J. KELLY.
Corn-Planter

No. 212,708. Patented Feb. 25, 1879.

FIG. 1.

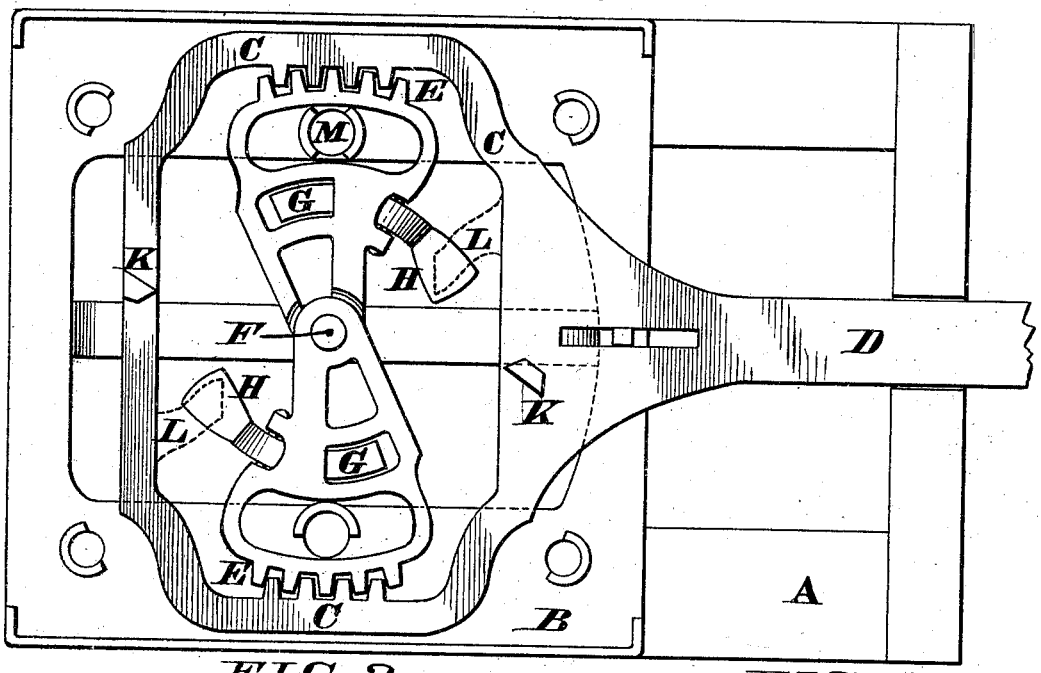


FIG. 2.

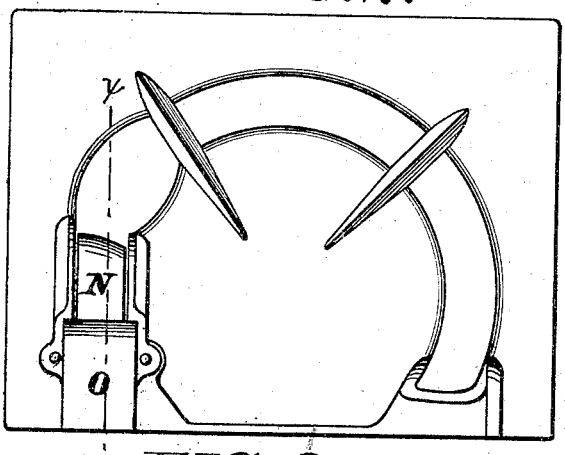


FIG. 3.

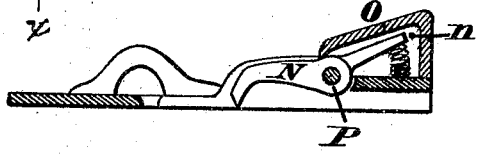
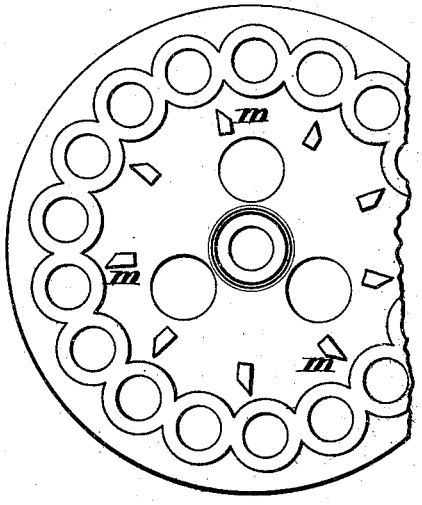


FIG. 4.



Attest.
Jeremiah F. Dwyer
Ernest A. Hyde

Inventor.
John Kelly
By Hatch Parkinson
His Attys

UNITED STATES PATENT OFFICE.

JOHN KELLY, OF TROY, OHIO, ASSIGNOR TO HIMSELF AND A. T. BEEDLE, OF SAME PLACE.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. **212,708**, dated February 25, 1879; application filed December 21, 1877.

To all whom it may concern:

Be it known that I, JOHN KELLY, of Troy, in the county of Miami, in the State of Ohio, have invented certain Improvements in Corn-Planters, of which the following is a specification:

My invention relates principally to that class of corn-planters commonly known as "double planters," and is so shown in the drawings; but it may be used on single planters.

It consists in a pawl-and-ratchet gearing for the dropper-plate, whereby each motion of the slide-bar forward and back gives a motion to the plate, and the mechanical details of their construction.

The methods heretofore shown for rotating the dropper-plate have been more or less complicated.

The design of my invention is to simplify the mechanism used for this purpose, and make it at the same time more efficient and less liable to get out of order.

Referring to the drawings, Figure 1 represents a plan view of the gearing between the dropper-plate and the slide-bar that gives motion to the same, the dropper-plate being removed. Fig. 2 is a plan of the bottom plate of the grain-box. Fig. 3 is a section through the line *x x* of the same. Fig. 4 is a bottom view of the dropper-plate.

A is a part of the frame of the machine. B is a metal frame, upon which slides a reciprocating rack, C C, to which motion is given by the slide-bar D. E E are toothed sectors, gearing into the racks C C, and having their center at F, the pivot on which the dropper-plate revolves. These sectors carry pawls G G, the outer ends, H H, of which are weighted to keep them down, thus causing the active ends to bear against the dropper-plate. These pawls are set in opposite directions, so that by a motion to the right one will act, and by a motion to the left the other will act, thus giving a motion to the dropper-plate by each motion of the slide-bar.

A projection, L, (shown in dotted lines in Fig. 1,) extends over the weighted end of the pawls, and prevents their catching against the edges of the sliding piece C C.

K K are lugs, which, by catching against the ratchet-teeth of the dropper-plate at the end of each stroke, prevent the latter from being carried too far by its momentum.

M is the seed-tube, which conveys the seed through the runners into the ground. It projects up through a slot in the sector E.

The teeth of the dropper-plate are of peculiar shape, the outer edges being beveled, as shown in Fig. 4. This prevents their binding against the lugs K K, Fig. 1, which are also beveled on one side, as shown. The principal object of the beveling, however, is that, if the teeth and the lugs happen to be in line, they will not strike square, but will pass each other, thus permitting a full stroke to be made, which is a matter of great importance.

In Figs. 2 and 3, N is the cut-off, and O the box or case around it. As shown in Fig. 3, the cut-off is pivoted at P, and at *n* has a spring. This spring is of sufficient stiffness to prevent the cut-off from rising and allowing the passage of more than the desired number of grains or kernels.

The cut-off is beveled at its front end, as shown, the object being that if a kernel gets wedged into the hole with its end sticking above the plate, so that it will not stroke down, it will raise the cut-off and pass under it, instead of being sheared by it, the spring *n* being weak enough to permit this rising.

Having thus described my invention, what I claim is—

1. The combination, in a corn-planter, of a reciprocating double rack and toothed sectors gearing therein, with pawls catching on teeth on the dropper-plate, for the purpose of giving motion to the dropper-plate by each motion of the slide-bar, substantially as described.

2. The lugs K K, in combination with the teeth *m*, on the under side of the dropper-plate, for the purpose of arresting the motion of the dropper-plate at the end of each stroke of the slide-bar, when said teeth and lugs are beveled, as shown, for the purpose of avoiding binding and preventing a complete stroke of the slide-bar, substantially as specified.

JOHN KELLY.

Witnesses:
R. GIBBS,
W. L. DAY.