G. King.

Seed Planter.

No. 47,024. Patented Mar. 28, 1865.

Fig. 1.

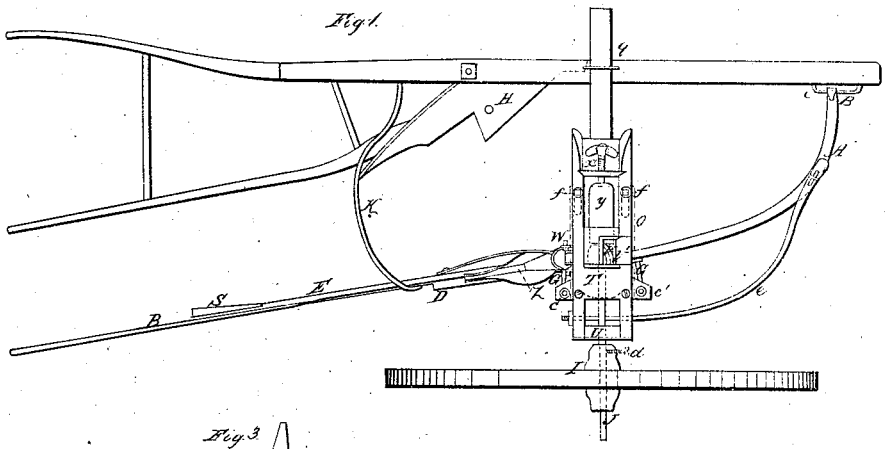


Fig. 3.

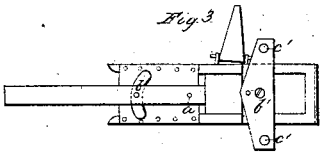


Fig. 5.

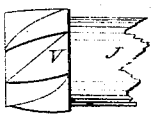
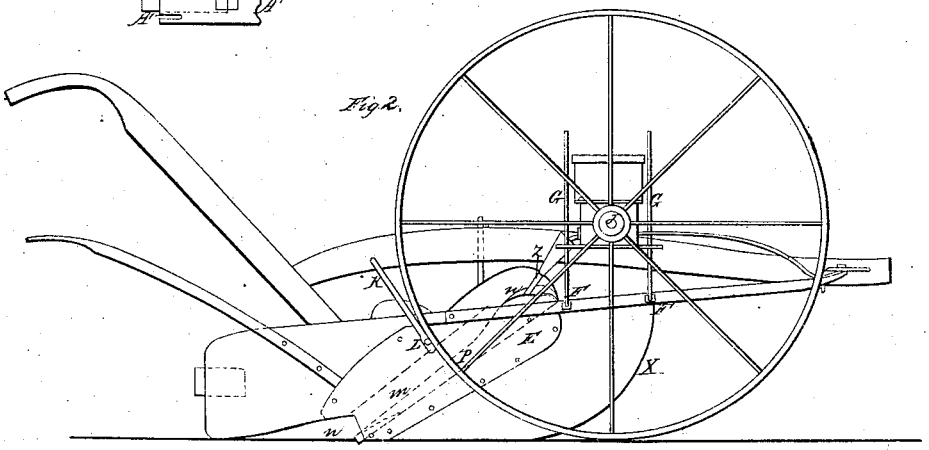


Fig. 4.

Fig. 2.



Witnesses.
G. H. E. Smith
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Inventor.
Gideon King

UNITED STATES PATENT OFFICE.

GIDEON KING, OF EMINENCE, KENTUCKY.

IMPROVED WHEAT-DRILL.

Specification forming part of Letters Patent No. **47,024**, dated March 28, 1865.

To all whom it may concern:

Be it known that I, GIDEON KING, of the town of Eminence, in the county of Henry and State of Kentucky, have invented a new and useful Machine for Drilling Wheat or Small Grain, which I style "G. King's Wheat-Drill;" 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, making a part of this specification, in which—

Figure 1 is a plan view; Fig. 2, a side elevation. Fig. 3 is a view of the under side of the feed-frame. Fig. 4 is a view of the under side of the hopper. Fig. 5 is an enlarged view of the feed-nut.

A curved propelling rod or shaft, A, Fig. 1, with movable hook B, is attached in a staple, C, in the fore end of the plow-beam on the mold-board side, forms a parallel with the beam, and terminates opposite mold-board H. To this is attached an inch-and-a-quarter drill-board, E, four to five feet long and fifteen inches wide, by means of half-inch bolts, which extend through and beyond shoulder-heads F F, Fig. 2, forming standards G G, Fig. 2, fifteen inches long and eight inches apart, fixing the fore end of the drill-board E, Fig. 2, about one foot ahead of the mold-board H, Fig. 1, which drill-board works on its edge, being sloped upward, as at X, Fig. 2. This drill-board is held erect and at a proper distance from the plow by means of a spring-metal curved rod, K, and is attached to the plow by a screw-pin, passing through the lower end of the plow-handle, lower end of said rod, and screwed into the lower end of the helve of the plow near the mold-board. Said rod curves up, as at K, a distance sufficient to let the turning soil pass under it when plowing, the opposite end being screwed to the drill-board, as at L, Fig. 2. A tube is inserted in the drill-board, as indicated between dotted lines M, on the opposite side from the plow, covered with sheet-iron, as at E L M, inclining downward and backward from U to N, Fig. 2, terminating in the notch at N. In this tube a thin metal conductor, P, is placed, the lower end being raised or lowered by means of a wedge, as at N, at the notch, by which the grain can be put in the ground at any depth desired. At the upper end of said tube a sheet-iron fender, N, is made secure to prevent dirt being thrown in this tube. A small handle, R, is fastened by screws or bolts to the hind end of the drill-board E, Fig. 2, to raise it in turning. A sheet-iron divider is riveted to the hind end of the drill-board, as at S, Fig. 1, which is pressed open at the extreme hind end by a wedge (held by a screw) to a thickness desired, which makes a large or small valley, where the grain is located, to suit the wishes of the planter.

The feed-frame O, which extends from the plow-beam across the drill-board E, is twenty inches long, three inches deep, and five to six inches wide, having a cross-block, T, and one at *u*, through the center of which (cross-blocks) an inch shaft works or revolves twenty inches long, to one end of which a screw feed-nut, V, one and one-half inch in diameter, is screwed onto a screw inserted into the end of the shaft J, Fig. 5, which nut revolves against the center cross-block, T, to which a block is screwed containing an oval chamber for the feed-nut V. This chamber is round, like the nut, but is about three-sixteenths of an inch larger on all sides where the grain passes, obviating all possibility of grains being crushed. The nut is close to the upper side of the chamber, which has an opening next the hopper at V, and discharges the grain at W, where it is thrown into a flexible hose, Z, which hose enters and plays in the tube M of the drill-board E behind the standards G G, Fig. 2. The feed-nut is secured at the end by a round stopper, Y, entering the nut-chamber, and is pressed by a temper-screw, X′, to a tightness desired. A supporting-shaft, *b*, is screwed to the under side of the feed-frame at *a*, Fig. 3, with an adjustable screw at *b*, Fig. 3, which works in a sliding groove, *b*, so as to move this end of the feed-frame backward or forward, which shaft extends to and plays in a staple on the plow-beam at *q*, Fig. 1. The other end of the feed-frame works between the standards G G, Fig. 2, and is held in place by them by means of a cross board, *b′*, Fig. 3, fastened to the under side of the frame by a screw inserted loosely, so that the board accommodates itself to the standards G G, which have holes in each end *c′ c′* for the standards to work or play through, the frame moving up or down, as the ground may be rough or smooth, and is supported by a light wheel, I, Fig. 1, three and one-third feet high, which

drives the feed-nut shaft J, Fig. 1, and works on the opposite side of drill-board E from the plow. The wheel slides on the shaft to any point desired, and made fast by means of screw *d* in the hub, both of which are propelled by a rod, *e*, inserted and screwed in feed-frame at U, Fig. 1, which extends to rod at A, Fig. 1, where it is slipped over a thumb-screw head, which, when turned, secures it.

The feed-nut, Fig. 5, is fluted diagonally at one end, the feed being increased or diminished by nuts with larger or smaller flutes, (substituting at pleasure.)

The hopper, Fig. 4, is confined on the feed-frame O, Fig. 1, by thumb-screws *f f*, working in slots A′, Fig. 4, which is slipped off or on by turning or unturning said screws, by which it is made fast to the frame.

The staple C, Fig. 1, is made six to eight inches long, so that the plow can be drawn backward in case it hangs on roots or otherwise requires a backward motion, without moving the drill backward at the same time.

This drill operates by the side of a plow, and drills the grain during the process of breaking the ground. The drill-board E follows the previously-made furrow. The fore end, being ahead of the turning or breaking soil, receives it on its side next the plow, the opposite side of the drill-board sliding by the side of the soil turned the previous trip. Thus the drill board being pressed by it on both sides, it is drawn between the soil of two turnings, conducting the grain through the tube M, discharging it at N, leaving a beautiful valley over the grain deposited, in which it is designed to grow. The wheel turns in it the following trip.

What I claim as my improvement, and desire to secure by Letters Patent, is—

1. The drill-board E, in combination with the plow, as specified.

2. The feed-frame O, in combination with the drill-board E, as and for the purpose set forth.

3. The shaft *q*, for connecting the drill-board E to the plow-beam, as and for the purpose described.

4. Attaching the drill-board E to the forward end of the plow-beam by means of the propelling-rods A and *e* and staple *c*, as and for the purpose specified.

5. The feed-nut V, in combination with the drill-board E and wheel I, when constructed as and for the purpose set forth.

6. The adjustable wedge in the heel of the drill-board E, and in combination therewith, as and for the purpose specified.

7. The adjustment of the wheel I upon the shaft J, in combination with the drill-board E, as and for the purpose described.

8. The stopper Y and temper-screw X′, in combination with the feed-nut V, as specified.

9. Attaching the drill-board E to the heel of the plow by means of the curved rod K, as and for the purpose set forth.

10. The adjustable plate S at the rear end of the drill-board E, for the purpose described.

11. Depositing the seed between the last furrow plowed and the furrow being plowed, as herein specified, by means of the drill-board E.

GIDEON KING.

Witnesses:
R. L. TINSLEY,
L. E. BROWN.