

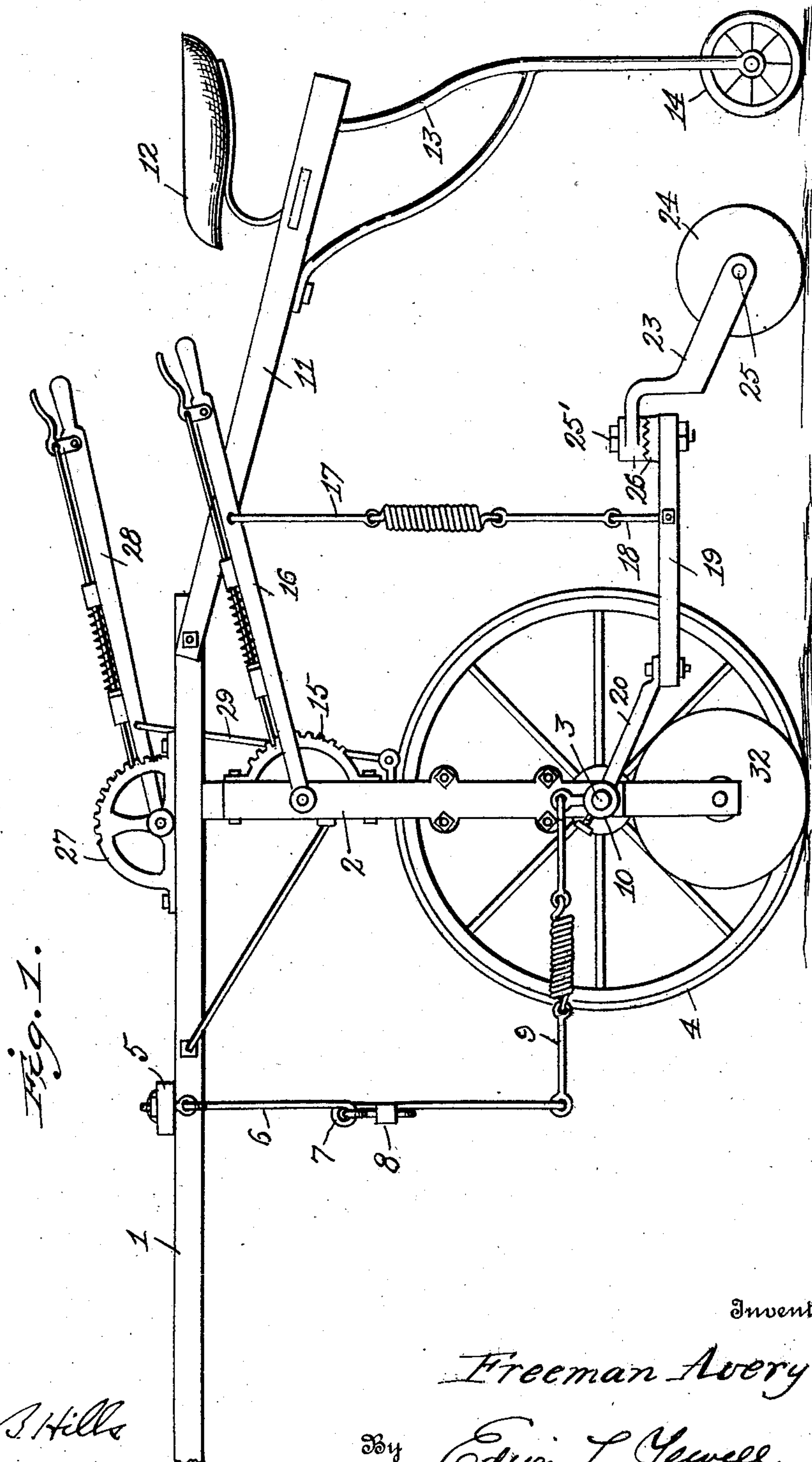
973,614.

F. AVERY.  
CULTIVATOR.

APPLICATION FILED FEB. 21, 1910.

Patented Oct. 25, 1910.

3 SHEETS—SHEET 1.



Witnesses

Percy B. Hills  
A. L. May

Inventor

Freeman Avery

By

Edwin L. Jewell

his Attorney

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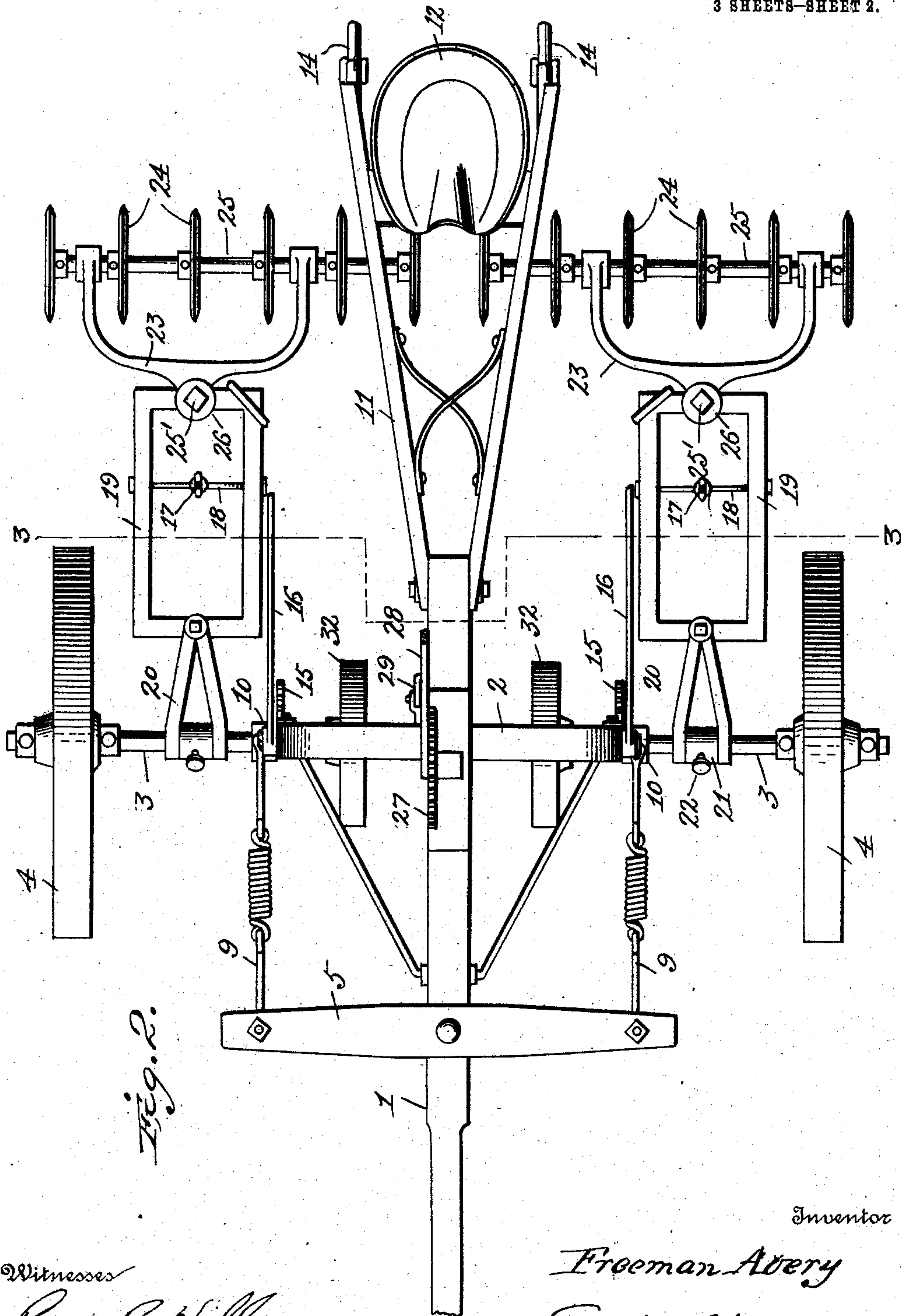


Fig. 2.

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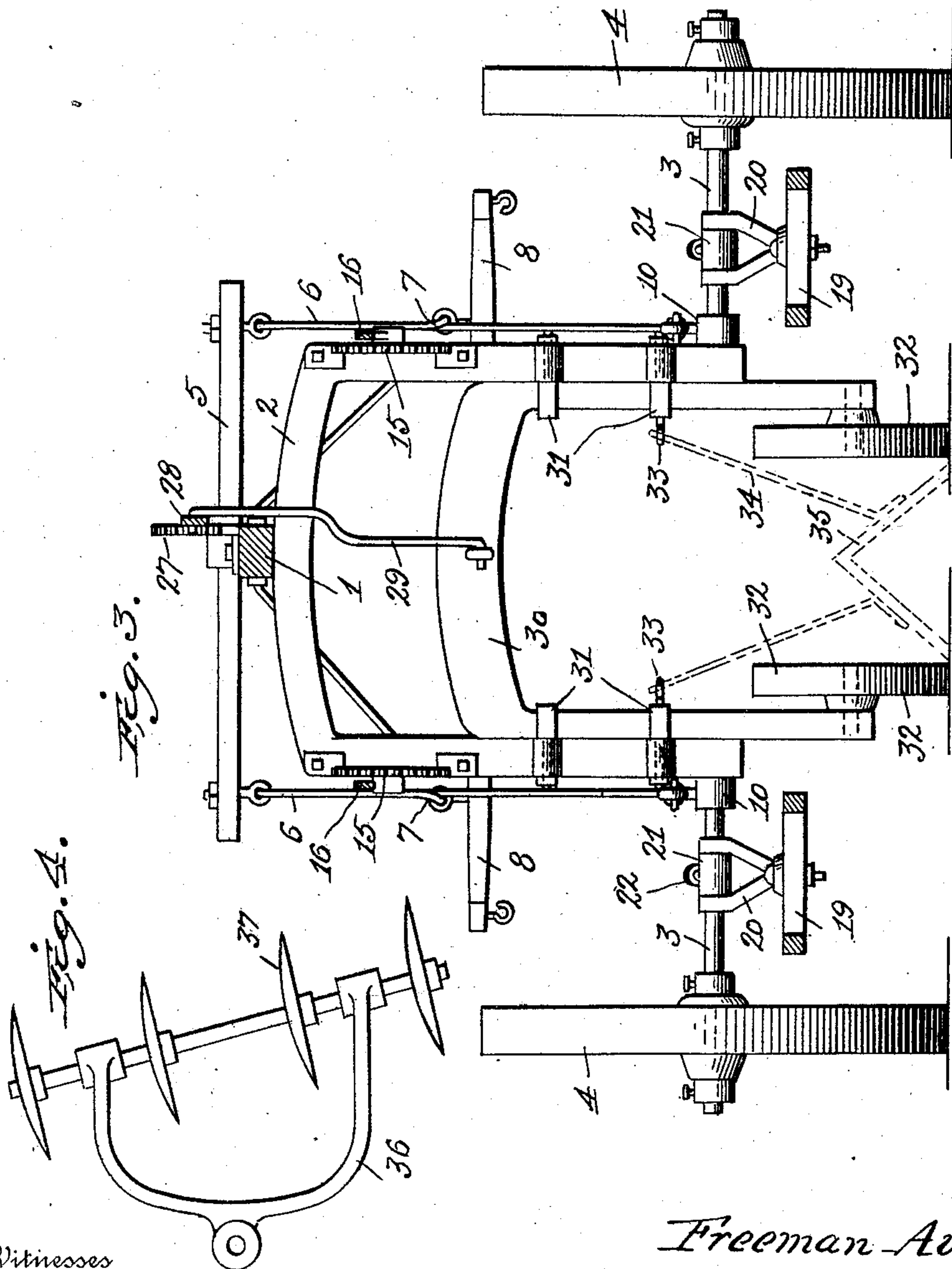
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3 SHEETS—SHEET 3.



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# UNITED STATES PATENT OFFICE.

FREEMAN AVERY, OF LARNED, KANSAS.

CULTIVATOR.

973,614.

Specification of Letters Patent.

Patented Oct. 25, 1910.

Application filed February 21, 1910. Serial No. 545,088.

*To all whom it may concern:*

Be it known that I, FREEMAN AVERY, a citizen of the United States, residing at Larned, in the county of Pawnee and State of Kansas, have invented certain new and useful Improvements in Cultivators, of which the following is a specification.

My invention relates to cultivators, and has for its object to provide certain improvements in the construction of the same as will be hereinafter more definitely pointed out and claimed, reference being had to the accompanying drawing, in which:—

Figure 1 is a side elevation of my improved device. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical transverse sectional view taken on the line 3—3, Fig. 2. Fig. 4 is a detail view of a disk holder.

Similar numerals of reference denote corresponding parts in the several views.

In the said drawings the reference numeral 1 denotes the tongue, mounted on the main arch 2, the latter being supported by the short axles 3, upon which are mounted the wheels 4.

Fixed to the tongue 1 at the front is the usual double tree 5, from the outer ends of which depend rods 6, looped at 7 to receive the swingle trees 8, said rods 6 being connected at their lower ends through spring bars 9, with sleeves 10 on the axles 3, said spring bars providing a spring connection for the draft.

Pivoted to the rear end of the tongue 1 is the detachable seat supporting frame 11, carrying the seat 12, and supported at its rear end by brackets 13 carrying wheels 14 at their lower ends.

Mounted upon the rear side of the main arch 2 are two sectors 15 adapted to control the position of levers 16 in the usual manner, said levers being each connected through a spring rod 17 with a yoke 18 attached to a frame 19, said frame being pivoted at its front end to a bifurcated arm 20, which in turn engages the axle 3 and is held in position laterally by a collar 21 on said axle, said collar being adjustable longitudinally on said axle and being retained in any adjusted position by a set screw 22. Said frames 19 have adjustably fixed to their rear sides yokes 23 carrying the cutter disks 24, the latter being mounted upon axles 25 carried by said yokes. The connection between each yoke 23, and its frame 19 is a bolt 25', the meeting faces of the heads 26, through

which said bolt passes, being serrated to retain said yokes in any adjusted position laterally, as will be readily understood.

Mounted on top of the tongue 1 is a sector 27 for controlling the position of lever 28, the latter being connected, through rod 29, with the upper end of a center arch 30 mounted to be adjusted vertically in the main arch 2 and being guided in its vertical movement by the guides 31. Said arch carries at its lower ends the wheels 32 for a purpose hereinafter to be described. The lower pair of guides 31 are provided with eyes 33 into which are adapted to be detachably hooked the arms 34 of a fender 35, shown in dotted lines in Fig. 3, and in detail in Fig. 4.

As shown in Figs. 1 and 2 the device is adapted for use as sod cutter and when so used the center arch 30 may be permitted to remain in position. When used as a cultivator, yokes 36, shown in Fig. 5, and carrying disks 37, are employed in place of the yokes 23 and cutters 24, said yokes 36 being shaped to dispose the disks 37 at an angle, which angle may be varied by an adjustment at the heads 26. The function of the wheels 32 is to break down the ridges on each side of the plant row before the disks 37 come into operation, and the arch 30, carrying said wheels 32 is vertically adjustable to accommodate ridges of varying height. When cultivating plants just appearing above the ground, a fender will be employed, the same lying between the disks 37. To use the device as a plow the arch 30 and frame 11 are removed, as well as the arms 20, frames 19 and yokes 23 or 36, said arms 20 being removed by first removing the wheels 4 and then sliding the said arms and their collars 21 endwise off of the axles 3 and then replacing them with the rear ends of plow beams.

It will thus be seen that the permanent parts of my device include the tongue 1, double tree 5, and its connecting parts, the main arch 2, and the wheels 4 and their axles 3, and that the same is capable of use either with a plow, a sod cutter, or a cultivator.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In an arched cultivator, a center arch vertically adjustable in the main arch, and means carried by said center arch and lying

within said arch for breaking down ridges along the plant row.

2. In an arched cultivator, a center arch vertically adjustable in the main arch and  
5 wheels mounted at the lower ends of said center arch disposed to lie on opposite sides of the plant row for breaking down ridges along said plant row.

3. In a cultivator, a main arch, a center  
10 arch within said main arch, guides on said main arch for engaging and permitting a vertical movement of said center arch with-

in said main arch, a lever for controlling the vertical adjustment of said center arch, and  
wheels mounted on the lower ends of said 15 center arch disposed to lie on opposite sides of the plant row for breaking down ridges along said plant row.

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

FREEMAN AVERY.

Witnesses:

W. W. CHARLES,  
GEO. W. AVERY.