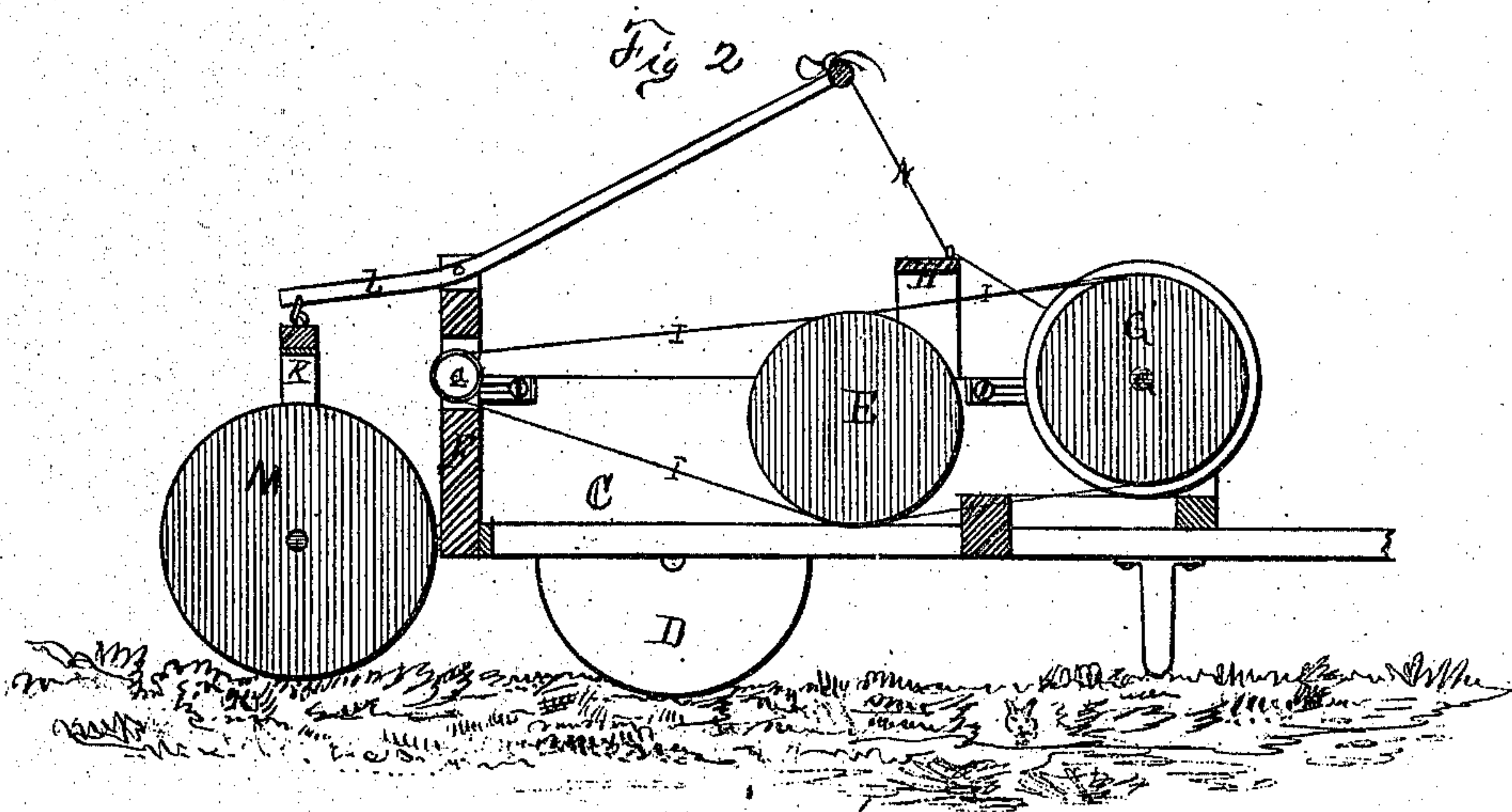
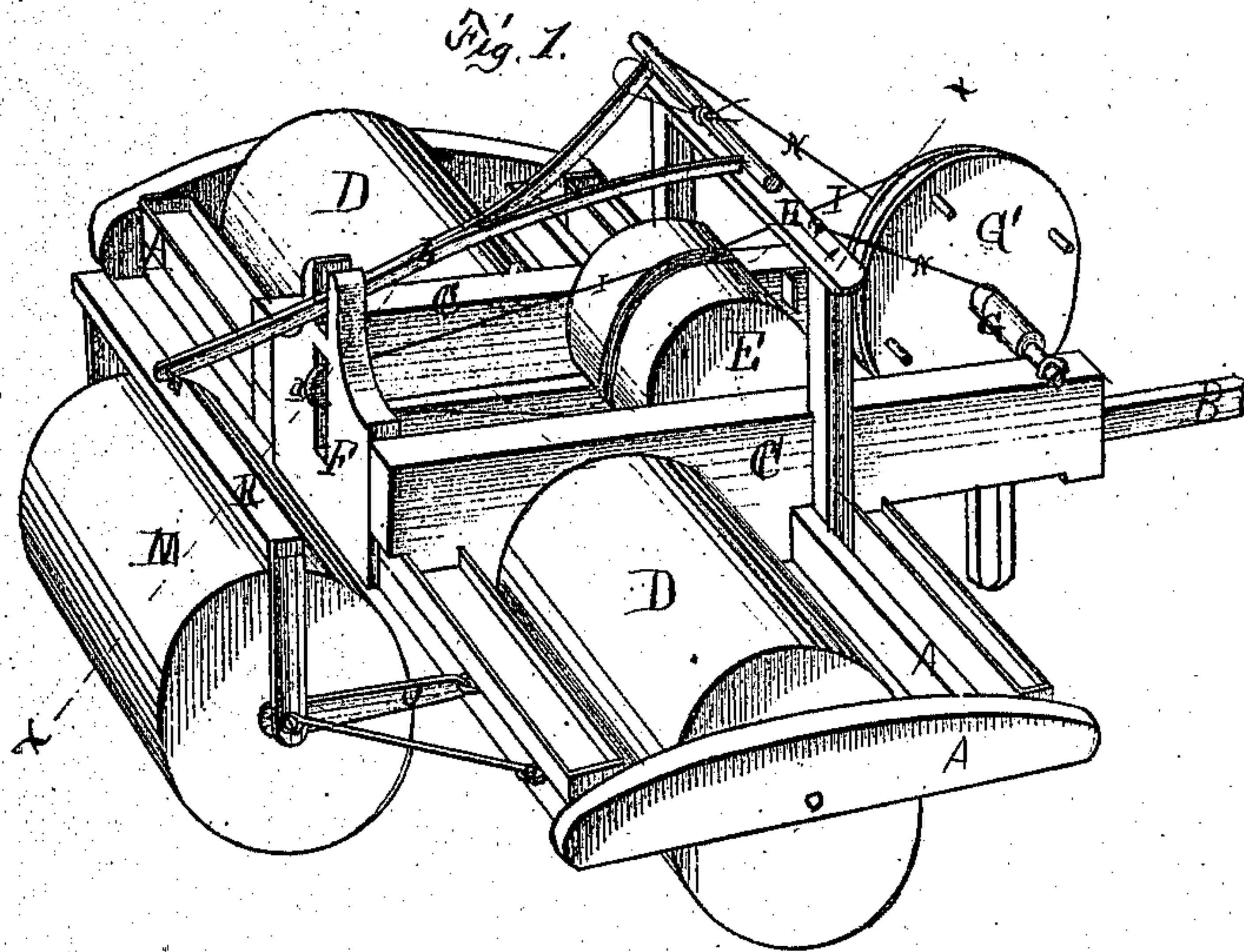


WHITCOMB & GUNN.

Land Roller.

No. 105,749.

Patented July 26, 1870.



Attest.

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Letters Patent No. 105,749, dated July 26, 1870.

IMPROVEMENT IN LAND-ROLLERS.

The Schedule referred to in these Letters Patent and making part of the same

To whom it may concern:

Be it known that we, ELISHA WHITCOMB and DANIEL A. GUNN, of Waterville, in the county of Lucas and State of Ohio, have invented a new and useful Improvement in Land-rollers; and we do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a perspective of our improved roller, and

Figure 2 is a vertical section of the same on the line *x x* in fig. 1.

Similar letters of reference indicate corresponding parts in each figure.

The nature of this invention relates to an improved construction of land-rollers, and consists in the arrangement of a third roller behind two principal rollers, said roller being journaled in a frame hinged to the back part of the main frame, and in a peculiar device whereby the driver can at will raise the third roller from the ground; also, in the employment of a cylindrical counter-weight, traveling between and on suitable guides and ways on the main frame, to serve as a counterpoise to the third roller when the latter is raised from the ground, and, when lowered, the weight is run back near the rollers, where its weight adds to their efficiency; also, in the mechanism for operating said counter-weight, as more fully hereinafter set forth.

In the drawing—

A represents the main frame of our improvement, provided with draft-pole B.

C are timbers longitudinally secured to the main frame A, of which they make part.

D are rollers, whose axles are journaled in the parts C and the end-pieces of the frame.

E is a cylindrical counter-weight rolling on ways at the bottom of and between the guide-timbers C.

F is a standard erected across the rear ends of the guides C.

a is a sheave journaled in a mortise in said standard.

G is a shaft, journaled in the front ends of the guides C, and

G' is a grooved pulley secured to and rotating with said shaft; said pulley is provided or studded at intervals on its sides with projecting spokes, by means of which the driver, sitting on the seat H, may rotate the pulley, using his feet for that purpose.

I is a cord or rope, starting from the pulley G', is led back over the counter-weight E, around which it is carried in a groove formed in it for that purpose, making what is termed a parbuckle, thence back to the sheave *a*, down under it and the counter-weight,

and around the pulley, where it is joined to the other end, forming an endless belt.

J are bars pivoted to the rear beam of the main frame.

K is a yoke suspended from the rear end of the lever L, which is pivoted in the standard F.

M is a third roller, whose axles are journaled in the ends of the bars J and pendent arms of the yoke K.

The front end of the lever L is crotched, and terminates in a cross-bar, as shown; to this cross-bar are secured two cords or ropes, N, whose other ends are secured to and coiled around the shaft G, at either side of its pulley.

In operation, all three of the rollers act upon the surface of the ground, for the purpose for which such devices are employed, the third roller going over the interval left by the others, and, being long enough to overlap their inner ends, the formation of a ridge is prevented, which ridge is always formed where but two rollers are employed.

Arriving at the end of the field, it is necessary, in order to turn, that the third roller should be elevated; to do so, the driver rotates in a forward direction the pulley G' pressing on its spokes with his feet, when the ropes N are wound upon the shaft G, drawing down the long arm of the lever L, which in turn raises the yoke K in which said roller is pivoted, at the same time the counter-weight is parbuckled forward and acts as a counterpoise for it, preventing undue strains on the horses' necks; when the turn is made, the third roller is again lowered by the same means, and the counter-weight moved back to the rear end of the guides, where its weight increases the efficiency of the main rollers, counterbalancing the driver's weight and relieving the horses' necks. Suitable stops are provided in the guides to prevent the roller from being moved too far in either direction.

What we claim as our invention and desire to secure by Letters Patent, is—

1. The counter-weight E, as and for the purpose set forth.

2. The shaft G, pulley G', sheave *a*, and cords I and N, arranged with relation to each other and the counter-weight E and lever L, as and for the purpose set forth.

3. The arrangement of the roller M, vertically adjustable, pivoted in the frame K J to the rear center of the device, in connection with the lever L, cords N, shaft G, and pulley G', when constructed as described, and operating as and for the purpose set forth.

ELISHA WHITCOMB.

DANIEL A. GUNN.

Witnesses:

P. BOYER,

JAMES PILLIOD.