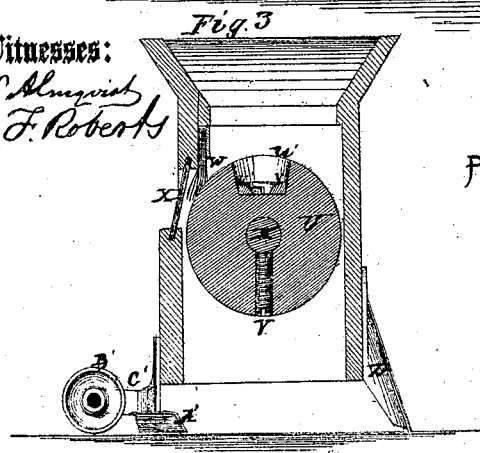
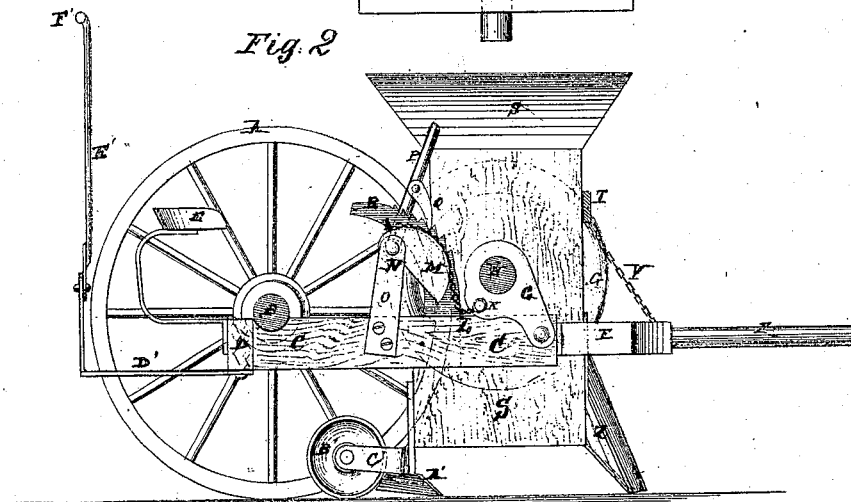
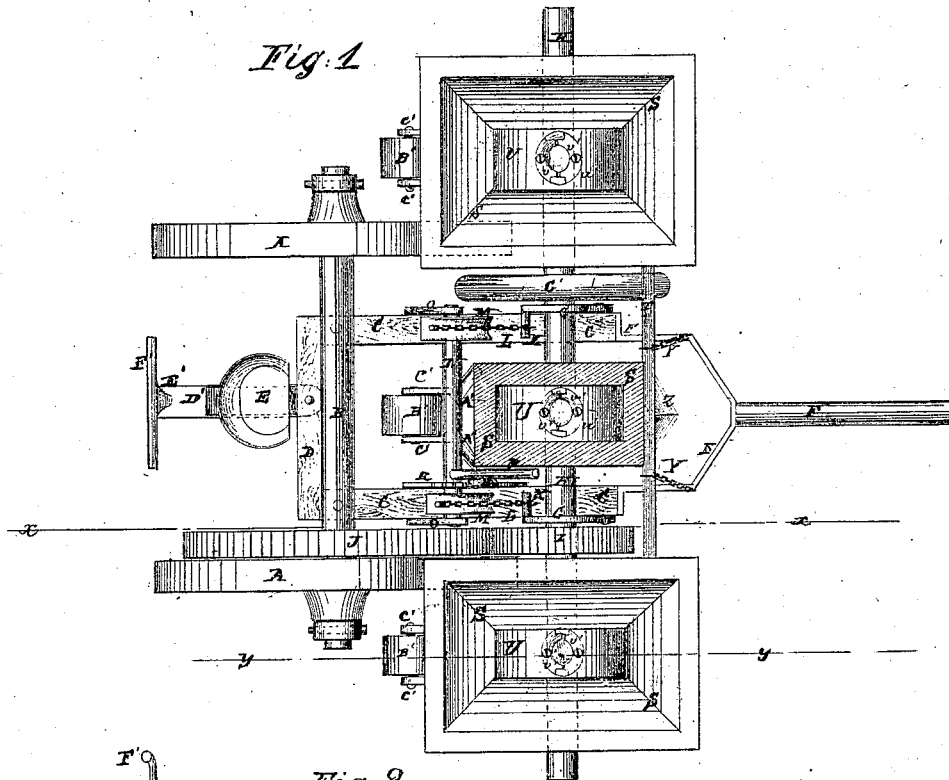


Corn Planter.

Patented Sept 20, 1870.



Witnesses:

A. W. Almqvist
Alex F. Roberts

Inventor:

Wm M Meyers

PER

Attorneys

United States Patent Office.

WILLIAM M. MEYERS, OF NEW BRUNSWICK, NEW JERSEY.

Letters Patent No. 107,520, dated September 20, 1870.

IMPROVEMENT IN CORN-PLANTERS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, WILLIAM M. MEYERS, of New Brunswick, in the county of Middlesex and State of New Jersey, have invented a new and useful Improvement in Corn-Planters; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a top view of my improved machine, the upper part of the middle hopper being removed.

Figure 2 is a detail vertical section of the same, taken through the line *x x*, fig. 1.

Figure 3 is a detail vertical section of one of the hoppers, taken through the line *y y*, fig. 1.

This invention relates to improvements in corn-planters, and consists in a peculiar arrangement of parts for adjusting the hoppers higher or lower, and in the provision or arrangement of a hand-wheel, for the purpose of adjusting the seed-wheels.

A are the drive-wheels, which revolve upon the journals of the axle B.

To the axle B are rigidly attached the rear parts of the bar C, the rear ends of which are connected by a cross-bar, D, to furnish a support for the seat E.

To the forward ends of the bars C is attached the branched rear end of the tongue F, so that the tongue and axle may be rigidly connected to form the frame of the machine.

To the sides of the forward ends of the bars C are pivoted the forward ends of the bars or arms G, through holes in the rear ends of which the shaft H passes and revolves.

To the shaft H is keyed a small gear-wheel, I, the teeth of which mesh into the teeth of the large gear-wheel J, attached to or rigidly connected with the drive-wheel A, so that the shaft H may be revolved by the advance of the machine.

To the inner ends of the arms or bars G are attached, or upon them are formed, pins or lugs K, to which are attached the forward ends of the chains L, which pass along the grooves of the cams or eccentrics M, and their rear ends are attached to said cams at or near their axes, as shown in fig. 2.

The cams M are attached to a short shaft, N, the journals of which work in bearings in the upper ends of the standards O, the lower ends of which are rigidly attached to the rear parts of the bars C.

To the short shaft N is rigidly attached a lever, P, which extends up into such a position that it may be conveniently reached and operated by the driver from his seat E.

By this construction, by operating the lever P, the rear ends of the pivoted arms or bars G will be raised,

which movement will raise and move forward the shaft H, throwing the gear-wheel I out of gear with the gear-wheel J, allowing the machine to be drawn forward or turned around without operating the dropping device.

To the lever P is pivoted a pawl, Q, the engaging end of which takes hold of the teeth of the curved ratchet-bar R, the lower end of which is rigidly attached to the bar C. This construction enables the machine to be held out of gear as long as may be desired.

S are the seed-hoppers, the lower parts of which are made large and deep, and through the middle parts of which passes the shaft H, which revolves in bearings in the middle parts of the sides of the said hoppers, so that the hoppers may be raised and lowered by and with the rise and fall of the said shaft H.

The hoppers S are connected with each other, and held in their proper relative positions by a bar, T, which is adjustably attached to the forward sides of the hoppers S, as shown in figs. 1 and 2.

The hoppers S are also connected with the frame of the machine by the chains Y, the upper ends of which are attached to the bar T, and the lower ends of which are attached to the branched rear end of the tongue F, or to the ends of the bars C.

To the shaft H within the hoppers S are attached cylinders or wheels U, which are secured to said shaft by set-screws V, or by keys, or in any convenient and detachable manner.

In the sides of the wheels U are formed recesses, *u*, to receive the seed from the upper parts of the hoppers S, and convey it to the lower parts of said hoppers, whence it falls to the ground.

The size of the recesses *u* is adjusted according to the size of the seed and the amount to be dropped at a time by semicircular disks, *v*, the ends of which overlap each other, and which are detachably secured in the bottoms of the said recesses *u*, so that they may be conveniently detached and replaced by thicker or thinner ones, as may be required.

W are brushes attached to the rear side of the hoppers S, in such positions as to bear against the rear side of the dropping-wheels U, and prevent any more seed from being carried out by said wheels than enough to fill the dropping recesses.

The rear sides of the hoppers S are cut away, and in the openings thus formed are placed pieces of glass, X, as shown in fig. 3, so that the driver, from his seat, can always see whether the seed is being dropped properly.

To the lower end of the forward sides of the hoppers S are attached plows, Z, for opening the furrows to receive the seed. The plows Z are made broad, and their side edges inclined, as shown in figs. 2 and

3, to open furrows of such a width and form as to receive all the seed that drops from the wheels U through the lower parts of the hoppers S.

To the lower end of the rear side of each of the hoppers S are attached two hoe-shaped coverers, A', as shown in figs. 1, 2, 3, which are designed to turn the sides of the furrows inward, and cover the seed.

The rear ends of each pair of coverers A' are at a little distance apart, and, directly opposite the said space, revolves a roller, B', which presses the soil down upon the seed, and the journals of which revolve in bearings in arms or brackets C', formed upon or attached to the shanks of the hoes or coverers A', or to the rear side of the hoppers S.

D' is an arm, the forward end of which is attached to the cross-bar D, and the rear part of which, at a point a little in the rear of the rear parts of the wheels A, is bent upward at right angles, and to its upper end is pivoted the end of the rod or bar E', which has a cross-bar, F', attached to its free end, and is made of such a length that it may be turned down upon either side of the machine to mark the ground, and serve as a guide to the driver, so that the seed may be planted in accurate check row.

G' is a hand-wheel, attached to the shaft H, to enable the driver to adjust the dropping-wheels when setting in at the side of the field, so that the planting may be done in exact check row.

The planter may be operated by any convenient power, and may have one, two, three, or more hoppers and dropping-wheels, according to the character and amount of power employed.

Having thus described my invention,

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

1. The arrangement of the hand-wheel G' with the shaft H and dropping-wheels U, as shown and described.

2. The combination of the clevis L, cams or eccentrics M, shaft N, and lever P with the pivoted bars G, to which the shaft H is pivoted, and with the bars C, for the purpose of raising and lowering the shaft H and hoppers S, to throw the machine out of and into gear, substantially as herein shown and described.

WILLIAM M. MEYERS.

Witnesses:

O. B. GASTON,
J. W. MEYERS.