S. O. CAMPBELL.

Corn Planter.

2 Sheets—Sheet 1.

No. 81,597.

Patented Sept. 1, 1868.

Fig. 1.

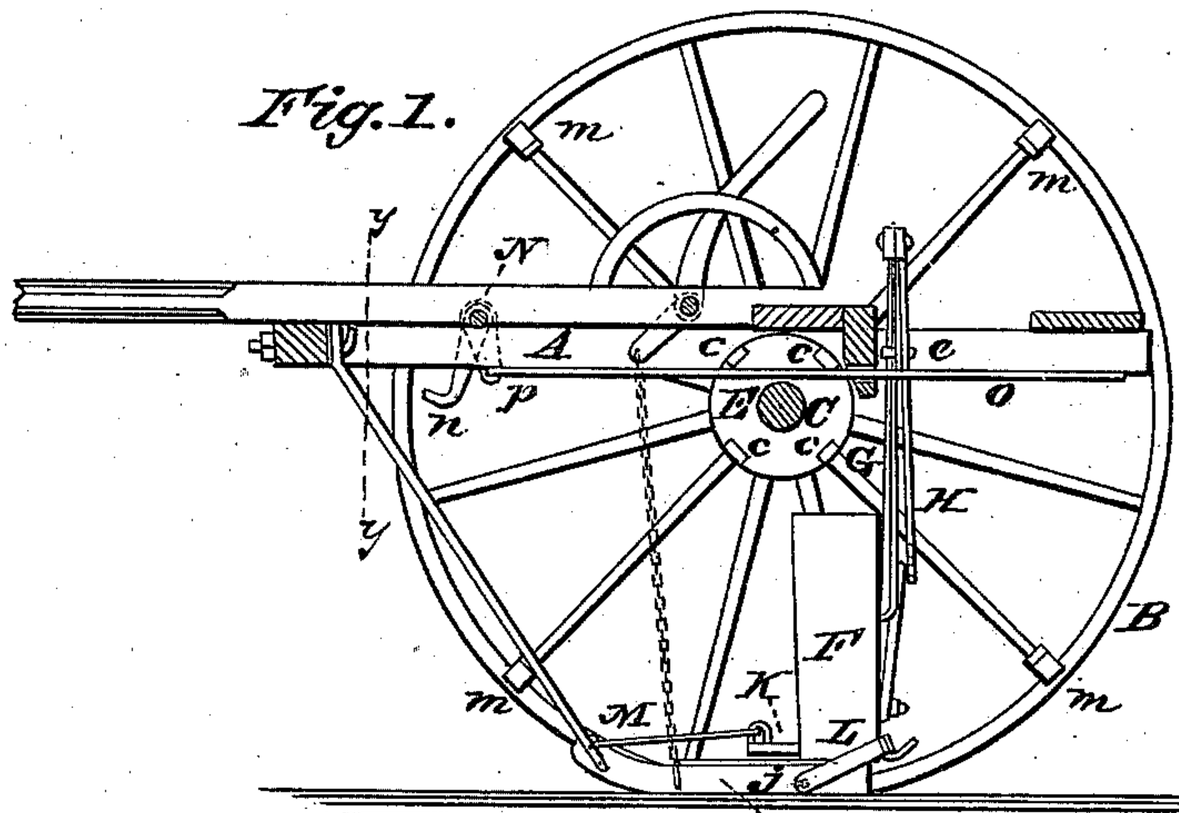

Fig. 2.

Fig. 3.

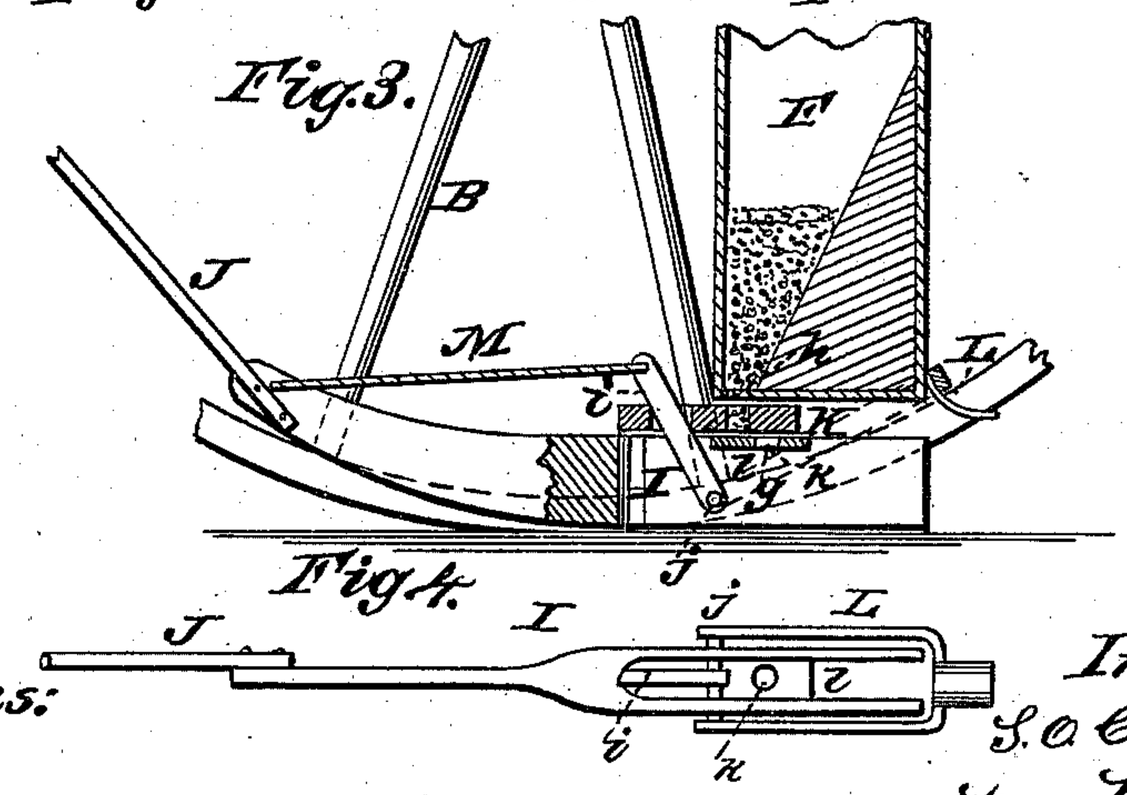

Fig. 4.

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Fig. 5.

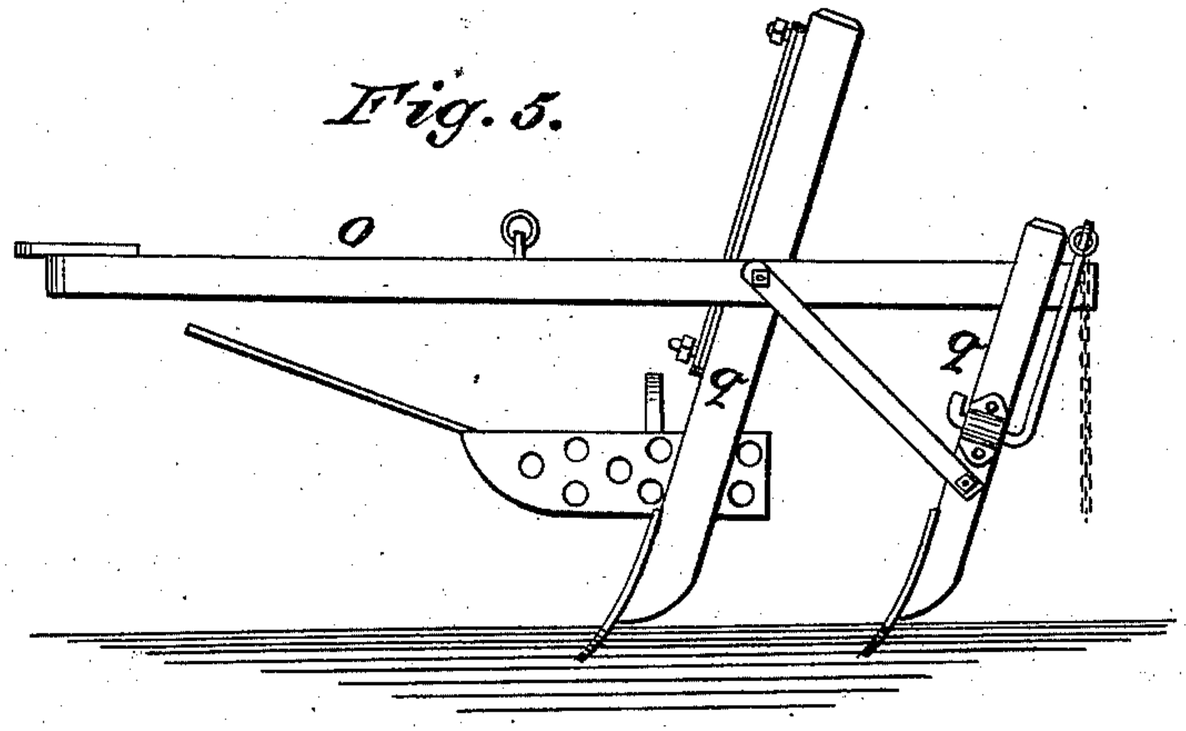


Fig. 6.

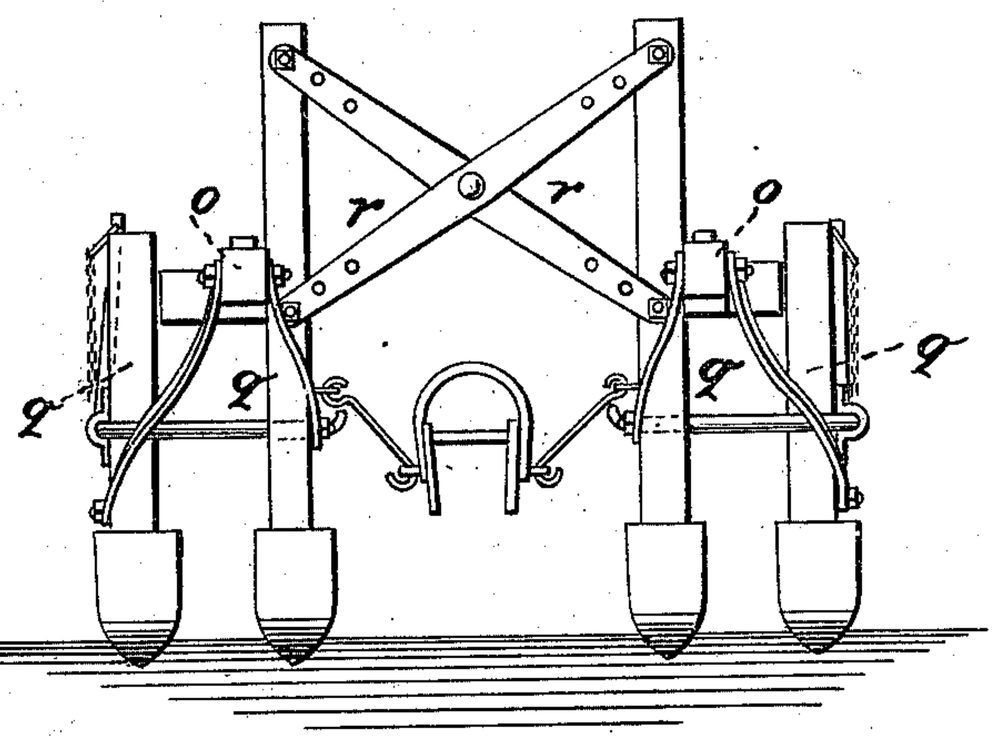


Fig. 7.

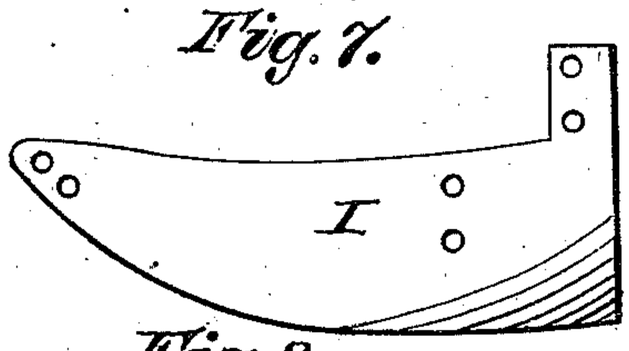
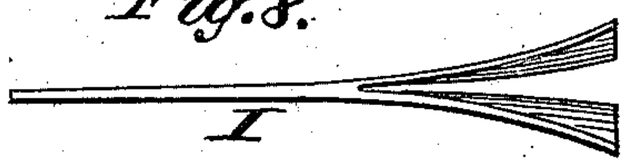


Fig. 8.



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UNITED STATES PATENT OFFICE.

S. O. CAMPBELL, OF LEAVENWORTH, KANSAS.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. **81,597**, dated September 1, 1868.

To all whom it may concern:

Be it known that I, S. O. CAMPBELL, of Leavenworth, in the county of Leavenworth and State of Kansas, have invented a new and Improved Corn-Planter; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and improved corn-planter, which also, when desired, may be readily converted into a cultivator.

The invention consists in a novel construction and arrangement of parts, as hereinafter fully shown and described, whereby corn may be dropped with great accuracy, and properly deposited in the hills, the kernels or grains being left at the desired distance apart, and the device placed under the complete control of the operator or driver.

In the accompanying sheet of drawings, Figure 1, Sheet No. 1, is a side sectional view of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a front sectional view of the same, taken in the line *y y*, Fig. 1; Fig. 3, an enlarged side sectional view of the corn-planting apparatus; Fig. 4, an inverted plan of the same; Fig. 5, Sheet No. 2, a side view of the cultivator attachment; Fig. 6, a front view of the same; Fig. 7, a detached side view of the furrow-opener pertaining to the corn-planter; Fig. 8, an inverted plan of the same.

Similar letters of reference indicate corresponding parts.

A represents a rectangular frame, which is mounted on two wheels, B B, the latter being on separate or independent axles C C′, which work in suitable bearings *a* secured to the under side of the frame. On the inner end of one of the axles C there is secured a circular plate, D, the periphery of which has four notches, *b*, made in at equal distances apart.

On the inner end of the other axle, C′, there is placed a sliding circular plate, E, connected to C′ by a feather and groove, which admits of the plate E sliding on the axle C′, and causes the latter always to turn the former.

The plate E has four arms, *c*, projecting laterally from its periphery, and these arms fit in the notches *b′* of the plate D′; and in order to connect the two axles C C′, the plate E, by means of a lever, is moved on the axle C′, so that the arms *c* will pass into the notches *b* of plate D on axle C. By this simple arrangement, it will be seen that the two axles may readily be connected and disconnected.

F F represent the seed-boxes, which are attached to the lower ends of two vertical rods, G G, the latter passing up through eyes *e e*, one at each side of the frame A; and H H are two cross-rods, connected at this point of intersection by a bolt, the upper end of said rods being connected by bolts to the upper ends of the rods G, and their lower ends bolted to the lower ends of the seed-boxes F F.

The seed-boxes rest on shoes I I, the front ends of which are connected by rods J to the front cross-bar of the frame A. The shoes I are curved similar to sled-runners, and are divaricated or forked at their rear parts, as shown clearly in Fig. 4, to allow the seed or corn to pass through as it is discharged from the seed-boxes, the latter being fitted over the rear parts of the shoes, which, as the machine is drawn along, form the furrows.

Directly under each seed-box there is a slide, K, which is perforated with a hole, *g*, and the seed-boxes have each a hole, *h*, in their bottom, through which the seed passes into the holes *g* of the slides when the holes *g* are in a line with the holes *h*. (See Fig. 3.)

Through each slide K an arm, *i*, passes, the lower ends of the latter being attached to shafts *j*, which pass transversely through the shoes I, and these shafts are connected to the front ends of frames L, which extend around the rear ends of the seed-boxes, and have an inclined position, which is given them by springs M, attached to the upper ends of the arms *i*. This will be fully understood by referring to Fig. 3.

The springs M also have a tendency to keep the holes *g* of the slides in line with the holes *h* in the bottoms of the seed-boxes F F, and to keep the holes *g* out of line with holes *k* in plates *l*, on the tops of the divaricated rear parts of the shoes.

The frames L are acted upon, as the machine is drawn along, by projections *m*, attached to the inner sides of the rims of the wheels B B, said

frames, each time they are actuated, being depressed at their rear ends, and the slides K thereby drawn back, so as to bring the filled holes *g* in line with the holes *k* in the plates *l*, through which holes *k* the seed is dropped into the furrows made by the shoes I. By this arrangement the seed is dropped quite close to the furrows, and consequently without being scattered, as would be the case were it discharged from an elevated point.

In planting seed or corn, the axles C C′ are always connected together by the coupling previously described.

At any time when it is necessary to stop the rotation of the wheels B B, arms *n n*, at the end of a shaft, N, are thrown up in line with the projections *m* on the wheels, and effectually stop the same, the shaft N being turned by actuating a rod, *o*, attached to a crank, *p*, on shaft N. (See Fig. 1.)

In using the device as a cultivator, two plow-beams, O O, are attached at their front ends to the front cross-bar of the frame A, the shovel or share standards *q* being attached to the beams, and the front standards *q* connected by cross-bars *r r*, arranged precisely as the cross-rods H H. The attachment of the beams O may be done in a moment of time.

I claim as new and desire to secure by Letters Patent—

1. The seed-boxes F F, arranged in combination with the shoes I I, slides K K, frames L, and springs M, with the projections *m* on the wheels, substantially in the manner as and for the purpose set forth.

2. The clutch composed of the two notched plates D D′ on the axles C C′ and the sliding or adjustable plate E, provided with the arms *c*, and placed on the axle C′, all arranged substantially as and for the purpose specified.

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