(No Model.)

H. D. SPANGLER.

SEEDING MACHINE.

No. 304,368. Patented Sept. 2, 1884.

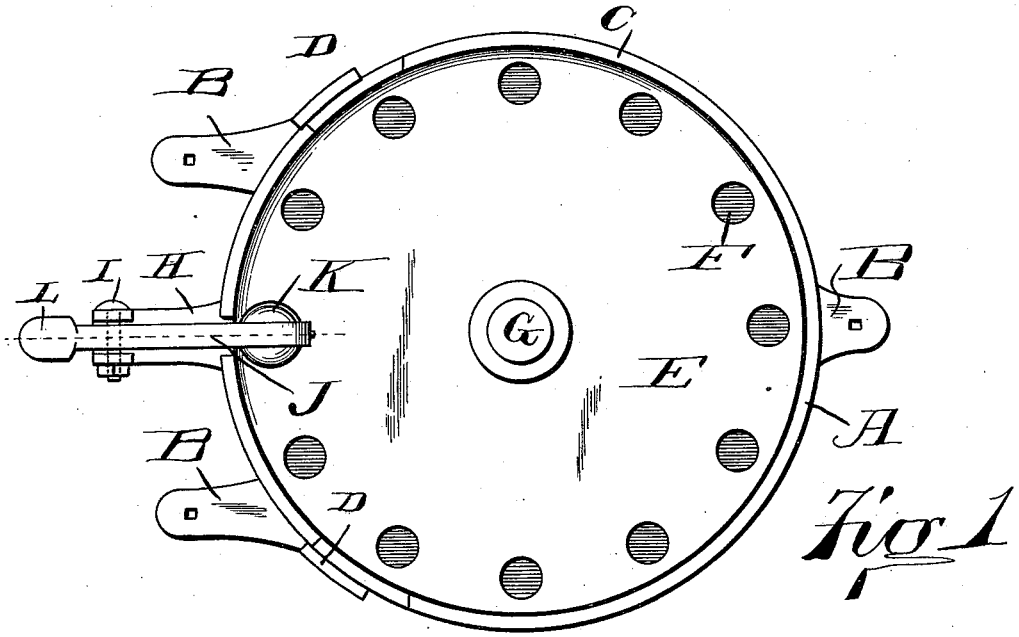

Fig 1

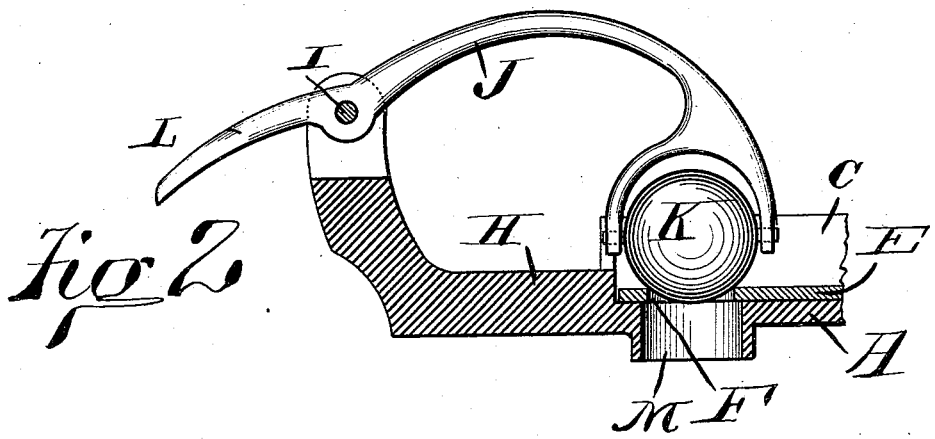

Fig 2

Witnesses:
Jno. Sorrug
W. Seward.

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by James W. See
Attorney

UNITED STATES PATENT OFFICE.

HARRY D. SPANGLER, OF RUSHVILLE, INDIANA, ASSIGNOR TO NORRIS & BROTHER, OF SAME PLACE.

SEEDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 304,368, dated September 2, 1884.

Application filed January 17, 1884. (No model.)

To all whom it may concern:

Be it known that I, HARRY D. SPANGLER, of Rushville, Rush county, Indiana, have invented certain new and useful Improvements in Seeding-Machines, of which the following is a specification.

This invention pertains to that class of seeding-machines in which the delivery is effected through the medium of a moving plate or disk provided with seed-carrying cells which are brought one by one over a suitable discharge-point.

The invention relates particularly to the construction of the knocker or presser which discharges from the seed-cells such grains as are indisposed to drop from the cells of their own accord at the proper point.

The nature of the invention will be readily understood from the following description, taken in connection with the accompanying drawings, in which—

Figure 1 is a plan of the base-work of the seed-box of a seeding-machine of the class specified provided with my improved seed-discharging device, and Fig. 2 is a vertical section of portions of the same upon a larger scale.

In the drawings, A represents the base-plate of the seed-box of a corn-planter; B, the lugs for securing the same to the frame-work of the planter; C, the encircling rim of the base-plate; D, rim-lugs serving as a means for attaching the shell of the seed-box to the base-plate; E, the disk-like seed-plate fitted to revolve over and in contact with the base-plate; F, the grain-cells arranged in a circle through the seed-plate near its periphery; G, the center spindle of the seed-plate, through which it receives its motion; H, a bracket projecting radially and upward from the periphery of the base-plate; I, a pivot supported in said bracket; J, a lever fitted to oscillate freely upon said pivot; K, a sphere provided with an axle and journaled in the bifurcated inner end of said lever in such position as to reach the grain-cells in the seed plate, as clearly shown in the drawings; L, an outward prolongation of the lever, forming a thumb-piece, and M the discharge-point in the base-plate, directly over which the sphere K is located. As the seed-plate revolves each grain-cell in turn is brought over the discharge and the grain in the cell is at liberty to leave the cell and drop. The plate revolves freely under the sphere, which drops slightly into each grain-cell as the cell reaches the discharge-point and insures the discharge of the grain from the cell. The sphere, by reason of its spherical form, does not in the least tend to alter the form of the grain-cell by wear, as is the case with all other forms of knockers with which I am familiar. The thumb-piece L permits the freedom of motion of the lever to be tested by hand. The lever, instead of being located radially with reference to the circle, as shown, may of course be arranged tangentially, as is common with knocking levers for this class of machines, the axis of the sphere being, of course, arranged radially, as shown; but the radial arrangement of the bracket and lever permits a more ready inspection and hand manipulation of the lever than would be the case with the lever arranged tangentially within the circle of the seed-box.

I claim as my invention—

1. In a seeding-machine, the combination of a seed-plate provided with grain-cells, a pivoted lever, and a spherical knocker journaled in the end of said lever in position to engage the grain-cells at their discharge-point, substantially as and for the purpose specified.

2. In a seeding-machine, the combination of a disk provided with a circle of grain-cells, a pivoted lever arranged radially with reference to the seed-plate, and a revolving knocker journaled in said lever in position to engage the grain-cells as they arrive at their discharging-point, substantially as and for the purpose specified.

3. The combination of a seeding-plate having a circle of grain-cells, a pivoted lever arranged radially with reference thereto, and a sphere journaled in said lever and arranged to engage the grain-cells as they reach their discharging-point, substantially as and for the purpose specified.

4. The combination of a seed-plate having grain-cells, and a pivoted lever provided with a revolving knocker arranged in position to engage the grain-cells at their discharging-point, and having a thumb-piece, substantially as and for the purpose specified.

Attest: HARRY D. SPANGLER.
JOHN Q. THOMAS,
ABE COOK.