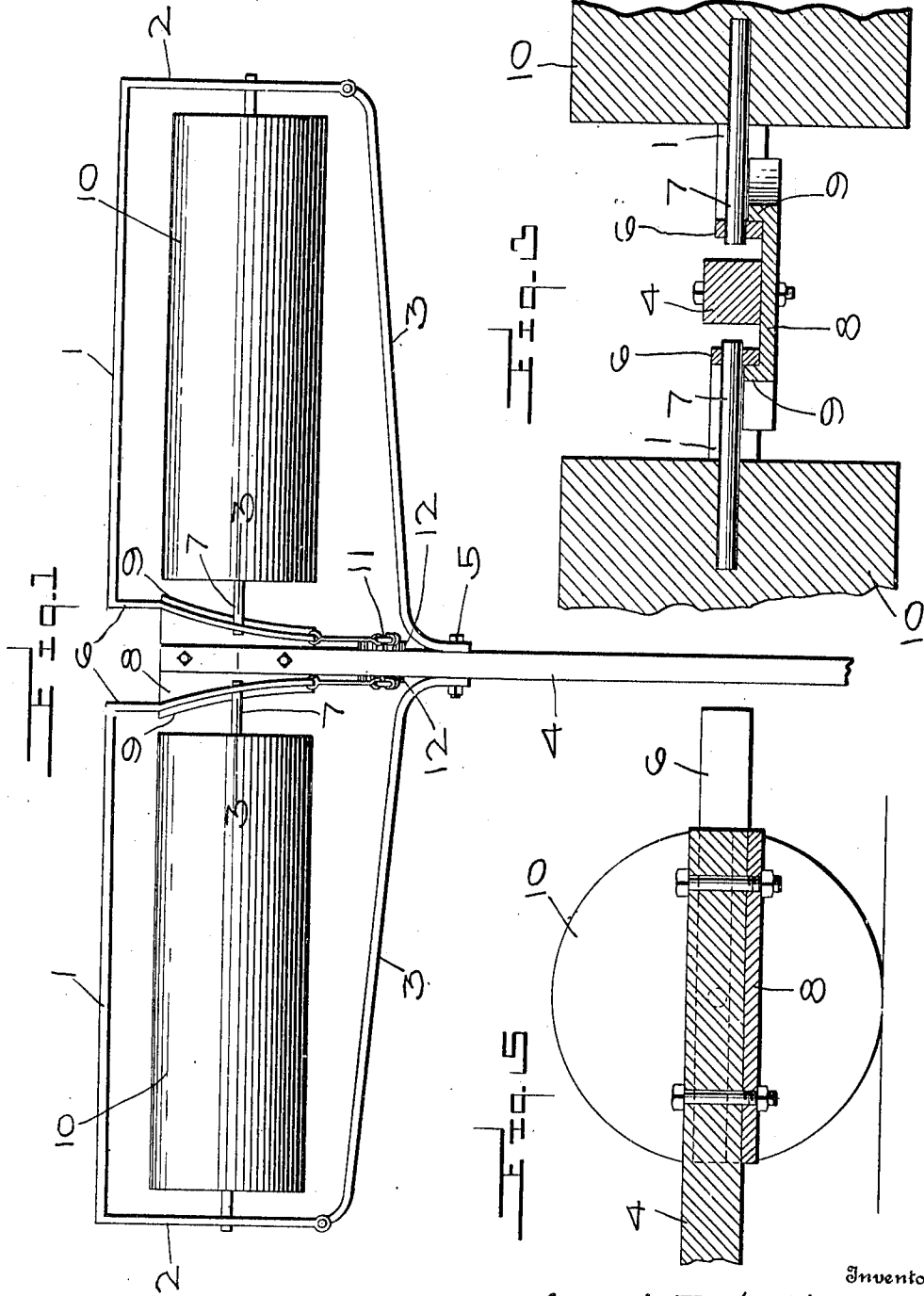


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A. H. SMITHSON.  
LAND ROLLER.  
APPLICATION FILED JULY 15, 1909.

Patented Feb. 22, 1910.

2 SHEETS—SHEET 1.



Witnesses

*E. P. Lusby*  
*M. L. Lowe*

Inventor

*Ammi H. Smithson*

*By Woodward & Chandler*

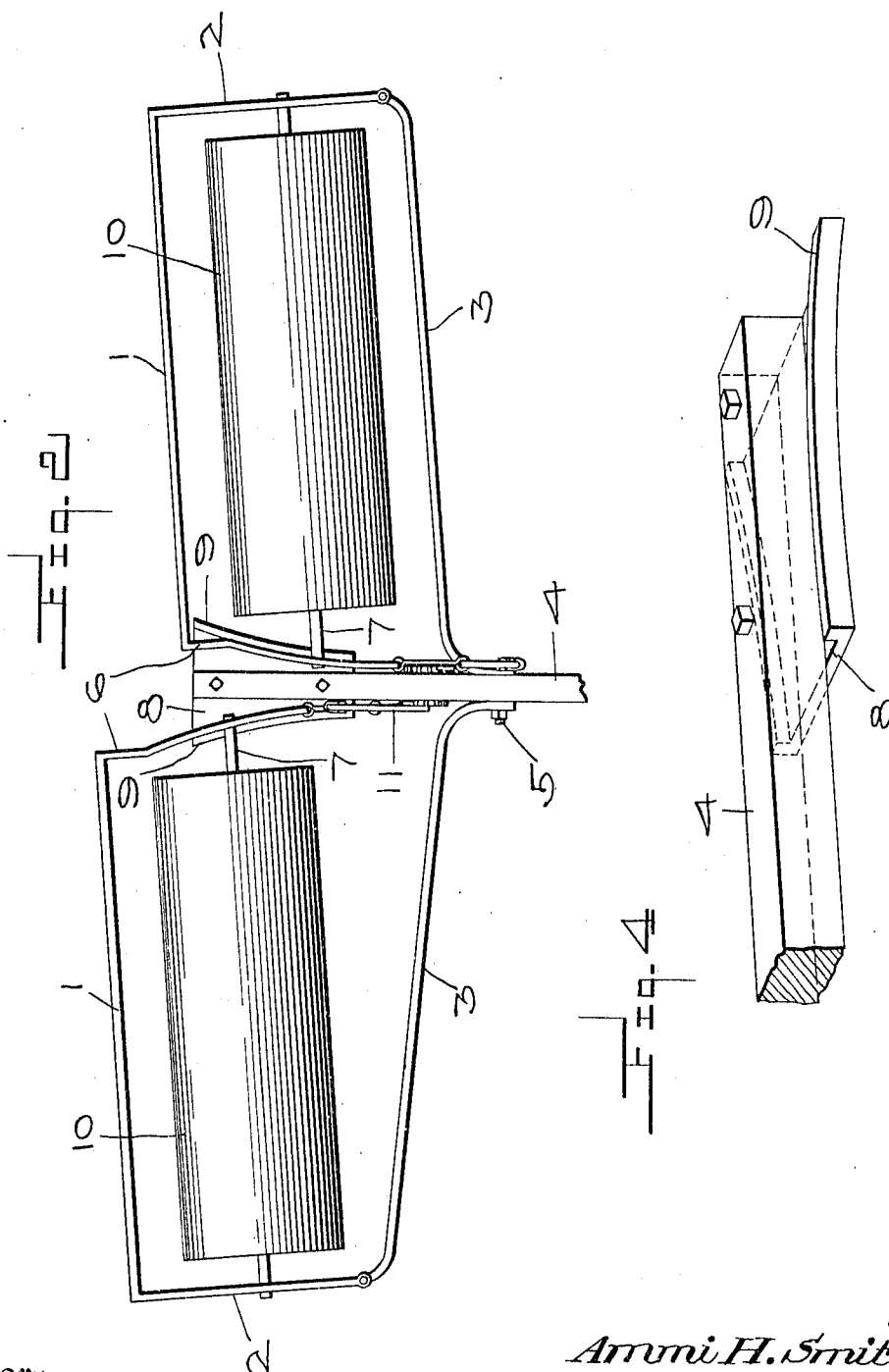
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Witnesses

*Ed. R. Lusby*  
*M. L. Lowe*

Inventor

*Amos H. Smithson*

*By Woodward & Chandler*

Attorneys

# UNITED STATES PATENT OFFICE.

AMMI H. SMITHSON, OF PROSPECT, OHIO.

## LAND-ROLLER.

950,412.

Specification of Letters Patent. Patented Feb. 22, 1910.

Application filed July 15, 1909. Serial No. 507,704.

*To all whom it may concern:*

Be it known that I, AMMI H. SMITHSON, a citizen of the United States, residing at Prospect, in the county of Marion and State of Ohio, have invented certain new and useful Improvements in Land-Rollers, of which the following is a specification.

This invention relates to new and useful improvements in land rollers, and has for its object to provide a machine of this character wherein the rollers are mounted in a frame which is so constructed that the rollers may readily be adjusted to any desired angle in said frame, whereby better results may be attained.

Another object is to provide a machine wherein the rollers may be readily shifted to such a position that the machine may be easily turned with but little effort on the part of the team.

A further object is to provide a new and novel means of mounting for the opposed ends of the roller shafts, whereby a suitable guide will be provided for the same when it is desired to shift the position of the rollers.

With these and other objects in view, the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described and particularly pointed out in the appended claims, it being understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a part of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a top plan view of my improved land roller, the parts being shown in their normal position. Fig. 2 is a similar view, the roller being shown disposed at an angle to the draft bar and in parallelism with each other. Fig. 3 is an enlarged detail section on the line 3—3 of Fig. 1, and Fig. 4 is a detail view of the inner end of the tongue. Fig. 5 is a longitudinal section through the tongue and supporting plate.

Referring to the drawings, 1 indicates the rear horizontal bar of the supporting frame, and 2 the end members thereof. To the forward extremities of the end members 2 are pivotally connected the ends of the front horizontally extending bars 3. These

bars are somewhat curved in plan and are secured to either side of the tongue 4 by means of a suitable bolt 5. The rear bars 1 are formed with the opposed angular ends which are disposed substantially in the center of the frame, and have their extremities curved in reverse directions as at 6, to provide suitable bearings for one end of the roller shafts 7. The other ends of the roller shafts are secured upon the ends 2 of the frame. The rear end of the tongue 4 is provided upon the bottom thereof with a plate 8, the edges of which are flanged as at 9, and are slightly arcuate in plan so as to provide a guide for the arcuate ends of the bars 1. The ends 6 of the bars 1 are adapted to have sliding contact upon the plate 8 when it is desired to adjust the rollers within the frame. The rollers 10 are mounted upon the shafts 7 and are adapted to contact at all times with the surface of the ground whereby the same will be firmly pressed and leveled.

In operation when it is desired to turn the machine, one of the levers 11, which are secured to the forward ends of the arcuate portions 6 of the rear bars 1, is thrown backward until the roller 10 assumes the desired position, and the other of the levers is drawn forward until the rollers are disposed in parallelism with each other. The levers 11 are held in their adjusted positions by suitable racks 12 secured to the sides of the tongue 4. The rollers are now in position at an angle to the bars 3 and the tongue 4, and the machine may be readily turned with but little effort on the part of the draft team. It will also be seen that the rollers may be disposed at an angle to each other, when there will be a sliding as well as a rotary contact of the rollers with the ground, thus producing much better results than have heretofore been procured by machines of this class. The guide flanges 9 upon the plate 8 which is secured to the tongue will always insure the correct positioning of the rollers in relation to each other and to the frame, and will also greatly assist in keeping the entire length of the rollers in contact with the surface of the ground.

From the foregoing it will be seen that I have provided a machine which is simply and inexpensively constructed and in which the results attained thereby are such that the turning of the machine and the proper operation of the same are greatly facilitated.

The efforts of the draft team are greatly lessened by my improved construction and the ease of its operation and its general utility combine to produce a highly serviceable and efficient machine.

The parts may all be simply and cheaply manufactured and the bearings thereof can be renewed when the same become worn. The frame would preferably be constructed of sheet metal, which would greatly cheapen the manufacture of this class of machines without materially lessening the strength or the serviceable qualities of the same.

One of the principal advantages of this device consists in its adaptability to be directed laterally during its movement without the turning of the draft means.

What is claimed is:

1. A machine of the character described, comprising two frames having their extremities pivoted to the ends of bars, said bars being secured to the sides of a tongue centrally disposed between said frames, the inner ends of said frames being arcuate in reverse directions and mounted upon the inner end of said tongue, rollers rotatably mounted in each of said frames, and levers secured to the arcuate opposed ends of said frames to angularly adjust the same.

2. A machine of the character described, comprising two frames having pivots at one end of the front bars of said frames, said

bars being secured upon either side of a tongue disposed between the opposed ends of said frames, said ends being arcuate in reverse directions and mounted upon a plate secured to the rear end of said tongue, a flange on the edges of said plate in parallel relation to the opposed ends of said frames, rollers mounted in each of said frames and levers secured to the arcuate ends of said frames to angularly adjust said rollers and frames upon the rear end of said tongue.

3. A machine of the character described, comprising two aligned frames having a tongue positioned between their inner ends, the opposed ends of said frames being laterally projected toward each other, a supporting plate carried by the tongue, the opposed ends of said frames being longitudinally slidable on said plate, a roller rotatably mounted in each of said frames, bars secured to opposite sides of the tongue and extending beyond the outer ends of the rollers, said frames being pivotally connected to the bars, and means for angularly adjusting said frames and rollers with relation to the tongue and to each other.

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

AMMI H. SMITHSON.

Witnesses:

M. E. FLEMING,  
EDWARD MAAG.