

G. D. HAWORTH.

Corn-Planter.

No. $\left. \begin{array}{l} 2,192, \\ 33,196. \end{array} \right\}$

Patented Sept. 3, 1861.

Fig. 1.

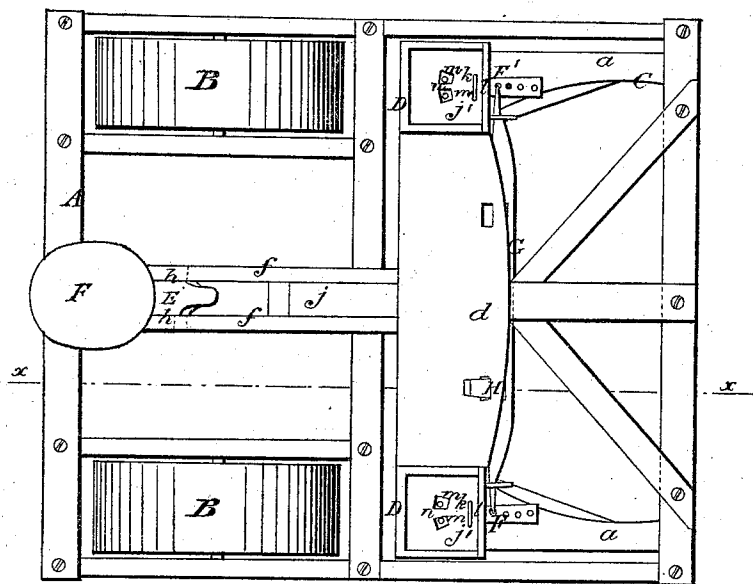
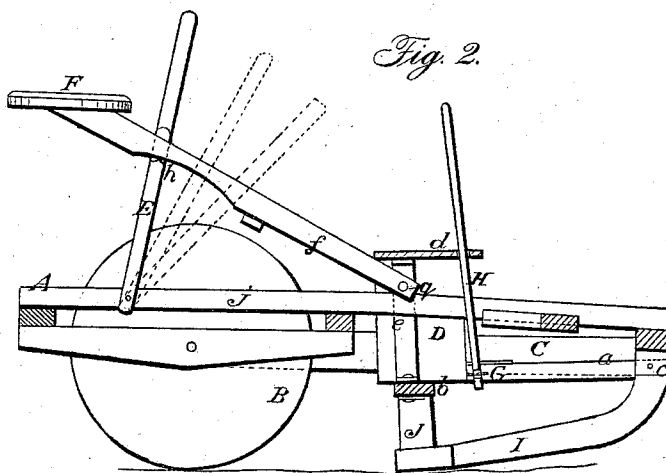


Fig. 2.



Witnesses:

J. C. Comby
W. Tusch

Inventor:

G. D. Haworth
by Mann & Co
attys

UNITED STATES PATENT OFFICE.

G. D. HAWORTH, OF DECATUR, ILLINOIS.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. 33,196, dated September 3, 1861.

To all whom it may concern:

Be it known that I, G. D. HAWORTH, of Decatur, in the county of Macon and State of Illinois, have invented a new and Improved Corn-Planter; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a plan or top view of my invention. Fig. 2 is a side sectional view of the same, taken in the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts in both figures.

This invention consists in a novel and improved way of adjusting and graduating the depth or penetration of the furrow-shares in the earth, whereby the driver may have complete control over said shares and readily adjust the same at any given depth in the earth, according to the depth the seed is required to be planted, and also readily elevate the shares above the surface of the ground when required, as in moving or transporting the device from place to place.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a rectangular frame, the back part of which is supported by two wheels, B B, which also serve as rollers, and C is a frame, which is formed of two side bars, *a a*, connected at their back ends by a cross-bar, *b*. The front ends of the side bars, *a a*, are connected by hinges or joints *c c* to the front end of the frame A, and on the cross-bar *b*, near each end, there is attached a seed-box, D, the upper ends of which are connected by a board, *d*, that forms the "dropper's" seat.

To the cross-bar *b*, at about its center, there are secured two uprights, *e*, to which two bars, *f f*, are secured by pivots *g*. The bars *f f* extend backward and rest upon the shoulders *h h* of a bar, E, the lower end of which is connected by a joint, *i*, to a longitudinal center bar, *j*, of frame A. The bar E extends upward between the bars *f f*, and on the back part of

the latter the driver's seat F is placed, the bar E being before it. By this arrangement it will be seen that the weight of the driver on his seat F is made to serve as a counterpoise for the frame C, the shoulders *h h* of bar E being the fulcrum of the bars or levers *f f*; and it will also be seen that by adjusting bar E the fulcrum of the bars or levers *f f* may be changed in position as desired, so that the weight of the driver may be made to act in a greater or less degree on frame C, as desired.

The bottoms *j' j'* of the seed-boxes D D are each perforated with a curved slot, *k*, and underneath each bottom *j'* there is placed a plate, F', through which a pivot, *l*, passes, said plate being perforated to form seed-cells *m n*, which work underneath the center cross-bar, *m*, in the slots *k*. The outer ends of the plates F are connected by a rod, G, into which the lower end of a lever, H, fits, said lever extending up through the front part of the dropper's seat *d*.

To the under side of the side bars, *a a*, there are attached furrow-shares I, the back parts of which are secured to seed-tubes J, through which the seed is discharged into the furrows. The seed-distributing apparatus may be arranged in any suitable way, any of the kinds which are operated by a vibrating lever being employed.

The driver may readily shift or change the position of the bar E with his hand, and at the same time change the fulcrum of the bars *f f*, so as to regulate the depth of the penetration of the furrow-shares, as circumstances may require.

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

The combination and arrangement, as herein shown and described, of the frame C, with the bars or levers *f f*, driver's seat F, and the adjustable bar E, for the purpose specified.

G. D. HAWORTH.

Witnesses:

J. W. HAWORTH,
M. HAWORTH.