(No Model.)

S. J. BAKER.

LAWN MOWER.

No. 327,987. Patented Oct. 13, 1885.

Fig. 1.

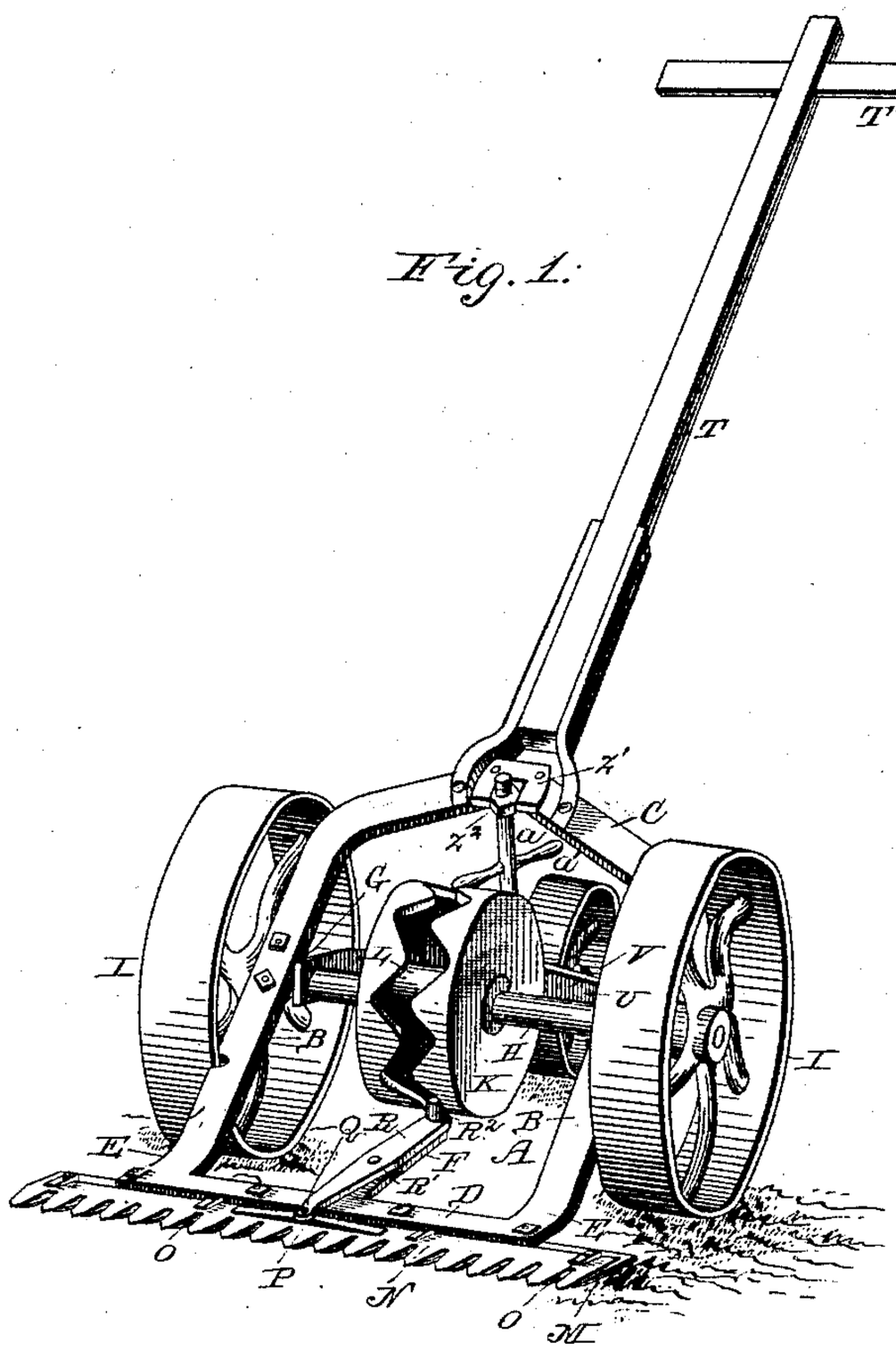
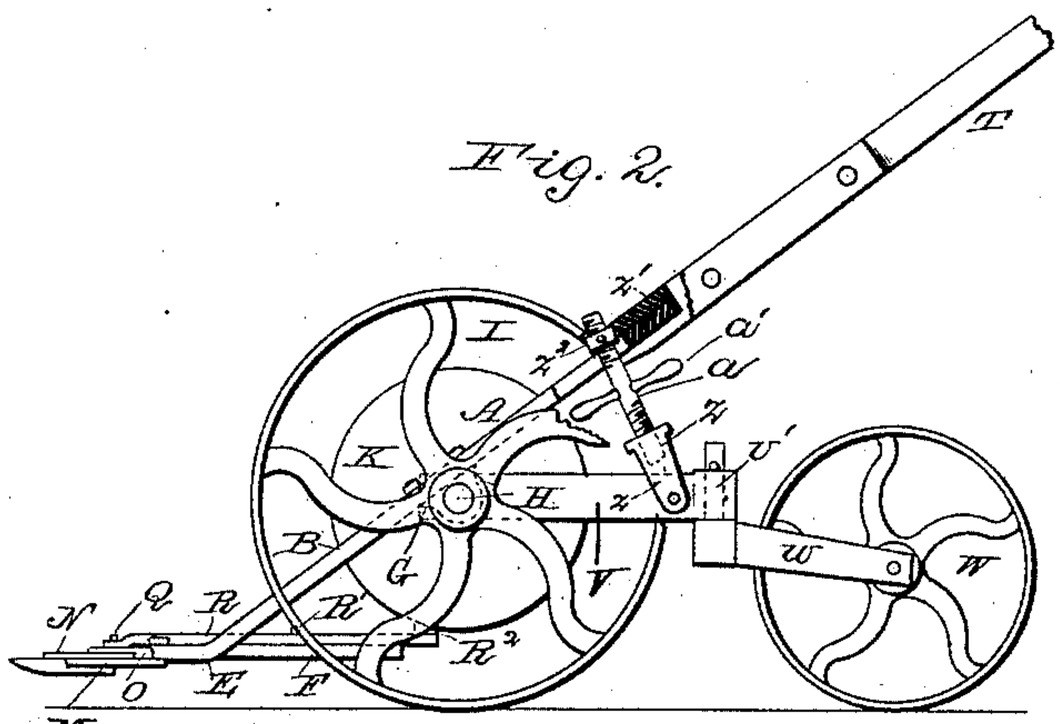


Fig. 2.



WITNESSES

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SANFORD J. BAKER, OF OAKLAND, MAINE.

LAWN-MOWER.

SPECIFICATION forming part of Letters Patent No. 327,987, dated October 13, 1885.

Application filed January 2, 1885. Serial No. 151,809. (No model.)

To all whom it may concern:

Be it known that I, SANFORD J. BAKER, a citizen of the United States, residing at Oakland, in the county of Kennebec and State of Maine, have invented a new and useful Improvement in Lawn-Mowers, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to an improvement in lawn-mowers; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

The object of my invention is to provide a lawn-mower having its cutting-knives arranged to operate in advance of the driving-wheels, and thereby enable the machine to cut the grass clear up to a fence, stump, tree, or other object. The object of my invention is, further, to provide a lawn-mower that is simple in construction, thoroughly efficient, and easy of operation.

In the accompanying drawings, Figure 1 is a perspective view of a machine embodying my invention. Fig. 2 is a side elevation of the same, partly in section.

A represents the frame, which is composed of the sides B, the curved projecting rear end, C, and the straight front end, D. The sides are curved, as at E, where they join the front end, and extending rearwardly from the rear side of the front end is a tongue, F. The frame is preferably formed of a single piece of cast metal, and is provided with blocks G, which are bolted to its under side, a little rearwardly of the center of the sides, as shown.

A shaft, H, is journaled in the blocks, and to the extremities of the shaft are attached the wheels I, one of said wheels being fast to and the other loose upon said shaft.

A cam, K, is made fast upon the center of the shaft. This cam is of somewhat less diameter than the wheels I, and has a serpentine groove, L, cut in its face.

The finger-bar M is of cast metal, and is bolted to the under side of the front end of the frame near its front edge.

The cutter-bar M is composed of a solid piece of saw-plate, serrated, as shown, and is placed upon the finger-bar, and is adapted to reciprocate back and forth thereon. The cutter-bar is prevented from getting out of place when the machine is in operation by lugs O, which are bolted to the upper side of the finger-bar and project forwardly over the cutter-bar.

In order to cause the machine to cut a swath as broad as the machine, and thus prevent either of the wheels from running on the uncut grass, I make the cutter-bar and finger-bar slightly longer than the extreme width of the machine from outside to outside of the driving-wheels.

To the center of the cutter-bar, on its upper side, I rivet an iron brace, P, which is provided with a central upwardly-projecting tang, Q.

A lever, R, is fulcrumed on the upper side of the tongue F, as at R′, and from the rear end of this lever extends upwardly a tang upon which is placed an anti-friction roller, R^2, which bears in the grooved face of the cam and imparts a reciprocating motion to the lever when the machine is in motion. The front end of the lever is attached to the tang Q, and thereby operates the cutter-bar, as will be very readily understood.

A pushing-pole, T, is secured to the rear end of the frame, and projects rearwardly and upwardly therefrom. A cross-bar, T′, is attached centrally to the rear end of this pole and serves as a handle therefor.

Pivoted upon the shaft is a frame, V, which consists of the diagonally-arranged bars *u*, which extend rearwardly from the shaft and approaching each other, forming an eye, *u′*, where they meet.

A guide-wheel, W, is journaled in a frame, *w*, and is pivoted to the frame V by means of an upwardly-extending spindle, which is formed with the frame *w*, and which enters the eye *u′*.

In order to adapt the cutter-bar to be adjusted so as to cut the grass at any desired height from the ground, I pivot a nut, Z, which is provided with extending lugs *z* for that purpose, to the frame V, just in advance of the eye. A plate, *z′*, having forwardly-extending lugs, is secured centrally upon the upper side of the rear end of the frame A, and in between these lugs is pivoted a nut, z^2. A screw, *a*, connects the nuts Z and z^2, and is provided with radial handle-arms *a′*, to enable it to be easily turned in the nuts. The opposite ends of this screw are oppositely threaded, as shown. When the screw is turned in one direction, the frames A and V are brought nearer together

and the cutter-bar is raised. The opposite movement of the screw causes the reverse effect to be produced.

A lawn-mower thus constructed can be put upon the market at a very slight cost, and will be found to have points of advantage over the machines now in common use for the same purpose. The cutter-bar being in advance of the wheels enables the grass to be cut clear up to a fence or other object; the pivoted trailing guide-wheel relieves the operator of the weight of the machine, and also assists in guiding it, and the screw and nuts enable the machine to be adjusted so as to cause the grass to be cut at any desired height.

Having thus described my invention, I claim—

1. The combination of the shaft having the driving and supporting wheels and the cam-wheel, the main frame, to which the shaft is journaled, the cutter-bar secured at the front lower end of the main frame, the fulcrumed lever connecting the cam-wheel with the cutter-bar, the frame V, pivoted on the shaft and carrying the trail-wheel, and means, between the main frame and the frame V, to adjust the cutter-bar vertically, substantially as described.

2. The combination of the shaft having the driving and supporting wheels, the main frame to which the shaft is journaled, and having the cutter-bar at its front lower end and the pushing-pole at its rear end, the fulcrumed lever connecting the cam-wheel and the cutter-bar to operate the latter, the frame V, pivoted on the shaft and carrying the trail-wheel, the nut Z, pivoted to frame V, the nut z^2, pivoted to the main frame, and the right-and-left hand screw working in the nuts, to adjust the cutter-bar vertically, substantially as described.

3. The combination, with the driving-shaft, the supporting-wheels, and the main frame journaled on the driving-shaft and carrying the cutter-bar, of the driving mechanism for the latter, the supplemental frame carrying the trail-wheel and pivoted or hinged on the driving-shaft, and means, substantially as described, located between the main and supplemental frames, to adjust the cutter-bar vertically, as set forth.

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

SANFORD J. BAKER.

Witnesses:

NEWELL HOXIE,

J. E. HARRIS.