EDGELL, MARTIN, KELLOGG & ALEXANDER.

Grain-Drill.

No. 40,316. Patented Oct. 13, 1863.

Fig. 1.

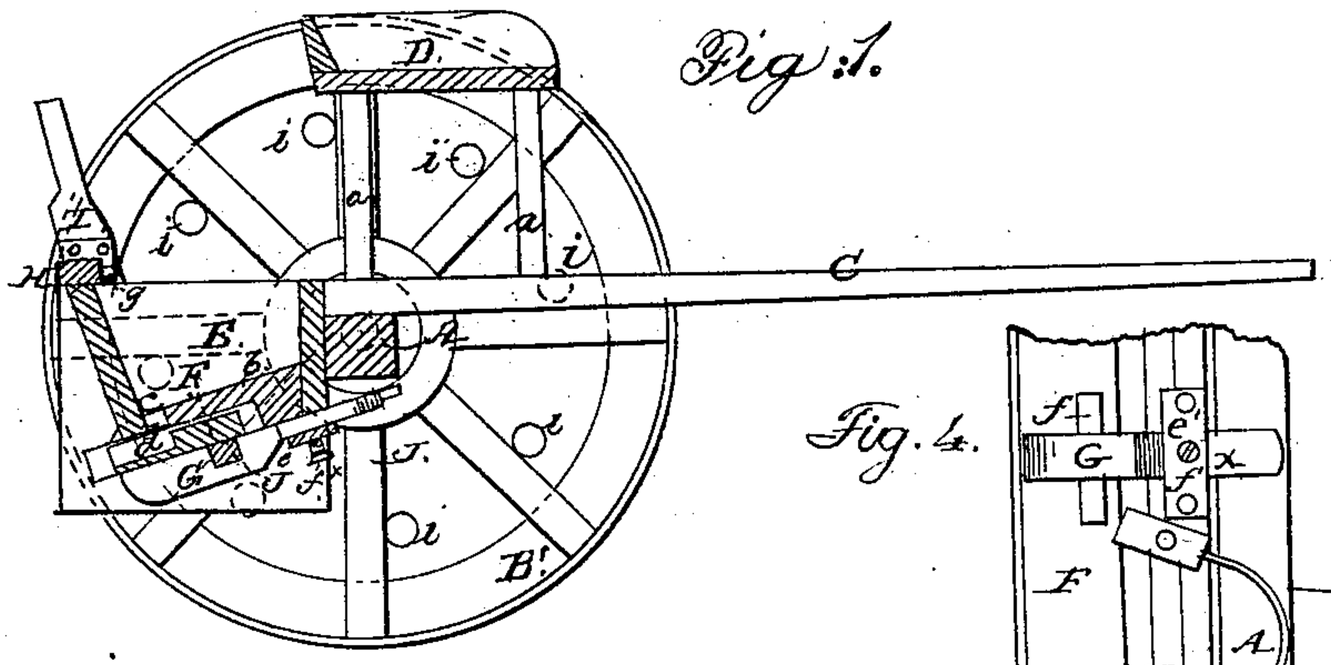


Fig. 4.

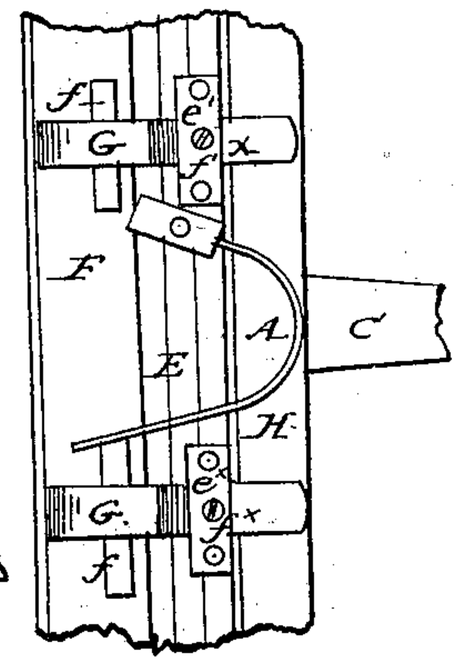


Fig. 3.

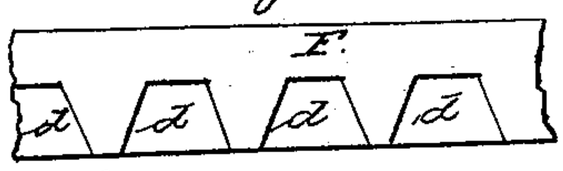
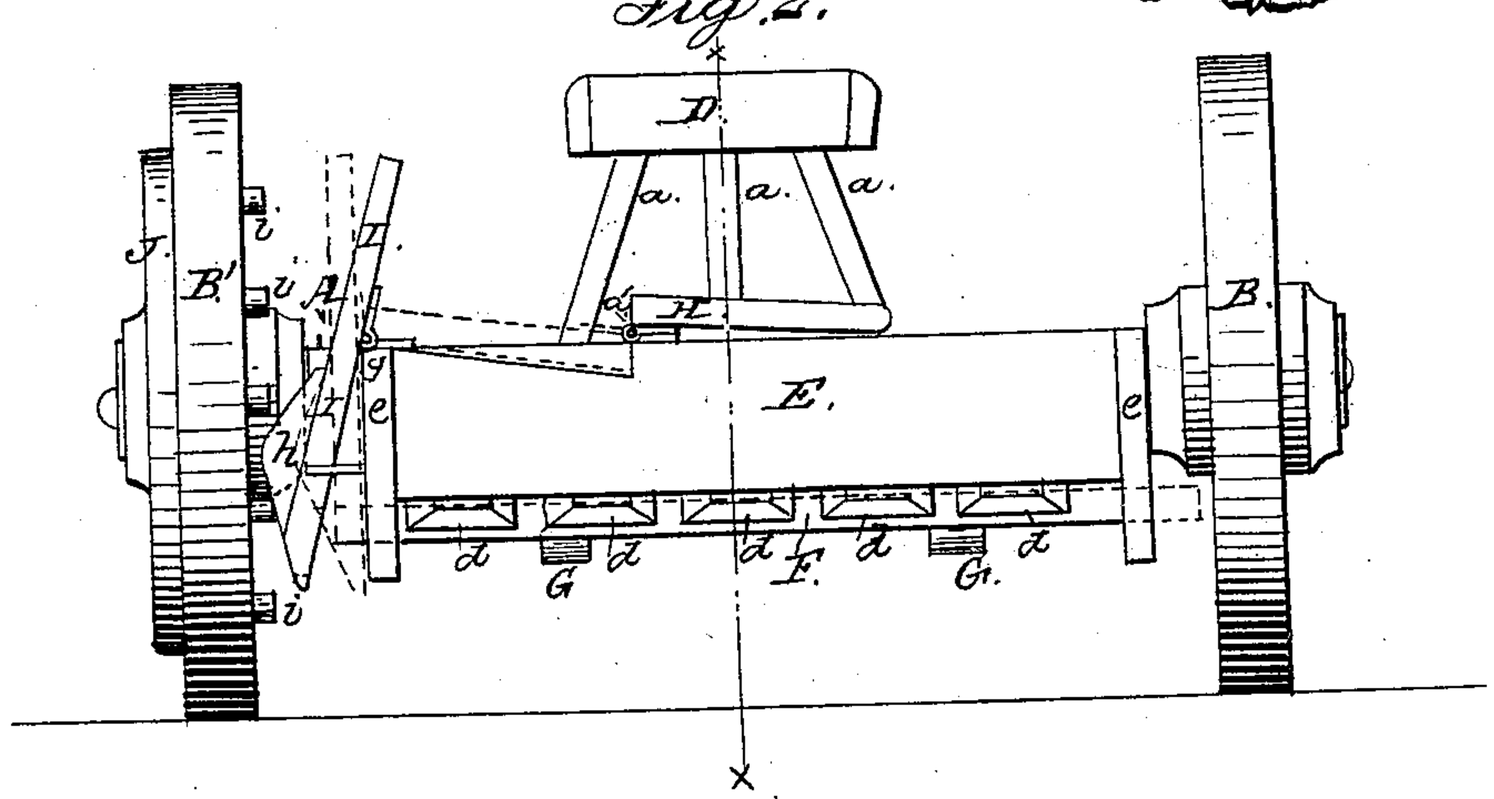


Fig. 2.



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UNITED STATES PATENT OFFICE.

J. B. EDGELL, G. P. MARTIN, H. C. KELLOGG, AND E. A. ALEXANDER, OF QUASQUETON, IOWA.

IMPROVEMENT IN GRAIN-DRILLS.

Specification forming part of Letters Patent No. **40,316,** dated October 13, 1863.

To all whom it may concern:

Be it known that we, J. B. EDGELL, G. P. MARTIN, H. C. KELLOGG, and E. A. ALEXANDER, all of Quasqueton, in the county of Buchanan and State of Iowa, have invented a new and Improved Seeding-Machine; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of our invention, taken in the line *x x*, Fig. 2; Fig. 2, a back view of the same; Fig. 3, a detached plan or top view of a portion of the seed-slide; Fig. 4, a bottom view of a portion of the hopper or seed-box.

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

This invention relates to an improved seeding-machine of that class which are designed for sowing seed broadcast; and it consists in the employment or use of a seed-distributing slide provided at its upper face side with V-shaped recesses and fitted within a hopper and operated in such a manner as to insure an equal distribution of the seed, the whole forming an exceedingly simple, efficient, and economical machine for the desired purpose.

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

A represents an axle, and B B′ the wheels thereof.

C is a draft-pole, which is mortised centrally into the axle A; and D is a driver's seat secured to the supports *a a a*, which are attached to the axle and to the draft-pole.

E is a hopper or seed-box, which is secured to the back of the axle A and extends nearly the whole length of the same. This hopper or seed-box has an inclined bottom, *b*, which does not reach the back of the hopper, a space, *c*, being allowed for the discharge of the seed, as shown clearly in Fig. 1.

Underneath the bottom *b* of the hopper E there is placed a seed-distributing slide, F, which has a series of V-shaped recesses, *d*, in its upper or face side. (See Fig. 3.) This slide F passes through slots in the end pieces, *e e*, of the hopper E, and it has cleats *f* attached longitudinally to its under side, said cleats working in recesses in bars G, which are attached to the bottom of the hopper.

H′ is a spring, one end of which is attached to the bottom of the hopper, and the opposite end bears against one of the cleats *f*, attached to the slide F. This spring H′ has a tendency to keep one end of the slide F pressed against a lever, I, which is attached by a hinge, *g*, to the upper part of the hopper E. This lever I has an obliquely-curved projection, *h*, attached to it, against which pins *i* act as the wheel B′ rotates. These pins *i* are attached at equal distances apart to a circular disk, J, which is secured concentrically to the outer side of the wheel B′, the pins *i* passing between the spokes of said wheel and in line with the projection *h*, the shape of which is shown clearly in Fig. 2.

From the above description it will be seen that as the machine is drawn along a reciprocating movement will be communicated to the slide F, the pins *i* forcing the slide F in one direction as they come in contact with the lower part of the projection *h* on the lever I, and the spring I forcing the slide in the opposite direction as each pin passes over the upper surface of the projection. The seed passes down from the hopper E through the space *c* into the recesses *d* in the slide F, and is discharged from the outer ends of said recesses upon the ground in an even or uniform manner, and without the possibility of the hopper becoming choked or clogged. The upper surfaces of the spaces between the recesses *d* of the slide work in contact with the under side of the back piece of the hopper, as will be seen by referring to Fig. 2, so that no seed can escape from the hopper, except through the recesses *d*, and the slide F, as it operates, causes such a agitation of the seed in the hopper that a uniform escape of the seed is insured, and consequently an equal distribution of it upon the ground.

The slide F may be adjusted farther forward or backward underneath the bottom *b* of the hopper by shifting the bars G farther forward or backward. By this means it will be seen that the recesses *d*, in consequence of being of V form, may have their width directly under the space *c* varied, so as to regulate the discharge of the seed and admit of a greater

or less quantity being sown on a given area, as may be desired. In order to admit of the ready adjustment of the bars G, they may be secured in loops or guides $e^{\times}$ by set-screws $f^{\times}$, the loops or guides being attached to the bottom of the hopper. (See Fig. 4.)

H is a bar, which is attached to the upper surface of the hopper E by means of a hinge, a'. This bar is of such a length and placed in such a relative position with the lever I that when the former is turned down against the lever it will throw the projection h free from the pins i, as shown in red in Fig. 2.

We do not claim broadly the use of a seed-slide, F, with V-shaped recesses, as we are aware that such a device has before been used.

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

The arrangement of the vibrating laterally-adjustable slide F, having V-recesses d, with the bottom b, spring H′, lever I, and hinged bar H, in the manner herein shown and described.

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