

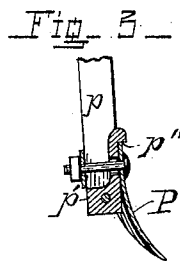
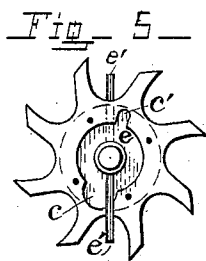
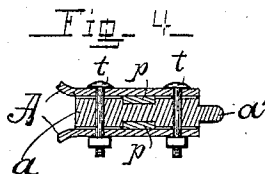
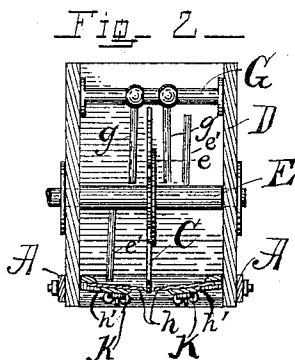
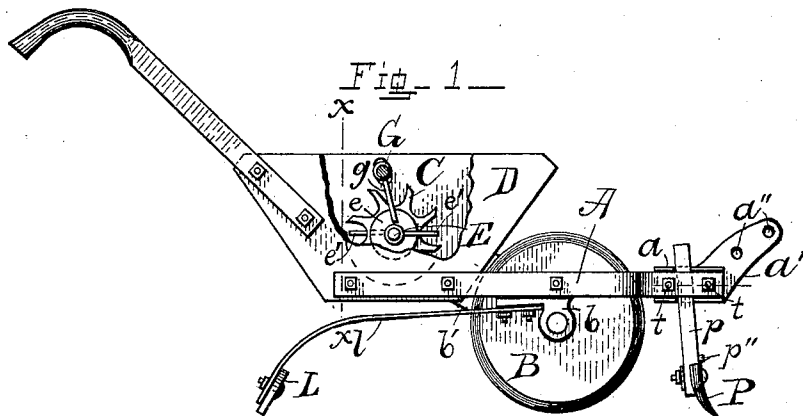
(No Model.)

2 Sheets—Sheet 1.

J. T. GANTT.
COTTON PLANTER.

No. 394,848.

Patented Dec. 18, 1888.



WITNESSES:
A. P. Wood.
J. J. Sullivan.

INVENTOR:
James T. Gantt.
Albert A. Wood
Attorney.

(No Model.)

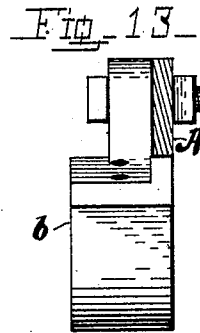
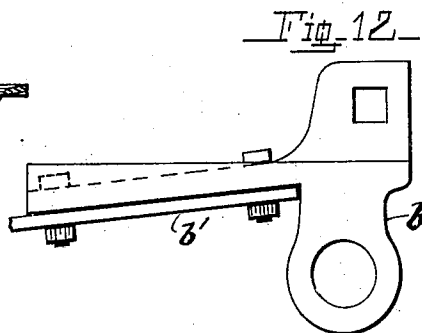
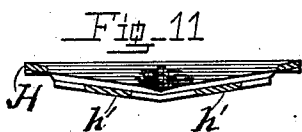
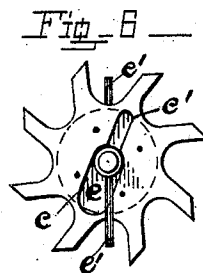
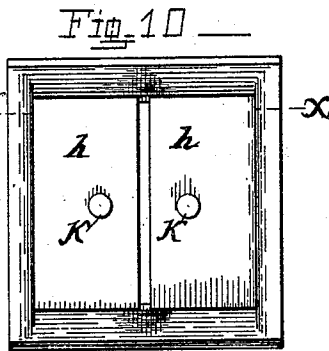
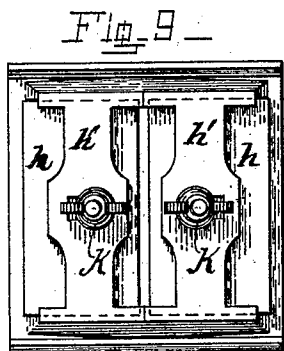
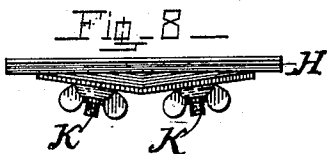
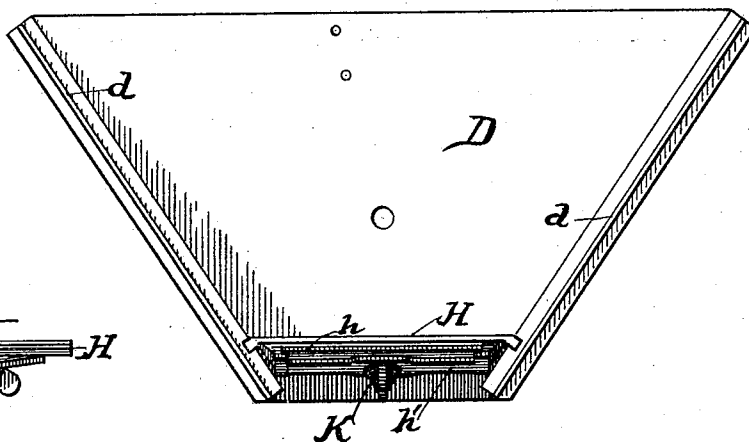
2 Sheets—Sheet 2.

J. T. GANTT.
COTTON PLANTER.

No. 394,848.

Patented Dec. 18, 1888.

Fig. 7



WITNESSES
A. P. Wood
D. J. Sullivan

INVENTOR,
James T. Gantt.
Albert A. Wood
Attorney,

UNITED STATES PATENT OFFICE.

JAMES T. GANTT, OF MACON, GEORGIA.

COTTON-PLANTER.

SPECIFICATION forming part of Letters Patent No. 394,848, dated December 18, 1888.

Application filed April 27, 1888. Serial No. 272,046. (No model.)

To all whom it may concern:

Be it known that I, JAMES T. GANTT, a citizen of the United States, residing at Macon, in the county of Bibb and State of Georgia, have invented a new and useful Cotton-Planter; 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.

The object of this invention is to so construct the wheel of the agitating device that it may be strongly and cheaply made and be easily removed from the axle carrying the agitators without removing the stirrers.

It is also the object of my invention to construct the outlet of the hopper so that the discharge of seed may be easily regulated and at the same time secure the best conditions for giving a positive flow.

In the accompanying drawings, Figure 1 is a side view showing a portion of the inside of the hopper. Fig. 2 is a vertical cross-section of the line *x x*, Fig. 1. Fig. 3 is a vertical section through the plow. Fig. 4 is a horizontal central section through the front end of the beam, showing the manner of attaching the plow. Fig. 5 is a view of the feeding-wheel, shaft, and stirrers, which constitute the feeding device. Fig. 6 shows a modified construction of the feeding-wheel. Fig. 7 is a side view of the hopper with one side removed, showing an edge view of the seed-discharge-regulating device in the bottom. Fig. 8 is an end view of the hopper-bottom. Fig. 9 is a bottom view of the hopper-bottom, more clearly showing the seed-regulating device. Fig. 10 is a top view of the hopper-bottom, showing the slides that regulate the width of the discharge-opening. Fig. 11 is a vertical section on the line *x x*, Fig. 10. Fig. 12 is a side view of one of the brackets that carry the journal-boxes and the flange to which the springs carrying the coverers are attached, a portion of a spring being shown. Fig. 13 is an end view of the bracket shown in Fig. 12, also showing a section through the frame.

In the figures, like reference-marks indicat-

ing corresponding parts in the several views, A is the frame joined and bolted to the beam *a* at the front end. Journaled on brackets *b* 55 on this frame is the wheel B, which drives the feeding-wheel C in the hopper D. The wheel B and the feeding-wheel C are similar in their operation, and the feeding-wheel C is driven by the chain *b'*, as shown in my former Letters Patent hereinbefore mentioned; but the construction of the wheel C is different, inasmuch as it is provided with the slots *c* and *c'*. On the shaft E of said feeding-wheel C is a flange, *e*, to which the feeding-wheel C is 65 screwed or riveted. As feeding-wheels of cotton-planters have heretofore been constructed the hole in the shaft for one of these stirrers has been drilled, and after putting the wheel on one stirrer has been inserted, as it is not 70 practicable to make the hole in the wheel C of a sufficient diameter to pass over the stirrer without changing the relative proportions of the wheel and stirrer so much as to neutralize the effect of the stirrer, which should reach 75 nearly to the bottom of the hopper to prevent the matting of the seeds at the bottom. Neither can the flange *e* be made of sufficient size to permit the hole in the wheel to pass over the stirrers without lessening the depth between 80 the teeth to such an extent as to prevent their successful operation. The practice of drilling the shaft and inserting the stirrers has been found to produce bad results, among which are the frequent breaking of the shafts and loosening of the stirrers, to obviate which I cast the stirrers in both ends of the shaft, or cast them 85 integrally with the shaft, and form in the wheel the slots *c* and *c'*. To place the feeding-wheel on its shaft, I place the outer end of the slot *c* against and partially surrounding the shaft E, and pass the slot *c'* over the end of one of the stirrers *e'*. In case there are two stirrers on each end, as shown in my former Letters Patent above referred to, I then partially re- 95 volve the wheel around the shaft and pass the slot *c'* over the other stirrer.

In Fig. 6 I have shown a modified form of construction that produces the same result, so far as relates to the slots *c* and *c'*, only enough 100 being taken out of the wheel to cause it to pass over the shaft and one stirrer, by reason of which the flange may, if desired, be made smaller than by the construction shown in

Fig. 5. This construction enables me to make the notches between the teeth of the desired depth and stirrers of the desired length and the hole in the center of the wheel so small as to leave an abundance of room by which to fasten it to the flange *e*.

The hopper D is constructed as shown in Fig. 7—that is, having two sloping end pieces with tongues *d* on each side that enter into grooves in the side pieces. Near the bottom of these end pieces horizontal grooves are cut across them to receive the ends of the frame II, which, with the slides *h*, form the bottom of the hopper.

The frame II is constructed as shown in Figs. 7, 8, 9, 10, and 11, the way for the slides being best shown in Fig. 11 and the slides *h* in Figs. 9 and 10. These slides pass under the outer bars of the frame and over the central bars, *h'*, to which they are bolted by the bolts and thumb-nuts K, the bars *h'* being slotted to permit the lateral adjustment of the slides *h*, as shown in Fig. 9, which permits the width of the rectangular opening between them to be adjusted as required, the bolts K holding these slides in any position within the range of the slots.

L is a covering-board, and is carried on the back end of the springs *l*, one of which is on either side of the planter.

It is preferable to extend the end pieces of the hopper a sufficient distance below the bottom to prevent anything in passing them from coming in contact with the thumb-nuts on the bolts K, by reason of which, and the fact that the nuts holding the slides in adjustment are screwed down tight, the slides are not liable to slip, as is common in cotton-planters, as heretofore constructed, having an adjustable rectangular opening in the bottom of the hopper.

In Figs. 12 and 13 the bracket *b* is shown enlarged, to better show its attachment to the frame and the attachment of the coverer-spring to a rearwardly-extending flange, *b'*. With this form of brackets the construction is cheapened and the coverer-springs are attached in a substantial and desirable manner.

In the hopper and extending from side to side is the shaft G, having two downwardly-projecting teeth, *g*, which obstruct the revolution of the seed by contact with the feeding-wheel, thus preventing their forming into a mass. It is found in practice that the bottom ends of the teeth *g* should slope toward the front, as shown in Fig. 1, and outwardly at the bottom, as shown in Fig. 2, for the purpose of preventing the massing of the seeds on them. For the same reason the stirrers should slope outwardly, as shown in Fig. 2. The seeds of upland cotton, being covered with short adhering fiber, require stirring in the hopper of a planter to prevent their arching over at the discharging-hole, and, for the same reason, they are inclined to mat around the moving parts, forming a mass that is so

compact as to cause the seeds to be carried over and past the discharging-aperture, which difficulty is overcome by placing the fingers *g* between the moving feeding device and the stirrers, as they prevent the formation of an adhering mass.

The side pieces, A, Figs. 1, 2, and 3, are bolted at their rear ends to the hopper, and at their forward ends by the bolts *t* to the beam *a'*, which is preferably of metal. This beam has in its vertical sides grooves for the plow-standards *p*, which grooves are slightly shallower than the thickness of the standards. On each side of the standards are the bolts *t*, which pass through the beam and the side pieces, A, and hold the plow-standards firmly clamped between the side pieces and the bottoms of the grooves. The plow can be adjusted in height by loosening the nuts on the bolts *t*, when the standards will slide freely through the grooves in the beam. Between the standards *p*, at the bottom ends, I fasten by a bolt or rivet the piece *p'*, through which the attaching-bolt of the plow P passes, and which also carries a shoulder, *p''*, against which the top end of the plow abuts.

I find that the construction and attachment of the plow-standard, as shown—that is, with standards pressing on both sides of the beam *a* and clamped by the pieces A and bolts *t*—is better than those ordinarily used in planters, as it is more easily adjusted to any height and has greater strength and rigidity.

The beam *a* with the side pieces, A, forms the frame of the planter, and has an upwardly and forwardly projecting tongue, *a'*, in which are the holes *a''* for the attachment of the whiffletree. As many more holes may be added as is desirable; but I find that two are generally sufficient.

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

1. In a cotton-planter, a feeding and stirring device consisting of the shaft E, having flange *e* and stirrers *e'*, and the feeding-wheel C, having a web to attach to the flange, and the slots *c* and *c'*, substantially as shown and described, and for the purpose specified.

2. In a cotton-planter, the combination of the frame A, the hopper secured to the same, and having an adjustable outlet consisting of the frame H, carrying bars *h'*, the slides *h*, the bolts K, and slots in the bars *h'*, for the adjustment of the slides, the shaft E, having the flange *e* and stirrers *e'*, and the feeding-wheel C, having a web attached to the flange, and the slots *c* *c'*, all arranged as and for the purpose specified.

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

JAMES T. GANTT.

Witnesses:

CHAS. C. MARTIN,
W. D. WILLIAMS, JR.