No. 633,643. Patented Sept. 26, 1899.

L. T. FEERER.

LAWN MOWER.

(Application filed Dec. 9, 1898.)

(No Model.) 2 Sheets—Sheet 1.

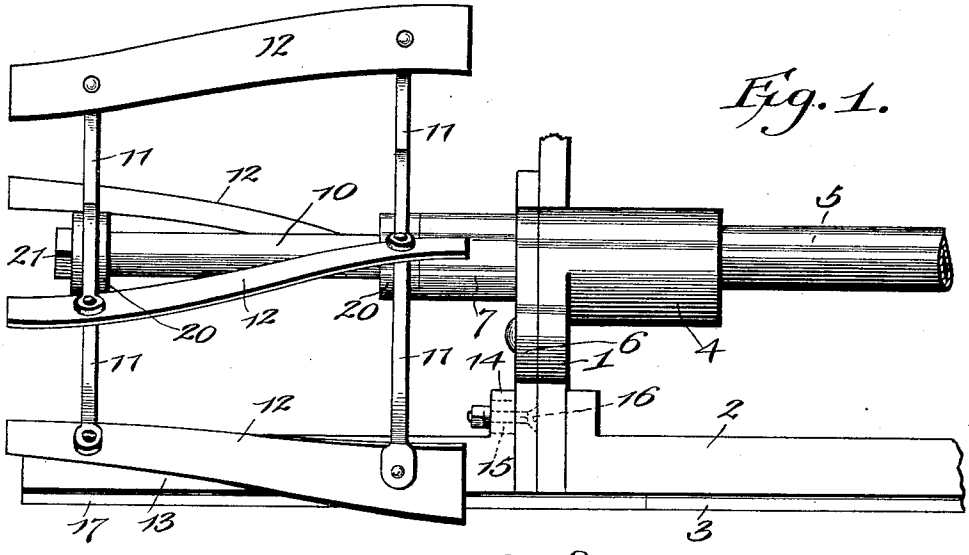


Fig. 1.

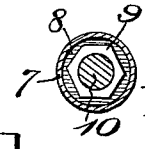


Fig. 3.

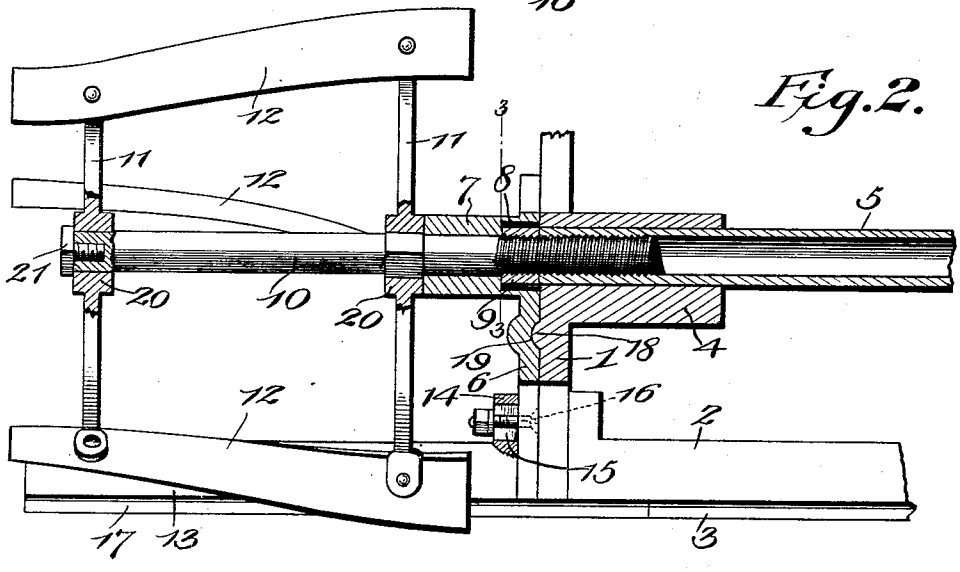


Fig. 2.

Witnesses

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FIG. 4.

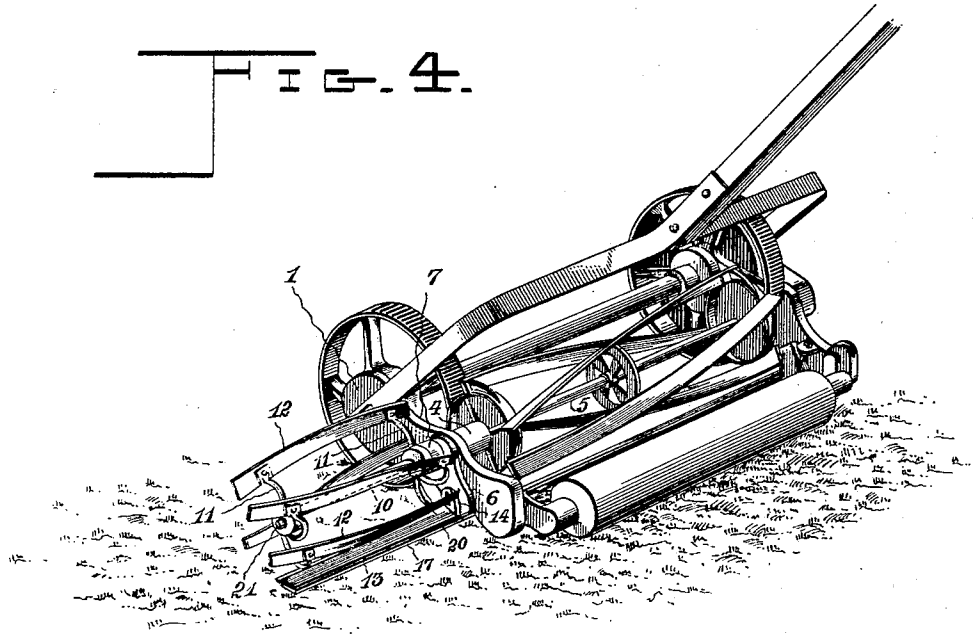
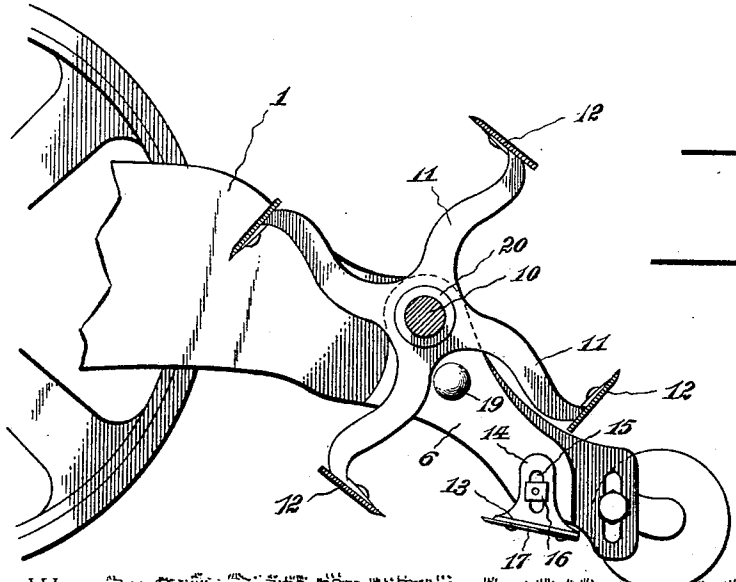


FIG. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

LEE T. FEERER, OF LAFAYETTE, INDIANA.

LAWN-MOWER.

SPECIFICATION forming part of Letters Patent No. 633,643, dated September 26, 1899.

Application filed December 9, 1898. Serial No. 698,763. (No model.)

To all whom it may concern:

Be it known that I, LEE T. FEERER, a citizen of the United States, residing at Lafayette, in the county of Tippecanoe and State of Indiana, have invented a new and useful Lawn-Mower, of which the following is a specification.

My invention relates to lawn-mowers, and particularly to an attachment for an ordinary lawn-mower adapted for trimming a lawn adjacent to buildings, fences, walks, curbs, trees, flower-beds, &c.; and the object in view is to provide a simple and inexpensive device adapted to be applied to the frame of a lawn-mower without material if any change in the construction of the latter.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is an elevation of an attachment constructed in accordance with my invention, showing the adjacent portions of the lawn-mower. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a detail transverse section on the plane indicated by the line 3 3 of Fig. 2. Fig. 4 is a perspective view of the attachment embodying my invention applied in the operative position to a lawn-mower, it being understood, however, that the construction of the lawn-mower forms no part of my invention. Fig. 5 is a transverse sectional view of the auxiliary cutter-head.

Similar reference characters indicate corresponding parts in all the figures of the drawings.

1 designates a portion of the frame of a lawn-mower of the ordinary or any preferred construction, 2 the adjacent attached end of the cutter-bar, carrying the usual ledger-plate 3, and 4 a bearing in which is mounted one end of the main cutter-head shaft 5.

The attachment forming the subject-matter of my invention embodies a securing-plate 6, and rigid or integral therewith is a bearing 7, counterbored, as at 8, to receive a jam-nut 9, and extending through said bearing and threaded in the adjacent end of the main cutter-head shaft 5 is an auxiliary cutter-head shaft 10. Said auxiliary cutter-head shaft is preferably provided with a left-hand thread, and the jam-nut 9 upon being tightened secures the parts in their operative relations. The auxiliary cutter-head is provided with armed spiders forming spokes 11, carrying the auxiliary knives 12, which coöperate with an auxiliary cutter-bar 13, having an upturned inner extremity 14, bolted to the securing-plate 6. Said upturned inner extremity is provided with slots 15, through which extend securing-bolts 16, engaged with the plate 6, whereby the vertical adjustment of the cutter-bar may be varied to secure an operative relation of the knives 12 with an auxiliary ledger-plate 17, carried by the cutter-bar and extending inwardly toward the securing-plate 6 to abut against the adjacent end of the main ledger-plate 3.

In many lawn-mowers as now constructed the main cutter-head shaft is provided with a threaded socket in the proper position for engagement by the threaded extremity of the auxiliary cutter-head spindle 10 of my attachment, said socket being designed for engagement by a tool which may be used in the course of sharpening the main cutter-head knives. I utilize this socket as a means of attachment of the auxiliary cutter-head spindle to the main cutter-head spindle, and in connection therewith I apply the jam-nut 9, by which accidental loosening of the auxiliary spindle is prevented. This jam-nut is fitted in the seat or counterbore 8, and the securing-plate 6, which carries the bearing 7, serves to support the cutter-bar in operative relation with the knives of the auxiliary cutter-head. The side of the supporting-frame 1 is provided with an exterior projection 18 and the securing-plate 6 with a socket 19 to receive said projection, whereby after threading the auxiliary cutter-head spindle into its socket in the main cutter-head spindle and tightening the jam-nut to lock said parts for simultaneous rotation the securing-plate, with the bearing carried thereby, may be applied, and the socket or depression 19 interlocks with the projection 18 to prevent swinging movement of the securing-frame. After thus locking the securing-frame the cutter-head may be applied to the cutter-head spindle, the collars 20, which form parts of the spiders of the auxiliary cutter-head, being fitted, as

in the ordinary practice, upon angular portions of the spindle and being secured against displacement by a suitable fastening device 21, such as a screw or nut at the outer end of the spindle.

It will be seen from the foregoing description that the attachment embodying my invention is simple and that it is adapted to be applied to a machine of the ordinary construction without material change, the attachment being of simple construction, with the parts so related as to adapt the knives to cut close to an obstruction—such as a wall, tree, or curb—and without injury to the moving parts.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having described my invention, what I claim is—

1. The combination with the supporting-frame and main cutter-head spindle of a lawn-mower, of an auxiliary cutter-head having a spindle threaded in an axial socket in the extremity of said main cutter-head spindle, a securing-plate having a bearing fitted upon said auxiliary cutter-head spindle between the auxiliary cutter-head and the main frame, and a cutter-bar carried by said securing-plate, substantially as specified.

2. The combination with the supporting-frame and main cutter-head spindle of a lawn-mower, of an auxiliary cutter-head having a spindle threaded in an axial socket in the adjacent extremity of the main cutter-head spindle, a securing-plate having a bearing fitted upon the portion of the auxiliary cutter-head spindle between the auxiliary cutter-head and the said supporting-frame, said bearing being counterbored, a jam-nut fitted in the counterbore of the bearing and threaded upon the auxiliary spindle, and a cutter-bar carried by said securing-plate, substantially as specified.

3. The combination with the supporting-frame and main cutter-head spindle of a lawn-mower, of an auxiliary cutter-head spindle threaded in an axial socket in the adjacent end of the main cutter-head spindle, a securing-plate having a bearing fitted upon the portion of the auxiliary cutter-head spindle between the auxiliary cutter-head and the supporting-frame, and provided with a socket for the reception of a projection on said supporting-frame, and a cutter-bar carried by said securing-plate, substantially as specified.

4. As an improved article of manufacture, an auxiliary cutter-head for lawn-mowing machines, the same having a spindle provided with a threaded inner end to engage a socket in the end of the cutter-head spindle of a machine to which the attachment may be applied, a securing-plate having a bearing in which the auxiliary cutter-head spindle is mounted, an auxiliary cutter-bar supported by said securing-plate, and an auxiliary ledger-plate carried by said cutter-bar and extending inward beyond the inner extremity of said cutter-bar, and beyond the plane of said securing-plate, to adapt it to abut at its inner end against the extremity of the ledger-plate of the mowing-machine, substantially as specified.

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

LEE T. FEERER.

Witnesses:

ISAAC A. LEWIS,

JOS. W. WILSTACH.