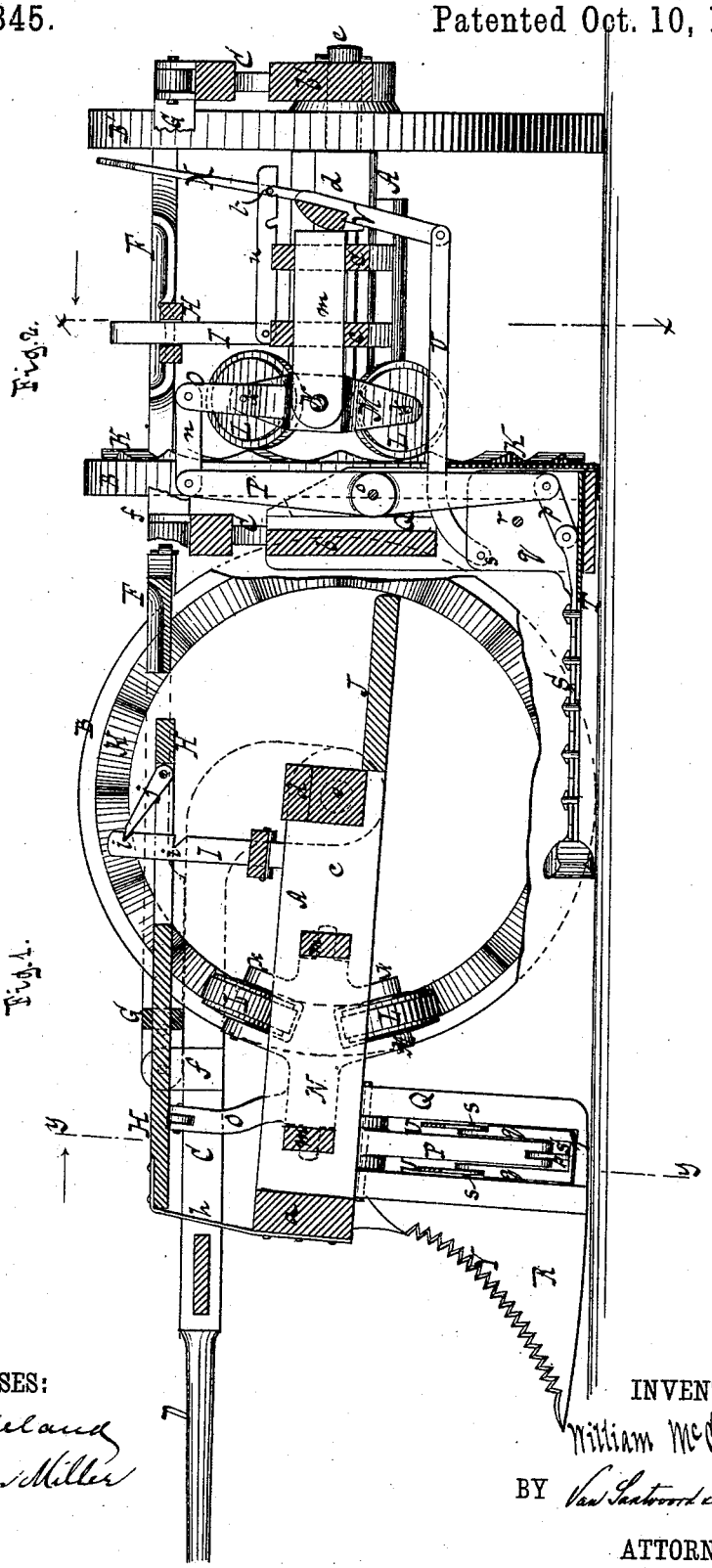
(No Model.) 2 Sheets—Sheet 1.

W. McCORD.

MOWING MACHINE.

No. 265,845. Patented Oct. 10, 1882.



WITNESSES:

Otto Hufeland

William Miller

INVENTOR

William McCord

BY Van Santvoord & Hauff

ATTORNEYS

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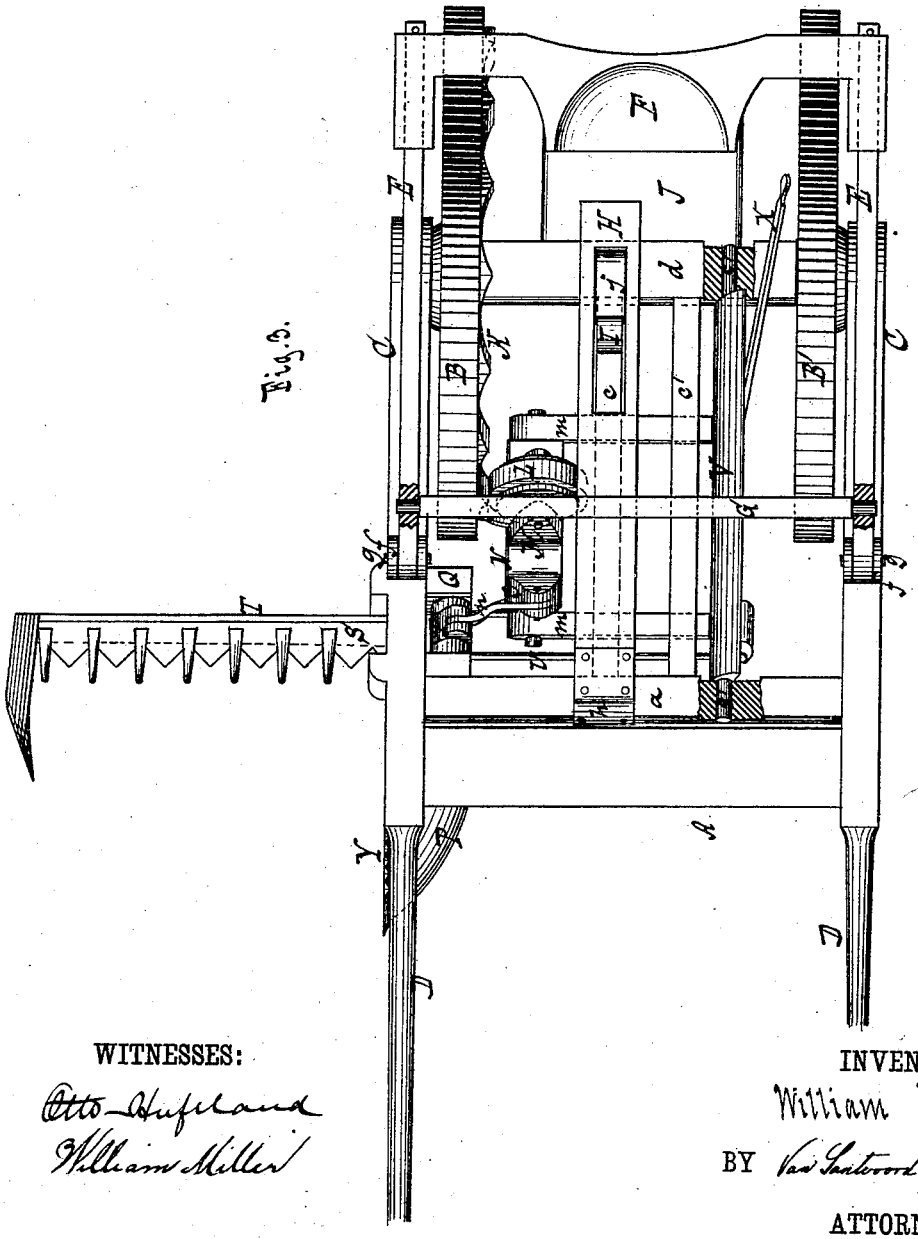
Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM McCORD, OF SING SING, NEW YORK.

MOWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 265,845, dated October 10, 1882.

Application filed March 8, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM McCORD, a citizen of the United States, residing at Sing Sing, in the county of Westchester and State of New York, have invented new and useful Improvements in Mowing-Machines, of which the following is a specification.

This invention relates to certain new and useful mechanism for driving the cutter-bar of a mowing-machine and for raising and lowering the same; also, the peculiar construction of the frame and other parts of the machine fully pointed out in the following specification.

In the drawings, Figure 1 represents a longitudinal vertical section in the plane *x x*, Fig. 2. Fig. 2 is a transverse vertical section in the plane *y y*, Fig. 1. Fig. 3 is a plan or top view.

Similar letters indicate corresponding parts.

In the drawings, the letter A designates the main frame, which is constructed of the front cross-bar, *a*, the two side bars, *b b'*, the intermediate longitudinal bars, *c c'*, and the rear cross-bar, *d*, which is provided with extensions *e*, Fig. 2, to form the journals for the wheels B B'. On these extensions swing arms C C, which carry the thills D. From these arms extend lugs *f*, which form the bearings for pivots *g* passing through the front ends of levers E, Fig. 3, on which slides the seat F, said seat being adjustable toward and from the front of the machine. The levers E form the bearings for a rock-shaft, G, which carries a lever, H, the front end of which connects by a strap, *h*, with the front cross-bar, *a*, of the frame A, while its rear end is in convenient reach from the driver's seat F, so that by depressing this rear end the front end of the frame A can be raised from the ground. Through the lever H extends an upright bar, I, with notches *i*, and on the lever is secured a pawl, *j*, which can be thrown in or out of gear with said notches, so as to retain the front end of the frame at the desired elevation from the ground. (See Fig. 1.)

To the rear ends of the intermediate longitudinal bars, *c c'*, is firmly secured the footboard J.

On the inner face of the wheel B is formed an undulating track, K, which acts on two rollers, L L, that have their bearings on pivots *k k* in an oscillating lever, M, mounted on a rock-shaft, N, which has its bearings in slides *m*, extending transversely through guide-slots in the intermediate longitudinal bars, *c c'*. When these slides are pushed toward the wheel B the rollers L L engage with the undulating track, which is so arranged in relation to said rollers that when one of the rollers engages with a cavity in the undulating track the other roller bears upon an elevation, (see Fig. 2,) and that when the machine is drawn forward (or backward) on the ground a rapid oscillating motion is imparted to the rock-shaft N and lever M.

From the rock-shaft N extends an arm, O, Figs. 1 and 2, that connects by a link, *n*, with the upper end of a double-armed lever, P, mounted on a pivot, *o*, Fig. 2. This pivot is secured in an upright, Q, to the bottom end of which is secured the shoe R. The bottom end of the lever P connects by a link, *p*, Fig. 2, with cutter-bar S, which moves in the finger-bar T. From the inner end of this finger-bar rise two lugs, *q*, Figs. 1 and 2, which are situated in a slot in the upright Q, and are connected to said upright by a pivot, *r*. To these lugs is secured by a pivot, *s*, a forked rod, U, which is pivoted to a cam-plate, V, that oscillates on pivots *s'*, which have their bearings in the cross-bars *a* and *d* of the frame A. (See Fig. 3.) To this cam-plate is firmly secured a lever, X, which extends up, so that it can be conveniently manipulated from the driver's seat. From this lever extends a pin, *t*, which can be made to engage with a latch, *u*, Fig. 2, pivted to the upright bar I. When the lever X is pressed back to the position shown in Fig. 2 the cam-plate V moves the slides *m m* toward the wheel B, and the rollers L L are thrown in gear with the undulating track K. At the same time the lugs *q* are caused to turn on the pivot *r* and the cutter-bar is thrown down in its working position. When the lever X is swung back toward the wheel B the cutter-bar is raised up to a vertical position, and the cam-plate V releases the slides *m*, so that the rollers L L move back out of gear with the undulating track, leaving the machine in the proper condition to be drawn from place to place.

From the front end of the shoe R extends a sharp-edged blade, Y, to the upright Q, the

cutting-edge of which blade being inclined and slightly curved or straight. In the example shown in the drawings the cutting-edge is serrated; but it may also be made in the form of a knife-edge. The object of this cutting-blade is to open a track for the upright Q through grass, clover, or other plants, which are liable to get entangled in such a manner that they oppose the free passage of the upright.

Heretofore mowing-machines have had their cutter-bars driven by means of an undulating track on one of the drive-wheels acting on rollers mounted in a rocking lever which is connected with the cutter-bar. Such, however, I do not broadly claim, as my invention consists in the combination and arrangement of parts hereinbefore described, and which I will specifically set forth in the claims.

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

1. The combination, with the wheel B, provided with an undulating track, K, of the slides *m*, the rock-shaft N, journaled in said slides, the lever M, and arm O, extending from the rock-shaft, and provided with the rollers L, the vertical lever P, pivoted at or near its center to the upright Q, the link *n*, connecting the upper ends of the arm O and lever P, and the link *p*, connecting the lower end of the latter directly with the cutter-bar, substantially as shown and described.

2. The combination, with the wheel B, provided with an undulating track, K, of the lever M and arm O, mounted on the rock-shaft N and provided with the rollers L, slides *m*, in which the rock-shaft is journaled, the vertical double-armed lever P, pivoted at or near its center to an upright, Q, a link, *n*, connecting the upper ends of the arm O and lever P, and a link, *p*, connecting the lower end of the latter directly with the cutter-bar S, a lever arranged to move the slides, and devices connecting said lever with the cutter-bar, whereby the slides and cutter-bar are simultaneously operated, substantially as and for the purpose described.

3. The combination, substantially as hereinbefore described, of the undulating track, the rollers L L, mounted in a lever extending from the rock-shaft N, the slides *m m*, forming the bearings of said rock-shaft, the cam-plate V, acting on said slides, the cutter-bar connected to a lever, P, which is actuated by the rollers L L, and the finger-bar mounted on the pivot *r* and connected to the cam-plate V.

4. The combination of the main frame A, hung at its rear end on the axle of the drive-wheels, the arms C, supported by the journals of the latter and carrying the thill, the levers E, supported by the arms and carrying a driver's seat, a shaft, G, supported by said arms, the lever H, attached to said shaft and having its front end connected with the forward part of the main frame, and locking devices for securing the rear end of the lever H, substantially as and for the purpose described.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

WM. McCORD. [L. S.]

Witnesses:
J. HOLLY PLATT,
LEWIS H. PLATT.