J. G. Perry,

Mower.

No. 46,933. Patented Mar. 21. 1865.

Fig 1

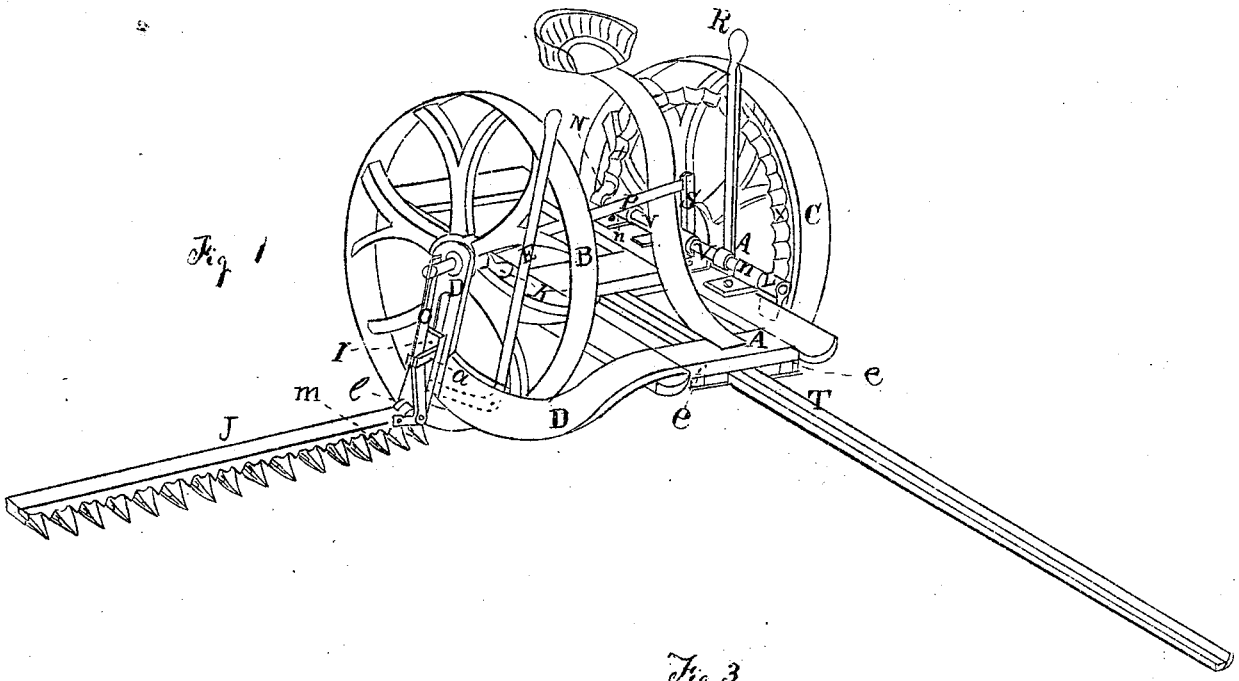


Fig 2

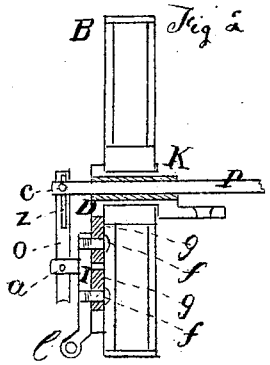
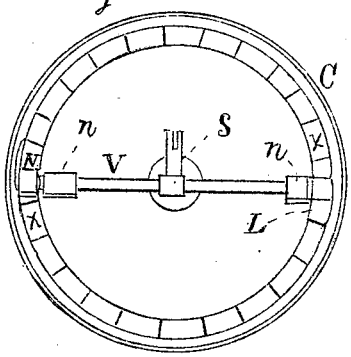


Fig 3



Witnesses

Oliver H. Perry

Elisha Clarke

John G. Perry

UNITED STATES PATENT OFFICE.

JOHN G. PERRY, OF SOUTH KINGSTON, RHODE ISLAND.

IMPROVEMENT IN MOWING-MACHINES.

Specification forming part of Letters Patent No. **46,933**, dated March 21, 1865.

To all whom it may concern:

Be it known that I, JOHN G. PERRY, of South Kingston, in the county of Washington and State of Rhode Island, have invented new and useful Improvements in Mowing-Machines; and I do hereby declare the following to be a full and correct description thereof, reference being had to the accompanying drawings, forming part of this specification, and to the letters of reference marked thereon, the same letters denoting like parts in all the figures.

Figure 1 is a perspective view of the machine. Fig. 2 is a vertical section of the wheel and hollow axle, taken through in the line of the centers of the axles. Fig. 3 shows the other wheel with the rocker-shaft and escapement.

To enable others to make and use my machine, I will explain its construction and the mode of operating it.

A frame, A, is placed between the two wheels B C, the axles of which are fastened to the frame. One of these axles K is made hollow through its length to allow the passage of the connecting-rod P. On the axle, outside of this wheel, is fastened the frame D by one end, the other end of the frame being fastened to the frame A in front of the wheel. The frame D is for the purpose of holding the plate I, to the lower end of which is hinged the cutter-bar. It also holds the standard *a*, in which the intermediate lever, O, works. This plate is not fastened rigidly to the frame D, but is held to it by bolts *f f*, passing through the slots *g g*, which allow the plate to be raised and lowered by means of the knee-lever E, and a slot, Z, is made in the upper end of the lever *o*, so that the lever may not be prevented from rising with the plate by the pin that joins it to the connecting-rod P. The motion for the knife-bar *m* is taken from the wheel farthest from it. A rocker-shaft, V, is placed across the axle, and moves in bearings *n n*, secured to the frame A. On each end of this rocker-shaft is fastened an arm or pallet, L N, which are moved by the escapement-wheel X, being placed on opposite sides of the shaft, so that while one is in between the teeth or projections of the wheel the other will be out, and these arms or pallets being alternately thrown out by the projections a rocking motion is given to the shaft V, which is communicated to the knives *m* by the rod P and lever O, and to make that motion as direct as possible the connecting-rod P is carried through the hollow center of the axle of the wheel. The pallets or arms L N are thrown out of gear when the motion of the knives is to be discontinued by pushing the lever R forward, the collar and projection *t*, which catches into the lever, throwing the shaft V endwise until the pallets are out.

The pole T, which is used to draw the machine by when two horses are needed, is divided through the middle, so that one of the parts can be put in each of the openings *c c'*, and a pair of thills or shafts produced in which one horse can be used to work the machine when the grass to be cut is light.

The operation of the machine is as follows: When the machine is drawn over the ground the wheel C carries the escapement-wheel X, which, by its teeth or projections, as before stated, move the pallets L N in and out alternately, giving a rocking motion, which is communicated to the knife-bar *m* by means of the connecting-rod P and intermediate lever, O, which is connected to the knife-bar *m* at its lower end. When it is necessary to raise the cutting apparatus to avoid stumps, stones, &c., by pushing the lever E forward, the horizontal part will raise the plate I, and with it the cutter-bar, &c., and the cutter-bar may be raised into a vertical position when required to pass through a gateway, &c.

The operation of the lever R has already been described. Friction-rolls may be put in the ends of the arms or pallets L N, where they bear upon the escapement-wheel to lessen the friction and noise; and, instead of the escapement-wheel and rocker-shaft, the common gearing and shafting may be used to move the knife-bar, and all the other advantages remain the same.

Some of the advantages of my improvements are as follows: By the use of the escapement-wheel and pallets a very rapid motion is obtained with but little friction, and by making the projections on the wheel with the proper curve a motion is produced that stops and starts the knives in their motion sidewise in the easiest manner possible. By the use of the hollow axle we are enabled to use two wheels and still keep the cutter-bar in a line with the axle, where it is better governed by the wheels in passing over uneven ground, and avoids increasing or decreasing the weight

on the team when the cutter-bar is raised to pass over obstructions, which is the case when the bar is placed forward or back of the axle; and we are enabled to take the motion for the knives from the wheel farthest from them, thereby overcoming the side draft, which is a great advantage, because of the ease with which the cutter-bar can be raised. The machine may readily be converted into a harvester or reaper.

Having thus described my mowing-machine, what I claim as my invention, and desire to secure by Letters Patent, is—

1. The arrangement of the escapement-wheel X, rocker-shaft V, and connecting-rod P, in combination with the stationary tubular axle K, substantially as herein set forth, and for the purpose specified.

2. The arrangement of the frame D and sliding plate I, having the standard *a* and lever O attached to it, in combination with the tubular axle K, substantially as herein described, and for the purpose set forth.

JOHN G. PERRY.

Witnesses:

OLIVER H. PERRY,

ELISHA C. CLARKE.