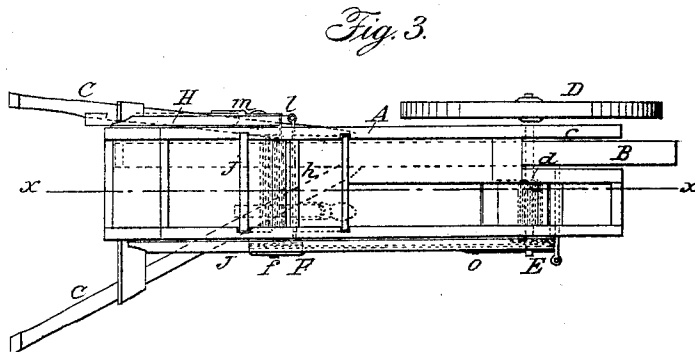
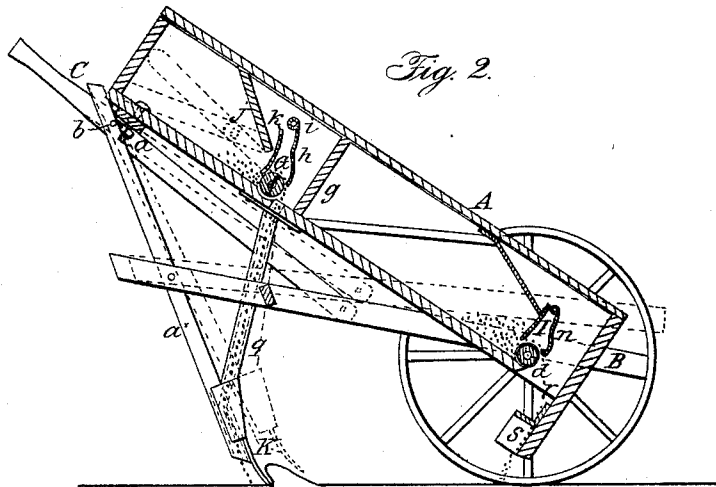
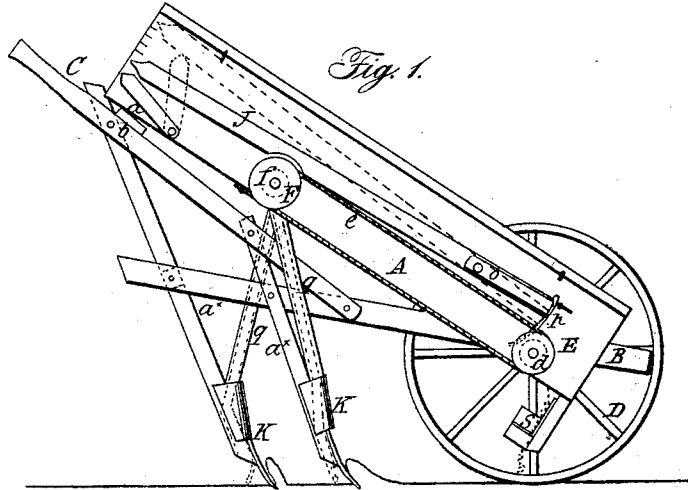


J. B. TURNER.
Seed Planter.

No. 28,217.

Patented May 8, 1860.



Witnesses:

Franklin E. ...
E. B. ...

Inventor:

J. B. Turner

UNITED STATES PATENT OFFICE.

J. B. TURNER, OF JACKSONVILLE, ILLINOIS.

IMPROVEMENT IN SEEDING-MACHINES.

Specification forming part of Letters Patent No. 28,217, dated May 8, 1860.

To all whom it may concern:

Be it known that I, J. B. TURNER, of Jacksonville, in the county of Morgan and State of Illinois, have invented a new and Improved Seeding-Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side view of my invention; Fig. 2, a side sectional view of the same, taken in the line *x x*, Fig. 3; Fig. 3, a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the several figures.

This invention is more especially designed for sowing wheat or other grain or seeds among standing corn, and to sow the grain or seed either broadcast or in drills, alternating, if necessary, from one mode to the other, at the will of the operator and as the nature of the ground may require.

The invention consists in the peculiar means employed for attaining the above end, and also in so constructing and arranging the parts of the machine that the latter, while in operation, will not be liable to injure the standing corn, and will be able to pass with facility over rough or uneven ground without causing any disarrangement of the working parts of the machine.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A is a seed-box of rectangular form, which is fitted on a plow or cultivator frame, as shown in Figs. 1 and 2, said frame being composed of a beam, B, handles C C, and inclined bars *a^x a^x*. This seed-box is secured to the frame by having a screw or bolt, *a*, pass loosely through its uppermost end and through a cross-bar, *b*, attached to the handles C C, and by having the front part of the beam B pass through a slot or opening, *c*, in the box, said slot or opening being of such dimensions and the bolt *a* sufficiently loose to allow the lower end of the seed-box to rise and fall to a certain requisite extent without affecting the beam B.

Through the lowermost end of the seed-box A a shaft, *d*, passes. This shaft has a wheel, D, attached to one end of it, said wheel supporting the lowermost end of the seed-box, as shown clearly in Figs. 1 and 2. To the oppo-

site end of shaft *d* a pulley, E, is attached, said pulley having a band, *e*, passing around it, which band also passes around a pulley, F, which is on one end of a shaft, *f*, that passes through the seed-box near its elevated end. The seed-box, it will be seen by referring to Figs. 1 and 2, has an inclined position, forming an angle of about forty-five degrees with a horizontal line.

In the seed-box A, just below the shaft *f*, there is a partition, *g*, and over the shaft *f* a plate, *h*, is suspended on a rod, *i*. This plate *h* is allowed to swing loosely on rod *i*, its lower end being just in contact, or nearly so, with shaft *f*. The plate *h* is equal in width to the interior of the box A. Just above the shaft *f* an inclined guide or guard plate *j* is placed. This plate extends the whole width of the box, and between the lower edge of said plate and the shaft *f* there is an adjustable curved or segment plate, G, which is fitted in curved grooves *k* in the sides of the seed-box, and is allowed to work freely up and down therein. The lower part of the plate G is quite close to the shaft *f*, and one end of said plate has an arm, *l*, which projects through a curved slot in one side of the seed-box, and is attached to a lever, H, which is secured by a fulcrum-pin, *m*, to one side of the seed-box. The shaft *f* has a corrugated surface, which may be formed by punching, rasping, or cutting the same, or by covering the shafts with wire-cloth. The shaft *d* of the wheel D is also corrugated or arranged in a way precisely similar to shaft *f*, and a swinging plate, *n*, is also placed in the box above shaft *d* precisely similar to the swinging plate *h* over the shaft *f*. A segment plate, I, is also fitted in grooves *p* in the sides of the seed-box, said plate having the same relative position with the shaft *d* as the plate G has with shaft *f*. The plate I has a lever, J, attached to it, said lever being secured by a fulcrum-pin, *o*, to the outer side of the seed-box and extending up to its elevated end.

To the lower ends of the inclined bars *a^x a^x* of the plow or cultivator, teeth or shares K K are attached, one to each, and a flexible tube, *q*, is also attached to each bar *a^x*, the lower ends of said tubes communicating with the lower parts of the bars *a^x*, which are hollow or tubular. The upper ends of the tube *q* communicate with the seed-box just above the par-

tition *g*. At the lower end of the seed-box there is a discharge-opening, *r*, below which a scattering-plate, *s*, is attached.

The operation is as follows: The seed-box *A* is supplied with a requisite quantity of seed, both above and below the partition *g*, and as the implement is drawn along the shafts *d f* are of course rotated, one, *d*, directly from the wheel *D* and the other, *f*, by the band *e* from the shaft *d*. The shafts *d f* by their rotation and in consequence of their corrugated or roughened surface carry the grain or seed over them and discharge it from the seed-box, the distribution or discharge being due to friction and gravity. The swinging plates *h n* serve to regulate the flow or passage of the seed over the shafts, rendering it even or uniform. By actuating the levers *H J* the segment-plates *G I* may be raised or lowered and the quantity of seed to be planted on a given area regulated as desired, and the supply cut off entirely from the shafts, when necessary. The outer ends of the levers *H J* may work over graduated arcs or lines in order that the plates *G I* may be nicely adjusted, according to the quantity of seed to be sown on a given area. The shaft *f* distributes seed into the flexible tubes *g*, which convey it into the furrows made by the teeth or shares *K K*. The seed therefore distributed by shaft *f* is planted in drills, but the seed distributed by shaft *d* is sown broadcast as it falls on the plate or scatterer *s*.

It will be seen from the above description that the operator, by adjusting the levers *H J*, and consequently the segment-plates *G I*, may cut off or put in operation either seed-distributing device, and also regulate the quantity of the discharge as may be desired. Consequently in spots or parts of the land—on dry ridges, for instance—where it would be preferable to sow broadcast the operator can do so by simply closing or shoving down the plate *G* by actuating lever *H*.

In case drilling would be preferable in the hollows between the ridges, the plate *I*, by ad-

justing lever *J*, may be closed, and the seed-drilling device only rendered operative.

The machine is fully under the control of the attendant or operator, and as the lowermost part of the seed-box is allowed a certain vertical play or movement it is allowed to conform to the inequality of the surface of the ground without deranging any of the working parts of the machine. The seed-box also being set directly over the beam *B*, the implement is rendered quite compact, and is allowed to pass between the rows without being liable to injure the corn.

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

1. The combination of a rotary corrugated seed-distributing shaft, *f*, swinging or regulating plate *h*, and a gage-plate or cut-off, *G*, placed within a seed-box, *A*, and arranged to operate as and for the purpose set forth.

2. The combination of two seed-distributing devices, as above, when placed in a seed-box, *A*, divided into two compartments by a partition, *g*, and placed on a plow or cultivator frame, the whole being arranged, substantially as described, to admit of the sowing of seed or grain broadcast or in drills alternately from one mode to the other, as may be required, while the machine is in operation, for the purpose specified.

3. The general arrangement of the seed-box *A*, beam *B*, handles *C C*, and wheel *D*, as shown and described, whereby the wheel and seed-box are allowed to rise and fall independently of the beam, and the working parts prevented from being disarranged or injured by any irregular movement of the plow, and the flow or discharge of the seed or grain rendered more uniform than it otherwise would be.

J. B. TURNER.

Witnesses:

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