

(No Model.)

W. WILDMAN.
LAND ROLLER.

No. 602,968.

Patented Apr. 26, 1898.

Fig. 1.

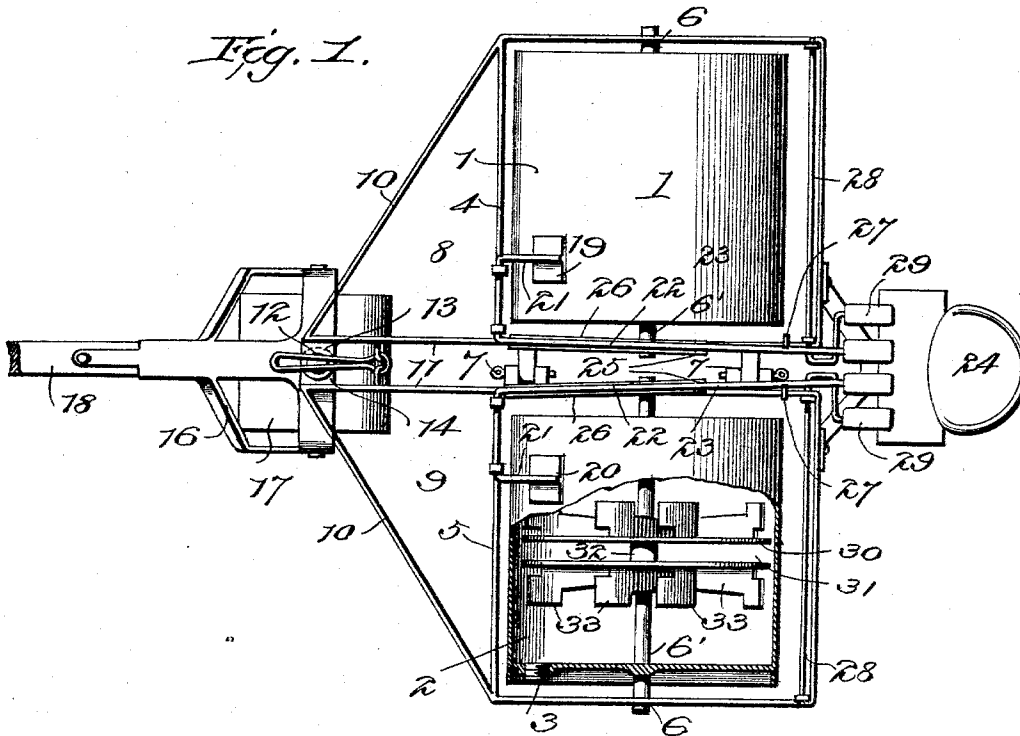
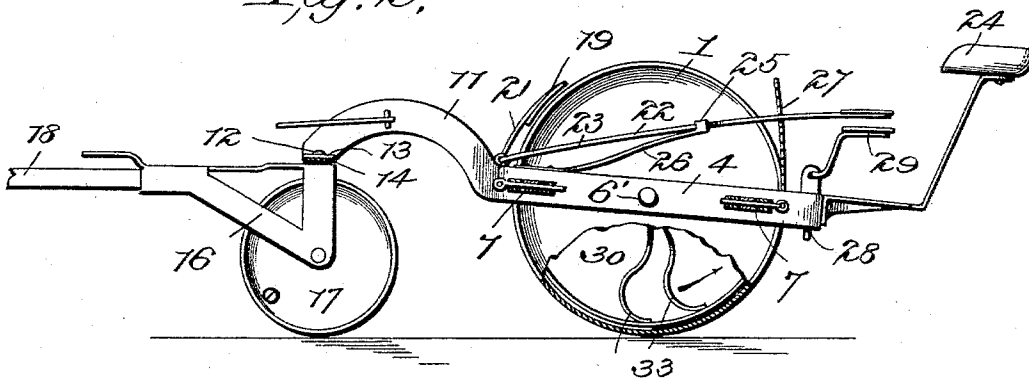


Fig. 2.



Witnesses
H. J. [Signature]
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WILLIAM WILDMAN, OF SPADRA, CALIFORNIA.

LAND-ROLLER.

SPECIFICATION forming part of Letters Patent No. 602,968, dated April 26, 1898.

Application filed August 9, 1897. Serial No. 647,540. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WILDMAN, a citizen of the United States, residing at Spadra, in the county of Los Angeles and State of California, 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 drawing, and to the figures of reference marked thereon, which forms a part of this specification.

The purpose of this invention is to improve upon those land and road rollers consisting of hollow cylinders adapted to hold water to give them weight.

To this end my invention consists in the peculiar features and combinations of parts more fully described hereinafter and pointed out in the claims.

The accompanying drawing represents a top view of my invention complete, in which the reference-numerals 1 and 2 denote a pair of hollow rolling cylinders having openings 3 in their outer ends, through which the fluid is to be poured.

4 and 5 represent rectangular frames in which the rollers are journaled, and 6 the journals of horizontal shafts 6', passing through the center of the rollers. A motor-wheel 30 is fixed on the shaft 6' and at a point midway between the ends of the latter. This motor-wheel consists of two circular disks placed back to back, with a narrow space 31 intervening. They are connected together by a tube 32, which fits on the shaft. The outer faces of the disks are each provided with fins or blades 33, radiating from the axis of the wheel. The fins have their edges fixed to revolve with the disks and are widened at their outer ends and curved forwardly to form scoops, which engage and lift the water within the cylinder as the shaft revolves to throw it forward. This action assists the wheel forward and also serves to equalize the action of the liquid from end to end within the cylinder. Where the shafts 6' pass through the ends of the cylinders, the latter are reinforced, and

the shafts are fastened by a water-tight joint in order that no leakage shall occur at these points.

The contiguous ends of both frames are hinged to permit the rollers and frames to rise and fall in relation to each other by means of separable hinges 7. By thus hinging the rollers they will be free to accommodate themselves to the undulations of the ground without bringing undue strain upon the parts to pass through narrower spaces and to be rolled singly over frail structures, such as bridges. The frames 4 and 5 are each provided with triangular extensions 8 and 9, composed of the diagonal bars 10 and parallel straight bars 11. The forward extremities of the extensions are connected by a pivot-pin 12, which passes through holes in the overlapping lugs 13 and 14, and its lower end is secured to the top of a branching frame 16, in which travels a smaller hollow roller 17. This roller 17 serves to roll the land left untouched between the larger rollers, which follow behind, and it also acts as a guide-wheel. The three rollers have the general outline of a triangle.

The front end of the frame 16 is attached to a draft-tongue 18.

19 and 20 represent a pair of brake-shoes on the short arms 21 of a pair of foot-levers 22, fulcrumed on the fore end of the frames. The longer arm 23 of the levers projects backward to a point within reach of the feet of the operator, who sits on a seat 24 in the rear. These long arms are supported between lugs 25 on the free ends of rearwardly-projecting flat springs 26, while catches 27 project upward to catch and hold the arms down. Scrapers 28 are pivoted in the rear portion of the frame and are each provided with foot-levers 29 within reach of the foot of the operator, whereby the rollers can be freed from accumulations when necessary. In freezing weather the rollers should be filled with a non-congealable fluid, such as oil, instead of water.

To prevent indenting the rollers, they are covered with a heavy covering of wood.

Thus constructed it will be seen that the hinged frames will freely permit the rollers to rise and fall in relation to each other and

accommodate themselves to variations and undulations in the road or land under treatment, and should it become necessary to separate the rollers it can easily be done by pulling out the pins of the hinges and the pivot-pin over the guide-roller 17. In the event of descending a grade the brakes can be quickly and conveniently applied to check the speed.

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

1. In a land-roller composed of one or more hollow cylinders adapted to be filled with liquid, in combination with a motor-wheel located within the cylinder, substantially as described.

2. In a land-roller, a hollow cylinder provided with a central shaft fixed to revolve therewith, in combination with a motor-wheel fixed on the shaft intermediate of its ends, said wheel being provided with forwardly-

curved fins or blades for the purposes substantially as described.

3. In a land-roller, the combination with a hollow cylinder, of a central shaft fixed within a cylinder, a motor-wheel fixed to revolve with the shaft and cylinder, said wheel being composed of a pair of separate circular disks having on their outer faces fins or blades, substantially as described.

4. In a land-roller, a hollow cylinder adapted to receive a liquid, in combination with a motor-wheel within a cylinder, whereby the level of the liquid is equalized during the revolution of the cylinder, substantially as described.

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

WILLIAM WILDMAN.

Witnesses:

CHARLIE WILDMAN,
W. S. WINTERS.