

C. E. PETERSON.
MOWING MACHINE.
APPLICATION FILED JULY 29, 1911.

1,039,436.

Patented Sept. 24, 1912.

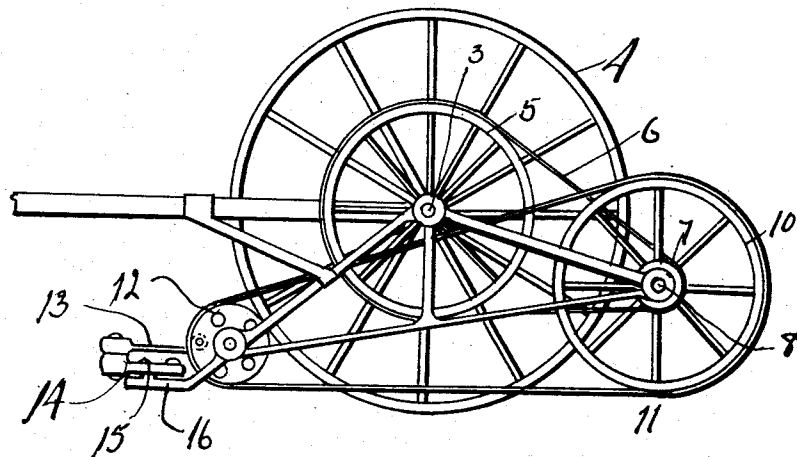


Fig 1

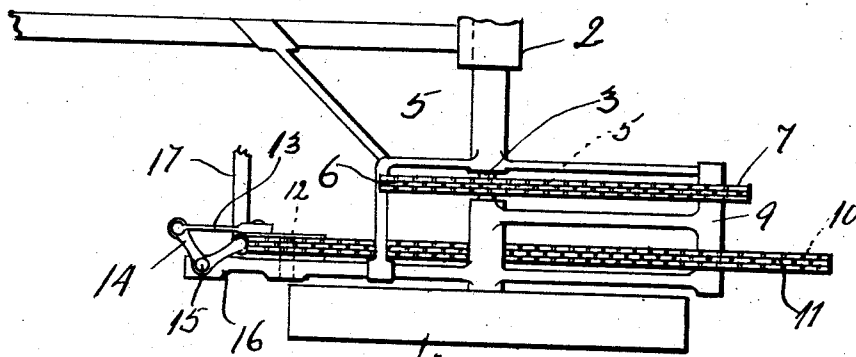


Fig 2

Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES E. PETERSON, OF LITTLESTOWN, PENNSYLVANIA.

MOWING-MACHINE.

1,039,436.

Specification of Letters Patent.

Patented Sept. 24, 1912.

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To all whom it may concern:

Be it known that I, CHARLES E. PETERSON, a citizen of the United States, residing at Littlestown, in the county of Adams and State of Pennsylvania, have invented a certain new and useful Improvement in Mowing-Machines, of which the following is a specification.

My invention relates to a new and useful improvement in mowing machines, and has for its object to provide a device of this character which may be driven by chains and sprockets, whereby the use of gears may be dispensed with which are heavy running and which, after being used for some time, become worn: and a great deal of power is lost during the transmission.

A further object of my invention is to so arrange the chains and sprockets that the best results will be accomplished with the least number of working parts.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claim.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction in detail, referring by letter to the accompanying drawing forming a part of this specification, in which—

Figure 1, is a side elevation of a mowing machine made in accordance with my improvement, the one side traction wheel being removed to facilitate illustration. Fig. 2, a plan view of a portion of the mower.

In carrying out my invention as here embodied, 2 represents the frame having an axle 3 journaled therein, which carries the traction wheel 4. Intermediate the ends of the axle 3 is mounted a relatively large sprocket wheel 5 over which runs a chain 6, said chain running over a relatively small sprocket wheel 7 mounted upon a short shaft 8 journaled in the bracket 9 or extension of the frame 2. On this short shaft is also mounted a larger sprocket wheel 10 over which runs a chain 11 to a small sprocket wheel 12 journaled in a portion of the frame at the front of the mower, or relatively near the position of the cutting knives. To this sprocket wheel 12 is secured a short pitman 13 which has pivoted one arm of the bell crank lever 14, said bell crank lever being

pivoted at 15 to an extension of the arm 16. The opposite end of the bell crank lever is pivoted to one end of the cutter bar 17, whereby the reciprocatory motion is given the cutting knives. In the drawings the different gear wheels have been shown out of proportion to those which will be used in practice, for convenience of illustration.

As the cutter blade must be operated with great speed, it has been found impossible to drive direct from the main gear to the pitman gear, and to overcome this objection I have found that it is necessary to use a set of increasing sprocket wheels.

I am well aware of the fact that mowing machines have been driven by chains and sprockets, but as a general rule it is necessary to use a gearing at the same point, or to make the pitman very long, which is often apt to break when cutting heavy grass or weeds. By the use of my improvement all gearing is dispensed with and the pitman being very short is sufficiently strong to withstand the ordinary thrusts of a mower. As the mowing machine is drawn over the ground the power is transmitted from the traction wheel 4 through the shaft 3 to the relatively large or main sprocket wheel 5, from which point it is transmitted through the chain 6 to a relatively small sprocket wheel 7, then through the shaft on which said sprocket wheel is mounted to a larger sprocket wheel 10, then through the chain 11 to the smaller or pitman sprocket wheel 12, thus causing said sprocket wheel to revolve relatively fast. The power is transmitted from the pitman sprocket wheel through the pitman 13 and the bell crank lever to the cutting knives, so that with each revolution of the pitman sprocket wheel, the cutting knives are reciprocated one entire cycle.

Of course I do not wish to be limited to the exact details of construction as here shown, as these may be varied within the limits of the appended claim without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful, is—

In a mowing machine, a frame, a rearwardly projecting bracket formed therewith, a forwardly projecting bracket also formed with said frame, an axle journaled in the frame, traction wheels mounted upon said axle, a main sprocket wheel carried by said axle, a short shaft journaled in the rear-

wardly projecting bracket, two sprocket wheels of different sizes mounted on said short shaft, a sprocket wheel carried by the forwardly projecting arm, a chain running over the main sprocket wheel and the smaller sprocket wheel on the short shaft, another chain running over the larger sprocket wheel on the short shaft and the sprocket wheel carried by the forwardly projecting arm, a cutter bar, a bellcrank lever pivoted to the forwardly projecting arm in front of the cutter bar, one

end of said bell crank lever being pivoted to said cutter bar and a pitman pivoted to the sprocket wheel carried by the forwardly projecting arm and to the opposite end of the bell crank lever as shown and described. 15

In testimony whereof, I have hereunto affixed my signature in the presence of two subscribing witnesses.

CHARLES E. PETERSON.

Witnesses:

W. B. JOHNSTON,

HOMER H. PETERSON.

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