

(No Model.)

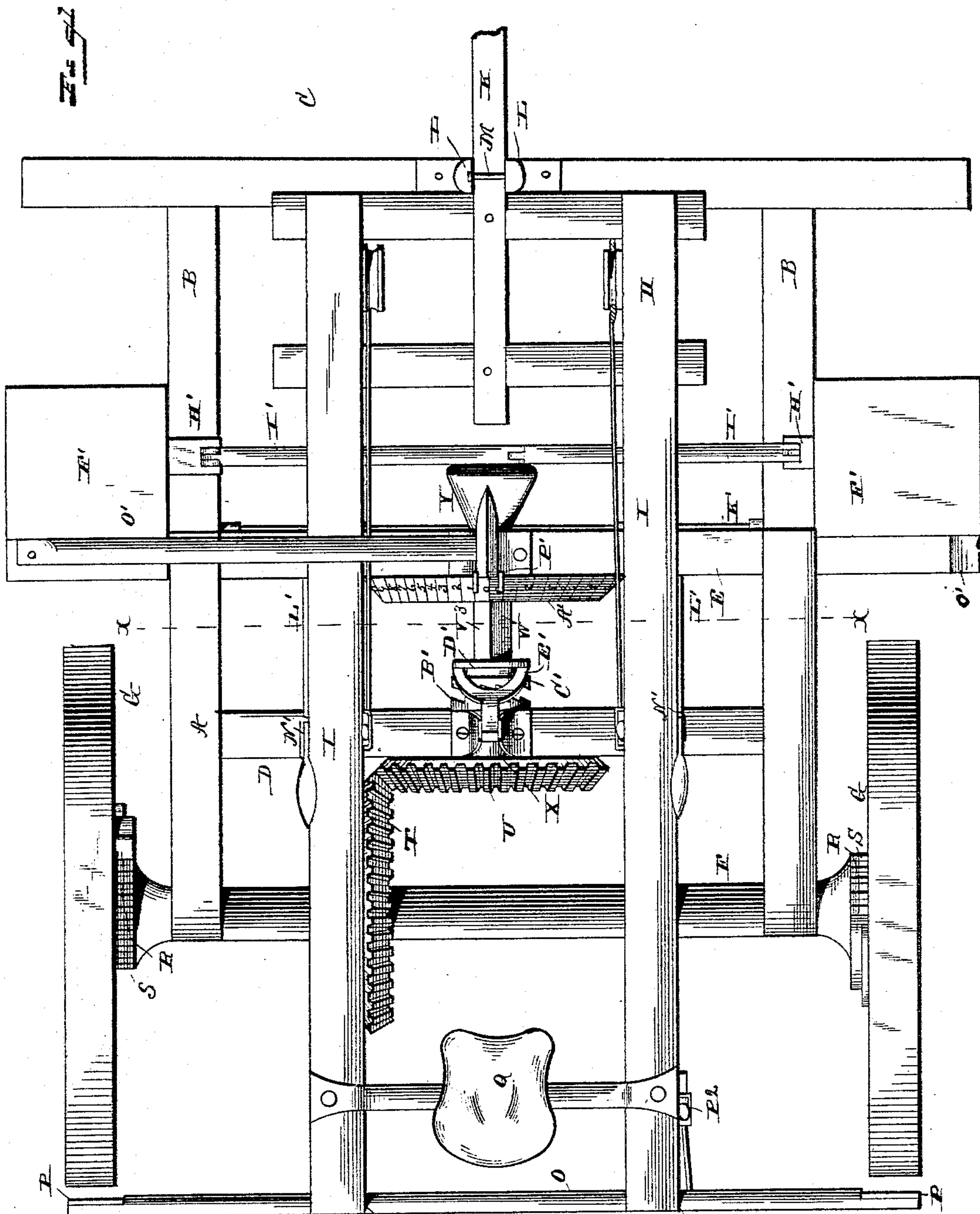
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I. F. WILCOX.

CHECK ROW CORN PLANTER.

No. 388,749.

Patented Aug. 28, 1888.



WITNESSES,

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(No Model.)

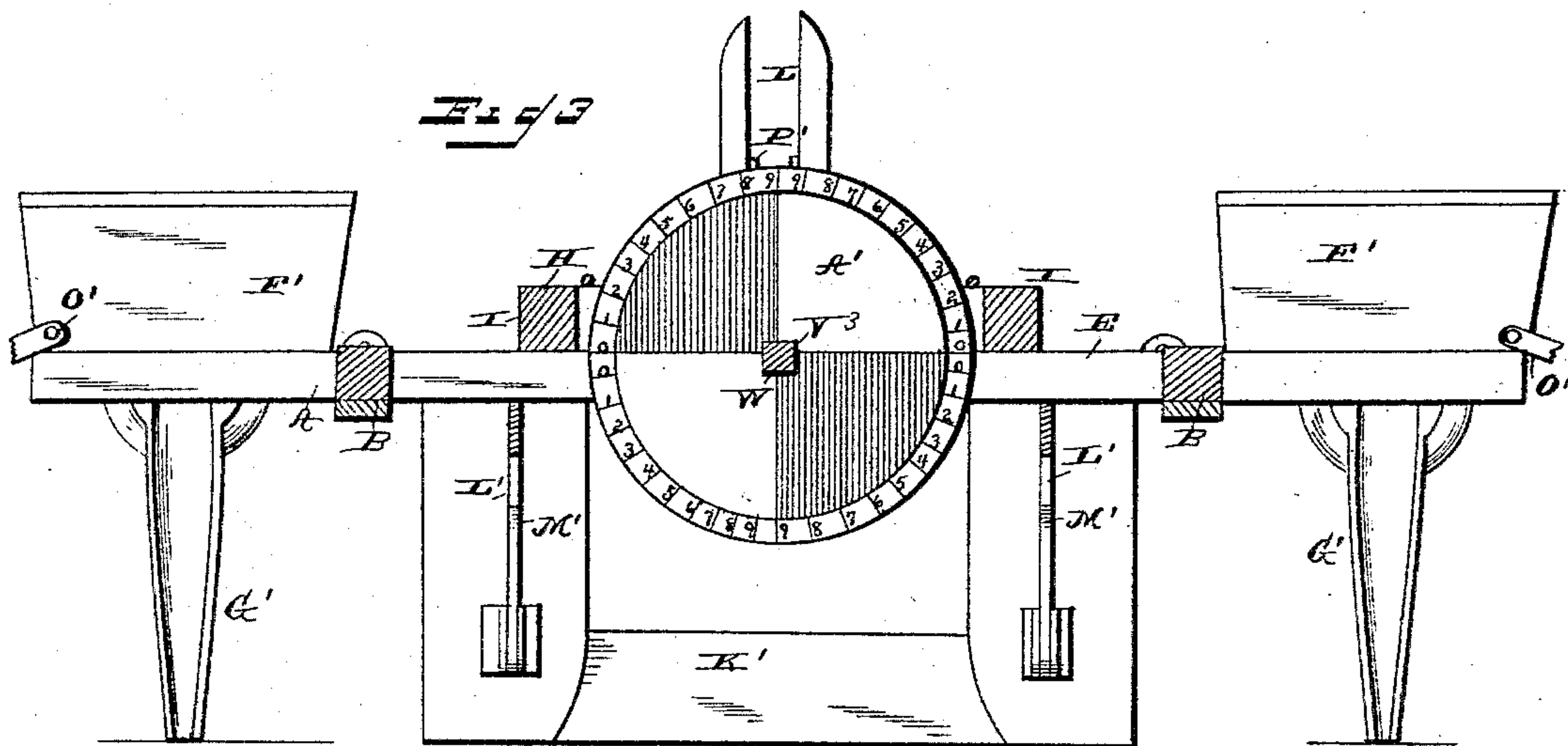
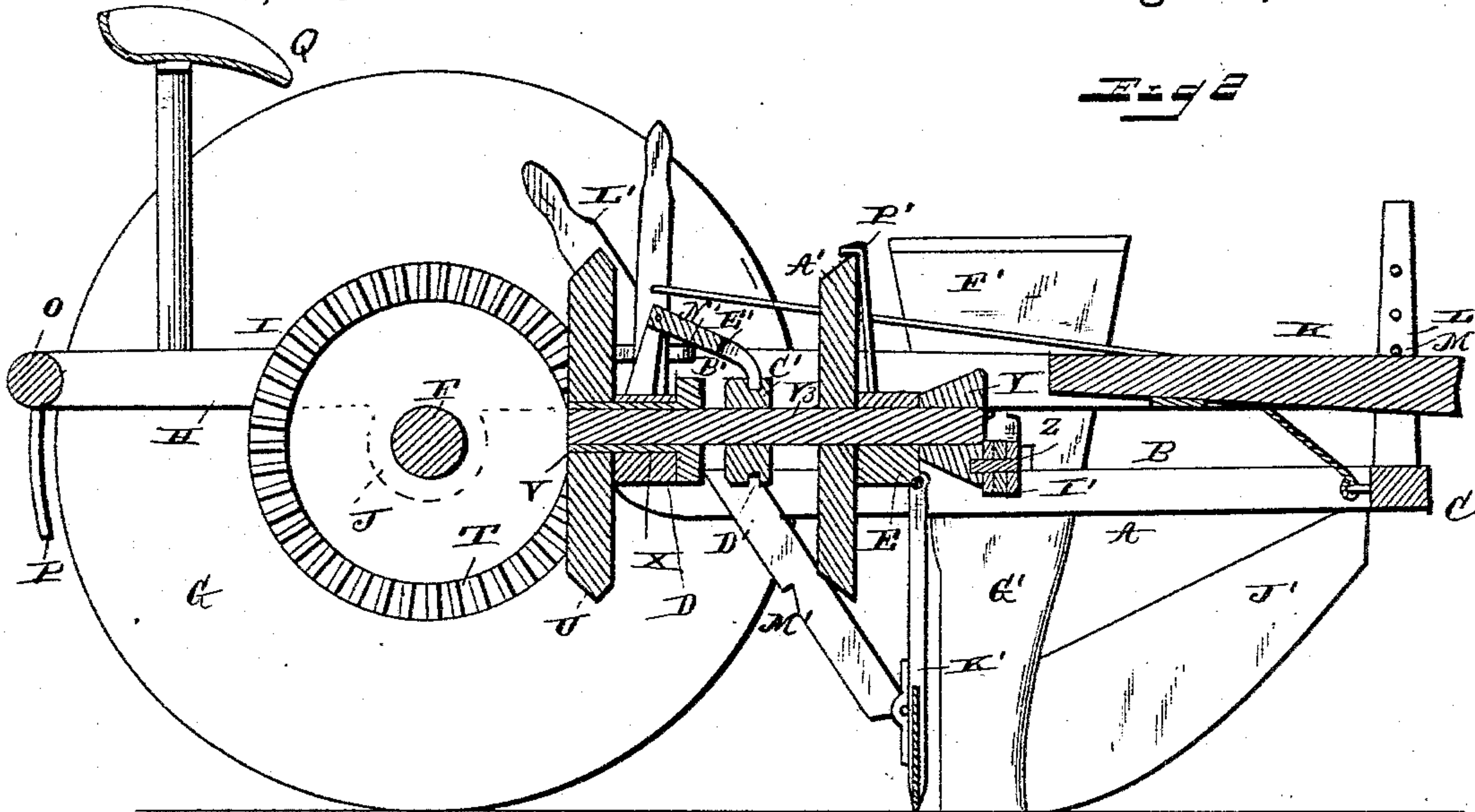
2 Sheets—Sheet 2.

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# UNITED STATES PATENT OFFICE.

ISAAC F. WILCOX, OF PONCA, NEBRASKA, ASSIGNOR OF ONE-HALF TO  
CHRISTOPHER WÜG, OF SAME PLACE.

## CHECK-ROW CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 388,749, dated August 28, 1888.

Application filed April 2, 1888. Serial No. 269,346. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC F. WILCOX, a citizen of the United States, and a resident of Ponca, in the county of Dixon and State of Nebraska, have invented certain new and useful Improvements in Check-Row Corn-Planters; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a top plan view of my improved check-row corn-planter. Fig. 2 is longitudinal vertical sectional view of the same, and Fig. 3 is a transverse vertical sectional view taken on the broken line *xx* in Fig. 1.

Similar letters of reference denote corresponding parts in the several figures.

My invention has relation to check-row corn-planters; and it consists in the peculiar construction and combinations of parts of the same, and in providing it with an improved indicator, the construction and object of which will be hereinafter fully set forth.

In the accompanying drawings, the letter A denotes the main frame of my improved planter, which consists of the two parallel side pieces, B, the front cross-piece, C, the rear cross-piece, D, and the intermediate cross-piece, E. This frame is pivoted with the rear ends of the parallel side pieces to the axle F, mounted upon suitable drive-wheels, G. Another frame, which I will term for convenience the "top" frame, and which is indicated by the letter H, is provided near its rear end and upon parallel side pieces, I, with suitable bearings, J, by means of which the said frame is journaled or hinged to the axle. This frame is provided at its forward end with the tongue K, which plays vertically in the parallel standards L, which are formed with a series of registering apertures, through which passes the pin M, which limits the play of the said tongue, while the other end is provided with bearings N, in which rocks the brake-beam O, provided at its ends with brake-shoes P, and operated by a suitable lever, P<sup>2</sup>, pivoted to the top frame within reach of the driver,

whose seat Q is secured to the rear portions of this said top frame. The drive-wheels are provided with spring-actuated pawls R, which engage with ratchet-wheels S, secured to the ends of the axle, which causes the axle to turn with the said drive-wheels as the planter is drawn forward, and when the planter is being turned at the end of a row to allow the wheels to turn independently of the axle, the object of which will be readily understood.

T indicates a beveled gear-wheel secured to the axle near one end, and meshing with a similar wheel, U, secured to the inner end of a short shaft, V, and another shaft, V<sup>3</sup>, is formed with a square portion, W, and is journaled in a line with the shaft V in suitable bearings, X, on the rear and intermediate cross-pieces of the main frame. Secured to the forward end of this shaft V<sup>3</sup> is a solid wheel, Y, formed with a wrist-pin, Z, while to the rear of this solid wheel is keyed the indicator-wheel A', the object and the construction of which will be presently described.

Secured to the forward end of the short shaft V is a serrated wheel, B', which engages with a serrated wheel, C', upon the rear end of the shaft V<sup>3</sup>, thus forming a clutch mechanism, the wheel C' being formed with an annular groove, D', which is straddled by a bifurcated lever, E', secured to the rear cross-piece of the main frame. This lever slides the forward half of the clutch mechanism back and forth upon the square portion of the shaft V<sup>3</sup>, throwing the seed-dropping mechanism in and out of gear at will. The seed mechanism I will now proceed to describe.

The seed-boxes F', which are of ordinary construction, are secured to the extended portions of the forward cross-pieces of the main frame, and have projecting downward from their bottoms the drills G'. Each of these boxes is provided with a slide, H', having holes, which alternately register with a hole in the bottom of the box, all of which are of ordinary construction and will be readily understood. Pivoted to the inner ends of these slides are two pitmen, I', hinged at their inner ends and pivoted to the wrist-pin of the solid wheel Y. Now, it will be seen that when the machine is drawn forward the slides work



from side to side, and when the apertures register with the aperture of the seed-box a kernel of corn is dropped and passes through the drill into the ground. I provide the lower ends of these drills with shoes or cutters J', the sharp cutting edges of which slant upwardly and are secured to the ends of the forward cross-piece of the main frame, as shown. These cutters will open the way for the drills, cutting stalks and hard ground, which would be very difficult for the drills alone to do.

Pivoted or hinged to the under side of the intermediate cross-piece is an impressor, K', which is raised and lowered by handles L', formed with notches M'. These handles slide vertically through bails or keepers N', secured to the side pieces of the top frame, and are adapted to be engaged with their notched portions when the depressor is raised in the said bails or keepers, thus safely retaining the depressor in its raised or elevated position.

O' indicates the markers of usual construction secured to the ends of the intermediate cross-piece, the object of which is so well known that a further description of the same is not deemed necessary.

The indicator-wheel, hereinbefore mentioned, may be formed with a beveled periphery, and upon which are placed four series of numerals or other indicating-points, the two diametrical series of which run from 0 to 9, inclusive, while the other diametrical opposite series of numerals run from 9 to 0, inclusive. The inner face of this wheel is preferably formed with four colored quadrants. The two opposite the series of numerals running from 0 to 9, inclusive, are preferably painted red, while the other two quadrants opposite the series of numerals running from 9 to 0, inclusive, are painted blue. A pointer, P', is secured to the intermediate cross-piece and projects with its hooked end over the beveled edge of the indicator-wheel. The numerals or points upon the indicator-wheel are just two inches apart, so that the circumference of the wheel is eighty-four inches and each quadrant is twenty-one inches. As two hills are dropped from each seed-box for every revolution of the indicator-wheel, one-half of the numerals or those opposite two quadrants must pass under the pointer while the machine is passing from one hill to the other. In operation the machine will move a greater or less distance after the last hill has been dropped before it reaches the end, and the indicator-wheel has been revolved from 1 to the next numeral, and so on for every two inches that the machine moves after the last hill has been planted. If this distance were just half the distance between hills, or until the pointer was above 0, the machine would deposit another hill when it had gone the same distance upon the next row, which would thus make the cross-rows or "checks" register and be in a straightline. If, however, the machine should not travel half the distance, as, for instance, until the pointer stood over the numeral 7—

which would indicate that the machine had only moved fourteen inches—the first hill upon the next row would not be deposited until the machine had gone twenty-eight inches or the distance between 14 and 42. In this case it is necessary that the indicator-wheel be turned forward such a distance that a hill would be dropped fourteen inches from the point from which the machine starts upon its return journey across the field. To effect this it is necessary to move the wheel forward until only as many numerals of the wheel will pass under the pointer as passed under it after the last hill was dropped, which in the present case would be seven, indicating fourteen inches. This, of course, will make the first hill come in a line with the last hill of the last row, and all the remaining hills will be the same distance apart as the hill of the other rows, and the cross-rows or checks of the entire must necessarily register.

If, instead of using the two series of numerals above the two quadrants of the indicator-wheel, only one continuous series of numerals, as 1 to 21, be used, the indicator in this case should have been placed at 14 upon turning the machine; but this method requires that the operator should perform a mathematical operation each time he turned the machine for a new row, which, even admitting that it could be done, would be liable to error. The same is true if the two series of numbers were not inverted but only ran up to 11, which in the present case would require that the pointer be placed over the numeral 4. In the plan I have invented and described above all this trouble and liability to error is avoided and any one can operate the machine who can tell one number from the other, as all that is necessary at the end of the row is to make an impression by lowering the depressor, turn the machine around so as to bring the axle of the same over this impression, and then turn the indicator-wheel forward until the same numeral of the blue is under the pointer as that numeral was of the red.

Although I have shown and described the wheel divided into quadrants and the opposite quadrants painted in the same color, it might be divided into any other convenient number of parts and each separate section or part could be painted of a different color, the only requisite being that each division or section of the face or periphery of the wheel be plainly distinguishable from the adjoining ones and be provided with a complete set or series of indicator points or numerals.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a check-row corn-planter, the combination, with the frame and dropper attachment, of an indicator-wheel divided into sections, each of which sections is distinguishable from the adjoining sections and provided with a complete set or series of indicator-points and a pointer.

2. An indicator for seed-planters, compris-



ing a wheel having a beveled periphery upon which are arranged a number of series of inverted numerals, and the inner face of this wheel is provided with a series of differently-  
5 colored quadrants, in combination with a pointer secured to the frame of the planter and projecting with its hooked end over the beveled periphery of the wheel.

3. The combination, with the main and top  
10 framesecured to the axle of the drive-wheels, of the intermediate gearing, the indicator-wheel,

substantially as described, the seed-boxes, the reciprocating seed-slides, the swinging depressor, the notched handles secured to the depressors, and the keepers for the handles. 15

In testimony that I claim the foregoing as my own, I have hereunto affixed my signature in presence of two witnesses.

ISAAC F. WILCOX.

Witnesses:

JARED M. HORD,  
A. G. KINGSBURY.