(No Model.)

T. C. YOUNG.

CORN PLANTER.

No. 306,309. Patented Oct. 7, 1884.

Fig. 1

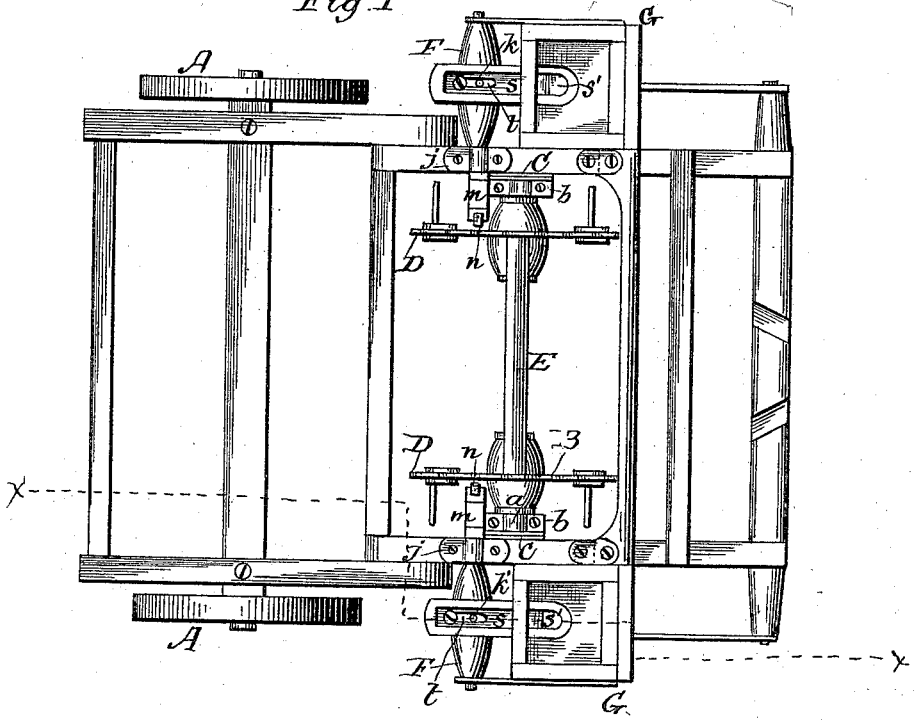


Fig. 2

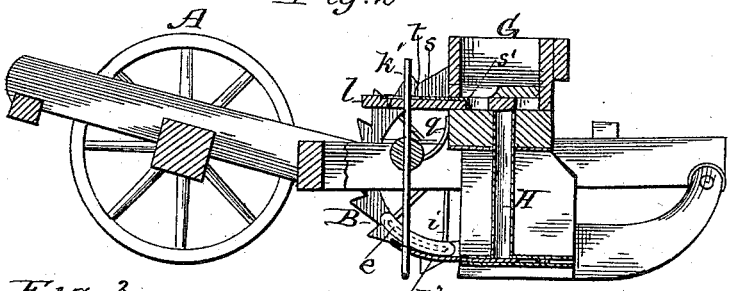


Fig. 3

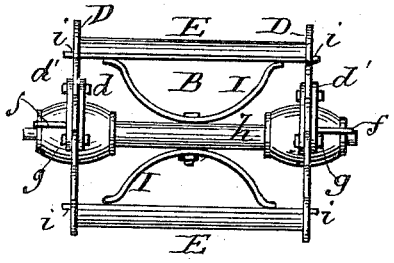


Fig. 4

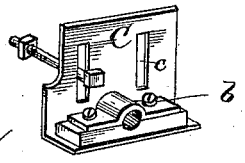
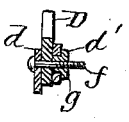


Fig. 5.



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UNITED STATES PATENT OFFICE.

THOMAS CARR YOUNG, OF ST. CHARLES, IOWA.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 306,309, dated October 7, 1884.

Application filed January 24, 1884. (No model.)

To all whom it may concern:

Be it known that I, THOMAS C. YOUNG, a citizen of the United States of America, residing at St. Charles, in the county of Madison and State of Iowa, have invented certain new and useful Improvements in Corn-Planters; 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.

My invention relates to certain improvements in corn-planters; and it consists of the improved construction and combinations of parts, fully described hereinafter, whereby machines of the class to which my invention appertains are greatly improved, the planting operations rendered positive and certain, and the general structure made more durable and simple.

In the accompanying drawings, Figure 1 is a plan view of a planter constructed in accordance with my invention. Fig. 2 is a section on the line 1 2 of Fig. 1. Fig. 3 is a front view of the drum, and Fig. 4 is a detail view of one of the journal-boxes adjusted to the inner sides of the frame, and in which one of the journals of the revolving drum bears. Fig. 5 is another detail.

The general construction of the machine in which the present improvements are embodied is somewhat similar to that shown and described in the Letters Patent No. 185,615, granted to me December 19, 1876, to which special reference may be had in order to comprehend such general construction. In said patented construction a pair of sleeves sliding on the shaft of a revolving drum carried each a small arm adapted, when the sleeves were moved, to gear with a fixed part of the shaft, which reciprocated the slide and the cut-off of each of the hopper and the delivery-tubes. In the present improvement the carrying-wheels A are located on a pivoted frame independent of the revolving drum B. The journals *a* of the drum B bear in boxes *b*, secured each to a plate, C, having vertical slots *c*, through which the heads of the securing-bolts located in the frame pass, and are threaded to receive nuts adapted to clamp the plate C against the side of the frame to vertically adjust the boxes and the drum. The drum B carries near each end a circular saw or toothed wheel, D, provided on its inner and outer sides, and diametrically opposite each other, with plates *d d'*, the outer plate, *d'*, provided with curved slots *e*, in which are located horizontal pins *f*, secured to the plate *d*, and threaded on the ends bearing in the slots, so as to be clamped at any point along the said slots by means of nuts *g*. Bars E are arranged between the saws D parallel with the shaft *h* of the drum, and are recessed at their ends to embrace one of the spokes, *i*, of the circular saws, to prevent lateral displacement of the said bars, arched springs I, secured to the shaft *h* of the drum B, affording bearings for the bars E. Two small rock-shafts, F F, are journaled in bearings *j* on the side bars of the frame, and carry arms *k k'*, connected, respectively, to the slide d^2 of each seed-hopper G, and to the cut-off located at the lower end of each grain-spout H. The inner end of each rock-shaft F projects sufficiently within the supporting-frame as to be on a line with the saws located on the drum B, and each rock-shaft carries at said inner end a bracket, *m*, having pivoted thereto an arm, *n*, adapted to be moved to a vertical or horizontal position. A leaf-spring, *q*, secured, respectively, to the planter below the seed-hopper and to each rock-shaft, effects the return of the seed-slide to its normal position after said shaft is turned in its bearings. A cut-off, *s*, is secured to the upper face of each seed-slide *l*, and is provided with a slot, *t*, to adjust the degree to which the other end, *s'*, of the same covers the opening in said slide, and thus regulates the quantity of seed passing into the delivery-tube. The said end *s'* is also bent to bear against the under side of the bottom of the seed-hopper, and effects the positive movement of the slide within the opening.

From the foregoing description it will be apparent that the arrangement of bearing-boxes for the drum permits the vertical adjustment of the same, thus regulating the depth of the channels made by the circular saws; that the marking-bars E, by being spring-seated, do not communicate to the drum any shock

they receive by meeting with an obstruction and interfering with the even cut of the said saws, and that as the said saws revolve the horizontal pins on the same strike the vertical arms *n*, rocking the shafts F in their bearings and operating the seed-slides and cut-offs. Moreover, it will be obvious that the horizontal pins *f* of each saw can be so adjusted in the curved slots of the plates *d d'* as to vary the interval of time between the successive contact of each pin with the vertical arm of the rock-shaft, and hence vary the dropping of the grain.

By moving the cam-button of either rock-shaft, the same, with its seed-slide and cut-off connections, may be suspended independently of the dropping devices of the other side of the machine, or the operation of both may be discontinued, if desired.

I claim—

1. The combination, in a corn-planter, of a revolving drum provided with circular side sections and with spring-seated marking-bars, and bearing in vertically-adjustable bearing-boxes, substantially as set forth.

2. The combination, in a corn-planter, of a revolving drum provided with circular side sections having slotted plates bolted to their sides and horizontal pins adjustably clamped in said slots, and adapted to contact with and operate the seed-slides and cut-offs upon the revolution of the drum, substantially as set forth.

3. The combination, in a corn-planter, of a drum having circular side sections provided with plates having curved slots, of horizontal pins clamped adjustably in said slots, and adapted when the drum is rotated to come in contact with an arm pivoted in a bracket secured to the ends of a rock-shaft operating the seed-slides and cut-offs, and adapted to be retained in a vertical position by cam-buttons, substantially as set forth.

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

THOMAS CARR YOUNG.

Witnesses:
GEO. W. SEEVERS,
JOHN WILLIAM MANN.