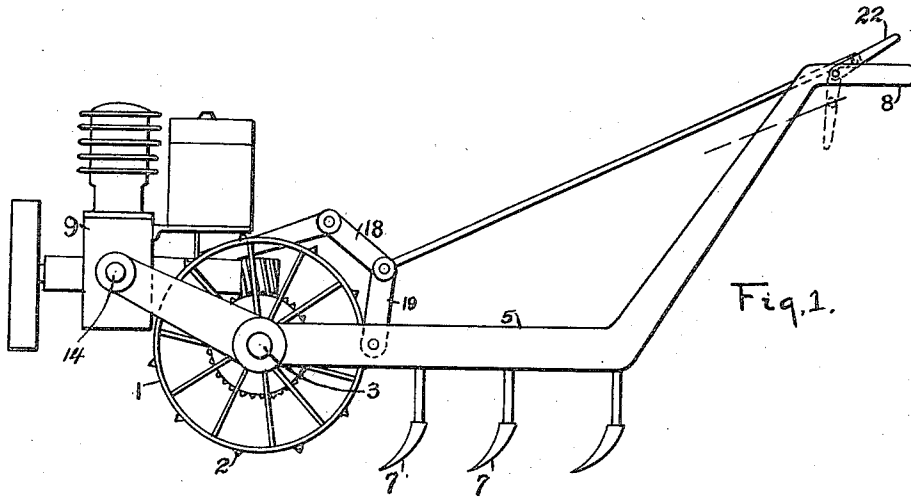
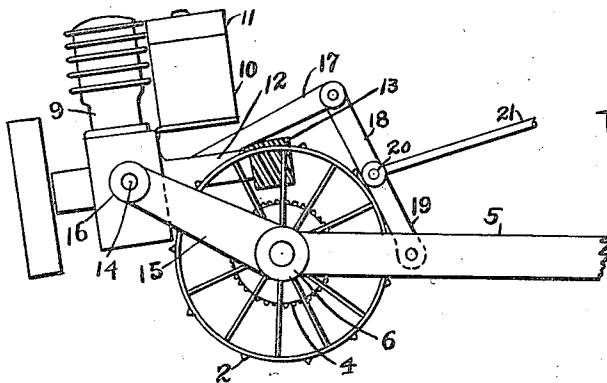
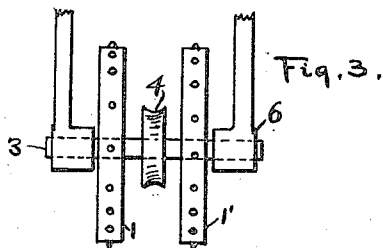


L. J. MONAHAN.
POWER PROPELLED CULTIVATOR.
APPLICATION FILED JULY 29, 1912.

1,124,162.

Patented Jan. 5, 1915.



WITNESSES

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POWER-PROPELLED CULTIVATOR.

1,124,162.

Specification of Letters Patent.

Patented Jan. 5, 1915.

Application filed July 29, 1912. Serial No. 712,147.

To all whom it may concern:

Be it known that I, LOUIS J. MONAHAN, citizen of the United States, residing at Oshkosh, in the county of Winnebago and State of Wisconsin, have invented certain new and useful Improvements in Power-Propelled Cultivators, of which the following is a specification.

The invention relates to a new and useful power driven hand cultivating machine.

The object of the invention is to provide a combined hand cultivator that is power driven whereby the directing of the operations are done by hand while the propulsion is effected by power.

In the drawings Figure 1 is a side elevation of the machine; Fig. 2 a view showing the motor tipped to release the driving connection and Fig. 3 a top view of the drive wheels.

The numerals 1 and 1' show wheels with spikes 2 which extend into the earth to prevent slipping. The wheels are secured to a shaft 3 a suitable distance apart and a worm or spiral gear 4 secured to the shaft between the wheels. The frame is composed of side pieces 5 which are journaled over the shaft 3 at 6 and extend back a suitable distance to carry the cultivating tools 7 and thence up to form handles 8. Thus far the machine is only capable of hand use both in propelling and guiding functions.

This invention contemplates the herein shown combination of small gasoline motor mounted in an economical fashion with release means, to provide power to propel the cultivator over the ground and comprises a conventional type of gasoline motor 9 with battery box 10 and gasoline tank 11 carried rigidly therewith. The motor has a lengthened rear bearing 12 and a worm or spiral gear 13 fitted to the end of the shaft, this gear being fitted to mesh with the gear 4 and designed at approximate one to ten ratio. The motor frame has trunnions 14 on each side of the base and the frame 5 is extended up at 15 to journal over the trunnions at 16 which supports the motor. The rear bearing of the motor 9 has an extending arm 17 reaching back beyond the gear 13 for the purpose of raising and lowering the gear into or out of mesh with the gear 4 which is accomplished by means of toggle joints 18 and 19 jointed at 20 to an extending rod 21. The rod 21 reaches up to the handles and connects to a suitable releasing

lever 22 which is pivoted to the handle in a convenient manner, whereby the lever can be thrown one way or the other to engage or disengage the gears 13 and 14 and properly adjusted to give the proper mesh of the teeth when engaged. Thus the motor is suspended at three points in rigid form. If desired the tipping of the motor may cause the closing partially of the carbureter to maintain reasonable speed when the load is thrown off but a governor on the motor is preferable.

In operation, the engine or motor is started in the usual manner by turning the fly wheel while it is in the tipped position of Fig. 2, then the operator passes to the rear and grasps the handles 8 ready to operate the machine, which starts to travel forward as soon as the lever 22 is thrown up causing the gears 13 and 4 to mesh, which act to start and drive the traction wheels 1 and 1'. It is only necessary for the operator to steer or guide the machine, walking after it through the garden and when desired to stop its travel, the lever 22 is thrown down and which is within easy reach of the operator.

The cultivator can be used by hand while the motor is tipped upwardly without the use of power and on account of the weights being balanced is very easy to operate. The type of gears used are preferably of the multi-thread worm or spiral type which permit of great reduction in ratio of speeds which is necessary in this type of apparatus. It will also be seen that the machine cannot be moved by hand until the motor is tipped to release the gears which on account of their type are self locking.

Other tools such as small plows or line markers can obviously be attached to the frame in place of cultivating tools if desired.

What I claim and desire to secure by Letters Patent is:—

1. In a cultivating machine the combination with a frame having upwardly extending handles, a pair of spiked wheels revolutely mounted in the frame, a gear fitted between the wheels and rigid therewith, a gas motor having an extending crank shaft and fitted in the frame and held therein by means of trunnions on its base whereby the axis of the crank shaft is permitted a limited rocking movement, a gear fitted to the extending crank shaft and adapted to en-

gage or disengage the first said gear as determined by the position of the motor on its rocking axis and means extending to the handles for positively holding the motor at
5 one of the extremes of said movement.

2. In a cultivator the combination with a pair of supporting and driving wheels, a gear fitted between the wheels and rigid therewith, a gas motor having a rearwardly
10 extending shaft and trunnions on its sides, a gear secured on the extending shaft, a frame fitted to rest on the pair of wheels and adapted to extend and fit around the trun-

nions of the motor, handles extending from the frame, toggle devices fitted between the motor and frame for rocking the motor on its trunnions whereby the gears engage or disengage each other, and a manually operative lever extending from the toggle devices to the handles. 15

In testimony whereof I affix my signature, in the presence of two witnesses. 20

LOUIS J. MONAHAN.

Witnesses:

S. DOHERTY,
E. M. FITZ SIMMONS.