

Patented Mar. 28. 1871.

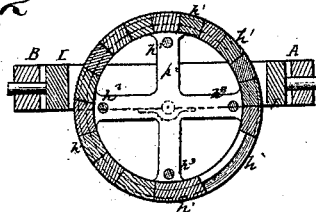
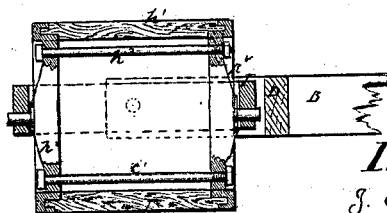


Fig. 3



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JOHN T. HUDNET, OF REAVILLE, AND HOLLOWAY W. MATHEWS, OF FRENCH-TOWN, NEW JERSEY, ASSIGNORS TO J. W. PRIESTLY & CO.

Letters Patent No. 113,169, dated March 28, 1871.

IMPROVEMENT IN LAND-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 we, JOHN T. HUDNET, of Reaville, and HOLLOWAY W. MATHEWS, of Frenchtown, in the county of Hunterdon and State of New Jersey, have invented a new and useful Improvement in Land-Rollers; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a top view of our improved land-roller.

Figure 2 is a detail sectional view of the same taken through the line *x x*, fig. 1.

Figure 3 is a detail sectional view of the same taken through the line *y y*, fig. 1.

Similar letters of reference indicate corresponding parts.

Our invention relates to improvements in that particular class of land-rollers in which three cylindrical sections or rollers are arranged to oscillate, each on its own axis, in a frame, in some way connected with a main frame.

The invention consists in the construction of the main frame-work, whereby to avoid the use of end cross-bars and pivot the frame of the rear roller in the rigid rear extension of the same, the pole or tongue being pivoted, as hereinafter described.

A B C are the cross-bars of the frame, the two front ones of which are connected with each other by two bars D, which are placed at equal distances from the center of the said cross-bars A B, and at a distance apart less than the length of one of the parts of the roller.

The bars A B are made of such a length that their ends may project a little beyond the centers of the end parts of the roller.

The two rear cross-bars B C are connected by two bars E, which are placed at a distance apart a little more than the length of one of the parts of the roller.

The rear cross-bar C is made of such a length that its ends will not project beyond the bars E, as shown in fig. 1.

F is the tongue, which is jointed to the middle part of the front cross-bar A by the bolt G, which passes through the hounds of the said tongue and through lugs or supports attached to the said bar A.

The jointed tongue relieves the horses' necks from pressure while working the roller.

H is the roller, which is made in three parts.

The two end parts are placed in front, in line with each other, and at such a distance apart that the ground left unrolled between them will be all rolled

by the middle or rear part of said roller as, shown in fig. 1.

Each part of the roller H is formed of heavy wooden staves, *h*¹, clamped between cast-iron heads *h*² by long bolts *h*³.

The heads *h*² consist of an iron rim connected with the journals by arms, which are strengthened by ribs upon their sides, the whole being cast solid in one piece.

The rims of the heads *h*² are grooved upon their inner sides to receive the tenons of the staves *h*¹.

The inner flange of said grooves is made wider than the outer flange, as shown in fig. 3, so that the tenons of the staves *h*¹ may rest upon said inner flanges when putting the roller together, and may be forced into the grooves by drawing or forcing the two heads *h*² toward each other.

*h*³ are long bolts passing longitudinally through the end parts of the arms of the heads *h*², where they are widened to join the rims of said heads, the ribs of the arms at that point being cut away or recessed to receive the heads and nuts of the bolts, so that said heads and nuts may not project beyond the said heads *h*².

I are rectangular frames placed around each of the parts of the roller H, and to the middle parts of the end bars of which the journals of the heads *h*² are pivoted.

The front and rear bars of the frames I of the two end parts of the roller are pivoted at their middle points to the ends of the cross-bars A B of the main frame.

The front and rear bars of the frame I of the rear or middle part of the roller are pivoted to the centers of the two rear cross-bars B C of the main frame of the roller, as shown in fig. 1.

By this construction, in rolling on new or rough ground, while one of the rollers H may be passing over a stone or stump, the other end of the frame cannot come in contact with a similar obstruction, since it does not pass beyond the pivots of the frame I; in other words, does not embrace the end of the opposite roller H. The same principle applies when the machine is used to roll the sides and bottom of a ditch, since the ends of the H-shaped frame A B D cannot reach the sides of the ditch.

By connecting the three rollers in one rigid frame, we are enabled to guide the same very accurately, and, the tongue being hinged, the weight of frame is placed entirely on the rollers and none of it upon the team.

By pivoting the rear roller in a rigid extension of the H-frame the weight or pressure on the same is increased.

We claim no single element or device in our machine; but

Having thus described our invention,

We claim as new and desire to secure by Letters Patent—

The H-shaped frame A B D, with its rigid rear extension E E C, the frames I, roller H, and pivoted tongue F, all relatively constructed and arranged as

herein shown and described to form an improved land-roller.

JOHN T. HUDNET.

HOLLOWAY W. MATHEWS.

Witnesses:

JOHN J. SUTPHIN,
ROBERT W. HUNT.