

No. 612,551.

Patented Oct. 18, 1898.

L. O. SONDE.
CORN PLANTER.

(Application filed May 7, 1898.)

(No Model)

3 Sheets—Sheet 1.

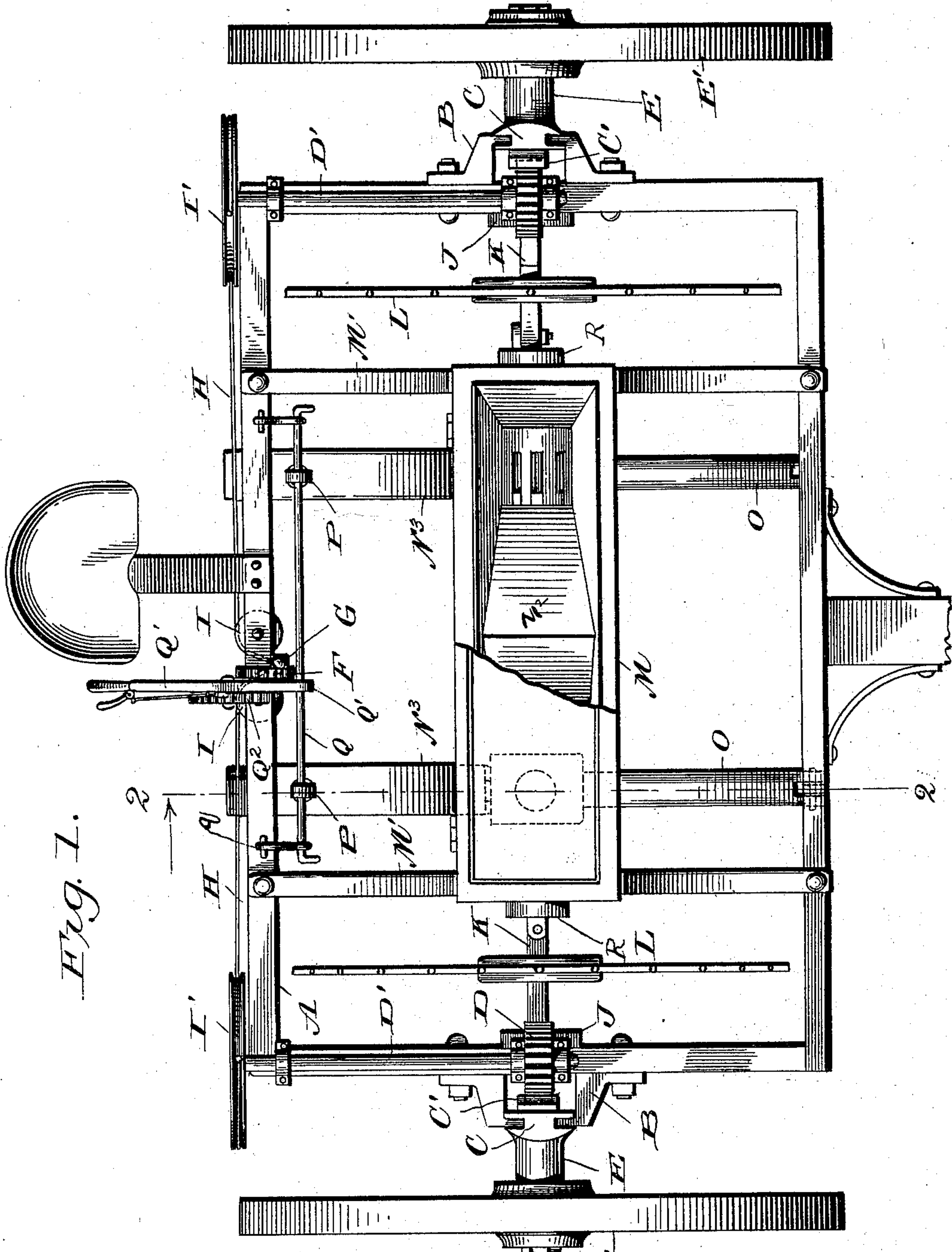


Fig. 1.

Witnesses

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No. 612,551.

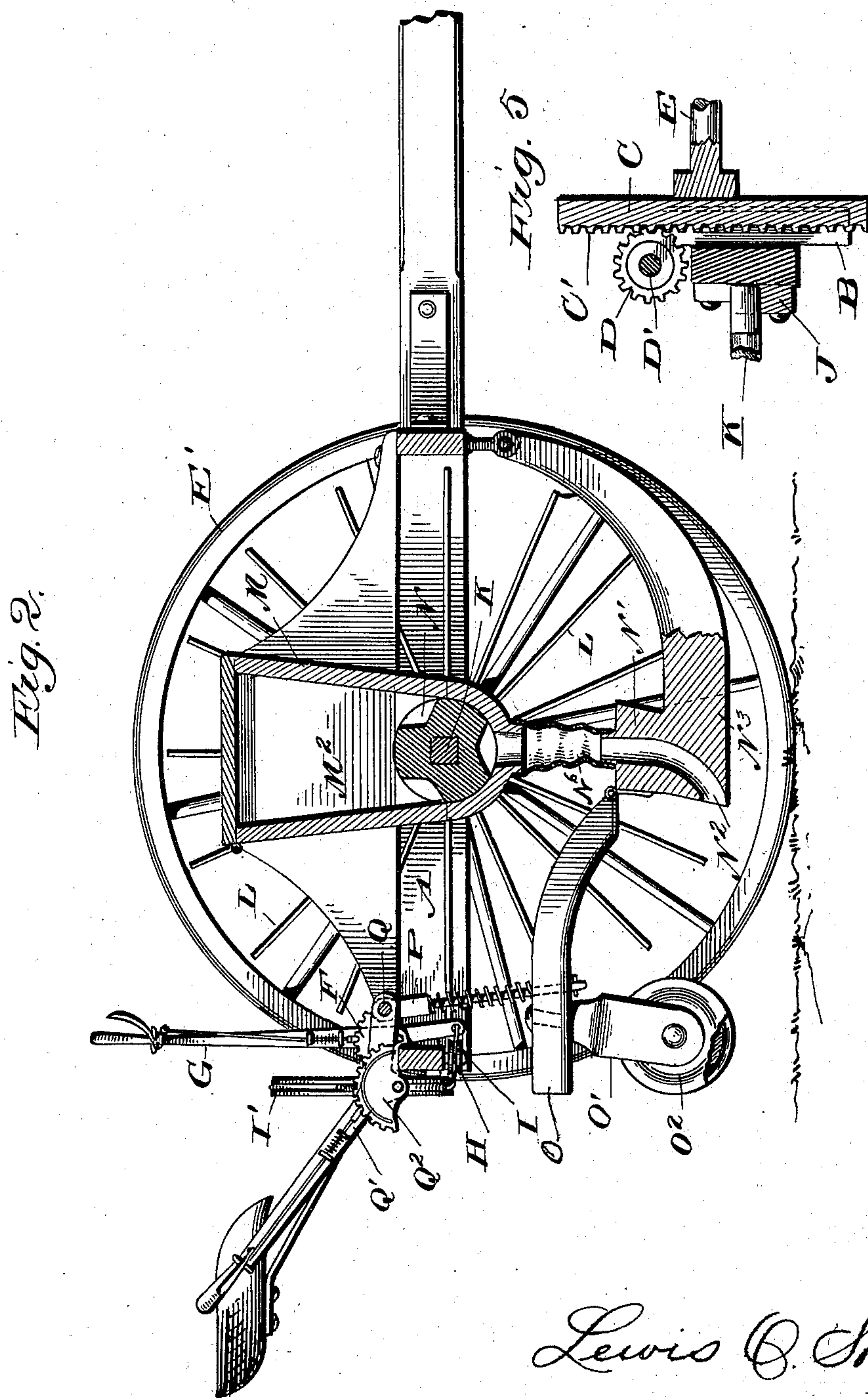
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3 Sheets—Sheet 2.



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Inventor:

By His

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Witnesses:

L. C. Mills
a. L. Hough

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Fig. 3.

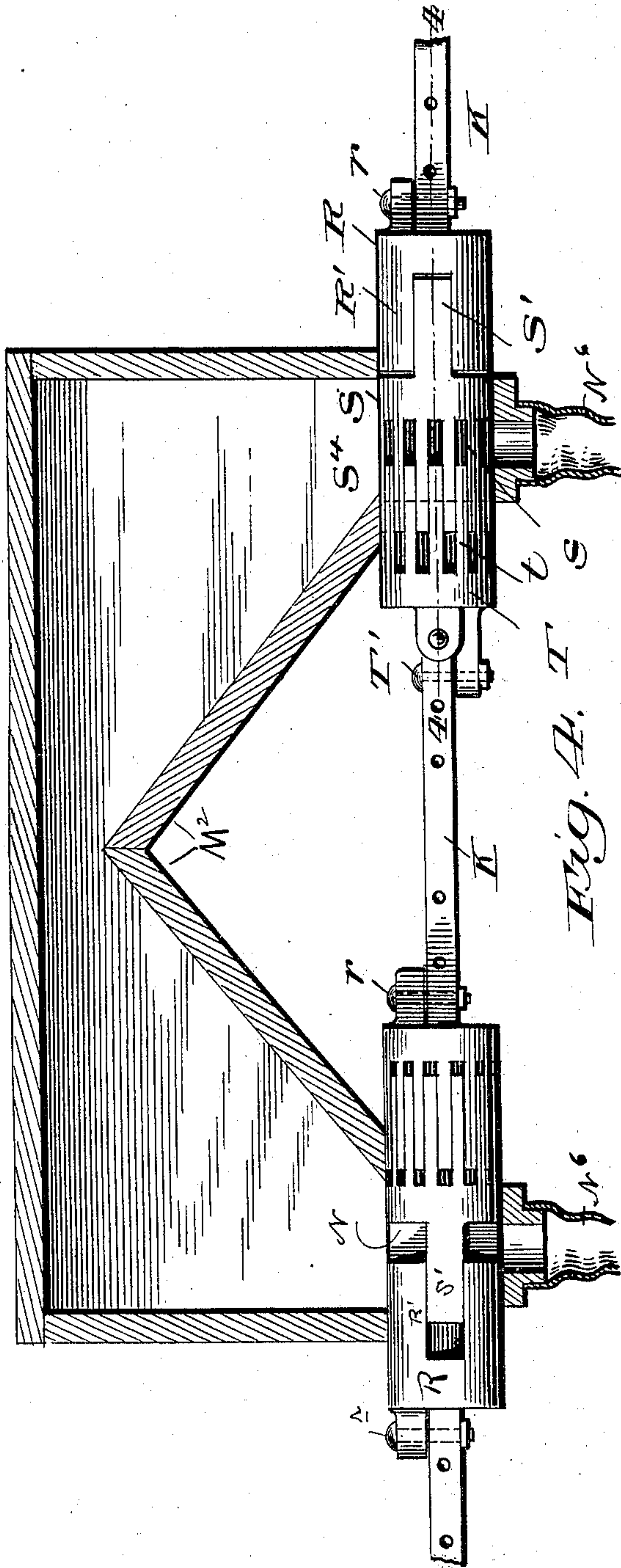
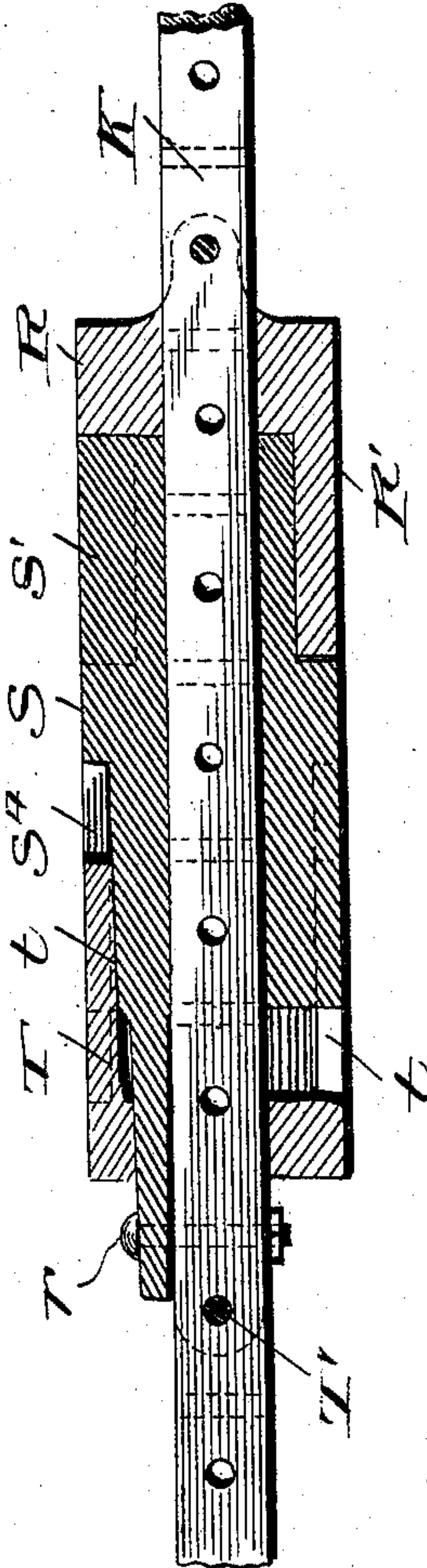


Fig. 4.



Witnesses
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Lewis O. Sonde ^{Inventor}
By his Atty. Franklin A. Hough

UNITED STATES PATENT OFFICE.

LOUIS O. SONDE, OF NORTHWOOD, NORTH DAKOTA.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 612,551, dated October 18, 1898.

Application filed May 7, 1898. Serial No. 680,023. (No model.)

To all whom it may concern:

Be it known that I, LOUIS O. SONDE, a citizen of the United States, residing at Northwood, in the county of Grand Forks and State of North Dakota, have invented certain new and useful Improvements in Corn-Planters; 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 of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in corn-drills, and the novelty resides in the peculiar combinations and the construction, arrangement, and adaptation of parts, all as more fully hereinafter described and then particularly pointed out in the appended claim.

My invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, and in which drawings similar letters of reference indicate like parts throughout the several views, in which—

Figure 1 is a plan view of my improved corn-drill. Fig. 2 is a vertical longitudinal section on line 2 2 of Fig. 1. Fig. 3 is a detail view of the axle and the mechanism carried thereby for controlling the feeding of the seed, and Figs. 4 and 5 are detail views.

Reference now being had to the details of the drawings by letter, A designates the framework which supports the seeder mechanism. This framework has secured at its ends the plates B, which form cross-heads in which the vertical rack members C are adapted to work. These rack members C have teeth C' on their inner faces, and said teeth are adapted to mesh with the teeth of the pinion-wheel D, which is mounted on the shaft D', which shaft is journaled in suitable bearings on the frame, as shown. Carried by each of the said rack members C is a stub-shaft E, on which a wheel E' is journaled. Pivoted on the segment F on the rear longitudinal portion of the frame of the machine is the lever G. This lever has fastened to its lower end at its longitudinal center the wire H, which wire passes about the pulleys I, thence longitudinally along the

frame, and about the pulleys I', which pulleys are keyed to the shaft D', before described. By means of this lever and wire connection with the said shafts the frame of the truck may be raised or lowered, as may be desired, for the purpose of adjusting the mechanism carried by the frame to work at different heights from the ground. Mounted in the boxes J on the inner faces of the ends of the frame is the shaft K, which shaft is preferably square and has series of apertures or depressions at various locations along its length for a purpose which will presently appear. The ends of this shaft are round at the bearing-points, and L L are wheels which are made up of a hub portion with radiating rods, which engage in the ground as the planter is drawn over the field, thus causing the said shaft to rotate. Mounted on the longitudinal strips of the frame is the seedbox M, supported by means of cleats M', as shown. This seedbox has the inclined bottom portions M², provided to cause the seed to fall by gravity to and through the openings at the lower ends of the seedbox. Underneath each of the outlets to the seedboxes are the seed-hopper bins N, in which are journaled the regulating-shells carried on the shaft K and through which hoppers N the seed passes from the seedbox into the spouts which lead to and deposit the seed in the apertured end of the shoes N', while the seed is allowed to fall out by gravity through the exit-aperture N² in the heel of each shoe.

N⁶ are flexible tubes or sleeves, of canvas or the like, having one end connected to the under sides of the bins and the other end to the upper ends of the passages N² in the rear ends of the shoes N'. These shoes N' are tapered on their lower edges, and their forward ends are connected by means of clevises to the frame of the planter, while the rear end of each shoe has hinged thereto the presser-wheel lever O, which carries at its rear end in the yoke O' the wheel O², which is concaved out, as illustrated. This presser-lever O has mounted thereon the spring-actuated bolt P, the upper end of which is journaled on the rod Q, which rod is mounted on links q and secured to the rear longitudinal strip of the frame. Journaled on the said rod Q is the lever Q', which lever is pivoted on a

segment Q^3 , carried on the rear part of the framework of the planter, and is provided with a spring-actuated pawl adapted to engage with the teeth of the said segment in order to hold the rod Q at different heights, which regulates the pressure that may be applied to the presser-levers, which carry the wheels O^2 , which are adapted to fall in and tamp down the soil after the seed that has been previously planted.

It will be observed that my improved drill mechanism may be adjusted to plant corn in hills at different distances apart, and the number of kernels of corn that it is desired to plant may be also regulated by the following mechanism, viz:

Mounted on the said square shaft K and held thereto by means of bolts r is the shell R , which has at one end, equidistantly located, three recesses about its circumference, as illustrated at R' . This shell has a bearing within the seed-hoppers N , and when it is desired to plant the corn in hills at a distance of six or four feet apart the said shell is adjusted and held in such a position on the shaft K so that the said recesses will come directly underneath the outlet in the seedbox, and the size of the said shell (which has been predetermined) is such as to cause the seed at each revolution to drop four feet apart and to drop seed three times in each revolution of the said shell. In order to regulate the number of kernels which it is desired to drop, a telescoping shell S is provided, which is slidingly held on the said shaft and has forked projections S' , which forked arms are of such a size as to register with and to fit in the recesses in the said shell S . This shell S has a projection through which an adjusting-screw may be passed in order to hold the said shell at a certain location on the said shaft and with the forks of the shell extending into the recesses in the shell S at a greater or less distance to receive more or less of the seed, as may be desired. The opposite end of this shell S has a series of recesses S^4 , which extend about the circumference of the shell and are provided for the purpose of dropping the seed at distances preferably four feet apart, and

loosely held on the said shaft K is a shell T , which shell may be held at different locations on the shaft by means of an adjusting-screw T' . This shell has a series of arms t , similar in number to the recesses S^4 , and each arm is adapted to register with a recess as the two shells are forced together in the manner illustrated in Fig. 3 of the drawings. By adjusting the shell T at different locations of the shaft K the spaces S^4 may be made larger or smaller to receive a larger or smaller number of kernels as they drop from the seedbox into the hopper, through which the shells pass and have a bearing. When it is desired to adjust the feeding mechanism on the operating-shaft when the machine is equipped to feed the seed in rows four feet apart, so that seed may be dropped at intervals of one foot, the shells S may be taken off from the ends of the shaft K and the shells having a series of recesses S^4 may be adjusted on the shaft so that they will come directly underneath the outlets in the seedboxes.

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

In a corn-planter, the combination with the frame, the plates B at the ends thereof and forming cross-heads, vertical rack members mounted to work in said cross-heads, the pinions D engaging the rack members, the shafts D' carrying said pinions and journaled in bearings in the ends of the frame, the stub-shafts E carried by the rack members and carrying the wheels, the boxes J on the inner faces of the ends of the frame, and the shaft K in boxes with their bearing-points circular and the shaft rectangular for the remainder of its length, of the rods radiating from hubs on the shaft K to engage in the ground to rotate said shaft, the shells on the shaft K and the telescoping shells slidingly mounted on said shaft, all substantially as shown and described.

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

LOUIS O. SONDE.

Witnesses:

OLAVES DAVIDSON,
CHAS. GUSTAFSON.