

(No Model.)

W. M. AMMERMAN.
CORN PLANTER.

No. 317,275.

Patented May 5, 1885.

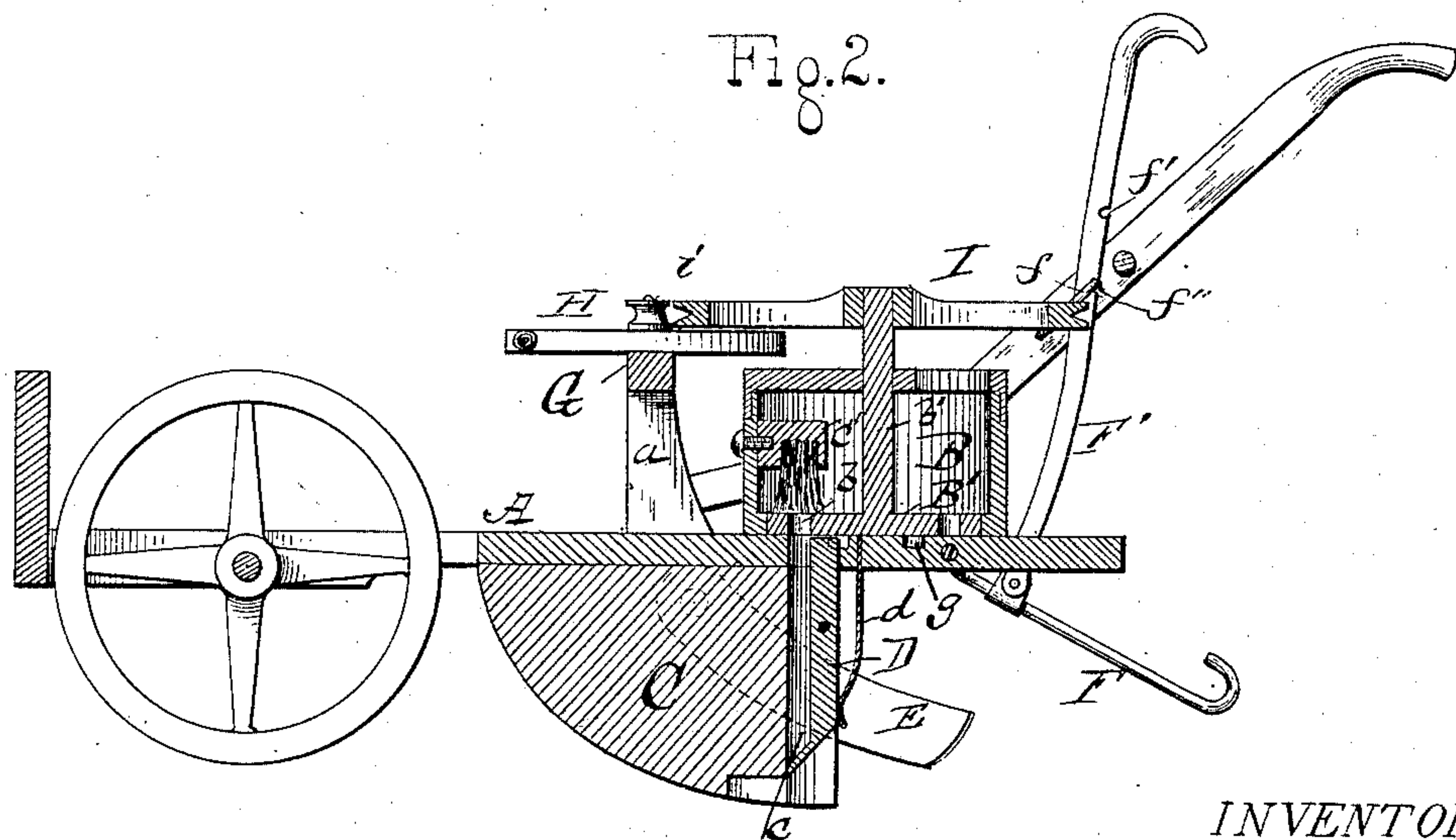
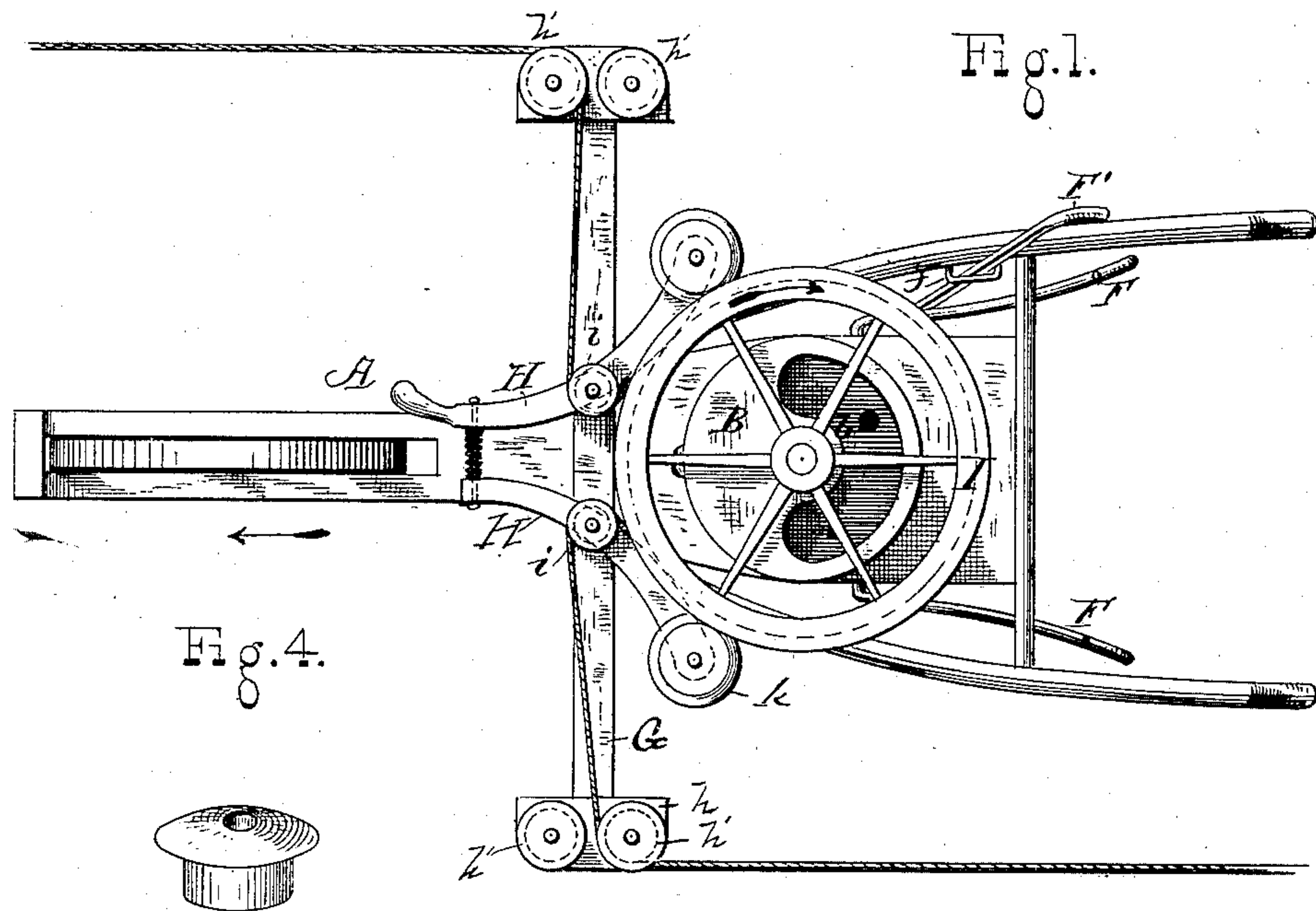
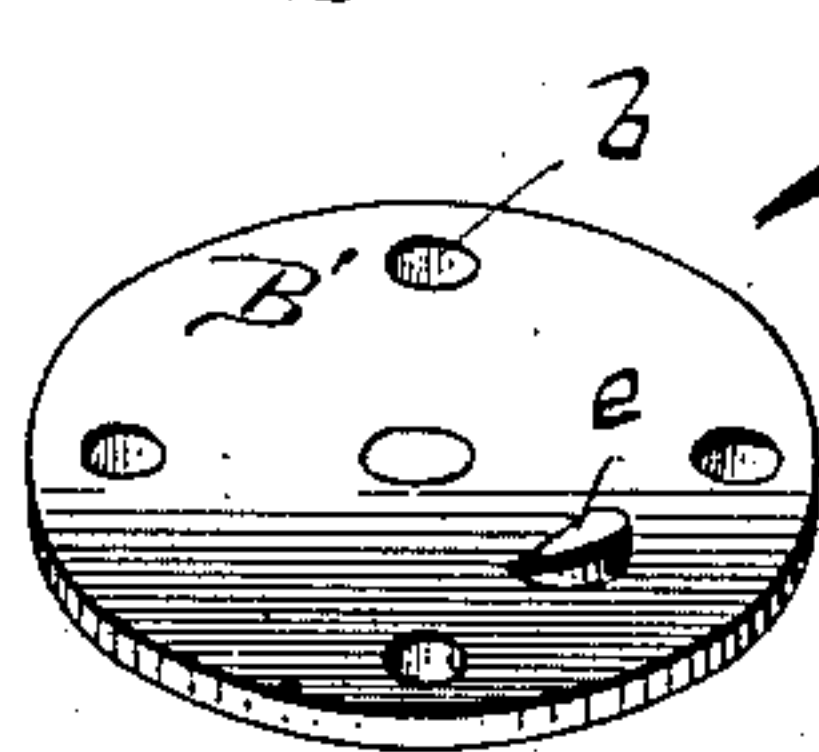


Fig. 3.

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WILLIAM M. AMMERMAN, OF OAKLAND, ILLINOIS.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 317,275, dated May 5, 1885.

Application filed March 3, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. AMMERMAN, a citizen of the United States of America, residing at Oakland, in the county of Coles and State of Illinois, have invented certain new and useful Improvements in Corn-Planters; and I do hereby declare the following to be 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in check-row attachments for walking seed-planters, its object being to provide a walking seed-planter with means whereby the seed-dropping mechanism will be operated by a line which is anchored across the field, and the seed dropped at regular intervals, as will be hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a plan view of a walking-planter, showing my invention attached thereto. Fig. 2 is a sectional view, and Figs. 3 and 4 are detail views.

A represents the frame of a walking-planter, which is provided at its front portion with a wheel, and near its rear end with a seed-box or receptacle, B. The upper portion of the frame in front of the seed-box has attached thereto standards *a a*, for the support of a portion of the mechanism which operates the seed-slide. A shoe or furrow-opener, C, is secured to the under side of the frame, and the rear portion of the same is bifurcated, so as to provide a passage-way from the seed-box to the rear base of the shoe.

Within the slot in the rear of the shoe is pivoted a valve-bar, D, which has a forwardly-projecting portion, which is downwardly inclined and extends over the passage-way between the rear portion of the shoe and the front portion of the valve-bar. The upper portion of the valve-bar extends nearly to the upper surface of the frame, and fits within an opening formed therein.

To the frame at a suitable point in the rear of the shoe and valve-bar is secured a spring,

d, the lower end of which is free and exerts sufficient pressure upon the valve-bar to keep the same closed.

Coverers E, of ordinary construction, are attached to the frame or shoe for the purpose of throwing the earth over the grain or seed when it has been dropped. Immediately under the central portion of the circular seed-box B the surface of the frame is provided with a circular depression or groove, *g*, which is of such a diameter as to extend slightly in front of the valve-bar D.

The seed-disk B' is circular in shape, and is provided with circumferential perforations *b*, which will, during the rotation of said disk, pass over the vertical opening *c* in the shoe. The seed-box B has secured therein over the opening *c* a brush, *c'*. The shaft *b'* of the rotary seed-disk B' has its bearing in the cover of the seed-box, and the under side of the seed-disk is provided with a lug, *e*, which is rounded on one side, as shown in Fig. 3, and lies within the groove *g*.

When the seed-disk is rotated, it will be seen that the lug will come in contact with the upper part of the dropping-bar, so as to open the lower portion of the same and allow the grain to fall into the recessed heel of the shoe, from which it is deposited into the furrow.

The seed-disk may be provided with as many perforations or openings as may be desired, and the amount of seed to be dropped in each hill can be regulated by placing a stopper, as shown in Fig. 4, in one or more of the perforations. Thus, if there are five openings in the seed-disk, the same would drop five grains (of corn, for instance) in each hill; but by closing one or more of said openings the number would be correspondingly diminished. The stoppers, as shown in Fig. 4, may be provided with openings, and may be used for the purpose of diminishing the size of the perforations, so as to adapt the disk for small grains.

The seed dropping and planting mechanism described I prefer to operate by means of a cord or rope, which is anchored across the field and made fast at its ends.

The frame for supporting this rope and im-

parting motion therefrom as the planter is drawn across the field is mounted on a transverse bar, G, which is attached to the standards *a a* in front of the seed-box, which bar is provided at its ends with pulley-supports *h h*, upon which are pivoted the pulleys *h' h'*, which are located on each side of the bar G, so that the rope may pass over one of the front pulleys when the rope crosses the machine, and over the pulley on the opposite end and side of the bar when it leaves the same, thus doing away with movable bearings for the guide-pulleys when the direction of the machine is changed.

Near the central portion of the bar G are pivoted two curved spring-arms, H H, above which are located pulleys *i i*, which are on the same horizontal line with the pulleys *h' h'* on the end of the bar, which are raised therefrom by the supporting-blocks *h h*.

The shaft *b'*, to which the seed-disk is attached, has secured to its upper end a driving-wheel, I, which has a V-shaped groove formed in its circumference, in which the cord will lie. The cord enters the seed-slide-operating mechanism over one of the pulleys *h'*, located in front of the end of the bar G, and passes over one of the pulleys *i*, and from thence around the wheel I, over the other pulley *i*, and from the planter over one of the rear pulleys, *h'*, by which means the seed-disk is rotated as the planter is drawn forward, and the driving-rope is kept to the sides of the same out of the way of the horse and person following the planter.

In order to prevent the rope slipping upon the drive-wheel I, the arms H H are provided with wheels *k k*, which have inclined edges, which fit within the V-shaped groove in the driving-wheel and keep the rope pressed tightly upon the same. The front ends of the spring-arms H H are connected to each other by a rod, upon which is placed a spiral spring, which exerts a pressure so as to throw the front end of the arms outward and the rear ends together. One of these arms may be provided with a handle, whereby the same may be thrown out of position with the driving-wheel.

If desirable, instead of employing a rotary seed-slide, I may use a reciprocating one, in which case the shaft upon which the driving-wheel is supported would be provided with a cam or other means for changing the rotary motion into a reciprocating motion.

The frame, at a suitable point in rear of the shoe, has pivoted thereto supports F F, to which is attached a handle, F', having notches *f' f'*, which engage with a bail, *f*, secured to one of the handles. These supports F are for the purpose of holding the machine in an upright position when not in use or when the cord is being placed over the pulleys and driving-wheel.

It will be readily seen from the foregoing that by the construction described I provide a planter or seed-dropper which will plant a single row, and may be used in places which are inaccessible to a drill which plants more than a single row, and the same may be employed to plant all kinds of seeds which are planted in hills or at intervals, as corn, cotton, beans, &c.

What I claim is—

The combination, in a seed-planter, of a supporting-frame, a discharge-duct, a seed-hopper located above the same, a valve-bar centrally pivoted in said discharge-duct and having its upper end extending partially through the hopper-bottom, a guide-groove formed in said hopper-bottom and extending adjacent to said upper end of the valve-bar, a perforated disk located in said hopper and provided with a depending lug adapted to travel in said groove and contact with the guide-bar, as described, and a shaft rigidly carrying the said disks, extending through and above the top of the hopper, and carrying a peripherally-grooved wheel adapted to receive the check-row cord, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM M. AMMERMAN.

Witnesses:

L. D. CARTER,
JOHN MOODY.