

(No. Model.)

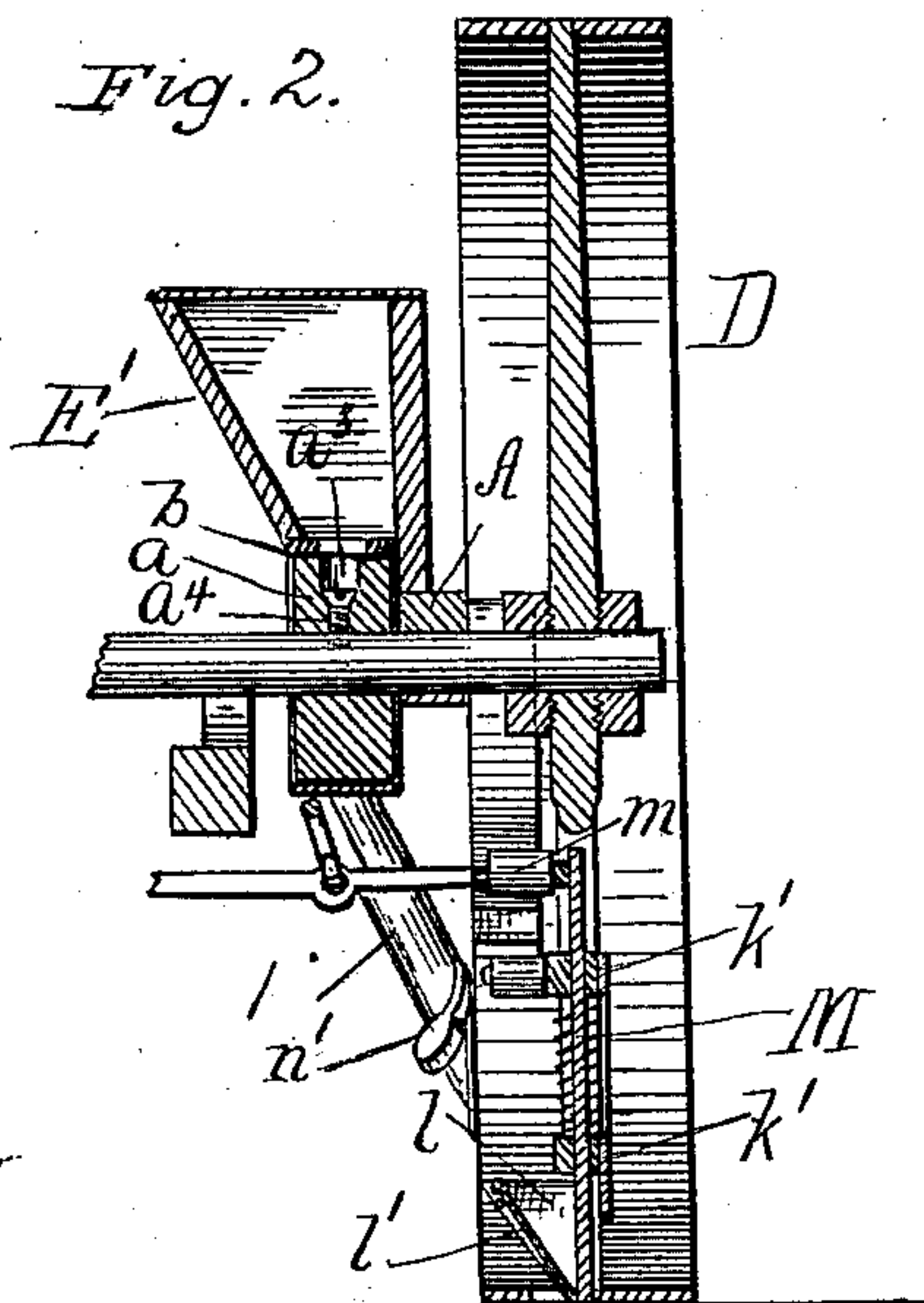
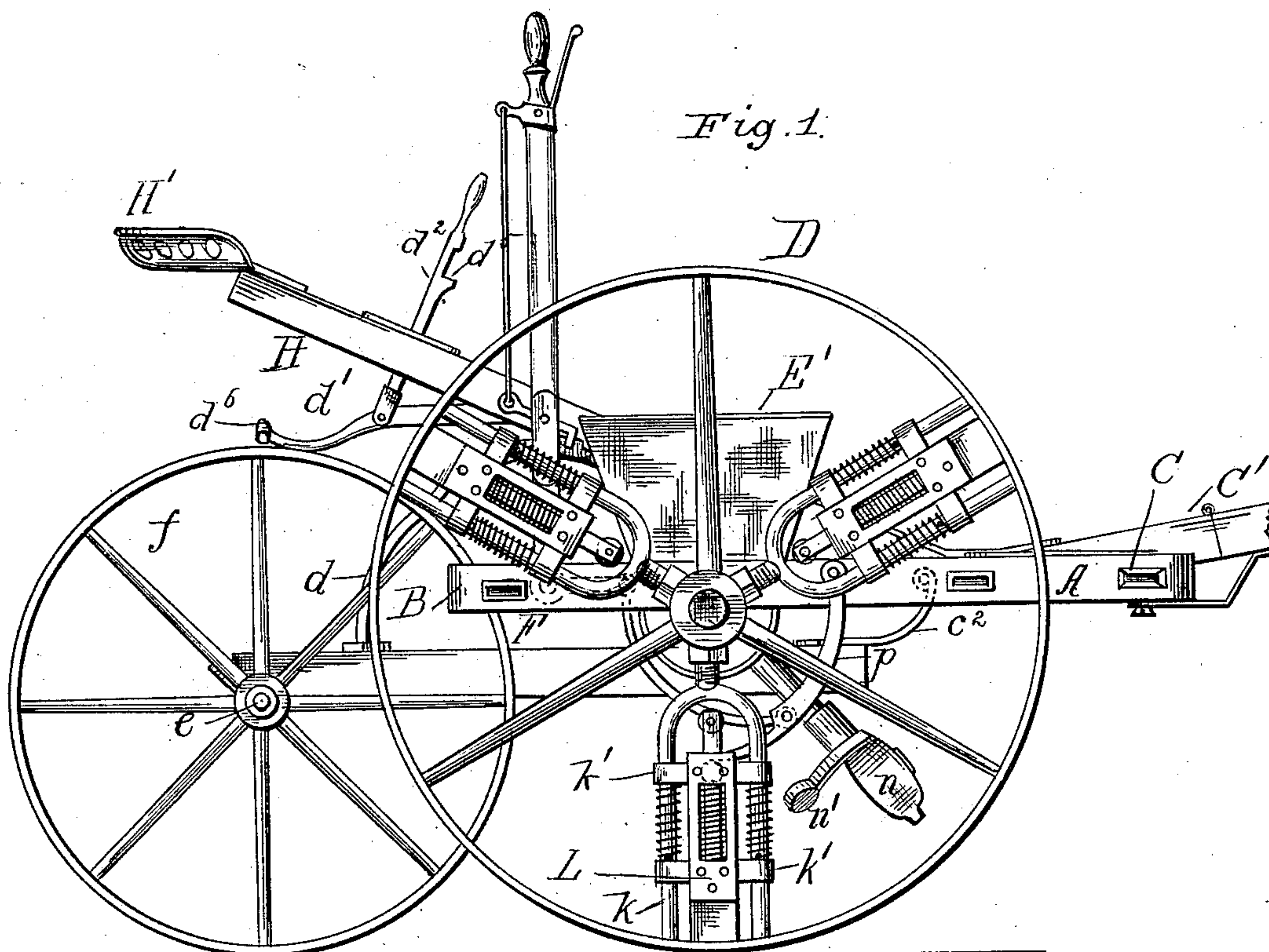
A. R. McMULLEN.

2 Sheets—Sheet 1.

CORN PLANTER.

No. 299,410.

Patented May 27, 1884.



Witnesses:
W. Johnson
L. B. Hills

Inventor:
Albert R. McMullen

Johnson
Attorney.

UNITED STATES PATENT OFFICE.

ALBERT R. McMULLEN, OF WHAT CHEER, IOWA.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 299,410, dated May 27, 1884.

Application filed January 31, 1884. (No model.)

To all whom it may concern:

Be it known that I, ALBERT R. McMULLEN, a citizen of the United States of America, residing at What Cheer, in the county of Keokuk and State of Iowa, 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.

My invention has reference to corn-planters; and it consists in the improved construction and combination of parts, hereinafter fully described.

In the accompanying drawings, Figure 1 is a side elevation of a corn-planter embodying my improvements. Fig. 2 is a transverse section through one of the wheels and hoppers, illustrating several other parts connected therewith; and Fig. 3 is a plan view of Fig. 1.

The supporting-frame consists of side bars, A, and front and rear bars, B C, the said frame being mounted on wheels D, having preferably a broad tread. The draft-tongue C' has its rear end secured to the front bar, C, of the frame, and also to a second cross-bar, C², secured in the frame parallel with the bar C, which furnishes an additional bearing for said tongue.

The axle E, upon the projecting ends of which the wheels D are keyed, is journaled in the bars A, and carries at each side, beneath each seed-hopper E', a seed-disk, *a*, Fig. 2, the periphery of which bears snugly against the perforated bottom *b* of the seed-hopper. A metallic case, *a'*, secured by brackets, Fig. 3, to the side bars, A, of the frame, embraces each disk, as shown in Fig. 2. Each seed-disk *a* is provided with a single seed-pocket, *a*³, the bottom of which pocket is perforated to permit a bolt, *a*⁴, to be passed and bite the shaft E, so as to insure the revolution of said disks with said shaft. Communicating with each case *a'*, at the bottom thereof, is a tube, which extends diagonally therefrom, as shown, the lower end of said tube terminating above the interior of the periphery of the

wheel D below the axle, as also illustrated. A rod, *c*, passing through ears *c'*, secured on the rear side of the bar C², is the means of hinging at the front parallel bars F, the front ends of said bars being provided with irons *c*², having loop ends *c*³ to engage the bar *c*. A cross-bar, G, is secured between the rear ends of the bars F, so as to permit the base of a curved standard, *d*, to be secured thereto, the upper end of said standard being pivotally secured to a bar, *d'*, pivotally attached at its front end to the inclined seat-bar H, the lower end of which is attached to the supporting-frame, while the upper end carries the seat H'. A hand-lever, *d*², is pivotally connected to the bar *d'*, and extends up through a slot, *d*³, formed in the inclined seat-bar H. The slot *d*³ is provided with a metallic lining, *d*⁴, the lower front edge of which is adapted, when the lever *d*² is depressed and moved forward, to engage and bear upon a shoulder, *d*⁵, of the hand-lever.

Journaled in the rear ends of the bars F is an axle, *e*, upon the projecting ends of which turn wheels *f*.

Between each pair of spokes of the carrying-wheels D is arranged a yoke, K, across the rods *k* of which are located bars *k'*, the ends of which bars embrace the rods of the yoke, so as to play vertically thereon. A vertical bar, L, is bolted at its ends to the center of the bars *k'*, so as to brace the same. The bars *k* are centrally perforated to permit a vertical bar, M, to play through the same, which bar carries at its lower end a drill-spout, *l*, the back of which is of spring metal, so that it will normally close the drill-spout.

On the rear face, and at the upper end of the bar M, is journaled a roller, *m*, and on the rear face of the upper bar, *k*, immediately beneath the roller *m*, is journaled a second roller. A coiled spring embraces the bar M, and bears between the upper bar, *k'*, and a projection on said bar. Coiled springs also embrace each rod *k* between the upper bar, *k'*, and a spur located on each rod *k*.

The inclined grain-spouts extend from the lower side of each of the disk-casings *a'*, slightly toward the front of the machine, and are each provided with pivoted cut-off valves *n*, provided with weights, *n'*, which cause said valves to normally close said openings.

Curved rib-pieces *p* are secured at each side of the machine by their front ends, as shown in Fig. 1. The lever *d'* has connected to its free end a cross-bar, *d''*, as also shown in Fig. 1.

5 The operation of the machine is as follows:

The axle *E* being revolved, the pocket in the feed-disk *a*, by the revolution of the same, intermittently drops the charge of seed into the inclined spouts, and just before each yoke *K* comes into position for planting, the roller *m'* of the same strikes the weight *n'* and opens the valve *n* of the inclined grain-spouts, so as to permit the charge of the same to drop into the drill formed on the end of the said yoke *K*. Each curved rib *p* having during this operation entered between the rollers, the plunger *M* is moved vertically upward out of the drill, while said drill is forced into the ground through the opening in the wheel. At 20 this period the termination of the curved bar *p* is reached, and the plunger *M* falling forces the spring-plate *l'* of the drill away and drives the seed into the ground. The operator, by placing his feet on the cross-bar *d''*, and depressing the lever *d'*, can entirely lift the drill 25 portion of the machine off the ground, thus letting the entire weight be upon the rear wheels, *f*.

From the foregoing it will be apparent that a planter constructed in accordance with my 30 invention is simple and effective in operation, and performs the planting operation with economy and dispatch.

I claim--

1. The combination, in a corn-planter, of a 35 feed-disk, inclined spout, and gravity-valve, arranged as described, a series of yokes located in the wheels, and carrying at their lower ends expanding drills, and a plunger playing on said yoke and adapted to expand said drills, 40 substantially as specified.

2. The combination, in a corn-planter, of a feed-disk, inclined spout, and gravity-valve, arranged as described, a series of yokes located in the wheels, and carrying expanding 45 drills at their lower ends, and plungers playing on said yokes, and devices for moving said drills and plungers, substantially as specified.

In testimony whereof I affix my signature in 50 presence of two witnesses.

ALBERT R. McMULLEN.

Witnesses:

THOMAS MYLON,

GEORGE McMULLEN.