(No Model.)

J. RIEBOLD.

LAND ROLLER.

No. 386,220. Patented July 17, 1888.

Fig. 1,

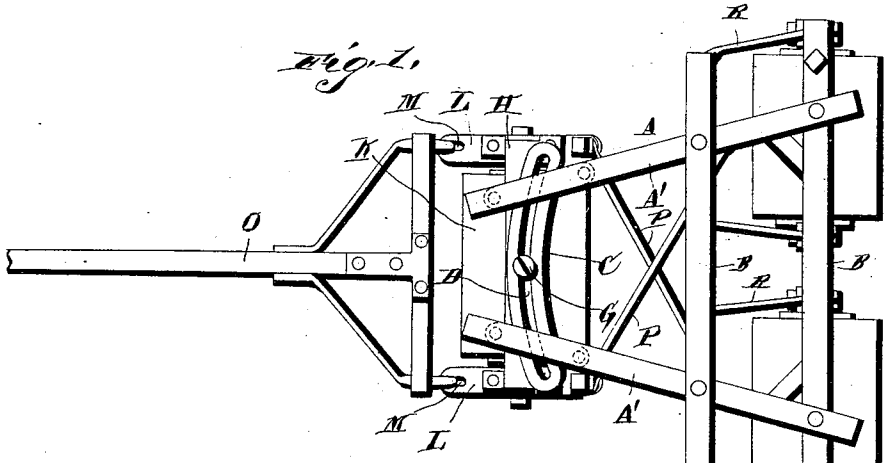


Fig. 2,

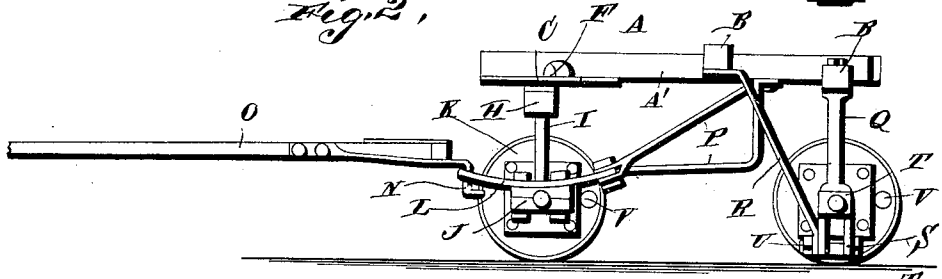


Fig. 3,

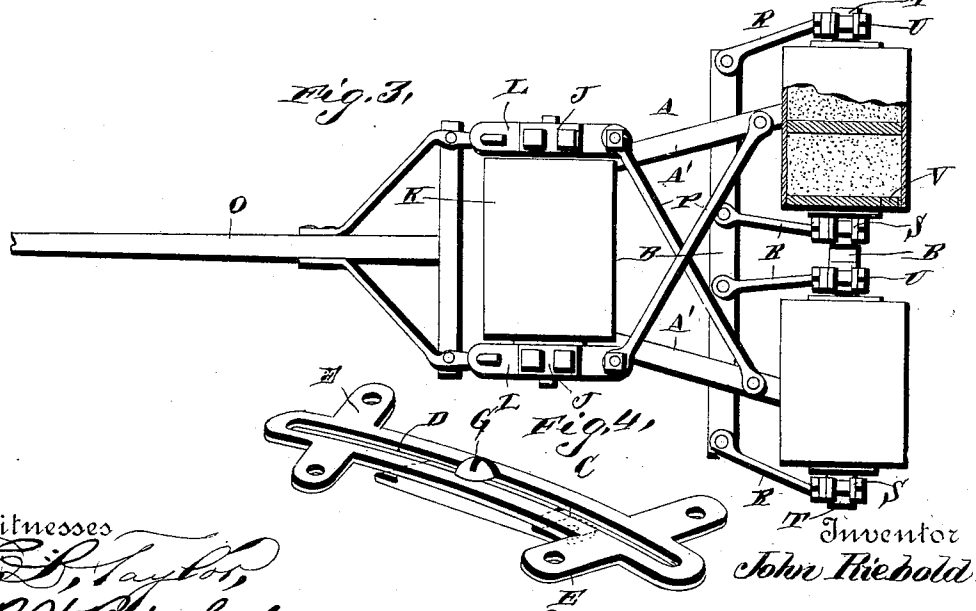


Fig. 4,

Witnesses
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UNITED STATES PATENT OFFICE.

JOHN RIEBOLD, OF TROY, ILLINOIS.

LAND-ROLLER.

SPECIFICATION forming part of Letters Patent No. 386,220, dated July 17, 1888.

Application filed April 6, 1888. Serial No. 269,869. (No model.)

To all whom it may concern:

Be it known that I, JOHN RIEBOLD, a citizen of the United States, residing at Troy, in the county of Madison and State of Illinois, have invented new and useful Improvements in Land-Rollers, of which the following is a specification.

My invention relates to improvements in land-rollers; and it consists in certain novel features hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan view of my improved land-roller. Fig. 2 is a side view, Fig. 3 is a bottom plan view, and Fig. 4 is a detail view, of the slotted guide-plate and the headed stud or pin working therein.

Referring to the drawings by letter, A designates the main frame of my device, consisting of the forwardly-converging bars or beams A′ A′ and the transverse beams B B, secured to the same at their rear ends and projecting laterally beyond the same, as shown. A curved plate, C, having a longitudinal slot, D, is secured to the under sides of the beams A′ at the forward ends of the same, as shown. This curved slotted guide-plate is provided near its ends with the perforated ears E, through which the securing-screws are passed into the beams A′, and notches F are formed in the under sides of the beams, directly over the slot D, to permit the passage of the head of the stud or pin G, playing in said slot. This stud or pin G projects upward from the center of the cross-bar H, from the ends of which depend the hangers I, having the journal-boxes J on their lower ends, in which journal-boxes the axle of the front roller, K, has bearings.

L L designate two bars, which are secured to the upper sides of the journal-boxes J and project forward and rearward from the same. The front ends of these bars are provided with perforations M, which are engaged by hooks N on the rear end of the tongue or draft bar O, as shown. The rear ends of these bars L are pivoted to the front ends of the draft-bars P, which extend upward and rearward, as shown, their rear ends being pivoted to the under side of the main frame near the rear edge of the same, the draft being thus applied directly to the rear portion of the main frame as well as to the front roller, and the machine consequently running very easily and with a comparatively slight draft. These draft-bars P are extended diagonally backward, thereby crossing each other, as clearly shown, and, as their rear ends are pivoted to the frame, serve to decrease the draft when making a turn. From the projecting ends and from the central portions of the cross-beams B depend hangers Q and braces R, the lower ends of the braces being secured to the lower ends of the hangers, as shown, to prevent oscillation of the same. The lower ends of the hangers are so constructed as to form yokes S, in which I arrange the sliding journal-boxes T, carrying the ends of the axles of the rear rollers. The ends of the braces are secured to the ends of the hangers by bolts U, which are inserted transversely through the ends of the hangers, thereby closing the yokes and preventing the journal-boxes dropping from the same. The rollers are composed of cylinders having closed ends and a central transverse partition. In the ends of the rollers I provide openings closed by plugs V, through which sand is passed to give the rollers the desired weight.

From the foregoing description the operation of my device is thought to be obvious. It will be observed that the rear rollers are loosely mounted, so as to be free to automatically adjust themselves to the inclination of the ground, and that the direction in which the device travels is changed, not alone by turning the front roller to an angle with the rear rollers, but the front roller is moved transversely of the frame at the same time that it is being turned to an angle, thereby causing the machine to turn easily and quickly, as will be readily understood.

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

1. The combination of the main frame, the curved slotted plate secured thereto, the roller arranged under the main frame, the frame surrounding the said roller, and the headed stud or pin on said frame engaging the slotted plate, as set forth.

2. The combination of the main frame, the curved slotted plate secured thereto, the roller, the frame inclosing the said roller, the headed stud or pin thereon engaging the slotted plate,

the tongue pivoted to said frame, and the draft-bars having their front ends pivoted to the said frame and their rear ends pivoted to the main frame, as set forth.

3. The combination of the main frame, the curved slotted plate secured thereto, the cross-bar having a stud engaging said plate, the hangers depending from said cross-bar and having journal-boxes at their lower ends, the roller having its axle journaled in said boxes, and the crossed draft-bars connected to the boxes and the main frame, as set forth.

4. The combination of the main frame, the front roller carried thereby and adapted to be moved transversely of the same, and the crossed draft-bars between said roller and the frame, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN RIEBOLD.

Witnesses:
FRED GERFEN,
R. W. JARVIS.