

(No Model.)

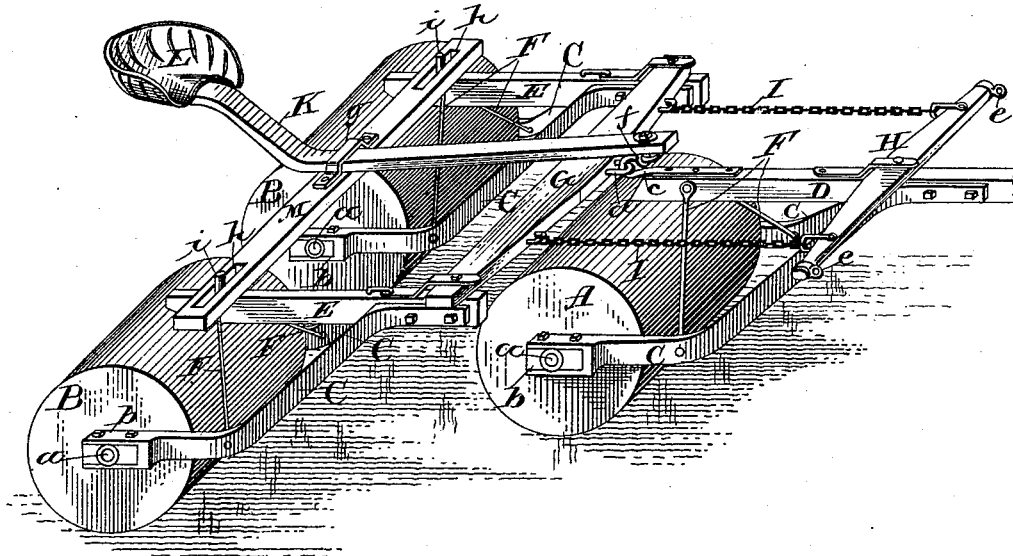
J. F. DONOVAN.

LAND ROLLER.

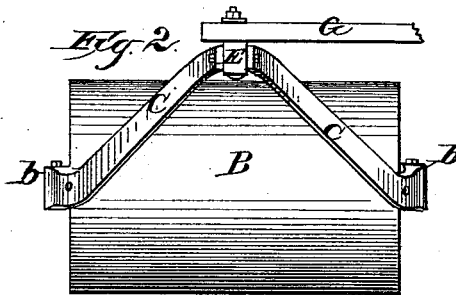
No. 346,270.

Patented July 27, 1886.

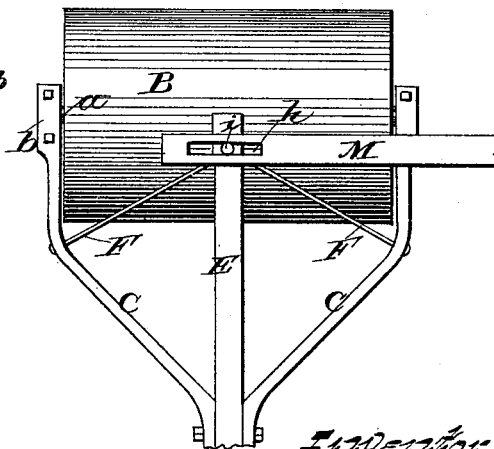
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses:

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# UNITED STATES PATENT OFFICE.

JOHN F. DONOVAN, OF LOMIRA, WISCONSIN.

## LAND-ROLLER.

SPECIFICATION forming part of Letters Patent No. 346,270, dated July 27, 1886.

Application filed April 20, 1886. Serial No. 109,492. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN F. DONOVAN, of Lomira, in the county of Dodge, and in the State of Wisconsin, have invented certain new and useful Improvements in Land-Rollers; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to land-rollers; and it consists in certain peculiarities of construction, whereby devices of this class are materially simplified and cheapened in their manufacture, and at the same rendered more efficient in their operation, as will be hereinafter described with reference to the accompanying drawings, in which—

Figure 1 represents a perspective view of my land-roller; Fig. 2, a front view of one of the cylinders and its bail; Fig. 3, a plan view of the same.

Referring by letter to the drawings, A represents the front and B B the rear cylinder of my device. Each of the cylinders is provided with journals *a*, that have their bearings *b* in the rear ends of compound-curved or double-ogee bail-pieces C, the forward ends of the latter being bolted or otherwise suitably secured to tongues D E, that extend back over said cylinders, and the parts are strengthened by means of brace-rods F. The rear end of the main tongue D is provided with a hook, *c*, that engages an eye, *d*, projecting from a rear evener, G, the ends of the latter being pivotally united to the tongues E. Pivotaly connected to the main tongue is a front evener, H, that is united by chains I to the rear one, G, said front evener being provided with suitable clips, *e*, to which are intended to be attached the whiffletrees for the team. The rear evener, G, forms a support for the front end of a spring-board, K, provided with an eye, *f*, that engages with the hook *c* of the tongue D, while the other end of this spring-board has secured thereto a seat, L, for the operator of the roller, said seat being entirely in the rear of the cylinders. The rear portion of the spring-board K is loosely connected by means of a strap, *g*, to a spreader-bar, M, the latter having slots *h* at its ends, that engage pins *i*, projected upward from the rear ends of the tongues E.

By the above-described construction I se-

cure a central pivot for the draft and turning action of my roller, and am thereby enabled to operate the same to a decided advantage over those in ordinary use, as a smaller circle is described when it is necessary to turn the device, and none of the ground is missed, while at the same time the operator is seated in the rear of all the cylinders, and in case of being thrown from his seat is out of the way of injury from said cylinders.

The several parts being loosely connected, my roller will work as well on a side hill as on level ground, and there being no complication in the construction and arrangement of said parts the device is rendered very simple, durable, and not likely to get out of order.

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

1. In a land-roller, a rear frame composed of two tongues pivotally united to a rear evener, and having secured thereto the bail-pieces of the cylinders, in combination with a main or draft tongue also pivotally connected to the rear evener, and provided with a pivoted front evener operatively connected to the rear one, as set forth.

2. In a land-roller, the bail-pieces, each having the form of a double ogee, their rear ends provided with bearings for the cylinder-journals, and their forward ends connected to suitable tongues, as set forth.

3. In a land-roller, the main or draft tongue provided at its rear end with a hook, a transverse evener pivotally united at its ends to auxiliary tongues, and having an eye adapted to engage the hook on the main tongue, and a spring-seat board also having an eye adapted to engage said hook, and loosely joined to a spreader-bar slotted at its ends to engage pins projecting from the auxiliary tongues, as set forth.

4. In a land-roller, the double-ogee bail-pieces provided with bearings for the cylinder-journals, and united at their front ends to tongues that are severally connected to an evener that is pivotally connected to a main tongue, and suitable brace-rods designed to strengthen said tongues and bail-pieces, as set forth.

5. In a land-roller, a spring-seat board rear-

wardly extended beyond the cylinders and swiveled at its front end to the draft-tongue, and a spreader loosely connected to the seat-board and slotted at its ends to engage pins  
5 projected from auxiliary tongues that are pivoted to an evener having a pivotal connection with said draft-tongue, as set forth.

6. In a land-roller, a draft-equalizer consisting of a rear bar pivotally connected to  
10 the main and auxiliary tongues, that have secured thereto the bail-pieces of the cylinders,

and another bar pivoted to said main tongue and flexibly united by chains or analogous means to the rear bar, as set forth.

In testimony that I claim the foregoing I 15 have hereunto set my hand, at Lomira, in the county of Dodge and State of Wisconsin, in the presence of two witnesses.

JOHN F. DONOVAN.

Witnesses:

F. W. NERENZ,

H. MACIEJEWSKY.