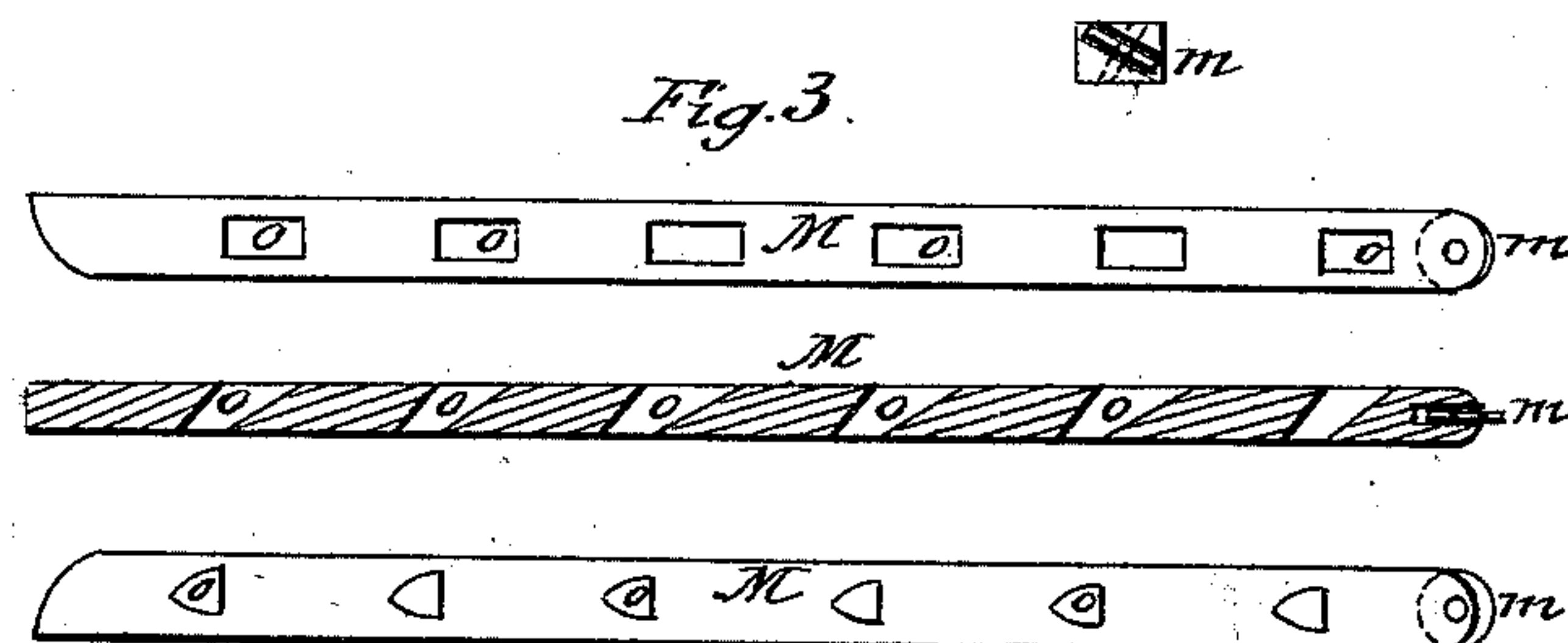
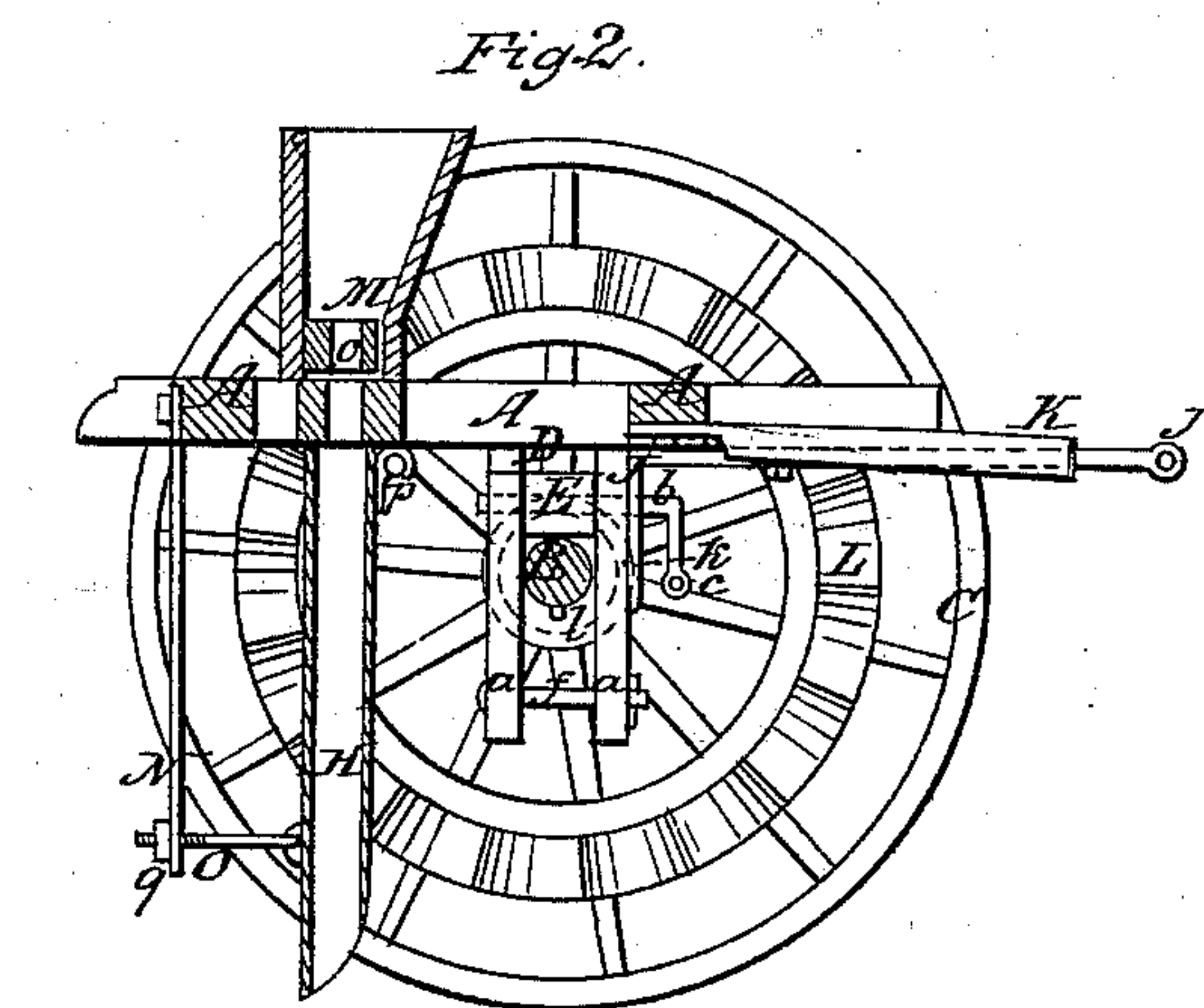
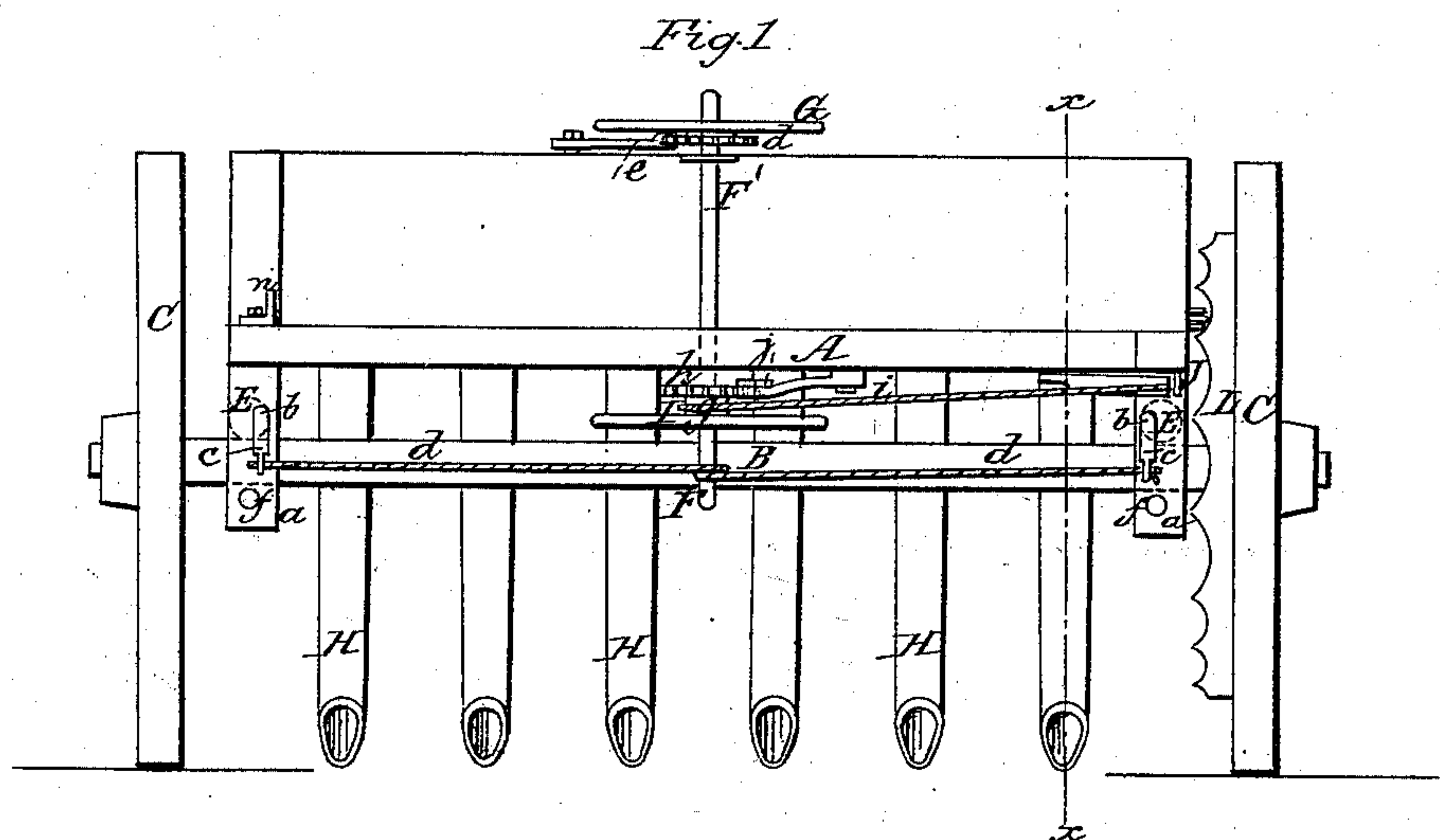


ENOCH & WISSINGER.

Grain-Drill.

No. 10,881.

Patented May 9, 1854.



UNITED STATES PATENT OFFICE.

GEO. T. ENOCH AND DANIEL WISSINGER, OF SPRINGFIELD, OHIO.

IMPROVEMENT IN SEED-PLANTERS.

Specification forming part of Letters Patent No. 10,881, dated May 9, 1854.

To all whom it may concern:

Be it known that we, GEORGE T. ENOCH and DANIEL WISSINGER, both of Springfield, in the county of Clarke and State of Ohio, have invented certain new and useful Improvements in Seed-Planters; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part thereof, in which—

Figure 1 represents a rear elevation of the machine; Fig. 2, a vertical cross-section at the red line *x x* of Fig. 1; and Fig. 3, a top view, longitudinal vertical section, and bottom view, respectively, of the seeding-bar.

The nature of our invention consists in the method of adjusting or regulating at pleasure the several parts for furnishing the proper quantities of seed to be sown.

To enable others skilled in the art to make and use our invention, we will proceed to describe the same with reference to the drawings, in the several figures of which similar letters denote like parts.

The frame A may be constructed in any well-known substantial manner, and is hung to the axle B, suitably provided with wheels C, by means of boxes or bearings D at each end of said frame. The boxes D have two projecting pieces, *a a*, which span the axle, so that it may freely turn between them. The frame A rests upon two eccentric rollers, E E, which are respectively fastened to so as to turn with the pins *b b*, passing through the jaws *a a* of the boxes above the axles. There are attached to the pins *b* (one only being distinctly seen) crank-arms *c c*, to each of which is attached a cord, *d*, the cord in its center being fixed to so as to turn with the shaft F, suitably supported on the frame, said shaft being provided with a hand-wheel, G, rack-wheel *d*, and pawl *e* for winding up and holding the cord *d*. By turning the hand-wheel G the eccentrics E E are both simultaneously turned, bringing the longest diameters in a perpendicular line, and thus raising the frame on the wheels to adjust the seeding-tubes H at a proper height, even to entirely raising them out of the ground, so as to sow broadcast, as it were, instead of drilling in the grain.

A pin, *f*, prevents the frame from rising too high, and by letting go the cord *d* the weight of the frame lowers itself again on the wheels.

The shaft F is also provided with another hand-wheel I, drum *g*, and rack-wheel *h*, but which turn on and independent of said shaft, but which are prevented from turning with the strain of the cord *i* by means of a pawl, *j*, attached to the frame, so that either hand-wheel and its several parts may be operated without at all interfering with each other.

The hand-wheel I, drum *g*, and rack-wheel *h* may be in one piece or so attached as to move together.

One end of a cord is fastened to the drum *g*, the other end being connected to the extreme end of a crooked forked lever, J, against the side of which, next the drum, is a spring, K, for forcing it against or opposite to the action of the cord, for the purpose to be presently described. The lever J has an arm, *k*, Fig. 2, which works in a groove cut in the periphery of one of the hubs of the wheel, (shown by red lines,) the axle for this wheel being provided with a feather, (or, rather, the journal of the axle,) which fits a slot cut lengthwise in the bore of the hub, as seen at *l*, this being for the purpose of allowing the wheel to be slid out or in on said journal, and yet turn with the axle. The lever J has a suitable fulcrum, and by drawing up the cord *i*, which is attached to it, it forces the wheel out farther on the journal, and by letting go the cord the spring K acts oppositely, drawing it in again. This arrangement is for regulating the quantity of seed to be sown, as will be described in connection with the seeding-bar.

A tappet-wheel, L, is so connected with one of the wheels C, as to move with said wheel, and a friction-roller, *m*, in the end of the seeding-bar M, Fig. 3, running against said tappet-wheel, being held up against it, or, rather, prevented from being thrown from it by a counteracting-spring, *n*, Fig. 1, pressing against the opposite end of said seeding-bar. As the throw of the seeding-bar depends upon the amount of contact it has with the tappet-wheel, it will be perceived that by moving said tappet-wheel farther from or nearer to the end of the seeding-bar the throw will be less or greater, and a corresponding less or greater amount of seed passed from the hopper to the tubes.

The openings *o* in the seeding-bar M, by their inclined tunnel-shaped form, the top overhanging the bottom opening, in connection with the perfect throw of said bar by the tappet-

wheel, admits of the very nicest adjustment, and which may be varied at pleasure while the machine is in operation, said bar disclosing just such an opening or communication with the seeding-tubes as may just pass the amount of grain desired to be sown.

The seeding tubes or shoes H are hinged to a common rod, *p*, as seen in Fig. 2, and are held in position by springs N, to which each tube is separately connected by a rod, O, with a nut, *q*, so that, if desired, a portion of the tubes may be set in advance of the others. When the tube or shoe meets an obstruction of any kind the spring allows it to swing back until it passes over it, and then draws it up to its place again.

In going to or from the field the feeding apparatus can be thrown out of gear by sliding the tappet-wheel out on the journal or raising up the frame, so that the seeding-bar is raised above the tappet. The frame, instead of being

above the axle, may be below it, and a seat, is deemed essential, may be added for the operator; but as these do not involve the general construction of the parts they need not be described.

The power of both the supporting-wheels is applied to the working of the seeding-bar, they both turning with the axle.

Having thus fully described the nature of our invention, what we claim therein as new, and desire to secure by Letters Patent, is—

The mode of adjusting the tappet-wheel L, in combination with the peculiar form of the sliding bar M, to suit the nicest differences in any desired quantity of seed to be sown, substantially as described.

GEORGE T. ENOCH.

DANIEL WISSINGER.

Witnesses:

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RODNEY MASON.