

(No Model.)

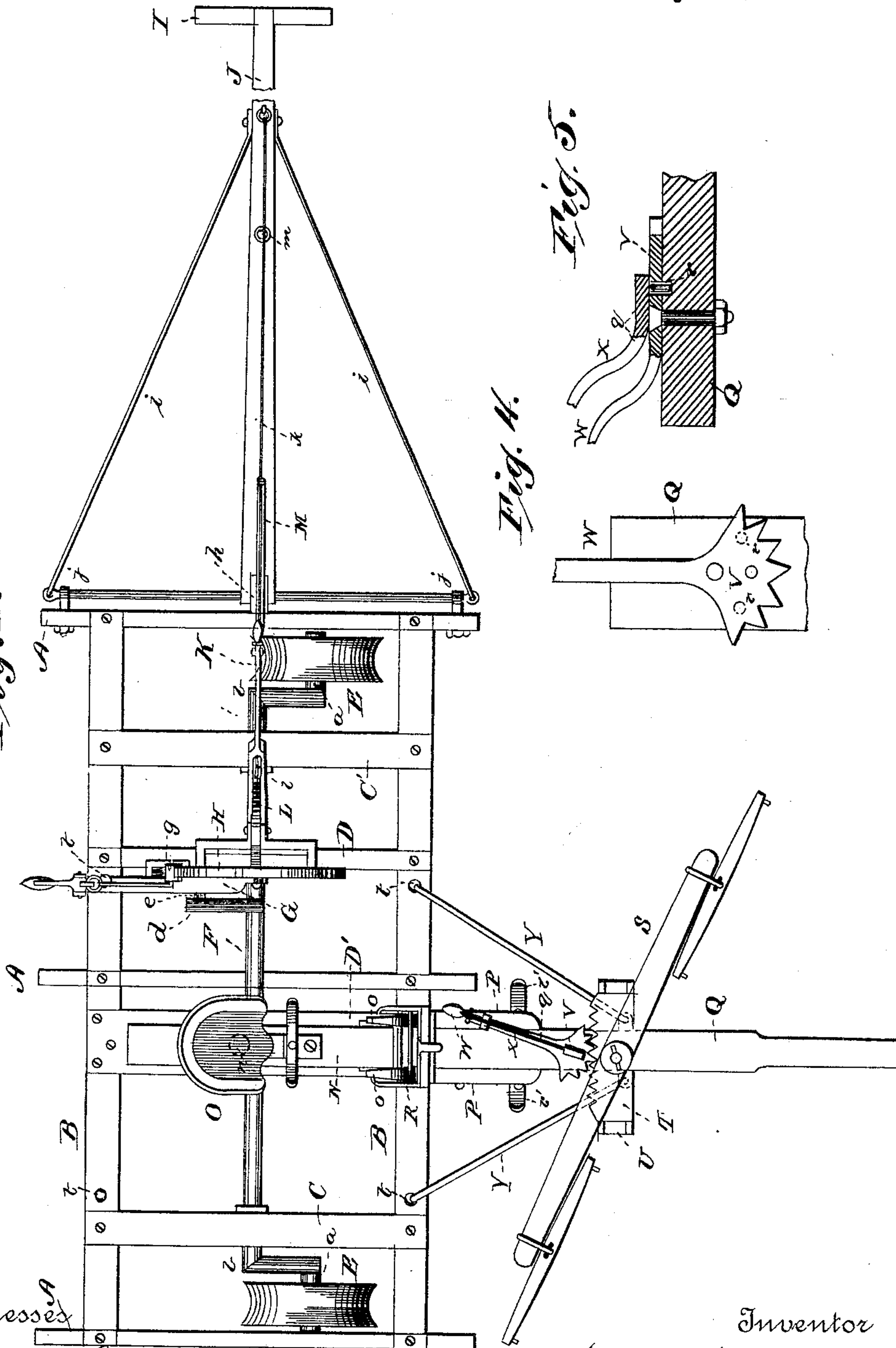
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S. T. BOATMAN.
CORN ROW MARKER.

No. 407,158.

Patented July 16, 1889.

Fig. 1.



Witnesses

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Villette Anderson.

Inventor

Samuel T. Boatman.

By his Attorney

E. W. Anderson.

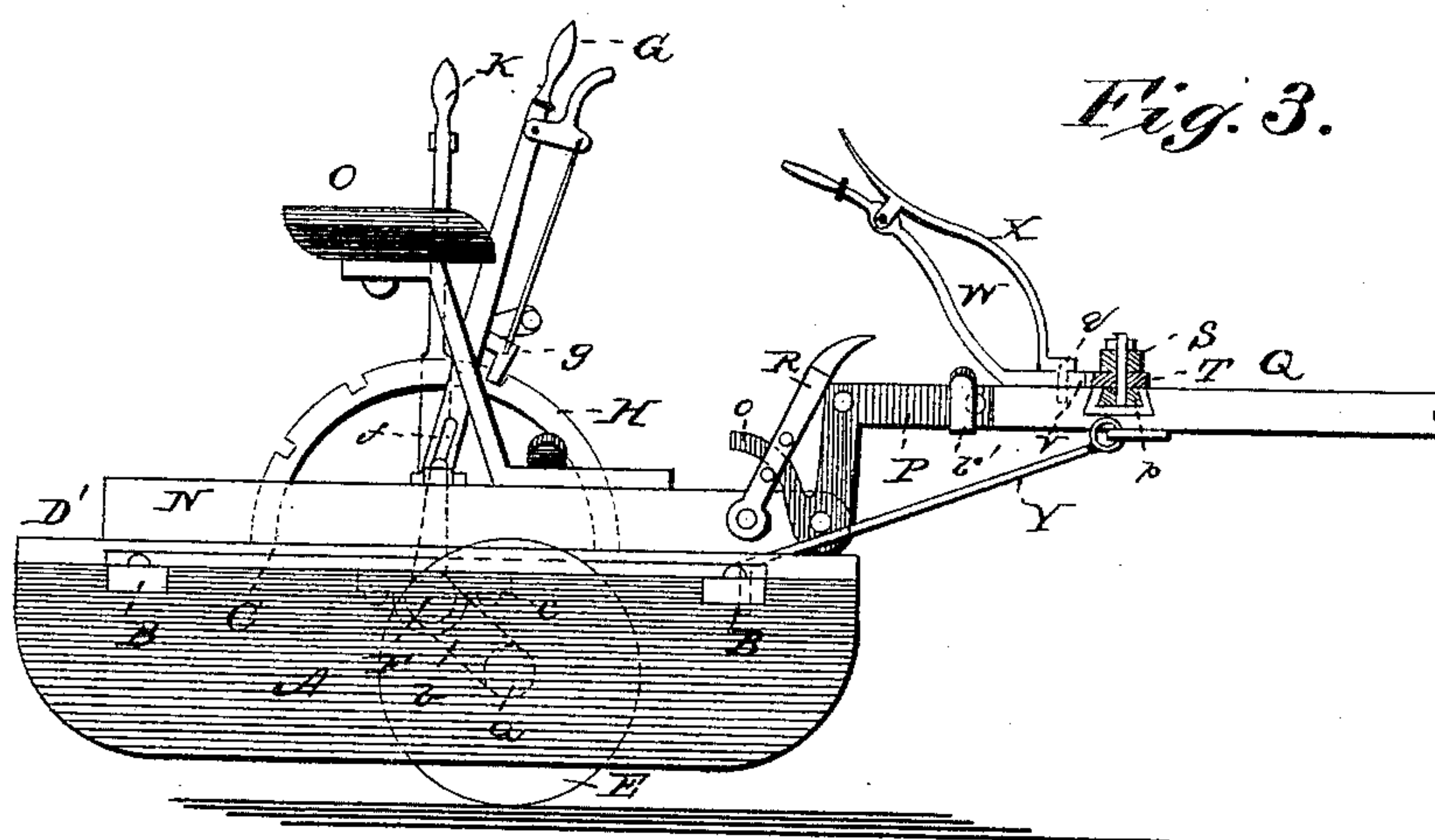
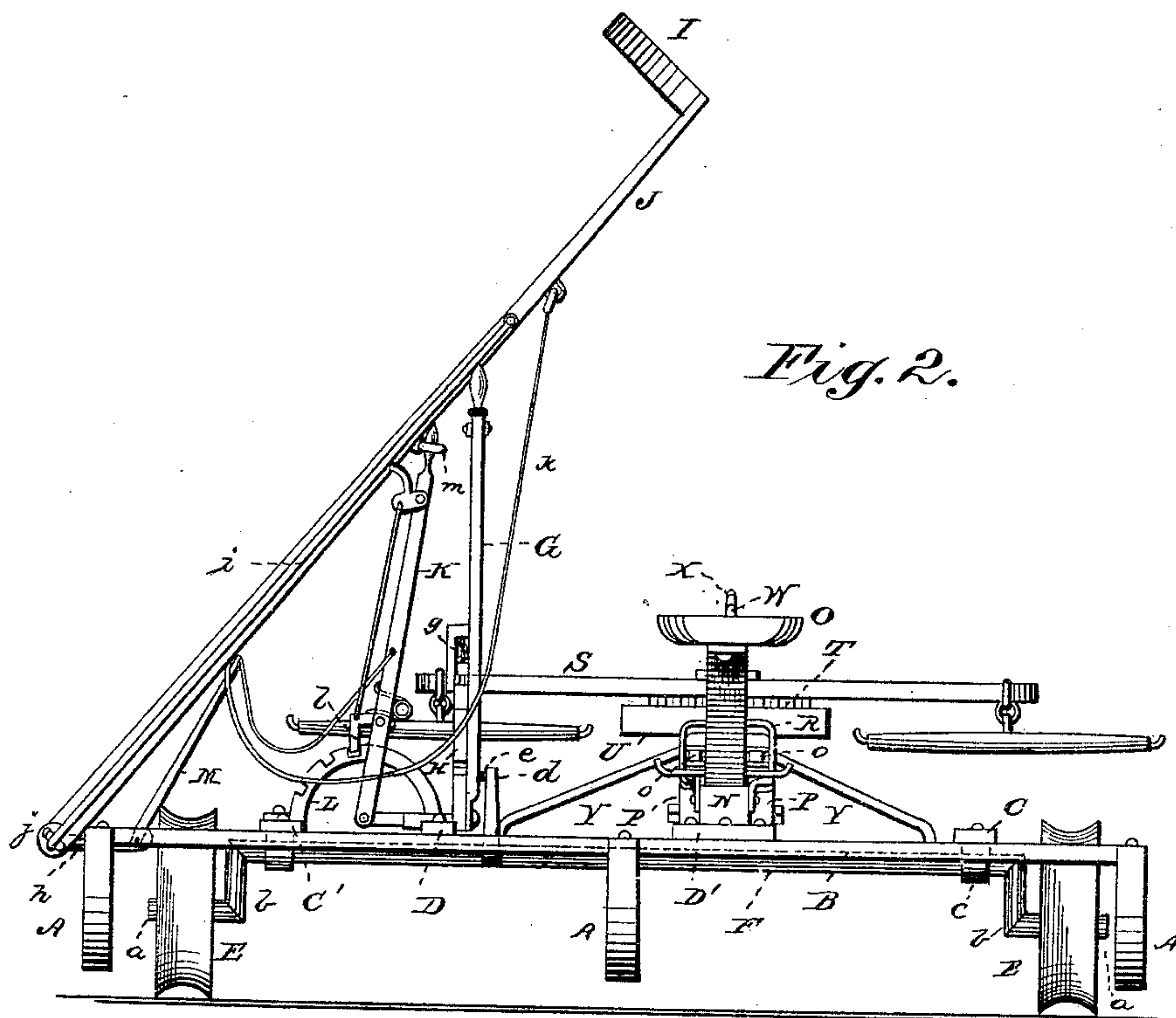
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UNITED STATES PATENT OFFICE.

SAMUEL THOMAS BOATMAN, OF ROANOKE, MISSOURI.

CORN-ROW MARKER.

SPECIFICATION forming part of Letters Patent No. 407,158, dated July 16, 1889.

Application filed November 27, 1888. Serial No. 292,030. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL THOMAS BOATMAN, a citizen of the United States, and a resident of Roanoke, in the county of Howard and State of Missouri, have invented certain new and useful Improvements in Corn-Row Markers; 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 letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of a plan view of the machine. Fig. 2 is a rear view, and Fig. 3 is a side view, of the same. Figs. 4 and 5 are details of the construction.

This invention has relation to improvements in corn-markers; and it consists in the construction and novel combination of parts, as hereinafter set forth.

The object of this invention is to provide a check-row or corn-marker so arranged as to obviate the necessity of turning or reversing the machine in the field; further, to arrange the several operating-levers within the reach of the driver, so that he is not required to leave his seat, and, further, to provide simple means to equalize or change the draft when the position of the horses is reversed to draw the machine in the opposite direction.

Referring to the drawings, A designates the runners, which may be three or more in number, rounded or curved upward at both ends, so that they may be drawn upon the ground in either direction. The runners are secured together by the frame consisting of the beams B, stayed or braced by the transverse beams C C' D D', which also serve to sustain other portions of the mechanism, as hereinafter specified.

For the purpose of transporting the machine along a road or shifting in the field the truck-wheels E are provided and turn on the spindles *a*, at right angles to the cranked portion *b* of the rock-shaft F, which has bearings in the boxes *c* in the transverse beams C C'. An arm *d* projects from the shaft F, and has a pin *e* extended into the slot *f* of the lever G,

which is pivoted at its lower end to the beam D, and has a spring-controlled dog *g* engaging the arc rack H, which has its ends secured to the said beam D. By throwing this lever G in one direction the shaft F is turned to bring the wheels below the lower edge of the runners, thus raising them off the ground, and by throwing the lever in the opposite direction the runners are lowered to the ground and below the bearing of the wheels, in which position they should be for marking.

I is a guide-shoe on the outer end of the rod J, which is pivoted to the lug *h* on one of the outer runners and is of a length equal to the breadth between runners. Brace-rods *i* extend from a convenient point on the rod J to a pivotal connection with the runner, as at *j*, and a lifting chain or line *k* is attached to the rod, near its outer end, and to the lever K, pivoted to the beam D, and having the spring-controlled dog *l* to engage with the arc rack L, secured to the frame.

The lifting-chain preferably passes over the shifting fulcrum M, which is pivoted to the runner or frame. When traveling along the road the guide may be thrown over above the machine, and the link *m* on the rod placed over the handle of the lever K.

N is a shifting-bar for reversing the tongue or pole, adapted to turn on the pivotal bolt *n*, upstanding from the frame or bar D', and having the spring-leg of the seat O rigidly secured thereon. Angle-irons P, to which the pole Q is attached, are pivoted to one end of the bar N, and have the rearward-projecting curved arms *o*, designed, when in engagement with the yoke R, pivoted to the bar N, to hold the pole rigidly, which is necessary when the machine is drawn upon its wheels; but when the machine is in operation as a marker the pole should be released from the yoke, so that the runners will follow the inequalities of the ground.

The whiffletree S is attached by a pivotal pin to the rack-plate T, having on its lower side the rib *p*, designed to slide in the channeled plate U, which is secured transversely on the pole. A segment-gear V is journaled on a bolt or pin upstanding from the pole and engages with the teeth of the rack-plate T, so that the driver from his seat may adjust the

whiffletree to the right or left by shifting the lever W on the segment-gear, and the parts are held as adjusted by the clutch *q*, passing through an opening in the segment-gear and
5 entering one of the openings *r* in the pole, the said clutch being on and operated by means of the lever X, pivoted to the lever W.

The shifting of the whiffletree is quite necessary in markers of this character, as the
10 driver's seat is placed to one side of the center, so that he can watch the center runner, and also to adjust the line of draft to the guide, which has some friction upon the ground.

15 When the pole is shifted in its proper direction, one of the wing-stays Y, pivoted to the pole, is hooked into the opening *t* in the frame, thus holding the pole firmly, and the wing-stay not in use may be placed upon the
20 bracket *r*, or both of said stays may be so placed when shifting.

Having described my invention, what I claim is—

1. In a corn-marker, the combination, with
25 the runners and the frame, of the rock-shaft having the cranked ends and spindles, the truck-wheels thereon, the arm on said rock-shaft having the projection, the slotted lever pivoted to the frame, the spring-actuated dog,
30 and the arc rack, substantially as specified.

2. In combination with the double end runners and the frame, the guide-shoe having the rod pivoted to the runner, the brace-rods, the pivoted lever having the spring-actuated dog
35 thereon, the arc rack secured to the frame, the pivoted shifting fulcrum-bar, and the lifting-line, substantially as specified.

3. In a corn-marker, the combination, with the pivoted guide, and its operating-lever and line, of the shifting fulcrum-rod engaging said
40 line, substantially as specified.

4. In a corn-marker, the combination, with the runners rounded or curved at both ends, of the shifting tongue and the wing-braces,
45 substantially as specified.

5. In a corn-marker, the combination, with the runners rounded or curved at both ends, of the tongue secured to the pivoted shifting-bar and the seat having its leg rigidly secured to said bar, substantially as specified.
50

6. In combination with the runners rounded at both ends, the frame, and the pivoted shifting-bar, the pole having the angle-irons pivoted to said shifting-bar, the rearward curved arms on said angle-irons, and the yoke
55 pivoted to the shifting-bar and adapted to engage the curved arms, substantially as specified.

7. The combination, with a corn-marker having the runners rounded or curved at
60 both ends and the shifting tongue, of the rack-plate having the whiffletree thereon and the rib, the transverse channel-plate engaging said rib, and the journaled segment-gear engaging the rack-plate and having the rear-
65 ward-extended lever, substantially as specified.

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

SAMUEL THOMAS BOATMAN.

Witnesses:

WALTER N. BAGBY,
P. T. PREWITT.