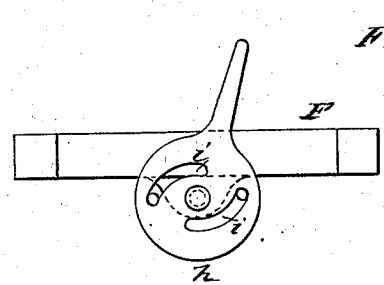


Fig. 4

WITNESSES:
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INVENTOR:
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UNITED STATES PATENT OFFICE.

HIRAM H. HARTSOCK, OF CLEAR CREEK, ILLINOIS.

IMPROVEMENT IN CORN-DROPPERS.

Specification forming part of Letters Patent No. **205,264**, dated June 25, 1878; application filed April 15, 1878.

To all whom it may concern:

Be it known that I, HIRAM H. HARTSOCK, of Clear Creek, in the county of Putnam and State of Illinois, have invented a new and Improved Corn-Dropper, of which the following is a specification:

Figure 1 is a vertical transverse section on line *x x* in Fig. 2. Fig. 2 is a plan view. Fig. 3 is a vertical section taken through the axis of the wheels and shaft. Fig. 4 is a detail view of the clutch-operating lever.

Similar letters of reference indicate corresponding parts.

The invention will first be described in connection with the drawing, and then pointed out in the claim.

Referring to the drawing, A is a shaft, having at its ends the marker-arms B, and having firmly secured to it, in the center, a cam, C, whose sides are provided with clutch-teeth *a*.

Upon the shaft, between the cam C and its end, sleeves D are provided, one on each side of the cam, and to each sleeve, near the outer end thereof, a wheel, E, is secured, and upon each sleeve, near the cam C, is placed a disk, *b*, provided with clutch-teeth *c*, and having a circumferentially-grooved boss, *d*. These disks are capable of being moved longitudinally on the sleeves, but are prevented from turning thereon by slots in the boss of the disks and feathers in the sleeves.

The sleeves D are journaled in boxes *e* on the dropper-frame F, and the bosses of the disks *b* are engaged by forked levers *f f*, which are pivoted on a cross-bar of the frame F. The rearwardly-projecting ends of these levers are engaged by cam-slots *i* in a lever, *h*, which is pivoted to the frame F. The slots *i* in the lever *h* are arranged to operate both levers *f* simultaneously in opposite directions.

A seed-valve operating-lever, G, which has an adjustable fulcrum, is supported by the frame F, and engaged by the cam C. This lever is slotted to receive a shouldered bolt, *m*, which is received by a sleeve, *n*, which is secured in any desired position in a fixed slotted plate, *o*, by means of a nut on one of its ends. By loosening the sleeve and the bolt in the lever the fulcrum of the lever may be adjusted so as to alter the throw of the seed-valves.

The marker-arms B carry at opposite ends adjustable feet or markers, having sleeves *k* for receiving the marker-arms and set-screws *l* for clamping them in any desired position, the object being to adapt the marker to different kinds of soil.

It will be seen that as the markers and the dropper-cam are attached to the same shaft they will always bear the same relation to each other, and must therefore be accurate.

The wheels may rotate independently of the dropper-arms, and, of course, the dropper-arms may be turned independently of the wheels, thus affording every opportunity to accurately adjust the marker to the marks of the rows already planted.

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

The combination, with shaft having cam C connected with a vibrating lever, G, of the side clutches D D, levers *f f*, and lever *h*, having curved slots *i*, as and for the purpose specified.

HIRAM HETON HARTSOCK.

Witnesses:

C. M. PRICE,
W. W. McCLUNG.