(No Model.)

I. A. BORDNER.

POTATO SEED CUTTER AND DROPPER.

No. 543,168. Patented July 23, 1895.

Fig. 1.

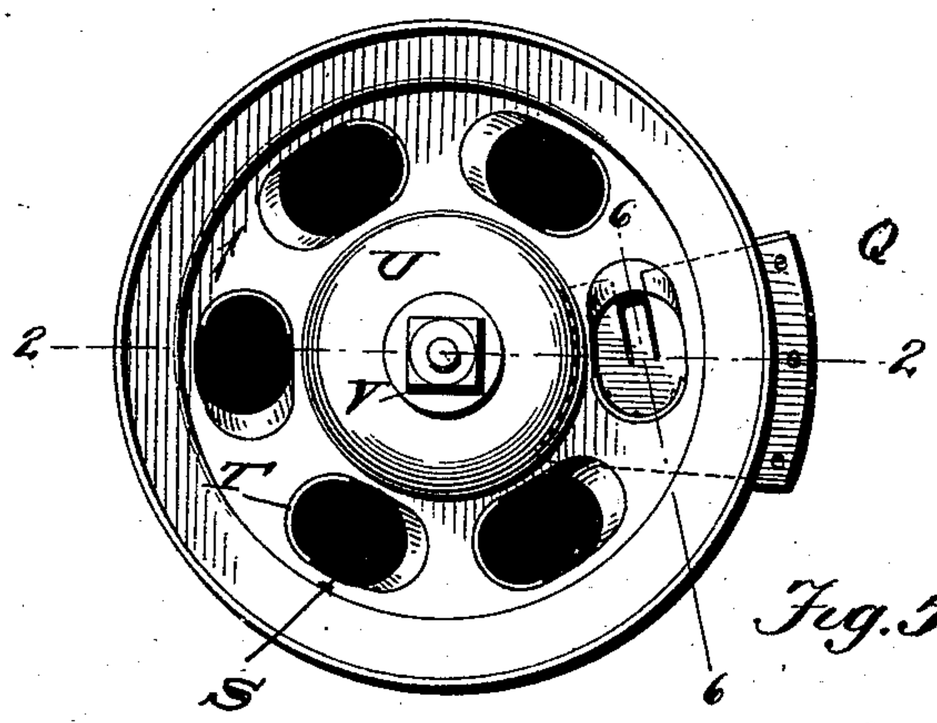
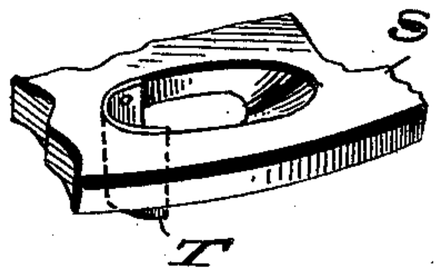


Fig. 2.



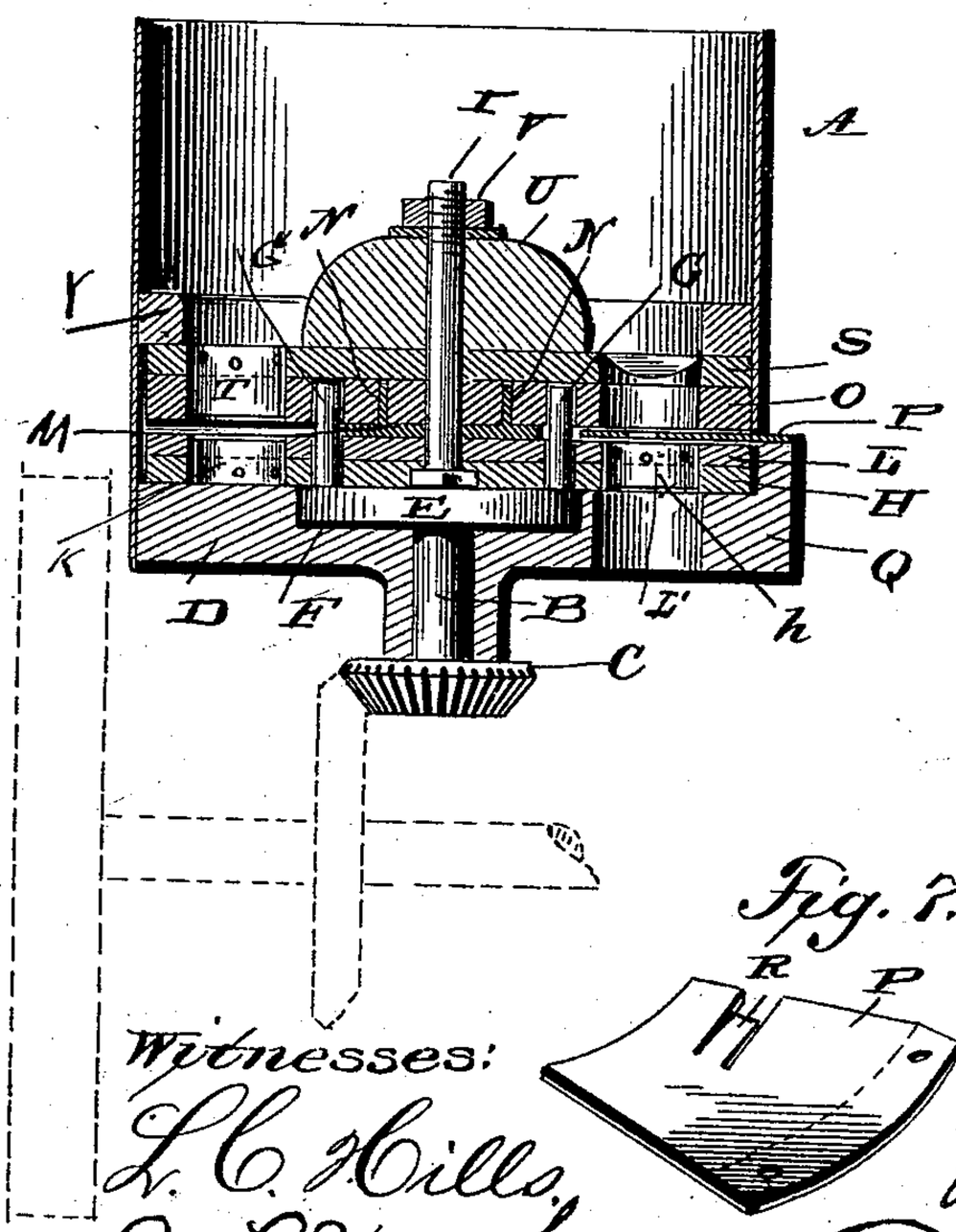


Fig. 3.

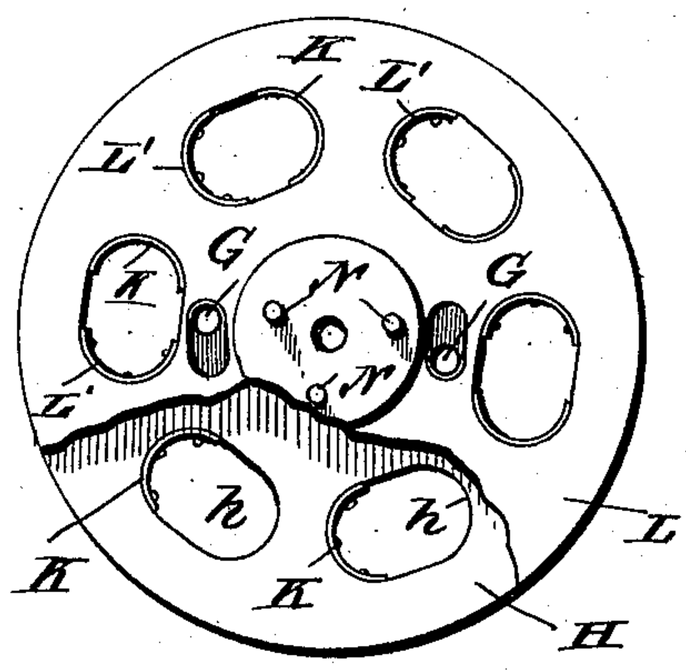


Fig. 4.

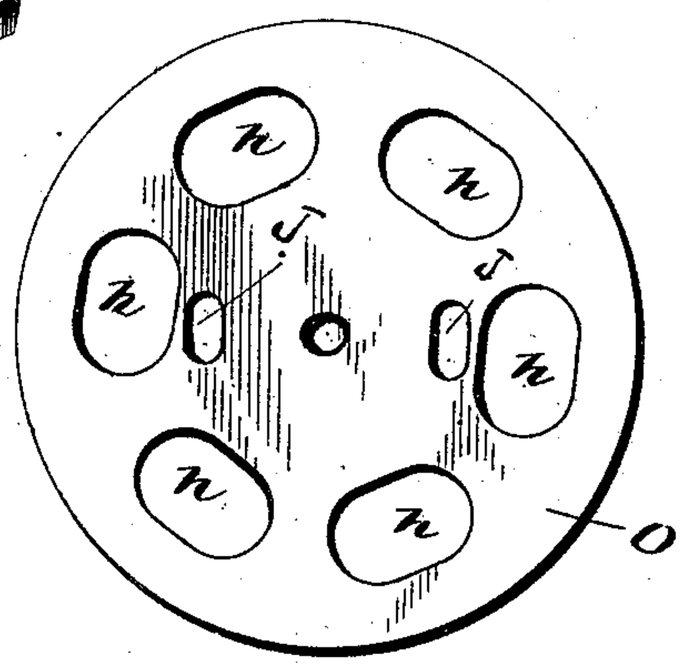


Fig. 5.

Fig. 6.

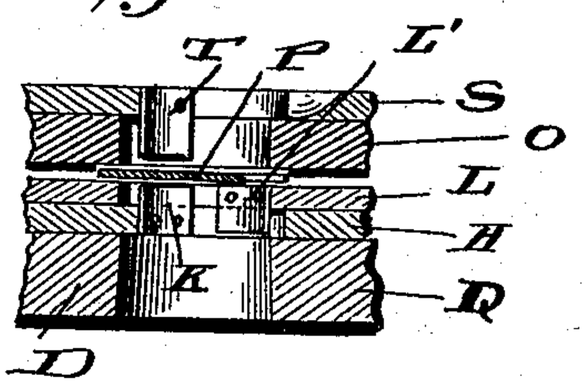


Fig. 7.

Witnesses:
L. C. Hills,
A. L. Stough.

Inventor:
Isaac A. Bordner,
by Franklin H. Hough
Atty.

UNITED STATES PATENT OFFICE.

ISAAC ANDREW BORDNER, OF TIRO, OHIO, ASSIGNOR OF ONE-HALF TO ANTHONY BENDER, OF SAME PLACE.

POTATO-SEED CUTTER AND DROPPER.

SPECIFICATION forming part of Letters Patent No. 543,168, dated July 23, 1895.

Application filed May 23, 1895. Serial No. 550,466. (No model.)

To all whom it may concern:

Be it known that I, ISAAC ANDREW BORDNER, a citizen of the United States, residing at Tiro, in the county of Crawford and State of Ohio, have invented certain new and useful Improvements in Potato-Seed Cutters; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in planters, and especially to a potato-planter which is adapted to be used with different-sized potatoes to cut the same to the desired size before allowing the pieces to fall to the ground, the invention being applicable to either walking-seeders or to those which are propelled by some other motive power.

A further object of the invention resides in the provision of a receptacle for holding the potatoes, which is mounted on a vertical shaft, the said shaft causing a series of apertured plates within the said receptacle to revolve with the said apertures, registering in which apertures the potatoes are designed to drop and be cut into the desired size by means of a cutting-knife fixedly held to the casing of the receptacle and located between two of the said plates.

A still further object of the invention consists in the provision of guides fitting in registering apertures of the registering-aperture plates, whereby the apertures may be made small or larger to adapt the seeder for use with smaller or large potatoes.

To these ends and to such others as the invention may pertain the same consists, further, in the novel construction, combination, and adaptation of the parts, as will be hereinafter more fully described, and then specifically defined in the appended claims.

I have clearly illustrated my invention in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, in which drawings similar letters of reference indicate like parts, and in which—

Figure 1 is a top plan view of the seeder. Fig. 2 is a vertical section on the line 2 2. Fig. 3 is a plan view of the two lower plates having the apertures, a part of the upper plate being broken away. Fig. 4 is a plan view of an upper plate. Fig. 5 is a detail view of one of the apertures and a guide-strip on the upper plate of the potato-receptacle. Fig. 6 is a section on the line 6 6 of Fig. 1. Fig. 7 is a detail view of the cutting-knife held within the receptacle and between two of the revolving plates.

Reference now being had to the details of the drawings by letter, A designates the receptacle for holding the potatoes and the mechanism of the planter. This receptacle is mounted on a vertical shaft B and rests on the upper face of the beveled gear-wheel C, keyed to the lower end of the said vertical shaft, through the medium of which wheel power is transmitted to the operative mechanism of the planter from any suitable driving means on a vehicle. D is the bottom of the said receptacle, having a central perforation through which the said shaft passes, and E is a revolving plate keyed to the upper end of the said shaft and is seated in a recess F in the bottom D.

G G are vertical posts integral with the plate E, and H is a circular plate having the series of elongated apertures *h*, and I is a vertical post having its head countersunk in the lower surface of the said plate H.

J J are apertures through which the posts G pass when the plate is in place in the receptacle. K are curved metallic plates secured at corresponding ends of the said oblong apertures.

L is a second circular plate also having a corresponding number of the elongated apertures and is mounted on the shaft I, with the posts G passing through the perforations in the plate provided therefor. These elongated apertures of plate L have similar-shaped guides L′, secured to the opposite ends of the elongated apertures from those K of the plate H and extend downwardly into the apertures *h* of the bottom plate.

M is a plate secured to the upper face of the plate L and carries the vertical posts N, which serve to cause the revolving plate O to turn with the plate L. This plate O is centrally mounted on the shaft I in common with the other plates, and between this plate and plate L is located the knife P, fixedly secured on an integral projection Q of the base portion D.

R is an integral spring member, which is provided to prevent the pieces of potato from sticking to the under surface of the plate O when the potatoes are being cut for planting.

S is a revolving plate mounted centrally on the post I and has the elongated apertures, similar in number and shape to those of the other revolving plates, and T are guides or guards similar to those employed on the other plates and extend down into the elongated apertures of the plate O. On the upper face of the plate S and mounted on the post I is the conical-shaped washer U, and V is a nut for securely holding the said conical washer in place to bind the several plates in different positions to regulate the sizes of the apertures through which it is desired to feed different-sized potatoes.

From the foregoing description it will be seen that the device is operated as follows: After removing the conical washer the plates are turned to the right and the bottom holes are made smaller and by turning to the left the sizes of the apertures are made larger. The loose ring Y serves to guide the potatoes to the apertures, the apertures in the upper plate being beveled away to facilitate the potatoes entering the apertures, through which they fall by gravity. When the size of the apertures is regulated, the top washer may be replaced and the nut screwed down against the same, and the planter is ready to plant or cut and drop the size of potatoes as desired.

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

1. In combination in a seed cutter, the receptacle A having mounted therein on a central shaft the plates H, L, O and S having registering elongated recesses, the guard or guide members K and L′ and T, for regulating the size of the aperture through which the potato is to be fed a cutting knife between the said plates, and means for revolving the said plates within the receptacle, substantially as shown and described.

2. In combination with the receptacle A, the plates H and L, the integral pins N carried on the latter, the members K and L′ secured to the ends of elongated apertures in said plates, the plates O and S, having the registering apertures and the guards or guides T, the cutting knife having an integral spring bar R, located between the plates, and means for adjusting the size of the apertures and operating the device, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

ISAAC ANDREW BORDNER.

Witnesses:

ANTHONY BENDER,

JACOB C. MILLER.