(No Model.)

R. A. FRASER.

PLANTER.

No. 353,445. Patented Nov. 30, 1886.

Fig. 1.

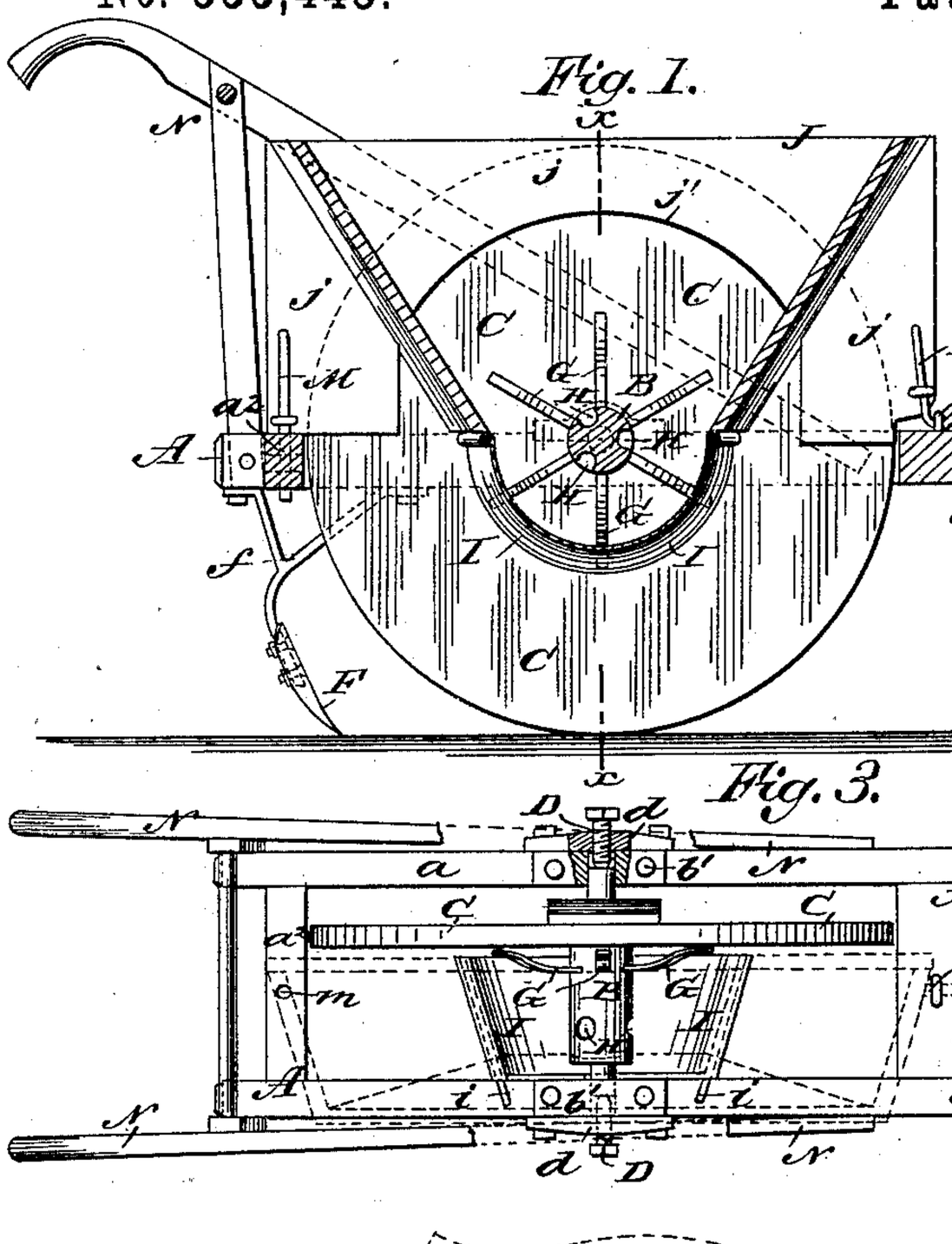


Fig. 2.

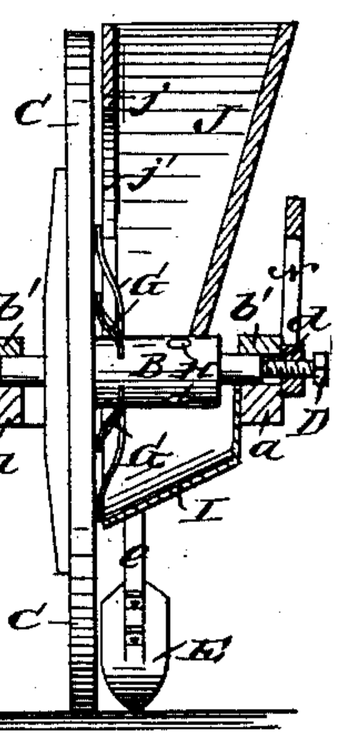


Fig. 3.

Fig. 4.

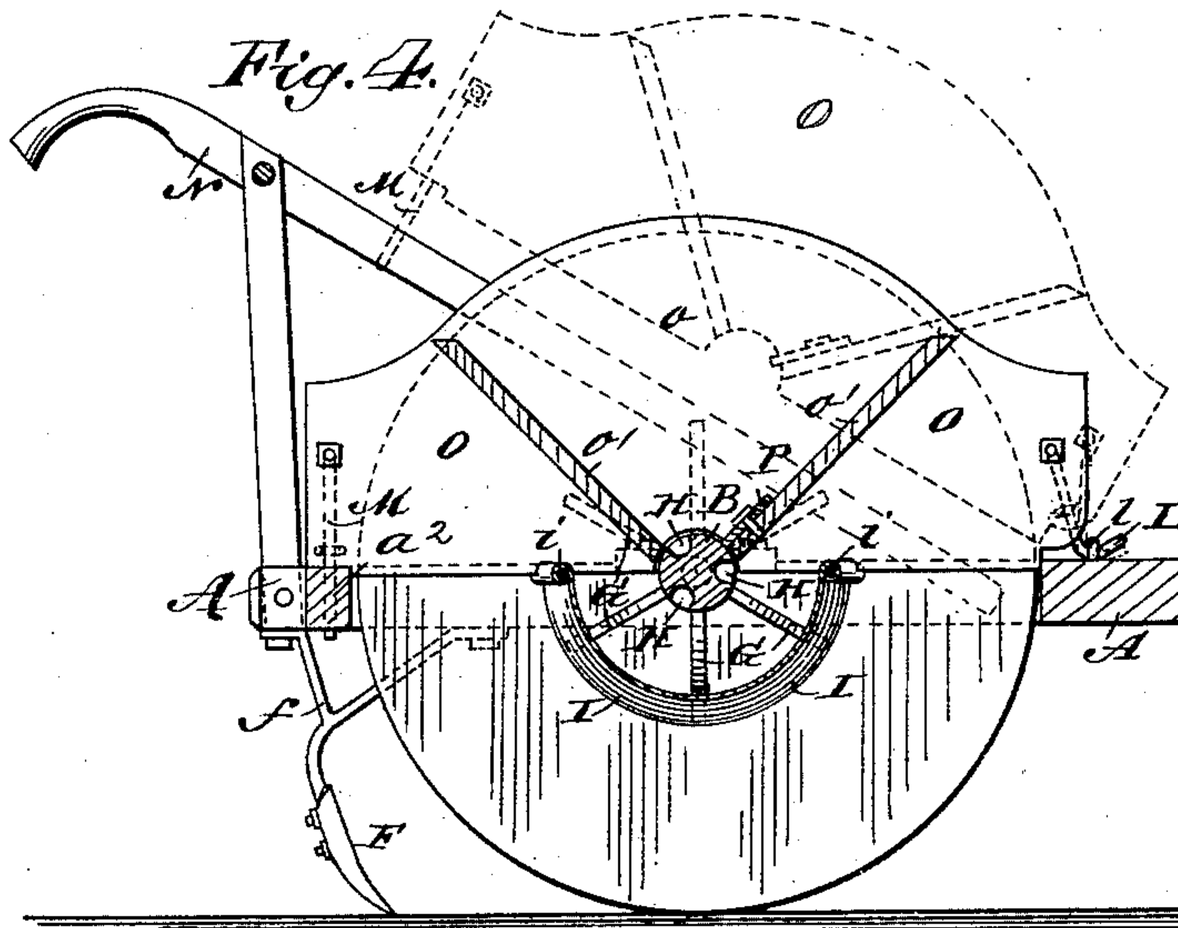
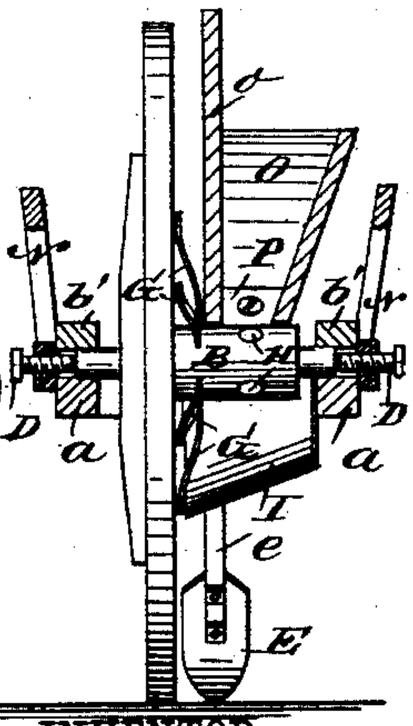


Fig. 5.



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RICHARD ANDREW FRASER, OF MANSFIELD, LOUISIANA.

PLANTER.

SPECIFICATION forming part of Letters Patent No. 353,445, dated November 30, 1886.

Application filed September 15, 1886. Serial No. 213,605. (No model.)

To all whom it may concern:

Be it known that I, RICHARD ANDREW FRASER, of Mansfield, in the parish of De Soto and State of Louisiana, have invented a new and Improved Planter, of which the following is a full, clear, and exact description.

My invention relates to seed-planters, and has for its object to provide an implement of this character capable of planting cotton, corn, or other seeds in drills or hills, and with regularity and without waste of the seeds, and with economy of time and labor.

The invention consists in certain novel features of construction and combinations of parts of the planter, all as hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of my improvement adjusted as a cotton-planter. Fig. 2 is a cross-sectional elevation of the same, taken on the line *x x*, Fig. 1. Fig. 3 is a plan view thereof, partly broken away and in section, and with the hopper indicated in dotted lines. Fig. 4 is a sectional side elevation of the machine adjusted as a corn-planter, and Fig. 5 is a cross-sectional elevation thereof.

The planter-frame A consists of opposite parallel side bars, *a a*, connected by front and rear cross-bars, a' a^2, and in the side bars, *a a*, and metal caps b' b', fixed to said bars, the ends *b b* of the planter-drum B are journaled, and to this drum the disk or wheel C is fixed, so as to support the entire machine from the ground and cause a turning of the drum B as the machine is drawn over the ground by draft attachments connected to the clevis a^3, attached to the frame.

In suitable metal plates, *d d*, fixed to the side bars of the frame A, are threaded set-screws D D, the inner ends of which bear against the opposite ends of the wheel-shaft B, and whereby the shaft and wheel may be adjusted and held transversely of the machine in proper relation to the seed-hopper and seed-dropping devices, presently explained.

In the forward cross-bar, a', of the frame A is fitted so as to be vertically adjustable the standard *e* of a plow, E, which opens a furrow in front of the wheel C for the wheel to travel in, and to each of the side bars, *a*, of the frame, at its back end, is connected by a braced standard, *f*, a seed-covering plow, F, the two plows F together turning the earth over onto the seed dropped into the furrow.

A series of bent metal fingers, G, are fixed at their inner ends in and around the periphery of the drum B, at a little distance from the face of the wheel C, and the outer ends of these fingers rest against the face of the wheel, as shown in Figs. 2 and 3. These fingers agitate the cotton-seed placed in a hopper supported on the frame, as presently described. The drum B is also provided with a series of seed holes or pockets, H, around its periphery, three of said pockets being shown in the drawings.

Below the seed-drum B there is supported from the frame A a flaring semicircular plate, I, which forms the bottom of the hopper, the upper portion, J, of which is held to the frame A by a hook, L, on the inner side plate, *j*, of the hopper engaging an eye or staple, *l*, fixed to the frame, and a pin, M, fixed to the other end of the side plate, *j*, and entering a hole, *m*, in the frame. I show the flaring and curved bottom plate, I, of the hopper wired at the top at each end, as at *i i*, and these wires extend over the adjacent side bar, *a*, of the frame A, and have down-bent ends, which enter holes made in the frame, (see Fig. 3;) but any other suitable fastening may be used to hold the plate I securely to the frame and centrally positioned around the seed-drum B, and the agitating-fingers G, which rotate in both parts I J of the hopper, the axis of the drum B in which the fingers are fixed being about in a plane with the joint between the two parts of the hopper.

As shown most clearly in Figs. 1 and 2, the inner side wall or plate, *j*, of the hopper is cut away, as at j', and at this opening j' the cotton-seed placed in the hopper falls against the face of the wheel C, which forms the inner side of the hopper at this opening, and also at the open inner end of the lower part, I, of the hopper.

Handles N N, suitably connected to the frame A and to each other, serve to guide the machine over the ground when grasped by the attachment.

The operation of the cotton-planter is as fol-

lows: The cotton-seed placed in the hopper J I will be stirred up and thoroughly agitated and loosened by the fingers G, and will be forced by the fingers out of the opening or slit between the inner edge of the lower part, I, of the hopper and the face of the wheel C, and will drop to the ground regularly, and will be planted in drills in the furrow opened by the plow E, and in a true line directly at the face of the wheel C, which runs in the furrow, the wheel preventing the seed from being blown or scattered throughout the entire width of the furrow; hence when the seed sprouts the plants are in true line and can be more readily chopped to a stand, and waste of the seed will be prevented. The plows F cover the seed, as hereinbefore explained. To regulate the quantity of seed passing to the furrow from the hopper, the wheel-shaft B will be shifted endwise by adjusting the opposite screws, D D, to move the face of the wheel C nearer to or farther from the inner edge of the part I of the hopper, and thus regulate the size of the seed-exit passage, and these adjustments may easily be made by any person of ordinary intelligence; hence the machine may be very easily handled. Furthermore, the machine is short and narrow and light, and may be easily guided close to stumps or other obstructions in the ground, as will readily be understood.

Figs. 4 and 5 of the drawings illustrate how the machine may be very easily and quickly adjusted for planting corn or other seeds in hills, and this adjustment is effected by removing the part J of the hopper and substituting for it an upper hopper, O, which has an inner side plate, *o*, cutting off the agitator-fingers G from the interior of the hopper, and has inclined end parts, *o' o'*, which converge to the periphery of the seed-drum B and leave the seed-pockets H exposed at the bottom of the hopper; hence, as the wheel C revolves on the ground and the drum B is turned, the seed falling into the pockets H will be discharged to the ground into the furrow. A cut-off plate, P, held to the front end, *o'*, of the hopper, bears on the seed-drum and causes the pockets H to be evenly filled with seed as the drum rotates. The seed falling from the pockets H drops into the lower part, I, of the hopper, and thence against the face of the wheel C to the ground, thereby preventing scattering of the seed sidewise and insuring a regular planting.

The hopper part O is provided with a hook, L, and a pin, M, like the interchangeable part J of the hopper, and either hopper may be removed from the frame A by simply lifting its back end to raise the pin M from the hole *m*, and the hook L then may be drawn from the eye or staple *l*; and to attach either hopper the hook L will first be engaged with the eye *l* and the pin M then inserted in the hole *m*. These adjustments of the hoppers will readily be understood from the dotted lines in Fig. 4 of the drawings.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a planter, the combination of a frame, A, axle or drum B, wheel C, fixed to the drum, agitators G, a hopper mounted on the frame and inclosing said drum and agitators, and open at the side next the wheel, and screws D D, set into the frame and adapted to adjust the wheel C laterally, substantially as described, for the purposes set forth.

2. In a planter, the combination, with a frame, A, an axle or drum, B, journaled thereon, a wheel, C, fixed to the axle, and a seed-hopper supported by the frame around the drum B and open at the side next the wheel C, of agitating-fingers G, fixed to the drum at a distance from the face of the wheel C, and bearing at their outer parts against the face of said wheel, substantially as described, for the purposes set forth.

3. In a planter, the combination of a frame, an axle or drum, B, a wheel, C, fixed to the axle, agitators G, fixed to the drum and bearing at their outer parts on the face of the wheel C, a seed-hopper on the frame and open at the side next the wheel C, a furrow-opener, E, and seed-coverers, as at F, substantially as described, for the purposes set forth.

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Witnesses:

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