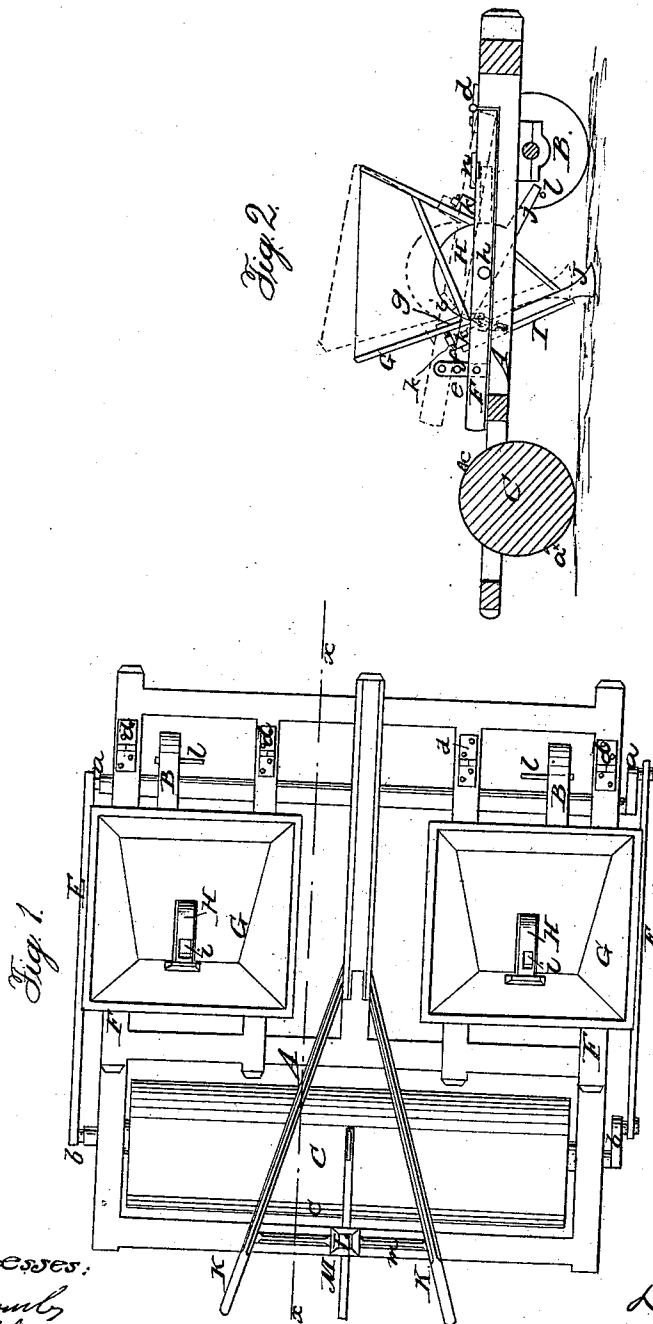


D. W. M. LOWER.

Corn-Planter.

No. 28,879.

Patented June 26, 1860



Witnesses:  
J. W. Connelley  
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# UNITED STATES PATENT OFFICE.

D. W. M. LOWER, OF ALBIA, IOWA.

## IMPROVEMENT IN SEEDING-MACHINES.

Specification forming part of Letters Patent No. 28,879, dated June 26, 1890.

### *To all whom it may concern:*

Be it known that I, D. W. M. LOWER, of Albia, in the county of Monroe and State of Iowa, have invented a new and Improved Seeding-Machine; 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, a longitudinal vertical section of the same, taken in the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

This invention relates to that class of seeding-machines designed for planting corn and other seeds in hills and in check-rows.

The object of the invention is to place the machine under the entire control of the attendant or the operator and insure a uniform dropping of the seed, as well as regulating the depth of the planting of the same as circumstances may require.

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, which is supported by two wheels, B B, at its front end and a roller, C, at its back end. The wheels B B are firmly keyed on the same axle, D, the ends of which are provided with cranks *a a*, which are placed at right angles with each other and coincide in position with cranks *b b* at the ends of the shaft of roller C, the cranks of the roller and axle being connected by rods E E. This connecting of the roller and wheels by the cranks and rods insures a simultaneous movement of the former, the object of which will be hereinafter shown.

The roller C is provided at its periphery with a longitudinal rib or projection, *c*, which serves as a marker, as will be presently shown.

On the upper part of the frame A there are secured two adjustable frames, F F, one near each end, as shown in Fig. 1. These frames F are attached at their front ends to the frame A by hinges *d d*, and through the back parts of these frames F perforated standards *e* pass, by which the frames F may be secured at any desired height within the range of their movement by means of pins *f*.

On each frame F a hopper, G, is placed. These hoppers have inclined bottoms, which

are slotted, and provided at the lower ends of their slots with a cut-off brush, *g*. In each frame F a shaft, *h*, is placed, and on each shaft a semi-wheel, H, is placed loosely. These semi-wheels project up through the slots in the bottoms of the hoppers, and are each provided with a seed-cell, *i*, and a projecting bar, *j*, as shown clearly in Fig. 2. The hoppers G G rest on cross-bars *k k* of the frames F, and to the back cross-bar of each frame a seed-conducting tube, I, is attached, and also a furrow-share, J, as shown in Fig. 2. To each wheel B a horizontal pin, *l*, is attached. The pins of the two wheels correspond in position.

K K are handles attached to the frame A, and L is an upright attached to the back part of the frame A, said upright having a bar, *m*, passing horizontally through it, to which the outer parts of the handles are attached. This upright L has a lever, M, fitted to it, which lever has a hole in its front end for the purposes hereinafter described.

The operation is as follows: As the machine is drawn along the pins *l* of the wheels B will at every revolution of said wheels actuate the semi-wheels H, throw the seed-cells downward out of the hoppers, and sufficiently far to allow the seed to fall in the tubes I, the latter being in line with the semi-wheels H. The cut-off brushes *g* perform their usual function—that is, prevent any more seed than the cells *i* will hold passing out from the hoppers at any one time or at one movement of the semi-wheels H. When the pins *l* have passed the ends of the bars *j j* of the semi-wheels H, the bars *j* will fall by their own gravity, and cause the seed-cells *i* to pass upward within the hopper, to be again filled, and then turned down and relieved of their contents by the action of pins *l* at the succeeding revolution. The shares J open the furrows to receive the seed, and the roller C pulverizes the earth and covers the seed.

The seed may be planted at different depths by elevating the back part of the frames F F, as the shares J are attached to said frames; and at any time where the distribution of the seed is not required the bars *j* of the semi-wheels H may be retained in an elevated state, and beyond the actions of the pins *l*, by means of slides *n n* on the frames F.

The longitudinal rib or projection *c* on the roller C has such a position relatively with the

pins *ll* of the wheels B B that the rib *c* will indentate the earth at each dropping of the seed. By this arrangement the attendant will always be able to insure the dropping of the seed in check-rows, for the bar *c* at the planting of each row designates or points out the droppings of the previously-planted row, and in case the droppings of the former do not coincide with the latter the attendant, by means of lever M, placing the front end of the same on a pin, *a*<sup>x</sup>, of the roller C, checks the motion of the same, and consequently the motion of wheels B, and allows the machine to slip along to the proper seed distributing or dropping point, and there releases the roller and wheels, so that the seed may be dropped. By this means it will be seen that the seed-distributing device is placed under the complete control of the attendant, and an even or true planting of the seed in check-rows insured.

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

1. The connecting of the wheels B B and roller C by means of the cranks *a a b b* and rods E, when said wheels and roller have the pins *ll* and rib *c* attached, respectively, to them, as shown, and are used in connection with the seed-distributers H, or their equivalents, substantially as and for the purpose specified.

2. The attaching of the shares J, hoppers G, and seed-distributing devices to adjustable frames F, arranged, as described, to admit of the varying of the depth of the furrows, as circumstances may require.

D. W. M. LOWER.

Witnesses:

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