

(No Model.)

2 Sheets—Sheet 1.

B. A. THOMAS.
LAND ROLLER.

No. 483,242.

Patented Sept. 27, 1892.

Fig. 1.

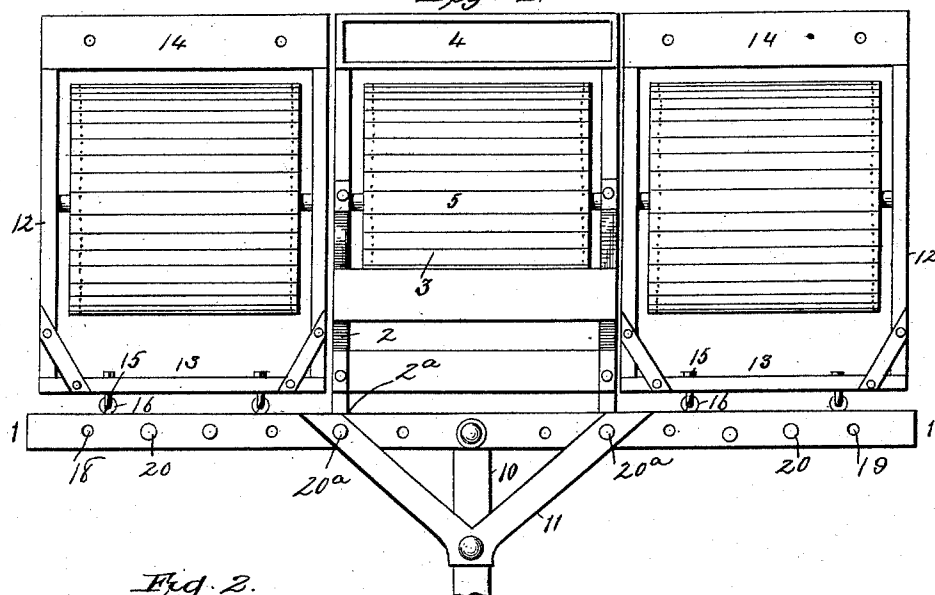


Fig. 2.

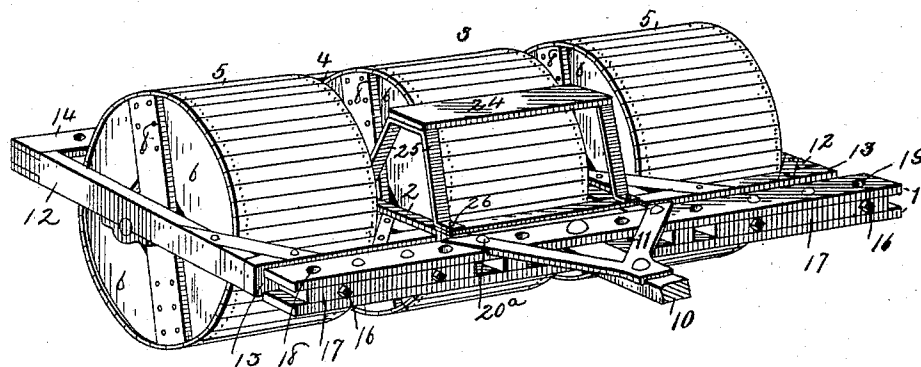
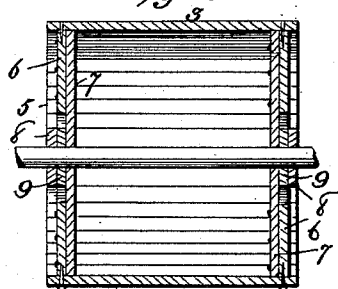


Fig. 6.



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Fig. 3.

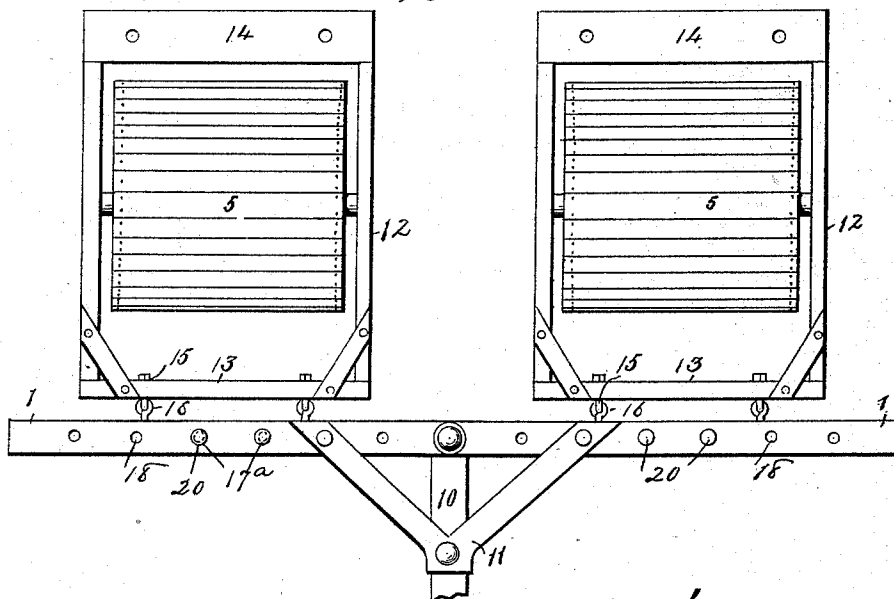


Fig. 4.

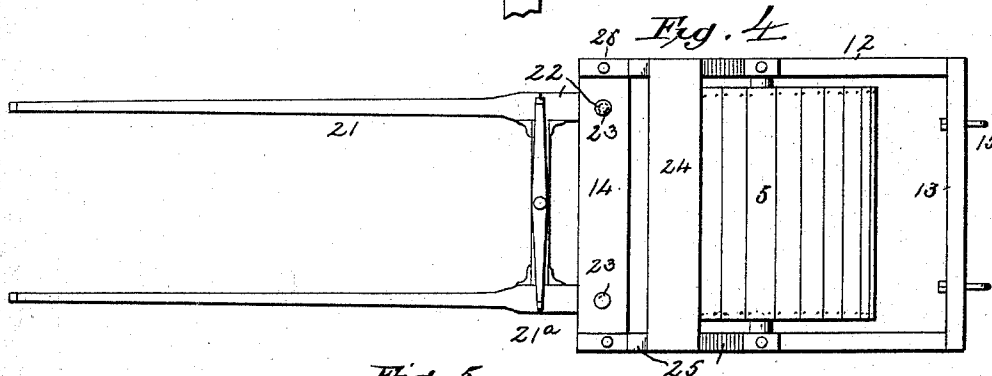
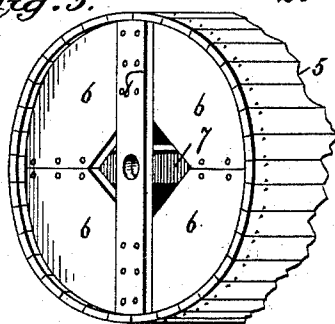


Fig. 5.



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UNITED STATES PATENT OFFICE.

BENJAMIN A. THOMAS, OF BARDWELL, KENTUCKY.

LAND-ROLLER.

SPECIFICATION forming part of Letters Patent No. 483,242, dated September 27, 1892.

Application filed March 17, 1892. Serial No. 425,258. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN A. THOMAS, a citizen of the United States, residing at Bardwell, in the county of Carlisle and State of Kentucky, have invented certain new and useful Improvements in Land-Rollers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention consists in a new and improved land-roller in which are combined several novel and valuable features and which will be hereinafter fully described and claimed.

Referring to the accompanying drawings, Figure 1 is a top plan view of my new and improved land-roller. Fig. 2 is a front perspective view of the same. Fig. 3 is a top plan view showing the machine arranged as a two-roller machine. Fig. 4 illustrates in detail one of the side rollers and its frame. Figs. 5 and 6 illustrate in detail the construction of one of the rollers.

The same numerals of reference indicate corresponding parts in all the figures.

The principal points of advantage of my invention are that it will roll three rows of cotton or corn at the same time, the rollers being adjustable to suit wide or narrow rows. Either roller can move independently of the others to mount a stone or stump without interfering with the other two rollers. The central roller can be removed and the two outer rollers adjusted to roll two rows, and the two outer rollers can be readily converted into two single one-horse rollers to roll the land between two rows or for garden purposes.

Referring to the several parts by their designating numerals, the transverse frame of my land-roller is formed of two parallel bars 11, between which the inner end of the tongue 10 is rigidly bolted, the tongue being further braced by the irons 11. The bars 11 are thus held parallel, leaving an open space between them, as shown in the drawings.

2 indicates the rectangular frame of the middle roller, the shouldered forward ends 2^a

of the side pieces of which are secured between the parallel frame-bars 1 by the removable bolts 20^a, having nuts on their lower threaded ends. In this removable middle frame is mounted a roller 3, while on the rear end of the frame a box 4 is mounted to hold a suitable weight to balance the weight of the tongue and front frame.

The three rollers used are all of the same construction and are formed each of a series of bars or staves 5, the ends of which are bolted to the roller-heads, which are formed each of four segments 6, which are bolted to two cross-pieces 7 8, the cross-piece 7 fitting on the inner and the cross-piece 8 on the outside of the segment, as shown. The axle of the roller passes centrally through the cross-bars and the block 9 placed between them, and it will thus be seen that by this arrangement of the cross-pieces the segments will be firmly braced both from the inner and outer sides.

The frame of each of the outer rollers is formed of two solid side bars 12 and a front cross-bar 13, and the rear ends of the side bars 12 are recessed on the upper and lower sides, and flat cross-pieces 14 are bolted at their ends to said recessed ends, forming an open transverse frame at the rear end of the roller-frame. In the front cross-bar of each side roller-frame are secured two hooks 15, which are engaged with hooks or staples 16, mounted in the rear side of the adjusting-bars 17.

In the parallel bars 1 to each side of the central frame 2 is formed the series of registering openings 18. The adjusting-bars 17 are formed with two openings 17^a, arranged to register with the openings in the cross-bars 1, and are of such size that they will fit in between the parallel frame-bars 1, where they are held in position by screw-bolts 20. It will be seen that by removing these bolts the adjusting-bars 17 can be moved between the parallel frame-bars 11 to increase or lessen the space between the rollers to suit wide or narrow rows, the bolts 20 being replaced in the registering openings 18 at the desired point after the bars 17 have been adjusted. It will be seen that the screw-bolts 20 not

only hold the adjustable roller-frames in position, but also connect the open parallel bars 1 together.

It will be seen that by withdrawing the bolts 20^a the rigid central frame 2 can be detached and the outer roller-frames adjusted or moved in nearer to each other, thus transforming the machine into a two-roller machine, as shown in Fig. 3 of the drawings, and the space between these two rollers can be regulated to any desired extent by moving the adjusting-bars 17 between the parallel frame-bars 1.

21 indicates shafts the rear ends of which are flattened and formed with the apertures 22.

23 indicate two bolts, which are arranged in the open frames 14 at the rear end of each outer roller, and when desired these bolts can be withdrawn and the flattened ends 21^a of the shafts inserted in the open frames 14 when the bolts are inserted through the frames and the ends of the shafts, when by disconnecting the hooks 15 at the front end of the roller-frame the roller can be withdrawn to be used as a single roller for working between the rows or for garden purposes.

The seat 24 is mounted on frame-pieces 25, and by withdrawing these bolts, which are secured by nuts on their lower ends, the seat can be moved and secured on the frame of one of the side rollers at the point 26 when the side roller is to be detached and used alone.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of my new and improved land-roller will be readily understood. It will be seen that my invention will roll three rows of corn or cotton at the same time, the team walking between the rows, the machine being thus used when the corn or cotton has been first planted, and it will be seen that the rollers can be set or adjusted to suit either wide or narrow rows, or the middle roller can be removed and the outer rollers adjusted, as described, to change it to a two-roller machine; also, when the corn or cotton gets too high to be thus rolled the two outside rollers can be detached and used between the rows as two single rollers. Either roller can mount or pass over a stump, stone, or other obstruction without interfering with either of the other two. The rollers and the entire machine can of course be made of any desired size or weight.

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

1. In a land-roller, the rollers formed of the transverse staves 5 and the ends or heads consisting each of the four segments 6, all arranged in the same vertical plane with their beveled ends in contact, and the cross-pieces 7 8, crossing each other at right angles and arranged one on the inner and one on the outer side of the four segments, with their ends bolted to and connecting the ends of the segments, substantially as set forth.

2. In a land-roller, the combination of the forward transverse frame formed of the two parallel bars 1, having the open space between them and formed with the registering openings 18, the central rigid frame secured between the parallel bars and having a roller mounted in it, the two side frames having the rollers mounted in them and having the hooks 15 in their front cross-bars, the adjusting-bars 17, formed with the openings 17^a and having the projecting staples 16, and the retaining and securing screw-bolts 20, substantially as set forth.

3. The combination of the two parallel transverse bars 1 1, having the inner end of the tongue secured between them and formed with the series of openings 18, the central rigid frame 2, having a roller mounted in it and having its forward end removably secured between the parallel bars 1 by the bolts 20^a, the two side frames having the rollers mounted in them and having the hooks 15 in their front cross-bars, the adjusting-bars 17, formed with the openings 17^a and having the projecting staples 16, and the retaining and securing screw-bolts 20, substantially as set forth.

4. The combination, in a land-roller, of the transverse forward frame, the central rigid frame having a roller mounted in it, the two outer frames connected by the hooks at their ends, with the adjusting-bars 17, having the rollers journaled in them and having the open frames 14 provided with the bolts 23 at their rear ends and adapted to receive the ends of a pair of shafts, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

BENJAMIN A. THOMAS.

Witnesses:

M. T. SHELBOURNE,
ISAAC E. PRICE.