2 Sheets--Sheet 1.

L. CHAPMAN.

Improvement in Lawn-Mowers.

No. 129,099. Patented July 16, 1872.

Fig. 1

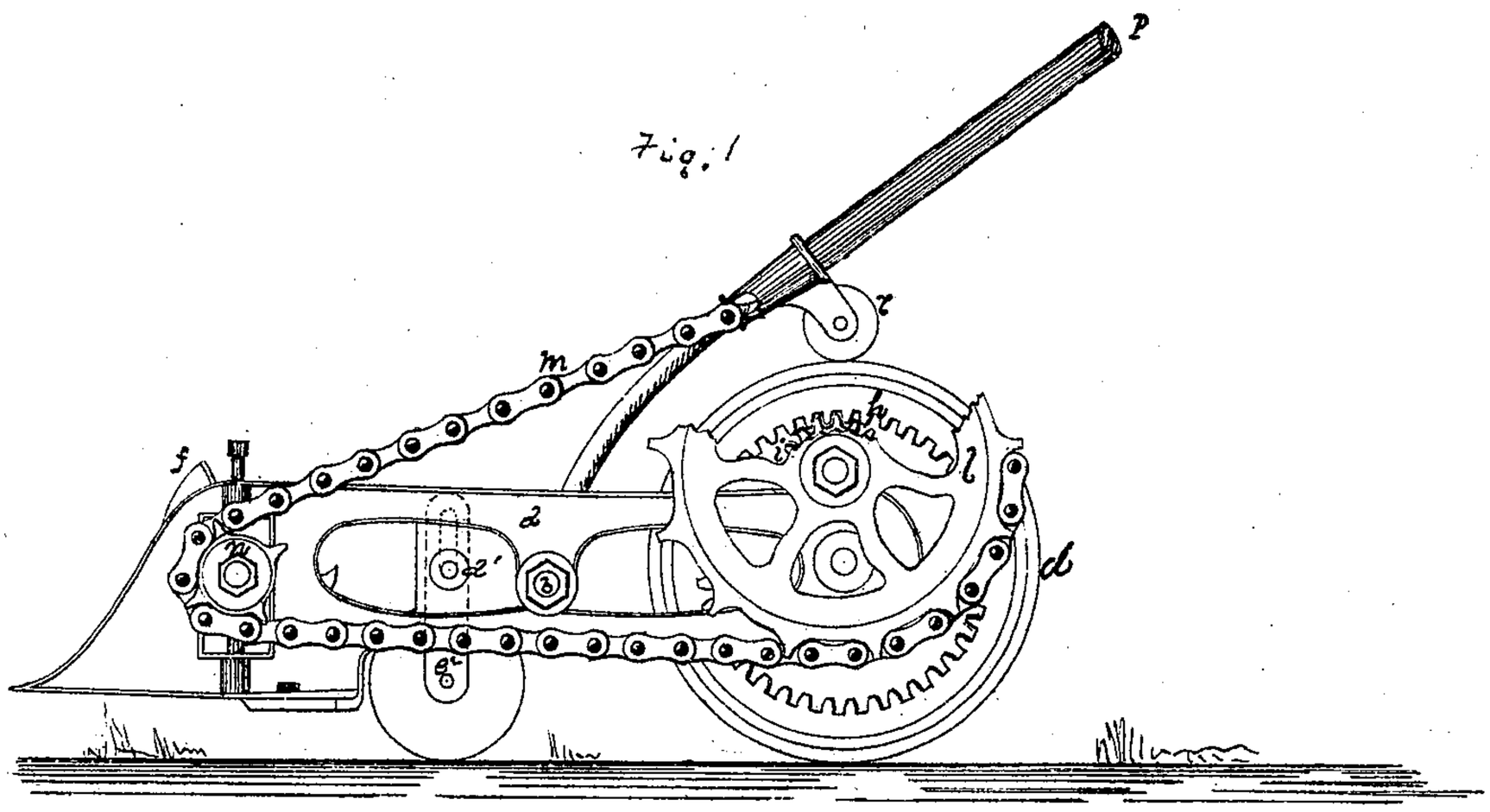
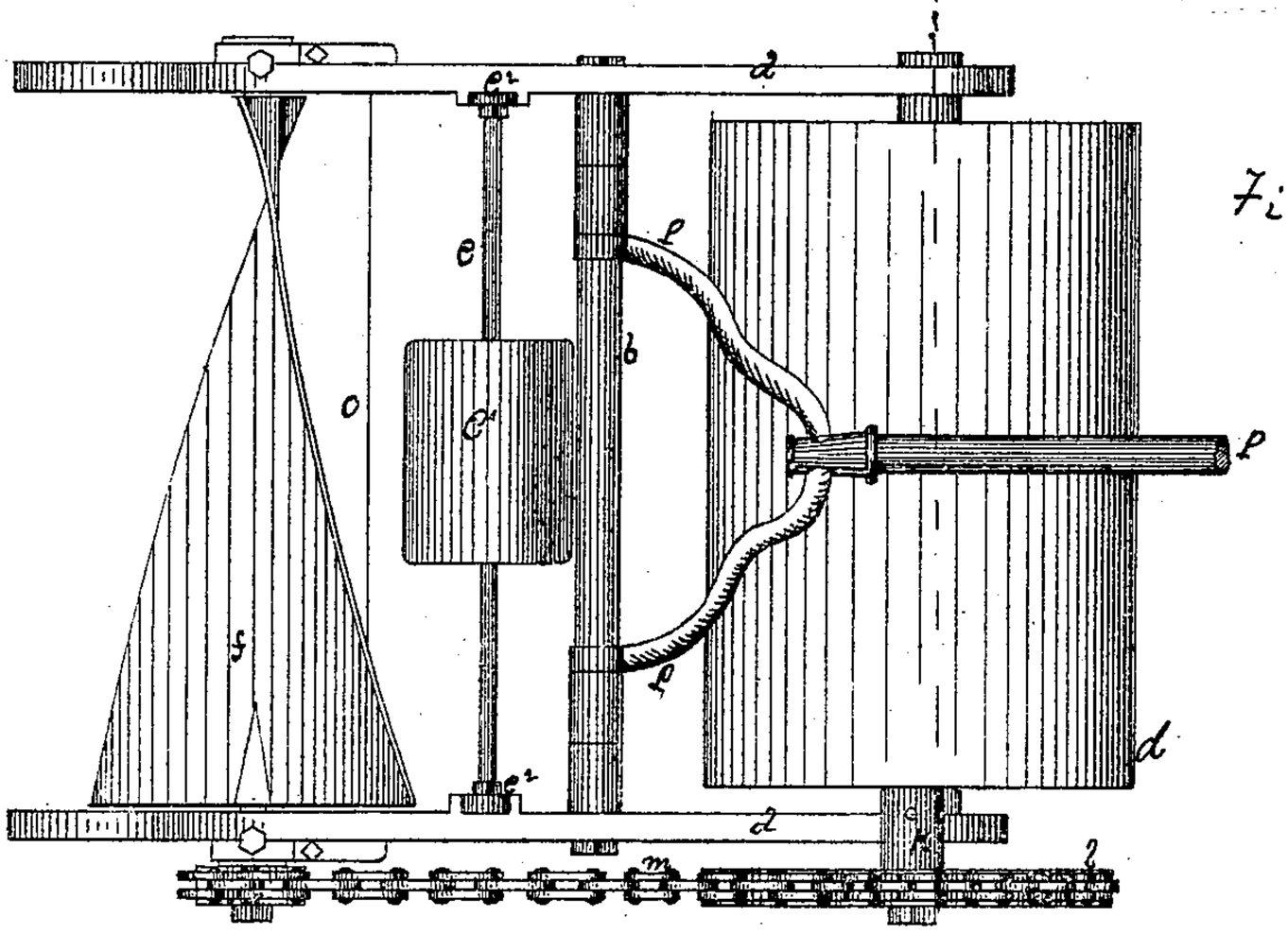


Fig. 2



Witnesses.

S. Häfelin

C. J. Simonds

Inventor.

Luke Chapman

by W. E. Simonds

Solicitor

2 Sheets--Sheet 2.

L. CHAPMAN.

Improvement in Lawn-Mowers.

No. 129,099. Patented July 16, 1872.

Fig. 3

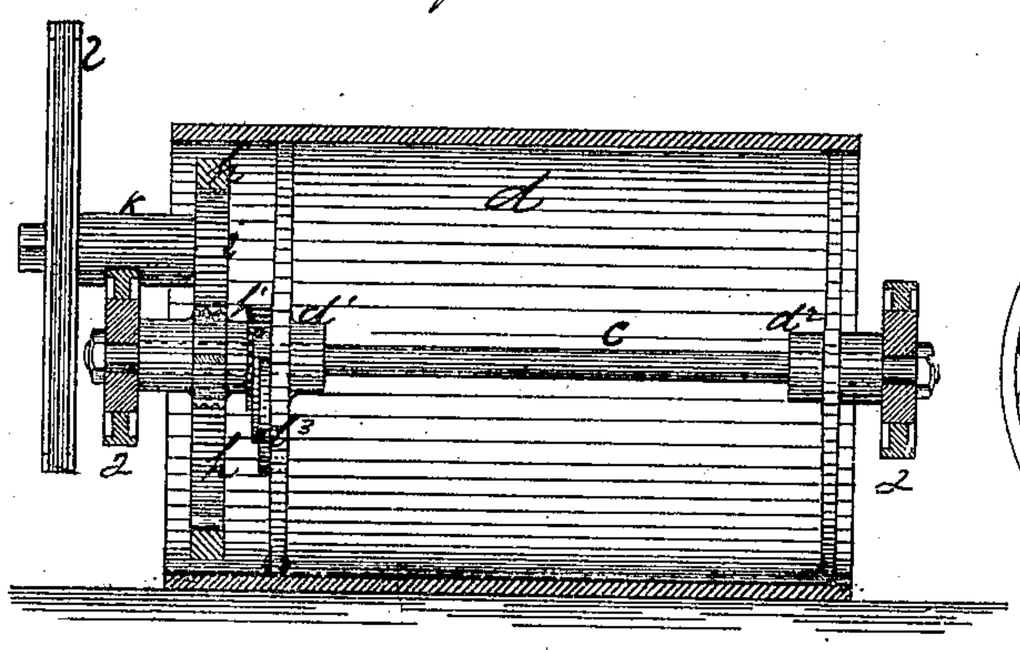
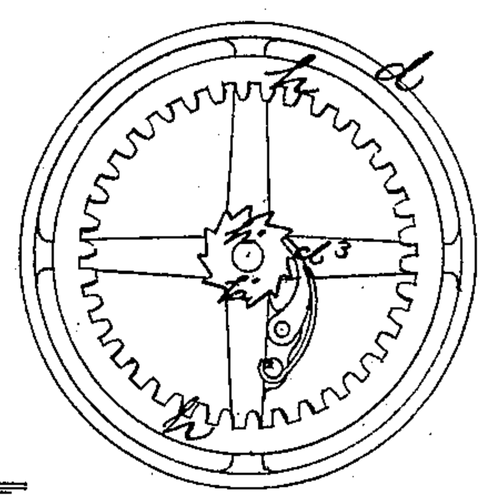


Fig 4



Witnesses.

L. Häfelin

L. J. Simonds

Inventor.

Lorkel Chapman

by- W. E. Simonds

Solicitor

129,099

UNITED STATES PATENT OFFICE.

LUKE CHAPMAN, OF COLLINSVILLE, CONNECTICUT.

IMPROVEMENT IN LAWN-MOWERS.

Specification forming part of Letters Patent No. 129,099, dated July 16, 1872.

SPECIFICATION.

I, LUKE CHAPMAN, of Collinsville, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Lawn-Mowers, of which the following is a specification, reference being had to the accompanying drawing, in which—

Figure 1 is a side elevation with a part of the chain-wheel broken away to show parts beyond it. Fig. 2 is a plan view. Fig. 3 is a central vertical section through the line *x x* in Fig. 2. Fig. 4 is a view looking into the left end of the driving-drum, omitting the spokes of the inside gear-wheel *h*.

My improvements are two in number—namely; first, placing the gears which are used within the driving-drum, thus removing them from danger of clogging with grass, and from danger of other accidents; secondly, the arrangement of a small roller on the under side of the handle, which bears upon the driving-drum when the handle is pressed down upon, and thereby allows the operator to raise the front of the machine, as is often necessary, at pleasure.

The letter *a* indicates the two sides of the frame of the machine, held together by the rod *b*, which is a fixed rod, and by the rod *c*, which forms an axis for the driving-drum *d*, also a fixed rod. The shaft *e* and the flier *f*, which are both rotary, also perform service in this direction. The bearings of the drum are at d^1 d^2. To one of the arms of the drum is pivoted a spring-pawl, d^3, which, when the machine is run forward, catches in the notches or teeth of the hub *h'*, which is the hub of the gear-wheel *h*, and thus causes the gear-wheel to revolve with the drum. When the machine is run backward the gear-wheel *h* and its attendant devices do not move at all. The gear-wheel *h* has an inside gear on the interior of its circumferential rim, meshing into and driving the pinion *i*, which is hung on a shaft running through the journal-box *k*, and having upon its outer end the chain-wheel *l*, from which the endless chain *m* runs to the chain-pinion *n*, and thereby rotates the flier *f*, which drives the grass against the edge of the cutter *o* and thereby cuts it. The gear-wheel *h* and the pinion *i* are both situated within the drum *d*, out of the way of grass or accidents. The handle *p* is pivoted by the bail *p'* to the shaft *b*, and has hung on its under side the small roll *r*, which serves as a fulcrum when borne down upon the drum *d*, whereby the operator may lift the front of the machine. As this fulcrum is a roll it does not interfere to any considerable extent with the motion of the drum. The letter e^1 indicates a roll hung on the shaft *e*, which shaft is hung in the lower ends of short adjusting bars e^2, which rest in grooves or seats prepared for them on the inside of the frame pieces *a*, and are attached to the same by screw-bolts *a'* running through vertical slots in the bars, whereby the height of the front part of the machine and consequently of the cutter *o* can be regulated at pleasure.

Although I use a chain to communicate motion from the wheel *l* to the rotary flier in front, yet this motion can readily be communicated by a train of gears or its equivalent.

I claim as my invention—

1. The combination and arrangement of the lawn-mower frame *a*, the drum *d*, the gear *h* situated within the drum, the pinion *i* also within the drum and its shaft, the wheel *l*, the chain *m*, the wheel *n* and its shaft, with the flier *f*, the whole constructed, arranged, and operating substantially as described, for the purposes set forth.

2. The combination and arrangement, in a lawn-mower, of the handle *p*, the roll *r*, and the drum *d*, substantially as described, and for the purpose set forth.

LUKE CHAPMAN.

Witnesses:
J. H. BIDWELL,
OLIVER F. PERRY.