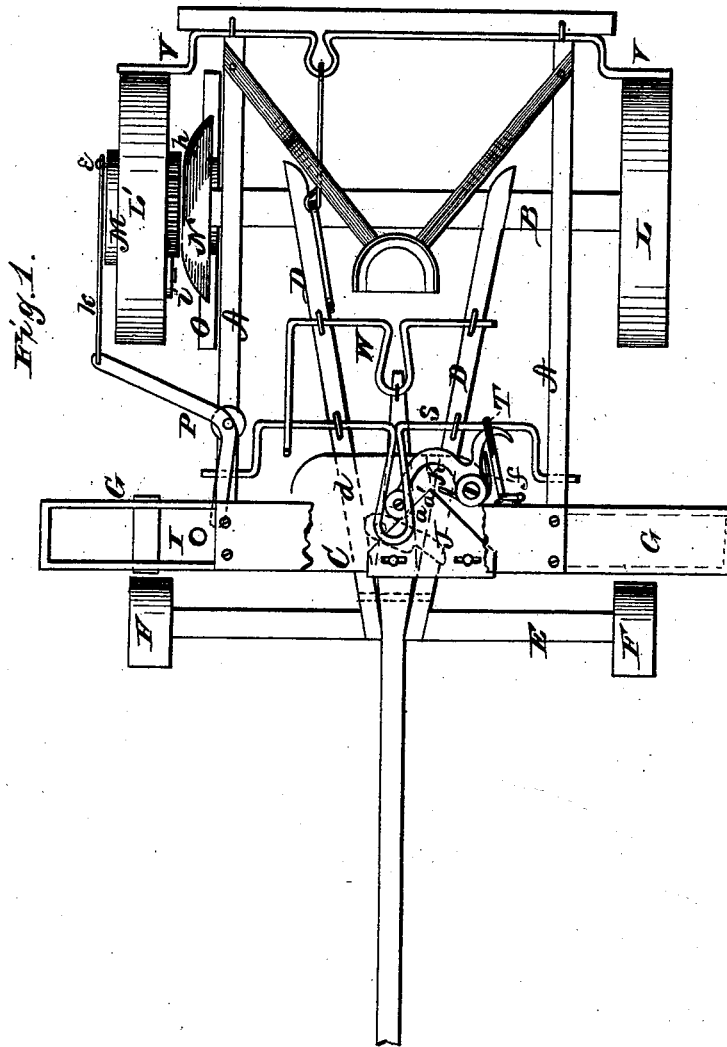


R. FITZSIMONS.
Seed-Planter.

No. 210,111.

Patented Nov. 19, 1878.



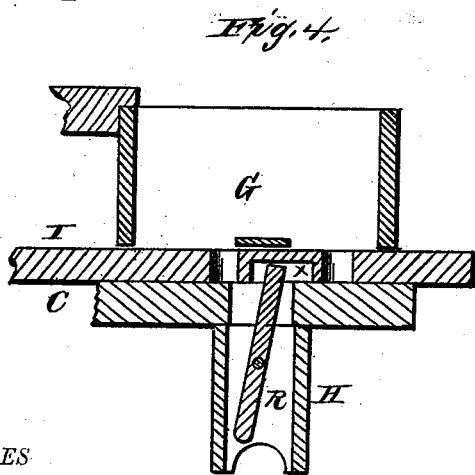
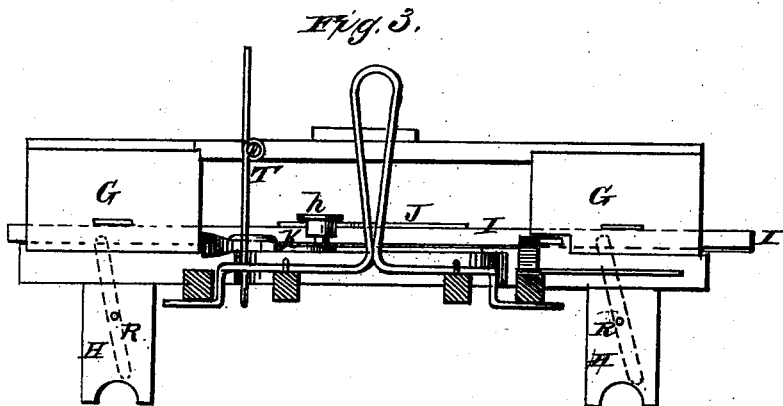
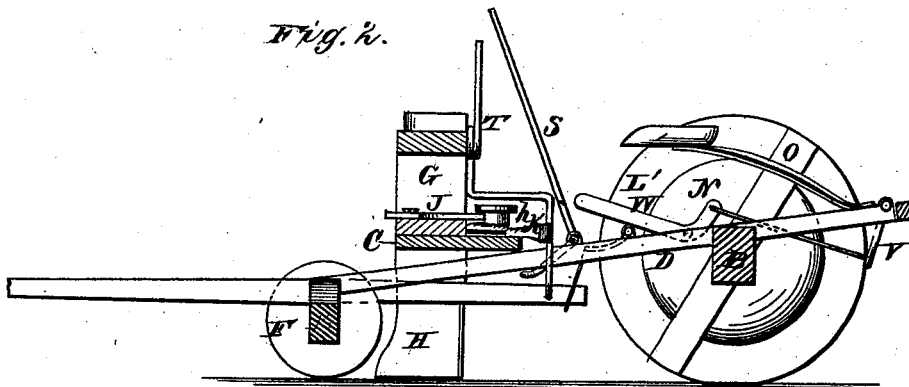
WITNESSES
F. L. Curand
J. J. McCarthy

INVENTOR
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Alexander Swason

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UNITED STATES PATENT OFFICE.

ROBERT FITZSIMONS, OF TOMAH, WISCONSIN.

IMPROVEMENT IN SEED-PLANTERS.

Specification forming part of Letters Patent No. **210,111**, dated November 19, 1878; application filed September 12, 1878.

To all whom it may concern:

Be it known that I, ROBERT FITZSIMONS, of Tomah, in the county of Monroe, and in the State of Wisconsin, have invented certain new and useful Improvements in Seed-Planters; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making part of this specification.

The nature of my invention consists in the construction and arrangement of a seed-planter, as will be hereinafter more fully set forth.

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

Figure 1 is a plan view of my planter. Fig. 2 is a longitudinal vertical section, and Fig. 3 a transverse vertical section, of the same. Fig. 4 is an enlarged vertical section of one of the seed-boxes with its spout.

A represents a frame secured on the axle B, and supporting at its forward end a bar, C, upon which the seed-boxes are located. D D represent inclined bars or perches attached to the axle B, passing under the bar C, and connecting with a front axle, E, having small wheels F F on its ends.

G G represent the seed-boxes secured on the bar C, and H H are the chutes or conductors for conveying the seed from the boxes into the ground.

I is the dropping-slide, moving over the bar C through the boxes G G. The slide I and bar C are provided with suitable seed-openings, and in each seed-box is a cut-off, which parts are not necessary to be described, as they are substantially the same as in other seed-planters.

On the slide I is secured a plate, J, having two inclined sides or edges, *a*, with a point, *a'*, between them. This plate is adjustable by means of screws passing through slots in the plate, as shown. Against the inclined edges of the plate J works a roller, *d*, which is mounted on a stud in one end of a pivoted

arm, K, and a spring, *f*, is arranged to act on said arm, so as to hold the roller with force against the edge of the plate. The slide I being moved by devices hereinafter described until the point *a'* of the plate J has just passed the roller, the action of the spring *f* is to cause the roller to work on the incline, so as to suddenly continue the stroke of the slide. The action is the same on the return stroke.

L L' are the wheels on the ends of the main axle B. The wheel L turns loosely on the end of the axle. The wheel L' turns on a sleeve placed on the end of the axle, said sleeve having at its outer end a disk, M, and on its inner end a cup-shaped wheel, N, with a cross-bar, O, for marking the ground. A ratchet-wheel, *h*, and pawl *i* connect the two wheels N and L' together.

On the disk M is a wrist-pin, *e*, which, by a pitman or rod, *k*, is connected with one arm of an elbow-lever, P, while the other arm is placed in a slot in the slide I for operating the same. By these means the slide I obtains its reciprocating motion, each stroke or movement being commenced by the lever P, and completed by the roller *d* acting on the inclined plate J, as described.

In each chute or conductor H is pivoted a valve, R, which works from side to side by the movement of the slide I, the upper end of said valve being actuated by shoulders *x x*, or their equivalents, in the under side of the slide.

S is a lever for raising the front of the planter out of the ground. T is a lever operating on the arm K for throwing the roller *d* off from the plate J. V V are scrapers operated by a lever, W, for cleaning the wheels L L', and at the same time act as brakes.

In starting new rows the planting mechanism is set by means of the wheel N and marker O, so as to bring the hills in parallel rows both ways.

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

1. The combination of the slide I, adjustable plate J, having inclines *a a* and point *a'*,

the arm K, roller *d*, and spring *f*, substantially as and for the purposes herein set forth.

2. The combination, with the driving-wheel L', of the disk M, having wrist-pin *e*, the pitman *k*, and elbow-lever P, for starting the dropping-slide I, and the double-inclined plate J, and the spring-arm K, with roller *d*, for suddenly completing the movement of the slide, substantially as herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 26th day of July, 1878.

ROBERT FITZSIMONS.

Witnesses:

S. N. STAYSA,
N. S. BUTTON.