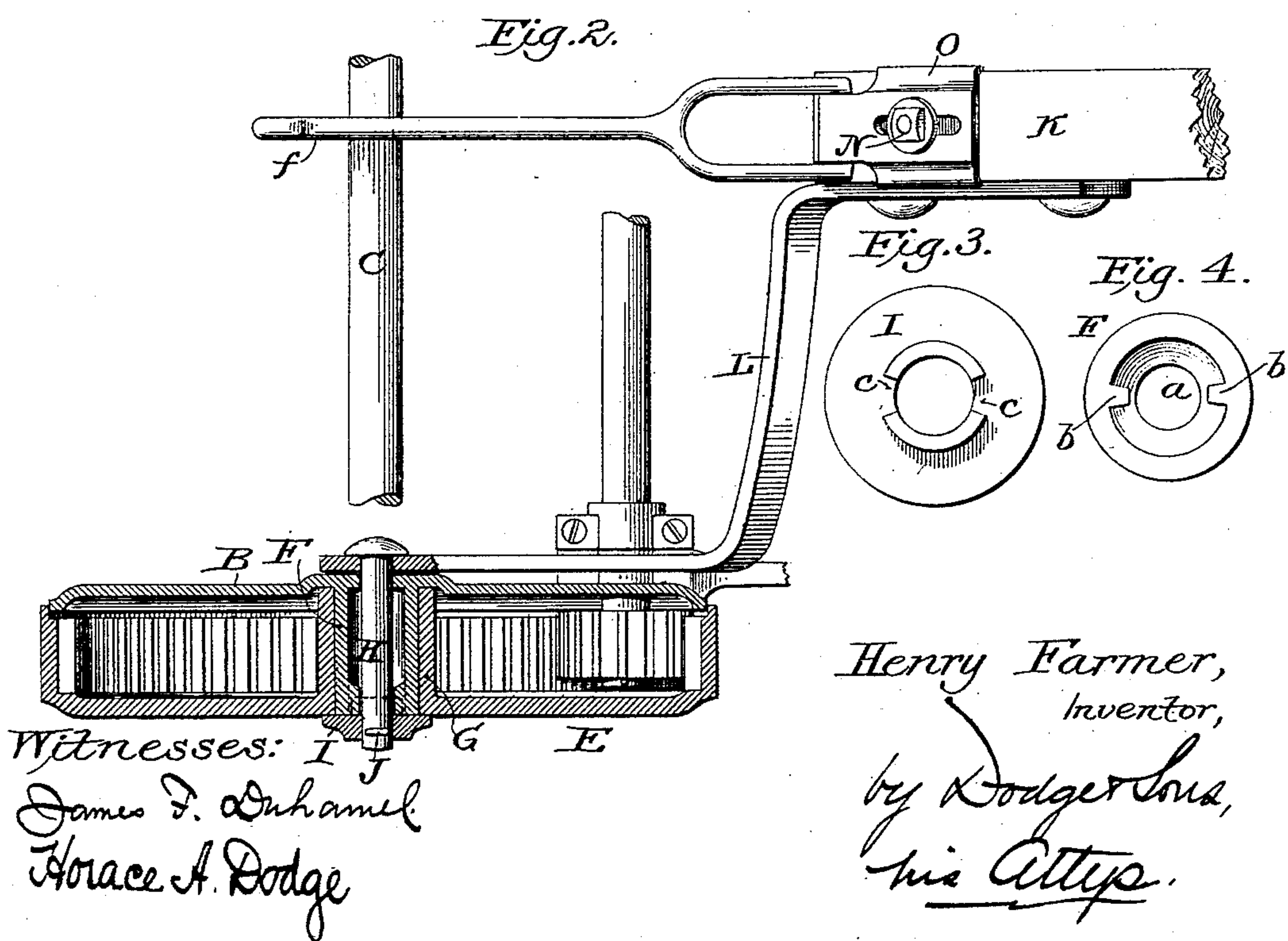
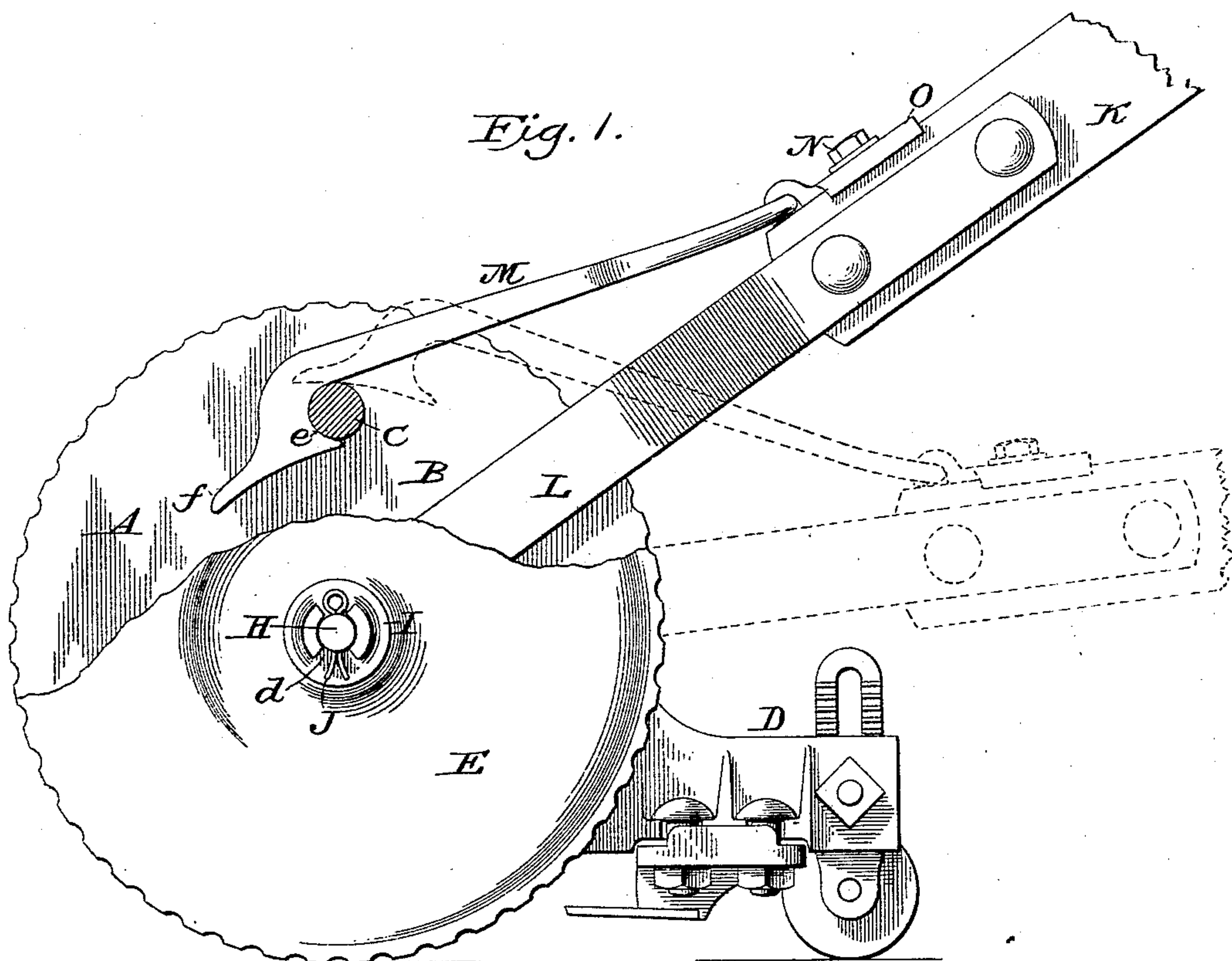


(No Model.)

H. FARMER.
LAWN MOWER.

No. 460,085.

Patented Sept. 22, 1891.



UNITED STATES PATENT OFFICE.

HENRY FARMER, OF RICHMOND, INDIANA, ASSIGNOR OF ONE-HALF TO
FINLEY HEWLIN, OF SAME PLACE.

LAWN-MOWER.

SPECIFICATION forming part of Letters Patent No. 460,085, dated September 22, 1891.

Application filed June 19, 1890. Serial No. 355,981. (No model.)

To all whom it may concern:

Be it known that I, HENRY FARMER, a citizen of the United States, residing at Richmond, in the county of Wayne and State of Indiana, have invented certain new and useful Improvements in Lawn-Mowers, of which the following is a specification.

My invention relates to lawn-mowers; and it consists in various features and details hereinafter set forth and claimed.

In the drawings, Figure 1 is a side or end view, partly in section, of a portion of a lawn-mower provided with my improvements. Fig. 2 is a horizontal sectional view through the axis of the driving-wheels, and Figs. 3 and 4 views illustrating certain details.

A indicates the main frame of the machine comprising circular disks or plates B, connected by a cross bar or brace C and rearwardly-extending arms D, which latter carry the fixed cutter-bar and the adjusting-roller, as is customary in this class of machines. On the inner face of the plates are bearings for the shaft of the rotating cutter, the said shaft having a pinion to engage with the internally-toothed driving-wheels E. The plates are perforated centrally, as at *a*, Fig. 4, and are provided around the hole or opening with a sleeve F, which, as shown in Figs. 2 and 4, is provided at its outer end with one or more lugs *b*. The wheels E are provided each with a sleeve G, which fits upon the sleeves F of the plates or disks. A bolt H passes through the hole *a* and projects beyond the end of the sleeve F, so as to receive a washer I, which latter is prevented from working off the end of the bolt by means of a key J. Upon reference to Figs. 2 and 3 it will be noticed that the washer is provided on its inner face with notches *c*, which fit into the end of the sleeve F and engage with the lugs *b* thereof, thereby preventing the rotation of the washer during the running of the machine. This washer is further provided with notches *d* in its outer face to receive the pin or key J, passing also through the shaft, by which construction the bolt is also prevented from turning or rotating.

The handle K is provided with two arms L, which are perforated at their ends to receive

the bolts H, the handle being thereby pivoted to the main frame at points coinciding with the axis of the driving-wheels, and is free to be raised and lowered at will without affecting the adjustment of the cutting mechanism.

In machines of this character there is a tendency to tip or rock upward at the rear end in cutting heavy grass; and it is also found that when the roller at the rear is adjusted to bring the fixed knife closer to the ground, the cross bar or brace is thrown backward a slight distance, and that when the fixed knife is elevated the bar will be thrown forward. To overcome the first of these objections, I provide the handle with a hook M to engage the cross-bar, and to overcome the second of the objections I make the connection between the handle and cross bar or brace adjustable, so as to compensate for the varying positions of the brace and maintain the proper relative position of the handle to the other parts of the machine. Secured to the handle by means of a bolt N is a slotted plate O, to which is hinged or pivoted the hook M, before referred to. This hook is provided with a curved or hooked portion *e* to engage the bar or brace, as shown in Fig. 1, and it will be seen that when in this position the handle will be prevented from dropping down too low, and any tendency of the mower to rock or tip in making heavy cuts will be effectually prevented. In making light cuts the hook may be disengaged from the brace or bar, and may then rest upon the bar, as shown by dotted lines in Fig. 1, the nose *f*, formed upon the hook, preventing the latter from falling upon the rotary knives, even though the handle be at its lowest position.

In adjusting the fixed knife closer toward the ground the bar or brace will be moved backward, and in such case the plate O and the hook M carried thereby will be moved backward upon the handle a corresponding distance; but when the knife is raised and the bar or brace moved forward the plate and hook will be adjusted forwardly.

I do not wish to limit myself to any particular form of adjustable connection, as it is obvious that many equivalent plans will readily suggest themselves to the skilled mechanic.

I might mention, however, that the hook itself may be made extensible, but as this is so obvious I have not deemed it necessary to illustrate it.

5 One advantage of the construction shown and described is that the handle is pivoted to the center of the plates or disks, which allows it to swing freely up and down, as desired, thus enabling the operator to run the machine over a bank, ridge, or across a short valley without the necessity of raising or lowering the handle, while it nicely adapts itself to the uneven surface, cutting the grass with the same evenness as on smooth ground.

15 Having thus described my invention, what I claim is—

1. In a lawn-mower, the combination, with the main frame having bar or brace C, of the pivoted handle and the hook provided with curved portion *e* and nose *f*.

2. In a lawn-mower, the combination, with the main frame having a cross-bar, of a handle pivoted to the frame, an adjustable plate secured to the handle, and a hook pivoted to the plate.

In witness whereof I hereunto set my hand in the presence of two witnesses.

HENRY FARMER.

Witnesses:

CHAS. G. CARPENTER,

ADOLPHUS O. MITCHELL.