G. D. HAMBLIN.

PAWL AND RATCHET MECHANISM.

No. 169,804. Patented Nov. 9, 1875.

Fig. 1.

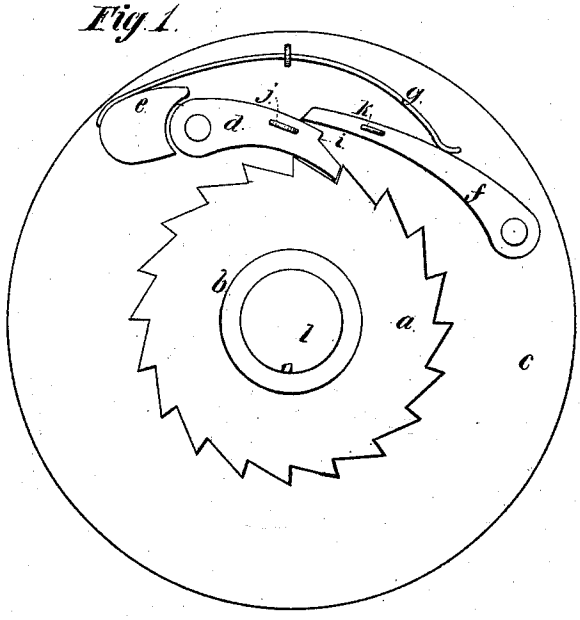
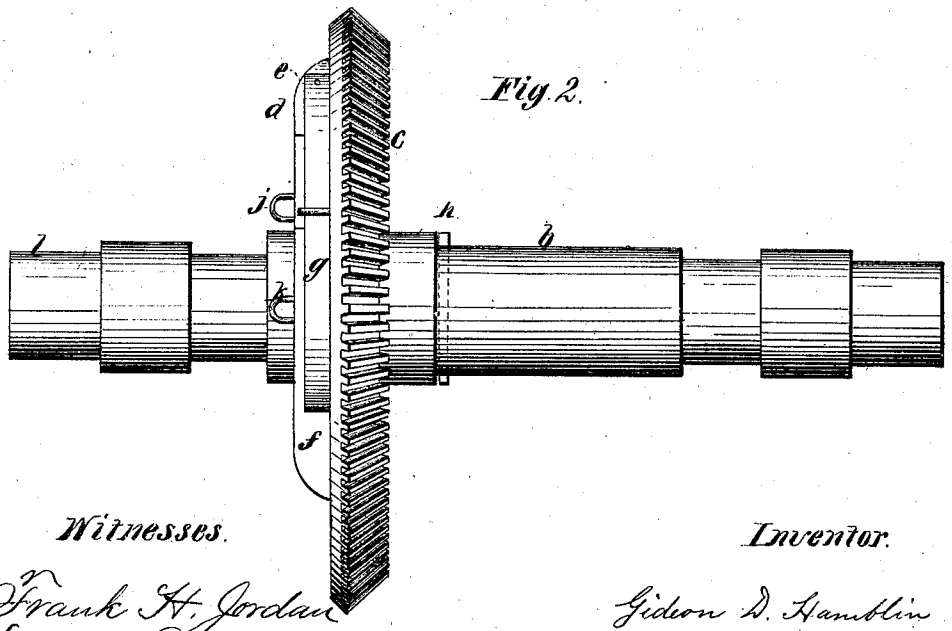


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

GIDEON D. HAMBLIN, OF DEERING, MAINE.

IMPROVEMENT IN PAWL-AND-RATCHET MECHANISMS.

Specification forming part of Letters Patent No. **169,804**, dated November 9, 1875; application filed August 19, 1875.

To all whom it may concern:

Be it known that I, GIDEON D. HAMBLIN, of Deering, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Mowing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The drawing shows a front or face view of my invention in Figure 1, and in Fig. 2 a view of the shaft.

This invention has for its object the production of a device for driving the cutters of a mowing-machine in a simple and easy manner; and consists, in combination with a shaft operated by one only of the driving-wheels of the machine, of a ratchet, *a*, rigidly affixed to the shaft *b*, a gear, *c*, loose on said shaft *b*, a pawl, *d*, socket *e*, pivoted arm *f*, and spring *g*.

The gear *c* communicates motion to the ordinary smaller gear, which drives the cutting-knives of the machine. This gear-wheel has a pin and washer, *h*, to hold it in place.

When the pawl *d* is set in the teeth of the ratchet *a*, the motion of the shaft *b* is communicated to the cutters of the machine, and the pawl is then held in place by the arm *f* and the spring *g*, which constitute what may be termed the pawl-holder. The pawl *d* has a notch or shoulder, *i*, into which the end of the pawl-holder fits when the pawl is disengaged, and so held from the ratchet. The back end of the pawl *d* works against the socket *e*. When the pawl is engaged the different parts and devices are as shown in Fig. 1. *j k* are staples or handles, placed on the pawl *d* and pawl-holder *k*, for the purpose of changing the position of the same as desired.

To disengage the pawl, press up on the handle *j* until the end of the holder *k* rests against the shoulder *i*. To engage the pawl when thus held, press upward on the handle *k*, release the holder from the shoulder on the pawl, and the pawl will fall onto the ratchet *a*, where it will engage and be held, as illustrated in Fig. 1. *l* shows the end of the shaft, where the driving-wheel is attached. The wheel on the other end is loose.

It is obvious that with this simple arrangement, the machine can be promptly set in motion or stopped. The machine has only one driving-wheel, and needs no clutch or any other ratchet. The combination is not liable to get out of order, and needs no oiling. The horse draws at the center of the main shaft. The friction of the driving-wheel at one end of the shaft balances that of the cutters at the other end.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination, with the shaft *b*, having one driving-wheel, of the ratchet *a*, rigid on the shaft, the gear *c*, loose on the shaft, and carrying the pawl *d*, socket *e*, holder *f*, spring *g*, handles *k j*, and shoulder *i*, as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

G. D. HAMBLIN.

Witnesses:

FRANK H. JORDAN,

WM. HENRY CLIFFORD.