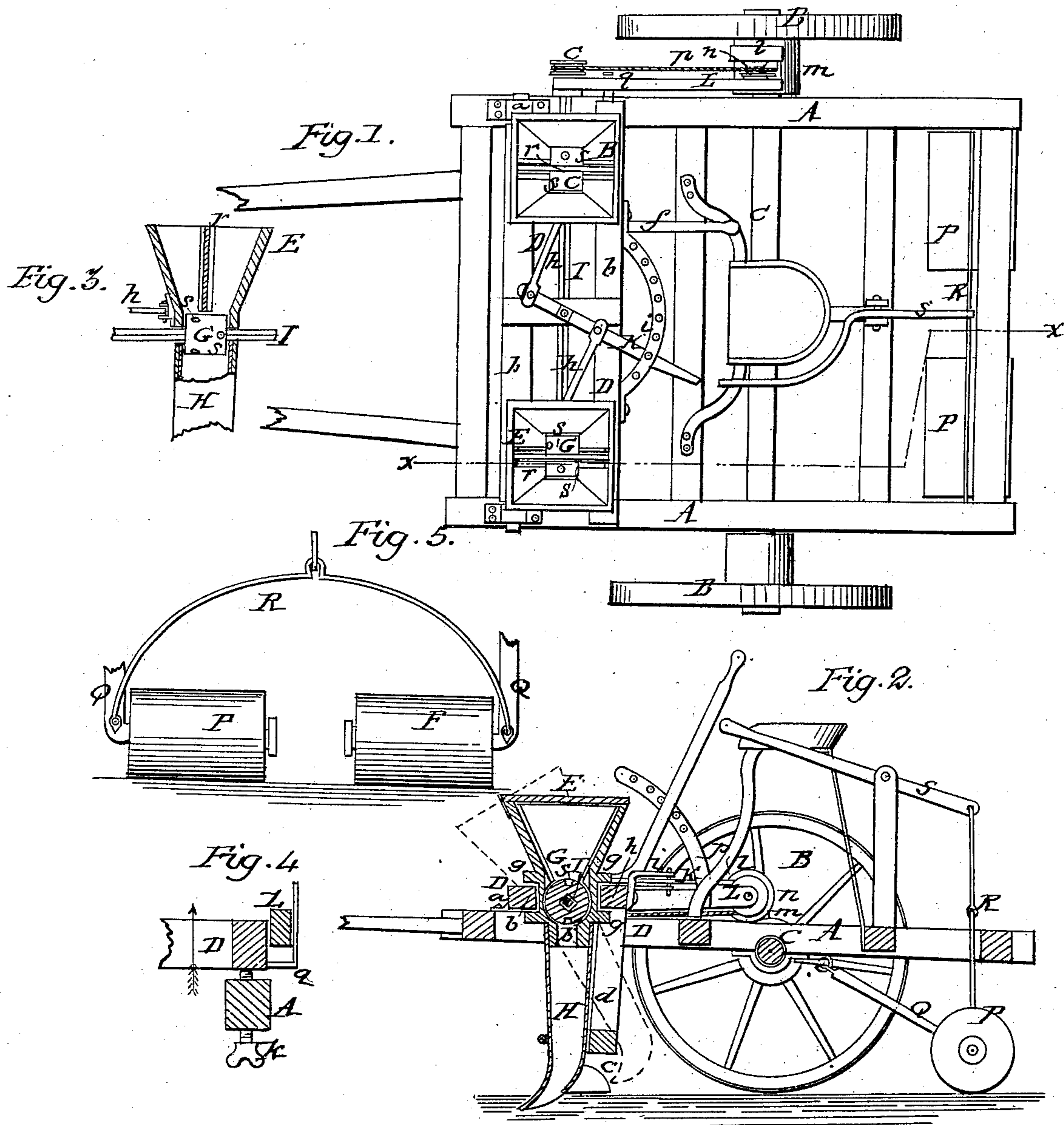


R. F. OSGOOD.

Seed Planter.

No. 82,153.

Patented Sept. 15, 1868.



WITNESSES:

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Letters Patent No. 82,153, dated September 15, 1868.

IMPROVEMENT IN SEED-PLANTERS.

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, R. F. OSGOOD, of the city of Rochester, county of Monroe, and State of New York, have invented certain new and useful Improvements in Seed-Planters; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is a plan of my improved machine.

Figure 2, a longitudinal vertical section in line *x x*.

Figures 3, 4, and 5, detail views.

Like letters of reference indicate corresponding parts in all the figures.

My invention relates to an improved adjustment of the hoppers and connecting-parts, toward and from each other, whereby the distance between the rows is changed at pleasure; also to mounting the operating-parts upon a hinged gate or frame, turning vertically, under control of the operator, and adjusting to different heights, to gauge the depth of the drills.

In the drawings, A indicates the main frame, B B the driving-wheels, and C the turning-axle.

On the main frame is mounted a secondary frame or gate, D, consisting of two parallel bars *b b*, or equivalent, extending across and resting on top the main frame, and a cross-bar, *c*, depending below the connections *d d*, at the ends. This gate is hinged at *a a*, so as to be turned up vertically, by lever *f*, as indicated by red lines, fig. 2.

On this gate are mounted the operating-parts for dropping the seed. These consist of hoppers, E E, seed-rollers G G, drill-teeth or tubes H H, and shaft I, for imparting motion to the seed-rollers. The hoppers, seed-rollers, and drill-teeth, are all connected together in one body, so as to move bodily as shown; and the shaft I, which is made square in cross-section, passes loosely through, thereby allowing a free sliding movement, to adjust nearer together or farther apart, as necessity may require, at the same time giving the necessary revolving motion to the seed-rollers. The hoppers are conveniently held to the gates by cleats, *g g*, and the drill-teeth are braced against back action by the cross-bar *c*.

I prefer to produce the adjustment of the parts, nearer together or farther apart, by toggle-arms *h h*, jointed at one end to the inner sides of the hoppers, at the other to a double-acting lever, K, moving over segment *i*, where it is secured by a pin, passing through holes, or any other means; or, if desired, the hopper may be fastened in any position directly to the gate. The segment may have a scale to indicate the width of the rows, by the adjustment of the lever over the same.

The gauge of the hills is also adjusted by dividing the hoppers into compartments, vertically, by partitions *r r*, and making a corresponding number of sets of seeding-holes, *s s*, in the rollers beneath. These sets have unequal numbers of holes; for instance, one set may have two holes, and another three, and accordingly as the seed is put into one compartment or another, the hills will be dropped farther apart or nearer together, as the case may be. I make no claim to this arrangement.

Adjusting-screws *k k*, or equivalents, fig. 4, are employed to raise and lower the swinging side of the gate, so as to make the cut of the drill-teeth deeper or shallower in the soil. These screws may either pass up through the sides of the main frame, resting under the ends of the gate, or they may pass down through the ends of the gate, resting on top the main frame, as may be desired.

At the end of shaft I is a swinging bar, L, carrying at its opposite end a friction-gear, *l*, which engages with gear *m*, and transmits, by pulleys *n o* and band *p*, motion to the said shaft, sufficient to turn the said rollers, and drop the seed. Instead of friction-gear, a regular cog-gear may be employed, if desired.

To the end of the gate is attached an arm, *q*, resting under the bar L, which, when the gate is raised sufficiently, also raises the bar, and thus disengages the gear.

The arrangement above described embodies some features not known in other machines, so far as I am aware.

The arranging and combining of the hoppers, drill-teeth, and seed-rollers, with the straight square shaft

I, enables me to adjust said parts with the greatest facility, to increase or lessen the width of the rows. I do this without any change in the frame or axle. This is far better than where the axle is made in two parts, and telescoped together, or where the frame itself has a similar opening and closing movement, since, in such cases, the machine is not only much more expensive, but is difficult to adjust, and is not effective in action. I accomplish all that is desired in the way of adjustment, with a straight, unbroken axle, and with a stiff, immovable frame.

Covering-rollers P P, are connected with arms Q Q, hung to the axle or sides of the frame, as shown. The length of these rollers is sufficient to cover the lateral adjustment of the drill-teeth; but they are separate and distinct from each other, so as to have an independent action, which is necessary in passing over an incline or on irregular soil. A bail, R, extends from one arm to the other, having a flexible joint, that connects with hand-lever S, by which the rollers are raised.

By this arrangement, the rows are pressed down to the requisite degree, no matter what may be their width apart, and, the rollers having a free and independent movement to adapt themselves to inequalities, are very effective in operation.

By unshipping the gate D and the rollers P Q, and applying in their place a long hopper with slides and scattering-board, and a suitable harrow, the machine is easily converted into a broad-cast seed-sower.

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

1. So combining and arranging the seeding-apparatus, consisting of hoppers E, rollers G, and drill-teeth H, with the shaft I, that the lateral adjustment to change the width of the rows shall be effected by simply sliding in the straight continuous shaft, as herein set forth.

2. Combining with the swinging gate, and with the seeding-apparatus mounted thereon, the adjusting-screws *k k*, or equivalent, whereby the depth of cut of the drill-teeth may be increased or lessened, as set forth.

3. The combination, with the gear-bar L and the swinging gate D, of the arm *q*, so arranged that the gate is allowed a range of motion sufficient to adjust the depth of cut of the drill-teeth, before the gear is raised to be disengaged, as herein set forth.

In witness whereof, I have hereunto signed my name, in the presence of two subscribing witnesses.

R. F. OSGOOD.

Witnesses:

J. A. DAVIS,

W. J. CREELMAN.