

(No Model.)

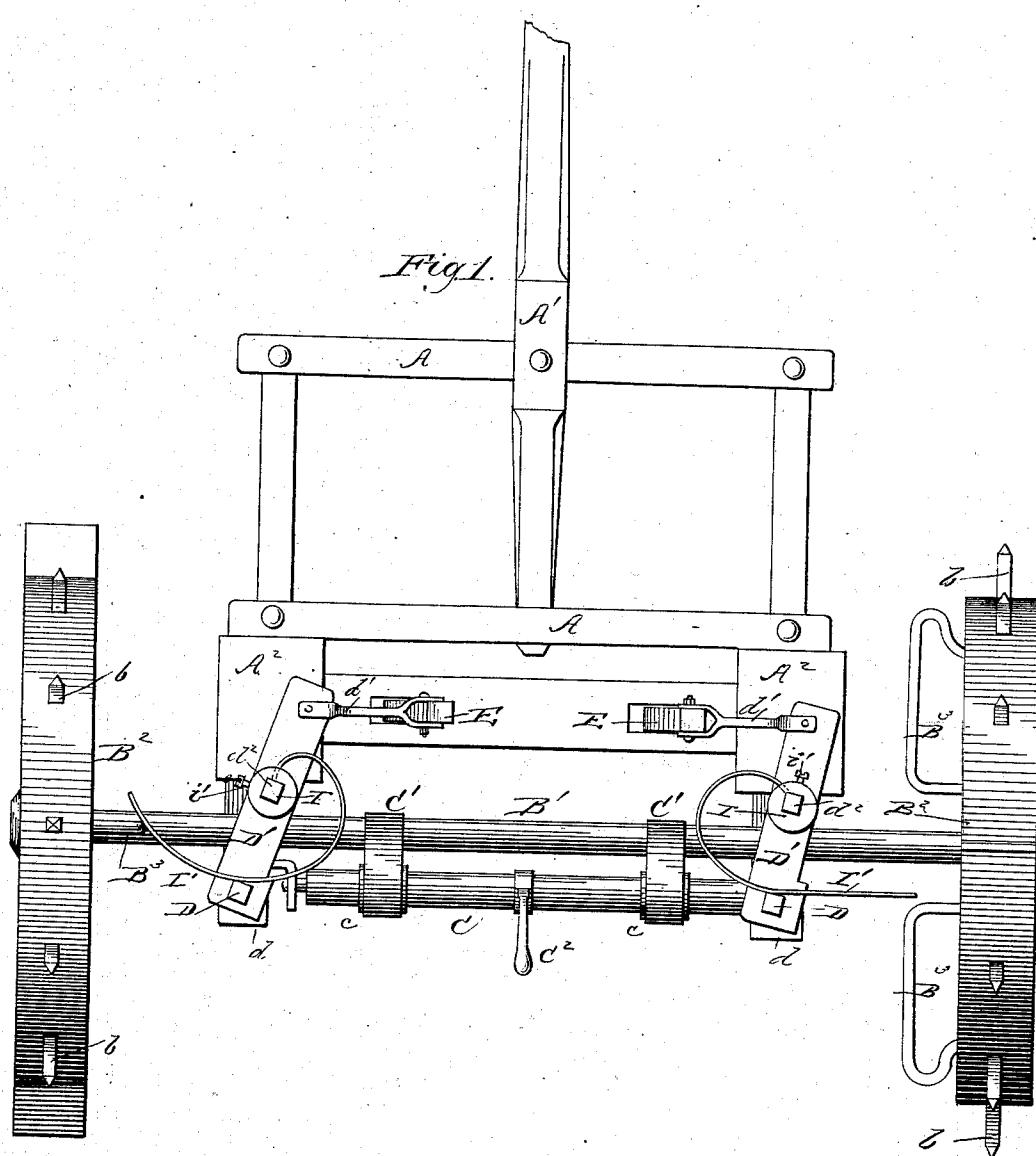
2 Sheets—Sheet 1.

S. DEMENT & S. D. & J. A. PALMER.

SEED DROPPER.

No. 288,317

Patented Nov. 13, 1883.



Witnesses.

Will R. Pinckney
A. C. M. Arthur,

Inventor
Samuel Clement;
Samuel B. Palmer
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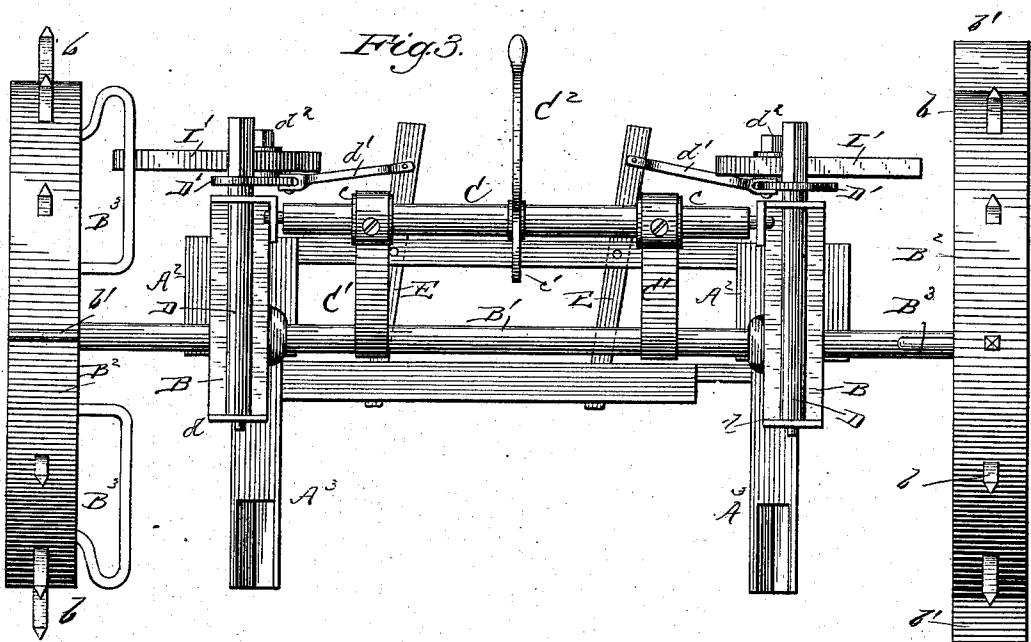
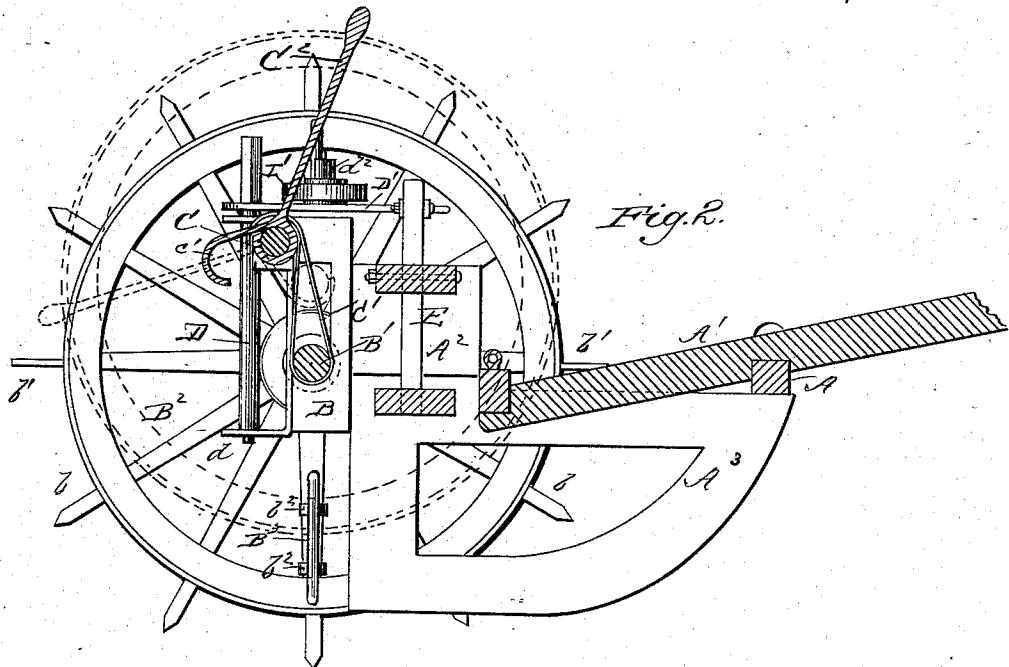
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UNITED STATES PATENT OFFICE.

SAMUEL DEMENT, SAMUEL D. PALMER, AND JOHN A. PALMER, OF EAST LYNN, ILLINOIS.

SEED-DROPPER.

SPECIFICATION forming part of Letters Patent No. 288,317, dated November 13, 1883.

Application filed May 8, 1883. (No model.)

To all whom it may concern:

Be it known that we, SAMUEL DEMENT, SAMUEL D. PALMER, and JOHN A. PALMER, citizens of the United States, residing at East Lynn, in the county of Vermillion and State of Illinois, have invented certain new and useful Improvements in Seed-Droppers, of which the following is a specification, to wit:

This invention relates to an improvement in seed-droppers; and it consists in certain peculiarities of construction whereby the seed-slide is operated by a spring-arm adapted to give way and prevent breakage, should the slide become clogged, substantially as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the accompanying drawings, in which—

Figure 1 is a plan view, Fig. 2 a longitudinal vertical section, and Fig. 3 a rear elevation, of our invention.

A represents the main frame of the machine, provided with the usual tongue, A', seed-boxes A², and openers or runners A³, as shown.

To the rear side of each seed-box, A² is secured a vertically-slotted frame, B, through which passes the axle B', having the wheels B² upon each end and free to rise and fall in the slotted frames, as will be readily seen by reference to Fig. 2.

In the upper ends of the frames B is also journaled a rock-shaft, C, provided with two pulleys or enlargements, c c, to which is secured a band, C, looped around the axle B', and adapted to be wound upon the rollers or pulleys as the shaft is turned, in order to lift the axle and its wheels free of the ground. The shaft C is also provided with a hand-lever, C', and a rigid hook, c', the latter adapted to pass under the axle when fully raised and hold it in that position, as shown by dotted lines in Fig. 2.

The wheels B² are formed of any desired size, and are provided on their peripheries with projections or points b, which catch in the ground and form means for enabling the wheels to drive the seed-slide. Each wheel is also provided on its periphery with two or

more flat paddles or markers, b', which mark in the ground the exact location of each hill of corn, in order that when one row has been planted the others may be dropped to correspond and place the hills in straight rows, as is usually done. Secured to the spokes by small clips opposite each marker b' is also an adjustable dropping-arm, B³, the use of which will be presently described.

In brackets d d, secured to the rear side of the frames B, are journaled two upright shafts, D D, each of which is provided, near its upper end and above the seed-box and slotted frame, with a horizontal arm, D', projecting forward and having its other end connected by a link 65 or pitman, d', with the upper end of a lever, E, which latter is fulcrumed in a cross-bar of the main frame, and are connected at their lower ends to the seed-slide, as shown.

From the upper side of the arm D' projects 70 a small stud, d², upon which is arranged a sleeve, I, rendered adjustable by means of a set-screw, i', and carrying a spring-arm, I', which curves around and rests against the upper end of the shaft D, and having its end projecting beyond, where it will contact with the arms B³ upon the wheel.

In operation the wheels are lowered till their points and markers enter the ground, and when the machine is started one of the dropping-arms upon one of them strikes the spring 75 I' and carries it forward, turning the arm D', and, by its connections, carrying the dropping-slide to plant two hills of corn or other seed which may be contained therein. At the same 80 time a marker-blade, b', upon the wheel marks the location of this hill, and as the machine passes on one of the dropping-arms, B³, upon the opposite wheel strikes the adjacent spring-arm and moves the slide in the opposite direction, making another drop and marking the hill, as before. This operation is repeated, and upon turning at the end of the row to plant a new one, if the marking-points be gaged by the marks already made, the rows will be always 85 straight and the hills the same distance apart.

By the use of the spring-arm I' to move the slide we avoid all unnecessary jars and shocks when the dropping-arms strike them, and the slide is started slowly and easily, while if any 90

serious clogging or binding of the slide should occur the spring-arm gives way and prevents breakage or undue strain upon any part of the mechanism.

5. In passing from place to place the axle and wheels are lifted and held up by the lever and work-shaft, and most of the weight is then borne by the runners or openers, as will readily be understood.

10. Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

15. 1. The combination, in a seed-planter, of the driving-wheels provided with adjustable arms, with a spring adapted by intermediate mechanism to operate the dropping-slide when moved by the driving-wheels, substantially as and for the purpose set forth.

20. 2. In a seed-dropper, the main frame provided with vertical slots, through which passes a driving-axle, in combination with a rock-shaft having straps or chains looped round the axle and a lever and hook, whereby the axle and its wheels may be lifted free of the ground and held in that position, substantially as shown and described.

25. 3. In a seed-planter, the main frame A, having slotted frames B, in which is placed the

axle B', carrying the driving-wheels B², in combination with the rock-shaft C, having pulleys 30 c c and bands C' C', secured to said pulleys and looped around the axle, and the lever C², with its hook c', all constructed and arranged to operate substantially as and for the purpose set forth.

35. 4. In a seed-planter, the frame A, having the main driving-axle B', adapted to move in vertical slots and carrying the wheels B², having adjustable dropping-arms B³, points b, and row-marking blades b', and the rock-shaft C, 40 with its bands C' and lever C², adapted to lift the axle, in combination with the shafts D D, arms D' D', carrying the adjustable sleeves I I, with the springs I' I', pitmen d' d', levers E, fulcrumed in the main frame and secured at 45 their lower ends to the dropping-slide, all constructed and arranged to operate substantially as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

SAMUEL DEMENT.
SAMUEL D. PALMER.
JOHN A. PALMER.

Witnesses:

A. C. BARTON,
JOHN BEAGLE.