

No. 682,143.

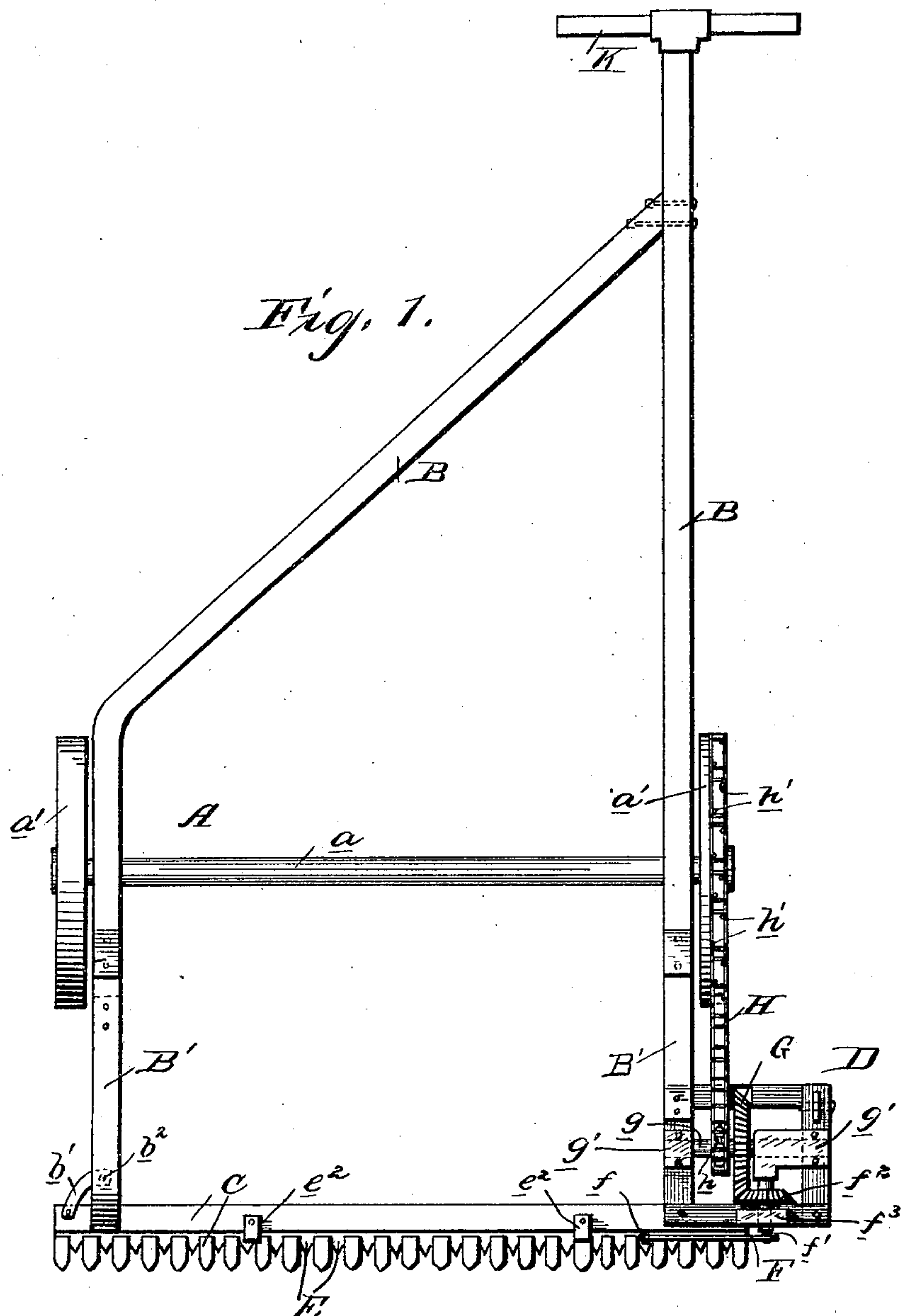
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I. E. GROOM.
MOWING MACHINE.

(Application filed Jan. 8, 1901.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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MOWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 682,143, dated September 3, 1901.

Application filed January 8, 1901. Serial No. 42,490. (No model.)

To all whom it may concern:

Be it known that I, ISAAC E. GROOM, a citizen of the United States, residing at Marysville, in the county of Marshall and State of Kansas, have invented certain new and useful Improvements in Mowing-Machines; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to mowing-machines, and has for its object the provision of a simple, compact, and efficient means for operating the sickle or cutting-bar and for adjusting the same, together with a finger-bar, at different elevations.

The invention further has for its object the provision of a novel handle arranged to occupy a position in rear of and in substantial alinement with the operating means for the sickle-bar, so that power will be applied directly to that portion of the machine where it is most needed.

Many improved details in the construction and operation of the several parts of the machine will be apparent from the detailed description hereinafter and the appended claims.

In the accompanying drawings, forming part hereof, an embodiment of the invention is illustrated, and in hereinafter referring to the same like letters of reference will refer to corresponding parts in the several views.

In said drawings, Figure 1 is a plan view of the machine. Fig. 2 is a side elevation, and Figs. 3 and 4 are detailed views of portions of the machine.

Referring more specifically to the drawings, A designates the conveying or driving portion of the machine, comprising, preferably, a main axle a , carrying at its ends wheels a' of relatively large diameter and provided with an operating-handle B. The main portion of the operating-handle is constructed of wood on account of its lightness; but its lower ends are provided with the metallic extensions B', rigidly attached to an elongated finger-

bar C. One of these metallic extensions is formed with a return-bend b to constitute a brace therefor and to further serve as an attaching means for the lateral brace b' , attached at one end to the finger-bar and at the other end to the said return-bend b at b^2 . At the end of the finger-bar opposite that just referred to is a carriage or frame D, connected to said finger-bar and the metallic extensions of the operating-handle, as shown, and carrying the operating mechanism designed to reciprocate the slidable sickle or cutting-bar E. The cutter-bar works in the slot e' in the finger-bar and is confined in its movement by retaining-clips e^2 . Pivoted at the point f on the cutter-bar is a pitman F, in turn connected to the crank f' , operated by the pinion f^2 , supported in the brackets f^3 on the carriage. The pinion meshes with a beveled gear G, supported upon the axle g , revolubly mounted in the brackets g' on the carriage. To the inner side of the gear G is rigidly secured a spur-wheel h , over which the operating-chain H passes and transmits motion from the wheel a' , the periphery of which is provided with alternately-arranged projections or teeth h' , over which the links of the chain engage.

From the above description the operation of the machine will be readily understood; but it will also be appreciated that the exact arrangement of the gearing in the carriage and its connection with the power-transmitting wheel may be altered without departing from the spirit of the invention.

It is desirable that the cutter and finger-bar be adjustable vertically, and for this purpose I provide on the lower portion of the carrier a shoe J, pivoted at its forward end to the carrier and provided at its free end with an antifriction-roller j . This shoe is adapted to be raised and lowered and locked in adjusted positions by means of an apertured link j' , pivotally secured to the end of the sleeve adjacent the roller and passing through a slot in the carriage, and a pin adapted to engage the apertures in the link and a guide j^2 on the carriage.

It is obvious that in the operation of the machine greater power or force must be exerted upon that side of the machine to which the carriage is located, so one member of the

operating-handle is located in substantial alinement with said carriage, as shown in Fig. 1, and the opposite member of the handle is extended diagonally across and attached to said first-mentioned member at a point intermediate its ends to form a brace therefor. The end of the handle is provided with the usual T-head K.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a mowing-machine, the combination with the carrying-wheels, the handle, the cutter-bar, and its actuating mechanism, of a frame for carrying said actuating mechanism, comprising a bar horizontally disposed and arranged in rear of the cutter-bar, a depending bracket secured thereto, having its lower portion in horizontal alinement with the cutter-bar, an arm pivotally connected to said bracket at its forward end, a roller carried by said arm at its rear end, a vertically-disposed

arm, provided with a series of apertures, extending upward through an aperture in the carrying-frame, perforated ears located adjacent to said aperture, and a pin taking through the perforation in the ears and the arm, to secure the latter in adjusted positions, substantially as set forth.

2. In a mowing-machine, the combination with a cutting mechanism, supporting-wheels therefor, means for operating the cutter, and an operating-handle provided with a metallic extension, a return-bend *b*, secured to the cutting mechanism and adapted to brace the extension, and a lateral brace *b'* for the portion *b* secured thereto, and to the cutting mechanism, substantially as described.

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

ISAAC E. GROOM.

Witnesses:

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