

T. R. MARKILLIE.

Corn-Planter.

No. 13,794.

Patented Nov. 13. 1855.

Fig. 1.

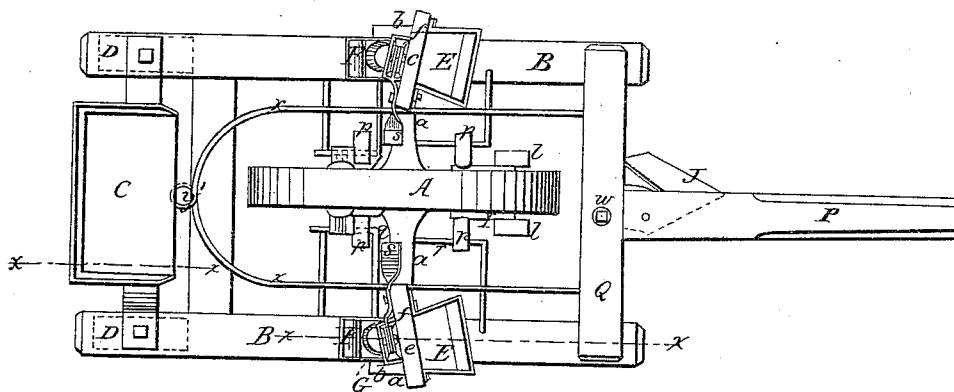


Fig. 2.

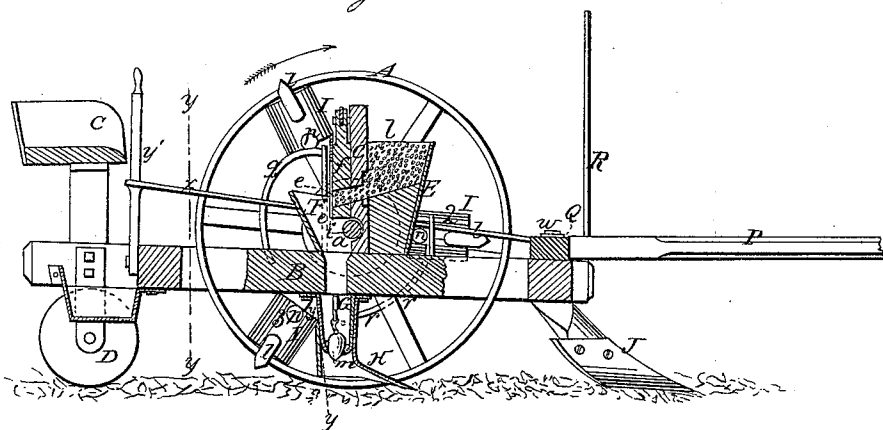
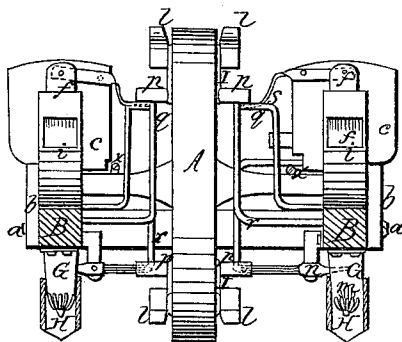


Fig. 3.



UNITED STATES PATENT OFFICE.

THOS. R. MARKILLIE, OF WINCHESTER, ILLINOIS.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. 13,794, dated November 13, 1855.

To all whom it may concern:

Be it known that I, THOMAS R. MARKILLIE, of Winchester, in the county of Scott and State of Illinois, 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 of the construction and operation of the same, reference being had to the annexed drawings, forming part of this specification, in which—

Figure 1 represents a top view of the planter. Fig. 2 is a vertical section on line *x x* of Fig. 1. Fig. 3 is a transverse section on *y y*.

Similar letters of reference in the several figures denote the same part of the planter.

The object of my invention as an improvement in corn-planters is to insure the instantaneous dropping at the proper time of the number of grains for a hill, and to mark the spot at the time of dropping, so that the hills may be aligned across as well as in the direction of the planting.

It consists in employing upon certain of the spokes of the main wheel weighted markers traversing the said spokes alternately by the action of gravity and of guides, arms of said markers operating the depositing mechanism during the movement of the markers by the action of gravity, as will be set forth.

The details of construction and operation will readily be understood from the following description and reference to the drawings, in which the several parts are thus represented.

A is the main wheel, supporting frame by axle *a* extending across and turning in boxes *b*.

B is the frame, supported by wheel A and steadied by covering-wheels. On each of the sides of the frame is constructed a depositing apparatus, operated simultaneously in a manner to be described. The rear of the frame is provided with a seat, C, for the driver, whose weight gives effect to the covering and clod-breaking wheels D.

E is the main hopper, the bottom inclining toward the back *c*, as seen in Fig. 2. This back piece has an opening, *d*, the capacity of which is regulated by a slide. Behind this back piece is a vertically-moving slide, *f*, having an opening, *e*, communicating by opening *d* in back piece, *c*, with the main hopper, as seen in Fig. 2, the opening *e* in slide *f* being masked by the guide *i*, in which the slide

moves when it is in communication with the main hopper.

F is the secondary hopper, behind piece *c*, and in communication with the depositing-tube G. This hopper receives the contents of cavity *e* of slide *f* when said slide is lifted, so as to unmask the cavity.

G is the depositing-tube within the opening-tooth H, and closed by the weight *m* at the extremity of lever *n*, Fig. 3.

I represents weighted markers, having marking-points *l* and arms *p*, said arms moving upon guides *q* and *r*, as shown in Figs. 2 and 3. The movement of these markers is as follows: The wheel, revolving in direction of arrow No. 1, is carried up on guide *q*, and falls by its weight to the hub of the wheel as arm *p* passes off said guide. When in position of No. 2 the arm catches guide *r*, and the marker is supported by it until the lower end of said guide is reached, when the marker falls by its weight to the rim of the wheel, as shown by No. 3. The effect of these markers on the depositing mechanism is for the arm of No. 1, in passing from the upper end of guide *q*, to fall upon lever *s* and lift slide *f*, Fig. 3, and No. 2, in passing to the position of No. 3, to fall on lever *n* and lift the stopper-weight *m*.

J is the track-clearer, secured to the front of frame, to remove obstructions and furnish a clear path for wheel A.

P is the draft-pole, fastened to cross-piece Q, which is movable about a bolt, *w*, at the will of the operator, through connecting-rods *x* and lever *y*.

R is a pole to govern direction of movement of the planter.

The operation of the planter is as follows: The main hopper is filled with corn, the opening in its back being first adjusted to the passage of the desired number of grains for a hill, which will pass into opening *e* in slide *f*. Marker No. 1 lifts slide *f*, as above described, and the grains for the hill fall into the hopper F, and pass thence into tube G, and rest upon stopper-weight *m*. The continued rotation of wheel A causes marker No. 2 to lift weight *m*, as above described, during its fall to the rim of the wheel, the points *l* making a mark by the side of the track of the wheel simultaneously with the fall of the grain from tube G. The marker I, No. 3, in due time lifts slide *f*

supplying tube G with grain for another hill, which is delivered by the fall of No. 1. In this manner the operation continues to the end of the field, the operator sighting by pole R to insure the proper direction, and correcting any error by lever y'. The rollers D, which pass over the furrows made by teeth H, pulverize and break any clods which may have closed upon the planted corn. In returning, the first hill is deposited in a line with the last of the previously-made furrow, and the machine driven forward as before, the operator observing that the indentations of the marker-points are aligned with those previously made, and correcting any slight error that may occur by accelerating or retarding the main wheel with his foot. The driver will also observe that there is no failure in the passage of seed to the secondary hopper, his position above it permitting him to readily observe the operation of the planter.

With this machine the main wheel travels

in a clear track, favoring regularity of motion, and the seed is deposited all at once by the action of the marker, so as to insure the exact alignment of the hills and marks, and thereby give accuracy to any corrections based on the marks. The operation of all parts of the planter is under constant supervision of the driver, who, unless extremely negligent, cannot fail to effect corn-planting in a superior manner.

Having described my invention and the operation thereof, I claim—

The reciprocating weighted markers I, acting, substantially as described, to perform the double function of operating the planting apparatus and marking the hills, substantially as specified.

In testimony whereof I have hereunto signed my name before two subscribing witnesses.

THOS. R. MARKILLIE.

Witnesses:

JOHN S. HOLLINGSHEAD,
GEO. PATTEN.