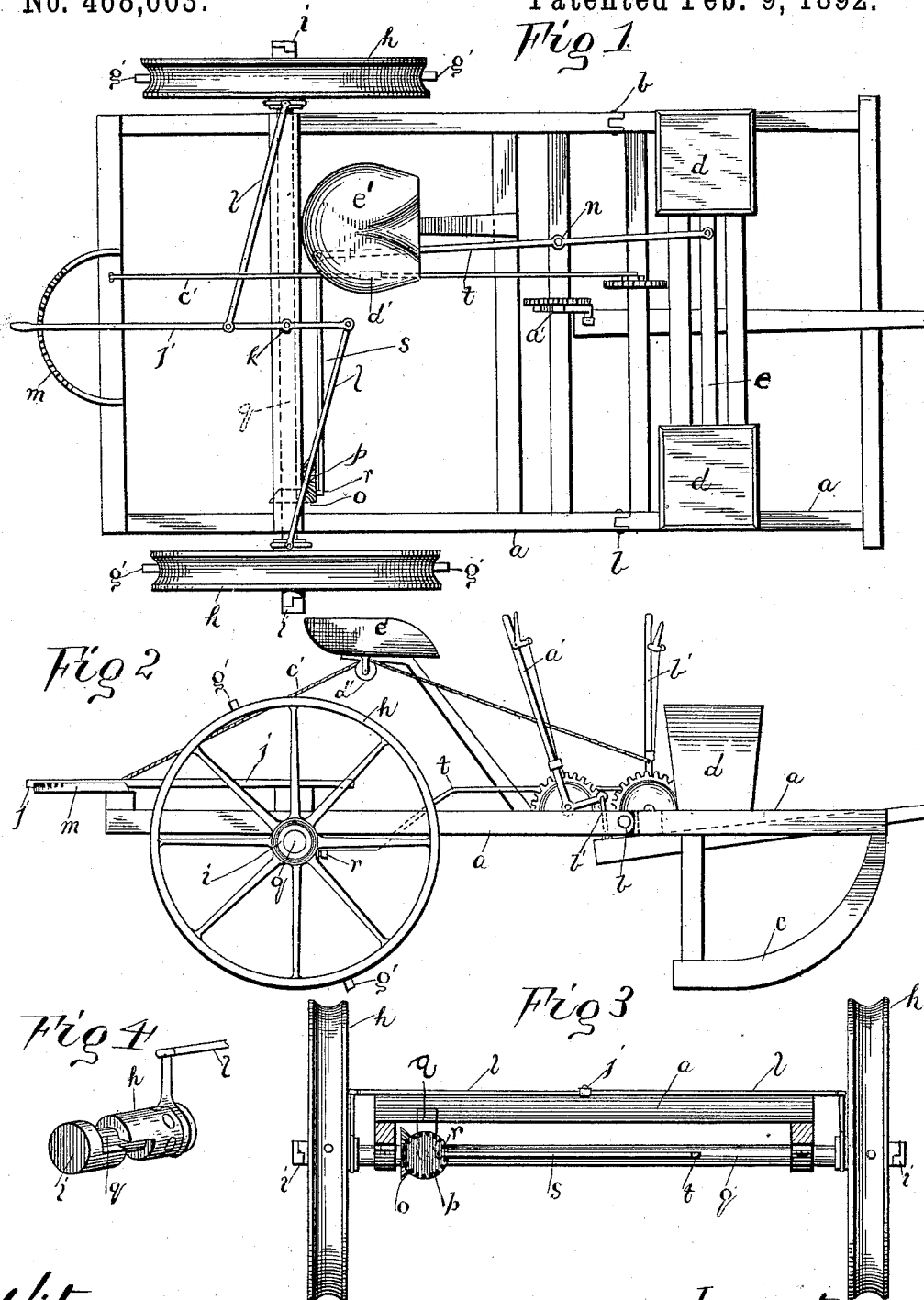


(No Model.)

G. E. JOHNSON & S. H. KIRKPATRICK.
CORN PLANTER.

No. 468,603.

Patented Feb. 9, 1892.



Witnesses:
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UNITED STATES PATENT OFFICE.

GEORGE E. JOHNSON AND SAMUEL H. KIRKPATRICK, OF UTICA, OHIO.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 468,603, dated February 9, 1892.

Application filed September 30, 1891. Serial No. 407,304. (No model.)

To all whom it may concern:

Be it known that we, GEORGE E. JOHNSON and SAMUEL H. KIRKPATRICK, of Utica, in the county of Licking and State of Ohio, have invented certain new and useful Improvements in Corn-Planters; and we do hereby declare that the following is a full, clear, and exact description of the invention, 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 the letters of reference marked thereon, which form part of this specification.

This invention relates to certain improvements in corn-planters.

The invention consists in certain novel features of construction and in combinations of parts, more fully described hereinafter, and particularly pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a top plan view of the improved corn-planter. Fig. 2 is a side elevation thereof. Fig. 3 is a cross-sectional view of the machine. Fig. 4 is a detail perspective view of a wheel-hub and clutch.

In the drawings, reference-letter *a* indicates the frame of the planter, composed of the side beams or wheels and cross-beams connecting the same. The frame is jointed by having the side beams formed in sections and their ends hinged together at *b b*, so that the two sections of the frame can swing vertically independently. The front section is supported by the furrow-opening runners *c* and carries the seed-boxes *d*, the discharge from which is controlled by the seed-slide *e*. The draft-tongue is also secured to this front section. The main drive-shaft *g* is mounted to revolve in suitable bearings in the rear section of the frame. The drive-wheels *h* are loosely mounted on and near the ends of the shaft, so as to have a limited longitudinal movement thereon between the clutch hubs or sleeves *i*, rigid on outer ends of the shaft and the side beams of the frame. The rigid sleeves *i* have square shoulders or projections extending inwardly from their inner ends to register with corresponding sockets and projections from the outer ends of the wheel-hubs, so that when the two wheels are drawn inwardly out of engagement with the rigid sleeves or hubs *i* the wheels will rotate independently of the main

shaft; but when said wheels are thrown outwardly, so that the corresponding shoulders of the rigid hubs and wheel-hubs intermesh, the wheels will drive said shaft in either direction. The wheels are moved on the shaft together and in opposite directions by means of the horizontal lever *j*, pivoted on the cross-beam at *k* and having rods *l* running, respectively, from opposite sides of its pivotal point to loose rings in grooves in the respective wheel-hubs, so that when the outer end of the horizontal lever is swung in one direction—say to the left—both wheel-hubs will be thrown and held in engagement with their respective rigid clutch-hubs *i* and the wheels will drive the shaft; but when the lever is thrown in the opposite direction both wheels will be thrown inwardly on the shaft away from the

be raised, thereby raising the runners, and by reason of the toothed segment and pawl the parts can be held in this position, and when the lever *a'* is swung in the opposite direction the runners are thrown into the ground.

A suitable connection *c'* is secured to the rear cross-beam of the frame in the rear of the wheels, and this connection extends upwardly from the pulley *d'*, depending from the seat *e'*, and from thence extending forwardly, and at its front end is provided with a hook or other means to detachably secure the wire or connection to the lever *b'* above its pivotal point or fulcrum. This lever is suitably mounted on a cross-bar of the front section of the machine. Thus when the lever is forced forward it will, through the medium of said connection, raise the rear section of the frame and the wheels a slight distance above the ground, so that the wheels can be easily and quickly adjusted on the shaft to place them in or out of gear with the shaft, and also so that the seed-dropping mechanism can be easily and quickly adjusted to the proper point to drop corn exactly where and when desired, so that the corn will be dropped in the proper places at the beginning of rows or in corners, &c. The machine can be used as a drill by employing a small sized beveled gear *p*. It is also evident that one lever can be employed instead of the two levers for raising the rear end of the frame supported by the opening-runners.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent of the United States, is—

1. In combination, the frame formed in two sections hinged together, as set forth, the furrow-openers and seed-dropping mechanism carried by the front section, the rotary drive

shaft or axle carried by the rear section, gearing driving the seed-dropping mechanism from said shaft, the supporting and drive wheels longitudinally movable on said shaft, rigid clutch-sleeves on said shaft to mesh with clutches on the wheels, a lever connected to both wheel-hubs to move the wheels together longitudinally on the shaft in or out of engagement with said sleeves, as set forth, and a lever mounted on the front section and provided with connections to the rear section to raise said rear section and the wheels from the ground, so that the wheels can be adjusted and the seed-dropping mechanism set in alignment, as described.

2. In a corn-planter, the combination of the frame formed in two sections hinged together and provided with means for vertically adjusting the sections, the seed-boxes, furrow-openers, and a dropping-slide carried by the front section, a drive shaft or axle carried by the rear section, the supporting and drive wheels mounted on said shaft, a beveled gear meshing therewith and provided with a wrist-pin on its outer side, a support for said last-mentioned beveled gear, straight rocking lever extending longitudinally of the frame and fulcrumed between its ends to a cross-bar and having its ends pivoted to said slide, and a pitman connecting its rear end to said wrist-pin, as and for the purposes set forth.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

GEORGE E. JOHNSON.
SAMUEL H. KIRKPATRICK.

Witnesses:
HUGH C. BELL,
ROLL R. LUSK.