

B. FICKES.

Improvement in Fertilizer-Distributers.

No. 130,707.

Patented Aug. 20, 1872.

Fig. 1.

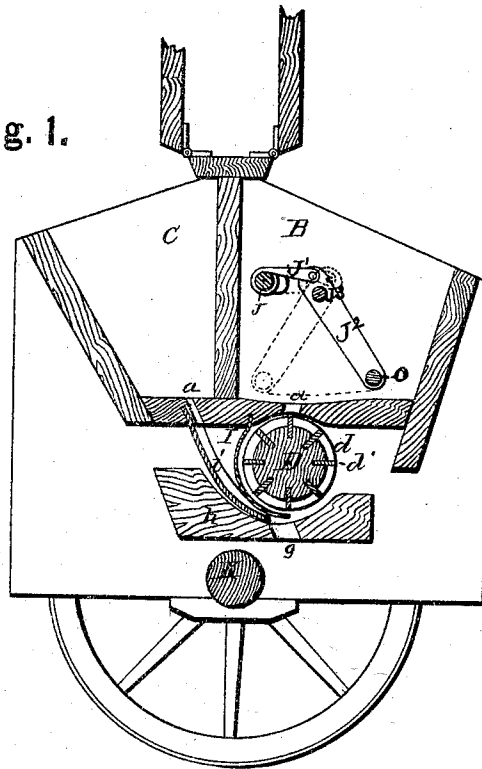
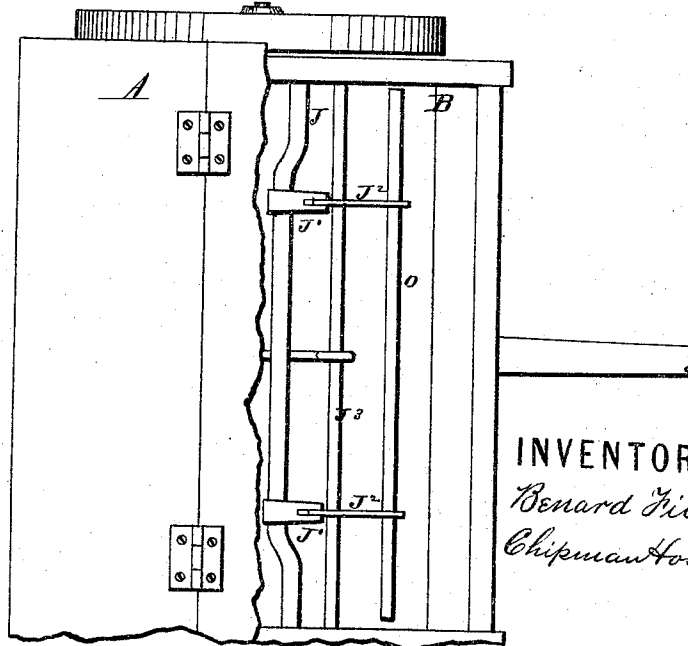


Fig. 2.



WITNESSES.

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G. E. Upham.

INVENTOR.

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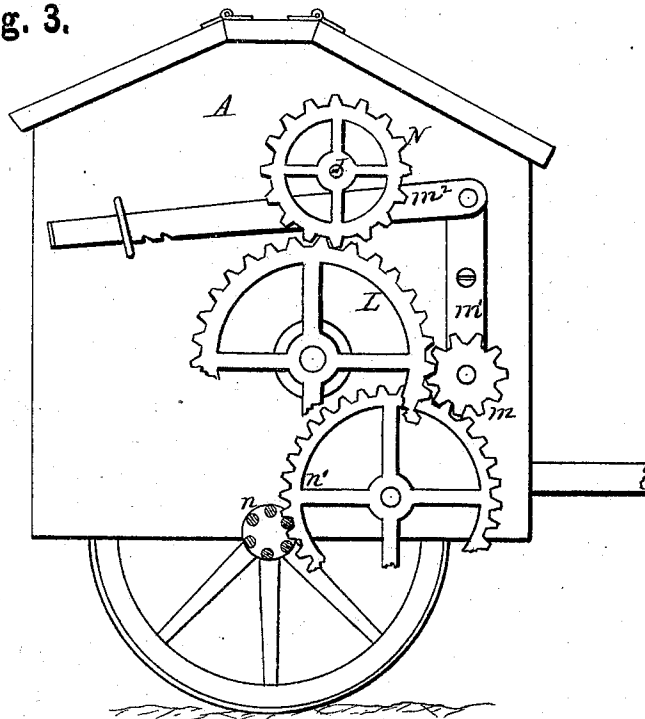
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Fig. 3.



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UNITED STATES PATENT OFFICE.

BENARD FICKES, OF NORTH CODORUS TOWNSHIP, YORK COUNTY, PA.

IMPROVEMENT IN FERTILIZER-DISTRIBUTERS.

Specification forming part of Letters Patent No. 130,707, dated August 20, 1872.

To all whom it may concern:

Be it known that I, BENARD FICKES, of North Codorus Township, in the county of York and State of Pennsylvania, have invented a new and valuable Improvement in Fertilizer-Distributers; 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 drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a vertical transverse section of my invention. Fig. 2 is a top view of the same with part of the cover removed. Fig. 3 is an end view.

This invention has relation to a combined fertilizer-distributer and seed-planter; and consists, first, in the construction and novel arrangement of devices for preventing the fertilizing material from clogging up the passages or arching within its hopper; and, secondly, in the construction and novel arrangement of devices by means of which the cylinder and the vibratory frame within the fertilizer-hopper are properly operated, all as hereinafter described.

Referring to the accompanying drawing, illustrating my invention, A represents a box divided into two hopper-compartments, B C, designed, respectively, to contain seed and any desirable fertilizing material, such as guano, &c. The bottoms of each of these compartments are perforated, as shown at *a*, to allow their contents to escape. The hopper compartment B is located in front of the compartment C. Underneath the former is arranged a transverse rotary cylinder, D, constructed with a series of grooved ridges or collars, *d*, corresponding, respectively, to the perforations in the bottom of said compartment. The grooves of said ridges are divided into cups by means of radiating partitions *d'*. The fertilizing material falls from the hopper into these cups, and is carried around by the cylinder and deposited on the ground through apertures *g* in a concave board, *h*. While the fertilizing material is passing through said apertures it is met by and mixes with the seed, which is conducted to said apertures by means

of spouts *i*. I represents iron bands extending half way around the cylinder, and used for the purpose of preventing improper distribution of the fertilizer. Tubes or drills may be attached to the under side of the board *h*. J represents a crank-rod arranged in the upper part of the compartment B, and operated from the outside by means of suitable cog-gearing connected with the rotary axle K. The cylinder receives rotary motion from the same source, through the medium of an intervening gear-wheel, L. A pinion, *n*, on the axle, turns a spur-wheel, *n'*. The latter is brought into connection with the wheel L by means of an adjustable pinion, *m*, pivoted to a lever-arm, *m'*, which is operated through the medium of a notched lever *m''*. The wheel L engages with a wheel, N, on the end of the crank-shaft J. The rotation of the crank-shaft and cylinder is governed by the position of the pinion *m*. Attached to the crank-rods J are two arms, *J'*, to the ends of which are hinged two rods, *J''*, pivoted on a rod, *J'''*, and supporting on their ends a rod, O. As the implement moves the rod O vibrates above the perforations in the bottom of the hopper, thereby agitating the fertilizer and preventing it from arching or clogging.

The devices herein described for depositing fertilizing material may be used in connection with various kinds of seeding-machines or corn-planters.

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

1. The revolving crank-shaft J, having arms *J'*, pivoted levers *J''*, agitating-rod O with its operating mechanism, in combination with a machine for depositing fertilizing material, substantially as specified.

2. The combination of the gearing N L *n'* *m* *n* and levers *m'* *m''* with the grooved cylinder D, crank-shaft J, and partitioned hopper A, all arranged in the manner as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

BENARD FICKES.

Witnesses:

H. S. MCNAIR,
FRANK GEISE.