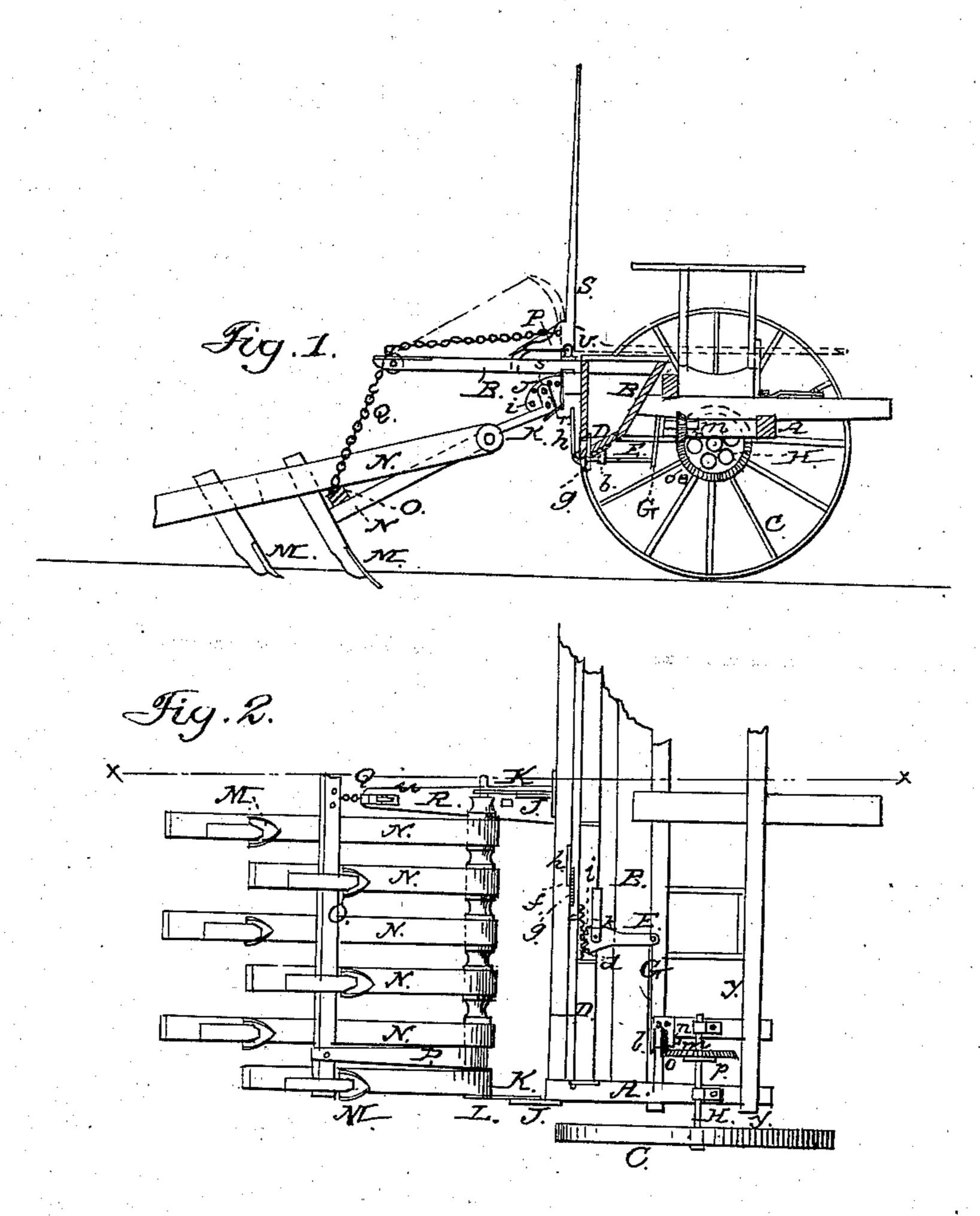
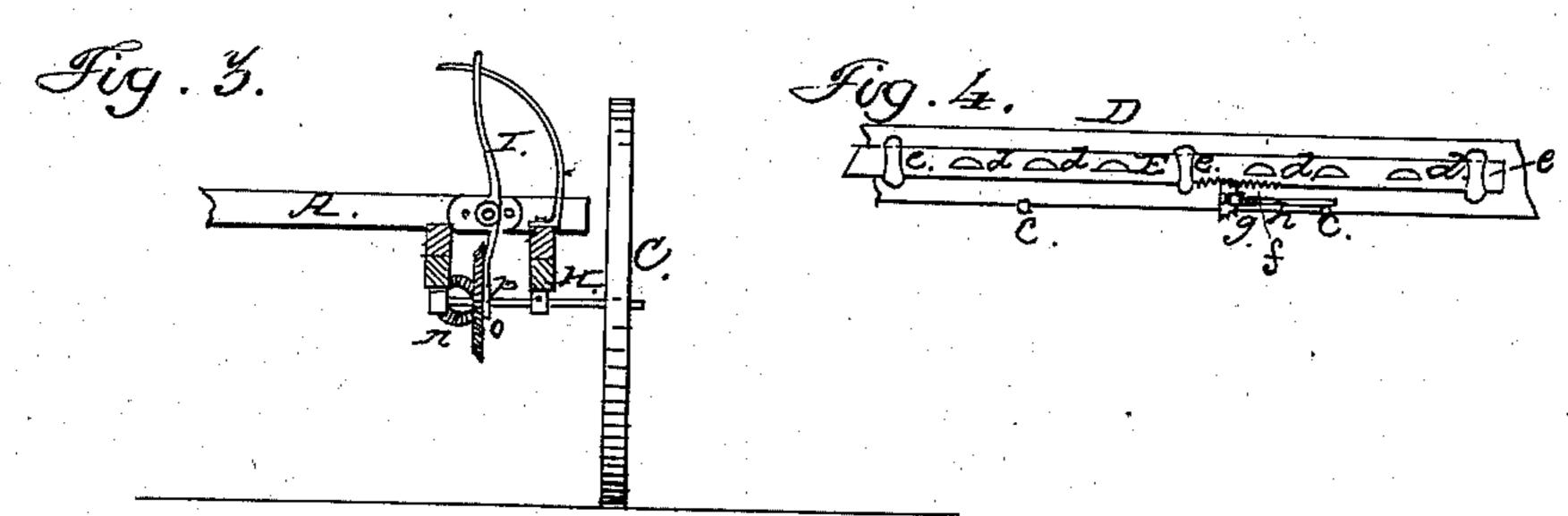
Patented June 20, 1865.





WITNESSES:

Henry Monris Od Hofeliff INVENTOR; Two allper Muner 60

## United States Patent Office.

THOMAS A. GALT, OF STERLING, ILLINOIS.

## IMROVEMENT IN SEEDING-MACHINES AND CULTIVATORS.

Specification forming part of Letters Patent No. 48,269, dated June 20, 1865.

To all whom it may concern:

Be it known that I, Thomas A. Galt, of Sterling, in the county of Whitesides and State of Illinois, have invented a new and Improved Seed-Sower and Cultivator; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use 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 my invention, taken in the line xx, Fig. 2; Fig 2, an inverted plan of the same; Fig. 3, a vertical section of a portion of the same, taken in the line yy, Fig. 2; Fig. 4, a detached outer

view of a portion of the seed-slide.

Similar letters of reference indicate like

parts.

This invention relates to a new and improved means for regulating the discharge of the seed, and also for operating the seed-slide, whereby the amount of seed to be sown on a given area may be very nicely graduated and by a very simple arrangement.

The invention also relates to a novel and improved mode of attaching the teeth or coverers to the machine, whereby the former may be made to penetrate into the earth at a greater or less depth, as occasion may require.

The invention further relates to a means employed for elevating the teeth or coverers, whereby the same may all be raised simultaneously

by actuating a single lever.

A represents a rectangular frame, in which a seed-box, B, is placed, the latter extending the whole length of the former. The frame A is mounted on two wheels, C C, and the seed-box B is provided with an inclined bottom, a, a slide, D, being over a slot or opening, b, which extends the whole length of the lower part of the rear side of the seed-box, and is allowed to work freely in guides or supports c, arranged in any proper way.

The slide D is perforated with holes of semielliptical form, and these holes are covered by a sliding plate, E, which are also perforated with semi-elliptical holes d. The plate E is fitted in guides e, attached to the slide D, and said plate is provided with a rack, f, at a portion of its under side, into which rack a toothed

segment, g, gears, the latter having a handle, h, attached to it, by moving which the plate E may be adjusted to bring the perforations of the slide D and plate E more or less in register with each other, so as to increase or diminish the capacity of said openings and regulate the flow or discharge of the seed, as may be required. This will be fully understood by referring to Fig. 4.

To the slide D, at the side opposite to that where the segment g is attached, there is secured a rack, i, into which a toothed segment, j, gears, the latter being provided or formed with an arm, F, and working on an axis, k, which is concentric with the segment j. (See Fig. 2.) The outer end of the arm F is connected by a pitman, G, with a crank, l, on a small shaft, m, which has a bevel-pinion, n, upon it, said pinion gearing with a bevelwheel, o, on a shaft, H, which forms the axle of one of the wheels C, as shown in Fig. 2. This shaft H is allowed to slide in its bearings for the purpose of throwing the wheel o in and out of gear with the pinion n, and said shaft is thus adjusted by means of a lever, I, the lower end of which is forked and fitted over a grooved wheel, p, on the shaft H. (See Fig. 3.)

From the above description it will be seen that when the wheel o is in gear with the pinion n, and the machine is being drawn along, a reciprocating motion will be communicated to the slide D through the medium of the rack i and toothed segment j, and the seed discharged through the perforations of the slide D and plate E, the flow or discharge of the seed being regulated by the adjustment of the plate E through the medium of the rack f and toothed

segment g, previously alluded to.

To the back part of the frame A there are attached three metal plates, J J, one at each side and one at the center, and to each of these plates a bar, K, is secured by a bolt, q. These bars K are connected at their outer ends by a shaft, L, and the inner ends of said bars are of bent form, as shown at r, and have a bolt, s, passing through them and through any of a series of holes, t, in the plates J, the holes t being made in the arcs of circles of which the bolts q are at the centers. (See Fig. 1.) In consequence of the holes t and bolts s, the bars K may be adjusted at a greater or less

degree of inclination, for the purpose of regulating the depth of the penetration of the teeth or coverers M, which are attached to the bars N, fitted loosely on the shaft L. (See Figs. 1

and 2.)

O is a bar which is underneath the bars N of the teeth or coverers M, and is connected at its ends to arms P, which are fitted loosely on the shaft L. This bar O has a chain, Q, attached to it, which passes over a pulley, u, in a horizontal arm, R, on frame A, and is connected to the lower end of a lever, S, provided with a segment-arm, T, over which the chain Q passes. The lever S has its fulcrum v at the rear of the seed-box B; and it will be seen that by shoving the lever S forward the bar O will be raised, and the bars N, and consequently the teeth and coverers, all raised simul-

taneously. The teeth or coverers may be retained or held in an elevated state by placing the front end of the lever S under a hook, U, at the back part of the draft-pole.

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

The method of operating the slide D through the medium of the rack i, toothed segment j, and gearing n o, in combination with the sliding plate E, which is moved upon the slide D by means of the rack f and toothed segment g, the whole arranged as described and represented.

THOMAS A. GALT.

Witnesses:

E. O. Cook, R. CHAMPION.