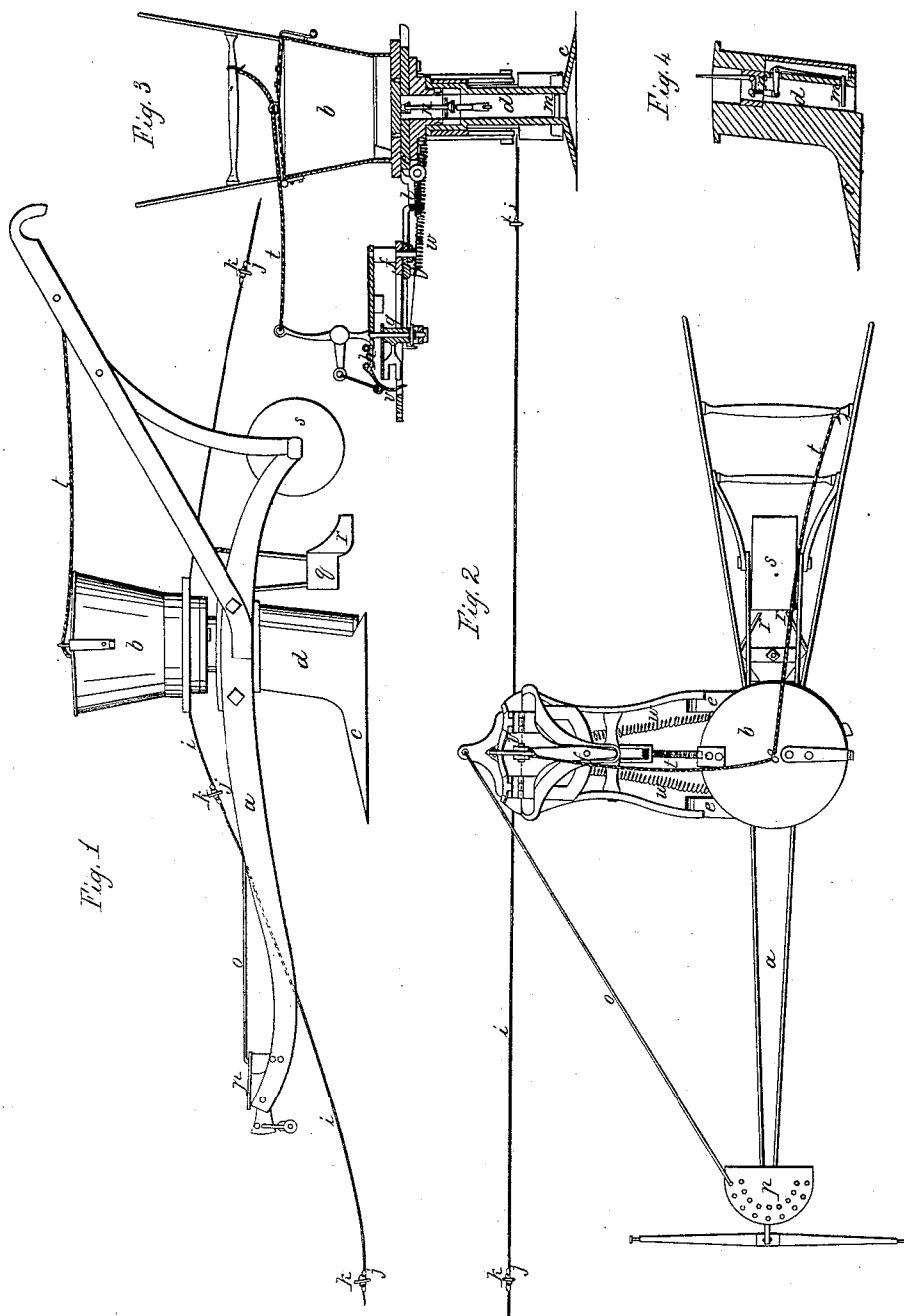


M. ROBBINS.
CORN PLANTER.

No. 16,611.

Patented Feb. 10, 1857.



UNITED STATES PATENT OFFICE.

MARTIN ROBBINS, OF CINCINNATI, OHIO.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. 16,611, dated February 10, 1857.

To all whom it may concern:

Be it known that I, MARTIN ROBBINS, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Corn-Planters; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the annexed drawings, making part of this specification.

The object of my invention is to produce a seed-planting plow which (without previous laying off of the ground) will plant in equidistant and opposite hills, and thus admit of cross plowing and cultivation.

Machines which have heretofore been contrived to drop seed in hills with sufficient regularity for cross-cultivation have failed in performing their object, because a driving-wheel working upon loose and shifting soil has been relied on as the source of motion to the seed-planting apparatus. Such a wheel is unavoidably quite irregular in its action, and hence the crooked cross-rows, which are the invariable result of this mode of planting, and which cause most farmers to prefer the old mode of "marking off."

In the accompanying drawings, Figure 1 is a side view of my machine. Fig. 2 is a top view of the same. Fig. 3 is a transverse section through the hopper. Fig. 4 is a longitudinal section through the hopper.

a is a beam of usual construction.

b is a hopper fastened in such manner upon the top of the beam as to permit of its horizontal rotation upon the latter.

c is the share, attached by means of the tubular sheth *d* to the under side of the beam beneath the hopper. At the bottom of the hopper, and within the hollow sheth, is a suit of seed measuring and dropping mechanism, which, not differing materially from others now in use, requires no specific description. From one side of the hopper projects a pair of lugs, *e*, for the hinged attachment of a frame, *f*, called by me the "arm."

g is a vibrating tappet in said arm, which has a tooth or claw projecting from its front side. This tappet is contained in a case or box, *b*, open at the ends to permit the passage of a chain, *ijk*, hereinafter described, which operates the tappet. A rod, *l*, communicates the motion of the tappet to the seed-delivering mechanism.

In order to insure complete regularity, each charge of grain is finally dropped by means of a valve, *m*, placed near the bottom of the hollow sheth, and which is connected with the seed-measuring mechanism in the hopper by means of a swivel-jointed rod, *n*, which arrangement admits of the free exercise of the valve functions in every position of the hopper.

o is a brace, which extends from the outer end of the arm to the fore end of the beam, serving to adjust the former and hold it in its proper place for the time being. The adjustable element is provided in the form of a perforated plate, *p*, attached to the beam.

ijk is a chain, of which the rods *i* correspond in length to the desired distance between the consecutive hills. These rods are united end to end by means of hook-and-eye joints *j*. At each joint is a button, *k*. *w* are springs, which serve to return the tappet *g* to its normal position.

qr is a device for removing clods from the hills and covering the seed with the more finely-pulverized earth, and consists of a prow, *q*, composed of two plates, *r*, which diverge from a single vertical edge, and two wings, which extend backward and converge inward from the rear edges of the plates, and have their lower edges somewhat lower. Behind and somewhat higher than this is a roller, *s*, to press the earth compactly about the seed.

t is a cord, which, extending from a hinged or shifting cap, *v*, of the chain-box to the hand of the operator, enables the liberation of the chain when desired.

The chain and machine are managed or operated as follows: A straight furrow of commencement being laid off along one side of the field, an end of the jointed rod or chain is made fast at one end of said furrow, and is extended rectangularly from it to the other side of the field, at which point the chain is also attached in any suitable manner. A sight being then erected one-half as far on one side of the chain as the distance that is desired between the rows, and the chain being placed within the box at the end of the arm, as the machine is drawn forward, the buttons *k* and spring *w*, acting through the vibrating tappet on the seeding mechanism, cause the depositing of the seed at regular intervals. When the machine has reached the termination of a

row the chain is removed from the arm and the machine is brought onto the next row, facing in the opposite direction. The arm and hopper are then swung round until the former projects from the opposite side of the beam, and, the chain being again placed within the box, the work proceeds as before. The operator, after having proceeded a few steps, may shift that end of the chain to the position required for the next row, the straightness of the chain being unimportant, as its office is solely to determine the intervals of seed-dropping. In maintaining the direction and straightness of the rows the operator will be guided wholly by the sight. By such means, with the use of the reversible arm and hopper, the chain may lie always on the planted side of the field with

respect to the machine, and only requires to be shifted each time the distance between two consecutive rows.

I claim as new and of my invention herein—

The reversible hopper and arm, with the vibrating claw or tappet, connected as described with seeding mechanism, in combination with the jointed rod or chain provided with buttons or similar devices, for the purposes explained.

In testimony of which invention I hereunto set my hand.

MARTIN ROBBINS.

Witnesses:

GEO. H. KNIGHT,
JAMES H. GRIDLEY.