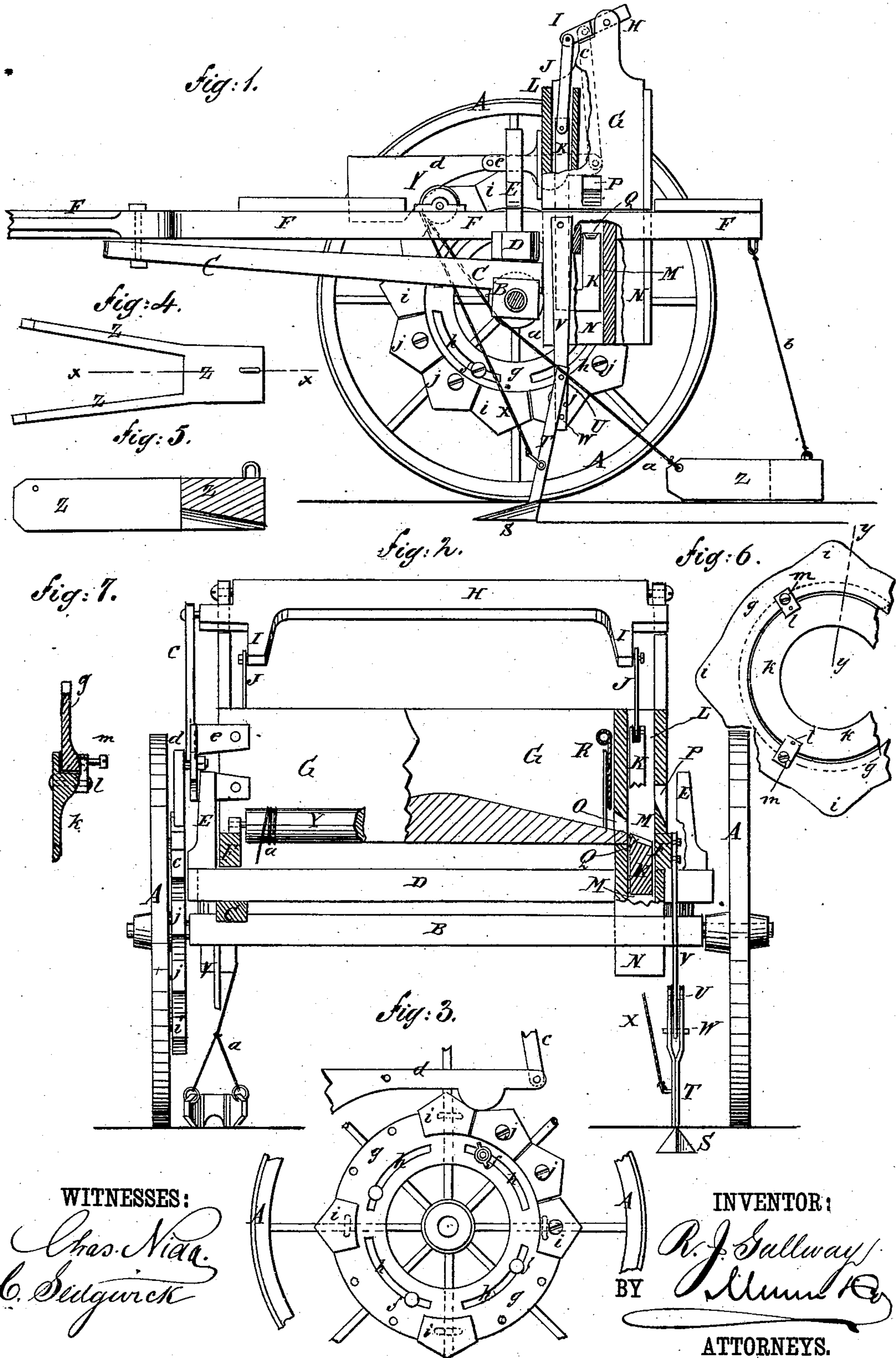


(No Model.)

R. J. GALLWAY.
Seed Planter.

No. 243,542.

Patented June 28, 1881.



WITNESSES:

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UNITED STATES PATENT OFFICE.

RICHARD J. GALLWAY, OF AUSTIN, TEXAS.

SEED-PLANTER.

SPECIFICATION forming part of Letters Patent No. 243,542, dated June 28, 1881.

Application filed April 11, 1881. (No model.)

To all whom it may concern:

Be it known that I, RICHARD JAMES GALLWAY, of Austin, in the county of Travis and State of Texas, have invented a new and useful Improvement in Seed-Planters, of which the following is a specification.

Figure 1 is a side elevation of my improvement, the rear wheel being removed and parts being broken away. Fig. 2 is a sectional front elevation of the improvement. Fig. 3 is a side elevation of one of the wheels, parts being broken away. Fig. 4 is a plan view of the coverer. Fig. 5 is a sectional elevation of the coverer, taken through the line *x x*, Fig. 4. Fig. 6 is a face view of the cam and ring plates. Fig. 7 is a sectional elevation of the same, taken through the line *y y*, Fig. 6.

The object of this invention is to increase the efficiency and reliability of seed-planters. A represents the wheels, B the axle, and C the stakes, of the rear part of the running-gear of an ordinary farm-wagon.

To the hounds C and bolster D is attached a split tongue, F, and to the branches of the split tongue F, over or just in the rear of the bolster D, is secured the seed-box G.

To the upwardly-projecting ends of the seed-box G, or to standards attached to the said ends, are pivoted the ends of a rock-shaft, H. To the rock-shaft H, near its ends, are rigidly attached two arms, I, to the outer ends of each of which is hinged the upper end of a connecting-rod, J. The lower end of the connecting-rod J is hinged to the upper end of the longer arm of the U-bar K. The arms of the U-bar K slide up and down in well-holes L M in a compartment formed in the ends of the seed-box G. The lower or bent part of the U-bar K is covered and protected by a casing, N, attached to the bottom of the said seed-box G. The bottom of the seed-box G inclines from the center toward each end, and in the inner wall of the well M, in which the short arm of the U-bar K works, is formed an opening, O, through which the seed passes into the said well when the U-bar K is lowered.

In the outer wall of the well M, at a higher level than the opening O, is formed an opening, P, through which the seed escapes into a conductor tube or spout, through which it passes into the channel formed by the opening-plows.

The conductor-tube is not shown in the drawings, as there is nothing new in its construction.

In the upper end of the short arm of the U-bar K is formed a recess, Q, of such a size as to contain the amount of seed required for a hill, which recess is open upon the side next the outer wall of the well M. With this construction, as the upper end of the short arm of the U-bar K passes below the level of the opening O the recess Q becomes filled with seed, which seed, as the said end rises to a level with the opening P, passes through the said opening P to the ground. The inner opening, O, is closed when desired by a slide, R, as shown in Fig. 2.

S are the plows by which the channels are opened to receive the seed, and which are attached to the lower ends of the standards T. The upper ends of the standards T are hinged by a bolt, U, to the lower ends of arms or hangers V, the upper ends of which are rigidly attached to the split tongue F, the ends of the seed-box G, or to some other suitable support.

The standards T are supported against the draft-strain by bolts or pins W, which pass through the lower ends of the hangers V in such positions that the rear sides of the upper parts of the said standards T will rest against the said bolts or pins W, as shown in Figs. 1 and 2.

To the lower part of the standards T are attached the lower ends of ropes or chains X, the upper ends of which are attached to and wound upon a shaft, Y, which is pivoted to the branches of the tongue F, or to supports attached to the said tongue, so that the plows S can be raised from the ground for convenience in turning around and in passing from place to place. The shaft Y can be turned by a crank, a pawl and ratchet, or a lever inserted in holes in the said shaft, as desired.

The channels are filled to cover the seed, and the soil is rounded up over the seed by the forked covering-blocks Z, the lower side of which is concaved to give the desired form to the top of the row.

To the ends of the arms of the covering-blocks Z are attached the branched ends of ropes or chains *a*, the other ends of which are attached to and wound upon the shaft Y, so

that the covering-blocks Z can be raised at the same time as the opening-plows S and by the same operation.

To the rear ends of the covering-blocks Z are 5 attached the lower ends of ropes or chains b, the upper ends of which are attached to the rearwardly-projecting ends of the forks or branches of the tongue F, so that when the covering-blocks are drawn forward and upward by 10 winding the ropes or chains a upon the shaft Y the rear ends of the said covering blocks will be supported by the said ropes or chains b away from the ground.

To one end of the rock-shaft H, at one side 15 of its axis, or to an arm formed upon or attached to the said end, is pivoted the upper end of a connecting-rod, c, the lower end of which is pivoted to the rear end of a lever, d. The lever d is pivoted, at a little distance from its 20 pivoted rear end, to an arm or bracket, e, attached to the end of the seed-box G.

To the wheel A, or to a ring-plate attached to the said wheel, is secured, by bolts f, a ring-plate, g, the said bolts passing through circular slots h in the said plate g. One or more of 25 the bolts f are provided with hand-nuts, so that the said plate g can be secured in place when adjusted.

To the plate g, at equal distances apart, are 30 secured, or to it are attached, four cams, i, and in the space between each two cams i are secured one or more cams, j. The cams j are detachable, so that they can be removed or their number varied, according as it may be desired 35 to drop the seed at a greater or less distance apart; or the inner edge of the cam-plate g can rest in a rabbet in the outer edge of a ring-

plate, k, attached to the wheel A, and having lugs or plates l around its outer edge to overlap the plates g. The lugs l are provided with 40 set-screws m, for securing the cam-plate g in place when adjusted. The latter construction I prefer as being simpler. As the machine is drawn forward the cams i j successively strike 45 the lower side of the rear end of the lever d and raise the said end, turning the shaft H and raising the bars K to drop the seed. The bars K, when the rear end of the lever d is released from each cam, may descend to again receive 50 seed by their own weight and the weight of the arms I and the forward end of the lever d; or the forward end of the lever d may be so formed that it will be struck and raised by the cams i j, so that the said lever will be moved in both 55 directions by the said cams. With this construction the cam-plate g must be adjusted at the beginning of each crossing to bring the cams i j into such a position with respect to the lever d that they will operate the said lever d at the proper time to drop the seed in line with 60 the cross-rows of the hills previously planted, so that they will be planted in accurate check-row.

Having thus described my invention, I claim as new and desire to secure by Letters Patent— 65

The combination, with a lever, d, shaft H, bars K, and ring-plate g on wheel A, of the four fixed cams i and the intermediate detachable cams, j, the whole adapted to be used as described.

RICHARD JAMES GALLWAY.

Witnesses:

JAMES NEILL,

RUDOLPH KRAUSE.