

(No Model.)

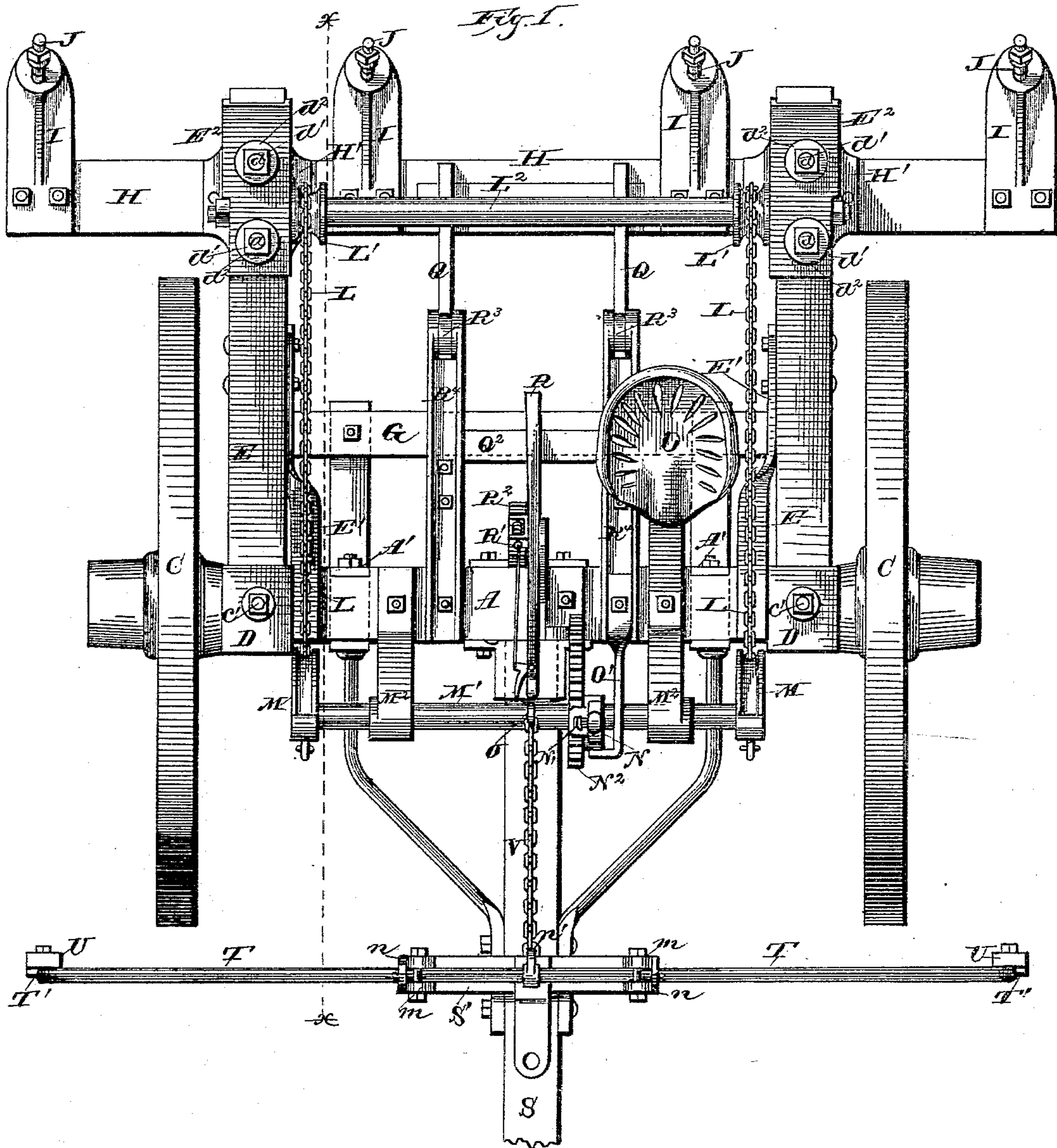
3 Sheets—Sheet 1.

F. W. DUNN.

LAND MARKER.

No. 359,922.

Patented Mar. 22, 1887.



Witnesses:

E. G. Ames

N. E. Oliphant

Inventor:  
Francis W. Dunn

By Stout & Underwood  
Attorneys.

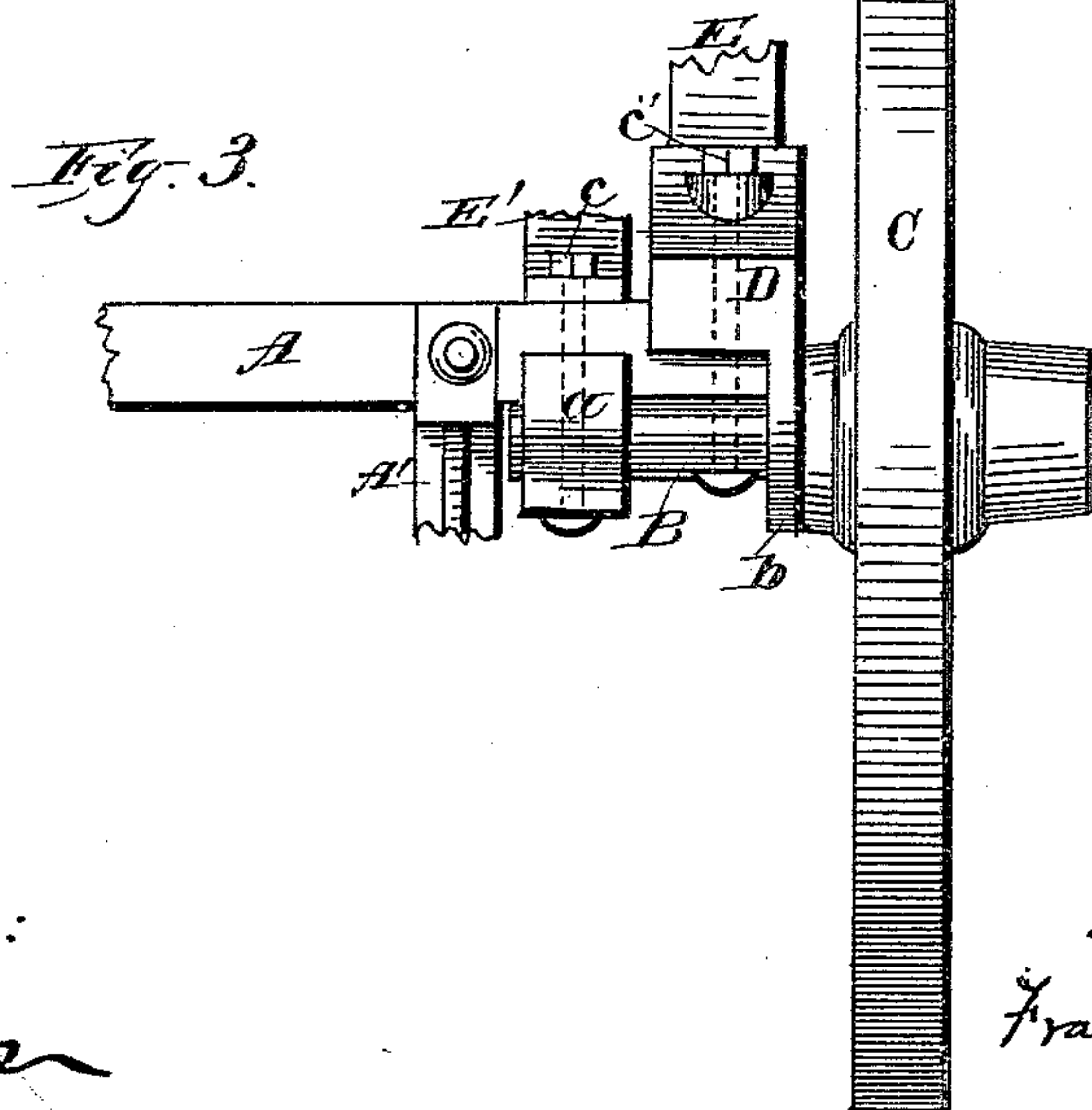
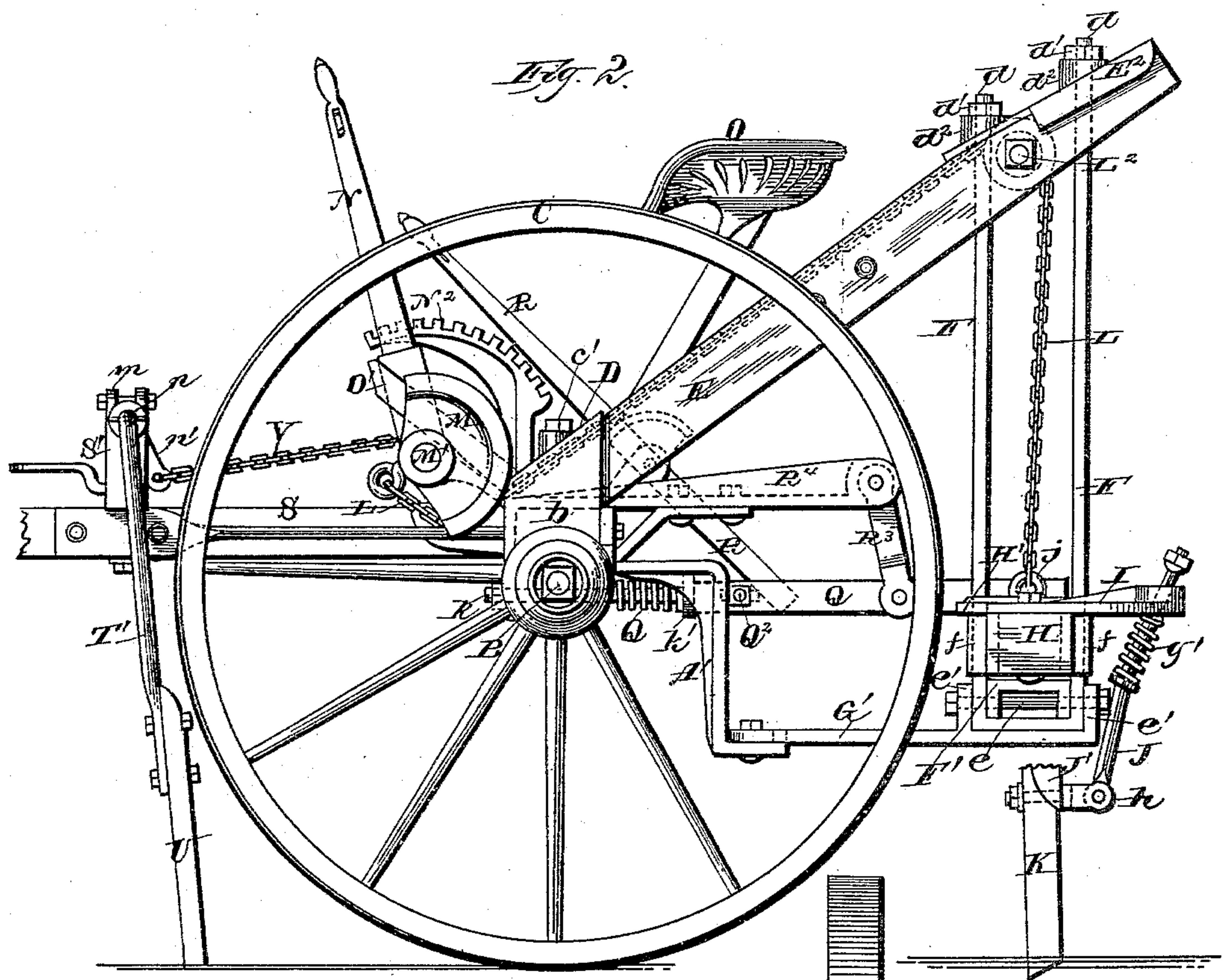
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3 Sheets—Sheet 2.

F. W. DUNN.  
LAND MARKER.

No. 359,922.

Patented Mar. 22, 1887.



Witnesses:

E. G. Jones  
N. E. Oliphant

Inventor:

Francis W. Dunn

By J. H. Underwood  
Attorneys.



(No Model.)

3 Sheets—Sheet 3.

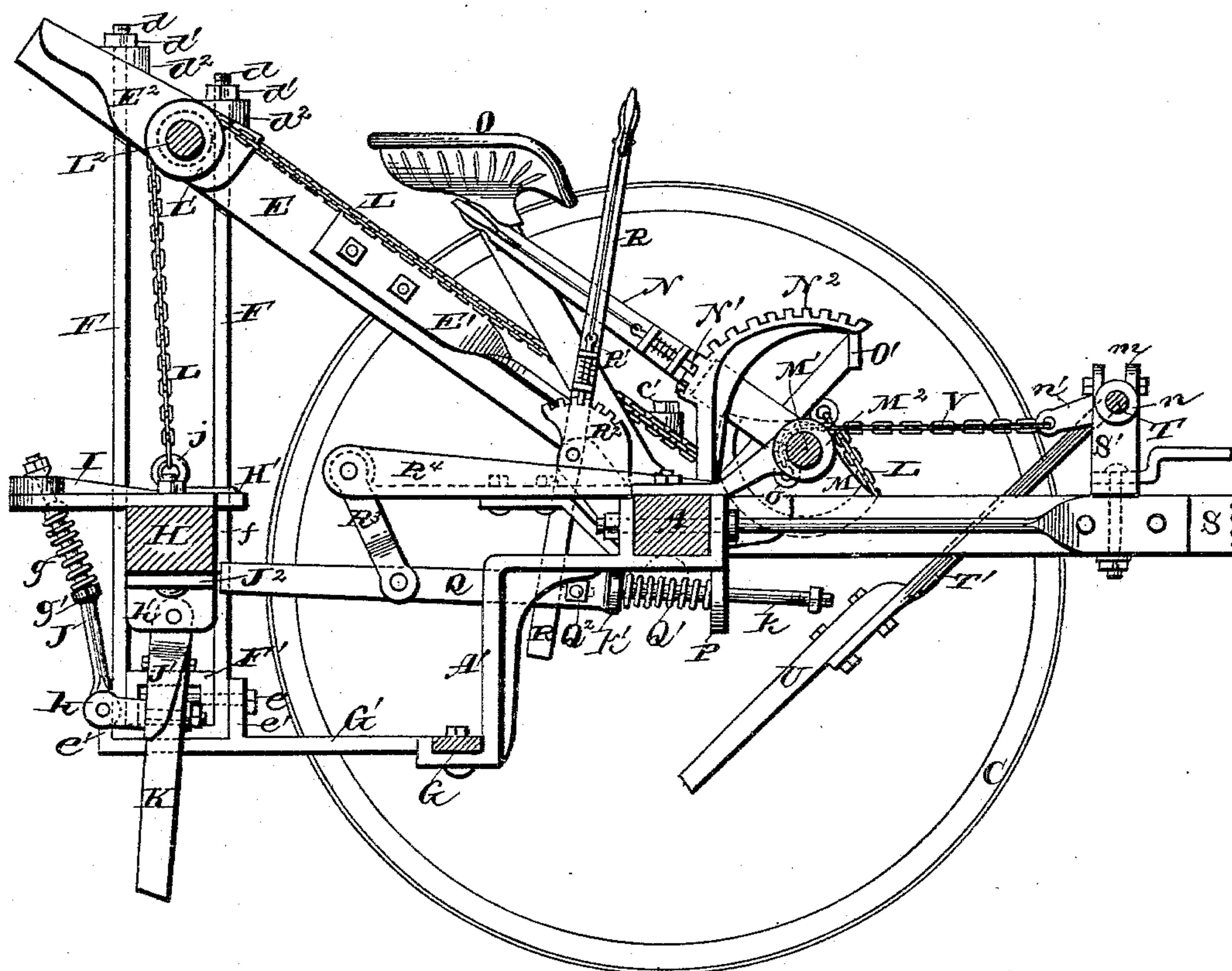
F. W. DUNN.

LAND MARKER.

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Fig. 1.



**Witnesses:**

E. G. Spruce  
N. E. Oliphant

*Inventor:*

Francis W. Drum

By John H. Underwood  
Attorneys.



# UNITED STATES PATENT OFFICE.

FRANCIS W. DUNN, OF LISBON, WAUKESHA COUNTY, WISCONSIN.

## LAND-MARKER.

SPECIFICATION forming part of Letters Patent No. 359,922, dated March 22, 1887.

Application filed December 21, 1886. Serial No. 222,139. (No model.)

*To all whom it may concern:*

Be it known that I, FRANCIS W. DUNN, of Lisbon township, in the county of Waukesha, and in the State of Wisconsin, have invented certain new and useful Improvements in Land-Markers; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to land-markers; and it consists in certain peculiarities of construction and combination of parts, to be hereinafter described with reference to the accompanying drawings and subsequently claimed.

In the drawings, Figure 1 represents a plan view of a land-marker constructed in accordance with my invention; Fig. 2, a side elevation of the same; Fig. 3, a detail front view showing the manner of joining the wheel-journals to the axle; and Fig. 4, a vertical longitudinal section on line *x x*, Fig. 1.

Referring by letter to the drawings, A represents the wooden axle of my land-marker, and B the metallic journals for the wheels C.

The journals B are arranged beneath the axle to rest in boxes *a* and the vertical portions *b* of angular housings D, bolts *c c'* serving to retain said parts in their relative positions, as best illustrated by Fig. 3.

If found desirable, the axle A may be hollowed out at its ends to partially inclose the journals.

Fitted in the angular housings D at the ends of the axle A, and secured to the latter by the bolts *c'*, are the front ends of rearwardly-extended inclined side beams, E, preferably constructed of wood, and braced by metallic strips E', having their respective ends bolted to said axle and side beams.

To the rear ends of the beams E are fitted angular plates E<sup>2</sup>, through which latter and said side beams are passed the reduced upper ends, *d*, of vertically-depending guides F, that are joined at their bottoms and rest upon the rearwardly-extended arms G' of a transverse beam, G, the latter being seated in and bolted to angular hangers A', that are in turn bolted to the axle A. The axle A, side beams, E, vertical guides F, transverse beam G, and angular hangers A' constitute the main frame of my machine. The upper ends, *d*, of the vertical guides F are screw-threaded to receive

nuts *d'*, between which and the plates E<sup>2</sup> on the side beams, E, are interposed suitable washers, *d*<sup>2</sup>.

Between the vertical guides F, at their lower ends, are arranged angular seats F', secured in position by bolts *e*, passed through the vertical portions of the seats, and guides, and ears *e'* on the arms G' of the beam G.

Operative between the vertical guides F is a transverse beam, H, preferably of wood, having bolted thereto, upon the upper side, slotted metallic plates H', provided with depending wings *f*, these plates serving to engage and bear upon said guides.

At suitable intervals on the beam H, I secure plates I, perforated at their outer ends to form guides for vertically-disposed angle-rods J, on which are arranged springs *g*, that bear against the under side of said plates, the tension of these springs being regulated by means of nuts *g'*, operative on the angle-rods.

The lower ends of the rods J are pivotally connected to the bifurcated ends of bolts *h*, that pass through vertically-depending hangers J' and marking-fingers K, secured in these hangers, the latter being in turn pivotally connected to the ears *h'* of plates J<sup>2</sup>, fastened to the under side of the beam H.

By the construction above described the marking-fingers K are permitted to yield on striking a stone or other obstruction in the path of the machine, the tension of the springs *g* being readily adjusted in accordance to the nature of the land to be operated upon.

The beam H is provided with hooks or eyes *j*, to which are connected cords or chains L, that pass up over pulleys L' on a shaft, L<sup>2</sup>, journaled in the rear ends of the inclined braces E, and are finally secured to grooved segments M on a shaft, M', operative in bearings M<sup>2</sup>, projecting from the axle A, this latter shaft being operated by means of a hand-lever, N, provided with a spring-dog, N', to engage a rack-plate, N<sup>2</sup>, that also projects from said axle.

By the construction described in the preceding paragraph the marker-beam may be raised at the pleasure of the operator, who rides upon the seat O, secured to the axle A, a lever-stop, O', being also secured to said axle.

Operative in hangers P, depending from the



front of the axle A, are the reduced forward ends,  $k$ , of longitudinal sliding bars Q, provided with collars  $k'$ , between which latter and said bearings springs  $Q'$  are arranged to exert their force in a rearward direction.

In the rear of the collars  $k'$  thereon the longitudinal sliding bars Q are joined by a cross-piece,  $Q^2$ , against the rear of which comes the lower end of a lever, R, that is provided with a spring-dog,  $R'$ , to engage a rack-plate,  $R^2$ , secured to the axle A, this lever coming within easy reach of the operator, and said sliding bars are connected by links  $R^3$  with arms  $R^4$ , projecting from the rear of said axle.

When the beam H is down on the seats  $F'$  between the vertical guides  $F$ , the lever R is pushed forward, and the expansion of the springs  $Q'$  will force the bars Q rearward to come over upon the top of said beam, and thus serve to hold the latter down in the position described at the beginning of this paragraph.

Before the lever N is operated to raise the beam H, the lever R is drawn back to bring the longitudinal bars Q clear of said beam, this position of the parts being best illustrated in Fig. 4.

Bolted to the tongue S of my machine is a bracket,  $S'$ , provided with bearings  $m$  for a transverse sighting-bar, T, the latter being provided with collars  $n$ , to prevent lateral play.

To the turned down ends  $T'$  of the sighting-bar T, I secure fingers U, and to an ear,  $n'$ , on said bar I secure one end of a cord or chain, V, that is fastened at its other end to an eye,  $o$ , on the shaft  $M'$ , that carries the segments M. By the construction just described the fingers U on the sighting-bar T are turned rearward when the lever N is operated to elevate the beam H, carrying the marking-fingers K.

The land-marker above described is very simple in its construction and effective in its operation, while at the same time by its use a saving in time and labor will be effected, as but one operator is necessary to a machine, and said operator rides thereon.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a land-marker, the combination of a suitable main frame, a vertically-adjustable transverse beam carrying a series of depending fingers, and a sighting-bar, substantially as set forth.

2. In a land-marker, the combination of a suitable main frame, a vertically-adjustable transverse beam carrying a series of depending fingers, longitudinally-adjustable sliding bars arranged to come over upon said beam, and a sighting-bar, substantially as set forth.

3. In a land-marker, the combination of a suitable main frame, a vertically-adjustable transverse beam, a series of yielding fingers operatively connected to the beam, longitudinally-adjustable sliding bars arranged to come over upon said beam, and a sighting-bar, substantially as set forth.

4. In a land-marker, the combination of a suitable main frame, a vertically-adjustable

beam having its top provided with a series of perforated plates, a corresponding series of marking-fingers having their hangers pivotally connected to the under side of the beam, suitable rods in turn pivotally connected to said hangers and passed through the perforations in the top plates, and springs arranged on the rods to bear against the under side of said plates, substantially as set forth.

5. In a land-marker, the combination of a suitable main frame, a vertically-adjustable transverse beam carrying a series of marking-fingers, longitudinal sliding bars arranged to come over upon the beam and joined by a horizontal cross-piece, springs arranged on the forward ends of these longitudinal bars to exert their force in a rearward direction, and a hand-lever arranged to come against the rear of said cross-piece, substantially as set forth.

6. In a land-marker, the combination of a suitable main frame, a transverse beam loosely arranged in the frame at the rear thereof and provided with a series of marking-fingers, a shaft provided with pulleys and journaled above the beam, another shaft having its bearings at the front of the machine and provided at its ends with segments, cords, or chains fast at one end to the beam, then passed over the pulleys, and finally secured to the segments, and a hand-lever connected to the shaft that carries said segments, substantially as set forth.

7. In a land-marker, the combination of a suitable main frame, a transverse beam loosely arranged in the frame at the rear thereof and provided with a series of marking-teeth, a shaft provided with pulleys and journaled above the beam, another shaft having its bearings at the front of the machine and provided at its ends with segments, cords, or chains fast at one end to the beam, then passed over the pulleys, and finally secured to the segments, a hand-lever connected to the shaft that carries the segments, a sighting-bar operatively connected to the tongue of the machine, and a cord or chain connecting this sighting-bar with said segment-shaft, substantially as set forth.

8. In a land-marker, the combination of an axle provided at its ends with angular bearings and boxes secured to its under side, wheel-journals arranged beneath the axle to rest in the boxes and vertical portions of the angular bearings, rearwardly-extended inclined side beams having their front ends fitted in said angular housings, vertical guides depending from the rear ends of the side beams, a vertically-adjustable transverse beam carrying marker-fingers and operative in the guides, and a pivoted sighting-bar operatively connected to the mechanism for adjusting said finger-beam, substantially as and for the purpose set forth.

9. In a land-marker, the combination of a main frame comprising an axle, rearwardly-extended inclined side beams connected to the



axle, vertical guides depending from the rear ends of the side beams, a transverse beam having rearwardly-extended arms connected to the lower ends of the vertical guides, and  
5 suitable hangers connecting this transverse beam with said axle, a vertically-adjustable transverse beam carrying marker-fingers and operative in the vertical guides, and a pivotal sighting-bar operatively connected to the  
10 mechanism for adjusting said finger-beam, substantially as and for the purpose set forth.

10. In a land-marker, the combination of a main frame comprising an axle, rearwardly-extended inclined side beams connected to the  
15 axle, vertical guides depending from the rear ends of the side beams and joined at their lower ends, angular seats secured between the guides, a transverse beam having rearwardly-extended arms connected to said lower ends of the  
20 guides, and suitable hangers connecting this transverse beam with said axle, a vertically-adjustable transverse beam carrying marker-fingers and operative in said vertical guides, and a pivotal sighting-bar operatively con-  
25 nected to the mechanism for adjusting said finger-beam, substantially as set forth.

11. In a land-marker, the combination of a main frame comprising an axle, rearwardly-extended inclined side beams connected to the axle, vertical guides depending from the rear  
30 ends of the side beams, a transverse beam having rearwardly-extended arms connected to the lower ends of the vertical guides, and suitable hangers connecting this transverse beam with said axle, a vertically-adjustable trans-  
35 verse beam carrying marker-fingers and operative in said vertical guides, longitudinal sliding bars arranged to come over upon the finger-beam, and a pivotal sighting-bar operatively connected to the mechanism for adjusting said  
40 finger-beam, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

FRANCIS W. DUNN.

Witnesses:

H. G. UNDERWOOD,  
N. E. OLIPHANT.