(No Model.)

C. A. FRAYER.

LAWN MOWER.

No. 450,568. Patented Apr. 14, 1891.

FIG. 1.

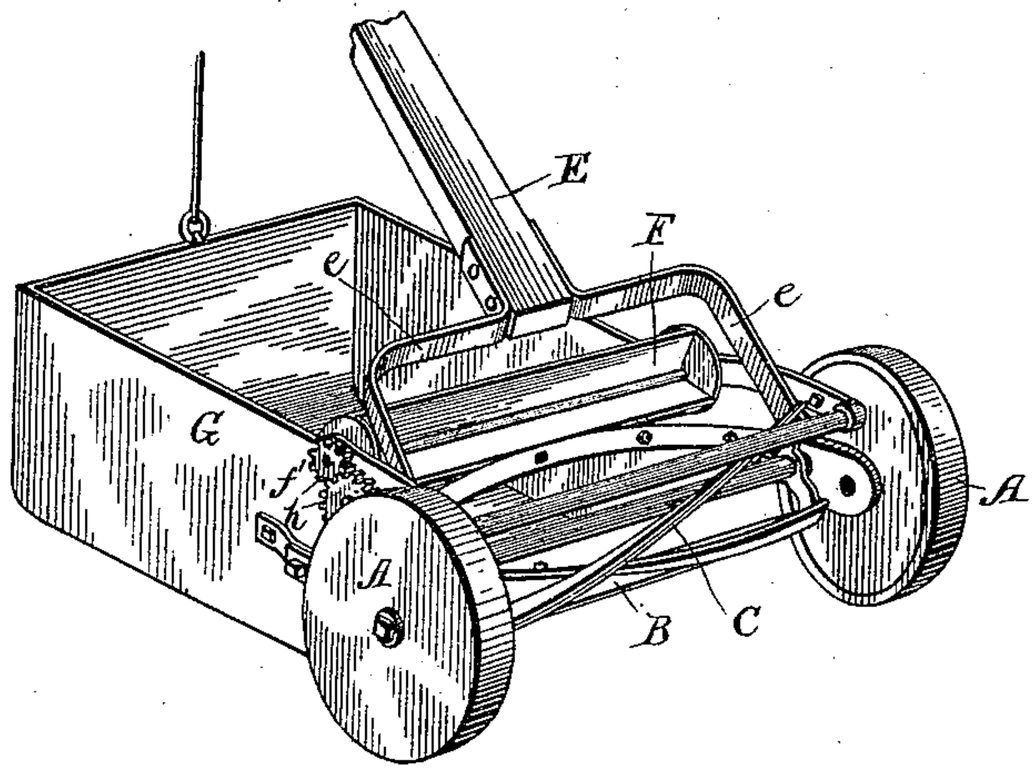


FIG. 2.

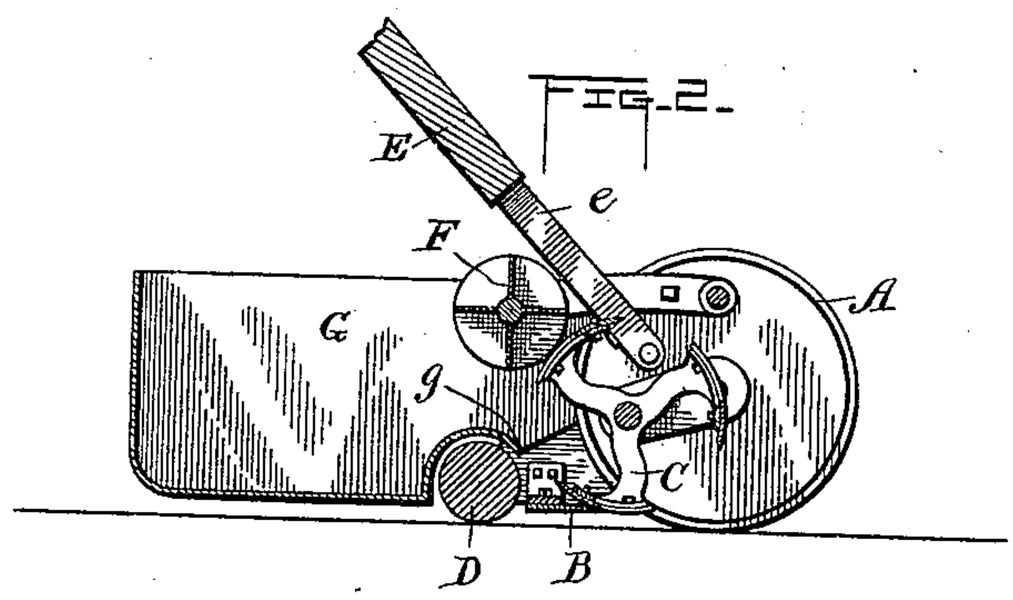


FIG. 3.

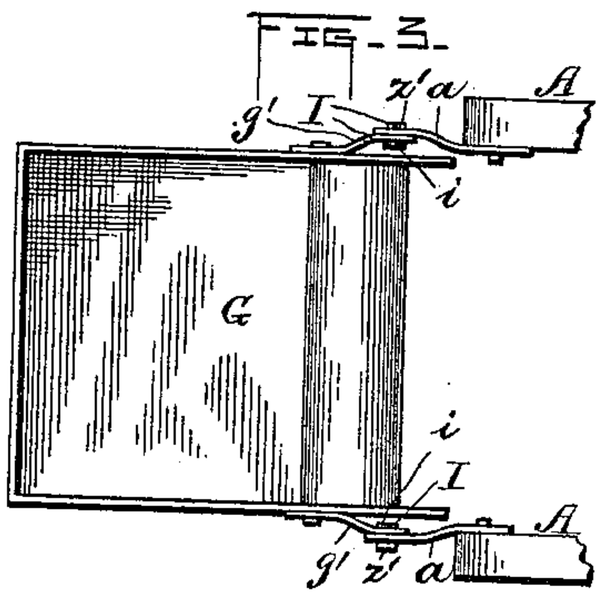
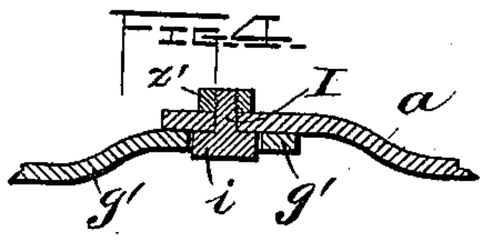


FIG. 4.



Witnesses
Geverance.
W. W. Deane.

Inventor
Charles A. Frayer
By his Attorney
L. Deane

UNITED STATES PATENT OFFICE.

CHARLES A. FRAYER, OF KEITHSBURG, ILLINOIS.

LAWN-MOWER.

SPECIFICATION forming part of Letters Patent No. 450,568, dated April 14, 1891.

Application filed August 14, 1889. Serial No. 320,677. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. FRAYER, a citizen of the United States, residing at Keithsburg, in the county of Mercer and State of Illinois, have invented a certain new and useful Improvement in Lawn-Mowers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Figure 1 is a perspective view of the present invention. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a detail in top plan, showing how the box is connected to the machine. Fig. 4 is a detail view of the attachments of the grass box and mower.

This invention is an improvement in lawn-mowers; and the novelty consists in the combination of the several parts and in the construction of the device in its details and as a whole, all as will now be more fully set out and explained, reference being had to the accompanying drawings.

In the drawings, A denotes the large side wheels; B, the cutter-bar; C, the revolving cutter; D, the small roller; E, the handle, and *e* the prongs or yoke by which it is connected to the machine. Except as affecting the operation of the rest of the machine, these parts may be of any usual construction and adapted to act in the usual way.

In the machine is journaled a fan F at such a point as will bring it over the throat or passage between the cutter C and the forward end *g* of the box G at the rear, and into which the inward blast from the fan causes the grass as it is cut to be blown.

At the outer end of the fan-journal is the gear-wheel *f'*, meshing with gear-wheels *h*, which are driven by gears on the axle of the main wheels A or in said wheels, or by any like or convenient connections or mechanism. This gearing may in different machines be so regulated that the fan can be driven at any desired rate of speed with reference to the speed of revolution of the revolving cutter; but in the mere detail of this construction I do not wish to confine myself to the exact arrangement or construction of gears as now shown. I have merely indicated a typical form of construction to illustrate the main idea on this point. As no stress is laid on the detail, I will add that the motion may be furnished by a friction-wheel running on the large outside wheel or on the cutter or by a chain belt—in fact, in any manner so as to get the motion.

The fan may be, as here represented, of tin or sheet-iron, and may have four or more or less wings; or any device that can be revolved to furnish a current of air to draw in the cut grass would answer very well for the purposes now desired.

The box G is detachably connected at its front end with the arms *a* of the mower-frame by means of the bolts I, extending inwardly from the said arms, the enlarged head *i* of each passing into a slot in the bent or curved springs *g'*, one on each side of said box, extending horizontally toward the front. By pressing said springs with the fingers they can be released from the bolt-heads, and the box is thus detached to enable the grass to be emptied out. Thus the box can be readily attached to or detached from the machine, as occasion may require.

The bolts I are secured firmly to the arms *a* by nuts *z'* on their outer ends, their heads resting against the inner surfaces of the arms. This method of attachment is easily applicable to any style of lawn-mower now in use, with merely the mechanical changes needed to adapt it to the different machines.

The pan or box may be of any material—tin, canvas, wood, &c.—and its shape determined by the mower to which it is attached.

The method of using this device is too obvious to need any further explanation.

The utility of the invention has been so well tested by use as to render it sure that it is of very considerable value.

Having now described my invention, what I claim is—

The combination, in a lawn-mower, of a revolving cutter, a grass-receiving box attached to the mower in rear of the cutter, a transverse fan journaled in the mower-frame in rear of the cutter, said fan standing above the throat between the grass box and cutter, and mechanism, substantially as described, whereby said fan is rotated to blow in the proper direction the grass from the cutter into the box, as specified.

In testimony whereof I affix my signature in presence of two witnesses.

CHAS. A. FRAYER.

Witnesses:

J. S. CAMPBELL,

O. O'LEARY.