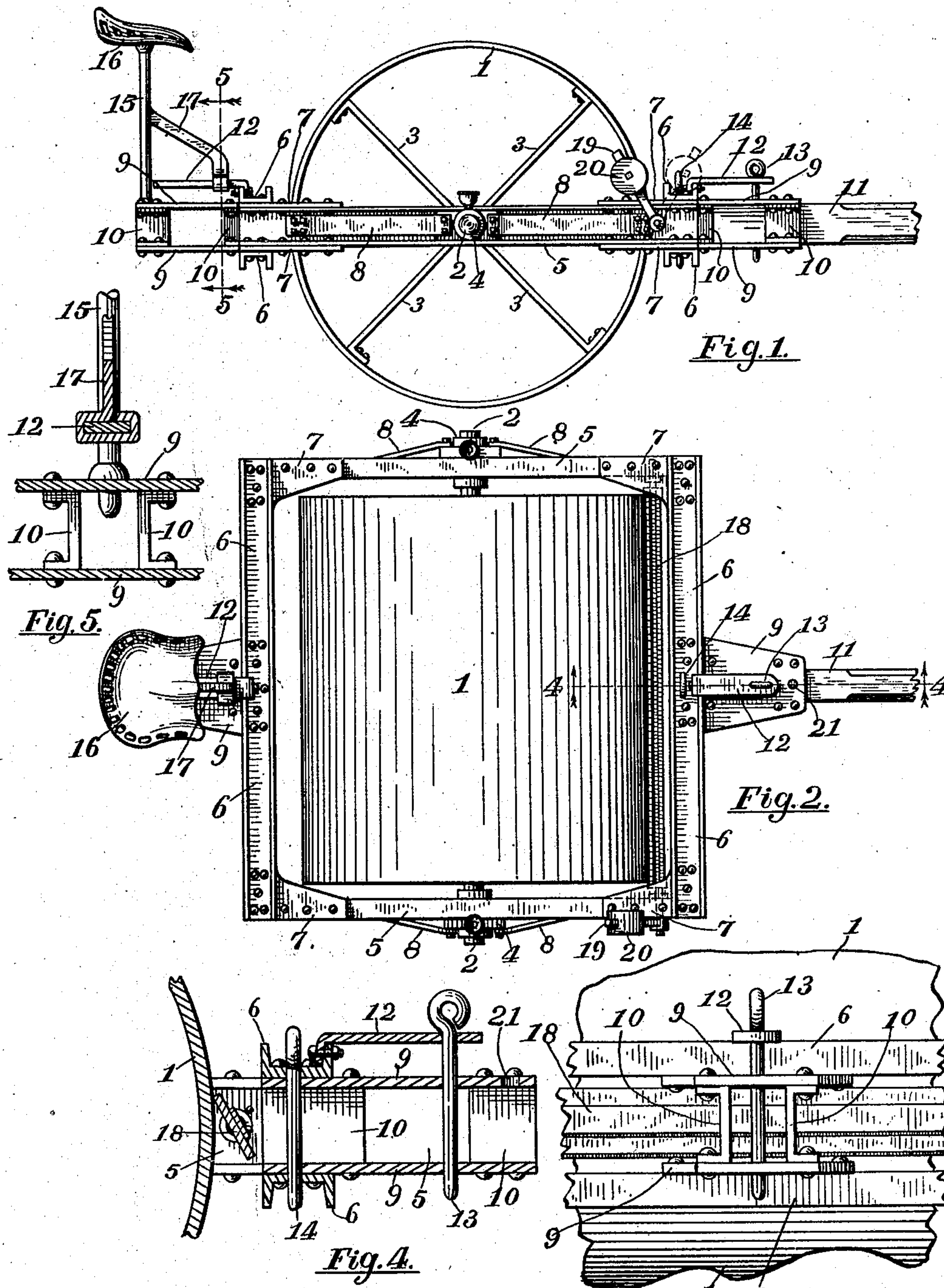


No. 894,430.

PATENTED JULY 28, 1908.

F. L. GAINES.  
LAND ROLLER.

APPLICATION FILED MAR. 14, 1908.



Witnesses  
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Fig. 3. Inventor  
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# UNITED STATES PATENT OFFICE.

FRANKLIN L. GAINES, OF GRAND RAPIDS, MICHIGAN.

## LAND-ROLLER.

No. 894,430.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed March 14, 1908. Serial No. 421,177.

*To all whom it may concern:*

Be it known that I, FRANKLIN L. GAINES, citizen of the United States of America, residing at Grand Rapids, in the county of Kent and State of Michigan, 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.

My invention relates to improvements in land rollers, and its object is to provide a reversible device, an improved frame, and to provide the device with various new and useful features, hereinafter more fully described and particularly pointed out in the claims, reference being had to the accompanying drawings, in which:

Figure 1. is a side elevation of a device embodying my invention; Fig. 2. a plan view of the same; Fig. 3. an enlarged detail in front elevation with the pole removed; Fig. 4. a vertical section of the same on the line 4—4 of Fig. 2; and, Fig. 5. an enlarged detail of the saddle post and mode of attachment of the same.

Like numbers refer to like parts in all of the figures.

The roller proper is made of a sheet metal tubular cylinder 1, provided with a shaft 2 in its axis from which radiate arms 3 attached to the interior of the tube 1 at their outer ends. This roller when so constructed is adapted for use by filling the same with concrete or other analogous material whereby the roller is rendered sufficiently heavy to do its work, but in its commercial form it will be left, as shown in the drawings, without this filling. Surrounding this roller is a frame consisting of channel bars 5 having their channeled sides outward and vertical, forming the ends of the frame, and bars 6 arranged in pairs forming the respective sides of the frame and secured to the end bars 5 by means of angle plates 7 to which the respective side and end bars are riveted. Each pair of side bars are arranged one above and one below the plane of the end bars and with their channeled sides away from each other. At the middle of the end bars 5 are bearings 4 secured thereto in which the shaft 2 is rota-

tive. These bearings are further secured in place by braces 8 extending from the outer side thereof and attached at their respective ends to the bearings 4 and the bars 5. By this construction I am able to produce a very strong and satisfactory frame surrounding the roller.

At the middle of each side are superposed and horizontally arranged plates 9 riveted to the adjacent sides of the respective bars 6 and spaced apart one above the other. These plates are connected in pairs by channeled plates 10, which plates are spaced apart in parallel vertical planes, the plates 9 and 10 thus forming a rectangular receptacle in which the rear end of the pole 11 is detachably secured by pins 13 and 14, the pin 14 extending through the bars 6 and the rear end of the pole, and the pin 13 extending through the plates 9 and the pole near the front of the said plates, and also through an evener strap 12 secured to the upper bar 6 and extending forward therefrom above the evener (not shown). The pin 13 thus serves as a bolt to assist in securing the pole in place and also as a pivot pin for the evener.

16 is a seat supported upon a seat post 15 detachably inserted in an opening 21 in the upper plate 9 and provided with a forwardly and downwardly extended brace 17 having a socket at its lower end to receive the evener strap 12.

18 is a flat scraper pivotally journaled at its longitudinal axis in the end bars 5 and adapted to alternately engage the surface of the roller 1 at its respective edges, when inclined toward the same. On the pivot pin of the scraper 18 is mounted an upwardly extended arm 19 on which is an adjustable weight 20, this arm being extended upward substantially in the plane of the flat scraper 18 whereby when the arm is inclined in one direction, the upper edge of the scraper will yieldingly engage the roller and when inclined in the opposite direction the lower edge of the scraper will engage the roller, and when the weight is released and slid down on the arm in contact with the frame, the scraper will be held in a vertical plane and out of action.

In reversing the device the pole 11 and pins 13 and 14 are removed from the side



where shown, and inserted in corresponding relation to the like co-acting parts at the opposite side of the frame; the seat post 15, seat 16 and brace 17 removed and changed in a like manner to the opposite side, and the scraper reversed by turning it on its pivots to bring its other edge in contact with the roller.

What I claim is:

1. A reversible land roller comprising a roller, a frame in which the roller is journaled, a pole and a seat-post, and means for detachably and interchangeably attaching the pole and seat-post to the respective sides of the frame.

2. A reversible land roller, comprising a frame, a roller journaled in the frame, a rectangular socket at the middle of each side of the frame, a pole, means for detachably and interchangeably securing the pole in the sockets, a seat, and a seat post supporting the seat, said post also being detachably and interchangeably supported by the said sockets.

3. A reversible land roller, comprising a frame, a roller journaled in the frame, a pair of superposed plates extending from each side of the frame, angle plates connecting the superposed plates and spaced apart, a pole inserted within the plates, means for detachably securing the pole in place, a seat, and a seat post supporting the seat and detachably inserted in the upper plates.

4. A reversible land roller, comprising a roller journaled in a frame, a pair of superposed plates extending from the respective sides of the frame, angle plates spaced apart and connecting the said superposed plates, an evener strap attached to each side of the frame and projecting above the respective upper plate, a pin extending vertically through the superposed plates and through the strap, a pole having an opening to receive the pin and detachably inserted between the plates whereby the pole may be reversibly attached to the frame.

5. In a reversible roller, a roller, a frame in which the roller is journaled, a pair of superposed plates extending oppositely from the frame at each side thereof, vertically disposed channel plates spaced apart and connecting the superposed plates, a pole detachably surrounded by said plates, an evener strap attached to each side of the frame and extending above the respective upper plate, a pin detachably inserted in the strap and extending downward through the strap and superposed plates, a saddle post detachably inserted in the upper plate and a brace on the saddle post having a socket to receive the evener strap, whereby the pole and saddle are reversibly attached to the frame.

6. In a land roller, a roller having a shaft in its axis and oppositely projecting there-

from, a frame comprising channel bars vertically disposed transversely and forming ends of the frame, journal bearings attached to said bars in which bearings the shaft is rotative, a pair of horizontally disposed channel bars at each side of the frame and embracing the ends of the end bars, and corner plates to which the end and side bars are secured.

7. In a land roller, in combination with a roller, a frame comprising bars vertically disposed transversely forming the ends of the frame, a pair of horizontally disposed channel bars forming the respective sides of the frame, angle plates connecting the side and end bars of the frame, a horizontally disposed plate attached to each of the side bars and arranged in superposed pairs at the respective sides of the frame, vertically disposed channel plates connecting each pair of horizontal plates and spaced apart, a pole detachably inserted in the space between said plates, an evener strap above each pair of plates, a saddle post detachably inserted in one of the upper plates, said pole and saddle post being interchangeably attached to the respective sides of the frame, and a brace on the saddle post having a socket to receive the evener strap.

8. In a land roller, in combination with a roller having journals projecting at its respective ends, a frame surrounding the roller and comprising vertically disposed channel bars forming its ends, bearings at the middle of said bars in which the journals of the roller are rotative, braces extending from the outer sides of the bearings to near the respective ends of the channel bars, two horizontally disposed channel bars at each side of the frame and spaced apart, angle plates connecting the end bars and side bars, and means for attaching a pole and a saddle to said frame.

9. In a land roller, a roller having oppositely projecting journals, vertically disposed channel bars forming the ends of a frame, journal bearings attached to the middle of said bars in which bearings the journals are mounted, braces extending from the outer sides of said bearings to near the ends of the channel bars, a pair of horizontally disposed channel bars at each side of the roller and embracing the ends of the end bars, angle plates connecting the end and side bars and rigidly attached thereto, horizontally disposed plates attached to the respective side bars and arranged in superposed pairs at the respective sides of the frame, vertically disposed channel plates connecting said pairs of plates and attached thereto and spaced apart, a pole detachably inserted within said plates, an evener strap at each side of the frame and above the upper plate, a pin de-



tachably inserted in the strap and plates, a saddle post detachably inserted in one of the upper plates and transferable to the other upper plate, and a brace on the saddle post  
5 having a socket to detachably and interchangeably engage the respective eveners straps.

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

FRANKLIN L. GAINES.

Witnesses:

PALMER A. JONES,  
L. V. MOULTON.