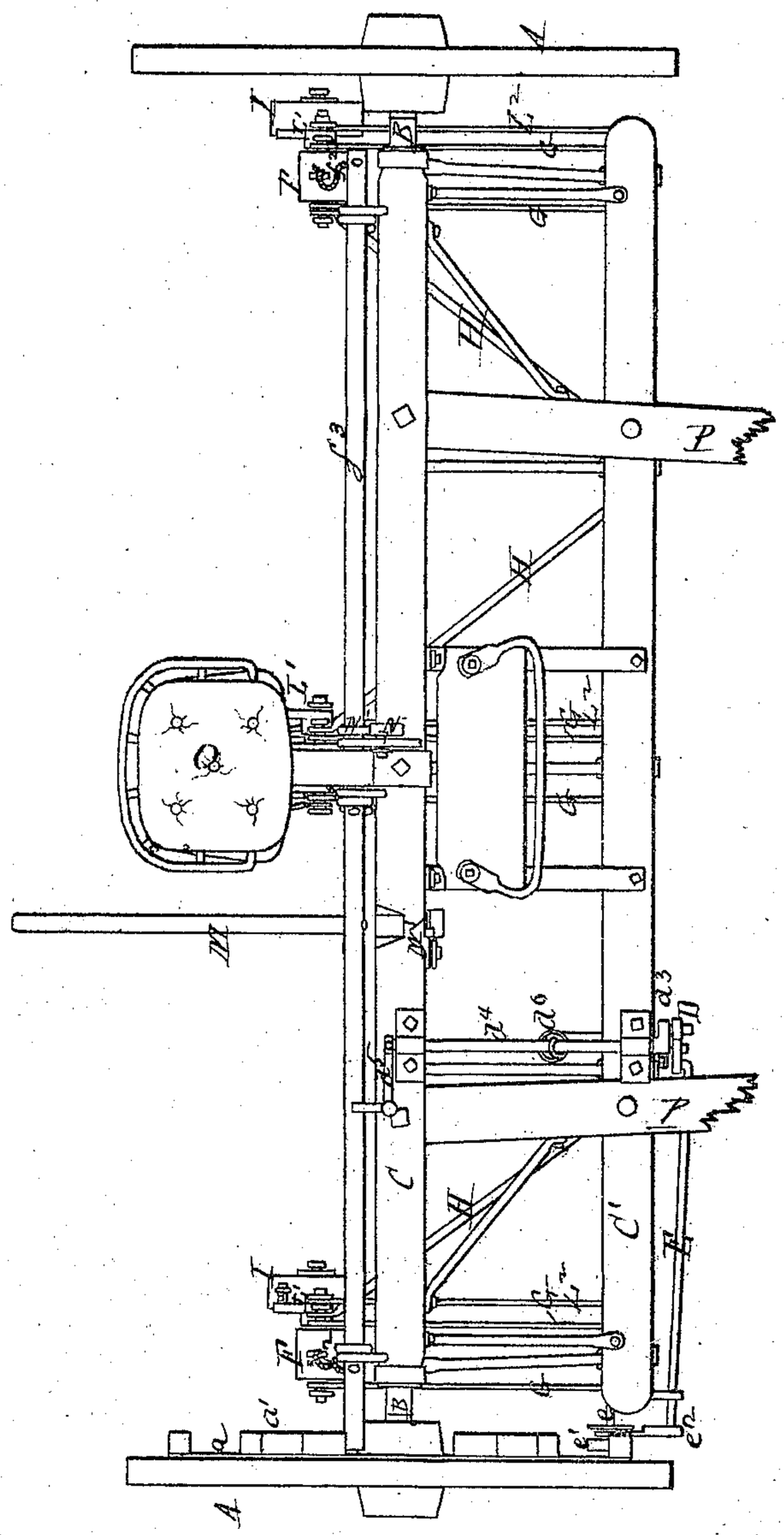
2 Sheets--Sheet 1.

SETH STEVENS.

Improvement in Corn Planters.

No. 120,793. Patented Nov. 7, 1871.

Fig. 1.



Witnesses.

Villette Arnerson.

E. H. Bates

Inventor.

S. Stevens,

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attys.

2 Sheets--Sheet 2.

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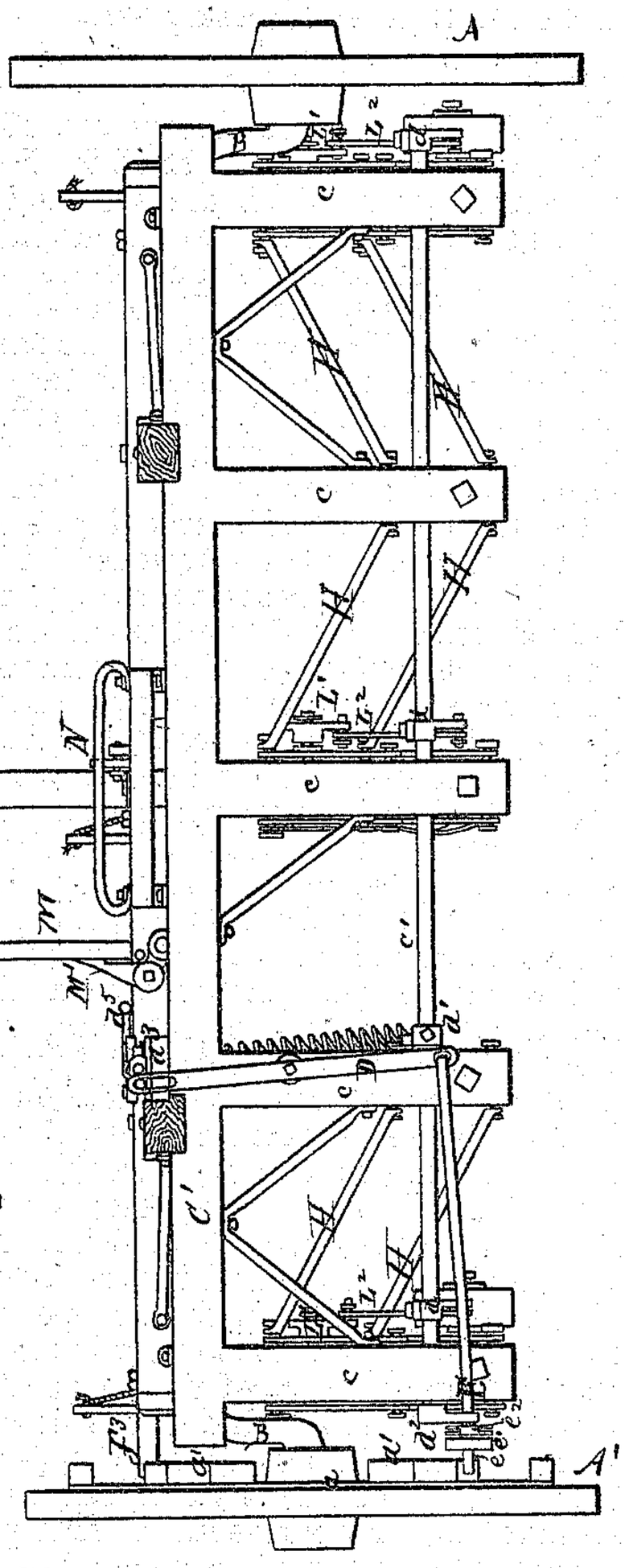

Fig. 2.

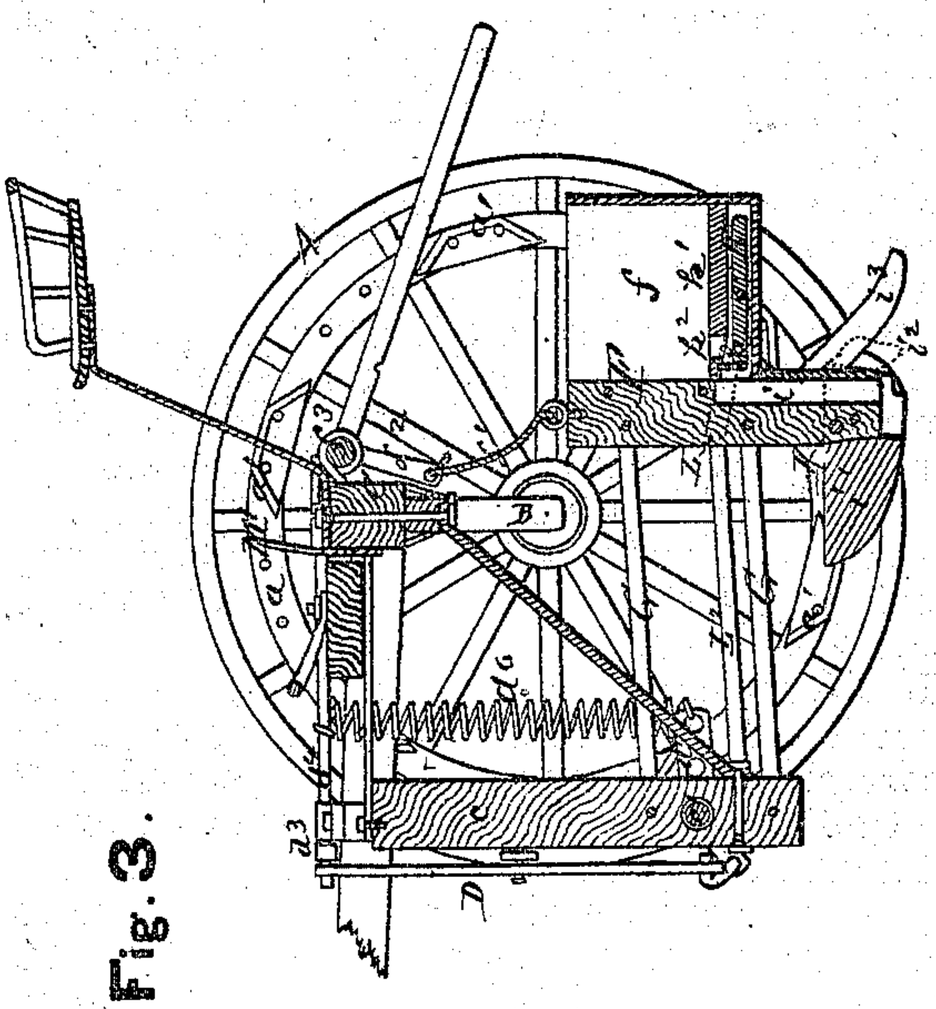

Fig. 3.

Witnesses.

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120,793

UNITED STATES PATENT OFFICE.

SETH STEVENS, OF NORTH FRYEBURG, MAINE.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. 120,793, dated November 7, 1871.

To all whom it may concern:

Be it known that I, SETH STEVENS, of North Fryeburg, in the county of Oxford and State of Maine, have invented new and valuable Improvements in Corn-Planters; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a plan view of my invention. Fig. 2 is a front elevation, and Fig. 3 is a vertical section of the same.

This invention has relation to corn-planters; and the novelty consists in the construction and arrangement of the seeding mechanism, seed-coverers, devices for operating the seed-slide, braces for supporting the shoe-standards, and mechanism for raising the latter and lowering them when desired, all as and for the purpose herein described.

In the accompanying drawing illustrating this invention, A A′ represent the driving-wheels of a corn-planter. B represents the axle, and C C′ the transverse bars of the main frame. *c* designates standards depending from the bar C′, and supporting near their lower ends the transverse shaft *c′*, to which are secured, at intervals, the crank-arms *d* d^1 and bell-crank d^2. The last is on the end of said shaft, outside the standard next to the wheel A′. One of its arms is slotted and holds the end of a shaft, *e*, to which is attached a grooved roller, e^1. The other arm is connected to a rod, E, upon the outer end of which is fixed an arm, e^2, having its end formed into a jaw to fit the grooved roller e^1. The inner end of the rod E is attached to an upright lever, D, pivoted to the second standard, and slotted at its upper end, where it is coupled to a crank, d^3, on the end of a crank-shaft, d^4, journaled on top of the bars C C′, and furnished with an operating handle, d^5. *a* designates a ring secured to the inner face of the wheel A′, and provided at regular intervals with the cam-projections a^1, which are each constructed with three exterior faces, the outer one concentric with the periphery of the wheel and the other inclined thereto. The roller e^1 is kept in contact with the projections a^1 by means of a spring, d^6, and is thereby vibrated in such a manner as to oscillate the shaft c^1. The roller is thrown out of such contact by turning the crank-shaft d^4. F represents the standards, to which are attached the seed-tubes or boxes *f*. They are suspended by means of cords f^1, attached to crank-arms or studs f^2 from a transverse shaft, f^3, journaled to the back of the bar C. G represents double arms on each side of the standard F, to which they are pivoted, thence extending forward and pivoted to the standards *c*. H designates a pair of diagonal arms pivoted to one side of each of the standards F and to the standard *c* intervening between those to which the arms G are attached. The arms G and H serve as braces to support the standards F, being pivoted to allow said standards to be raised and lowered. I represents a roller on the lower end of each of the standards F. *f* are the seed-tubes or boxes, secured to the hind part of the standards F, their interiors communicating with channels *i* in the standards, through which the corn is deposited in the ground beneath. *i* represents the plows for digging the furrows. i^2 i^3 are the coverers, one of which is secured to each side of a standard, F. i^2 is bent in toward the back part of the standard, so as to scrape the earth over the corn, while i^3 extends back, as shown, and is slightly curved toward i^2, so as to elevate the soil to form a ridge. Within each seed-box a seed-slide, K, is arranged to vibrate longitudinally. A seed-opening, *k*, is formed in said slide. k^1 represents a horizontal plate placed within each seed-box above the slide, and also formed with a seed-opening, k^2, which communicates with the opening in the slide according as the latter is vibrated. A small stud or pin at the side of the seed-slide projects through a slot in the side of the seed-box, and is connected to a link, L, which is pivoted to a crank, L^1, pivoted in turn to one side of the standard F. L^2 represents an arm pivoted to the crank L^1, and also to a crank, *d*, hereinbefore described. By means of the connections above specified the seed-slide is vibrated by the oscillation of the shaft c^1. The spring d^6 is attached, by its lower end, to the crank-arm d^1, and by its upper end to the crank-shaft d^4. M represents a lever for operating the shaft f^3. M′ is a dog pivoted to the front of the bar C, and designed for the purpose of holding the lever M up. This dog is made in the form of an elbow-lever, and has one of its arms weighted to keep

it in position to receive said lever when it is thrown back. The upper end is beveled to let the dog give or turn when the lever comes in contact with it and thus secure it. N indicates a dog pivoted to a lug on top of the bar C. It engages with a ratchet-wheel, N′, on the shaft f^3, or with notches cut in said shaft, and is intended as a means of regulating the height of the standards F. O represents the driver's seat elevated above the bar C, and P represents the shafts by which the implement is drawn. It has been stated that the spring d^6 keeps the roller e^1 in contact with the cam-projections a^1. It should, however, be understood that said spring tends to keep the roller toward the center of the wheel, so as to follow the irregularities of the projections a^1, in order to create vibration or oscillation. The movement of the crank-shaft d^4 throws the roller either toward or away from the inner face of the wheel A′.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The adjustable roller e^1 sliding on its shaft, cam-projections a, cranks d^2 d, shaft c', and vibrating seed-boxes f and slides K, adapted to conjoint operation, substantially as described.

2. The rod E, clutch-arm e^2, lever D, and crank-shaft d^4, in combination with the adjustable roller e^1 and shaft e and vibrating seed-boxes, as and for the purpose set forth.

3. The pivoted arms G H, connecting the standards F and c, substantially as and for the purpose set forth.

4. The short coverers l^2, formed with a vertical convex inner surface, in combination with the long oblique coverer l^3, curving to the rear and inward, all constructed and arranged in the manner described, and secured to the standards F, as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

SETH STEVENS.

Witnesses:

HENRY STEVENS,

SAMUEL K. MERRILL. (133)