

(No Model.)

L. M. ALEXANDER.

COTTON SEED PLANTER.

No. 276,742.

Patented May 1, 1883.

fig 1.

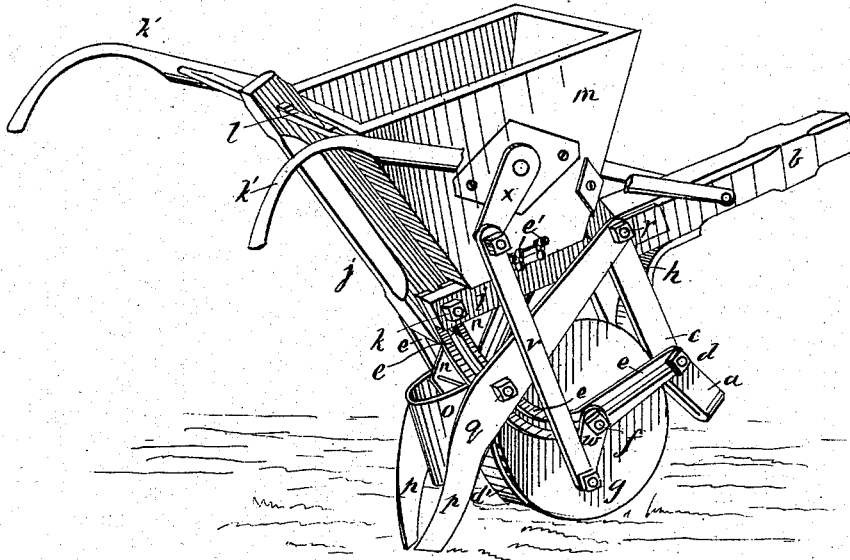


fig 2,

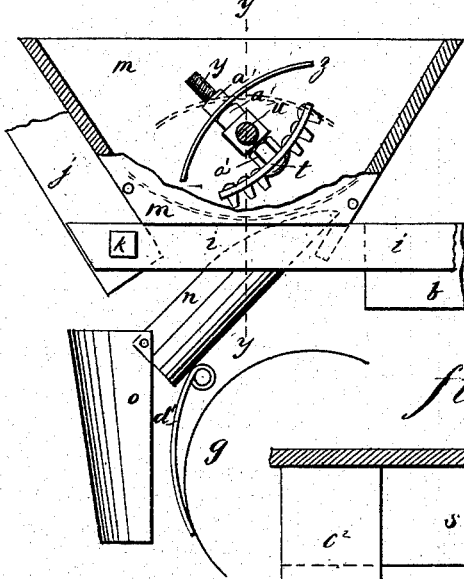


fig 3,

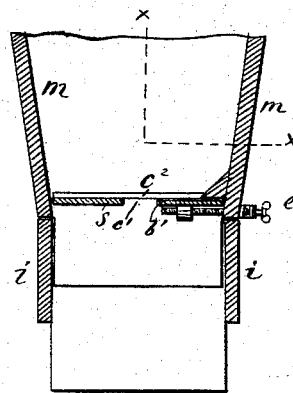


fig 6,



fig 4,

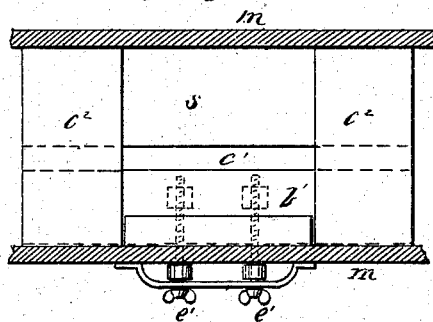
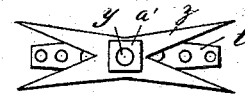


fig 5,



WITNESSES:

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UNITED STATES PATENT OFFICE.

LAWRENCE M. ALEXANDER, OF CAVINS, SOUTH CAROLINA.

COTTON-SEED PLANTER.

SPECIFICATION forming part of Letters Patent No. 276,742, dated May 1, 1883.

Application filed October 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, LAWRENCE M. ALEXANDER, of Cavins, in the county of Spartanburg and State of South Carolina, have invented a new and Improved Cotton-Seed Planter, of which the following is a full, clear, and exact description.

My invention consists in improvements in the construction of cotton-seed planters, the object of which is to simplify the same and increase their efficiency and durability.

It relates to the contrivance for connecting the foot or furrow-opener, the construction and arrangement of the covering devices, and the dropping apparatus, all as hereinafter described.

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 perspective view of my improved cotton-seed planter. Fig. 2 is partly a side elevation and partly a longitudinal section in the line $x x$ of Fig. 3. Fig. 3 is a transverse section on line $y y$ of Fig. 2. Fig. 4 is a horizontal section of the hopper, showing the bottom of the same. Fig. 5 is a plan or top view of the rake or feeder, and Fig. 6 is a detail of the plows or coverers, showing the form which I propose to employ in practical use.

The foot a , for opening the groove or furrow in which the seeds are to be dropped, consists of a strong U-shaped bar of metal, the upper ends of the two members being attached to the sides of the beam b , respectively, and the lower portion of the foot being bent forward at c , suitably for using the lower end for creasing or grooving a furrow in the ground, or for the attachment of a shovel-plow or other device for the purpose. The foot device is thus made very substantial and durable, and by such arrangement its respective members afford support at d for the forward ends of the parallel bars e , in which the axle f of the wheel g is mounted, said bars being bolted to said foot at d , and a strong brace, h , is also secured at the same point by the same bolt, the other end of said brace being attached to the under side of the beam at a point suitably in advance of the foot. The wheel-supporting bars e have the rear ends bent upward to the plane of the top of the beam b and attached to the strong

bars i , which are attached to the respective sides of the beam at and along beyond or forward of where the bars of the foot are attached. A stock, j , is attached between the bars e and i , and secured by the same bolt, k , that secures them, said stock extending upward and rearwardly for the support of the rearward positions of the handles k' by the bar l , and also for a stay to the rear side of the hopper m . The hopper is fitted on the bars i over the space between them and between the rear end of the beam and the stock j for the discharge of the seeds which fall into a spout, n , which projects rearwardly and is open at the rear side, in order that the seeds will fall in the view of the operator, that he may see that they fall regularly and in the proper quantity. From spout n the seeds pass into the vertical spout o , by which they are delivered into the furrow, where they are covered by the scrapers p , said scrapers being formed on the ends of bars bolted adjustably to bars e at q , and secured at their upper ends by the bolt r , that secures the foot a , so that they may be turned thereon to shift at q for regulating their depth in the ground, the bars e being slotted for allowing the connecting-bolts q to be shifted along them to allow the plows to be set for depth in the ground. The axle $f f'$ of the wheel g is also adjustable along the slots of bars e for setting it toward or from the foot, as may be required; but it is designed to be set close to the foot, in order to afford room for dropping the seeds behind it. By locating the seed-spout behind the wheel the seeds will not be pressed into the ground by the wheel.

In order to prevent the seeds from clogging in the hopper, I mount a rake-head, t , to swing forward and backward over a concave bottom on an oscillating shaft, u , worked by the wheel g , to which it is connected by rod v and cranks w and x , said rake-head being mounted on said shaft by an extensible arm, y , so that it can be set nearer to or farther from the bottom s , according to the requirements of the case, and over the rake-head and above the shaft an agitator, z , is attached to prevent the seed from arching over the space below. The arm y is in this example made extensible by means of nuts a' , screwing on it above and below the shaft u ; but any other approved means of arranging it may be used. A part, b' , of the bot-

tom of the hopper is arranged to slide toward and from the other part, *s*, of the bottom to widen or diminish the orifice *c'*, for regulating the amount of the opening.

5 A guard, *d'*, is suspended between the spout *o* and the wheel *g*, to prevent the seeds from falling against the wheel and being thrust off and scattered about outside of the furrow; but if a spout is used that is closed on the front
10 side, the guard may be dispensed with.

This machine may be used for planting other seeds of various kinds as well as cotton-seeds.

The slide *b'* is provided with adjusting-screws *e'*, as shown in Figs. 1, 3, and 4, for shifting
15 and setting it, and the orifice *c'* is covered at each end by the cross-plate *e²*, to limit its length, which is not required to be as long as the whole length of the bottom of the hopper.

I do not limit myself to the shape of the
20 scrapers or coverers *p*, as herein shown, but will alter them as to the shape and curvature of the lower ends, as may be found best, and will also make them detachable for the application of different forms. The shape which I
25 prefer is represented in Fig. 6.

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

1. In a cotton-seed planter, the scrapers *pp*, curved toward each other at the rear ends and
30 pivoted at *r*, in combination with the slotted bars *e e*, to which said scrapers may be clamped at varying points, as shown and described.

2. The combination, with the slotted bars *e e*, of the wheel-axles *ff*, adapted to be adjust-
35 ed in said slots, as shown and described.

3. In a cotton-planter, the combination, with the hopper, of a rocking agitator, *z*, made in
40 arc shape, bifurcated at each end, and adapted to operate as and for the purpose specified.

4. In a cotton-planter, the combination, with the hopper, of the arm *y*, carrying a rake at
45 one end, an agitator at the other, and intermediately attached to a rocking shaft, as and for the purpose specified.

5. The bars *e*, connected to the foot *a* at *d*, and to bars *i* and stock *j* at *k*, and being slot-
50 ted for the bolts *r* and *q* of the wheel and coverers, for adjusting them by the bolts, substantially as and for the purposes set forth.

LAWRENCE MANING ALEXANDER.

Witnesses:

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