

UNITED STATES PATENT OFFICE

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LAND LEVELER

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2 Claims. (Cl. 37-150)

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The present invention relates to land levelers and is more particularly concerned with a tractor-drawn leveler.

The primary object of the invention is to provide a device of the character referred to which is hitched at approximately the center of gravity to a tractor, instead of the forward end, and the tractor is inside the apparatus.

Another object of the invention is to provide a leveler with means to adjust the leveler blade vertically thus allowing it to drag a small or large load of dirt and prevent the rearwardly extending arms of the blade from following any uneven portions of the plowed or loose ground.

A further object of the invention is to provide a balanced ground leveler which can be lifted clear of the land so as to facilitate turns at the end of a field, backing it into corners or places at the end of fields, as well as transporting it from one field to another. Such construction is also designed to allow the machine to deposit additional dirt where desirable in low places.

Still another object of the invention is to provide a device of the character referred to of simpler and more durable construction than prior devices.

With the foregoing and other objects and advantages in view the invention consists of the novel construction and arrangement of parts hereinafter described and claimed.

In the accompanying drawings illustrating the invention:

Figure 1 is a side elevation of the land leveler attached to a tractor.

Figure 2 is a top plan view thereof.

Figure 3 is a vertical transverse section on the line 3-3 of Figure 1.

Like reference characters, as used in the drawings and following description, designate the same parts of construction.

10 is the rectangular frame of the leveler and it comprises two parallel, elongated, side arms 11 and 12, suitably spaced and of sufficient length to admit a tractor therebetween. These arms are connected at the center by two parallel spaced cross bars 13 and 14 and by a cross-bar 15 at the rear ends. Brace bars 16 are bolted to cross-bar 13 and the forward extremities of said arms.

The rear part of the frame is braced by cross truss bars 17 and the leveler blade 18 is located transversely between arms 11 and 12.

The leveler blade is hinged to move vertically by two bell crank levers 19 which are pivotally mounted to swivel vertically in brackets 20 se-

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cured on the inner sides of the arms. The forks of the levers are pivotally attached to the blade 18, thus permitting vertical adjustment of same.

Secured perpendicularly to the blade at its center is a standard 21, the upper end of which is slotted to receive the rear end of a longitudinally disposed adjusting rod 22. This is retained in the slot 23 by lock washers 24 which allow vertical movement. Adjusting rod 22 is threaded and carried by a threaded collar 25 which is provided with diametrically opposed studs 26 pivotally mounted in the bifurcation of a yoke 27 secured perpendicularly on the cross-bar 13. This allows the adjusting rod to swivel up and down, thereby raising or lowering the blade 18 and adjusting the vertical position of same. Rod 22 is rotated by crank handle 28 on its front end.

Removably attached to said yoke is an upper and forwardly extending bar 29 and a pair of lower side bars 30. These are provided in their rear ends with bolt holes designed to fit on removable pins or bolts 31 on the yoke. The forward ends are similarly apertured for pins or bolts on the tractor, thus providing a suitable hitch for attachment of the device to the power lift of the tractor T. A pair of rearwardly disposed and inclined bracing rods 32 are connected to the cross bar 14 of the frame and yoke 27.

When it is desirable to lift the leveler off the ground for any purpose, it can be readily elevated, as an entirety, by the power lift, because the frame is attached at approximately its center of gravity and the weight evenly balanced on each side of the bar 13.

Even if the hitch is not exactly located at the center of gravity of the frame the leveler will be lifted parallel to the ground, because bar 29 rises whenever the side bars 30 are raised, so that the leveler will be held in a substantially horizontal position.

As different embodiments may be made of this inventive concept and modifications may be made in the embodiment hereinbefore shown and described, it will be understood that the matter herein is to be interpreted as illustrative merely and not in a limiting sense.

What I claim is:

1. The combination with a tractor including a power lift, of a land leveler comprising a frame including a pair of longitudinally-extending side bars for normally resting upon the surface of the ground and spaced from each other to admit the tractor adjacent the middle of the frame, a leveling blade positioned transversely of said side bars

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at substantially their mid-length and mounted for limited vertical movement on the latter, a substantially vertical standard having one end secured to said blade, a substantially vertical yoke arranged intermediate said standard and the rear end of the tractor and carried by said side bars, means for operatively connecting said yoke to the power lift of the tractor, a collar pivotally supported in said yoke, a longitudinally-extending rod rotatably mounted and threadedly engaged in said collar and having one end operatively connected to the other end of said standard, and means on the other end of said rod for rotating the latter.

2. The combination with a tractor including a power lift, of a land leveler comprising a frame including a pair of longitudinally-extending side bars for normally resting upon the surface of the ground and spaced from each other to admit the tractor adjacent the middle of the frame, a leveling blade positioned transversely of said side bars at substantially their mid-length and mounted for limited vertical movement of the latter, a substantially vertical standard having one end secured to said blade, a substantially vertical yoke

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arranged intermediate said standard and the rear end of the tractor and carried by said side bars, means for operatively connecting said yoke to the power lift of the tractor, a threaded collar pivotally supported on said yoke, a longitudinally-threaded rod in threaded engagement with said collar and having one end operatively connected to the other end of said standard, a handle on the other end of said rod for rotating the latter, and rearwardly inclined brace bars for attaching said yoke to said frame.

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