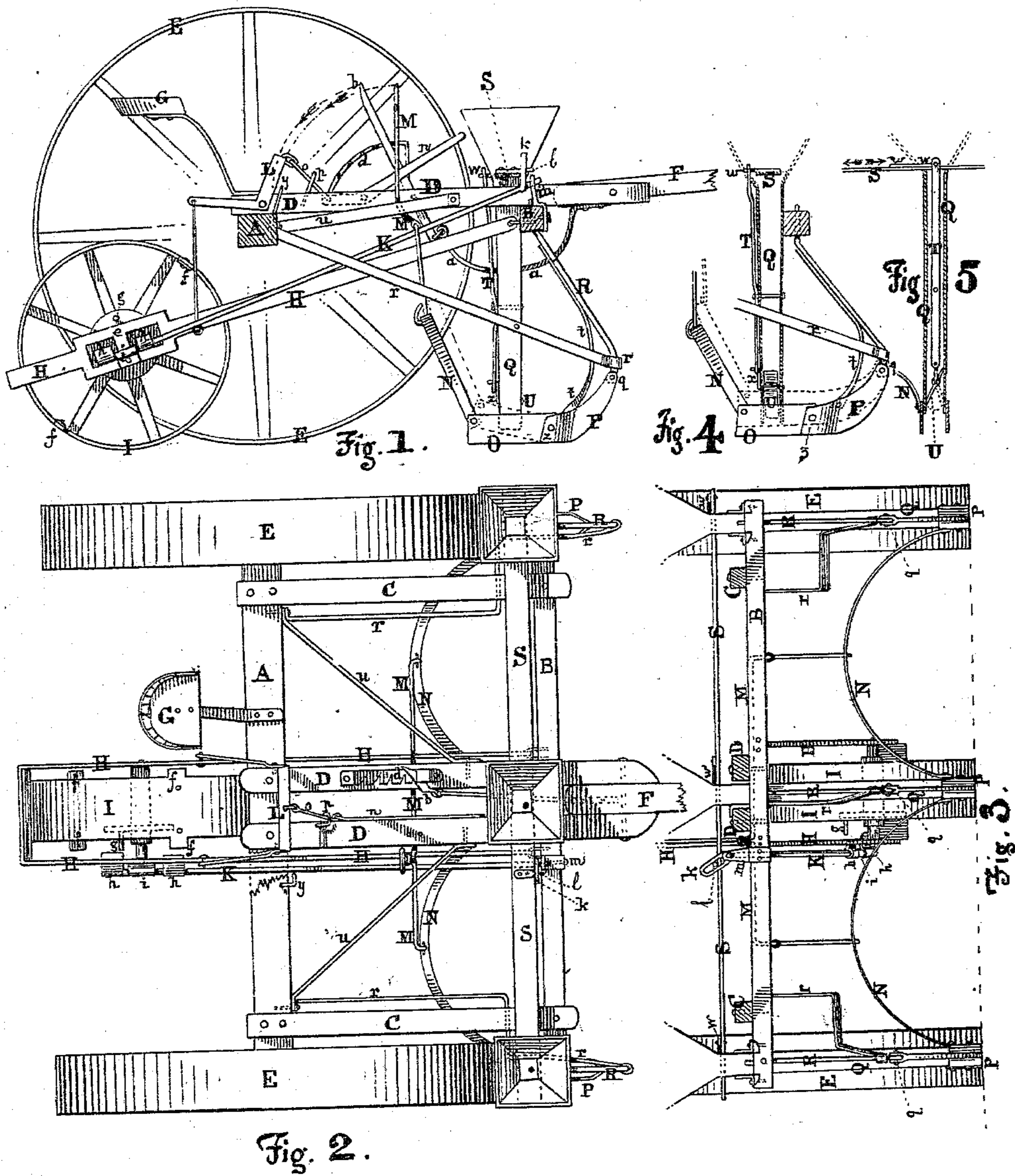


R. H. MATHEWS.
Corn and Seed-Planter.

No. 115,755.

Patented June 6, 1871.



Witnesses
J. F. Chester
W. Burris

Inventor,
Rodney H. Mathews
By Gilbert B. Fowler
his Att in fact.

UNITED STATES PATENT OFFICE.

RODNEY H. MATHEWS, OF NEBRASKA CITY, NEBRASKA.

IMPROVEMENT IN CORN AND SEED PLANTERS.

Specification forming part of Letters Patent No. 115,755, dated June 6, 1871.

To all whom it may concern:

Be it known that I, RODNEY H. MATHEWS, of Nebraska City, in the county of Otoe and in the State of Nebraska, have invented a Corn-Planter or Corn and Seed Planter; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawing making a part of this specification, in which like letters of reference refer to like parts, and in which—

Figure 1 represents a side elevation; Fig. 2, a plan view; Fig. 3, a front view; Fig. 4, a side elevation; and Fig. 5, a rear sectional elevation.

This invention relates to having three runners, together with a corn-dropping attachment; also in a third wheel following the central dropper for marking the row and for working the dropper-bar; also, in having the runners made independent of the dropping-shanks, so as to retract and accommodate the planting to the inequalities of the soil, being made for this purpose in two pieces pivoted together and to a brace in front of them, and at their rear two arched rods; also, in levers for raising the runners when not in use; also, for raising the marking and dropping wheel for same purpose; also, in placing the mechanism for the momentary retention of the seed at the bottom of the runner-shanks, on the outside of said banks, so as not to interfere with the seed; also, in using much larger wheels than ordinary for facilitating the draft and for preserving a more level course.

A represents the axle carrying the seat G, and about eight feet long; B, the front beam of frame, of a similar length, and about three feet ahead of the axle, and to which the three hoppers are attached, with their shanks Q Q Q; C, two parallel beams of frame, uniting the ends of front beam B with the axle A; D D, two parallel fore-and-aft central beams passing forward on each side of the central shank, where they embrace the heel of the tongue F, the latter being retained between them by a bolt. These beams are braced to the axle A by diagonal braces, *u u*. E, the wheels, about five feet in diameter, each behind a runner; F, the tongue, to the heel of which and beneath it a bent rod, *a*, is fastened, said rod passing below the beam B and connected behind the center hopper to the lever

b, the latter being pivoted on one of the beams, D, and having a ratchet, *d*, to retain it in raising the front of the machine when not planting; G, the seat for driver on the axle A in the rear of the machine; H H, a frame composed of two parallel sloping bars on either side of the wheel I, in the lower part of which the said wheel is pivoted and runs behind the axle A. The front ends of said bars are hinged to the front bar B, and connected by a scraper behind the wheel. I, the marker and dropper wheel, about eight feet in circumference, and about the same width as the larger wheels E E, and is pivoted in the rear part of *e* of the frame H H, the rim being provided with the projecting markers *fff*. On the axle of this wheel is a disk carrying a pin or pins, *g*, which alternately vibrates one of the arms *h h* of the rod K. This wheel covers the corn planted by the center dropper. The distance between the hills will be regulated by the number of these pins *g*. K, the rod by which the dropper-bar S is oscillated, as just described, by the pin *g* alternately striking one of the arms *h h* of the rod, said arms being set at different angles for this purpose. The rod is here mounted in a bearing, *i*, and terminates forward beneath the sliding dropper-bar S in a slotted arm, *k*, which retains and moves the finger *l* on the said bar S. The end of the rod here is pivoted in a bearing, *m*, on the bar B. L is a double lever, united by a cross-bar, each arm fastened to a rod connecting with the frame H H, for raising the wheel I when not at work. The cross-bar is connected with a lever or handle, *n*, pivoted to one of the central bars D. A catch to hold the lever when depressed is shown at *p*. M, a lever with a transverse horizontal rod pivoted on or under the beams D D, terminating at either end in an arm and rod, connecting them with one of the arched rods N N. A catch or hook, *y*, on the axle A retains the upper arm of lever M when depressed for the purpose of raising the heels of the runners O O O. N N, curved rods, arched upward and spanning the spaces between the runners, their lower ends pivoted to the heels of the runners; O O O, the horizontal portion of the runners, which pass on either side and independent of the shank Q of each dropper. To the rear upper corners of each runner O O

O the lower ends of the rods N are attached, and their front ends are pivoted to the curved front portions P. These, in turn, are each pivoted on their upper points to the braces R R R, which come down from the beam B, which braces are strengthened by the braces *r r r*, one of which is fastened to the shank of the respective corn-droppers, and thence passing to the axle A, where they are also fastened. Beneath each brace R R R, and attached thereto, is a spring, *t t t*, pivoted in the front piece of the runner. S, the sliding bar of the droppers, passing through each hopper, and actuated by the rod K and slotted arm *k* operating on the pin *l*. Near each hopper is attached to this bar S a pin, *w w w*, which is centered in the end of a lever, T T T. T T T, three levers last mentioned, operated by pins *w w w* on the sliding bar S. Said levers are respectively pivoted near their middle parts in each of the runner-shanks Q Q Q, and terminate below in an eye, which retains one of the cranks, *x x x*, to which the retaining-valve U, for retaining the corn previous to final dropping, is attached, better seen in Figs. 4 and 5, which is simply a flat plate filling the shank, suspended in the middle on an axle, which lets the corn fall when perpendicular, or nearly so, when lever T is vibrated by the pin *w* above.

The operation of this machine is as follows: It is intended to plant three rows of corn at a time, the runners being placed about four feet apart. The wheels E E are larger than usually employed—say five feet in diameter—so as to impart a more level course to the machine and facilitate its draft. The sliding dropper-bar S is operated by the rod K, which is oscillated by the pin *g* on a disk or axle of the wheel I, which pin alternately strikes one of the short arms or dogs *h h* of said rod. The slotted finger *k* at the upper end of the rod works the pin *l* of the sliding bar S, and this motion is continued so long as the wheel I is in contact with the ground, and can be made to cease by raising the latter from its contact with the soil by the depression of the levers L and *n*. The latter lever *n* is then hitched under the catch *p* on bar D when passing over uneven soil.

The runners, being made in two pieces, O P, pivoted together at *z*, and the latter pivoted to the brace R, and the former piece O pivoted to the arched rod N, and not attached to the shanks Q, are thus allowed to rise when they strike a hill, so as not to bury the seed too deep, and are prevented from inordinate rise by the pressure of the spring *t* on the part P and of the arched rod N on the heel of the runner. The operation of the retaining-valves has been described above. The whole of the planting parts may be lifted clear from the soil, when necessary, by means of the lever *b* pivoted to the bar D, its lower end linked or connected with the bent rod *a a* attached to the heel of the tongue F. The lever *b* may then be inserted in the ratchet *d* on the bar D. The levers M raise the arches N N, and, consequently, the runners O O O when traveling from work. The wheel I for marking is placed within reach of the driver at seat G, so that he can retard or advance its motion so as to bring the rows into line if from great unevenness of the ground the planting has fallen behind or has got in advance.

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

1. The arrangement of the elongated frame H, hinged or pivoted to the front beam of the machine, the third or central wheel I, provided on its axis with a disk having a projecting pin, *g*, oscillating rod with dogs *h h*, central or dropper bar S, levers L *n*, and holder *p*, all constructed and combined so as to operate substantially as described.

2. The arrangement of the runners O and P, shanks Q, braces R *p*, springs *t*, arched rods N, lever M, and holder *y*, all constructed and combined so as to operate substantially as described.

In testimony that I claim the foregoing corn and seed planter I have hereunto set my hand this 24th day of January, 1871.

RODNEY H. MATHEWS.

Witnesses:

E. THURLOW,
H. N. CORNELL.