

J. SHANNON,

Seed Planter.

No. 29,626.

Patented Aug. 14, 1860.

Fig. 1.

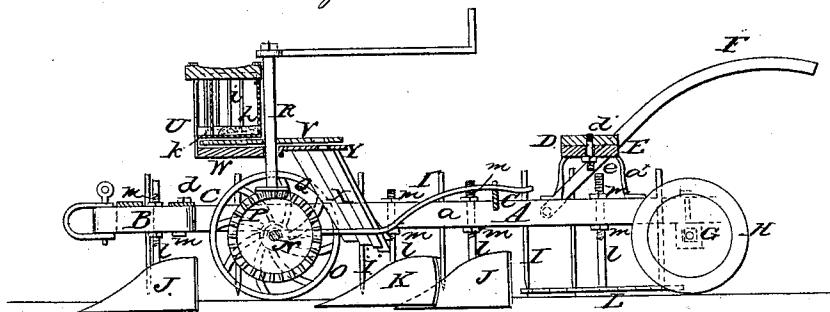


Fig. 2.

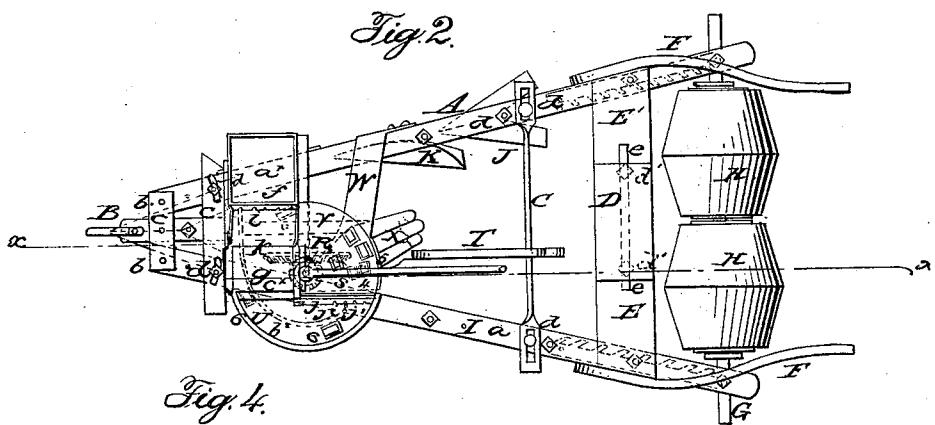
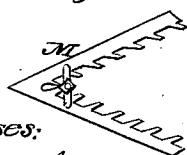


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

JACKSON SHANNON, OF DAKOTA, WISCONSIN.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **29,626**, dated August 14, 1860.

To all whom it may concern:

Be it known that I, JACKSON SHANNON, of Dakota, in the county of Waushara and State of Wisconsin, have invented a new and Improved Combined Seeding-Machine and Cultivator; 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 sectional view of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a plan or top view of the same; Fig. 3, a section of the same, showing the manner in which the shares are attached to the frame; Fig. 4, a detached plan of one of the weed-cutters.

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

The object of this invention is to obtain an implement which may be used as a seeding-machine to plant seed either in hills or drills, and also used as an expanding-cultivator, the implement operating in either capacity equally as well as if it were designed especially for each.

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

A represents the frame of the machine, which is formed of two bars, *a a*, connected at their front ends by pivots or bolts *b b* to a metal plate, *c*, which is attached to a draft-bar, *B*.

C C are two traverse-bars, the ends of which are secured to the bars *a a* by screws *d*, which pass through oblong slots in the bars *C* and into the bars *a*, the oblong slots admitting of the bars *a* being expanded or contracted—that is to say, adjusted nearer together or farther apart, as may be desired—the bars *a a* having an oblique position relatively with each other, as shown in Fig. 2.

D is the driver's seat, which is placed on two cross-planks, *E E*, and secured thereto by screw-bolts *d' d'*, which pass through longitudinal slots *e e* at the inner parts of the planks. (See Fig. 2.) The outer ends of the planks are attached to the supports *a x* on the bars *a a*. This arrangement of the seat and plank *E* admits of the seat being placed at the center of the frame *A* without interfering with the expanding and contracting of the same.

To each bar *a a* a handle, *F*, is attached, and

the back part of each bar *a* is provided with a bearing, in which a shaft or axle, *G*, is placed, the bearings being allowed to move on the axle to admit of the expanding movement of the bars.

On the axle *G* two rollers, *H H*, are placed side by side. The rollers are of double conical form, as shown clearly in Fig. 2, and they are placed loosely thereon, so that they may turn on the axle, the latter being stationary. The bars *a* are provided with teeth *I*, similar to harrow-teeth, said teeth being at suitable distances apart. There are also attached to the bars *a* double mold-board shares *J J*, one to each bar. Covering-shares *K K* and weed-cutters *L* may also be attached to the back parts of the bars *a* when required, and a double weed-cutter, *M*, as shown in Fig. 4, may be attached to the draft-bar *B* when required. When these articles are not needed, other shares or teeth may be substituted. A double mold-board share, *J*, for instance, as shown in Fig. 1, may be employed in place of *M*.

At the front part of the frame *A* there is placed an axle, *N*, having a wheel, *O*, upon it, which supports the front part of the frame *A*. This axle *N* has a bevel-tooth wheel, *P*, on it, which wheel gears into a bevel-pinion, *Q*, on the lower end of a shaft, *R*, which shaft has a vertical position on the frame *A*. The wheel *P* is fitted loosely on the axle *N*, and is moved in and out of gear with a clutch on said axle, so as to be connected or disconnected from it by means of a lever, *T*.

On the frame *A* there is placed a box, *U*, which is of curved formed, as shown clearly in Fig. 2, and is divided into three compartments, *a x b x c x*, by partition-plates *f g*. The plate *f* extends transversely across the box *U* and forms the seed-compartment *a x*, and the plate *g* divides the other part of the box longitudinally into two compartments, *b x c x*.

The partition-plate *f* has a hole, *h*, made through its lower part, and this hole may be contracted as desired by means of a slide, *i*, which is fitted to one side of the plate *f*. The end of the box *U*, which forms the boundary of the part divided by the plate *g*, has a slide, *j*, attached to which a series of cut-off brushes, *j'*, are secured. The slide *j* is grooved vertically, as also is the slide *i*, and the partition-plate *g* may be adjusted in either of the grooves,

so as to regulate the size of the compartments $b^x c^x$ as may be required. This will be fully understood by referring to Fig. 2.

On the shaft R there is placed a horizontal disk-wheel, V. This wheel is directly under the box U, and it forms the bottom of about one half of the compartments $b^x c^x$. The bottom of the other part of the compartments $b^x c^x$ is formed of an inclined plane, k, as shown in Fig. 2. The wheel V is pierced with holes, 1, 2, 3, 4, 5, and 6, which are shown in Fig. 2, and to a suitable cross-piece, W, of the frame A there are five tubes, X, attached, the upper ends of which are in the paths of rotation of the holes in the wheel.

The operation of the machine is as follows: If the implement is to be used for planting seed—corn, for instance—in hills or check-rows, the partition-plate g is so adjusted as to bring the holes 1 2 3 4 5 within the compartment c^x , and the corn is allowed to escape from the compartment a^x down the inclined bottom plate, k, into the holes, which have three of their sides inclined to facilitate the passage of the seed into them and prevent them from choking. These holes are seed-cells, and the wheel V works over a cross-plate, Y, and board W, which retain the seed in the holes until the holes pass over the orifices of the tubes X, which project through the plate Y.

It will be seen that the holes 1, 2, 3, 4, and 5, are quite close to each other and consequently, at every revolution of the wheel V, when said holes pass in line or register with the orifices of the tubes X, five seeds will be dropped simultaneously and quite close together, forming a hill.

The parts are arranged as above described

when planting in hills and in check-rows. In planting in drills the holes 6 and 5 remain open, the others being closed. The cut-off brushes j' perform their usual function—viz., scraping the surplus seed from the tops of the holes. By using the partition g two kinds of seed may be planted at the same time. The front share, J, forms a furrow to receive the seed, the shares K cover the seed, and the rollers H H leave a furrow each side of the hills or drills, forming water-passages to allow the water to escape and prevent the rotting of the seed.

The distribution of seed may be stopped at any time by adjusting lever T so as to throw the wheel P out of gear with the pinion Q.

When the implement is to be used as a cultivator the box U is detached.

Any form of shares or teeth may be attached to the bars $a a$ of the frame A, and they may be attached to said bars a by means of screw-rod standards v , provided with jam-nuts m .

The lever T may be retained, so as to keep the wheel P in gear with the pinion Q, by fitting it in a notch, n , in the bar C, as shown clearly in Fig. 2.

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

The traverse-bars C C, attached to the bars $a a$, as shown, and used in connection with the planks E E and seat D, and the axle G, on which the bars a are fitted loosely, substantially as and for the purpose set forth.

JACKSON SHANNON.

Witnesses:

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