

J. KELLY.
Corn-Planters.

No. 146,343.

Patented Jan. 13, 1874.

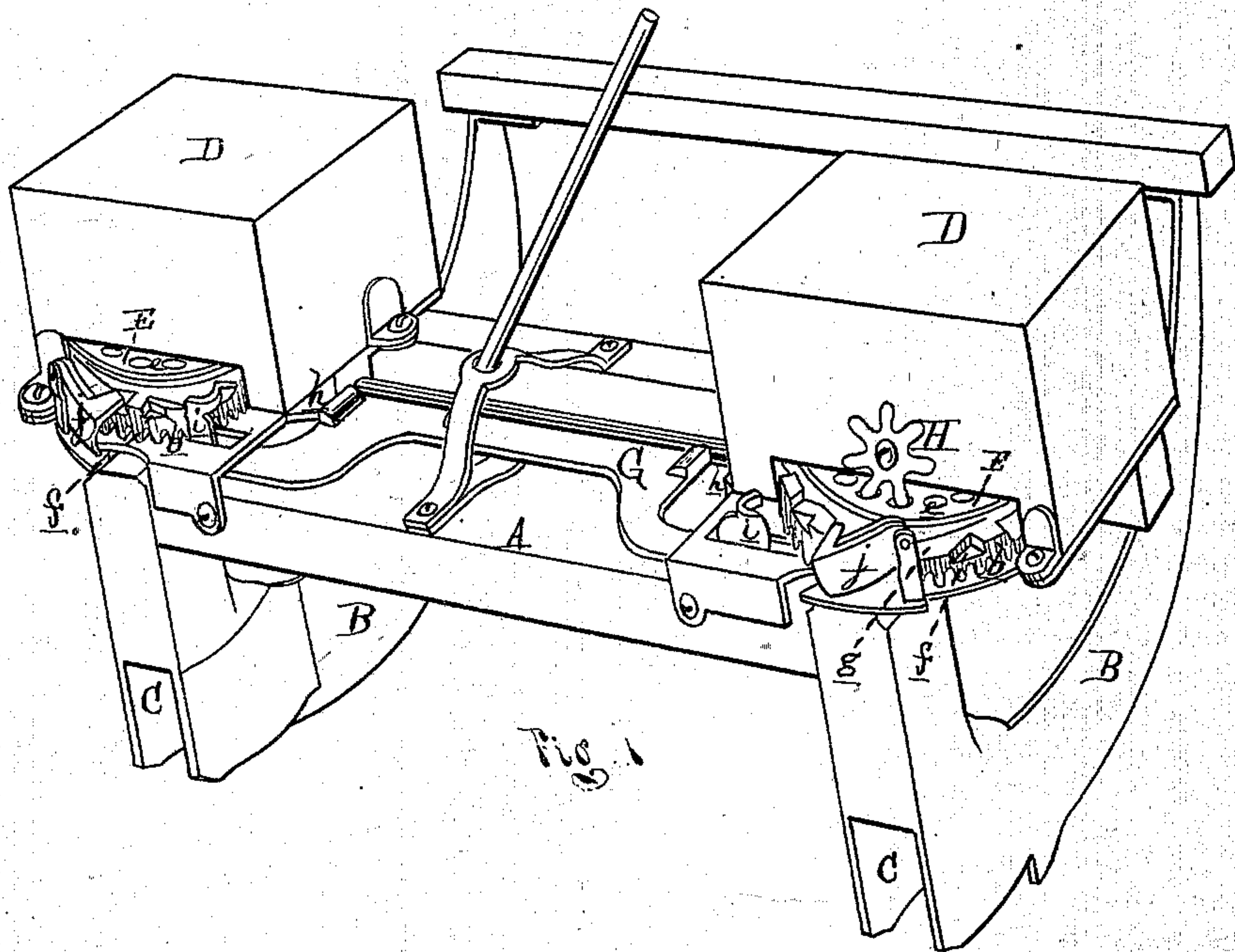


Fig. 1

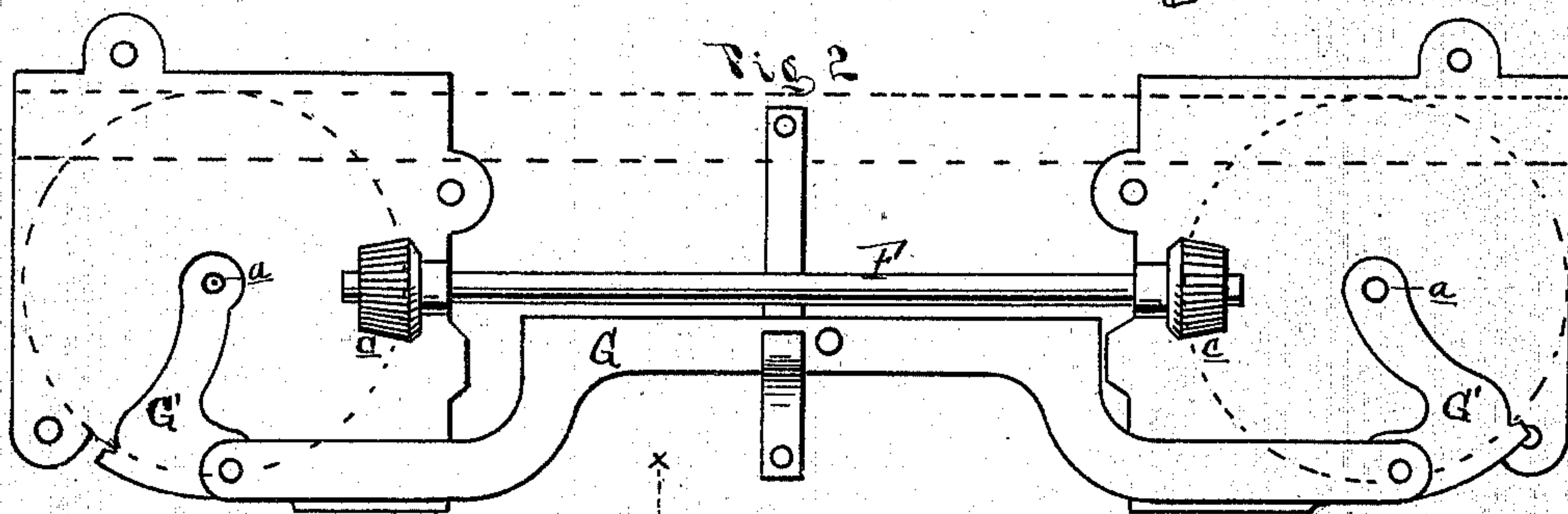


Fig. 2

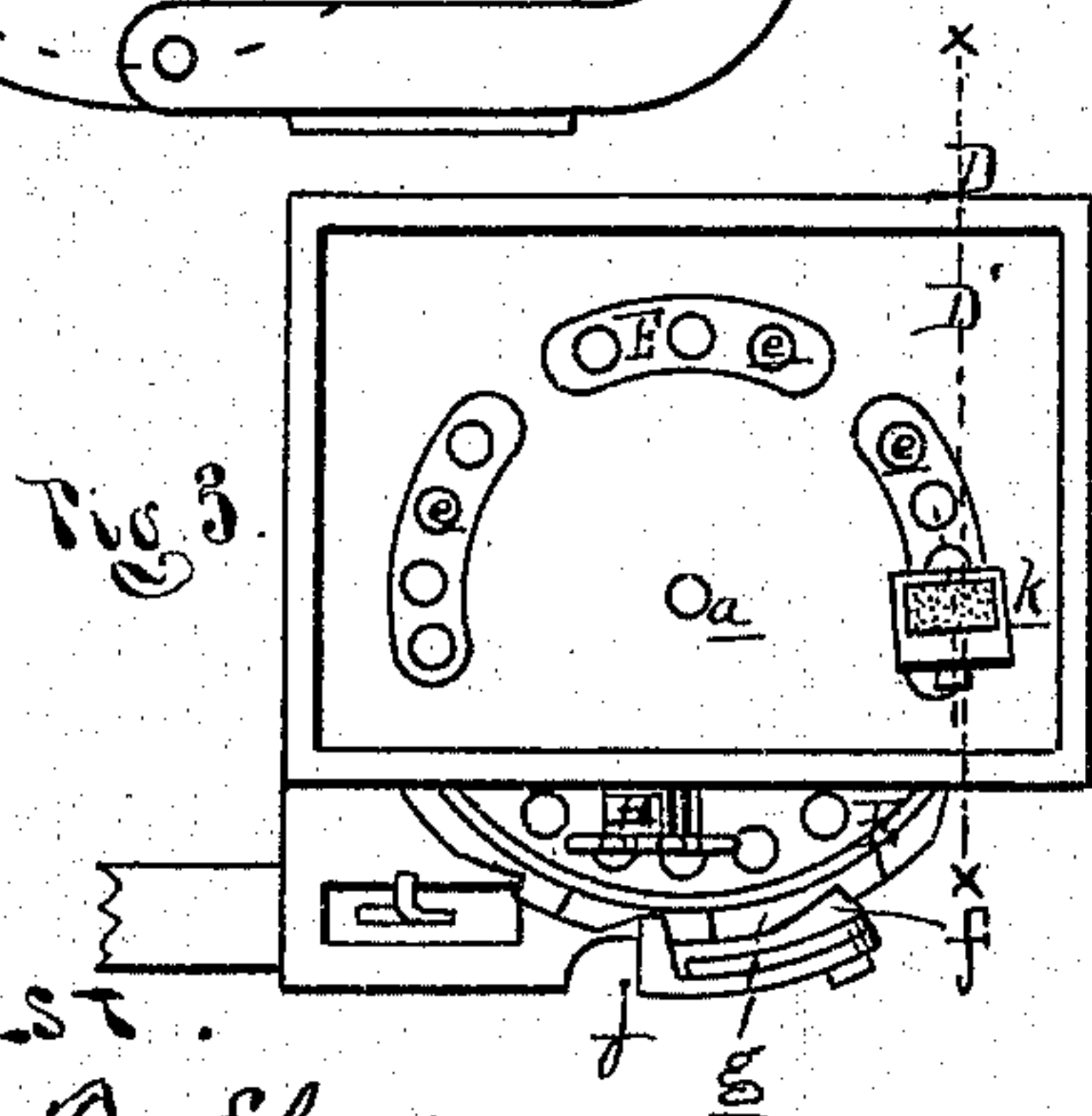


Fig. 3

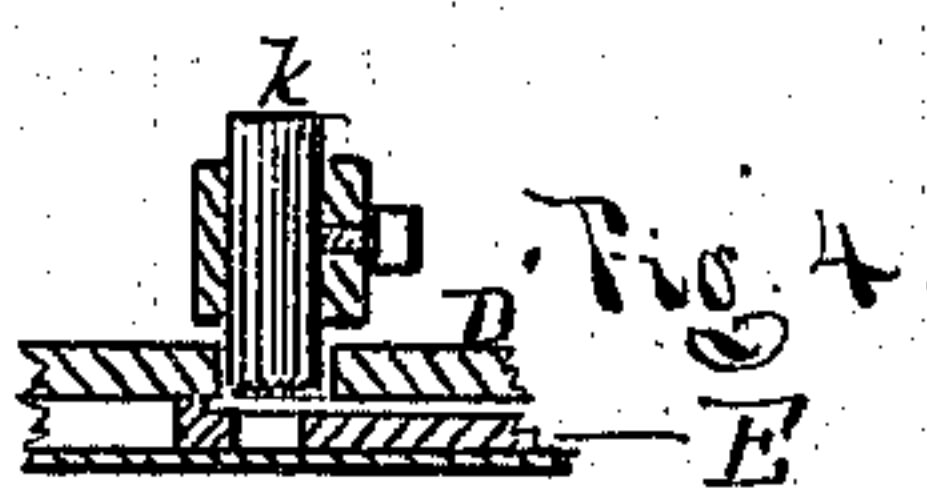


Fig. 4

ATTEST.

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IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. **146,343**, dated January 13, 1874; application filed October 15, 1873.

To all whom it may concern:

Be it known that I, JOHN KELLY, of Troy, in the county of Miami and State of Ohio, have invented an Improvement in Corn-Planters, of which the following is a specification:

The nature of this invention relates to an improvement in the dropping mechanism of two-horse corn-planters, having for its object to produce, by the movement of a hand-lever, a coincident and positive movement of the rotary dropper-plate in each seed-box, and to insure the dropping of each charge of seed. The invention consists in the peculiar mechanism for operating the dropper-plates, as more fully hereinafter set forth.

Figure 1 is a perspective view of my improved corn-planter, looking at it from behind. Fig. 2 is a plan of the under side of the dropping-plates and their covering-plates as removed from the main frame. Fig. 3 is a sectional plan of a dropper box and plate. Fig. 4 is a cross-section of the brush at *xx* in Fig. 3.

Like letters refer to like parts in the several figures.

In the drawing, A represents the main frame transversely mounted on the metallic furrow-openers B, with a seed-spout, C, leading to each from the rear corners of the frame. D is a seed-box at each end of the frame, closed at the bottom by a metal plate, with a circular dropper-plate, E, pivoted on a stud, *a*, its rear part rotating through a slot in the rear wall of the box. Each dropper-plate has a bevel-gear, *b*, near the periphery, underneath, with which meshes a pinion, *c*, at either end of a shaft, F, transversely journaled in the frame, so that motion being given one dropper the shaft will impart it to the other. Above each dropper in the box is a seed-plate, D', slotted to allow the corn to pass down to the dropper-plate E, and fill the cells *e*, cut in the same near its periphery. A brush, *k*, is secured in each box, through a hole in the plate D', just before the grain issues from the box, to sweep off any surplus corn that might otherwise clog the plate. On the periphery of each dropper-plate will be noticed a series of

angular notches, *f*, with their abutments in one direction, while on the perimeter is a series of other notches, forming inclined planes *g*, having their abutments in an opposite direction. G is a bar reciprocated by a hand-lever, its throw being governed by a stop, *h*, projecting from the inner face of each box. Its extremities are curved outwardly, and carry a stud moving in a slot in the bottom plate of each box, with a lateral hook, *i*, at its upper end, which serves as a stop when it enters a notch, *f*, in the dropper-plate. To the extremities of the bar G are pivoted the outer ends of two segments, G', whose inner ends are pivoted to the lower ends of the studs *a*, which carry the dropper-plates. The outer edges of these segments carry two short posts, one at each segment, to which is pivoted a pawl, *j*, which engages with the ratchet formed by the inclined planes *g* on the dropper-plates, and rotates the dropper-plate when the bar is moved in one direction, but slides back when the bar is moved in the opposite direction. The pawls, stop-notches, and ratchets of the two plates are disposed in opposite directions, so that the bar G, being reciprocated, moves one plate by its pawl, and said plate, through the shaft F and pinions *b b*, moves the other plate, bringing a cell full of corn over the opening in the bottom plate, whence it falls through the spout to the ground. A reverse movement of the bar G rotates the other plate, and, through the gearing described, it rotates the opposite one, causing both plates to drop their seed simultaneously, at a single movement of the lever which actuates the bar G, and with ease and certainty.

To compel each cell to empty itself of any seed which may have wedged therein, a star-wheel, H, is so pivoted behind each dropper-box that one of its arms will always project into the slot that comes under it, and thus force out the corn.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a corn-planter, the combination of the rotary dropping-plates E, the intermediate shaft F, with bent gears *c*, and the reciprocated

ing bar G, with its segments G' G', all constructed and operating substantially as set forth.

2. The combination, with the frame A, furrow-opener B, and seed-spouts C C, of the seed-boxes D D, each provided with a slotted seed-plate, D', a bottom plate, and the rotary dropper-plate E pivoted thereto, the said plates E being geared together by the shaft F and

pinions *c c*, and provided with the stop-notches *f* and peripheral ratchets *g*, the reciprocating bar G, provided with the stops *i i*, segments G' G', and pawls *j j*, substantially as and for the purpose set forth.

JOHN KELLY.

Witnesses:

C. C. WEILAND,
L. H. THOMPSON.