

(No Model.)

E. E. RUNYON.
LAWN MOWER.

No. 445,616.

Patented Feb. 3, 1891.

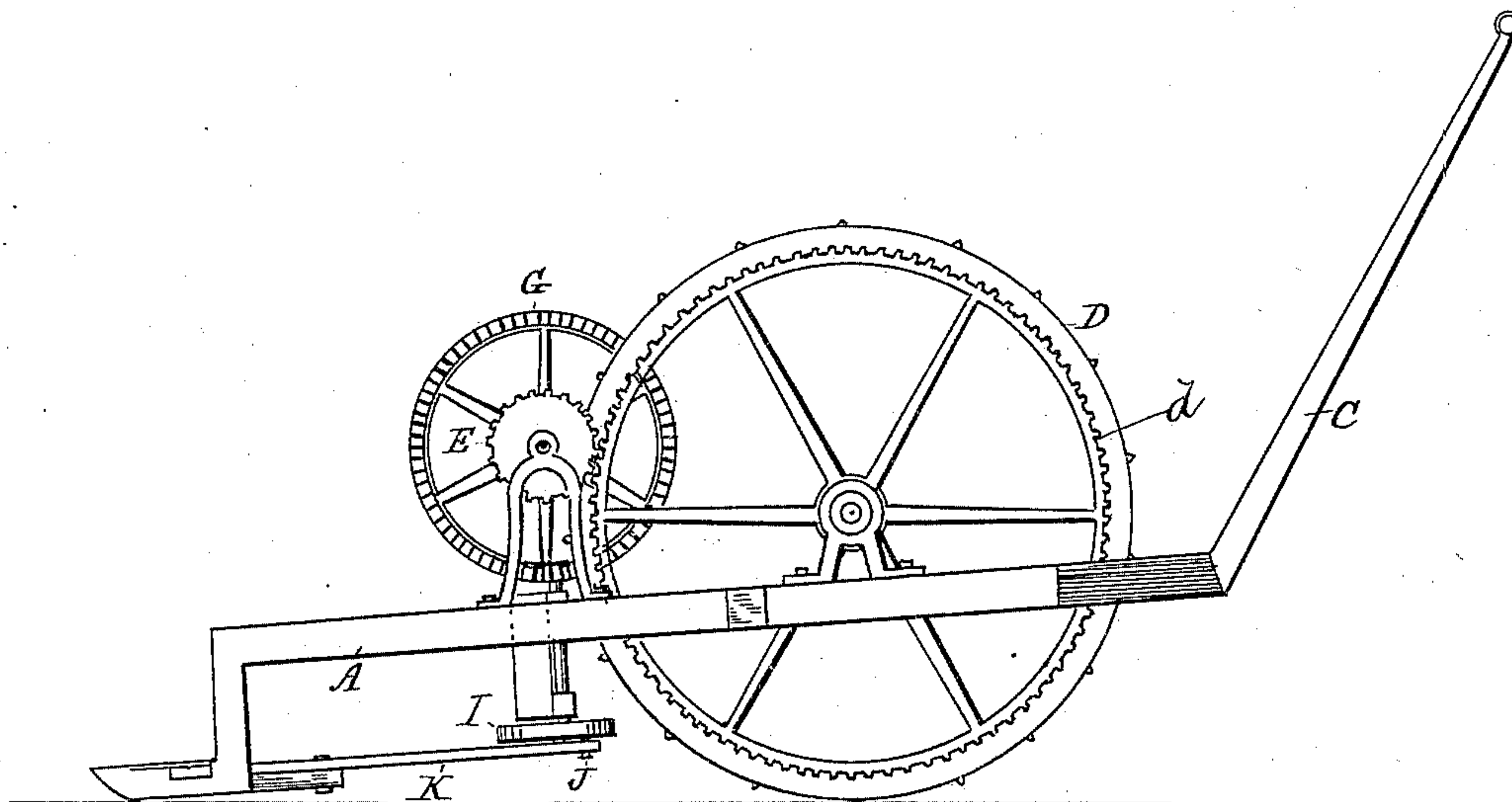


Fig. I.

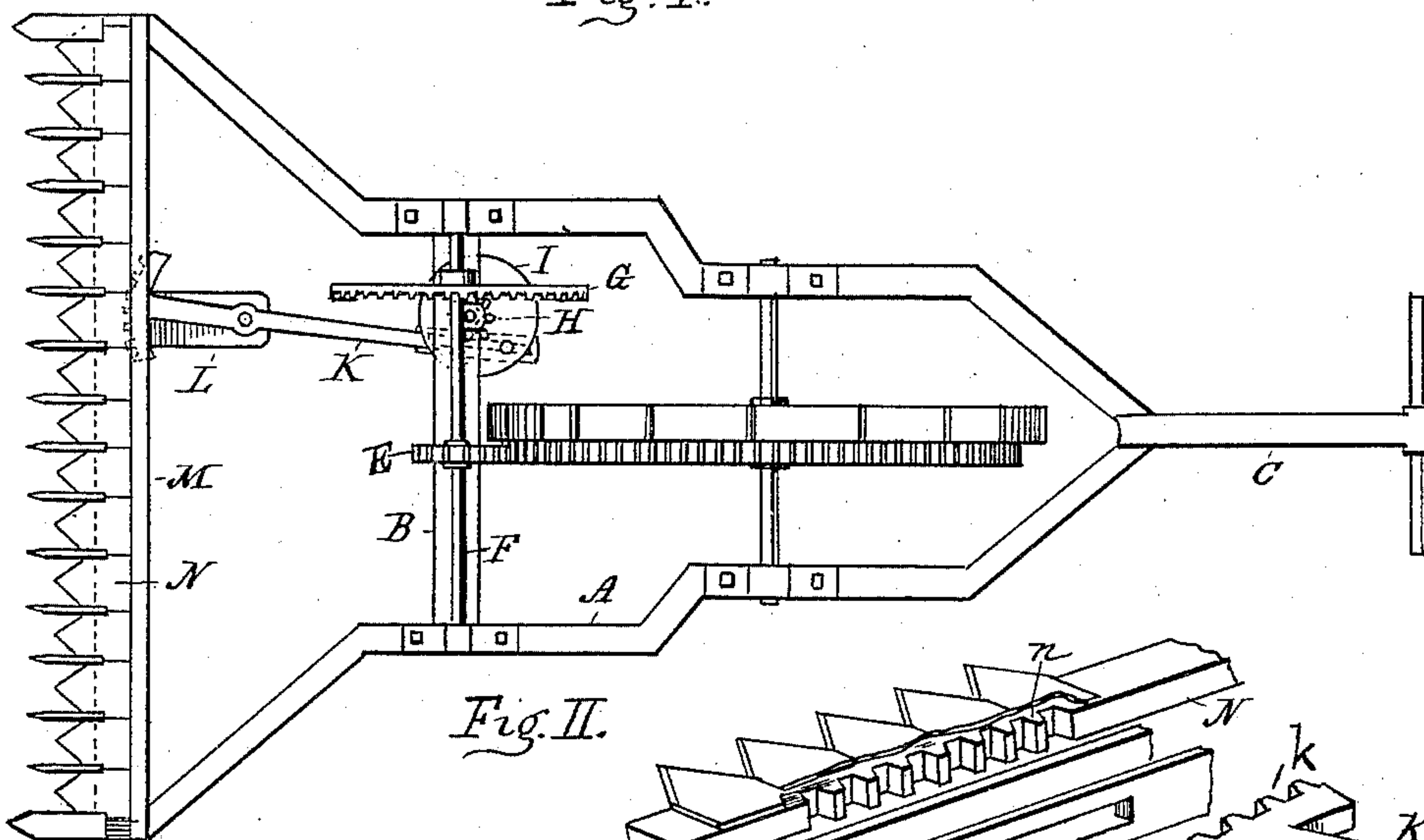


Fig. II.

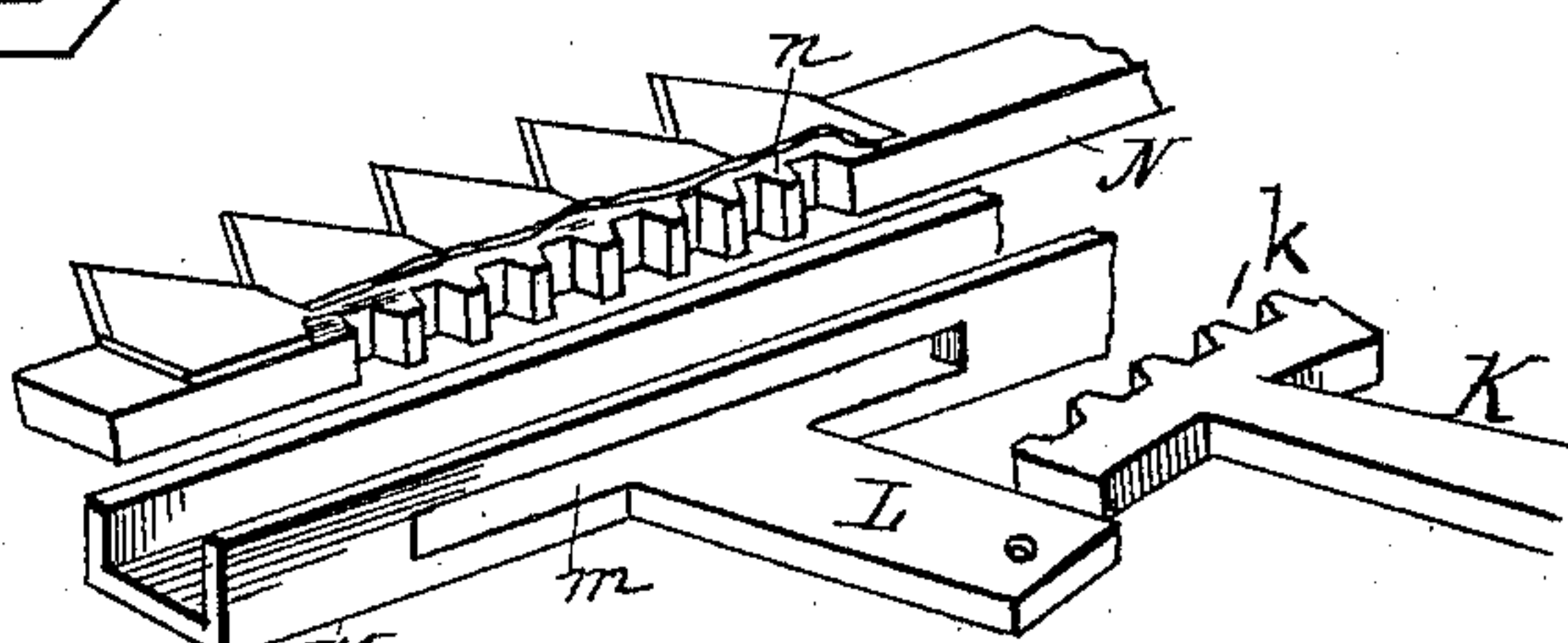


Fig. III.

WITNESSES:

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UNITED STATES PATENT OFFICE.

EDWIN ELIJAH RUNYON, OF BURNS CITY, TEXAS.

LAWN-MOWER.

SPECIFICATION forming part of Letters Patent No. 445,616, dated February 3, 1891.

Application filed April 1, 1889. Serial No. 305,590. (No model.)

To all whom it may concern:

Be it known that I, EDWIN ELIJAH RUNYON, of Burns City, in the county of Cooke and State of Texas, have invented a new and useful Improvement in Lawn-Mowers, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation of my improved lawn-mower. Fig. 2 is a top or plan view, and Fig. 3 a section of the cutter-bar, a perspective view of a section of the finger-bar, and the segment-rack on the end of the oscillating lever which operates the cutter-bar.

My invention relates to improvements in mowing-machines in general, but especially to that class which is employed for mowing lawns; and its object is to provide at a moderate cost a simple, compact, and durable device easily operated and adapted to cut grass at any stage or growth and work close to trees, fences, or other obstructions.

The peculiar construction of the machine will be easily understood by referring to the accompanying drawings, in which A designates the frame, having a cross-bar B and integral handle C. The driving-wheel D is journaled in suitable boxes on the frame and is provided on one side near its periphery with a flange having cogs *d*, which engage a pinion-wheel E on the shaft F, which also carries a bevel-wheel G. This wheel engages a bevel-pinion H, having its axle journaled in the cross-bar B or in a box attached thereto.

A crank-wheel I is mounted on the lower end of this axle, and has a wrist-pin J, which plays in a slot in the oscillating double lever K. This lever is pivoted on an integral arm L of the finger-bar M, and extends through a slot

in the same. The cutter-bar N moves in a channel or groove in the finger-bar and is supplied with a series of knives formed and attached in the usual manner. It is also provided on its rear side with a suitable number of teeth or a rack *n*, so placed as to come opposite the slot *m* in the finger-bar and so adapted to engage the segment-rack *k* on the oscillating double lever K. The ends of the finger-bar have lugs, by which it is attached to the diverging ends of the frame A.

The operation of the device and its advantages are obvious and require no explanation.

I am aware that it is not broadly new to operate the cutter by means of connections with the driving-wheel.

What I claim as new is—

In a lawn-mower, the combination, with the cutter-bar having a rack in its rear edge and supported in a channel or groove in the finger-bar, also having a slot in its rear side, of the oscillating lever having a segmental rack engaging the rack of the cutter-bar, the drive-wheel having on its side a circular series of cogs engaging a pinion secured on a horizontal shaft bearing a beveled wheel, the upright shaft carrying a pinion gearing with said beveled wheel, and the crank-wheel secured to said upright shaft and having a stud or pin playing in a slot in the said lever, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, this 6th day of March, 1889, in the presence of two witnesses.

EDWIN ELIJAH RUNYON.

Witnesses:

J. E. HAYWORTH,

J. F. MORRIS.