E. F. Olds.

Land Roller.

No. 64,559. Patented May 7, 1867.

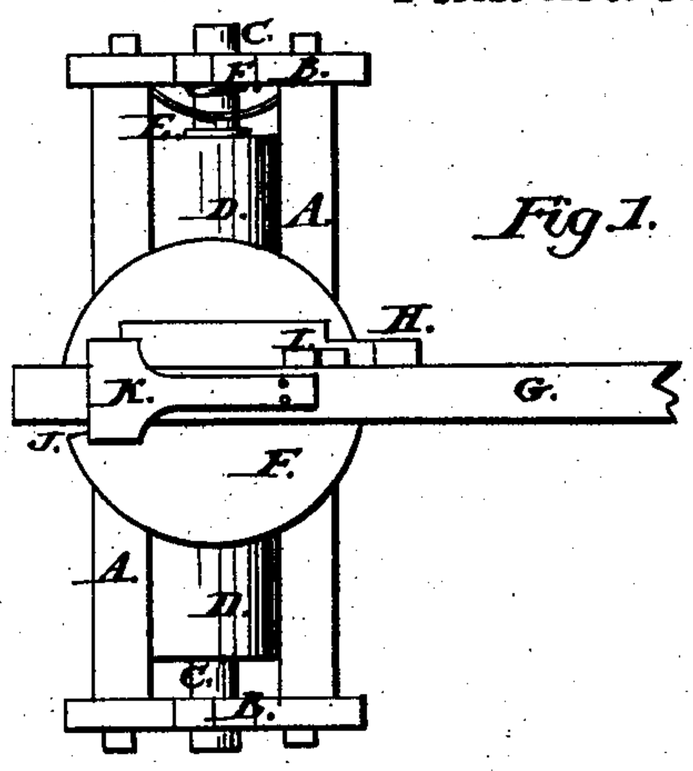

Fig. 1.

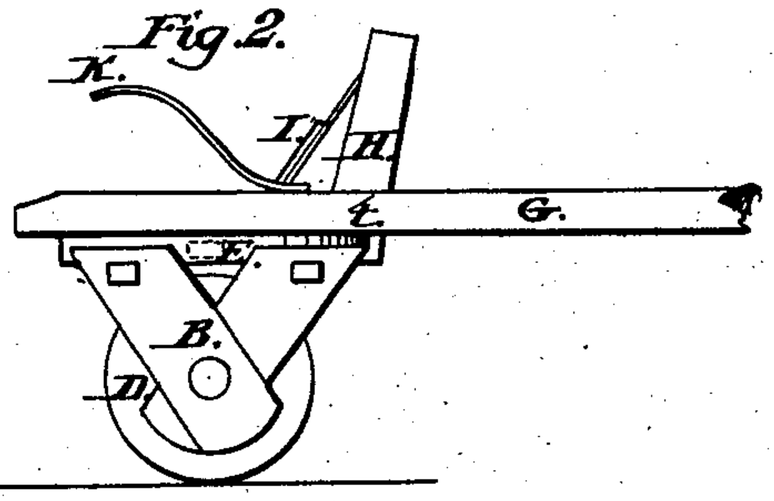

Fig. 2.

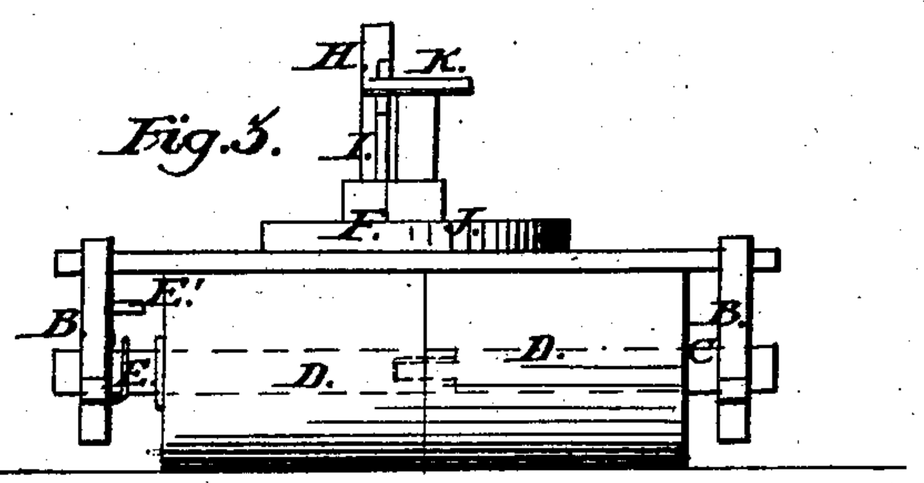

Fig. 3.

Witnesses:
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Inventor:
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United States Patent Office.

E. F. OLDS, OF SOUTH LYON, MICHIGAN.

Letters Patent No. 64,559, *dated May* 7, 1867.

IMPROVEMENT IN FIELD-ROLLERS.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, E. F. OLDS, of South Lyon, in the county of Oakland, and State of Michigan, have invented certain new and useful Improvements in Field-Rollers; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a top view of the roller.

Figure 2 is an end view of the same.

Figure 3 is a rear side view.

Like letters of reference refer to like parts in the views.

This roller consists of the side-pieces A, fig. 1, mortised or otherwise secured to the angular ends B, fig. 2, and which together constitute the framework of the roller. This frame is mounted upon the shaft C, to which it is secured in a rigid manner. D D are a pair of rollers, which may be constructed of iron or wood, and either solid or hollow. These rollers turn upon the shaft or axle, and are kept close to each other by a spring, which may be either spiral or elliptical. The position of this spring is shown in fig. 1, in which E is a spiral spring, and E′ an elliptic one. F is a disk, fixed to the top of the frame; G the pole by which the roller is drawn and directed. This pole is pivoted to the centre of the disk, and upon which it turns, as will hereafter be shown. H is a lever, pivoted to the side of the pole at the point *x*. The short end of this lever catches into a notch cut in the periphery of the disk, and retained there by the spring I. A notch corresponding to the one in which the lever is secured is cut on the opposite side of the disk, as shown in fig. 3, in which J is the notch

Having thus described the several parts of the roller, the operation of the same is as follows: The driver takes his place upon the seat K, and starts in the direction of the work. In order to turn the roller for the purpose of re-rolling the ground, the operator draws the lever H toward him. This removes the short end of the lever from the notch alluded to. As the team is brought around, the pole turns upon the disk, it being pivoted to the same, as above said. When the team has reached the opposite side of the roller the lever catches into the notch referred to in fig. 3, and thereby holds the pole in a proper position, and rigid, for drawing the roller. By this it will be evident that the roller is not turned around, but remains stationary while the pole or tongue is brought about, and thus the roller returns directly over the ground just passed over, without leaving any balks at the end, which cannot be done with a roller constructed in the ordinary way. Should the weight of the roller not be sufficient for the condition of the ground, additional weights may be used by placing stones in boxes arranged upon the ends of the roller below the sweep of the pole.

The advantage of this roller over others is the facility of turning in order to repeat or re-roll the ground, thus saving much time, and tearing up the ground while in the act of turning around the roller. In not having to turn the roller around a much larger weight can be used than on the ordinary roller, thus rendering it much more effectual.

The axis of this roller may be made with a flexible joint in the middle, so as to adapt it to uneven ground. Should this kind of axle be used, the box for receiving the stones for the purpose of adding to the weight of the roller is attached to one end of a lever that will play up and down between the two rollers. The end opposite to the one on which the box is attached is fastened to the frame on the opposite side with a joint, so that it can move up and down or flex at the point of attachment, while the lever rests upon the axle for its fulcrum, rising or falling in proportion to the amount of flexion given to the axle, as the ground is more or less uneven. The purpose of this lever and box is to press down the roller on the inside ends when the axle is made flexible. This lever and box, being placed below the pole of the roller, will not be in the way when the team is turned around.

What I claim as my improvement, and desire to secure by Letters Patent, is—

1. The disk F, pole G, lever H, and spring I, as arranged in relation to a field-roller, in the manner substantially as described.

2. Rollers D, spring E, and frame B, in combination with the disk F, pole G, lever H, and spring I, in the manner and for the purpose set forth.

E. F. OLDS.

Witnesses:

WILLIAM DUNCAN,

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