JOHN L. RITER.

Improvement in Grain Drills.

No. 115,523. Patented May 30, 1871.

Fig. 1.

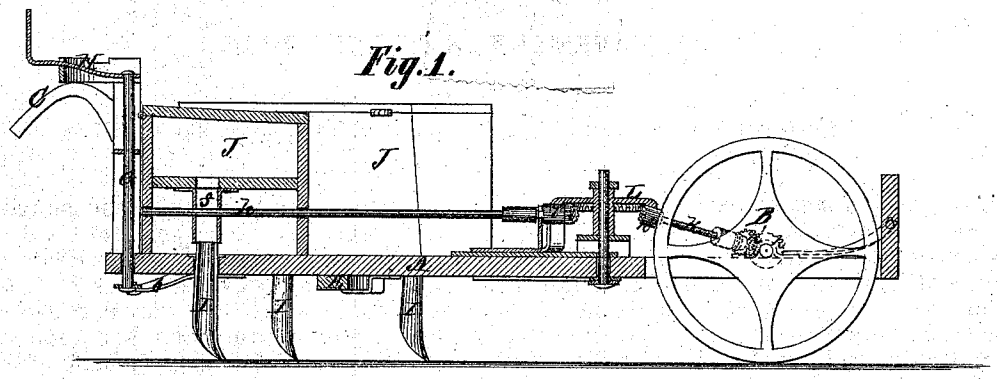


Fig. 2.

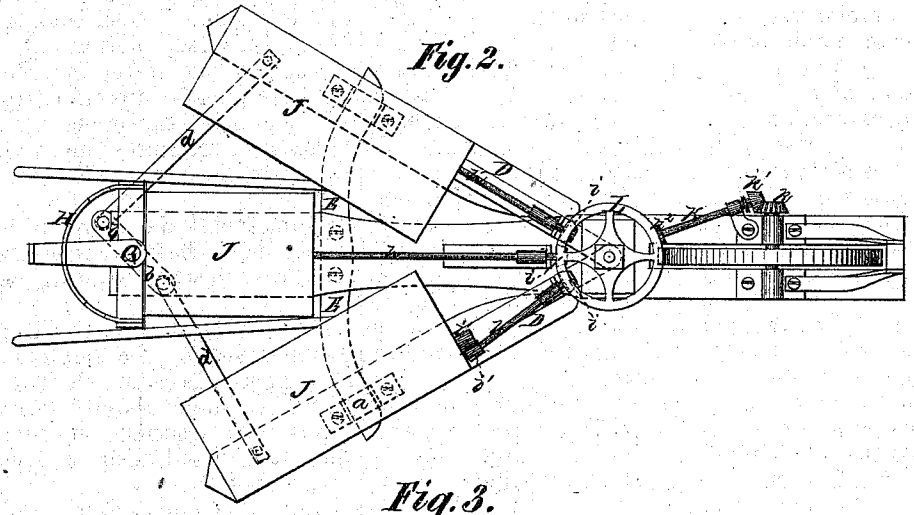
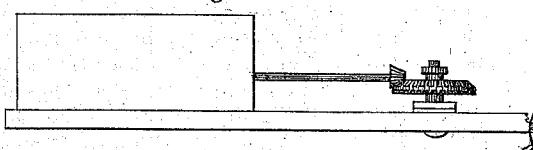


Fig. 3.



Witnesses
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AM. PHOTO LITHOGRAPHIC CO. N. Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

JOHN L. RITER, OF BROWNSVILLE, INDIANA.

IMPROVEMENT IN GRAIN-DRILLS.

Specification forming part of Letters Patent No. 115,523, dated May 30, 1871.

To all whom it may concern:

Be it known that I, JOHN L. RITER, of Brownsville, in the county of Union and State of Indiana, have invented certain new and useful Improvements in Grain-Drills; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a grain-drill, 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 drawing, in which—

Figure 1 is a longitudinal vertical section; Fig. 2, a plan view of my machine; and Fig. 3 is a modification of my invention.

A represents the center beam or frame, the front part of which is slotted for the reception of the driving-wheel B, and the rear end has the handles C C suitably secured to it. At a suitable point on each side of the center beam A is hinged or pivoted a side beam, D, on the under side of which is a loop, *a*. Through these loops pass curved arms E E, which are fastened on the under side of the center beam, and thus act as guides for the side beams. The rear ends of the side beams D D are thrown out or in by means of a crank-shaft, G, passing through the rear end of the center beam, and having on its lower end two arms, *b b*, which, by rods *d d*, are connected with the side beams. The crank at the upper end of the shaft G is held in any desired position by a notched semicircular bar, H, as shown. The hoes I I are secured by means of plates bolted to the beams. Upon each of the beams A and D D is placed a hopper, J, in the bottom of which are secured feed-boxes *f*. These feed-boxes are cast with the conductors *e* either of one piece, or in two pieces, and suitably fastened together. The conductors *e e* conduct the grain from the metallic feed-boxes to the hoes. Through the feed-boxes *f f* pass feed-shafts *h h*, which are provided each with a pinion, *i*, on its front end, and rotated in the following manner: Upon the axle of the driving-wheel B is a cog-wheel, *k*, which gears, with a similar wheel, k^1, upon the end of a shaft, K. The other end of this shaft is also provided with cog-wheel k^2, which gears with a large horizontal wheel, L, mounted on a suitable journal on the center beam A, and in this wheel L all the pinions *i* mesh, and thus the shafts *h h* obtain a rotary motion.

The feed-shaft on one of the side beams is propelled in an opposite direction from the shaft on the other side arm by means of making said shaft in two pieces and putting a wheel, *i'*, on each piece, said wheels working in each other.

By this arrangement the hoes can be near the outside of the side beams, and hence they will be near the corn when seeding between standing corn.

By the modification shown in Fig. 3 I can obtain the same result by the employment of the double-cogged wheel, in which event I dispense with the pinions above referred to.

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

In a seeding-machine, having radiating seeding-shafts *h h h* which carry the seeding-wheels, the pinions *i i* for the purpose of causing the right-hand seeding-shaft to rotate outward or in the opposite direction to the left-hand shaft, for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOHN L. RITER.

Witnesses:

GEORGE M. HEIM,

HARRY L. RIDER.