

No. 883,394.

PATENTED MAR. 31, 1908.

J. ELDER & C. M. SCOGGINS.

WIRELESS ATTACHMENT FOR CHECK ROW CORN PLANTERS.

APPLICATION FILED AUG. 29, 1907.

3 SHEETS—SHEET 1.

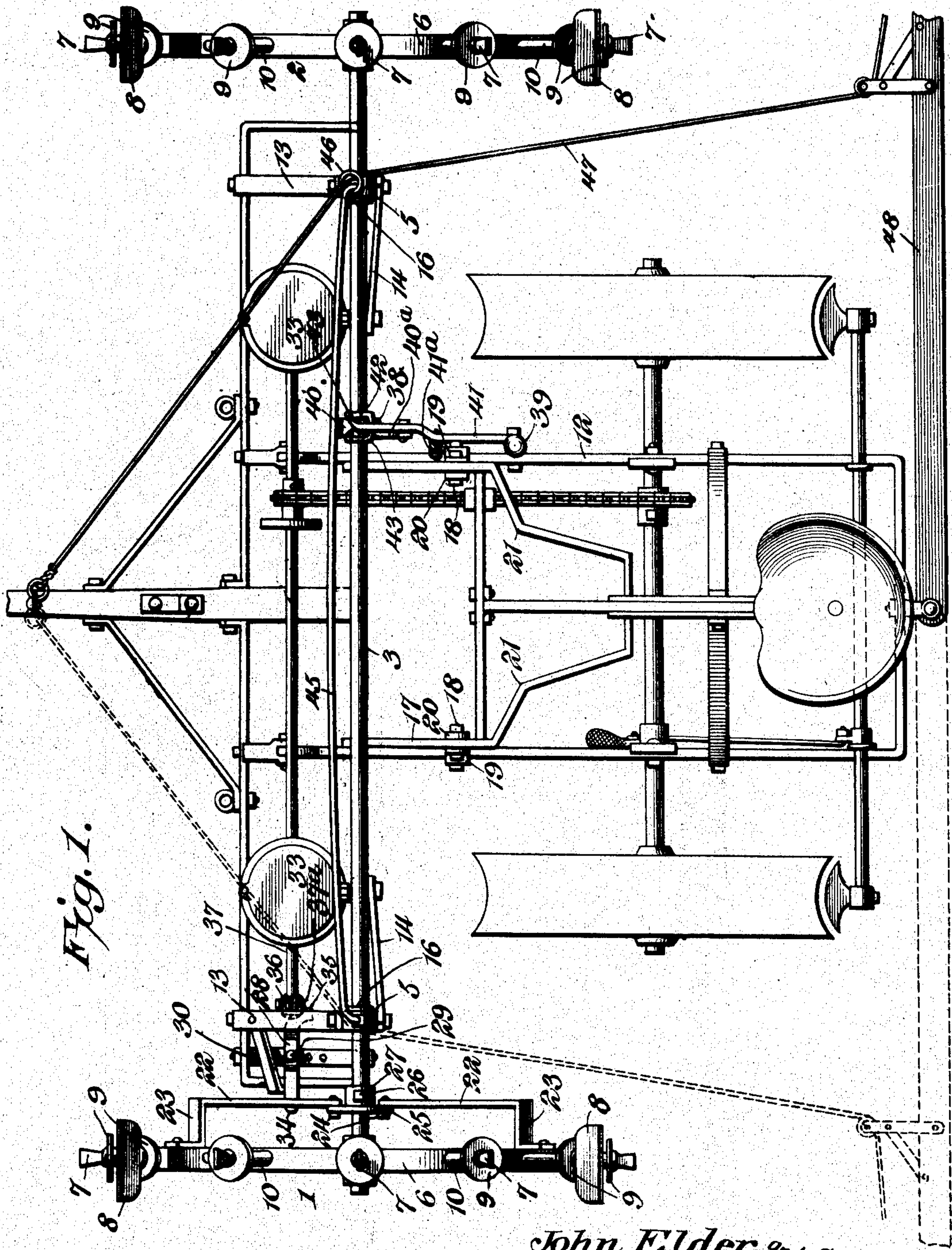


Fig. 1.

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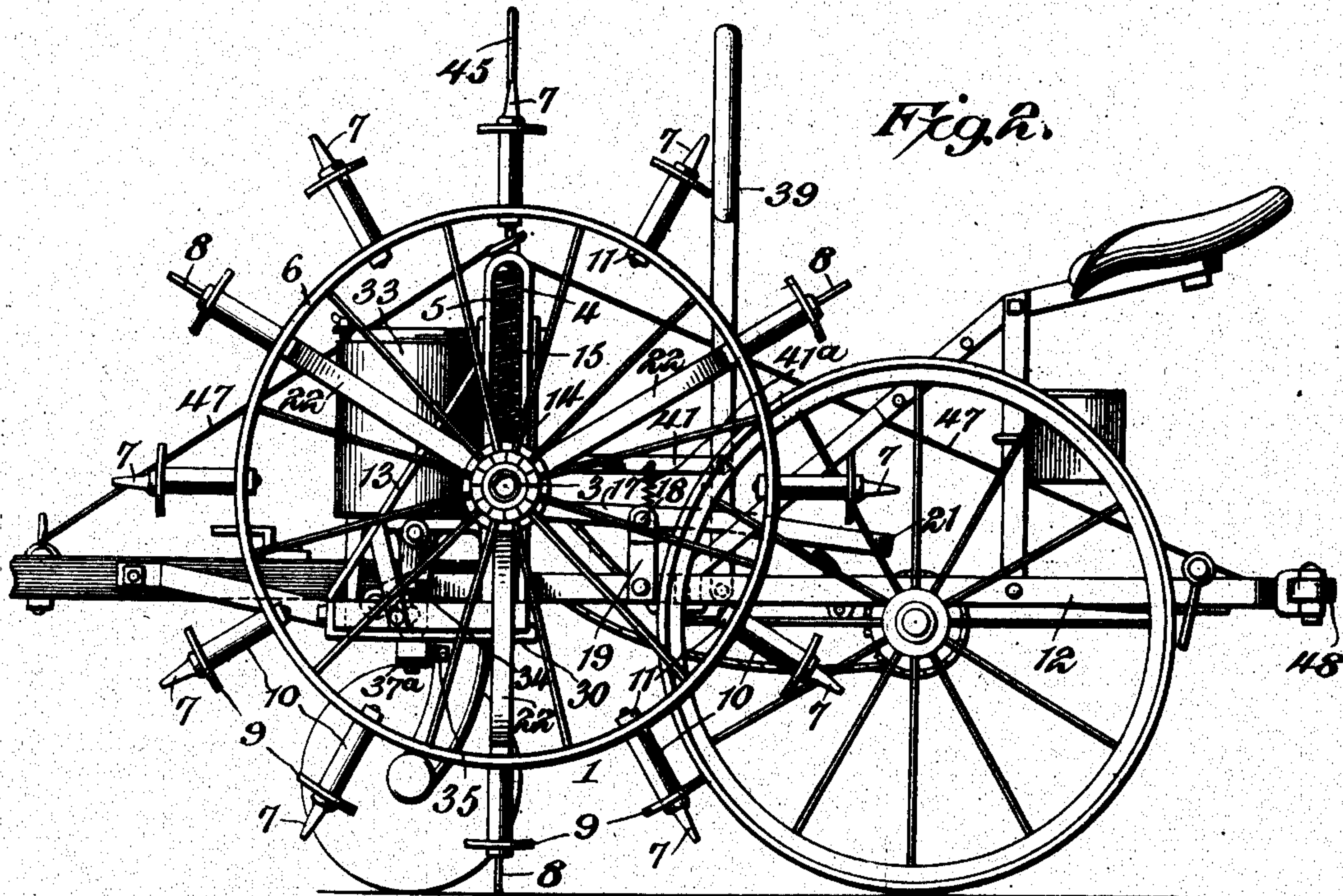


Fig. 6.

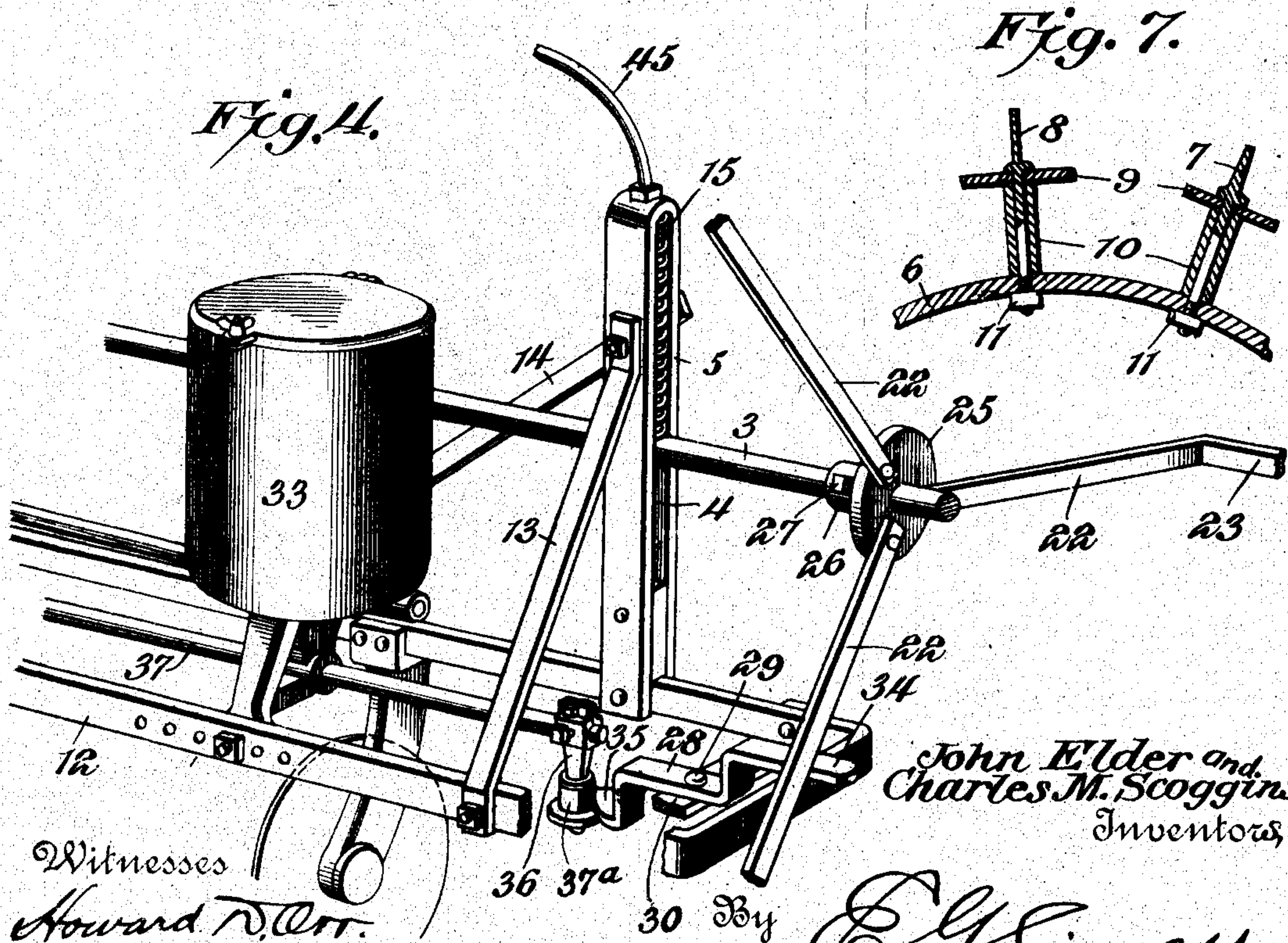


Fig. 7.

Fig. 4.

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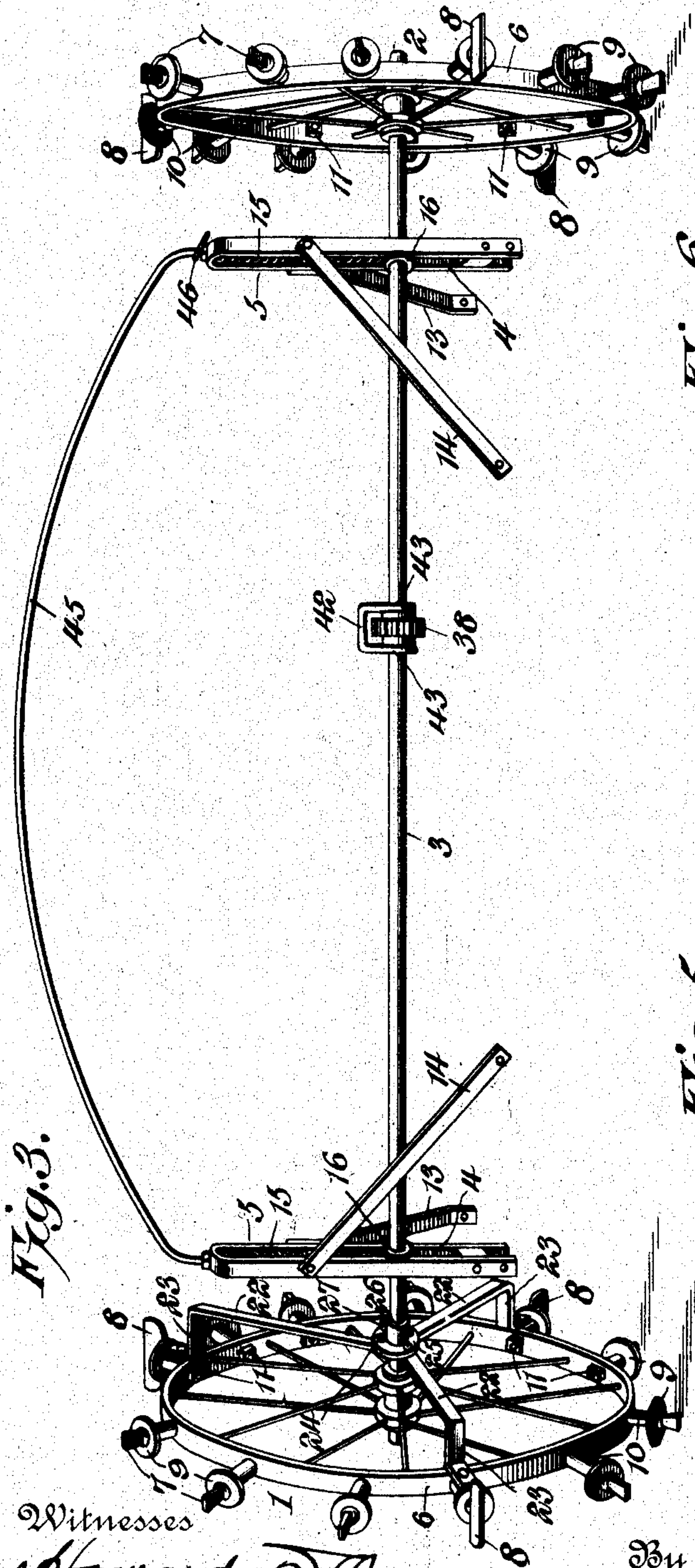


Fig. 3.

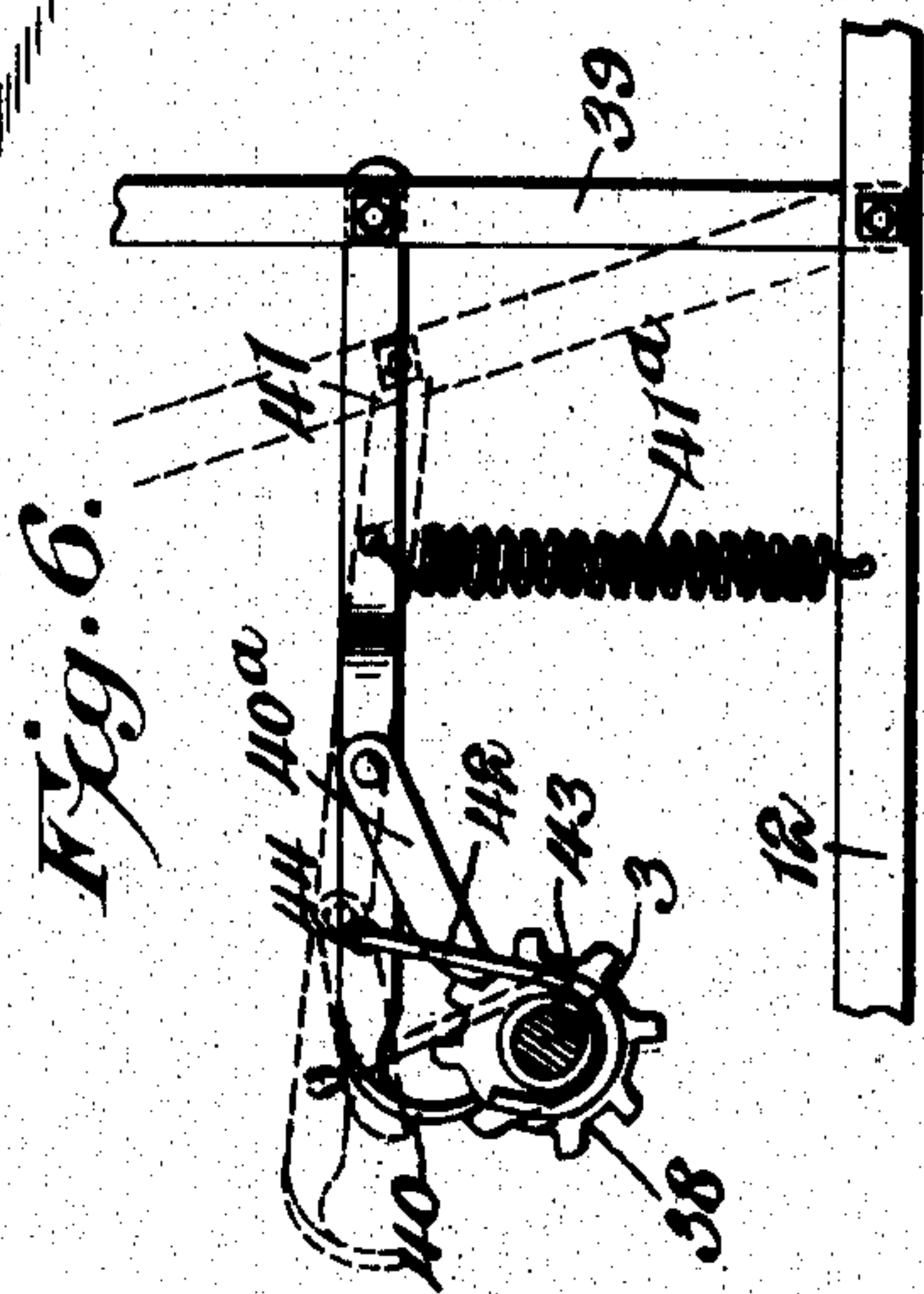


Fig. 6.

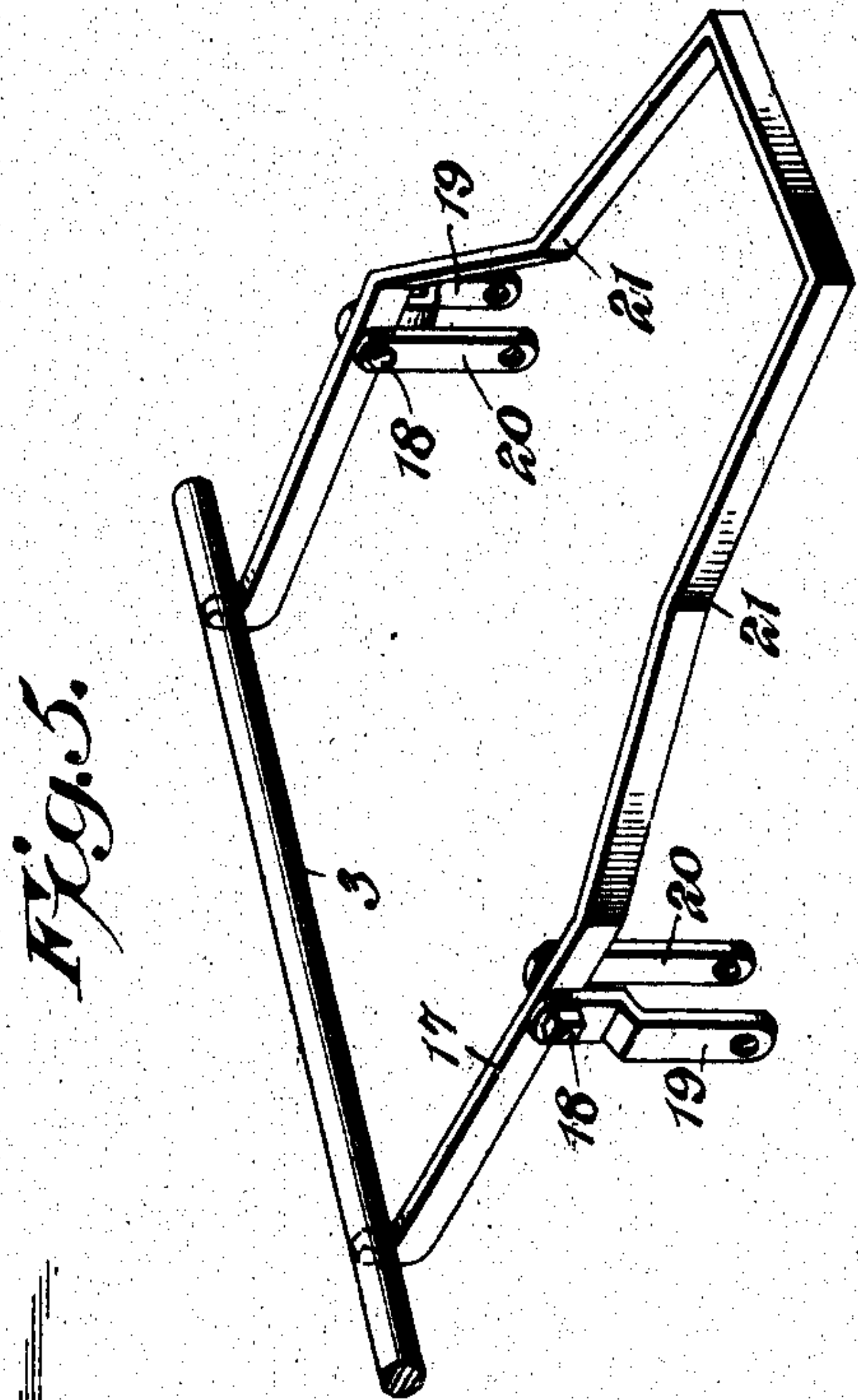


Fig. 5.

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# UNITED STATES PATENT OFFICE.

JOHN ELDER AND CHARLES M. SCOGGINS, OF LOUISIANA, MISSOURI.

## WIRELESS ATTACHMENT FOR CHECK-ROW CORN-PLANTERS.

No. 883,394.

Specification of Letters Patent.

Patented March 31, 1908.

Application filed August 29, 1907. Serial No. 390,645.

*To all whom it may concern:*

Be it known that we, JOHN ELDER and CHARLES M. SCOGGINS, citizens of the United States, residing at Louisiana, in the county of Pike and State of Missouri, have invented a new and useful Wireless Attachment for Check-Row Corn-Planters, of which the following is a specification.

The invention relates to a wireless attachment for check row corn planters.

The object of the present invention is to provide a simple and comparatively inexpensive attachment, designed for use on various constructions of corn planters, and adapted to dispense with the use of a wire and the attendant inconvenience of successfully anchoring a wire.

A further object of the invention is to provide an attachment of this character, which will not require the driver to leave his seat on a corn planter at the end of the row, and which may be instantly thrown out of operation, when desired.

Another object of the invention is to provide an attachment for corn planters, having marking or walking wheels, and provided with means for enabling the same to be readily rotated to arrange the marking devices in the desired position with relation to the ground, or the marks previously made therein.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:—Figure 1 is a plan view of a wireless attachment, constructed in accordance with this invention and shown applied to a corn planter. Fig. 2 is a side elevation of the same. Fig. 3 is a perspective view of the attachment. Fig. 4 is an enlarged detail perspective view, illustrating the construction for actuating the rock shaft of the seed dropping mechanism. Fig. 5 is a detail perspective view of the lifting lever. Fig. 6 is a detail view of the ratchet mechanism for rotating the marker wheel shaft. Fig. 7 is a detail sectional view, illustrating the construction of the stops of the traction spurs and the markers.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 and 2 designate marking or walking wheels, mounted on a transverse shaft 3, which is slidable vertically in openings 4 of the standards 5 to enable the marking wheels to yield to the irregularities of the ground without straining the attachment. The wheels 1 and 2 may be constructed in any preferred manner, and they are equipped with metallic rims 6 on which are mounted peripheral traction spurs 7 and markers 8. The traction spurs 7 are partially embedded in the ground when the machine moves forward, and they insure a positive rotation of the marking wheels. The markers 8, which are arranged at regular intervals, consist of transversely disposed blades, and both the traction spurs and the blades of the markers are provided with stops 9 to prevent them from sinking too far into the ground. The stops 9 consist preferably of disks or plates, secured to sleeves 10, which are arranged on the shanks of the spurs 7 and the markers 8. The sleeves consist of short pieces of tubular metal, and the shanks of the spurs and the markers pierce the rims of the wheels and are secured to the same by nuts 11, arranged on the inner face of the rims. The standards, which are arranged vertically, are bolted to the frame 12 of a planter, and they are preferably constructed of a single piece of strap or bar metal, bent at the center to form two spaced sides, as clearly illustrated in Fig. 3 of the drawings. These standards are supported by inclined braces 13 and 14. The braces 13 and 14 are secured to the standards and to the frame of the planter. The braces 13 are arranged in front of the standards, and the other braces 14 extend downwardly and inwardly from the same.

The wheels are yieldably maintained in engagement with the ground, and are held steady by coiled springs 15, located above the transverse shaft 3 and interposed between the same and the tops of the standards. The shaft 3 is held against movement laterally of the machine by means of collars 16, secured to the shaft and arranged at the inner side edges of the standards 5. The springs 15 also permit the shaft to be moved vertically by the driver to raise the marking wheels from the ground and thereby throw the machine out of operation. This operation is effected by means of a foot lever 17,



composed of two sides and a transverse connecting portion. The sides are fulcrumed intermediate of their ends, and are mounted on bolts 18, which also pierce short supporting bars 19 and 20, arranged in pairs and extending upwardly from the planter frame 12 to which the lower ends are bolted. The outer supporting bars 19 are angularly bent adjacent to their upper ends, as clearly illustrated in Fig. 5 of the drawings to arrange the upper ends of the bars 19 and 20 the desired distance apart. The frame of the planter is provided with parallel side bars, and the upwardly extending supporting bars are arranged at the inner and outer faces of the side bars. The sides of the foot lever extend forwardly in advance of the pivots 18 to provide a pair of front arms, which are arranged beneath and project slightly in advance of the shaft 3, whereby when the rear portion of the foot lever is depressed, the shaft 3 will be moved vertically in the guide openings of the vertical standards. The rear portion of the lever 17 is contracted, the sides being bent inwardly at 21, as clearly illustrated in Fig. 1 of the drawings.

The marking wheel 1 is provided with a plurality of tappet arms 22, disposed radially of the wheel 1 at the inner side thereof and arranged in alinement with the markers. The tappet arms are angularly bent at their outer ends to provide substantially L-shaped portions 23, which are pivoted to the markers, and the inner ends of the tappet arms are connected by suitable pivots 24 to a flange 25 of an adjustable sleeve 26, secured to the shaft 3 by a set screw 27 and adapted to be partially rotated to position the tappet arms properly with relation to the markers, so that the seed will be dropped by the planter simultaneously with the marking of the land.

The tappet arms operate an oscillatory lever 28, pivoted at an intermediate point by a bolt 29 to a supporting bar or member 30, which is secured to the frame or support upon which the seed boxes 33 are mounted. The outer arm 34 of the oscillatory lever 28 is angularly bent to arrange its outer portion above the plane of the pivoted intermediate portion, and it is located in the path of the tappet arms 22, whereby it will be actuated by the same when the marking wheels rotate during the forward movement of the machine. The inner arm of the lever 28 is also angularly bent to arrange its terminal portion below the plane of the intermediate pivoted portion, and it is provided with a rearwardly curved terminal portion 35, which engages a depending arm 36 of a rock shaft 37 of any well known seed dropping mechanism. The curved portion 35 is approximately a quarter of a circle, and the depend-

ing arm 36 is equipped with a flanged anti-friction roller 37<sup>a</sup>, arranged to be engaged by the curved portion 35 of the inner arm of the lever 28. The lever is adapted to actuate the shaft in the usual manner to drop the seed, and as the particular construction of the seed dropping mechanism does not constitute a portion of the present invention and also as the attachment is designed for use on various forms of corn planters, a detail description and illustration of the seed dropping mechanism is deemed unnecessary. Furthermore, motion may be communicated from the lever 28 to the seed dropping mechanism in any other desired manner.

When the marking wheels are lifted from the ground by depressing the rear portion of the foot lever 17, the shaft 3 may be rotated in either direction by a ratchet mechanism, consisting of a ratchet wheel 38, a lever 39 and pawls or dogs 40 and 40<sup>a</sup> for engaging the ratchet wheel. The ratchet wheel 38, which is suitably fixed to the shaft 3, has its teeth set at an inclination. The pawl or dog 40, which engages the ratchet wheel in advance of the dog or pawl 40<sup>a</sup>, is formed integral with a bar or member 41, disposed longitudinally of the machine and extending rearwardly to the lever 39, which is fulcrumed on the frame of the machine at a point in rear of the shaft 3. The pawl or dog 40<sup>a</sup>, which extends longitudinally of the bar or member 41, is pivoted at its rear end to the same and its front end is tapered for engaging the ratchet wheel. The pawl or dog 40 is adapted to rotate the ratchet wheel rearwardly, and the pawl or dog 40<sup>a</sup> rotates the same forwardly. The pawls or dogs are maintained in engagement with the ratchet wheel by the coiled spring 41<sup>a</sup>, connected with the lever and with the frame of the machine.

The front portion of the bar or member 41 is loosely connected with the shaft 3 by means of a link 42, composed of substantially U-shaped sides, which are connected at the top by a transverse portion that is arranged in a perforation 44 of the bar or member 41. The U-shaped sides engage laterally extending hub portions 43 of the ratchet wheel, and the link connection limits the movement of the bar or member 41 and prevents the pawls or dogs from being thrown too far forwardly or rearwardly. The lever 39 is adapted to be oscillated to move the ratchet wheel in either direction, and the pawls or dogs may be moved to the dotted position shown in Fig. 6 of the drawings, after the walking wheels have been properly adjusted and rotated forwardly with the forward movement of the machine. When the machine reaches the end of a row, the marking wheels may be lifted while the machine is being turned, and the ratchet mechanism



will enable them to be set in proper position for marking the next row.

The standards 5 are connected by a combined brace and guide 45, consisting of a rod 5 and adapted to receive a ring 46 through which passes a flexible connection 47 of a land marker 48, which is adapted to swing from one side of the frame to the other. The guide and the ring are adapted to keep the 10 flexible connection clear of the marking wheels.

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

15 1. In an attachment of the class described, the combination of a marking wheel having a rim and provided thereat with traction spurs, markers projecting from the rim of the marking wheel, and stops rigidly mounted 20 on the spurs and on the markers and arranged to engage the ground to limit the penetration of the spurs and markers.

2. In an attachment of the class described, the combination of a marking wheel, traction 25 spurs mounted on and projecting from the periphery of the wheel, markers also projecting from the periphery of the marking wheel, said spurs and markers being provided with shanks, and sleeves arranged on the said 30 shanks and provided at their outer ends with projecting flanges forming stops for engaging the ground to limit the penetration of the spurs and the markers.

3. In an attachment of the class described, 35 the combination of a marking wheel, traction spurs projecting from the periphery of the wheel, markers also extending from the periphery of the said wheel, radially arranged tappet arms carried by the wheel and con- 40 nected at their outer ends with the periphery of the said wheel, and a lever extending into the path of the tappet arms.

4. In an attachment of the class described, the combination of a wheel having a rim, 45 markers extending from the rim of the wheel, radially arranged tappet arms located at the inner side of the wheel and secured at their outer ends to the markers beyond the rim, and a lever arranged in the path of the arms.

50 5. In an attachment of the class described, the combination of a shaft, a wheel having a rim, markers extending from the rim of the wheel, radially arranged marking arms lo- 55 cated at the inner side of the wheel and connected at their outer ends to the markers beyond the rim, means mounted on the shaft for supporting the inner ends of the tappet arms, and a lever extending into the path of the arms.

60 6. In an attachment of the class described, the combination of a shaft, a marking wheel mounted on the shaft and provided with peripheral markers, an adjustable sleeve mounted on the shaft, radially arranged tappet

arms pivotally connected with the sleeve and 65 with the wheel, and a lever extending into the path of the arms and adapted to be actuated by the same.

7. In an attachment of the class described, the combination of a shaft, a marking wheel, 70 markers mounted on and projecting from the rim of the wheel, a sleeve adjustably mounted on the shaft and provided with a projecting flange, radially arranged arms pivotally connected at their inner ends to the flange 75 and provided at their outer ends with substantially L-shaped portions pivoted to the markers, and a lever extending into the path of the arms.

8. In an attachment of the class described, 80 the combination of a shaft, a marking wheel mounted on the shaft, a radially arranged tappet arm pivotally connected at its outer end to the marking wheel, and means connected with the inner end of the tappet arm 85 for adjusting the same.

9. In an attachment of the class described, the combination of a shaft, a marking wheel mounted on the shaft, a radially arranged 90 tappet arm pivotally connected at its outer end to the marking wheel, and means carried by the shaft and having a rotary movement thereon to adjust the marking arm.

10. In an attachment of the class de- 95 scribed, the combination of a frame, standards extending upwardly from the frame and having openings, marking wheels, a shaft extending through the opening of the stand- 100 ards and receiving the marking wheels, springs located within the openings of the standards for forcing the shaft downwardly, and a foot lever having spaced sides ful- 105 crumed on the frame and extending beneath the shaft for raising the same and connected at their rear ends.

11. In an attachment of the class de- 110 scribed, the combination of a frame, standards extending upwardly from the frame and having openings, marking wheels, a shaft extending through the openings of the stand- 115 ards and receiving the marking wheels, and a substantially U-shaped foot lever composed of spaced sides and a rear connecting portion, and extending beneath the shaft for raising the same, said sides being pivoted at points 115 between their ends and bent inwardly in rear of the pivots.

12. In an attachment of the class de- 120 scribed, the combination with a frame, of guiding means extending upwardly from the frame, marking wheels, a shaft connecting the marking wheels and arranged in the said guiding means, means for moving the shaft 125 upwardly to raise the marking wheels from the ground, a ratchet wheel mounted on the shaft, a lever, a bar or member connected with the lever and provided with means for engaging the ratchet wheel, and a spring con-



nected with the bar or member for holding the same in engagement with the ratchet wheel.

13. In an attachment of the class described, the combination with a frame, of guiding means extending upwardly from the frame, marking wheels, a shaft connecting the marking wheels and arranged in the said guiding means, a ratchet wheel mounted on the shaft and having opposite hub portions, a lever, a bar or member connected with the lever and provided with means for engaging the ratchet wheel, and a link connected with the bar or member and composed of two substantially U-shaped sides straddling the ratchet wheel and engaging the opposite hub portions thereof.

14. In an attachment of the class described, the combination of a frame, marking wheels, a shaft connecting the marking wheels, a ratchet wheel mounted on the shaft, an operating lever, a bar or member connected at its rear end with the operating lever and having its front end formed into a pawl or dog for engaging the ratchet wheel to move the same in one direction, and a pawl or dog pivoted to the bar or member and engaging the ratchet wheel for moving the same in the opposite direction.

15. In an attachment of the class described, the combination of a frame, marking wheels, a shaft connecting the marking wheels, a ratchet wheel mounted on the shaft, an operating lever, a bar or member connected at its rear end with the operating lever and having its front end formed into a pawl or dog for engaging the ratchet wheel to move the same in one direction, a pawl or dog pivoted to the bar or member and

engaging the ratchet wheel for moving the same in the opposite direction, a spring for holding the pawls or dogs in engagement with the ratchet wheel, and means carried by the bar or member for limiting the movement of the pawls or dogs.

16. In an attachment of the class described, the combination with a frame, of standards extending upward from the frame and having openings, a shaft mounted in the openings of the standards, marking wheels mounted on the shaft, and an arched guide rod mounted on and connecting the upper ends of the standards.

17. In an attachment of the class described, the combination with a frame, and dropping mechanism having a rock shaft provided with an arm, a lever fulcrumed at an intermediate point and having its inner end arranged to actuate the said arm, and a marking wheel having tappet arms for actuating the lever.

18. In an attachment of the class described, the combination of a frame, dropping mechanism having a rock shaft and provided with a depending arm, a lever fulcrumed at an intermediate point and provided at its inner end with a curved edge arranged to engage the depending arm, and a marking wheel having means for engaging the outer end of the lever.

In testimony, that we claim the foregoing as our own, we have hereto affixed our signature in the presence of two witnesses.

JOHN ELDER.

CHARLES M. SCOGGINS.

Witnesses:

A. J. LADLEY,

H. J. FINDLEY.