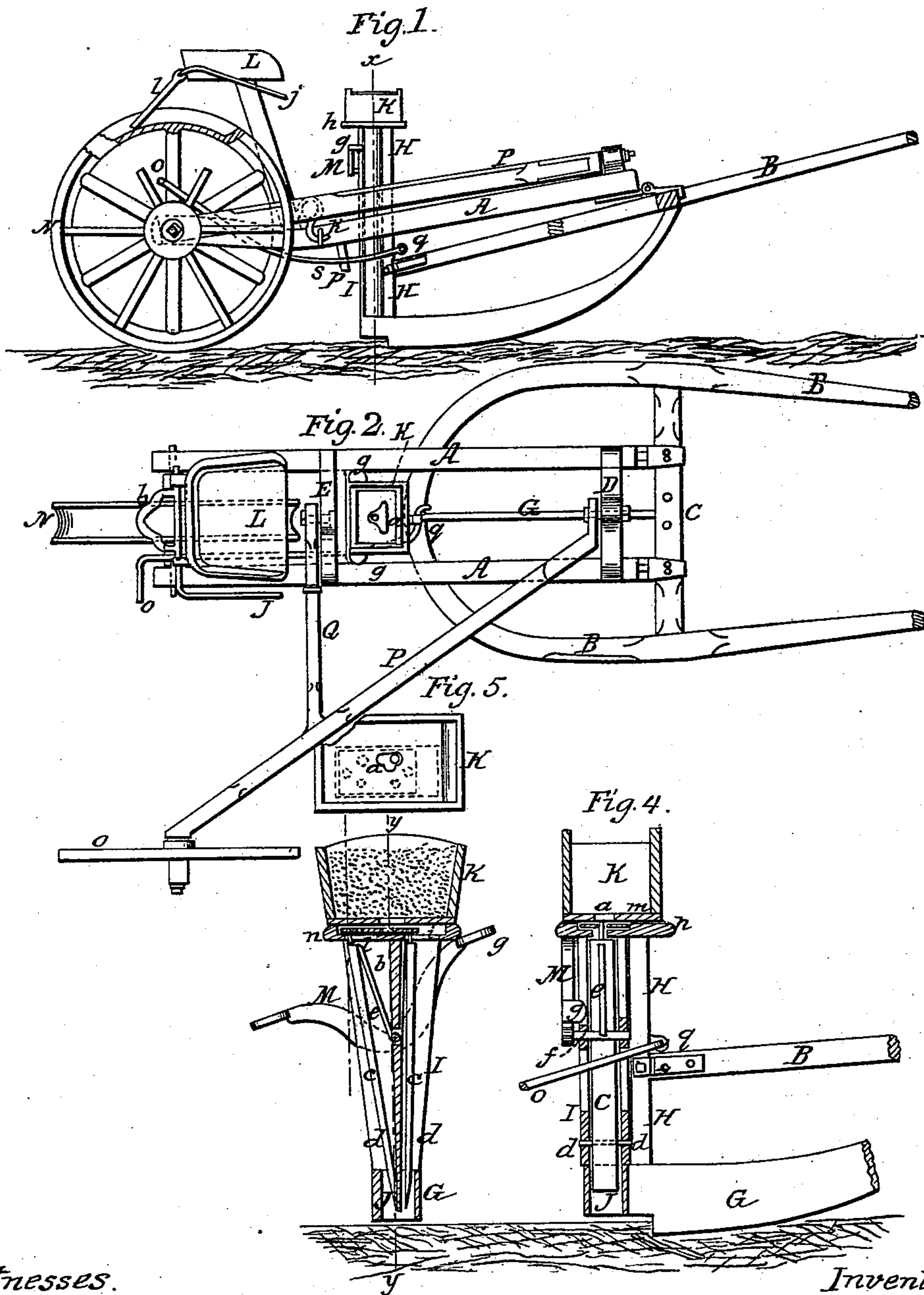


J. D. CHAMBERS.

Corn Planter.

No. 84,936.

Patented Dec. 15, 1868.



Witnesses.

Wm. A. Morgan
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Inventor.

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United States Patent Office.

JOHN D. CHAMBERS, OF CARTHAGE, MISSOURI, ASSIGNOR TO HIMSELF AND ERASMUS D. ROWLAND, OF THE SAME PLACE.

Letters Patent No. 84,936, dated December 15, 1868.

IMPROVEMENT IN CORN-PLANTER.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN D. CHAMBERS, of Carthage, in the county of Jasper, and State of Missouri, have invented a new and useful Improvement in Corn-Planters; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of my improved corn-planter.

Figure 2 is a top view of the same.

Figure 3 is a detail vertical section of the dropper-apparatus, through the line *x x*, fig. 1.

Figure 4 is a section of the same, taken through the line *y y*, fig. 3.

Figure 5 is a detail top view of the corn-hopper.

Similar letters of reference indicate like parts.

The object of this invention is to provide a simple and effective corn-planting machine, the construction and operation of which are herein fully set forth.

In the drawings—

A A are the principal frame-timbers of the machine, and

D and E are cross-timbers uniting them.

The forward ends of the frame-timbers are hinged to the cross-brace C of the shafts, which latter are bent in a U-shape, from a single piece of timber.

The frame and shafts are hinged together, as shown, so as to permit the cutter G to accommodate itself to the irregularities of the ground in planting, and also to enable the same to be raised clear of the ground when the machine is being drawn to or from the field.

The cutter is an edged plate of steel, or iron and steel, curved upward in front, as shown, the front end being affixed, in any suitable manner, to the middle of the cross-brace C of the shafts. The rear end or heel of the cutter is affixed to a stout upright, H, forming part of the dropper-chute I H, as shown.

The upright, H, is firmly affixed to the rear or bow part of the shafts, as shown, thus holding the cutter rigidly.

The heel of the cutter is hollow, having a vertical opening, J, formed, by the separation of the said heel, into two parts, which gives the rear part of the cutter a wedge-form, suitable for opening the furrow.

The dropper-chute opens downward into the cavity of heel, which cavity opens downward into the furrow made by the cutter.

The dropper-mechanism consists of a hopper, K, surmounting the chute, and opening downward through a hole, *a*, in the hopper-bottom, into the chute I H.

The chute is composed of the upright, H, and a similar upright, I, arising from the heel of the cutter, both uprights being united by a central partition, *b*, extending down into the opening, J, thus dividing the chute into two compartments, and making a double chute of it.

The sides of these chutes consist of the strips or vanes *c c*, pivoted between the uprights I and H at *d*.

These strips fit, with easy contact of their lateral edges, against the uprights I and H, and have a vibrating motion, which is given by the arms *e e*, from the oscillating shaft *f*, which passes through the partition *b*, and has bearings in the uprights I and H.

The arms extend upward on either side of the partition, and are so arranged, with reference to the side strips *c c*, that the said strips will be alternately pushed out to the edge of the parts I and H, as the shaft *f* is oscillated, which is done by the driver, who sits on the seat L, with a foot on either of the step-plates *g* of the beam M, which latter is affixed in the end of the shaft *f*.

The hopper K rests on and is affixed to a bed, *h*, which latter is formed with a wide slot or recess, for a perforated plate, *m*, to slide to and fro therein, over the downward opening, *i i*, of the said bed.

The perforated plate is made to work to and fro in its recess by means of the strips *c c*, which have pins or pointed ends, fitting loosely in holes in the plate, as shown, or they may be connected with the plate by any other suitable device.

As the arms *e* move the strips *c*, so will the plate *m* be moved to and fro.

The plate *m* has a number of large perforations or holes, which, in passing under the opening, *a*, of the hopper-bottom, receive the corn into the said holes, and in passing over the openings *i i*, discharge it downward, through them, into the compartments of the chute.

The strips *c c* are so arranged that the lower end of the compartments will be alternately opened and closed, as shown in fig. 3, by the vibration of the strips.

Thus, by the motion of the plate *m*, the corn in the hopper K is fed into the holes in the said plate, and by it discharged into the compartments of the chute through the openings *i i*, as before stated.

The weight of the machine is principally borne by the grooved covering-wheel N, arranged in the rear end of the frame A, as shown, but a second wheel, O, arranged on a diagonal axle-bar, P, is employed to balance the machine, and to serve also as a gauge-wheel to track along the adjacent furrow, and thus enable the furrows to be run parallel to each other.

The axle P of this second wheel is reversible, so as to bring it on either side of the frame, for the axle-bar P is pivoted to the cross-beam D, and the brace Q (which serves to hold the bar P firmly) is pivoted to the cross-beam E. Said axle and brace may be pivoted at one or more points, to gauge the width of row.

By this means the wheel O is reversible to either side of the wheel N. A hook and shaft, *k*, fasten the brace Q to the frame, thus holding the wheel O firmly in its position, on whichever side it may be placed.

l is a scraper, operated by a lever-handle, *j*, arranged

in the back of the seat I. This scraper keeps the grooved tread of the wheel N from choking or clogging. This scraper is lifted or brought down upon the wheel by bearing down or raising the lever *j*.

o is a lever, having a fulcrum, *p*, on the frame, and having its short arm pivoted to the same part of the shafts, or the upright, H, as at *q*.

The handle-end of this lever is conveniently accessible to the driver when on the seat, and pins or hooks are arranged on the frame in a suitable position to hold the lever when the cutter is in its raised or lowered position.

The grooved tread of the wheel N acts to cover in the corn when dropped in the furrow, for the said wheel and the cutter are arranged in the same line.

This machine is also available for planting other large grain or pulse.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

1. The arrangement, in a corn-planting machine, of the several parts, *c c*, *m*, *h*, *f*, *e e*, M, K, I H, *b*, all arranged and operated substantially as shown and described.

2. The arrangement, in a corn-planting machine, of the frame A A E D, and the U-shaped shafts B, with the cross-brace C, substantially as herein described.

3. The arrangement, in a corn-planting machine, of the diagonal axle-bar P, brace Q, in combination with the gauge-wheel O, substantially as shown and described.

JOHN D. CHAMBERS.

Witnesses:

JOHN T. BURHAM,
JAMES F. HOPKINS.