

No. 608,526.

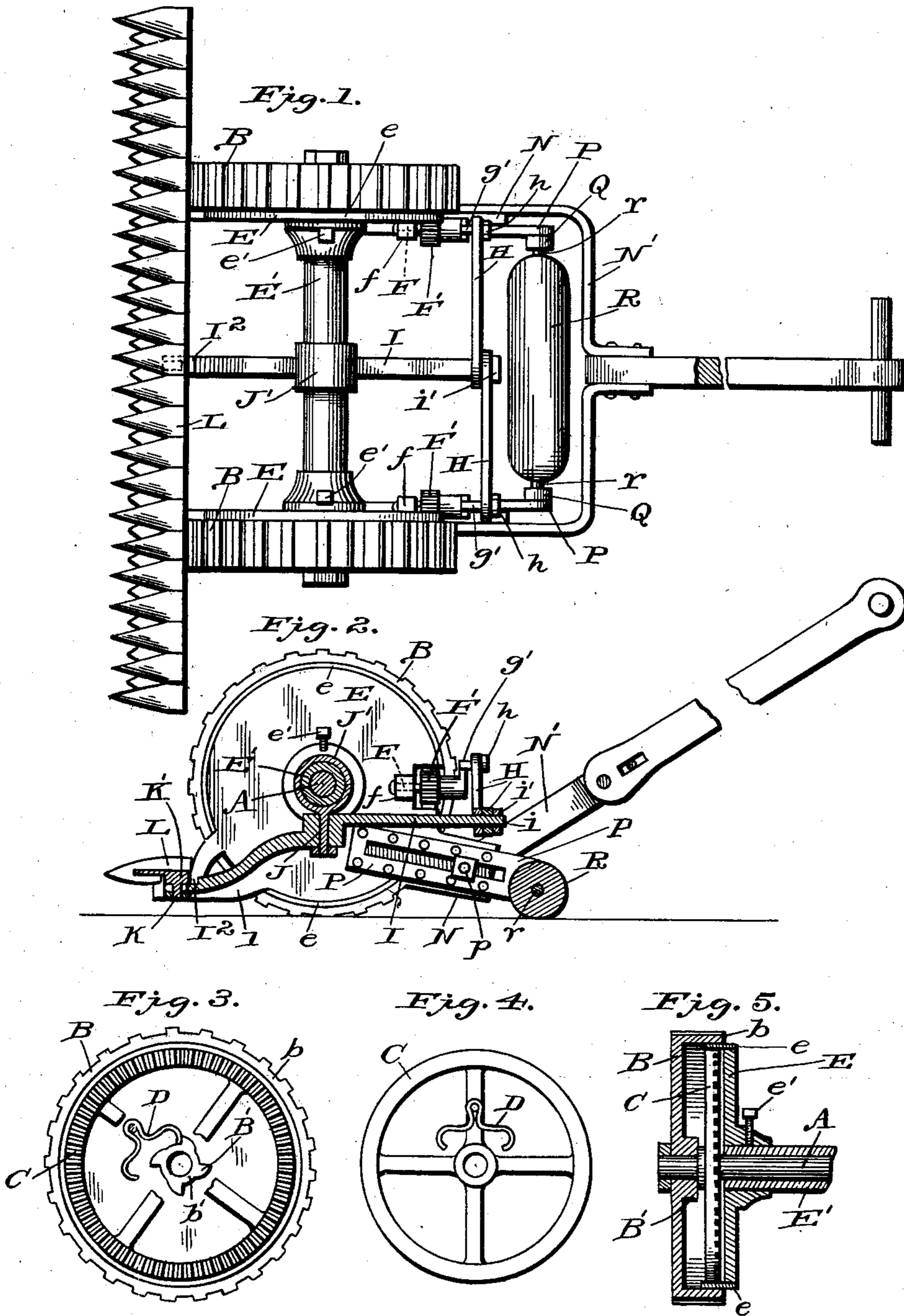
Patented Aug. 2, 1898.

P. McLAUGHLIN.

LAWN MOWER.

(Application filed Apr. 29, 1896.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

PATRICK McLAUGHLIN, OF DOVER, NEW HAMPSHIRE.

LAWN-MOWER.

SPECIFICATION forming part of Letters Patent No. 608,526, dated August 2, 1898.

Application filed April 29, 1896. Serial No. 589,521. (No model.)

To all whom it may concern:

Be it known that I, PATRICK McLAUGHLIN, a citizen of the United States, residing at Dover, in the county of Strafford and State of New Hampshire, have invented certain new and useful Improvements in Lawn-Mowers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain new and useful improvements in lawn-mowers; and it has for its objects, among others, to provide a lawn-mower which is simple in its construction, cheap and durable, efficient in its operation, not liable to get out of order or to be broken in use, and so constructed that it may be employed for mowing long grass, terraces, around shrubs, flower-beds, and under fences and along hedges.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a plan view of a lawn-mower constructed in accordance with my invention. Fig. 2 is a substantially central longitudinal vertical section. Fig. 3 is a detail of one of the wheels. Fig. 4 is a detail of one of the cog-wheels and its double pawl. Fig. 5 is a detail in vertical section through the main axle and wheel.

Like letters of reference indicate like parts in the several views.

Referring now to the details of the drawings by letter, A designates the axle, and B the wheels, which are loosely mounted thereon, their inner faces being flanged, as shown at *b*, and the hub *b'*, which extends within the chamber formed by the flange, is provided with a ratchet B', the outer periphery of the wheels being corrugated or roughened in the usual manner.

Care cog-wheels arranged to revolve within the chamber formed by the flanges of the said wheels, and on these cog-wheels is the pivoted

double pawl D, which is designed to engage the said ratchet as the wheels are revolved.

E are plates or disks fast upon the sleeve E', which surrounds the axle, and to the upper faces of these disks or plates are the metallic strips *e*, which extend partially around the same, as indicated. These plates or disks can be secured in position in any suitable manner—as, for instance, by the set-screws *e'*, which pass through the hub thereof and into the sleeve. On each of these disks is mounted a bearing *f*, in which is designed to revolve the shaft F, extended at right angles to the axle, and on which shaft is a cog-wheel F', meshing with the cog-wheel on the axle, and to the outer end or face is a small arm carrying a crank-pin *g'*, upon which is loosely sleeved one end of the connecting-rod H, which extends substantially parallel with the axle, a nut *h* serving to retain the same on the crank-pin. The other end of this connecting-rod *h* is sleeved upon the pin *i*, projecting from the arm I and held thereon by a suitable nut *i'*, and this arm I is pivotally mounted on the pin J, depending from the hanger J', which is loosely supported from the sleeve on the axle.

The front end of the arm I is adapted at I² to receive the pin or projection *k*, depending from the cutter-bar K', which is mounted to reciprocate in suitable guides (not shown) on the under face of the finger-bar L, which is suitably supported at the rear of the machine on the forward extension *l* on the plates or disks, which are secured to the sleeve of the axle, as shown, so that as the arm I is moved on its pivot the cutter-bar is reciprocated back and forth. The knife-bar is provided with the usual guard-fingers, and, in fact, this part of the device may be of any well-known or approved form of construction.

The operation will be understood. As the machine is propelled forward the cog-wheels on the shaft are caused to revolve, and thus, through the medium of the cog-wheels meshing therewith and the crank arms and pins and the rods H and I, the latter is oscillated on its pivot and the cutter-bar reciprocated.

Extending rearward from the disks or plates on the opposite ends of the sleeve surrounding the axle are the arms N, to which are se-

cured the end of the yoke N', to which the draft appliances are designed to be attached, and on these extensions are the slotted arms P, rendered adjustable in the direction of the
 5 length of the machine by the bolts and nuts p, which bolts pass through the slots of the arms and are held to the extension of the plates. These arms, at their forward ends, are provided upon their adjacent faces with the
 10 bosses Q, in which are held the pintles r of the roller R.

Modifications in details may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.
 15 Having thus described the invention, what is claimed as new is—

1. The combination with the axle and the wheels loosely mounted thereon, with their inner faces flanged and the hub of each extended within the chamber formed by said
 20 flange, ratchet-disks on said hubs, cog-wheels mounted to revolve within said chambers, pivoted double pawls on the cog-wheels engaging said ratchets, a sleeve surrounding the
 25 axle, disks fast upon said sleeve, flange-strips on the upper faces of and extending partially around said disks, a bearing on each of said disks, shafts mounted to revolve in said
 30 bearings at right angles to the axle, cog-wheels on said shafts meshing with the cog-wheels on the axle, a crank carried by each of said shafts, connecting-rods attached to said cranks, and an oscillating bar pivotally
 suspended beneath the axle connected at its

rear end to the adjacent ends of said connect- 35
 ing-rods and at its forward end to the reciprocating knife-bar, substantially as described.

2. The combination with the axle and the wheels loosely mounted thereon, with their inner faces flanged and the hub extended 40
 within the chamber formed by the flange, a ratchet on said hub, cog-wheels mounted to revolve within said chamber, a pivoted double pawl on the cog-wheel engaging said ratchet, a sleeve surrounding the axle, plates fast upon 45
 said sleeve, strips on the upper faces of the plates, extending partially around the same, a bearing on each of said disks, a shaft mounted to revolve in said bearing at right angles
 to the axle, a cog-wheel on said shaft mesh- 50
 ing with the cog-wheel on the axle, a disk fast on the sleeve surrounding the axle, said disk covering the toothed face of said cog-wheel, and a crank carried thereby, a connect- 55
 ing-rod extending from said crank, a hanger loosely supported from said sleeve, a pin depending from said hanger, and an oscillating bar pivotally mounted on said pin
 and connected with the knife-bar and said connecting-rod, substantially as described. 60

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

PATRICK McLAUGHLIN.

Witnesses:

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 B. H. REDFIELD.