

No. 661,748.

Patented Nov. 13, 1900.

J. F. STANLEY.
LAWN MOWER.

(Application filed Oct. 5, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

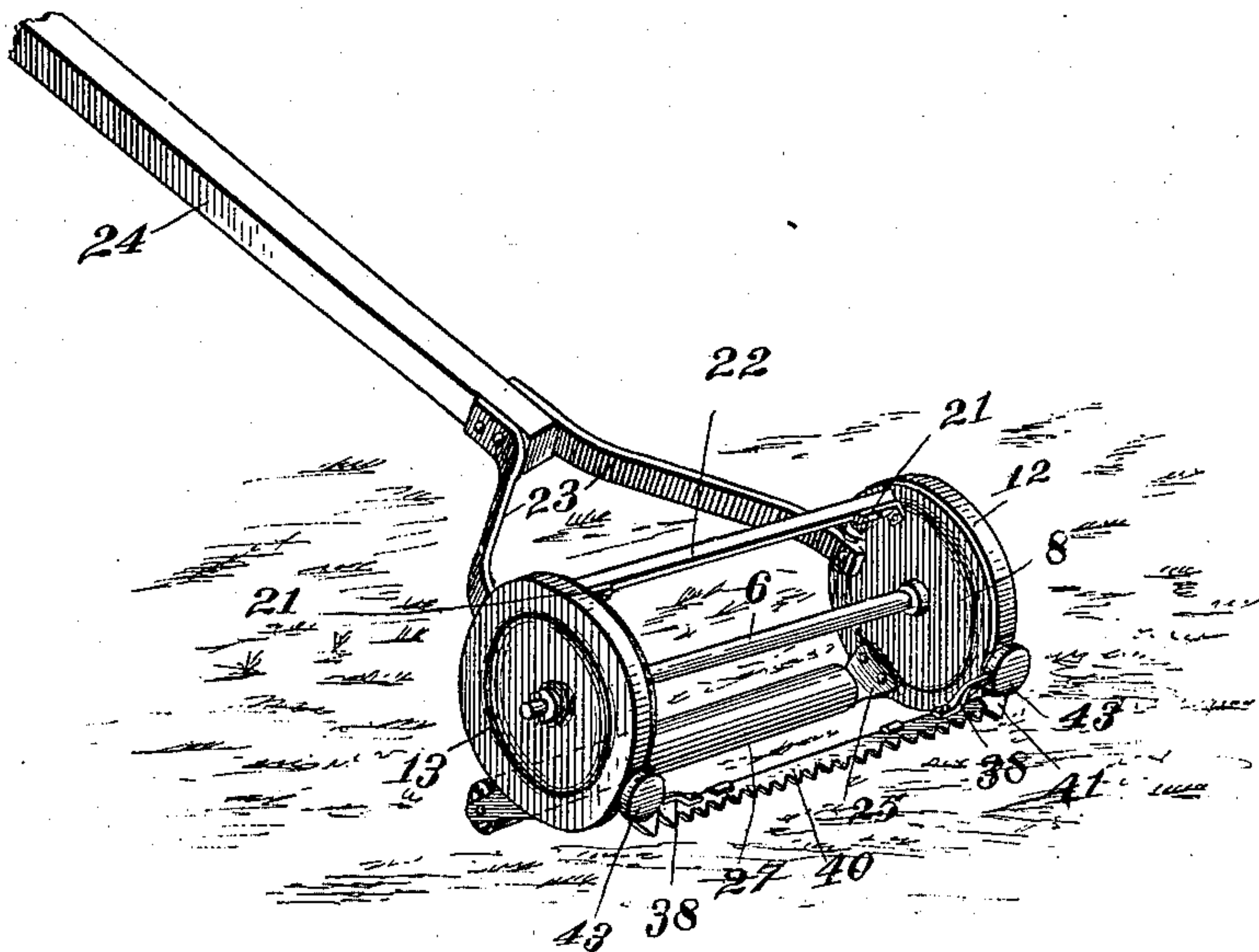
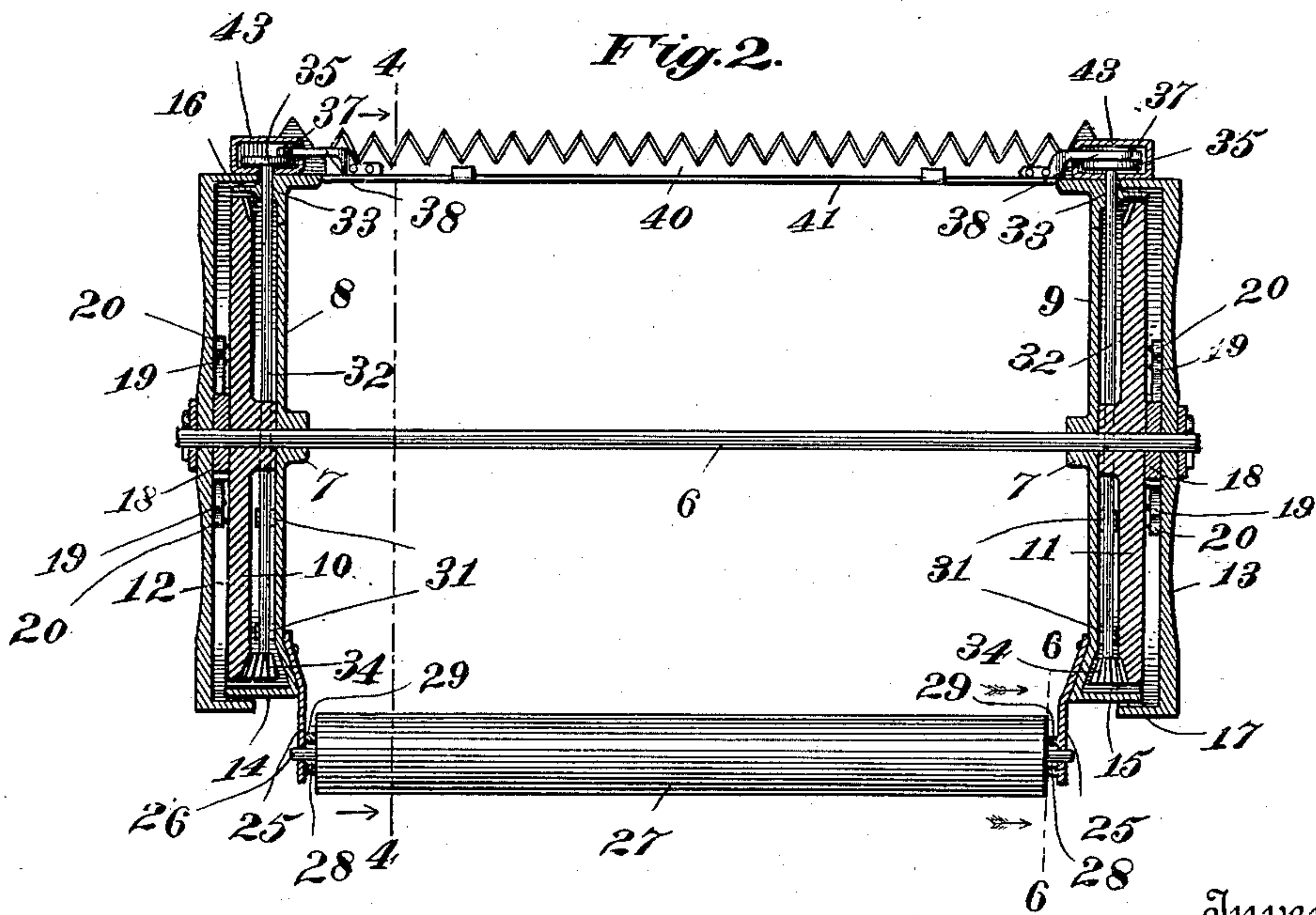


Fig. 2.



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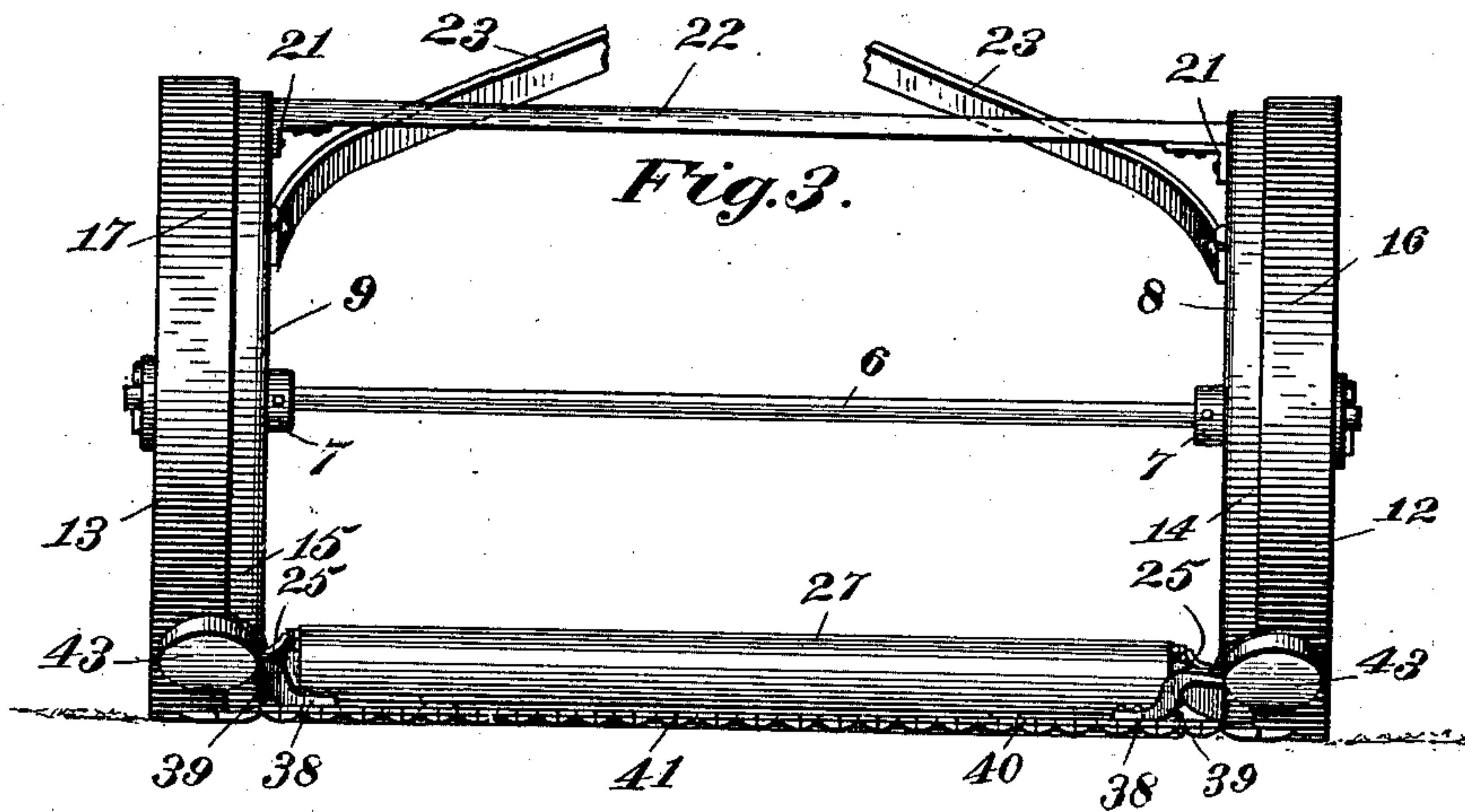


Fig. 4.

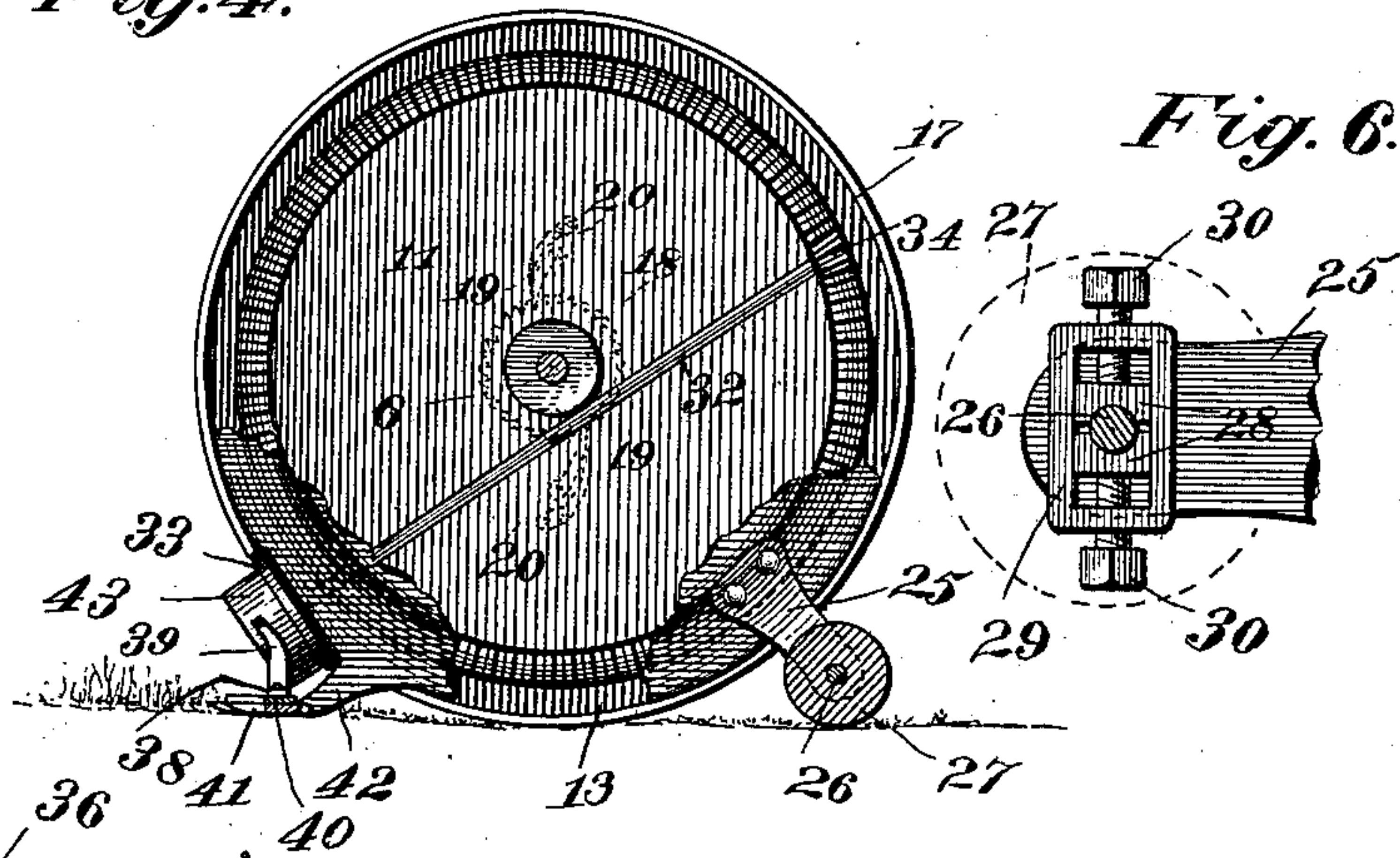


Fig. 6.

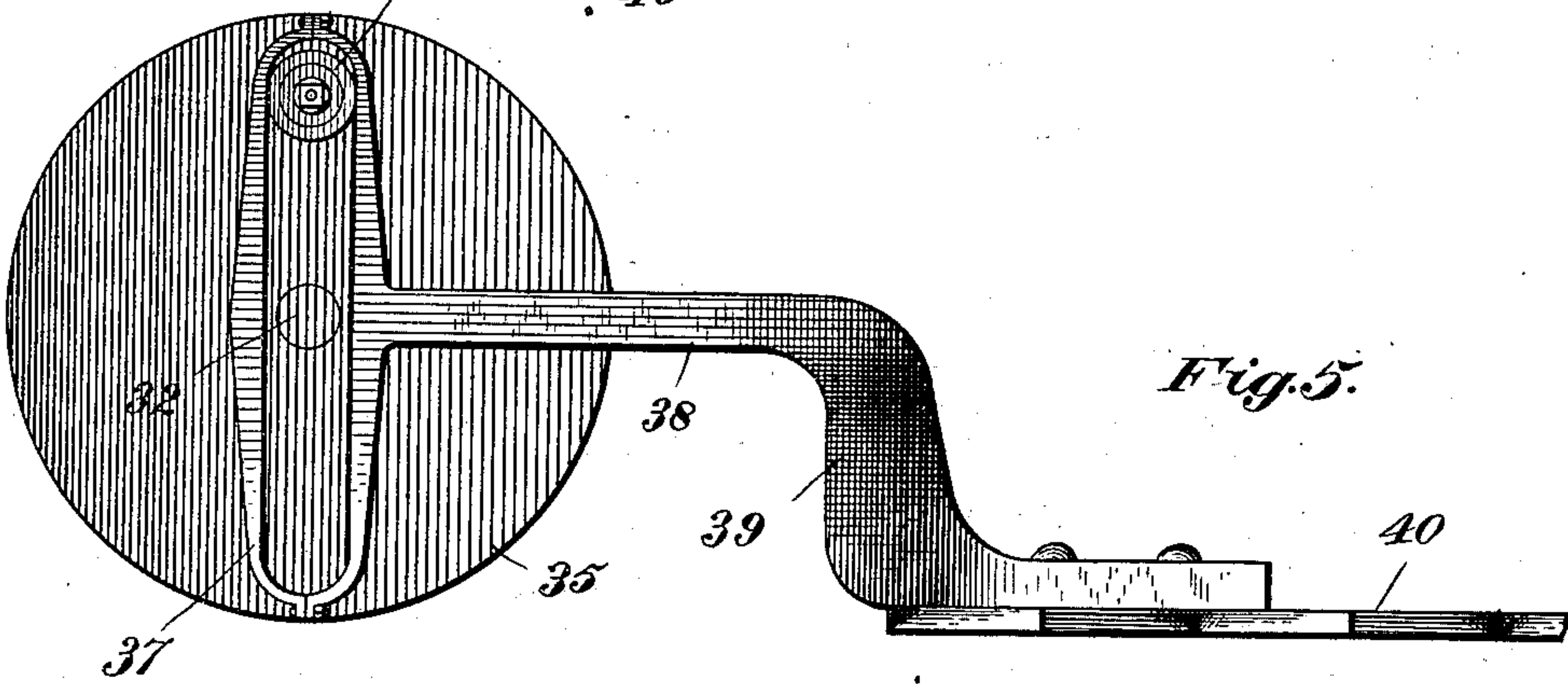


Fig. 5.

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UNITED STATES PATENT OFFICE.

JAMES F. STANLEY, OF MOORELAND, INDIANA.

LAWN-MOWER.

SPECIFICATION forming part of Letters Patent No. 661,748, dated November 13, 1900.

Application filed October 5, 1899. Serial No. 732,673. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. STANLEY, residing at Mooreland, in the county of Henry and State of Indiana, have invented a new and useful Lawn-Mower, of which the following is a specification.

My invention relates generally to lawn-mowers and more particularly to lawn-mowers in which the cutting is done by a reciprocating saw-toothed cutter, the object being to provide an improved machine of this class composed of a minimum number of simply and economically constructed parts, which will be easy in operation and not liable to breakage or undue wear with ordinary usage.

In the drawings forming a part of this specification, Figure 1 is a perspective view of a lawn-mower constructed in accordance with my invention. Fig. 2 is a view, partly in plan and partly in horizontal section, through the traction-wheels and frame. Fig. 3 is a front elevation. Fig. 4 is a vertical sectional view on the broken line 4 4 of Fig. 2 with the inner casing removed to expose the gearing. Fig. 5 is an enlarged detail view, in front elevation, of the crank-disk and part of the cutter-bar and its supporting slotted casting. Fig. 6 is a detail view illustrating the adjustable bearing for the roller.

Like numerals of reference mark the same parts wherever they appear in the several figures of the drawings.

Referring to the drawings by numerals, 6 indicates the shaft, which is journaled in suitable bearings 7 in two non-rotatable disks 8 and 9 and projects far enough beyond said disks to receive at each end a bevel cog-wheel, as at 10 and 11, and a traction-wheel, as at 12 and 13, the disks 8 and 9 being provided with outwardly-projecting peripheral flanges 14 and 15 at right angles to the disks, which inclose the bevel cog-wheels. The traction-wheels 12 and 13 have inwardly-projecting peripheral flanges 16 and 17, which form the treads of the wheels and inclose the flanges of the disks. Upon the outside of each bevel cog-wheel is secured a ratchet-wheel 18, with which are engaged pawls 19, pivoted to the inner faces of the traction-wheels and held normally in such engagement by springs 20. By this means when the traction-wheels turn as the machine is pushed

forward the bevel cog-wheels are caused to revolve in the same direction; but when the traction-wheels are turned backward by drawing the machine backward the pawls slip over the teeth of the ratchet-wheels and the bevel cog-wheels remain stationary.

21 indicates brackets secured to the inner sides of disks 8 and 9, to which are secured the outer ends of a cross-bar 22, which holds the disks at a proper distance apart. Bars 23, secured to the inner sides of the disks, converge toward each other and are secured to the handle 24. Brackets 25 project rearward and downward from the disks and serve as supports for the shaft 26 of a roller 27, said shaft being journaled directly in the brackets or in adjustable bearing-blocks 28, slidably mounted in a slotted bar 29, secured to or formed with each bracket, the bearing-blocks being vertically adjustable in the slotted bar by means of set-screws 30 to regulate the height of cut of the grass.

31 31 indicate brackets secured to the disks, in which is journaled a shaft 32, which also passes through projections 33 on the disks. On one end of each shaft 32 is a bevel-pinion 34, which engages the teeth of the bevel cog-wheels, whereby the shaft 32 is driven. A disk 35 on the opposite end of each shaft 32 carries a wrist-pin 36, which engages in a vertical slot in the head 37 of a bar 38, said bars 38 being cranked at 39 and secured at their ends to the ends of a reciprocating saw-tooth cutter-bar or sickle 40. The sickle 40 rests upon a stationary cutter-bar 41 and is secured against rising therefrom by means of overhanging keepers projecting from the stationary bar, said stationary bar being secured to arms 42, projecting from the disks 8 and 9. The bars 38, which take the place of pitmen, project through openings in the casings 43 and are connected therein with the wrist-pins 36.

When the machine is pushed forward, the two shafts 32 are simultaneously driven, rotating the crank-disks 35 in unison and exerting an even pull and push upon the opposite ends of the sickle 40, thereby insuring an easy and powerful movement of the sickle and relieving it of all strain whereby it might be bent or broken.

By means of the construction described I

provide a neat, simple, cheap, strong, and durable lawn-mower composed of a minimum number of parts, easy and rapid in operation, and not liable to breakage or undue wear under ordinary usage.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

In a lawn-mower, the combination, with a frame comprising two disks, a cross-bar, cutter-bar and a handle, the disks being each provided with an outwardly-projecting peripheral flange and two brackets, of a shaft journaled in the disks, the ends of which extend beyond the same, a traction-wheel rigidly secured to each end of the shaft and provided with an inwardly-projecting flange to over-

lap the flange of the disk, a bevel-wheel loosely mounted on the shaft between each traction-wheel and the disk at that end, a ratchet between each traction and its companion bevel wheel and connected therewith, a shaft journaled in the brackets on each disk, one end of which is provided with a bevel-pinion in engagement with the bevel-wheel and the opposite end is provided with a wrist-pin, and a sickle upon the cutter-bar, each end of which is provided with a bar, the head of which is slotted and engages with the wrist-pin, substantially as described.

JAMES F. STANLEY.

Witnesses:

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