

(No Model.)

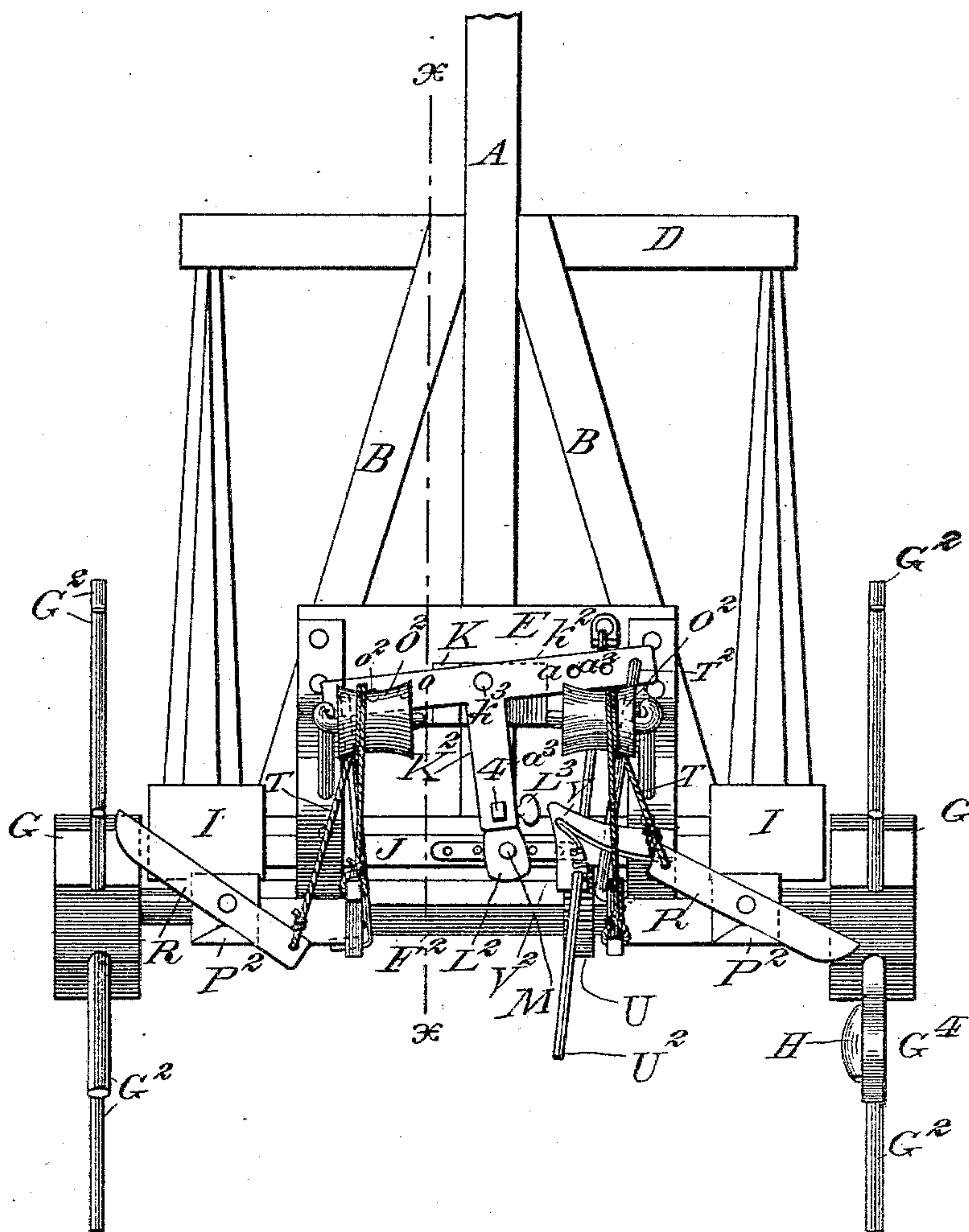
2 Sheets—Sheet 1.

G. AMES.
CHECK ROW PLANTER.

No. 412,357.

Patented Oct. 8, 1889.

Fig. 1.



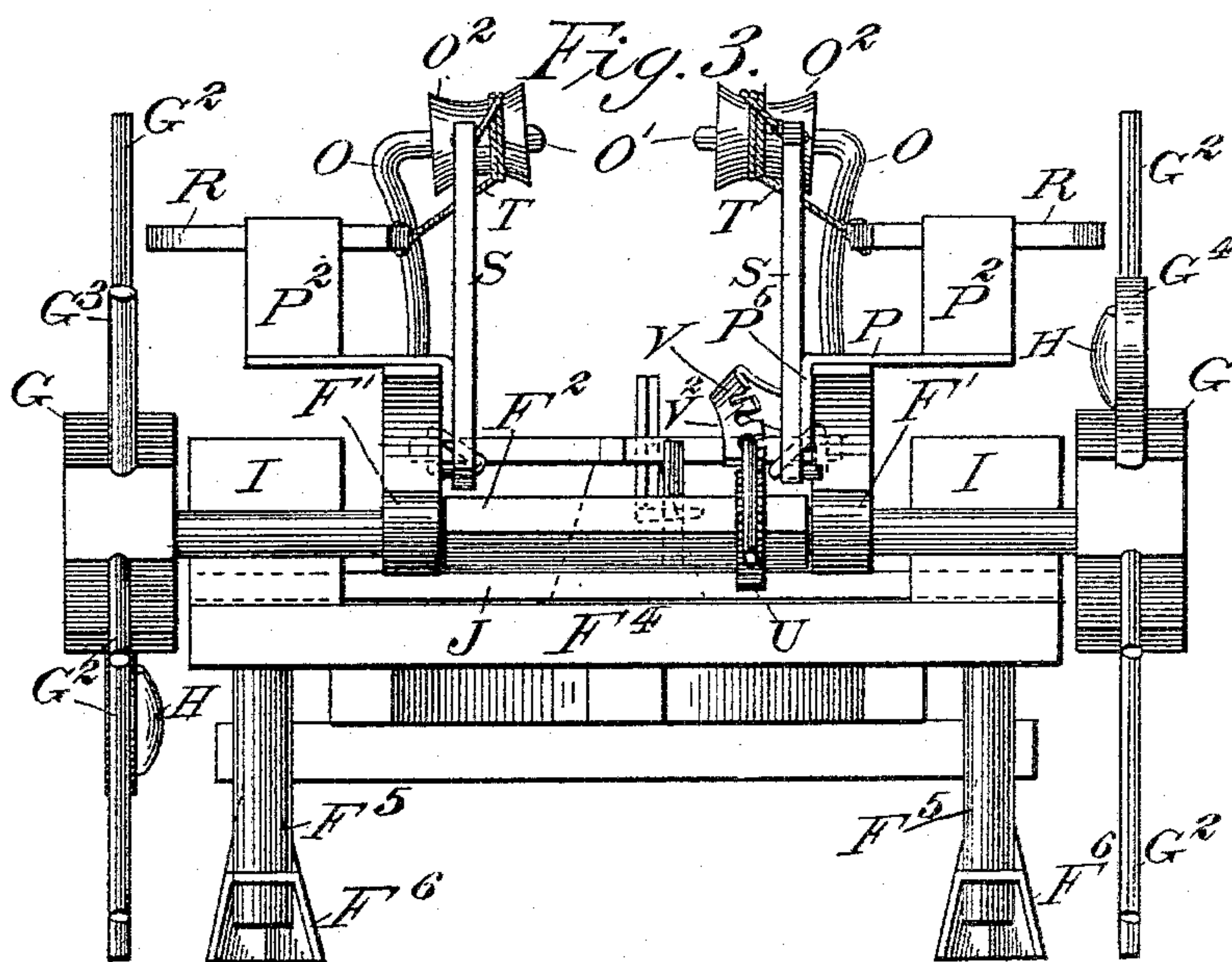
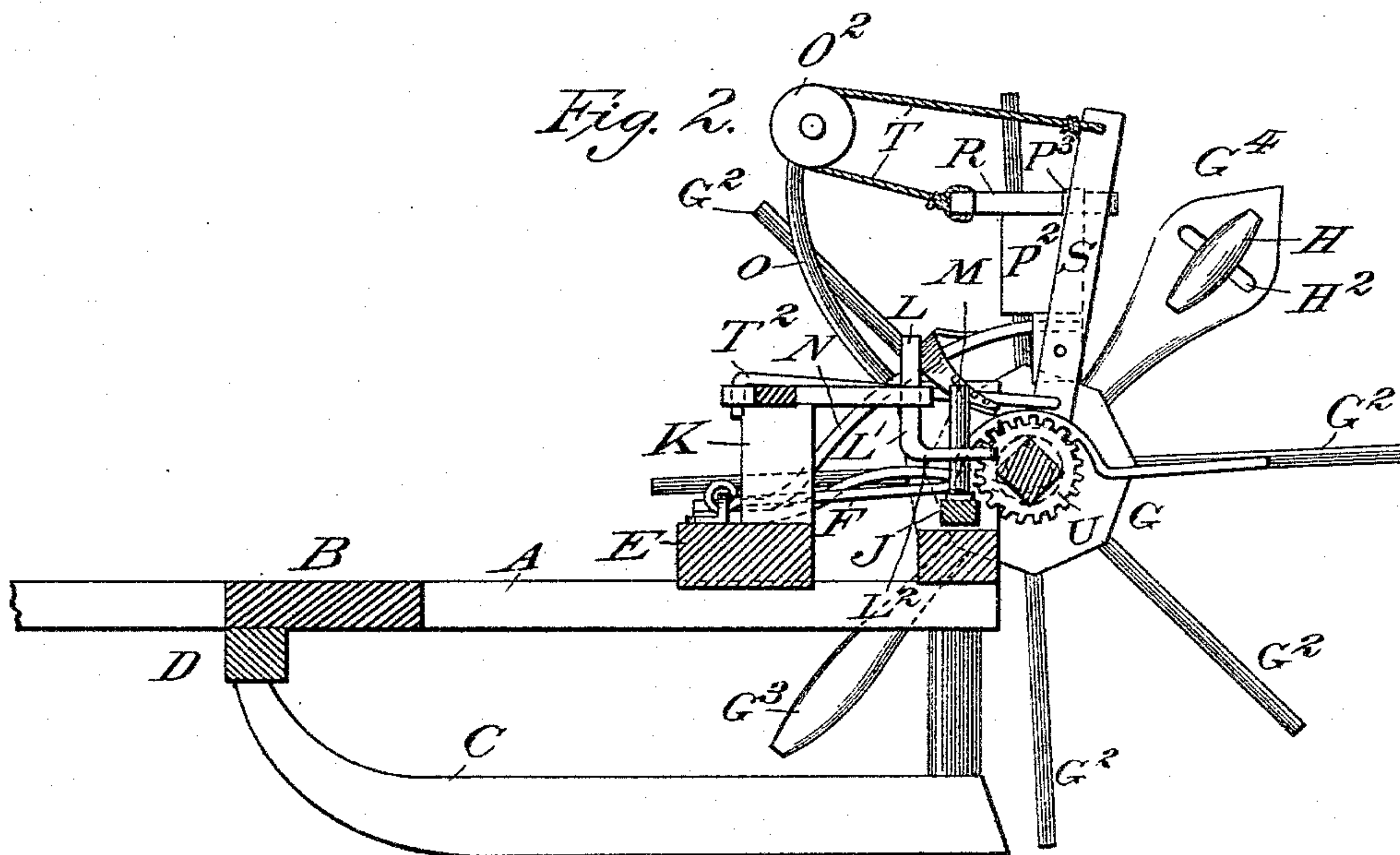
Witnesses:
J. H. Williams
W. H. Tyson

Inventor:
George Ames

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UNITED STATES PATENT OFFICE.

GEORGE AMES, OF COFFEYVILLE, KANSAS.

CHECK-ROW PLANTER.

SPECIFICATION forming part of Letters Patent No. 412,357, dated October 8, 1889.

Application filed March 28, 1889. Serial No. 305,197. (No model.)

To all whom it may concern:

Be it known that I, GEORGE AMES, a citizen of the United States, residing in Coffeyville, Montgomery county, and State of Kansas, have invented a new and useful Check-Row Planter, of which the following is a specification.

This invention relates to certain new and useful improvements in check-row corn-planters; and it has for its object to simplify and cheapen the construction and render more efficient in operation this class of machines.

To these ends and such others as the invention may pertain, the same consists in the peculiar combinations and in the novel construction, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the accompanying drawings, and then specifically defined in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, like letters of reference indicating like parts throughout the several views, and in which drawings—

Figure 1 is a top plan view of a machine constructed in accordance with my invention. Fig. 2 is a central vertical section on the line xx of Fig. 1, and Fig. 3 is a vertical transverse section of the same.

Reference now being had to the details of the drawings by letter, A designates the tongue; B, brace-timbers; C, the runners and furrow-opener, and D a timber connecting the forward ends of the runners.

E is a transverse timber, which is securely bolted to the upper faces of the timbers A and B.

F F are flat bars of metal, which are securely bolted at their forward ends to the upper faces of the timber E, one at each end of the same. These bars extend rearwardly and project a short distance beyond the cross-bars F^4 , connecting the rear ends of the runners, and have their rear ends bent to form journals F' for the transverse shaft F^2 , said wheels being provided with spokes G^2 , such as are common in this class of machines.

Each of the walking-wheels is provided with one or more spokes G^3 , for marking the hills.

G^4 are spokes secured to each hub of the wheels at points opposite the spokes G^3 . These spokes are broadened or substantially diamond-shaped at a point adjacent to their free ends.

H is a lug or block adjustably attached to the inner faces of the spokes G^4 by means of a set-screw passed through a slot H^2 , formed in the spoke. The use of this adjustable block will presently appear.

I I are seed-boxes, which are secured to the upper faces of the timber F^4 , one at each end of said timber. The outlets of said boxes communicate through the tubes F^5 with the surface of the ground, the lower ends of the tubes F^5 being protected by means of the extended ends F^6 of the runners C.

J is a transverse seed-slide, the ends of which are adapted to enter openings formed in the inner ends of the seed-boxes near the bottom of the same. A reciprocating sliding movement is imparted to the rod J by mechanism hereinafter described.

K is a block or standard secured to the upper face of the transverse timber E at its longitudinal center.

K^2 is a T-shaped piece of metal pivoted at the junction of its three arms to the upper face of the standard K by means of a vertical pivot K^3 , as shown. The transverse arms a are provided with a series of holes a^2 . The rearwardly-extended arms a^3 of the casting K^2 is provided with a rectangular opening to receive the vertical arm L, being bent at a point substantially at its longitudinal center to form the rearwardly-extended arm L^2 . The vertical adjustment of the vertical arm L is provided for by means of the set-screws L^3 . The longitudinal arm L^2 of the bar L' is provided with an opening which is adapted to be fitted over the vertical standard M, which standard is secured to the upper face of the seed-regulating slide J, as shown.

N N are curved metallic bars, the forward ends of which are securely bolted to the timber E at points adjacent to the ends of the same, and from their points of attachment the said bars are curved upwardly and rearwardly.

O O are metallic rods secured at their lower ends to the bars N. The upper ends of the rods O are bent inwardly at right angles, thus

forming the horizontal arms O' , upon which arms are journaled the spools or drums O^2 .

P P are flat strips of metal bolted or otherwise secured to the rear ends of the metallic strips N , the horizontal portion of the strip P being extended outwardly at right angles to the said strips N .

P^2 are blocks or standards which are secured to the upper faces of the horizontal portions of the strips P adjacent to their outer ends, the said blocks being provided at their rear upper edges with the upwardly-extended portion P^3 , for a purpose which will presently appear.

R R are horizontal levers pivotally attached at their centers to the upper faces of the blocks P^2 . The outer ends of said levers R extend outwardly and terminate at points adjacent to the inner faces of the walking-wheels, where they are operated upon by contact with the blocks H upon the spokes G^4 of the wheels.

S S are levers which are pivoted at points adjacent to their lower ends to the horizontal portion P^5 of the plate P .

T T are ropes or cables which are secured at one of their ends to the inner ends of the pivoted levers R , and after being wound around the drums O^2 are secured to the upper ends of the levers S . The lower ends of the levers S are connected to the arms a of the T -shaped casting L by means of the bars T^2 , the forward ends of which bars are bent downwardly at right angles, and may be fitted within any one of the holes a^2 in said arms.

U is a cog-wheel secured upon the shaft F^2 , and U^2 is a lever pivoted at its forward end to the upper face of the timber E and extended rearwardly, as shown. This lever U^2 is provided with a curved portion corresponding with the curvature of the wheel U , said curved portion being provided with notches, as shown, to engage the notches in the wheel when it is designed to lock the same, and thus prevent the rotation of the shaft.

V is a metallic bracket secured at one of its ends to the plate P , and having its downwardly-extended portion V^2 provided with notches, as shown, to receive the lever U^2 when not in use.

The operation of the machine is as follows: Grain having been placed in the boxes I I , and the lever U^2 released from its engagement with the wheel U , the machine is started. With each revolution of the wheels the blocks H upon the spokes G^4 contact with the outer ends of the lever R , throwing the same forward, by which movement the inner ends of said levers are thrown back, thus drawing upon the rope T and throwing forward the upper end of the levers S , causing the lower end of said lever to move rearwardly, carrying with it the arm of the T -shaped lever to which it is attached, the movement of which lever will impart movement to the slide J , causing the same to open or close the openings in the bottom of the seed-boxes, as will be readily understood. The spokes G^4 , it will be observed, are upon opposite sides of the respective wheels, so that they will operate alternately upon one end and the other of the slide J .

What I claim as new is—

1. The combination, with the main frame, the runners, the seed-boxes, and the reciprocating slide, of the walking-wheels provided with marking-spokes and with operating-spokes having projections upon their inner sides, the lever R , pivoted to the rear of the seed-boxes, one upon each side of the machine, the pivoted vertical levers S , and the ropes connecting the upper ends of the levers S with the inner ends of the levers R , substantially as described.

2. The combination, with the main-frame runners, walking-wheels, seed-boxes, and slide, of the T -shaped horizontal lever pivoted to the frame and having one of its arms adjustably connected with the slide, and the pivoted lever R , the levers S , drums O^2 , and the ropes T , connected to the levers S , wound on the drums and connected to the lever R , interposed between the wheels and the other arms of the lever, whereby the slide is reciprocated by the movement of the lever, substantially as and for the purpose specified.

GEORGE AMES.

Witnesses:

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