WILLIAM W. ANDREW.

Land Roller.

No. 119,294.

Patented Sep. 26, 1871.

Fig 1.

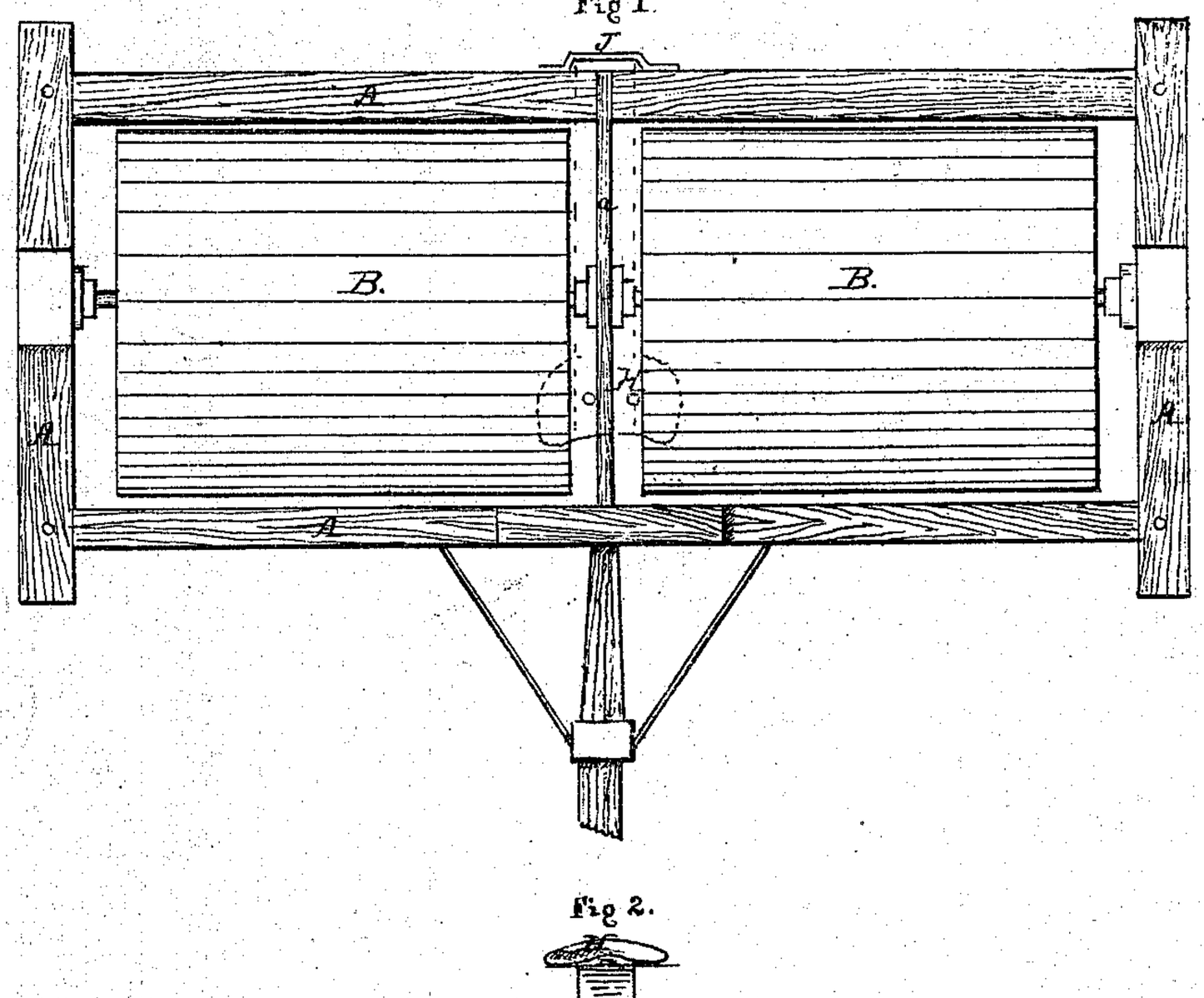


Fig 2.

Fig 4.

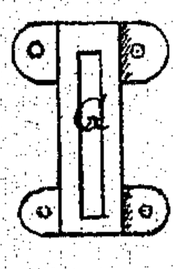


Fig 5.

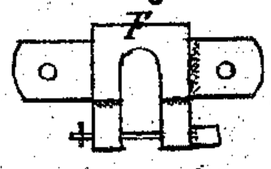


Fig 6.

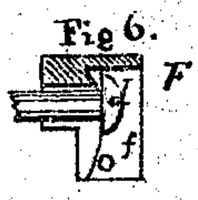
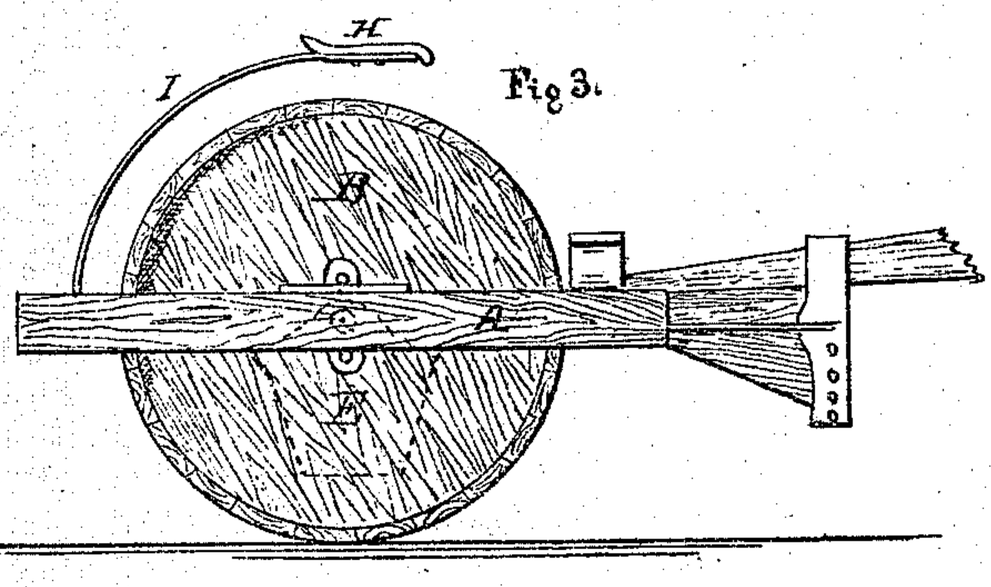


Fig 3.



Witnesses :
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UNITED STATES PATENT OFFICE.

WILLIAM W. ANDREW, OF LA PORTE, INDIANA.

IMPROVEMENT IN LAND-ROLLERS.

Specification forming part of Letters Patent No. 119,294, dated September 26, 1871; antedated September 22, 1871.

To all whom it may concern:

Be it known that I, WILLIAM W. ANDREW, of La Porte, in the county of La Porte and State of Indiana, have invented certain Improvements in Land-Rollers; of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, which, together with the letters and figures of reference marked thereon, form part of this specification, and in which—

Figure 1 is a top or plan view of my improved land-roller. Fig. 2 is a transverse vertical central section of Fig. 1. Fig. 3 is an end view or elevation of Fig. 1. Fig. 4 is an enlarged view of the slotted bearing of the inner end of the roller-shafts detached. Fig. 5 is an enlarged view of the beveled bearing of the outer end of the roller-shafts detached. Fig. 6 is a central vertical section of Fig. 5, with the button-head shaft or journal in place.

Like letters of reference made use of in the several figures indicate like parts.

To enable those skilled in the art to make and use my invention, I will proceed to describe the same with particularity, making reference in so doing to the aforesaid drawing.

A is a rectangular frame-work, within which the rollers B are placed. These rollers consist each of a hollow cylinder, having heads or ends C, through the center of which pass the fixed journals D, which journals revolve with the rollers. E are boxes or trays swung upon the journals D in the interior of the rollers, being for the purpose of containing and supporting any additional weight which it may be desired to add to the rollers. This purpose is accomplished by filling the said boxes with sand or stone, or other heavy material. By reason of being swung or pivoted to the journals the said boxes always maintain an upright position, and are not carried round in the revolution of the rollers. By carrying the additional weight in this way rather than upon the frame, or by making the rollers themselves of very heavy material, I am enabled to obviate or distribute the undue proportion of friction upon the bearings at the frame, and am also enabled to save material by making the rollers themselves lighter. The frame A rests upon and is borne by the outer journal D of each roller. The two said outer journals are each provided with a head or button, which I will term the button-head *d*. F are the outer bearings, which are carried upon the end pieces of the frame A, and which rest directly upon the outer journals. Said bearings F, which are represented clearly at Figs. 5 and 6, are made open at the bottom to allow of the frame being placed upon the rollers, and the cavity is enlarged at *f* to admit of the button-head *d*. The inner face of the portion *f* is beveled, as will clearly be seen at Figs. 2 and 6, to admit of a vertical play to the inner ends of the rollers in going over inequalities of the ground. This vertical play is arranged for at the inner bearings G, which are carried upon the central timbers *a* of the frame, by making the said bearings in the form of vertical slots or guides, which will allow the inner journals to play freely up and down to the full extent of said slots. This inner bearing or slotted guide-piece G is shown at Fig. 4 enlarged and detached. As the whole weight of the frame is carried by the outer journals, and, therefore, rest upon the outer ends of the rollers, the said rollers would have a tendency to tip up at the inner ends, being free to move in the slotted bearings G if said tendency were not counterbalanced; and, therefore, to compensate for the weight of the frame at the outer ends of the rollers, I make the inner ends of said rollers the heaviest by one or more additional heads, *c'*, which are calculated to be of sufficient weight to counterpoise the weight of the frame. H is a seat for the driver, supported by the curved spring I, which is fitted into the support or brace J, carried upon the rear timber of the frame. The spring I is pierced with a series of holes to receive a pin which passes through the brace J, whereby the seat may be adjusted to any desired position. The spring being curved to conform to the shape of the rollers allows of the seat being brought forward to a convenient position for the driver.

Having thus fully described my invention, I will proceed to specify what I claim and desire to secure by Letters Patent—

1. The combination of the hollow roller B, journal or journals D, and swinging weight E, for the purposes and substantially as specified and shown.

2. The employment of the false or additional heads *c'*, in the connection specified, to compensate the weight of the frame, substantially as specified and shown.

WILLIAM W. ANDREW.

Witnesses:

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