No. 709,729. Patented Sept. 23, 1902.

# A. YOOST.

## LAND ROLLER.

(Application filed June 26, 1902.)

(No Model.)

Fig. 1.

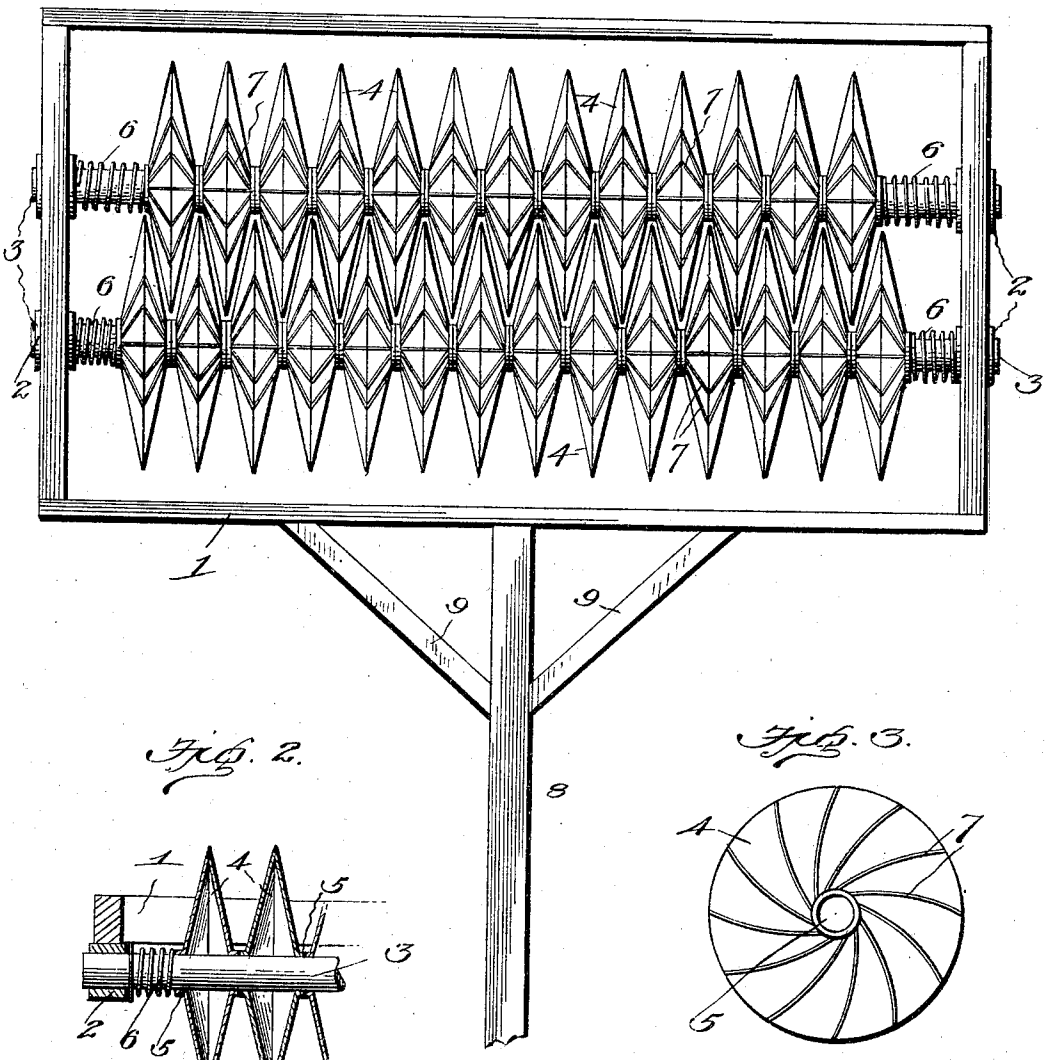



Fig. 2.




Fig. 3.




Witnesses

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# UNITED STATES PATENT OFFICE.

ADOLPH YOOST, OF KANKAKEE, ILLINOIS.

## LAND-ROLLER.

SPECIFICATION forming part of Letters Patent No. 709,729, dated September 23, 1902.

Application filed June 26, 1902. Serial No. 113,293. (No model.)

*To all whom it may concern:*

Be it known that I, ADOLPH YOOST, a citizen of the United States, residing at Kankakee, in the county of Kankakee and State of Illinois, 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.

This invention relates to improvements in land-rollers and clod-crushers.

The object of the invention is to construct a machine of this character in which provision is made for a certain amount of lateral play to be given the rollers in order to allow the passage of small stones or other obstructions between the disks to prevent breakage of the parts.

With the above and other objects in view, which will readily appear as the nature of the invention is better understood, said invention consists in certain novel features of construction and combination and arrangement of parts, which will be hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view of the machine. Fig. 2 is a vertical longitudinal section through one end of a roller, its axle, and bearing-box. Fig. 3 is a side view of one of the disks.

In the drawings, 1 denotes a frame, preferably rectangular in form. 2 denotes boxes or bearings fixed to the end pieces of said frame and in which are mounted two or more axles 3, which may be of any suitable material, though preferably of tough wood.

4 denotes a series of hollow rollers or cutters loosely arranged on the axles 3, the hub of each consecutive roller being in contact with the one next to it.

The rollers 4 are each formed of two circular disks having a central flanged bearing-opening 5, and from which opening the disks converge toward their rims to form a sharp cutting edge or periphery. The rollers are arranged upon their respective axles so that the rollers on one axle will travel between the two adjacent rollers of the other axle, as shown in Fig. 1 of the drawings. Around the ends of both axles are coiled springs 6, which are interposed between the end rollers on each axle and their respective bearing-supports, the office of the springs 6 being to normally hold the rollers in close alinement and yielding contact. The sides of the rollers are provided with spirally-arranged corrugations 7, which are adapted to crush and pulverize the soil.

8 denotes the ordinary draft-tongue, suitably braced to the frame by braces 9.

When in use, it will be seen that should a stone or other obstruction be caught up between any of the rollers they will by reason of the cushion-springs at the ends of the axles be permitted to yield and allow the obstruction to pass between them.

From the foregoing description, taken in connection with the accompanying drawings, it is thought that the construction, mode of operation, and advantages of my improved land-roller and clod-crusher will be readily apparent without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. In a land-roller, the combination of a frame, axles mounted in bearings on said frame, rollers independently mounted to rotate on said axles, the rollers on one axle being adapted to intermesh with the rollers on the other axle, and means whereby the said rollers on each axle are held in yielding contact with the adjacent rollers on said axle, substantially as described.

2. In a land-roller, the combination with a frame, of axles mounted in bearings on said frame, rollers independently mounted to rotate on said axles, the rollers on one axle being adapted to intermesh with the rollers on the other axle, springs coiled around each end of said axles, between the end rollers and the bearings of the axles, to hold said rollers in yielding contact, substantially as and for the purpose described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ADOLPH YOOST.

Witnesses:
WM. F. C. WILLERT,
ALBERT SCHNEIDER.