F. GLADNEY.

LAND PULVERIZER.

APPLICATION FILED FEB. 3, 1914.

1,202,703.

Patented Oct. 24, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

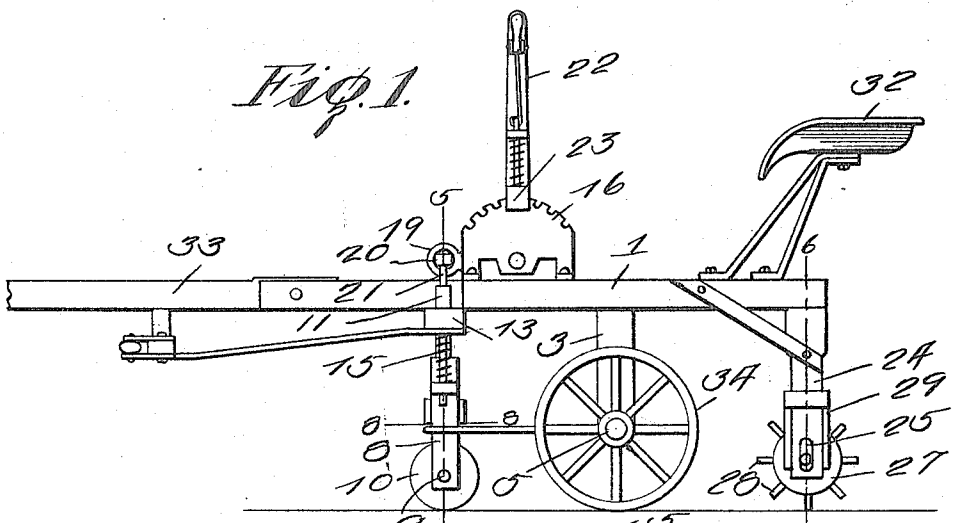


Fig. 2.

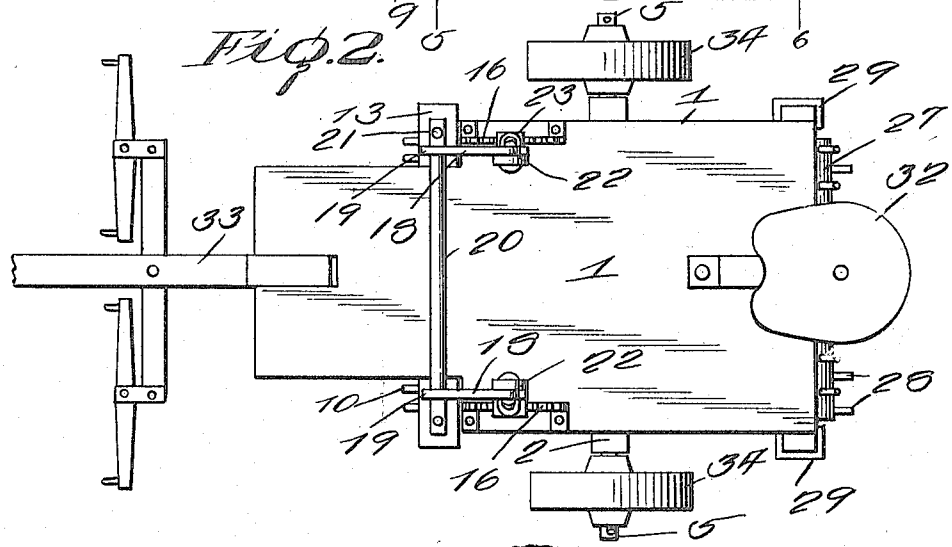


Fig. 8

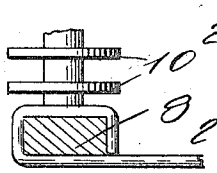


Fig. 7.

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Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

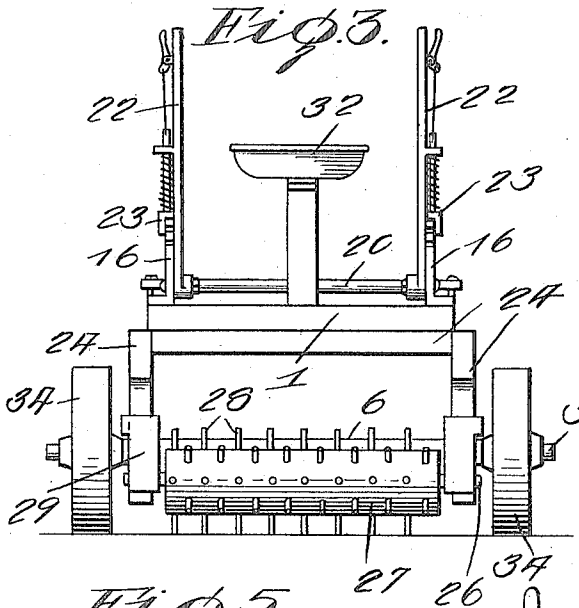


Fig. 6.

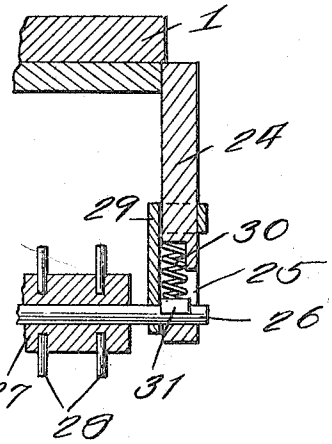


Fig. 5.

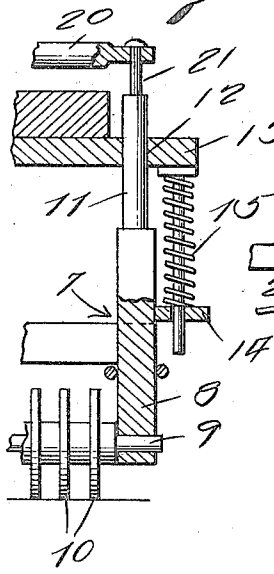
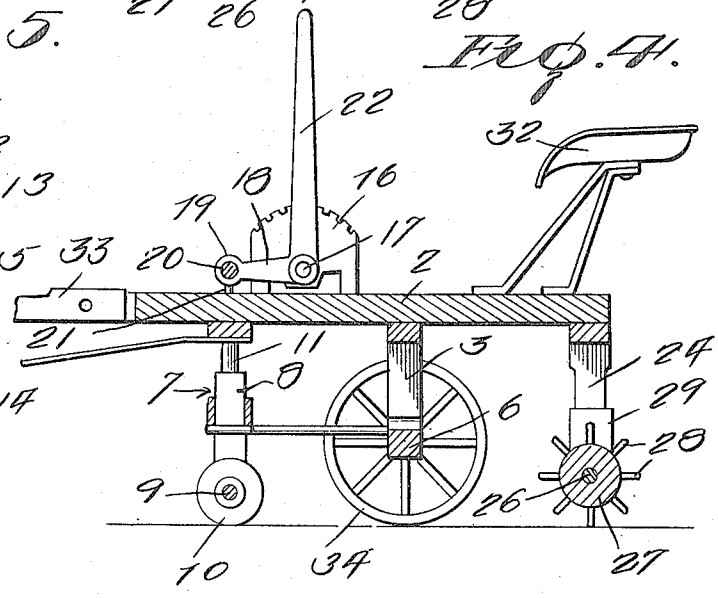


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

FRED GLADNEY, OF TUCKERMAN, ARKANSAS.

LAND-PULVERIZER.

1,202,703. Specification of Letters Patent. Patented Oct. 24, 1916.

Application filed February 3, 1914. Serial No. 816,253.

To all whom it may concern:

Be it known that I, FRED GLADNEY, a citizen of the United States, residing at Tuckerman, in the county of Jackson, State of Arkansas, have invented certain new and useful Improvements in Land-Pulverizers; 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.

The present invention is directed to improvements in land pulverizers, and has for its object to so construct a device of this character that the same when drawn across a field will effectually pulverize clods.

A further object of the invention is to provide a device of this character in which the pulverizing means are yieldably supported so that should the same contact with rocks or the like injury to the pulverizing means will be prevented.

With these and other objects in view, this invention resides in the novel features of construction, formation and arrangement of parts to be hereinafter more fully described, claimed and illustrated in the accompanying drawing, in which:—

Figure 1 is a side elevation of the device. Fig. 2 is a top plan view. Fig. 3 is a rear elevation. Fig. 4 is a vertical section of the device. Fig. 5 is a similar view on line 5—5 of Fig. 1. Fig. 6 is a similar view on line 6—6 of Fig. 1. Fig. 7 is a fragmental sectional view, showing the manner of mounting the pulverizer drum upon the supporting standards. Fig. 8 is a similar view on line 8—8 of Fig. 1.

The device comprises a platform 1 which is supported by the arch bar 2, the vertical arms 3 of which are provided with journals 4 for supporting the axle 5. The arms 3 are braced by the beam 6, the opposite ends of which bear against the lower ends of said arms.

A frame 7 is provided and consists of vertical side bars 8, in the lower ends of which is supported the opposite ends of the shaft 9, said shaft having mounted thereon a plurality of pulverizing disks 10. The upper ends of the bars 8 are provided with round extensions 11 which slidably engage the guide openings 12 formed in the opposite ends of the bar 13, said bar being secured transversely of the platform 1. The side bars 8 are provided with horizontal plates 14 upon which are secured the lower ends of the coil springs 15, the upper ends of which is secured to the bar 13.

A pair of segmental racks 16 is mounted on the platform 2. Operating levers 22 are pivotally mounted, at 17 on these racks 16 and are provided with spring pressed pawls 23 which coöperate with the racks to maintain the levers in predetermined position. Extending outwardly from the lower ends of the levers at right angles thereto are arms 18 which are provided, on their ends, with bearings 19, in which bearings a rod 20 is mounted. The outer ends of this rod 20 are connected to the upper ends of the extensions 11 by rods 21.

Supported by the rear end of the platform 1 are standards 24 which have their lower ends provided with longitudinal slots 25 for engagement by the opposite ends of the shaft 26, said shaft having fixed thereto the drum 27 which is provided with a plurality of spikes 28. Sleeves 29 are slidably mounted on the standards 24. Coil springs 30 are disposed within the slots 25 in the standards 24 and bear at their upper ends against the upper walls of the slots and at their lower ends against bearing boxes 31, which boxes bear upon the shaft 26 to maintain it resiliently in position. With this construction it is obvious that the drum 27 may have vertical movement and will normally be forced rearwardly by the springs 30. Mounted upon the platform 1, is a seat 32 which is arranged so that the operator occupying the seat may readily manipulate the levers 22 when it is desired to raise the frame 7 from engagement with the ground. By loosely mounting the shaft 20 in the bearings 19 it is obvious that the frame may yieldably engage the ground and at the same time the bearings being comparatively large will permit the frame to move vertically so that should the disks engage a rock or the like sufficient movement will be obtained by the frame to prevent injury to the disks. Fixed to the platform 1 is a tongue 33, and to which the draft animals are attached. The axle 5 is provided with wheels 34, which serve to support the platform properly.

What is claimed is:—

In a land pulverizer, a platform, wheels for supporting the same, supporting standards secured to the platform and extending downwardly therefrom, the said standards

having slots adjacent to their lower ends, sleeves slidably mounted on the standards, and having bearings formed therein, a shaft revolubly mounted in said bearings and extending between the same, a drum secured to the shaft, and coil springs disposed between the ends of the shaft and the upper walls of the slots in the standards to maintain the drum resiliently in its lowermost position, the said standards having lips thereon which contact with one side of the springs and the said sleeves being so arranged that they contact with the other side of the springs and coact with the said lips to maintain the springs in position.

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

FRED GLADNEY.

Witnesses:
R. B. HOOKER,
E. L. BUICE.

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