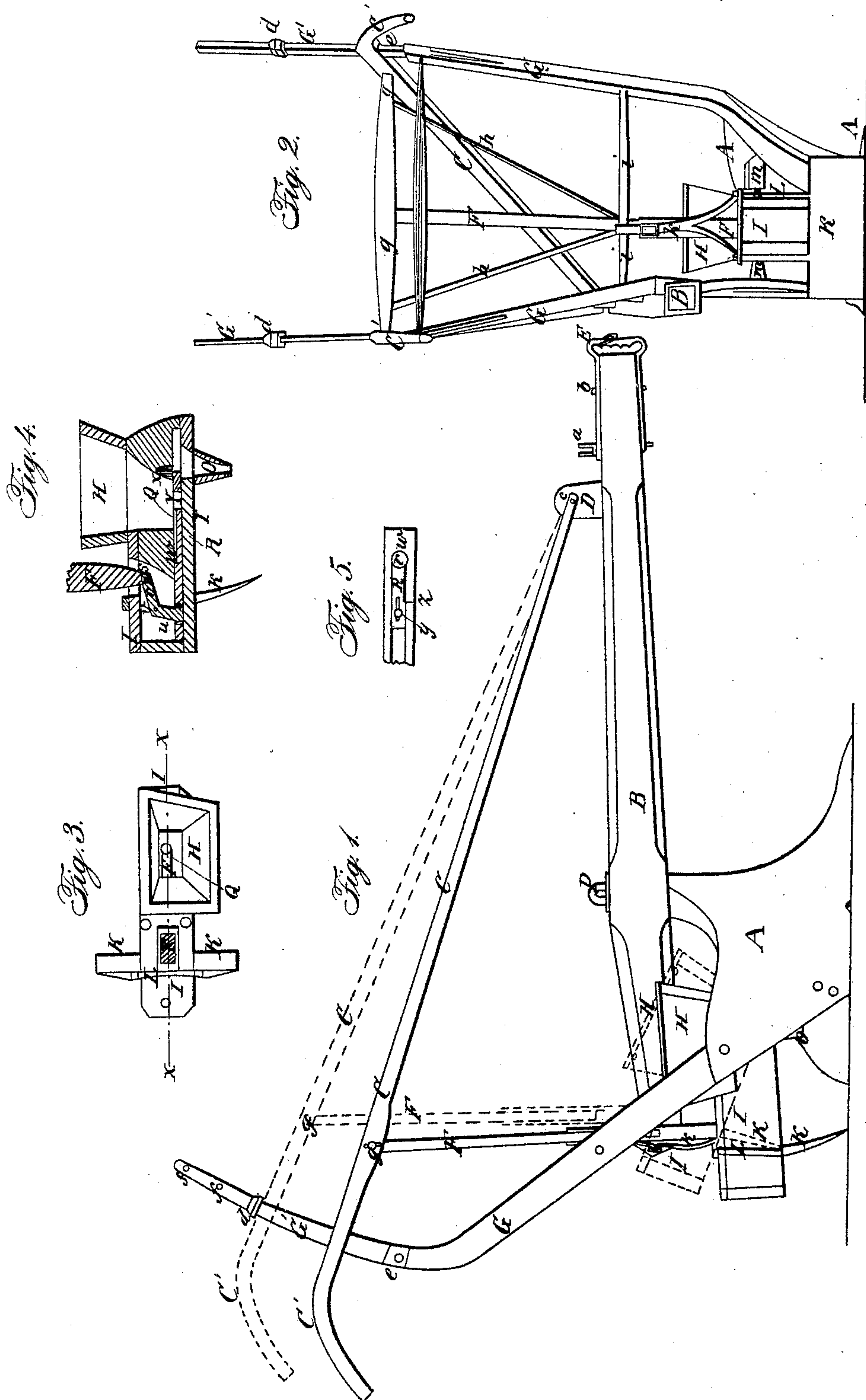


J. ROBINSON.  
Seed Planter.

No. 18,772.

Patented Dec. 1, 1857.



# UNITED STATES PATENT OFFICE.

JOHN ROBINSON, OF ELI, OF SHARPSTOWN, MARYLAND.

## IMPROVEMENT IN SEED-PLANTERS.

Specification forming part of Letters Patent No. 18,772, dated December 1, 1857.

*To all whom it may concern:*

Be it known that I, JOHN ROBINSON, of Sharpstown, county of Somerset, in the State of Maryland, have invented a new and useful Improvement 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, and to the letters of reference marked thereon.

The nature of my invention consists in certain improvements in seed-planters, as herein-after more fully explained.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the accompanying drawings, Figure 1 represents a side elevation, Fig. 2 a back view, Fig. 3 a top view, of seed-box and attachments thereto; Fig. 4, a vertical longitudinal section at *x x*, Fig. 3; and Fig. 5, a top view of seed-slide and valve. The red lines in Fig. 1 represent the handles and seed apparatus in an elevated position.

A is the plowshare or furrow-cutter, of the form shown in the drawings.

B is the beam, which is secured to the plowshare by the bolt *p*, and to which (at the end E) the horses are geared.

Secured firmly to the back edges of the plowshare A, and terminating in the iron guides G', (upon which are the adjustable stops *d*, the uses of which are yet to be explained,) are the wooden uprights G, curved in the manner represented in the drawings. These wooden uprights G, with their iron termini, are suitably braced or strengthened by cross-pieces *i*. The metal guides G' are provided with small holes *f* for the insertion of the pins, which bolt or secure the stops *d* at any desired point upon said guides G'.

Near the end E of the beam B is a short upright post, D, (of wood or metal,) to which are jointed or pivoted (one on either side) the wooden bars C, terminating in handles C' at the rear end of the machine, which handles are so mortised or otherwise constructed as to allow the curved metal guides G' to pass through them.

Between the two bars C, and extending from one to the other, is the cross-piece or rock-shaft *g*, pivoted at either end in the bars C. Descending from this rock-shaft is the arm F, braced by two inclined bars or rod, *h*.

The seed box or hopper H, together with the machinery-box I, is pivoted between the mold-board and landside at *m m*, (see Fig. 2,) whereby it is rendered capable of a vibratory motion in a vertical plane, which is governed by the handles C' at the option of the operator of the machine.

The dirt-gatherer and coverer K is secured to the box I by means of straps L and nuts, and may be secured at any desired point on said box.

The bifurcated strap *k* is fast at its upper end to the cross-bar *i* and at its lower to the box I, and is provided with a buckle for purposes of shortening and lengthening it.

By reference to Fig. 4 the construction and arrangement of the seed-box H, machinery-box I, and the attachments thereto will be readily understood, where F is the lower end of the arm, (seen in full at Figs. 1 and 2,) which is pivoted at *s* to the upper end of a knee or crank-lever, said knee being pivoted at *r* to the box I, and having its lower end working in a slot, *u*, in the seed-slide *w*.

R is the adjustable slide or gage plate, by which the size of the charge or cup *v* is regulated, and which is secured by a screw, *y*, passing through the slot at *z*. Q are clearing-pins, which project upward slightly from either side of the metallic slide R and a short distance back of the charge or cup *v*, for the purpose of agitating the seed slightly to prevent clogging and failure of a full charge in the cup, and *x* represents the brush constructed and operating in the usual manner.

Having described the construction and arrangement of parts, I will now proceed to explain the operation of my machine, as follows, viz:

The hopper being full of seed and the horses geared to the beam B, the motion forward is commenced, and the usual furrow is cut in the surface of the ground, the gatherer and coverer K meanwhile collecting a quantity of earth from the side of the furrow, the operator, with his hands on the handles C', keeping them down until it is necessary to deposit the seed. By a very slight elevation of the handles C' the rod F is raised, and the crooked lever, Fig. 4, moved upon its pivot *r*, throwing forward the slide or valve *w* until the measure *v*, passing under the brush *x*, is directly over and corresponds with the spout O, when the quantum



of seed previously prevented from falling by the bottom of the box I is dropped into the ground. The lifting of the handles C', being now continued until they reach the stops d, previously adjusted to the proper height, allows the dirt-gatherer or coverer K to deposit the dirt which it has been collecting immediately upon the seed just dropped, thereby forming a hill directly over the seed or collections of seeds planted. The handles are now lowered to their original position upon the guides, and the gatherer begins at once to collect the earth for the formation of the next hill. The slide w resumes its position, (shown in Fig. 4,) and is again filled with seed ready to be planted, as before, when the planter has passed over the desired space of ground.

The use of having the stops d adjustable, as above described, is that by their height the quantity of earth deposited in each hill may be regulated according to the nature of the soil and the kind of seed to be planted. The strap k is the adjustment by which the depth of the coverer K in the furrow is regulated, and consequently the quantity of earth which is collected between the formation of each hill, and is also used to lift and fasten the hopper and machinery therewith connected away from the ground when the apparatus is to be used solely for purposes of plowing.

By the bars C being jointed to the front end

of the beam B the depth of the furrow is regulated with more ease and certainty than by the old method, for in the usual manner of plowing when the cut was wanted to be deeper the handles were elevated and when shallower they were depressed, whereas by jointing the handles C' to the front end of the beam to make the plow run deeper I simply push forward and to make it run shallower pull back the handles C', thus avoiding the conflicting motions of the old method.

Having described the construction and operation of my machine, what I claim as new, and desire to secure by Letters Patent, is—

1. Regulating the quantity of earth deposited over and adjacent to the seed by means of adjustable stops d, when used in connection with the curved arms G', lifting-arms F, and adjustable strap k, in combination with the adjustable coverer K, the whole constructed and operating as and for the purpose set forth.

2. The combined arrangement of the vibrating box I, lifting-arm F, adjustable strap k, and adjustable stop d, the whole operating as and for the purpose set forth.

In testimony whereof I have hereunto set my hand this 5th day of August, 1857.

JOHN ROBINSON.

Witnesses:

RICHARD P. DAILY,  
GILLISS T. TAYLOR.