

(No Model.)

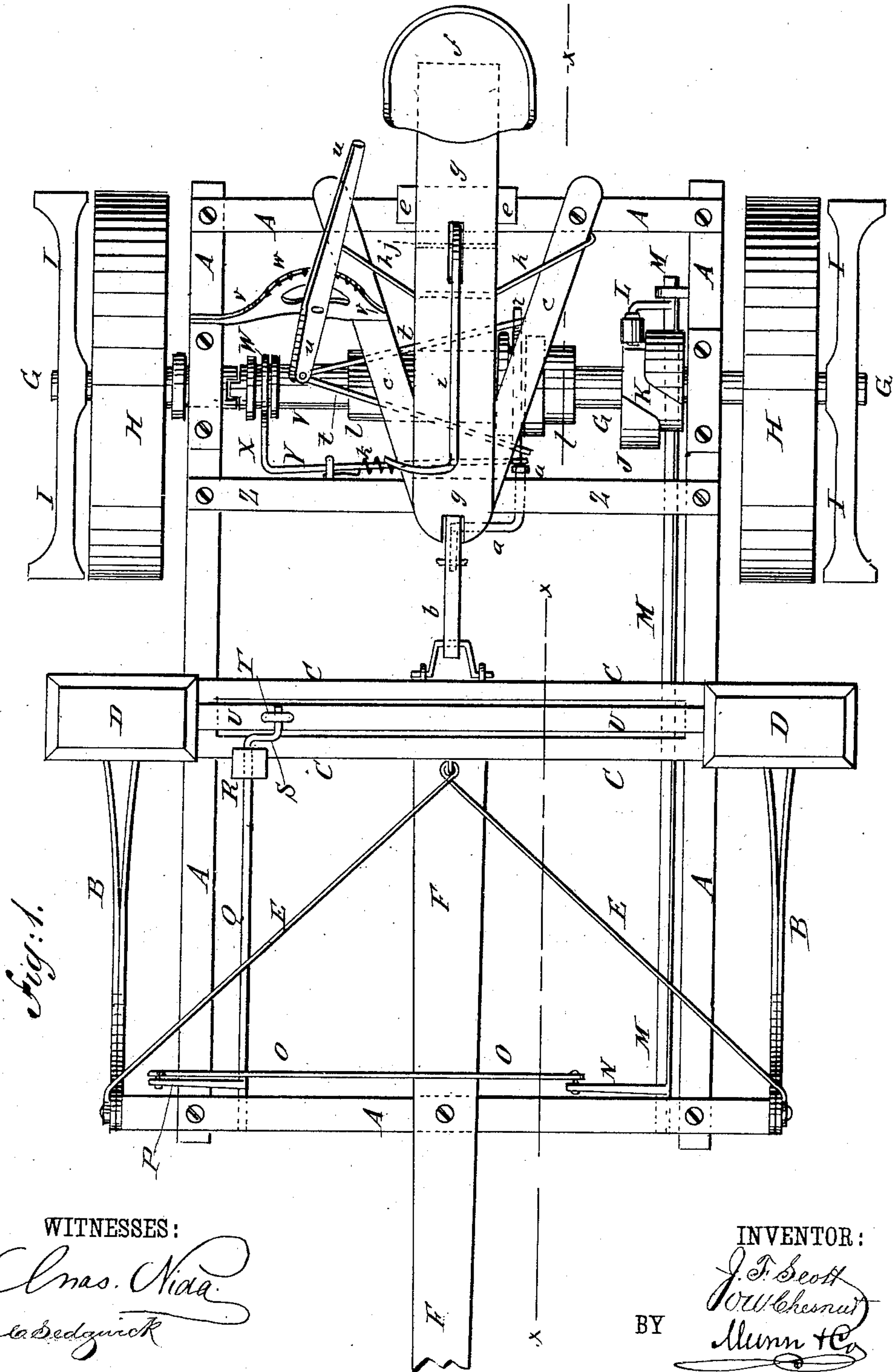
2 Sheets—Sheet 1.

J. F. SCOTT & O. W. CHESNUT.

CHECK ROW CORN PLANTER.

No. 354,354.

Patented Dec. 14, 1886.



WITNESSES:

Chas. Nida
Ed. Sedgwick

INVENTOR:

J. F. Scott
O. W. Chesnut
BY *Munn & Co.*
ATTORNEYS.

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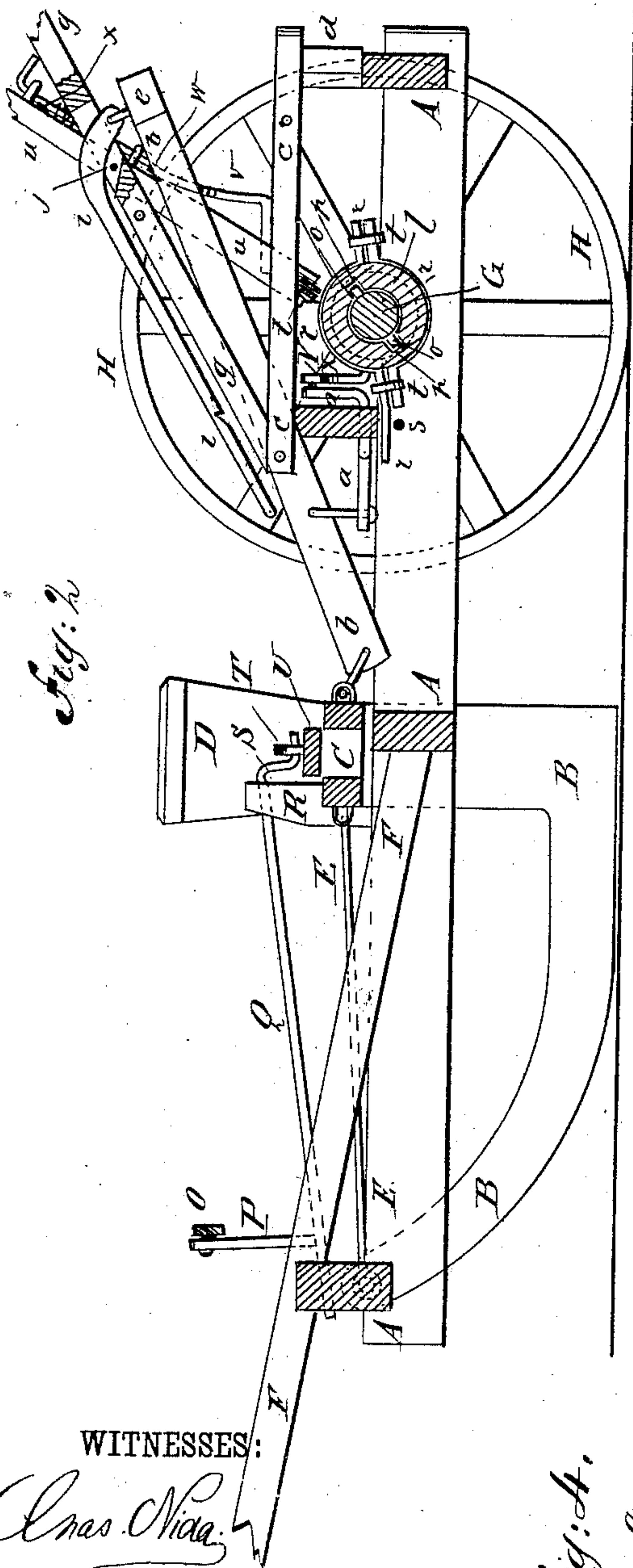


Fig. 2.

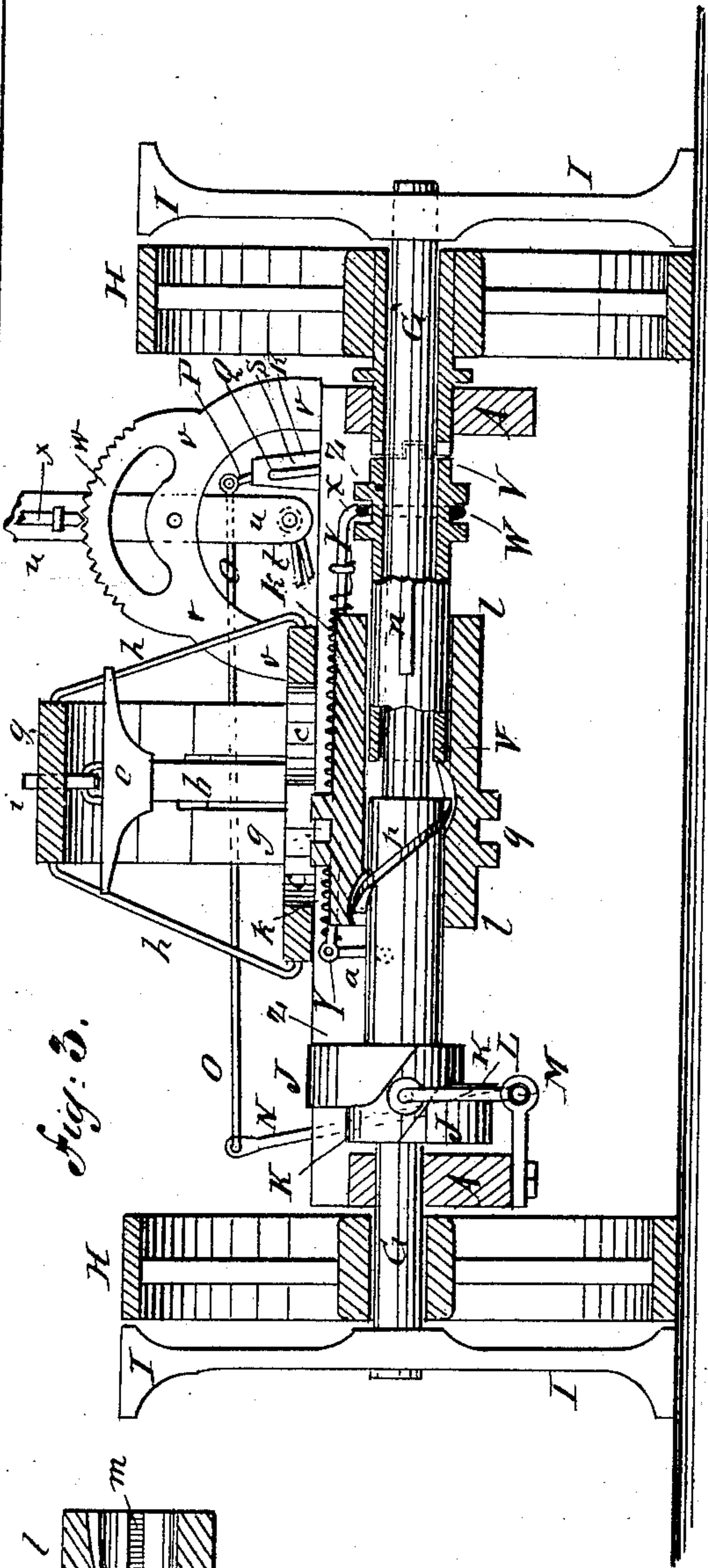


Fig. 3.

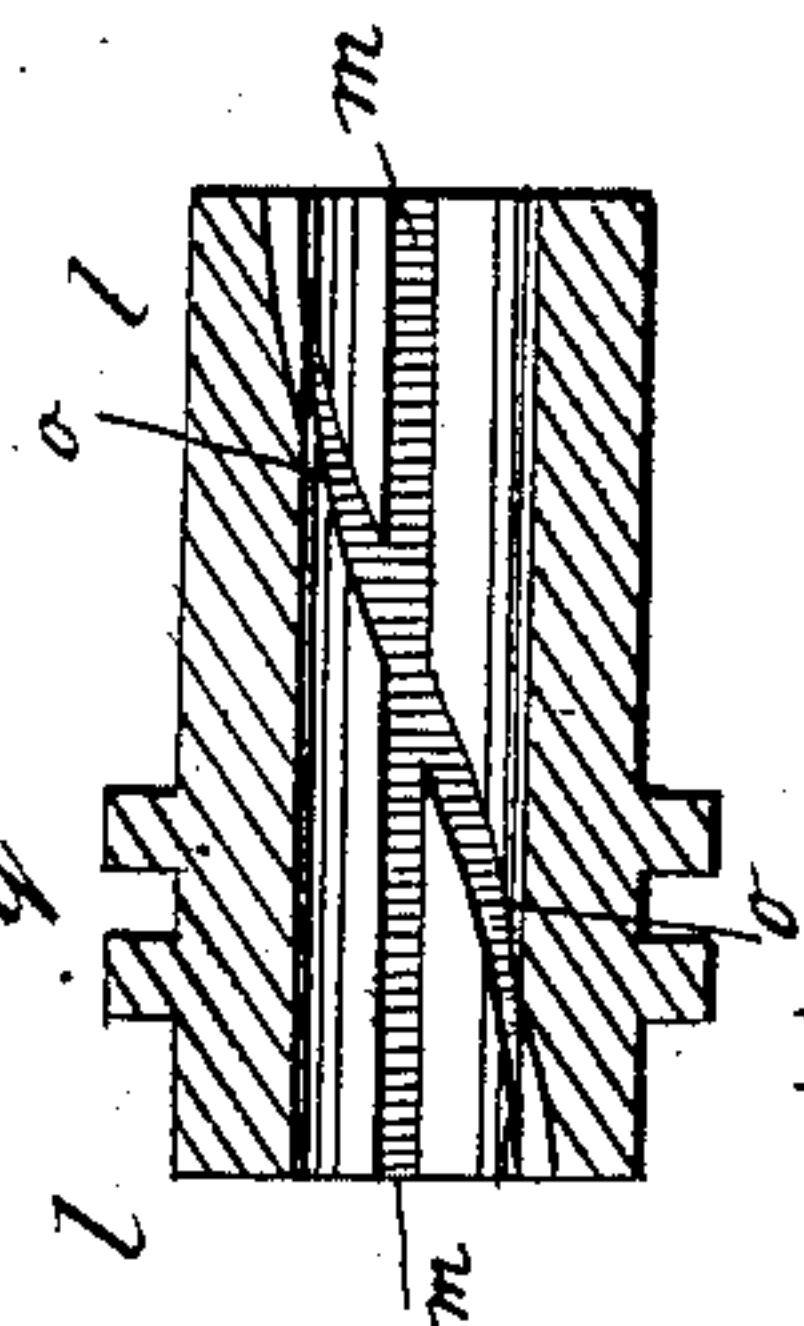


Fig. 4.

WITNESSES:

Chas. Vida
to Sedgwick

INVENTOR:

J. F. Scott
O. W. Chesnut

BY

Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN F. SCOTT AND OLIVER W. CHESNUT, OF TEMPLETON, INDIANA.

CHECK-ROW CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 354,354, dated December 14, 1886.

Application filed May 13, 1886. Serial No. 202,054. (No model.)

To all whom it may concern:

Be it known that we, JOHN FRANKLIN SCOTT and OLIVER WENDELL CHESNUT, of Templeton, in the county of Benton and State of Indiana, have invented a new and useful Improvement in Check-Row Corn-Planters, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of our improved check-row corn-planter. Fig. 2 is a sectional side elevation of the same, taken through the line *x x*, Fig. 1. Fig. 3 is a sectional rear elevation of the same. Fig. 4 is a sectional side elevation of the adjusting-sleeve.

The object of this invention is to provide check-row corn-planters constructed in such a manner that the seed-dropping mechanism and the markers will be operated by the revolution of the axle, that the seed-dropping mechanism can be readily thrown out of gear, and the markers can be readily adjusted, should the cross-rows get out of line, so that the planting can be done in accurate check-row.

The invention consists in the construction and combination of various parts of the check-row corn-planter, as will be hereinafter fully described.

A represents the main frame of an ordinary corn-planter, to the projecting ends of the forward cross-bar of which are pivoted the forward ends of the runners B, that open channels to receive the seed.

With the rear ends of the runners B are connected the ends of the cross-bar C, to which the seed-boxes D are attached, and which is strengthened in position by braces E, connected with its middle part and with the ends of the front cross-bar of the frame A. To the middle parts of the front and middle cross-bars of the frame A is attached the tongue F.

In bearings attached to the rear part of the side bars of the frame A revolves the axle G, upon the end parts of which are placed loose wheels H. To the ends of the axle G are attached the centers of the markers I, which are made of a length about equal to the diameter of the wheels H, so as to mark the ground twice at each revolution of the axle G, the

marks being at a distance apart equal to half the circumference of the said wheels H.

To the axle G, at the inner side of one of the side bars of the frame A, is secured by a set-screw or other suitable means a wheel, J, in the face of which is formed a groove, K, to receive a crank-arm, L, attached to or formed upon the shaft M. The groove K passes along one edge of the face of the wheel J for nearly a semi-circumference, then crosses the said face in an inclined direction, then passes along the other edge for nearly a semi-circumference, and then crosses the said face in an inclined direction to the place of beginning, so that the crank-arm L will be vibrated and the shaft M rocked twice at each revolution of the axle G and cam-wheel J. The shaft M is placed parallel with the side bar of the frame A, and revolves in bearings attached to or formed in the said frame.

To the shaft M, near its forward end, is rigidly attached or upon it is formed an arm, N, which projects upward, and to its upper end is pivoted the end of the connecting-rod O. The other end of the connecting-rod O is pivoted to the upper end of an arm, P, formed upon or attached to the shaft Q, the forward end of which is journaled to the front cross-bar of the frame A. The rear part of the shaft Q is journaled to a short standard, R, attached to the cross-bar C, and to the rear end of the said shaft is attached or upon it is formed a crank-arm, S, which is connected by a keeper, T, with the seed-dropping slide U, so that the said slide will be operated to remove seed from the seed-boxes D and drop it to the ground twice at each revolution of the axle G.

The inner end of the hub of the wheel H farthest from the cam-wheel J, or of a journal-box secured in the said hub, projects through and revolves in the bearings attached to the side bar of the frame A, and has clutch-teeth upon its said inner end to engage with clutch-teeth upon the outer end of the sleeve V, placed upon the axle G. The part of the axle G upon which the sleeve V is placed is reduced in size, so that the outer surface of the said sleeve will be flush with the outer surface of the larger part of the said axle. The reduced part of the axle G is made so much longer than the sleeve V that the said sleeve can have sufficient longitudinal movement to throw its

clutch-teeth into and out of gear with the clutch-teeth of the drive-wheel H. Around the outer end of the sleeve V is formed an annular groove, W, with which engages an eye 5 or fork formed upon the rear end of an arm, X, attached to or formed upon the outer end of the rod Y. The rod Y slides in bearings attached to the rear side of the cross-bar Z, attached to the side bars of the frame A. The 10 inner end of the rod Y is pivoted to the upwardly-projecting rear arm of the double crank a, which is journaled to the cross-bar Z, and the forwardly-projecting forward arm of the said double crank a is pivoted to the lever b. The 15 lever b is fulcrumed to and between the forward ends of two bars, c, attached to the upper side of the cross-bar Z. The bars c incline from each other toward their rear ends, and their said rear ends are attached to blocks 20 d, attached to the rear cross-bar of the frame A. The rear end of the lever b has a foot-rest, e, attached to it, and projects into such a position that it can be readily reached and operated by the driver from his seat.

25 f is the driver's seat, which is attached to the upper end of the inclined standard g, the lower end of which is attached to the forward ends of the bars c, and is slotted for the passage of the foot-lever b. The seat-standard g 30 is strengthened in position by braces h, the upper ends of which are attached to the opposite sides of the upper part of the said seat-standard, and their lower ends are attached to the bars c. With this construction, when 35 the driver presses down the rear end of the lever b with his feet he draws the sleeve V inward and out of gear with the drive-wheel H, throwing the seed-dropping mechanism out of gear, and at the same time the said movement 40 of the lever b raises the cross-bar C, and the upward movement of the said cross-bar raises the runners B out of contact with the ground.

To the upper side of the rear part of the foot-lever b is hinged the lower end of a catch-bar, i, which passes through a slot in the upper 45 part of the seat standard g and has a notch in its forward edge to engage with a pin, j, attached to the said seat-standard and crossing the said slot, so as to lock the seed-dropping 50 mechanism out of gear and the runners B in a raised position. When the catch-bar i is released, the runners B drop to the ground and the sleeve V is moved outward and into gear with the drive-wheel H by a spring, k, placed 55 upon the rod Y, and connected at one end with the said rod and at the other end with the cross-bar Z.

Upon the inner part of the sleeve V and the enlarged part of the axle G is placed a sleeve, 60 l, in the inner surface of which are formed longitudinal grooves m, to receive longitudinal tongues n, formed upon the outer surface of the inner part of the sleeve V, so that the said sleeve V will carry the said sleeve l with 65 it in its revolution. In the inner surface of the sleeve l are also formed spiral grooves o, to receive spiral tongues p, formed upon the

enlarged part of the axle G, so that the said sleeve l will carry the said axle with it in its revolution. Around the sleeve l is formed an 70 annular groove, q, to receive two semi-annular bars, r, placed upon the opposite sides of the said sleeve. The ends of the bars r at each side of the sleeve l are bent outward parallel with each other, and are bolted or 75 otherwise fastened together. The ends of the bars r at the forward side of the sleeve l pass through a keeper, s, attached to the lower side of the cross-bar Z, to keep the said bars r from turning upon or with the said sleeve l. 80 To the ends of the bars r upon the opposite sides of the sleeve l are attached the inner ends of two connecting-rods, t, the outer ends of which are pivoted to the end of a lever, u. The lever u is fulcrumed to an arched bar, v, 85 one end of which is attached to a side bar of the frame A, and its other end is attached to a bar, c. Upon the upper part of the bar v is formed or to it is attached a serrated catch-bar, w, with the teeth of which engages a 90 spring-pawl, x, connected with the lever u, to hold the said lever securely in any position into which it may be adjusted. With this construction, when the sleeve V is in gear 95 with the drive-wheel H and the lever u is operated, the sleeve l will be moved longitudinally upon the sleeve V, and the larger part of the axle G will be held from revolving by the straight tongues n and grooves m, and, by means of the spiral tongues p and grooves o, 100 will turn the axle G to adjust the markers I, so that they will mark the ground in line with the cross-rows.

This improvement can be used in connection with any ordinary corn-planter, and will 105 enable the corn to be planted in accurate check-rows without the use of a check-wire, so that the delays and annoyances necessarily accompanying the use of a check-wire will be avoided. 110

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a check-row corn-planter, the combination, with the frame A, the drive-wheel 115 axle G, the runner connecting cross-bar C and the seed-dropping slide U, of the wheel J, attached to said axle and having cam-groove K, the rock shaft M, having arms L N, the connecting-rod O, and the rock-shaft Q, having 120 arms P S, substantially as herein shown and described, whereby the said seed-dropping slide is vibrated from the said axle, as set forth.

2. In a check-row corn-planter, the combination, with the frame A, the axle G, the runner connecting cross-bar C, and the drive-wheel H, having clutch-teeth, of the sleeve V, placed upon the said axle and having clutch-teeth engaging the said drive-wheel, the sliding 130 rod Y, having arm X engaging with the said sleeve and provided with a spring, k, the double crank a, and the foot-lever b, substantially as herein shown and described, whereby

the seed-dropping mechanism will be thrown out of gear and the runners raised from the ground by a single movement, as set forth.

3. In a check-row corn-planter, the combination, with the frame A, the sliding clutch-sleeve V, having straight longitudinal tongues *n*, the axle G, having spiral tongues *p* and carrying the markers I, of the sliding sleeve *l*, having straight longitudinal interior grooves, *m*, and spiral interior grooves, *o*, the rods *t*,

connected with the said sleeve by the bars *r*, and the lever *u*, substantially as herein shown and described, whereby the said axle can be readily turned forward or back to adjust the said markers, as set forth.

JOHN F. SCOTT.

OLIVER W. CHESNUT.

Witnesses:

HUGH M. SCOTT,

ALFRED H. MAGUIRE.