

D. O. MARTIN.
LAND ROLLER.

APPLICATION FILED APR. 15, 1910.

981,446.

Patented Jan. 10, 1911.

2 SHEETS—SHEET 1.

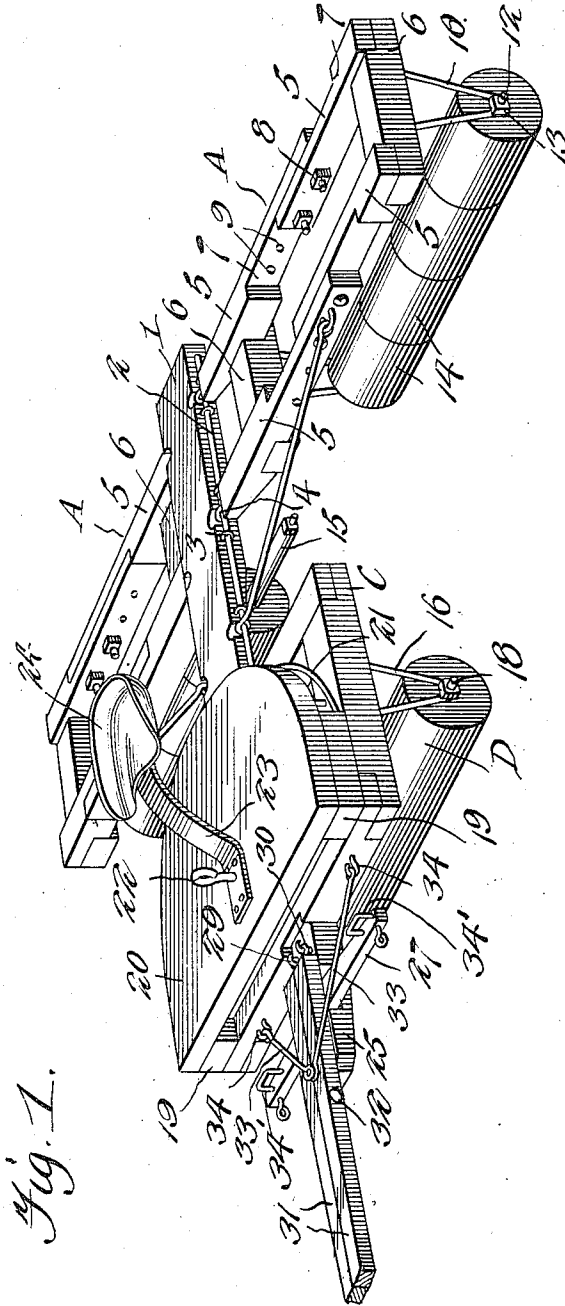


Fig. 1.

Witnesses

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Inventor

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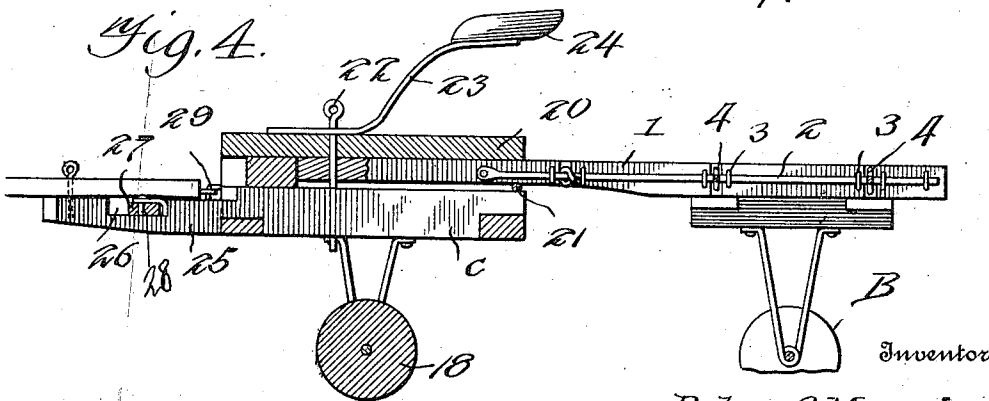
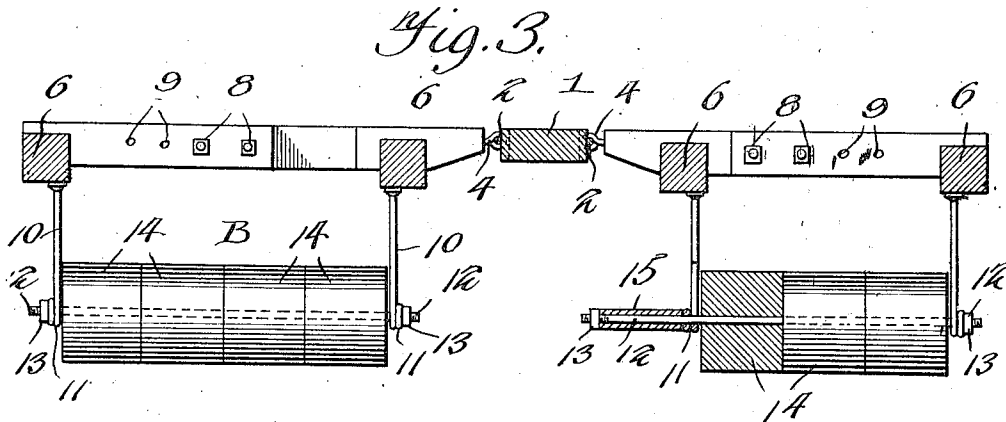
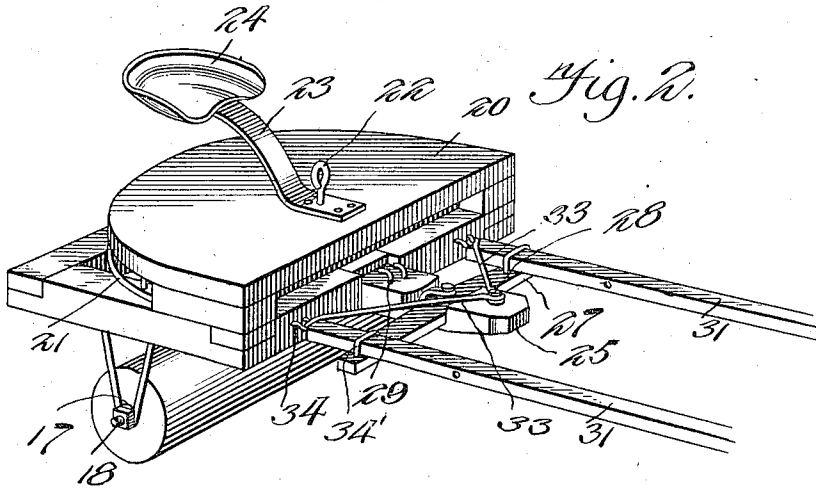
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Witnesses

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UNITED STATES PATENT OFFICE.

DELANO O. MARTIN, OF NEAR BUCHANAN, OHIO.

LAND-ROLLER.

981,446.

Specification of Letters Patent. Patented Jan. 10, 1911.

Application filed April 15, 1910. Serial No. 555,655.

To all whom it may concern:

Be it known that I, DELANO O. MARTIN, a citizen of the United States of America, residing at near Buchanan, in the county of Pike and State of Ohio, have invented new and useful Improvements in Land-Rollers, of which the following is a specification.

This invention relates to land rollers, and the prime object of the invention is to produce a machine of simple and efficient construction comprising a plurality of roller-carrying frames which shall be so connected for relative movement as to cover a comparatively large area and in such a manner that the machine will adapt itself to hillocks and inequalities in the surface of the land.

A further object of the invention is to construct the roller-carrying frames so that rollers of different dimensions may be employed.

A further object of the invention is to so connect the roller-carrying frames that one of said frames may be disconnected for separate and individual use.

Further objects of the invention are to simplify and improve the general construction and operation of a machine of the character outlined above.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be resorted to when desired.

In the drawings,—Figure 1 is a perspective view of a machine constructed in accordance with the invention. Fig. 2 is a perspective view, showing the front roller carrying frame detached for separate use. Fig. 3 is a transverse vertical sectional view partly in elevation of the machine as shown in Fig. 1. Fig. 4 is a longitudinal vertical sectional view of the machine as shown in Fig. 1.

Corresponding parts in the several figures are denoted by like characters of reference.

1 designates a longitudinal center piece or

beam with which roller carrying frames A, A are hingedly connected by suitable means, such as rods 2 engaging eyes or staples 3 and 4 upon the sides of the beam 1 and upon the ends of the frames A, respectively. Each of the frames A is composed of two slidably connected members or portions each comprising side pieces 5 connected together by a cross piece 6, the side pieces 5 being recessed upon their meeting faces, as shown at 7, said recessed portions being overlapped and connected together by fastening members, such as bolts 8 for the passage of which apertures 9 are provided. This construction permits each of the frames to be extended, as shown at the left hand side of Fig. 3, or collapsed, as shown at the right hand side of said figure. The end pieces 6 of each frame are provided with brackets 10 having eyes 11 for the passage of shafts 12 which may be secured by means of nuts 13 threaded upon the ends of said shafts. The rollers B, which are supported for rotation upon the shafts 12, are preferably made up each of a plurality of sections 14 of suitable length. These rollers or roller sections may be constructed in any suitable manner and of any suitable material, such as wood, metal, stone, concrete or the like. When a frame is collapsed, as shown at the right hand side of Fig. 3, a roller section 14 may be removed, and its place may be filled by a tube or sleeve 15, the latter being preferably mounted upon that portion of the shaft which is made to project inwardly through the eye of the bracket depending from the cross piece 6 of the inner frame section which is directly connected with the center beam 1.

C designates an auxiliary frame which is of rectangular form and provided at the ends thereof with depending brackets 16 having eyes 17 for the passage of the rod or shaft 18 upon which the roller, here designated by D, is mounted for rotation. The frame C supports blocks or spacing members 19 upon which a platform 20, preferably of approximately semicircular form, is mounted, said platform being spaced above the frame by the blocks 19. Suitably connected with said blocks is a rearwardly extending arcuate track member 21 serving to support the forward end of the center beam 1 which is mounted upon a pivotal member, such as a pin or pin bolt 22, that extends vertically through the platform 20. The track member

21 thus constitutes a fifth wheel to facilitate the turning of the front frame C with reference to the center beam 1 with which the rear frames are connected. The pin or pin bolt 22 also extends through the seat-supporting arm or bracket 23 which is mounted on top of the platform and which carries a seat 24 for the driver or operator.

The front frame C is provided with a forwardly extending bracket member 25 having a recess 26 wherein the evenner 27 is pivoted upon a pin or hammer bolt 28. The bracket member 25 is provided with hooks 29 for engagement with the eyes 30 upon the rear ends of a pair of shafts or members 31 which may be connected together by screws or bolts 32 to constitute a tongue for the attachment of the draft, said tongue being connected by links or braces 33 with hooks 34 upon the front side of the frame C. The evenner 27 is provided with keepers 34'. When desired, the shafts or members 31 composing the tongue may be disconnected and inserted through the keepers 34', and the eyes 29 at the rear ends of said shafts may be then connected with the hooks 34, as will be seen in Fig. 2 of the drawings.

The roller carried by the front frame C is of such length that it will amply straddle the space between the inner ends of the rollers carried by the rear frames of the device whether such frames be extended or collapsed to admit of the use of longer or shorter rollers, as the case may be. The device when in the condition illustrated in Fig. 1 may be propelled by two horses. Should additional draft be desired, double-trees may be mounted upon the ends of the evenner 27, or the tongue may be separated and adjusted in the manner illustrated in Fig. 2 to admit of the use of three draft animals, the manner of attaching the draft being well understood by those skilled in the art. For light work, the front frame may be disconnected from the center beam 1 by temporarily withdrawing the king bolt 22, and said front roller carrying frame may then be independently used, as will appear by reference to Fig. 2.

From the foregoing description, taken in connection with the drawings hereto annexed, it will be seen that a simple and effi-

cient land roller has been provided, the individual frames of which are connected in such a manner as to be relatively flexible or movable, thus enabling the device to be utilized as a roller and clod crusher upon hilly as well as upon flat and level land. Adjustment may be readily made to regulate the amount of draft required, and the entire construction is simple, durable and efficient for the purpose for which it is provided.

Having thus described the invention, what is claimed as new, is:—

1. In a device of the character described, a roller carrying frame composed of two members comprising side pieces and a cross piece connecting the same, said side pieces having recessed overlapped meeting faces and means adjustably connecting the same, brackets depending from the cross pieces, a shaft supported in said brackets, and a roller supported for rotation upon the shaft, said roller being composed of a plurality of sections.

2. In a device of the character described, an extensible and collapsible roller carrying frame including members having cross pieces provided with depending brackets and a shaft supported by said brackets, a roller composed of a plurality of sections supported for rotation upon the shaft, and a filling member consisting of a sleeve engaging a portion of the shaft not occupied by a roller section.

3. In a device of the character described, a center beam, roller-carrying frames hingedly connected with the sides thereof, an auxiliary roller-carrying frame including a platform supported above the frame, spacing members supporting the platform, an arcuate track member connected with and extending rearwardly from the spacing members, and a king bolt extending through the platform and through the forward end of the center beam, the latter being introduced between the platform and the track member.

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

DELANO O. MARTIN.

Witnesses:

I. Q. MORRIS,
H. H. BROWN.