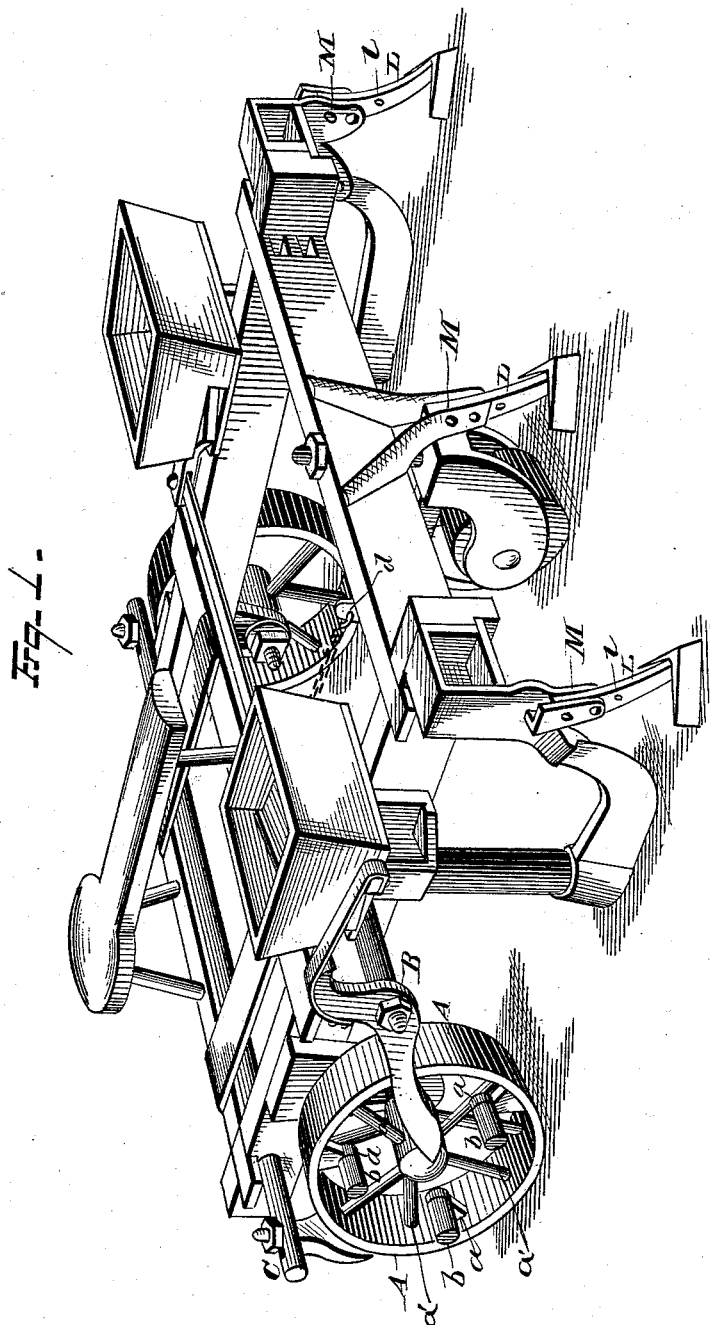


2 Sheets—Sheet 1.

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Seed and Corn Planter.

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Patented Aug. 26, 1879.



WITNESSES

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A. M. Bright.

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Fig. 2.

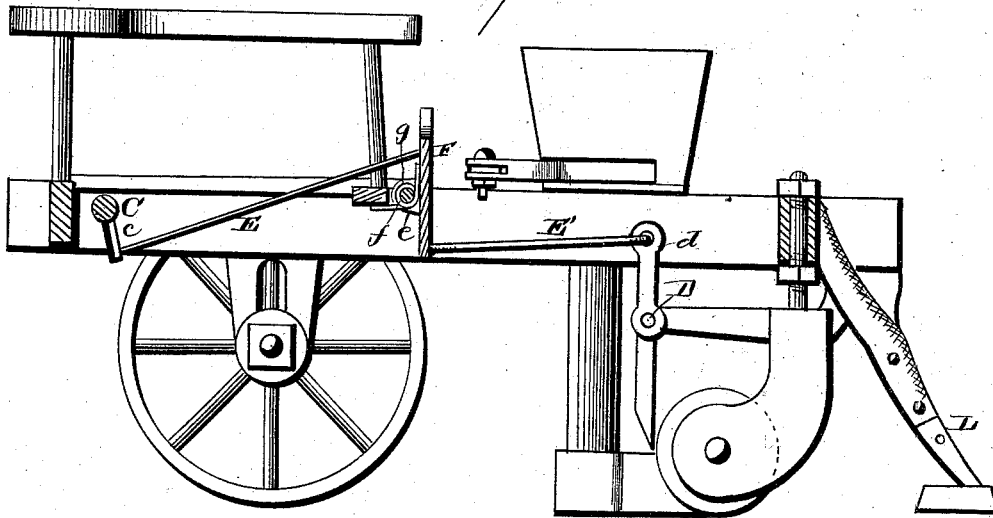


Fig. 3.

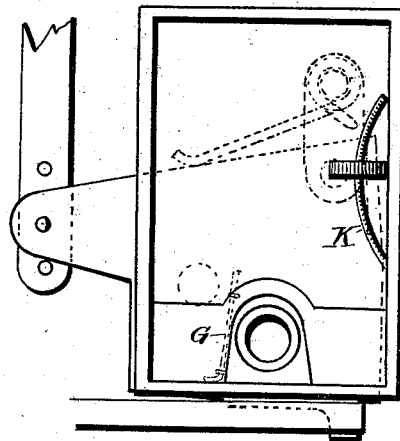
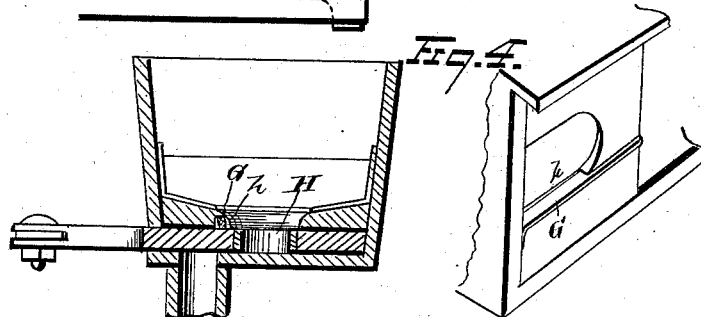


Fig. 4.



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# UNITED STATES PATENT OFFICE.

MICHEL MARTISCHANG, OF FORT MADISON, IOWA.

## IMPROVEMENT IN SEED AND CORN PLANTERS.

Specification forming part of Letters Patent No. **218,890**, dated August 26, 1879; application filed April 11, 1879.

*To all whom it may concern:*

Be it known that I, MICHEL MARTISCHANG, of Fort Madison, in the county of Lee and State of Iowa, have invented certain new and useful Improvements in Seed and Corn Planters; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates more especially to an improvement upon the corn-planter lately patented by me, and is designed to add to the construction set forth in said prior patent certain features of invention which will insure a more perfect form of planter.

The improvements consist of the parts and combination of parts hereinafter described and claimed.

In the drawings, Figure 1 is a view in front and side perspective of my planter. Fig. 2 is a longitudinal section, showing certain parts in side elevation. Fig. 3 is a view of the interior of one of the hoppers. Fig. 4 is a detail sectional view of the hopper.

The driving-wheel A, having spokes *a'*, is provided with three or more independent triangular plates, *a*, secured at equal intervals to the inner side of the felly and projecting radially toward the center of the wheel. In the free extremities of said plates, and at right angles thereto, so as to stand out in horizontal line, the rollers *b* are respectively journaled and adapted to engage with the tripping-lever B. These rollers may be readily connected or disconnected with said bearing-plates, so that, when it is desired to plant with any certain number of said rollers, the latter may be journaled in their respective plates, or removed from such journal-bearings, as the case may be.

A right-angular arm, *c*, is connected with the rotary shaft C, which latter carries the scrapers to clean the rear side wheels, and a similar arm, *d*, is connected with the rotary shaft D, which latter carries the scraper to clean the forward center wheel.

The free extremity of the rear arm, *c*, is connected by wire E with the upper extremity of the vertically-tilting foot-lever F. The free extremity of the forward arm, *d*, is connected by wire E' to the lower extremity of said tilt-

ing lever. Said lever is provided with two right-angular arms, *e*, which project rearwardly and have their free ends journaled on a horizontal bearing, *f*, which latter supports the lever in its oscillating movement. A coil-spring, *g*, embraces said horizontal bearing, and has its free extremity engaging in lateral contact with the rear side of the lever, so as to cause the latter to maintain a vertical position when not operated by the foot of the driver. In this manner it is apparent that all the scrapers may be simultaneously operated by a single movement of said lever.

To the under side of the bottom of each hopper is secured a piece of rubber, G, which has its two extremities secured to the bottom at points respectively on opposite sides of the discharge-opening of the hopper. The hopper-bottom is cut away at *h*, corresponding in location to the central and main portion of this rubber strip, and adapted to permit of the free movement of the strip in line transverse to its length as the seed is borne against said strip in the opening movement of the corresponding pivotal seed-valve. This rubber strip serves to return to the hopper all such seed as may not pass out through the valve at any one operation of the latter.

Each hopper is provided with an auxiliary seed-tube, H, adapted to pass a smaller quantity of seed from out the hopper at each discharge, and when not in use this seed-tube is strung upon the horizontal wire K, secured to the inner side of the hopper. One extremity of this wire is connected with the hopper side, while the opposite free extremity has free end engagement or contact against the hopper side, and is adapted to detachably secure the tube within the hopper when not in use in the valve.

The forward end of the planter is provided with three share-standards, L, located, respectively, at the two sides and the center thereof. The shanks or standards of these shares are transversely perforated along their lengths, thus permitting them to be adjusted at any suitable height. These standards have longitudinal sliding movement in guideways M, and transverse pins *l*, which pass through the latter and said standards, secure the latter in desired vertical adjustment.

Having fully described my invention, what

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

1. The combination, with the tripping-lever B and wheel A, having spokes *a'*, of the independent triangular plates *a*, whose bases are rigidly secured to the inner side of the felly, and whose extremities project radially toward the hub, together with the horizontal outwardly-projecting rollers *b*, which are detachably secured to said free extremities of the plates, substantially as set forth.

2. The combination, with the rear side wheels and the forward caster-wheel, of the rotary scraper-shafts C D, the lever F, which has vertically-tilting movement in the longitudinal central plane of the machine, and the connections E E', which, respectively, unite opposite extremities of said lever to arms *c d*, formed centrally on said rotary shafts, substantially as set forth.

3. The combination, with the rear side wheels and the front caster-wheel, of the rotary scraper-shafts C D, the foot-lever F, which has vertically-tilting movement in the longitudinal central plane of the machine, and the connections E E', which, respectively, unite opposite extremities of the lever to arms *c d*, formed centrally on said rotary shafts, together with the horizontal bearing *f*, to which said lever is pivoted, and the spring *g*, which returns the latter to an upright position.

In testimony that I claim the foregoing I have hereunto set my hand this 2d day of April, 1879.

MICHEL MARTISCHANG.

Witnesses:

T. B. HALL,

G. D. SEYMOUR.