C. C. ALDRICH.

Corn-Planter.

No. 18,126 Patented Sept 8. 1857.

Fig. 2.

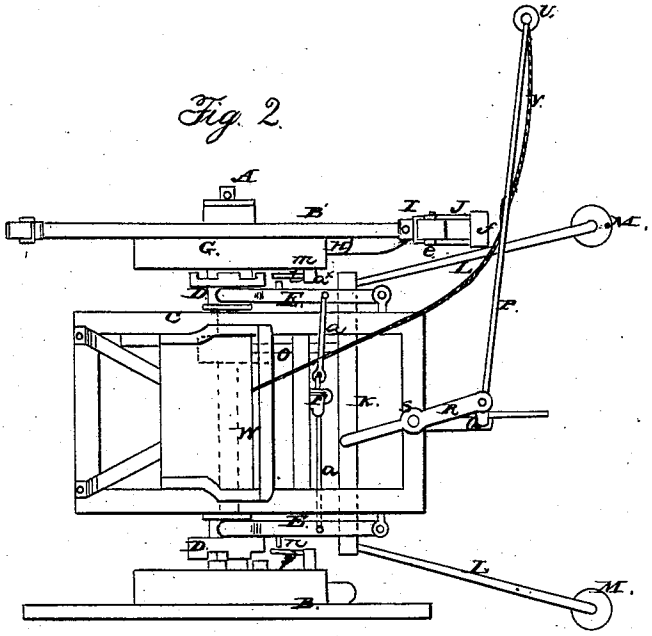


Fig. 2.

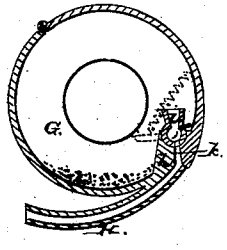
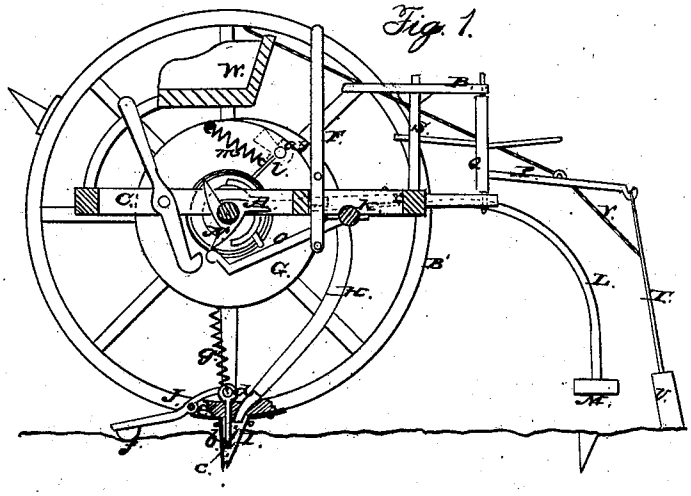


Fig. 1.



N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CYRUS C. ALDRICH, OF FARIBAULT, MINNESOTA TERRITORY.

IMPROVEMENT IN SEED-PLANTERS.

Specification forming part of Letters Patent No. **18,126**, dated September 8, 1857.

To all whom it may concern:

Be it known that I, C. C. ALDRICH, of Faribault, in the county of Rice and Territory of Minnesota, have invented a new and Improved Seed-Planting Machine; 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 longitudinal vertical section of my improvement, the plane of section being through the center. Fig. 2 is a plan or top view of same. Fig. 3 is a section of the hopper or grain-box.

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

This invention relates to an improvement in that class of seed-planting machines in which the seed or grain is discharged from the peripheries of the wheels on which the device is mounted.

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

A represents an axle, having wheels B B′ placed loosely on its ends.

C represents a horizontal rectangular frame, to the under side of which the bearings of the axle A are secured. The axle A is allowed to turn on its bearings, and the wheels B B′ are connected to the axle A, when desired, by means of clutches D D, which are operated by forked levers E E, connected by rods *a a* to an upright, F, within reach of the driving-seat, both clutches being operated simultaneously.

To the inner side of the wheel B′, and concentric with it, an annular box, G, is attached. This is the seed box or hopper.

H is a conveyer tube or spout, the inner end of which is attached to the box G at its periphery, the tube or spout communicating with the seed-box. The outer end of the tube or spout terminates in a V-shaped box, I, which is attached to periphery of the wheel B′. One side of this box I is provided with a flap or door, *b*.

Within the box I a plunger, *c*, is placed, and the outer end of the plunger-rod *d* is attached to a lever-frame, J, the fulcrum-pin *e* of which passes through the rim of the wheel B′. The outer end of the lever-frame J has a board or plate, *f*, attached to it, and the inner end of the lever-frame is attached to a spiral spring, *g*, said spring having a tendency to keep the inner end of the lever-frame drawn inward toward the center of the wheel B′, the outer end of said frame being consequently kept outward from the wheel B.

The inner end of the tube or spout H is fitted in a ledge, *h*, at the inner side of the box G, the end of which is made concave, so as to receive the semi-cylindrical bottom of a seed-cup, *i*, as shown clearly in Fig. 3. The seed-cup has a hole, *j*, made through its bottom, and the inner end of the tube or spout H communicates with an aperture, *k*, made in the ledge, and extending entirely through it. The cup *i* is fitted and works on an axis, $a^{\times}$, so that it may be oscillated back and forth in the concave at the end of the ledge *h*, and the axis has an arm, *l*, attached to it, said arm being at the outer side of the box and having a spiral spring, *m*, attached to it. (See more particularly Fig. 1.)

To the back part of the frame C a shaft, K, is attached. The bearings of this shaft are at the under side of the frame, and to each end of the shaft a curved rod, L, is attached. Said rods having each a circular weight, M, attached to their ends.

On the axle A a wiper-wheel, N, is placed, which, as the axle rotates, acts against an arm, O, attached to the shaft K, for the purpose of raising the weights M, as will be presently referred to.

P represents a rod, the inner end of which is attached to a vertical shaft, Q, on the back part of the frame C. The upper end of this shaft Q is connected to a lever, R, which works on the upper end of an upright, S. The outer end of the rod P has a rod, T, attached to it, and a weight, U, is secured to the lower end of the rod T. A cord, V, is attached to the rod T, said cord passing to the driver's seat W on the frame C.

The operation is as follows: The seed is placed in the seed-boxes G, there being one on the inner side of each wheel B B′, although one is only described. The seed (shown in red) always remains at the lower parts of the boxes, owing to its gravity, and as the machine is drawn along and the seed-cups pass through the seed they become fitted, of course, and when they reach the desired point the end of the arms *l*, by coming in contact with projections *n* on the forked levers E, turn the cup *i*

sufficiently to bring the holes *j* in line with the passages K, and the seed passes from the cups *i* through the passages K into the tubes or spouts H, and thence into the V-shaped boxes I, and as the wheels rotate and the boards or plates *f* come in contact with the ground the plungers *c* will be forced downward and the seed allowed to pass out from the boxes in consequence of said plunger forcing open the flaps *b*, which are retained in a closed state. The wiper-wheel N, by actuating the bar O, turns the shaft K a certain distance and elevates the weights M M, which fall by their own gravity as soon the bar O is relieved from the ends or projections of the wiper-wheel, said weights being actuated at the proper intervals, so that they will cover and compress the soil upon the seed.

The rod P may be moved at either side of the machine by turning the shaft Q, and serves as a marker to define or mark the rows. The weight U may be raised at any time by pulling the cord V.

Machines of this class hitherto constructed have generally failed to operate successfully on account of the choking of the discharging device, occasioned by the pressure of the orifice into the earth.

In my improvement the plunger *c* is a great acquisition, and effectually prevents the box I from being choked or clogged with earth, because all obstructions are forced out by the plunger.

The machines in which the seed is discharged from the peripheries of the wheels are superior to others, as the seed may be deposited more evenly in check-rows. The undulations or unevenness of the ground is not liable to affect the distributing device so much as in other machines. The employment of suspended seed-conveyer tubes is also dispensed with, and also other parts which are liable to get out of repair and affect the perfect working of the machine.

The weights M M, operating as shown, compress the soil directly over the seed, and they perform this work in an effectual manner, far superior to rollers, which are frequently prevented from performing their work in consequence of passing over stones and other obstructions.

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

The box I, provided with the plunger *c*, when said plunger is operated by the lever-frame J, arranged as herein shown and described, for the purpose set forth.

CYRUS C. ALDRICH.

Witnesses:

JAMES B. COOPER,

OTIS J. RENWICK.