

(No Model.)

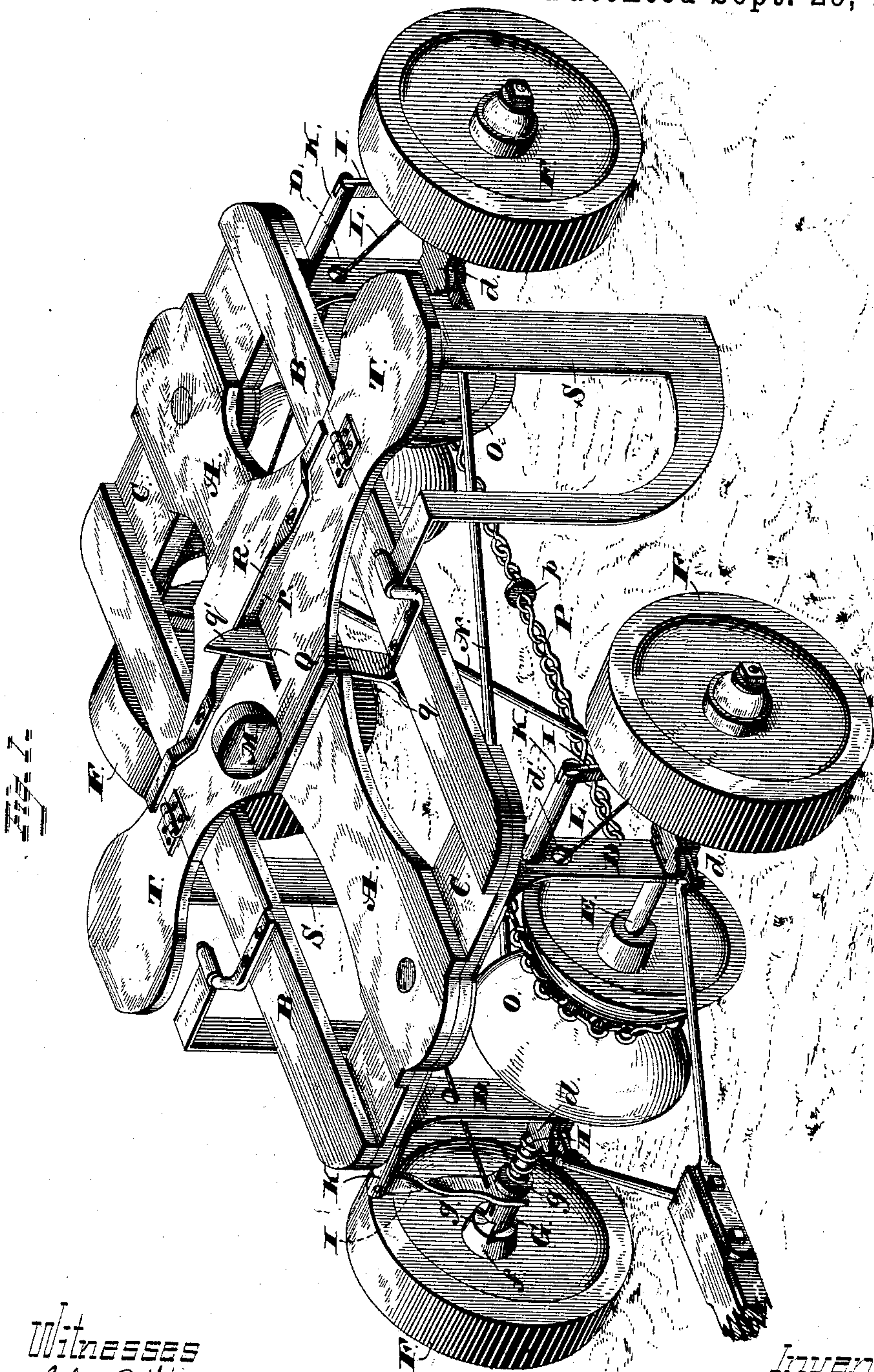
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N. NEWMAN.

CORN PLANTER.

No. 327,301.

Patented Sept. 29, 1885.



Witnesses
Chas. Williamson.
Jas. E. Hutchinson.

Inventor
Nelson Newman, by
Brindle & Russell, his Attys.

(No Model.)

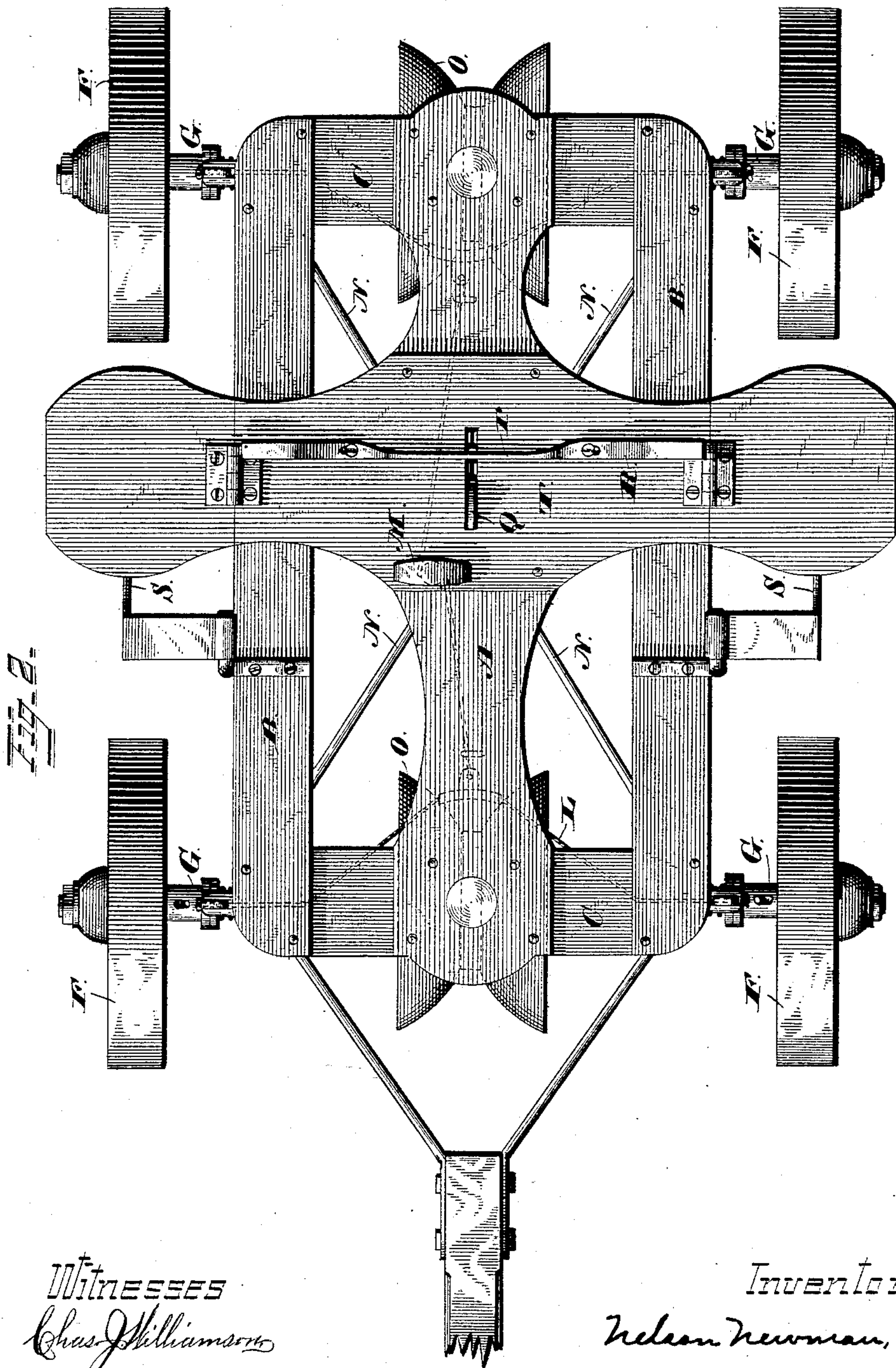
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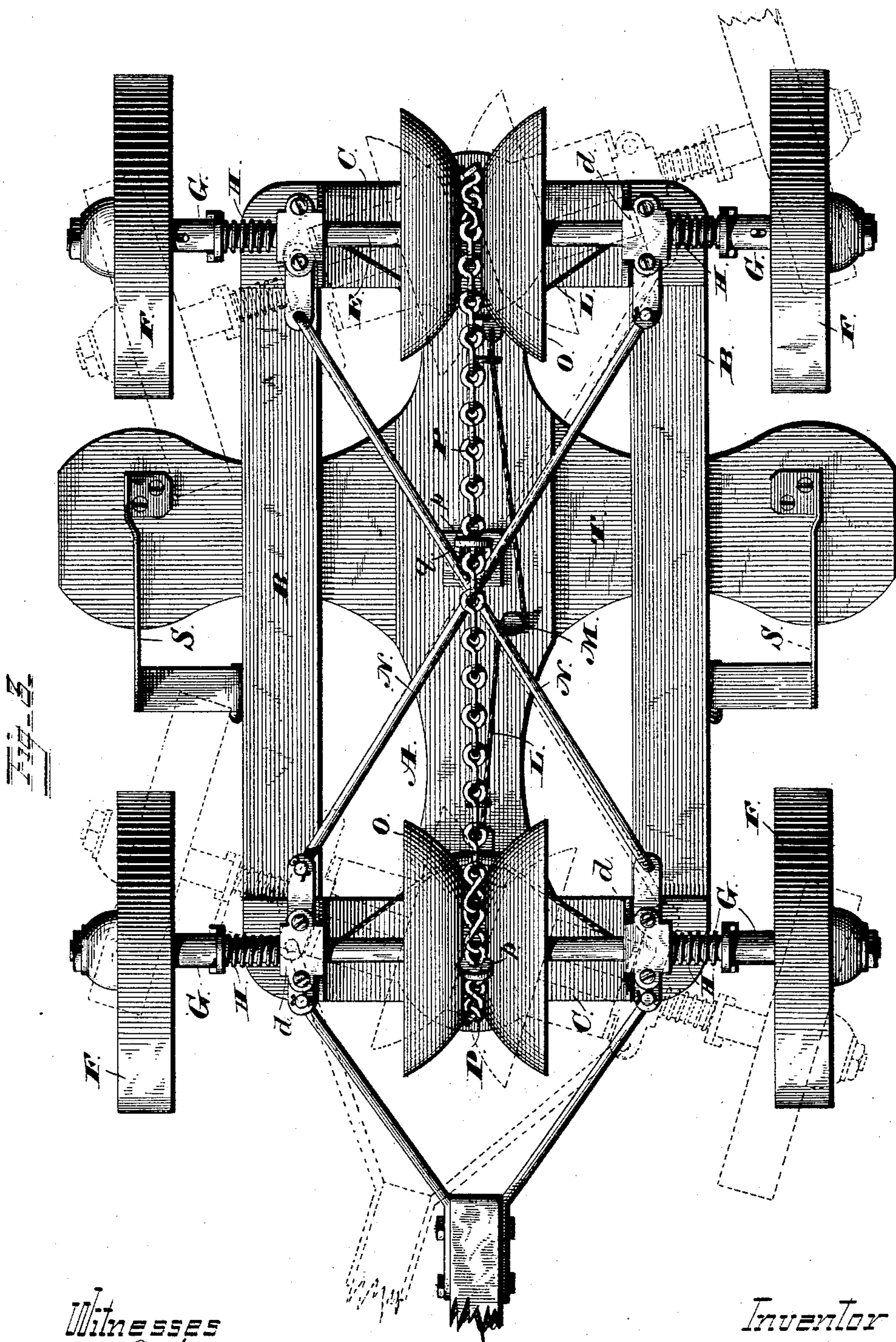
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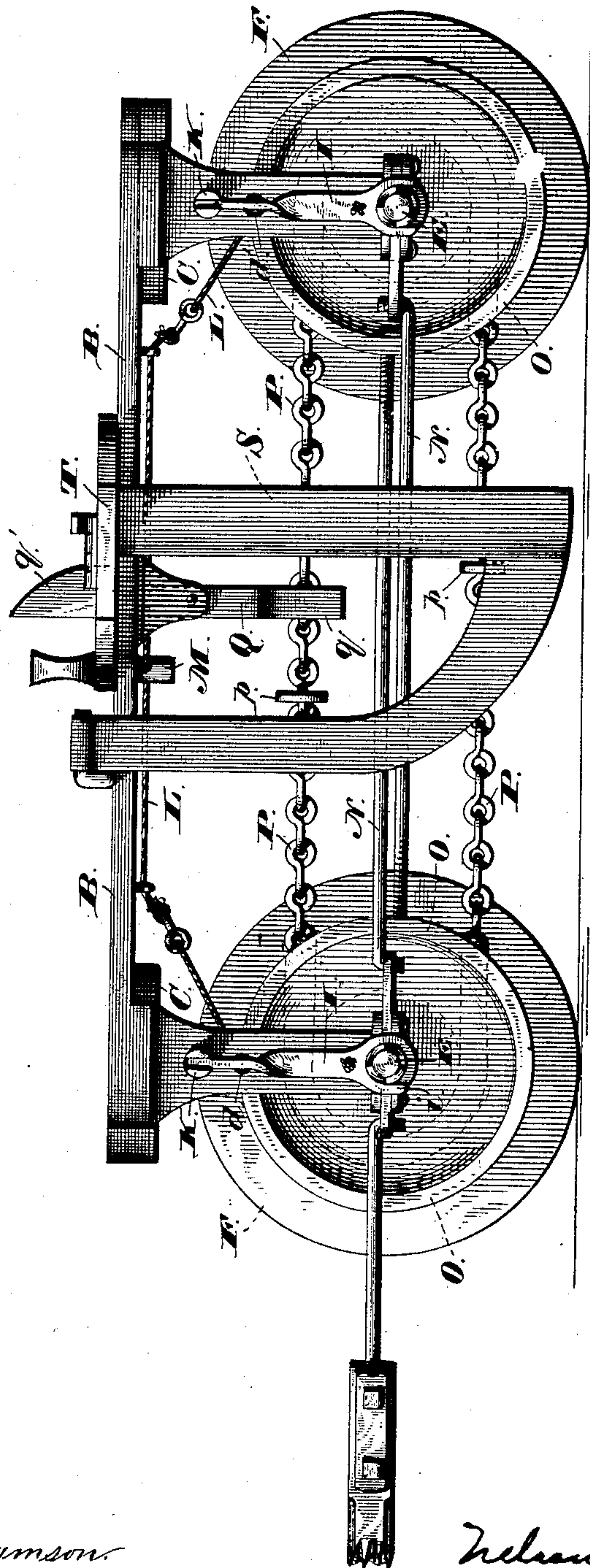
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Fig. 4.



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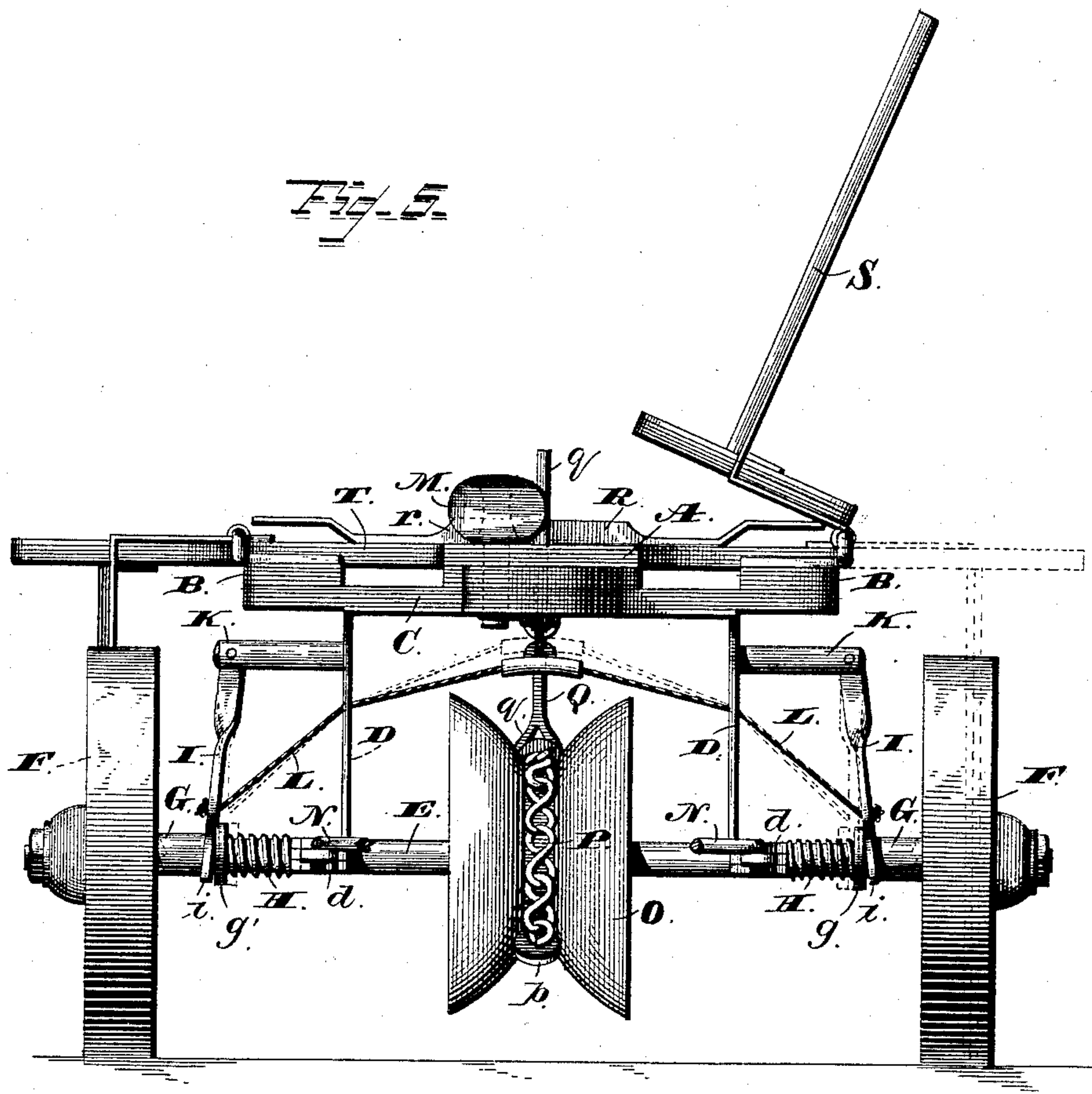
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UNITED STATES PATENT OFFICE.

NELSON NEWMAN, OF SPRINGFIELD, ILLINOIS, ASSIGNOR TO EMELINE NEWMAN, JASPER N. REECE, LEVEN W. SHEPHERD, AND GEORGE A. SANDERS, ALL OF SAME PLACE.

CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 327,301, dated September 29, 1885.

Application filed December 4, 1884. (No model.)

To all whom it may concern:

Be it known that I, NELSON NEWMAN, of Springfield, in the county of Sangamon, and in the State of Illinois, have invented certain new and useful Improvements in Corn-Planters; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my apparatus, the seed-box and dropping mechanism being removed. Fig. 2 is a plan view of the upper side of the same. Fig. 3 is a like view of the lower side of said apparatus, the full and dotted lines showing different positions of the axles. Fig. 4 is a side elevation of the same, and Fig. 5 is an elevation of its front end.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to enable corn to be accurately planted in intersecting rows without the use of the ordinary check-row line, and to this end said invention consists, principally, as an improvement in corn-planters, in the combination of three or more ground-wheels, which are geared together to rotate in the same time, with dropping mechanism that is actuated by said wheels, substantially as and for the purpose hereinafter specified.

It consists, further, in the combination of two axles, which are geared together and caused to revolve in the same time, three or more ground-wheels, that are connected with and adapted to rotate said axles, and seed-dropping mechanism which is actuated by the same, substantially as and for the purpose hereinafter shown.

It consists, further, in combining with axles, which are driven by three or more ground-wheels, an endless chain that connects said axles together and causes the same to rotate in the same time, and also actuates the seed-dropping mechanism, substantially as and for the purpose hereinafter set forth.

It consists, further, in the combination of two axles, which are connected together so as

to rotate in the same time and are adapted to actuate seed-dropping mechanism, with ground-wheels that are journaled upon said axles and may be connected with or disconnected from the same by shiftable clutches, substantially as and for the purpose hereinafter shown and described.

It consists, finally, in the means employed for connecting the chain-operated lever with the seed-slides, substantially as and for the purpose hereinafter set forth.

In the annexed drawings, A designates the center bar, and B and B the side bars, of the platform of my apparatus, which bars are connected together at their ends by means of two cross-bars, C and C, as shown.

Pivoted at the longitudinal center of each cross-bar C is an \cap -shaped metal bar, D, which at each end is provided with a box, d , within which is journaled an axle, E, that in turn has journaled upon each of its ends a ground-wheel, F, said wheels, axles, and frame-bars thus combined constituting a rolling support for the platform.

Each wheel F is connected with its axle E by means of a clutch, G, which is placed upon and caused to revolve with said axle, while capable of sliding lengthwise of the same, and has its outer toothed end, g , held in engagement with the toothed inner face of the hub f of said wheel by means of a spring, H, which is placed between the inner end of said clutch and the outer end of the contiguous journal-box d .

Each clutch G is withdrawn from engagement with its wheel by means of a bar, I, which has its upper end pivoted within a fixed support, K, and its lower forked end i arranged to embrace said clutch outside of a peripheral collar, g' . A cord or chain, L, having its lower end attached to or near the lower end of said bar I, passes from thence through an opening, d' , in the vertical portion of the adjacent frame-bar D, and from thence to and around a vertical bar, M, at or near the center of the platform, furnishing a means whereby said bar I may be moved inward, such movement, together with a simultaneous movement

of the other bars I, being caused by the partial rotation of said bar M, so as to wind around it said cords.

The axles E are connected together, so as to simultaneously move in opposite directions upon their pivotal bearings, by means of two rods, N, each of which is pivoted at one end to a rearward extension of one of the journal-boxes d, and from thence extends diagonally across and has its opposite end pivoted to the box d of the other axle upon the opposite side of the machine. As thus connected, the movements of the front axle in turning the machine produce correspondingly-opposite movements of the rear axle, so as to cause the wheels to follow in the same tracks, and to enable said machine to be turned in a much less space than would otherwise be required.

At the longitudinal center of each axle E is secured a chain-wheel, O, around which and around the similar wheel O of the opposite axle passes a chain, P, that operates to connect said axles together and cause them to revolve in precisely the same time without regard to their relative angles. At suitable equidistant points upon said chain are placed washers p, which, as the latter moves longitudinally, engage with the lower forked end q of a lever, Q, that is pivoted vertically within the central bar, A, of the platform at the transverse and longitudinal center of the same.

As stated, the lower end q of the bar Q is forked, and spans the chain P; but as the space between the forks is less than the diameters of the washers p each of the latter as it moves forward engages with and moves said forked end in the same direction until, from the movement of said bar upon its pivotal bearing, said forked end is raised sufficiently to permit said washer to pass from beneath, after which, by means of a spring, said bar is caused to resume its normal position again.

The upper projecting end, q', of the bar Q is connected with the seed-dropping mechanism, so that at each rearward movement of said upper end said dropping mechanism is caused to act and deposit the desired quantity of seed within the ground. Any form of connection which will accomplish the result may be employed; but I preferably use a bar, R, which has its central portion made thin transversely, so as to form a spring, r, is pivoted midway between said spring portion and each end, and has its ends connected with the dropping-slides.

By this arrangement the end q' will, as it is moved rearward, carry in the same direction the central portion of said spring-bar and cause its ends to be simultaneously moved forward, while upon the release of said operating-bar Q from engagement with a washer, p, said spring-bar will automatically return to its normal position and carry with it said seed-slides and operating-bar.

Runners S for opening furrows are located

upon each side of the machine, between the wheels F, and are attached to and supported by a bar, T, which extends laterally across the platform and serves, also, to support the seed-boxes and dropping mechanism. In order that said runners may be removed from contact with the ground when not in use, the projecting portion at each end of said bar T is hinged and capable of being turned upward and inward to the position shown in Fig. 5. As the space between the upper ends of said runner is greater than the necessary width of said cross-bar, the rear portion only of said runner is secured to the latter, and this front portion is hinged to or upon an arm, U, which projects laterally outward from the platform.

Having thus described my invention, what I claim is—

1. In a corn-planter, the combination of three or more ground-wheels, which are geared together to rotate in the same time with dropping mechanism that is actuated by said wheels, substantially as and for the purpose specified.

2. In a corn planter in which are two axles that are geared together and caused to revolve in the same time, the combination therewith of three or more ground-wheels, which are connected with and adapted to rotate said axles, and seed dropping mechanism that is actuated by the same, substantially as and for the purpose shown.

3. In a corn-planter in which the axles are driven by three or more ground-wheels, in combination therewith an endless chain, that connects said axles together and causes them to revolve in the same time, and also actuates the seed-dropping mechanism, substantially as and for the purpose set forth.

4. In a corn-planter, the combination of two axles, which are connected together so as to rotate in the same time and are adapted to actuate the seed-dropping mechanism, with ground-wheels that are journaled upon said axles and may be connected with or disconnected from the same by shiftable clutches, substantially as and for the purpose shown and described.

5. In combination with the vertically-pivoted operating-lever adapted to be vibrated by the continuously-moving knotted chain, the bar R, provided with the spring central portion, r, and pivoted between said portion and each end, and having its ends connected with the seed-dropping slides, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of October, 1884.

NELSON NEWMAN.

Witnesses:

WM. H. CARMAN,
ISAAC A. HAWLEY.