

(Model.)

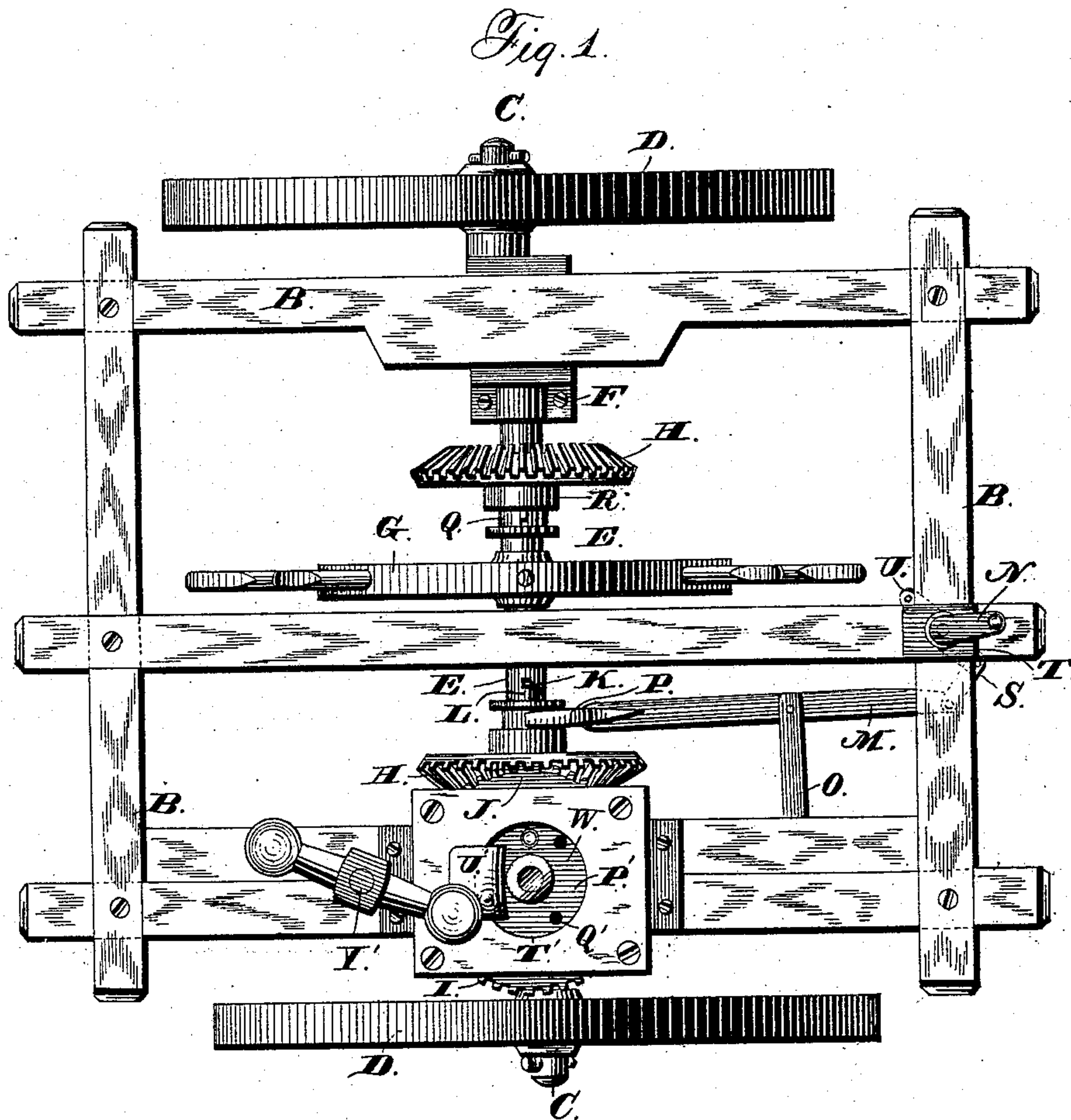
2 Sheets—Sheet 1.

C. G. EVERET.

AUTOMATIC CHECK ROW CORN PLANTER.

No. 272,222.

Patented Feb. 13, 1883.



WITNESSES

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INVENTOR

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Fig. 2.

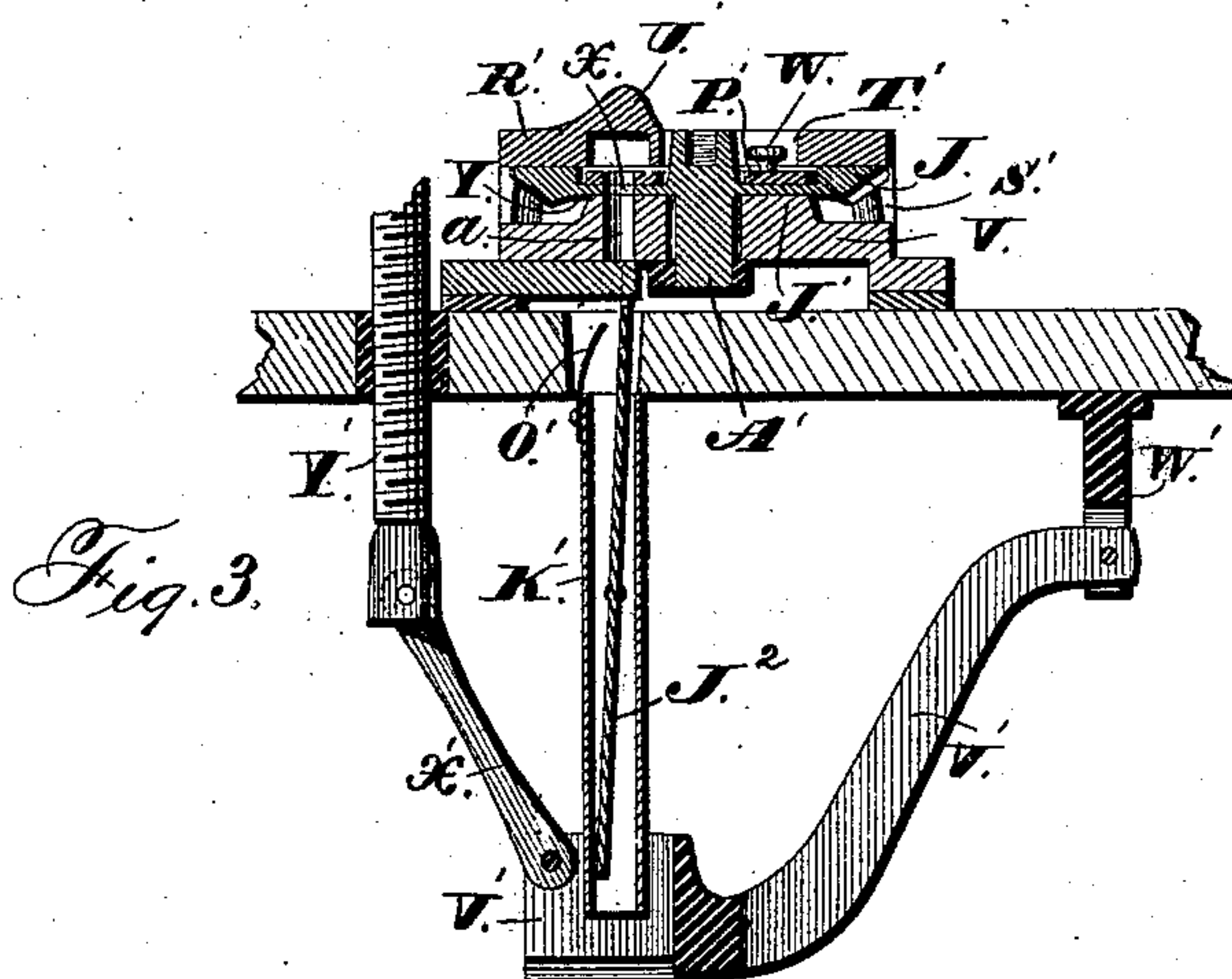
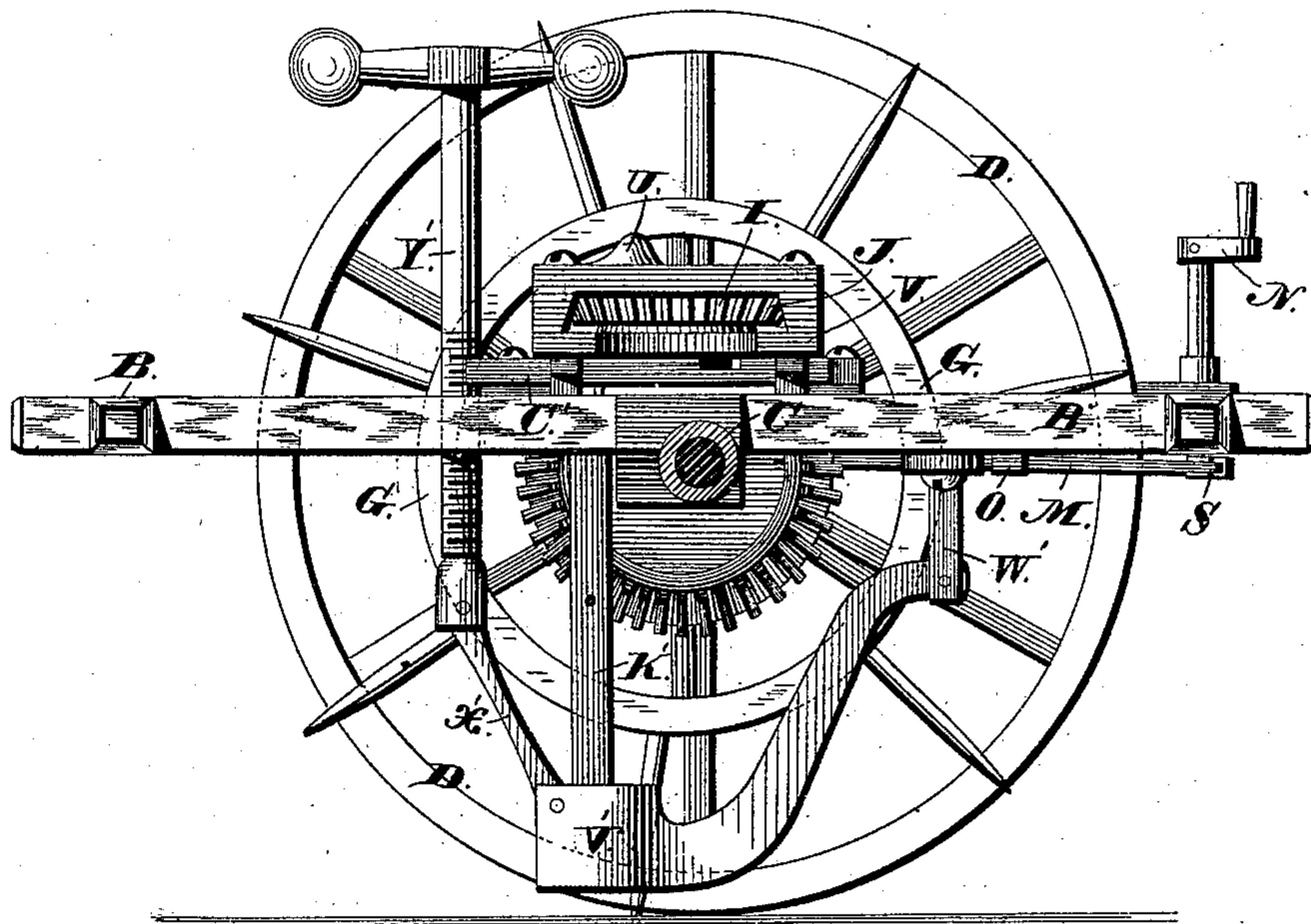
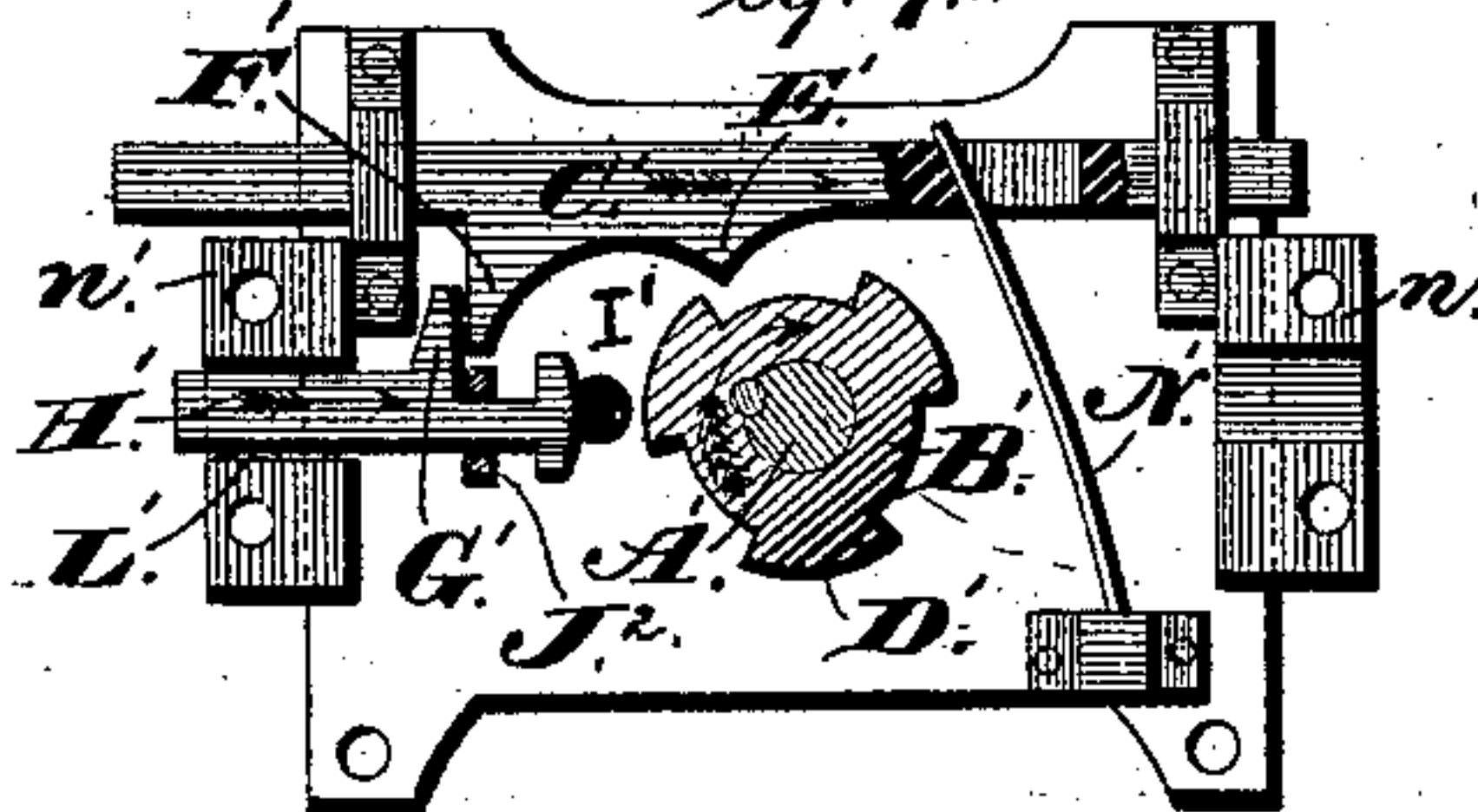


Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES G. EVERET, OF BELLEFONTAINE, OHIO.

AUTOMATIC CHECK-ROW CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 272,222, dated February 13, 1883.

Application filed March 10, 1882. (Model.)

To all whom it may concern:

Be it known that I, CHARLES G. EVERET, of Bellefontaine, in the county of Logan and State of Ohio, have invented certain new and
5 useful Improvements in Automatic Check-Row 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
10 and use the same.

My invention relates to an improvement in automatic check-row corn-planters, the object being to provide a device of this character which shall combine simplicity of construction
15 and ease of operation with durability and efficiency in use.

With this object in view my invention consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of a check-row corn-planter constructed in accordance with my invention, the seed-dropping mechanism being removed from
25 one side of the implement. Fig. 2 is a view in side elevation thereof, one of the carrying-wheels being removed. Fig. 3 is a view in vertical longitudinal section through the seed-feeding mechanism, and Fig. 4 is a plan
30 view of the bottom of the plate upon which the revolving seed-feeding disk is mounted.

The seeding mechanism and the devices for operating it, which together constitute the subject-matter of my invention, are secured to
35 a frame, B, to the side beams of which short axles C are attached, the carrying-wheels D being mounted on the said axles. A shaft, E, is interposed between the side beams of the frame B and journaled in boxes F, secured to
40 the said beams, and is actuated by the engagement of a spike-wheel, G, mounted upon it, with the surface over which the planter travels, the spike-teeth of the said wheel being arranged to extend several inches below the
45 carrying-wheels. Bevel-wheels H, located on each side of the spike-wheel G, are adapted to partake of the rotary movement of the shaft E and to be laterally moved thereon to be engaged with the bevel-teeth I, encircling the
50 periphery of the revolving seed-disks J. To this end they are provided with slots K, arranged to receive the keys L, secured to the

shaft E. The lateral movement or reciprocation of these wheels upon the said shaft is effected by levers M, both of which are operated by
55 the driver by means of the hand-lever N. The inner ends of the levers M, which are fulcrumed to arms O, secured to the side beams of the frame B, are provided with arms P, adapted to be received in annular grooves Q,
60 formed in the hubs R of the bevel-wheels H, while their outer ends are attached to links S, secured to the arms T of the two-armed plate U, in which the hand-lever N terminates, said hand-lever being journaled in the forward
65 beam of the frame B. By manipulating the said hand-lever the operator may throw the bevel-wheels H into or out of mesh with the teeth of the disks J, according as it is desired to begin or stop the feeding of the seed. For
70 the purpose of sustaining the bevel-wheels H in engagement with the disks J, the hand-lever should be provided with a suitable ratchet and pawl or other equivalent device, none being shown in the drawings.

The revolving disks J, which are mounted
75 upon suitable plates, V, secured to the side beams of the frame B, are provided with chambers or seed-receptacles W, with perforations X, with recesses Y, to receive the perforated
80 bosses J', formed on the upper face of plates V, with depending studs A', which pass through the perforated bosses aforesaid, and with cams B', secured to the lower ends of the said studs
85 and adapted to actuate the sliding bars C', secured to the under faces of the plates V, by the engagement of their cam-faces D' with
90 ledges E', formed on the said sliding bars, which are also provided with arms F' to engage with the arms G' of the draw-heads H', the same being provided with arms I', adapted to engage with the upper ends of the lever
95 J², provided in each of the hollow feeding-tubes K', the said draw-heads being guided in their movement by the reception of their outer ends
in slots L', formed in one of the standards n', which elevate the plates V sufficiently above
the level of the frame B to permit the devices secured to their lower faces to operate. When
100 the disks J are actuated the cams B', attached to their depending studs, will engage with the ledges E' of the sliding bars C', actuating the same and engaging their arms F' with the arms G' of the draw-heads H', which, through

their engagement with the upper ends of the levers J^2 , will move them, opening the upper and closing the lower ends of the feeding-tubes K' , the levers J^2 being pivoted in the same at points about midway between their upper and lower extremities. The parts of the seeding mechanism are so adjusted that at this point in its operation one of the perforations X of each of the disks J will register with suitable holes, a , in the plates V , said holes being located directly over the upper ends of the feeding-tubes, permitting a portion of the seed in the chambers W to descend thereinto, where it will be retained until the ledges E' of the sliding bars O' are released from the cams. When this occurs the springs N' will retract the said levers and draw-heads, while a suitably-arranged spring, O' , will restore the levers J^2 to their normal positions, in which their lower ends are open, the upper ends being closed. As the levers are moved, as described, the seed which has been retained on them in the lower ends of the tubes will be deposited in the earth.

From the arrangement and operation of the seed-dropping device it will be seen that I secure the dropping of all the grains in a charge close together, as the charge is ready for final deposit when the cam D' passes off the edge of ledge E' , and as the sliding bars O' , draw-heads H' , and the valves are thus suddenly released, the spring O' acts promptly to throw back the upper end of the valve and suddenly and completely open its lower end, so that the grains will all drop together in a compact group, and not scattered, as is often the case where a valve or other dropper opens gradually.

It may here be observed that there should be as many perforations X in the chambers W as there are actuating-faces on the cams B' , so that seed may be fed into the tube as often as it is in proper adjustment to receive it.

Disks P' , located in the chambers W of the disks J , are provided with perforations Q' , registering with the perforations X . Thumb-screws or other suitable devices are adapted to retain the perforations X and Q' in any desired adjustment to register the quantity of seed fed to the feeding-tubes K' .

Shields R' , provided with depending legs S' , are adapted to be secured to the plates V . They are also provided with central perforations, T' , to admit seed into the chambers W from the seed-receptacles, which are secured to their upper faces, and with hoods or cut-offs U' , located immediately over the perforations, which lead to the feeding-tubes, the said hoods or cut-offs being designed to prevent the grain from crowding at these points.

Furrow-openers V' embrace the lower ends of the feeding-tubes K' . Their forward upper ends are pivotally secured to supports W' , depending from the frame B , while their rear ends are rendered vertically adjustable by attachment through the links X' with the screws Y' . By manipulating the said screws Y' the furrow-openers may be elevated or depressed, as it is desired to make the furrows shallow or deep to suit the soil or season.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a corn-planter, the combination, with the seed-dropping tube and a seed-disk arranged to deliver measured quantities of grain thereto, of a valve, J^2 , pivoted in said tube and operated by the draw-head H' and the seed-disk, and a spring arranged to open said valve, substantially as set forth.

2. In a check-row corn-planter, the combination, with a revolving seed-disk having a chamber and perforations in its upper face, and provided with a depending stud, of a plate secured to the planter-frame and perforated to receive the stud of the seed-disk, and a cam secured to the lower end of said stud and adapted to engage the ledges of a sliding lever, which latter operates a draw-head engaging a lever extending within and adapted to open and close the seed-tube, substantially as set forth.

3. In a check-row corn-planter, the combination, with a perforated revolving disk, of a cam actuated by said disk, a lever provided with ledges adapted to come in contact with said cam, a draw-head provided with arms, whereby it is operated by said lever and is connected with the lever of the seed-tube, and springs arranged relative to said levers, substantially as and for the purpose set forth.

4. The combination, with the furrow-opener having its front end pivotally connected with the frame and its rear end embracing the lower end of the seed-tube, of the adjusting-screw extending vertically through the frame, and provided with a handle above the same, and the link connecting the lower end of the adjusting-screw with the rear end of the furrow-opener, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CHARLES GODFRIED EVERET.

Witnesses:

JOSEPH H. LAWRENCE,
JOHN REESE.