(No Model.)

# A. McRILL.

## GRAIN DRILL.

No. 304,436. Patented Sept. 2, 1884.

Fig. 1.

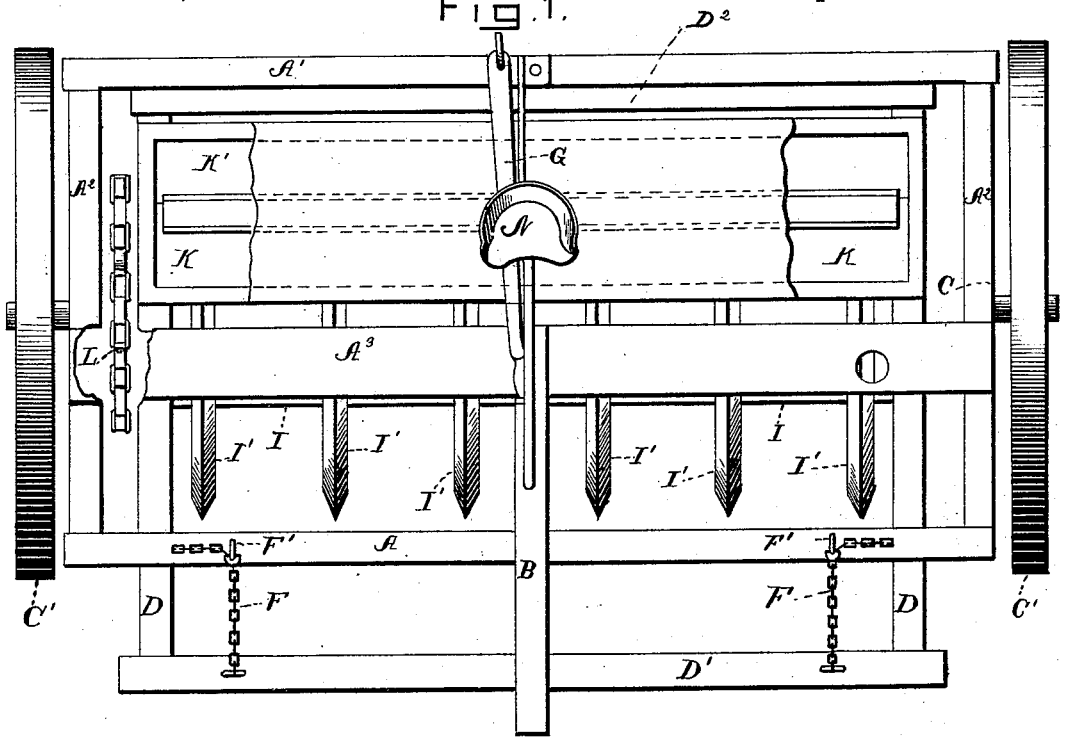
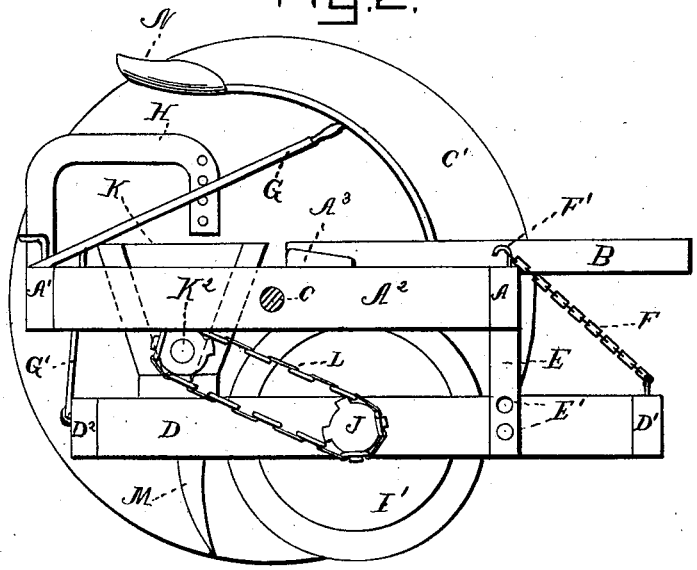



Fig. 2.




WITNESSES:
N. A. Clark
R. B. Mupin

INVENTOR.
Albert McRill,
By R. S. & A. L. Lacey
ATT'Y

# UNITED STATES PATENT OFFICE.

ALBERT McRILL, OF FRENCH GROVE, ILLINOIS.

## GRAIN-DRILL.

SPECIFICATION forming part of Letters Patent No. 304,436, dated September 2, 1884.

Application filed June 10, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT McRILL, a citizen of the United States, residing at French Grove, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Grain-Drills; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to grain-drills; and it consists in the novel construction, combination, and arrangement of the several parts, as will be hereinafter more fully described and claimed.

In the drawings, Figure 1 is a plan view, and Fig. 2 a side view, of my machine.

The main frame is preferably constructed, as shown, with the front bar, A, the rear bar, A′, side bars, $A^2$ $A^2$, and cross-bar $A^3$, extended between the side bars, $A^2$, parallel to the front and rear bars, as shown. The tongue B is secured to this main frame, and may be extended, as shown, past the front bar to the cross-bar, and made fast to both front and cross bar, as will be understood from the drawings. The axle C is journaled in the main frame, and has the supporting-wheels C′ C′ spindled on its opposite ends. The supplemental frame is by preference made with the side beams, D D, the front beam, D′, and the rear beam, $D^2$. Hanger-bars E are secured at their upper ends to the front bar, A, of the main frame, and have their lower ends pivotally secured to the side beams of the supplemental frame at a point near the front beam of same, as shown in Fig. 2. I provide the hanger with two pivot-openings, E′ E′, arranged vertically one above the other, so the point of connection of the two frames may be varied as desired.

Chains F are secured at one end to the front end of the supplemental frame, and are adapted to engage hooks F′ F′, secured on the front of the main frame. The front end of the supplemental frame may be raised and held at any desired point by drawing the chains taut and catching the proper link thereof over the hooks, as will be understood. A lever, G, is pivoted on the main frame, and is connected by part G′ with the rear end of the supplemental frame, so it may elevate same when desired. A suitable rack, H, is arranged in position to be engaged by lever G, so the latter may be held in any suitable position to which it may be adjusted.

The colter-shaft I is journaled in the supplemental frame, and has keyed on it the rolling colters or disks I′. A sprocket-wheel, J, is secured on one end of the colter-shaft.

The seed-box K is mounted on the supplemental frame, and has in its bottom the agitator-shaft K′, on the end of which I secure or form the sprocket-wheel $K^2$, geared by chain or belt L with the sprocket J, as shown. I prefer this form of gearing, though, where desired, it may be varied without departing from the broad principles of my invention.

The seed-flukes M extend downward from the seed-box, and are arranged one in rear of each of the colter-disks, so the seed will drop into the depression formed by such disks. This is desirable, as thereby the seed is deposited on comparatively firm ground, and the loose soil falls over and covers it, giving better results in certain soils and climates, as will be appreciated.

When the machine is used as a riding-drill, I arrange the seat N in proper position, so the lever may be conveniently reached therefrom.

By the arrangement and mechanism described, it will be seen, the supplemental frame may be tilted on its pivot and elevated at either end. Its pivotal point may be changed so as to adjust it into operating position, as shown in Fig. 1, or up out of operating position when desired to move the machine from point to point. It will also be seen that by loosening the chains from the hooks on the main frame the supplemental frame will be free to rise at its rear end as may be desired, or, by tightening the said chains at the front and the lever at the rear, the supplemental frame may be held from any turning in its pivot.

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

1. The combination of the main frame supported on suitable wheels, the supplemental

frame pivotally supported near its forward end under said main frame, the colter-shaft having the disks secured thereto and journaled in the supplemental frame, the seed-box supported on the supplemental frame and having its flukes extended downward in rear of and in line with the colter-disks, the agitator-shaft journaled in the seed-box and geared with the colter-shaft, and the operating-lever supported on the main frame and connected with the supplemental frame, all arranged and operating substantially as and for the purposes set forth.

2. The herein-described grain-drill, consisting of the main frame, the supplemental frame, the hanger-bars depending from the main frame and supporting the supplemental frame, the colter-shaft journaled in the supplemental frame and having disks secured thereon, the seed-box having seed-flukes depending from the seed-box in rear of and in line with the colter-disks, the agitator-shaft arranged in the seed-box and geared with the colter-shaft, the chains connecting the front end of the supplemental and main frames, and the operating-lever arranged on the main frame and connected with and adapted to operate the supplemental frame, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT McRILL.

Witnesses:
S. H. WINCHESTER,
J. P. McCAULEY.