A. PRESNELL.

LAND ROLLER.

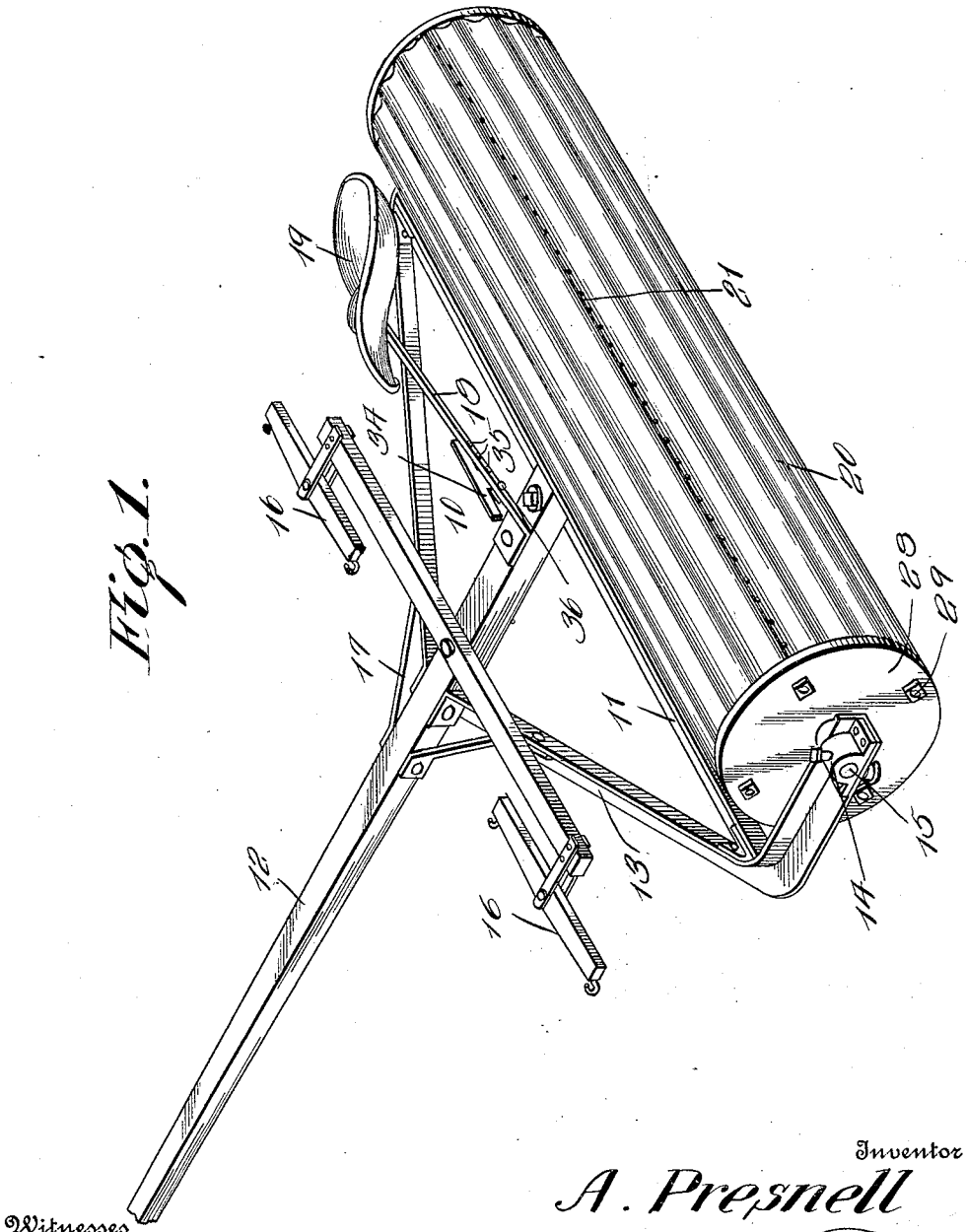
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1,067,677.

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2 SHEETS—SHEET 1.

Fig. 1.



Witnesses

B. F. Barr

J. L. Burch.

Inventor

A. Presnell

By Chandlee & Chandlee

Attorneys

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

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2 SHEETS—SHEET 2.

Fig. 2.

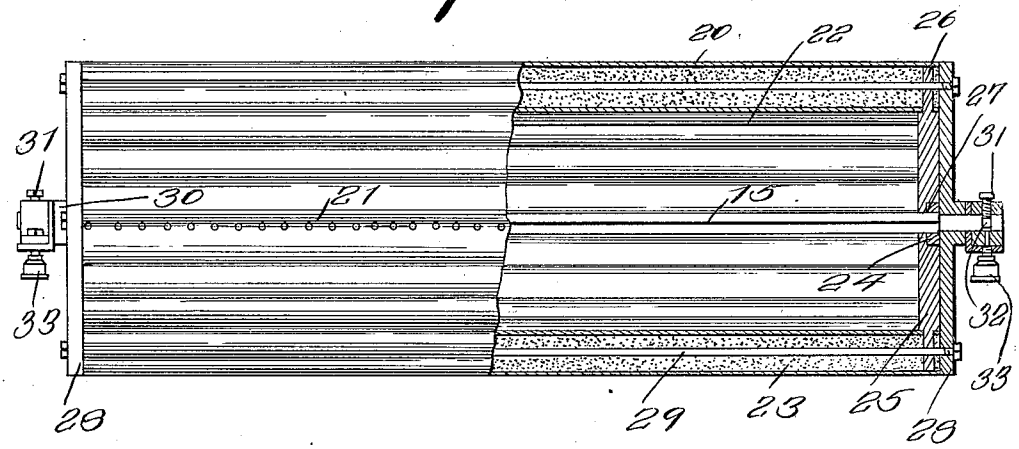


Fig. 3.

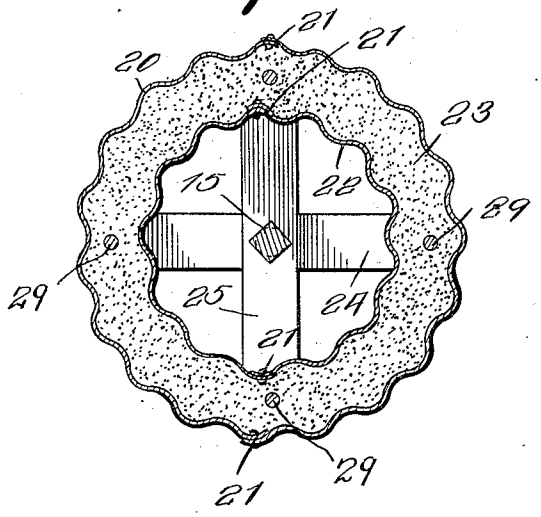
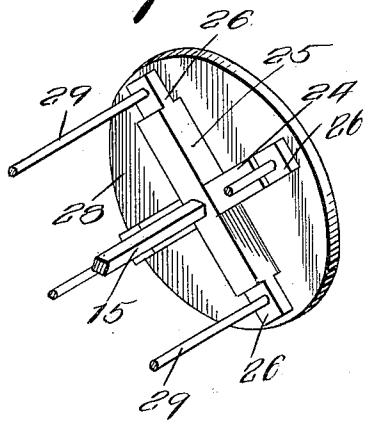


Fig. 4.



Witnesses

B. B. Brann

J. E. Burch.

Inventor

A. Presnell

By Bowles & Bowles

Attorneys.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

AMOS PRESNELL, OF SCOBEY, MONTANA.

LAND-ROLLER.

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Application filed May 11, 1912. Serial No. 696,689.

To all whom it may concern:

Be it known that I, AMOS PRESNELL, a citizen of the United States, residing at Scobey, in the county of Valley, State of Montana, have invented certain new and useful Improvements in Land-Rollers; and I do hereby 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 new and useful improvements in land rollers and the primary object of the invention is to provide a roller of this character formed of a plurality of knock-down sections of sheet metal comprising in part, an inner and outer casing adapted to be filled with concrete for producing a heavy and efficiently operable roller.

Another object of the invention is to provide a land roller comprising inner and outer casings which are held apart equidistantly of their circumferences and braced in a novel manner whereby when concrete is filled between the said casings, the concrete wall thus formed will be of equal thickness throughout the lengths of the roller and thereby provide even pressure upon all parts of the ground surface traveled over as well as facilitating the supporting of the roller for rotation.

With the above and other objects in view, the invention consists of certain other combinations and arrangements of parts as will be hereinafter more fully described, claimed and illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of my improved land roller. Fig. 2 is an elevational view of the roller and a portion of the frame, the roller being shown partly in section to illustrate the construction of the casing and the manner of journaling the roller in the frame. Fig. 3 is a cross sectional view of the roller. Fig. 4 is a detail perspective view of one of the end plates of the roller and the connecting rods therefor, together with the cross members for bracing the inner casing and securing the roller to the axle.

Referring more specifically to the drawings, wherein like reference characters designate similar parts throughout the several views, 10 indicates the frame of the roller which comprises a front cross beam 11 from which a draft tongue 12 extends, the said tongue being braced to the cross beam 11 by an angle beam 13 which has its end portions extending rearwardly to provide journal bearings 14 receiving the ends of an axle 15. The draft tongue 12 carries suitable draft attaching means or swingle trees 16 and is further braced to the angle beam 13 as shown at 17, thereby providing a very durable and rigid structure while at the rear end of the tongue 12 a standard 18 is secured and carries the driver's seat 19 over the roller for securing increased heft.

The roller proper comprises an outer casing 20 which is constructed of two parts or sections of semi-circular form and provided with longitudinal corrugations of suitable depth to prevent the collection of dirt within the grooves, this latter function being primarily attributed to the longitudinal corrugating of the roller in contradistinction to the usual manner of transversely corrugating the roller and the fact that the ridges are convexly arcuate and the depressions concavely arcuate. The ends of the sections forming the outer casing are disposed in overlapped relation as indicated by the numeral 21 and suitably secured or riveted together so that the joints will be in the form of a continuous surface, this being due to the fact that the casings are of corrugated sheet metal which can be readily shaped as specified and compactly secured together for shipment.

An inner casing 22 of similar construction but of smaller diameter than the outer casing, is mounted within the outer casing and spaced equi-distantly therefrom throughout its circumference and in practice, these casings are secured in such relation and concrete 23 is filled between the same to form a solid and heavy compression wall. In order to thus secure the casings together, a pair of cross members 24 and 25 are mounted at each end of the roller, each of said cross members having their ends formed with reduced portions 26 engaged through openings in the inner casing near its ends and embedded in the concrete filling between the casings while each cross member has a recess or cut away portion 27 receiving the squared central portion of the axle 15 so that the roller will rotate therewith and the ends of the roller will also be braced and held in shape. End plates 28 are mounted upon the extremities of the axle 15 outwardly of the ends of the casing

and are connected by longitudinal rods 29, preferably four (4) in number, said rods extending through the cross members or braces 24 and 25 and are thereby held against radial movement. The rods 29 also extend between the inner and outer casings and are thus molded in the concrete filling 23 when the latter is filled between the casings so that the rods thus form reinforcing means for the concrete wall as well as to secure the end plates 28 against the ends of the roller and each of said plates are further provided with outwardly extending sleeve portions 30 rotatably engaging the circular end portions of the axle 15 and held by set screws 31 against outward displacement said set screws operating within peripheral grooves 32 at each end of the axle. Oil cups 33 are also mounted in the bearing members 14 for lubricating the ends of the axle. A foot rest 34 is also vertically adjustable in the openings 35 in the standard 18 and may be clamped by bolts 36 to decrease or increase the distance between the seat and the foot rest to suit different operators.

From the foregoing description, in connection with the accompanying drawings it will be apparent that I have provided a very durable but simple form of land roller, especial advantages being the novel construction of the roller and the fact that it is formed of inner and outer casings whereby the parts of the roller and frame may be shipped in compact form and readily set up, after which the space between the casings may be filled with concrete for use.

I claim:

1. A land roller comprising a frame, an axle rotatably engaged in the frame and a roller carried by said axle, said roller embodying inner and outer casings spaced apart, cross members rigid with the axle and having their extremities extending through the inner casing to hold the same from inward displacement and engaged with the outer casing to hold it equi-distantly spaced from the inner casing.

2. The combination with a frame structure having side journal bearings; of an axle having its ends rotatably engaged in said bearings, end plates carried by the axle, a pair of spaced casings having longitudinal corrugations, each casing comprising two sections of semi-circular form secured together at their longitudinal edges, cross members secured to said axle at each end of the roller having reduced end portions engaged through the inner casings and extending to the outer casing and rods connecting said end plates and extending between the casings.

3. A land roller embodying spaced inner and outer casings, end plates closing the ends of the casings, an axle by which the roller is rotatably mounted, cross members adjacent to each end plate and having their extremities extending through the inner casing and abutting the outer casing and bolts connecting the end plates and extending through the cross members, the space between the casings being adapted to contain a weighted filling.

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

AMOS PRESNELL.

Witnesses:
GUSTAV OIE,
SELMER OIE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."