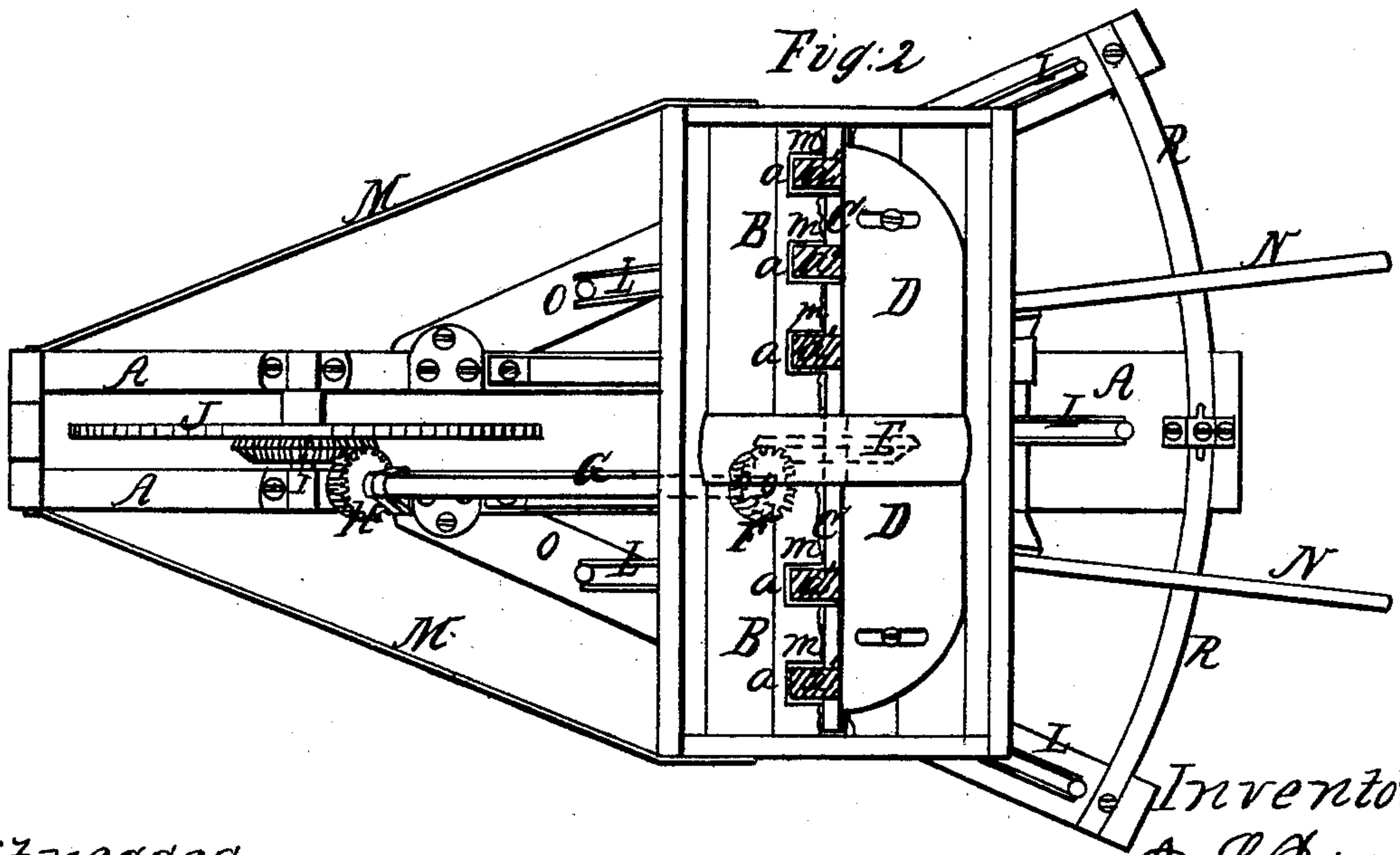
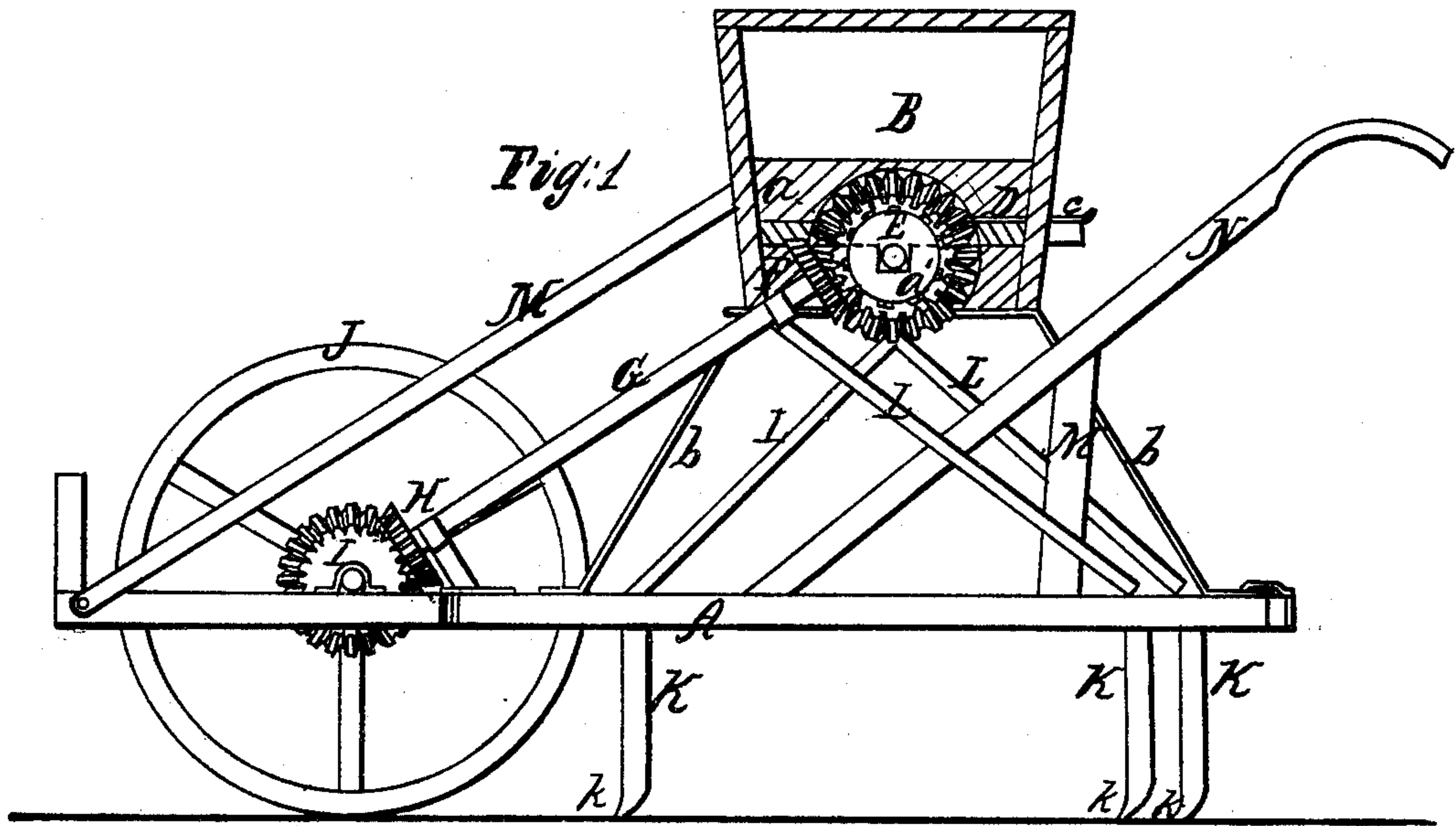


*J. L. Riter.*

*Seeder.*

*Nº 90,582.*

*Patented May 25, 1869.*



*Witnesses*  
*John A. Ellis*  
*J. M. Master*

*Inventor*  
*J. L. Riter*  
*Per*  
*S. H. Alexander*  
*Atty*

# United States Patent Office.

JOHN L. RITER, OF BROWNSVILLE, INDIANA.

*Letters Patent No. 90,582, dated May 25, 1869; antedated November 25, 1868.*

## IMPROVEMENT IN GRAIN-DRILLS.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

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

Figure 1 represents a side view of my seeding-machine, and

Figure 2, a plan view of the same.

Similar letters indicate like parts in each figure.

My invention relates to certain improvements in seeding-machines, the peculiarities of which will hereinafter be fully set forth.

In the accompanying drawings—

A represents the frame, to the upper side of which is attached the hopper, or seed-box B, by means of upright supports *b b*.

The hopper is made with seed-cells *a a a* in its bottom, and is provided with the shaft, or agitator-bar C, upon which is attached the feed-wheels *a' a' a'*.

The slide D is made with a slot in each end, which works into pins, secured to the bottom of the hopper B.

This slide is secured to the outside of the hopper by a thumb-screw, *c*, so that, by operating upon the thumb-screw, you can regulate the quantity of seed to be sown.

About the centre of the agitator C, is secured the mitre-wheel E, which works into the mitre-wheel F, attached to the upper end of the shaft G, the other end of the shaft G having a similar mitre-wheel, H, attached to it, which works into a corresponding mitre-wheel I, secured to the axle of the driver-wheel J, which is pivoted to the front end of the frame A.

By this arrangement a constant rotary motion is

given to the seed-wheels *a' a' a'* when the seeder is in operation.

O O are arms, pivoted at one end obliquely to the frame A, and the other end provided with metal straps R R, which work into a strap secured to the frame A, thereby giving lateral motion to the arms O O.

K K are tubes, with the drills *k k* attached to their lower ends, and their upper ends secured to the frame A.

L L are the chutes that carry the grain to the tubes K K, and are made with a slot in their upper ends, and secured to the under side of the hopper, over the seed-cells *a a a*, by means of a plate, *m*, placed over the slot, and a screw passed through the plate into the hopper.

By this arrangement the arms of the machine may be expanded or contracted without wasting any grain, as the screws work into the slots, and the plates *m m* cover the seed-cells *a a a*.

N N are the handles, and

M M braces securing the hopper.

Having thus fully described my invention,

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

1. The plates *m m*, in combination with the seed-cells *a a a* and arms O O, substantially in the manner and for the purpose set forth.

2. The slide D, in combination with the thumb-screw *c*, substantially and for the purpose herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand, this 8th day of September, 1868.

JOHN L. RITER.

Witnesses:

A. H. SWANN,

J. H. STAGG.