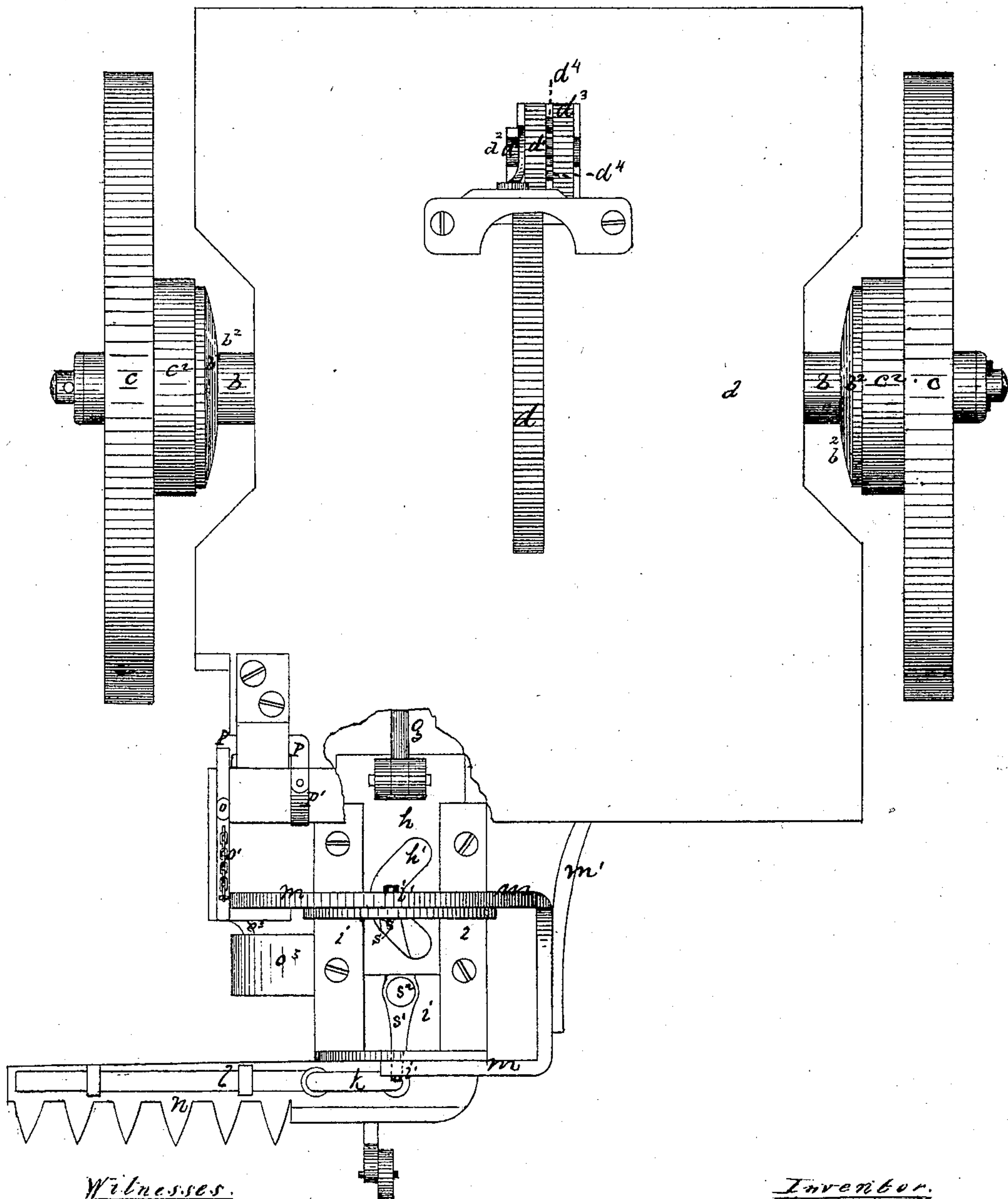


H. MICHAUX.
Mowing-Machines.

No. 136,380.

Patented March 4, 1873.

Fig 1.



Witnesses.

L. Schäferlin

J. B. Bavear

Inventor.

Hippolyte Michaux

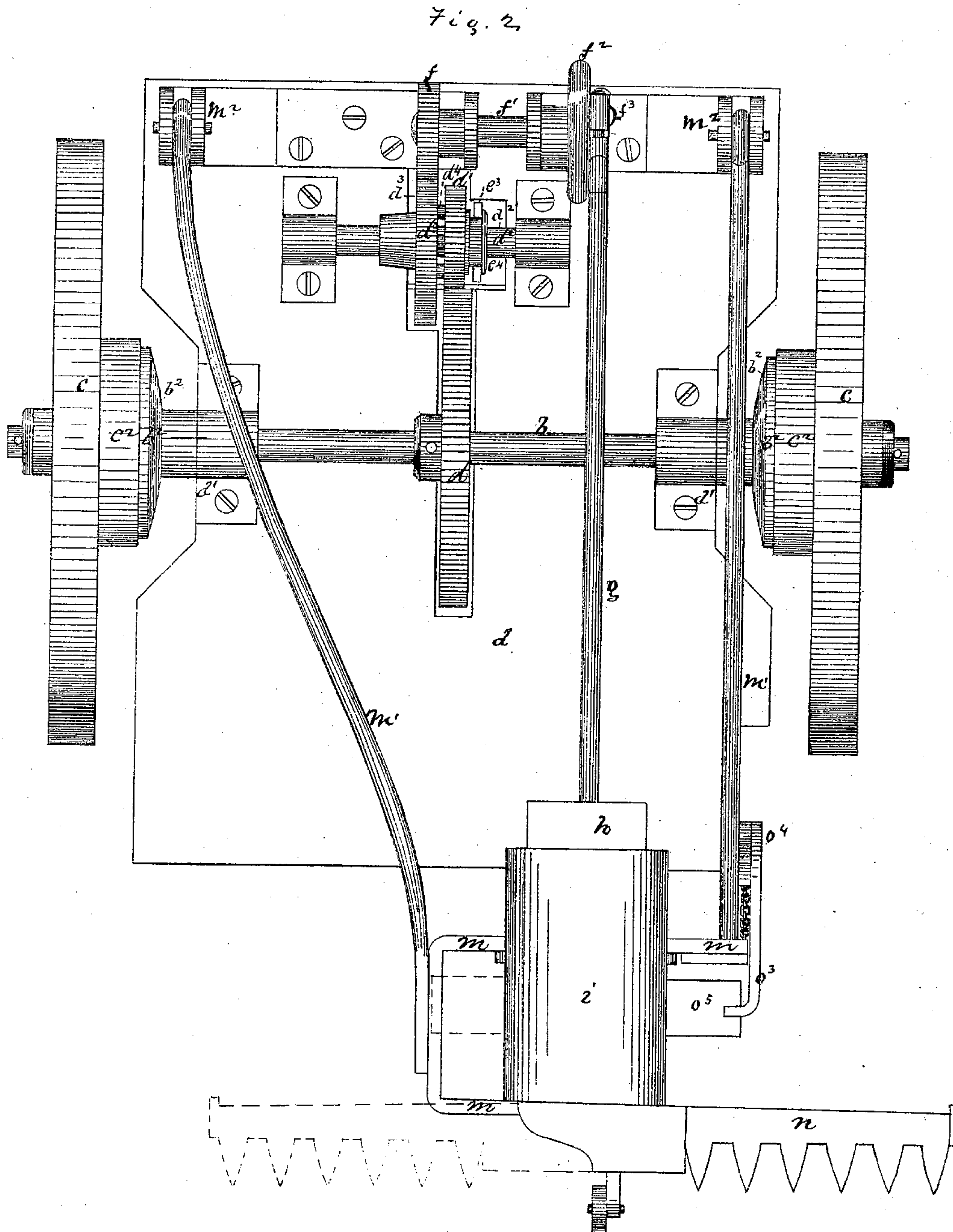
by W. E. Simonds

Solicitor

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Witnesses.

E. Hoefelin
J. C. Barber & R

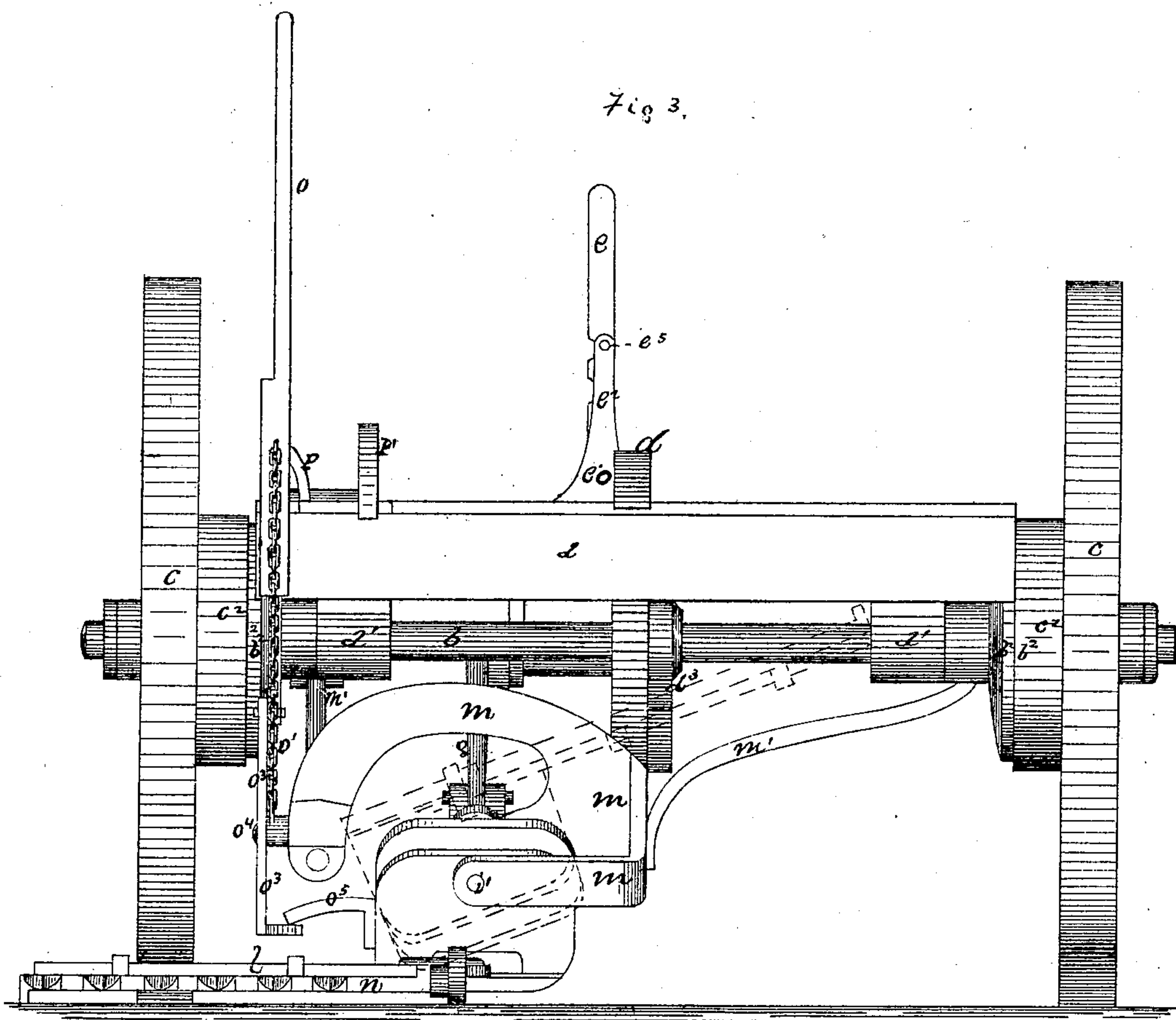
Inventor.

Hippolyte Michaux
by Wm E. Simon de
Solicitor.

H. MICHAUX.
Mowing-Machines.

No. 136,380.

Patented March 4, 1873.



Witnesses.

S. Schäfer
J. F. Babcock

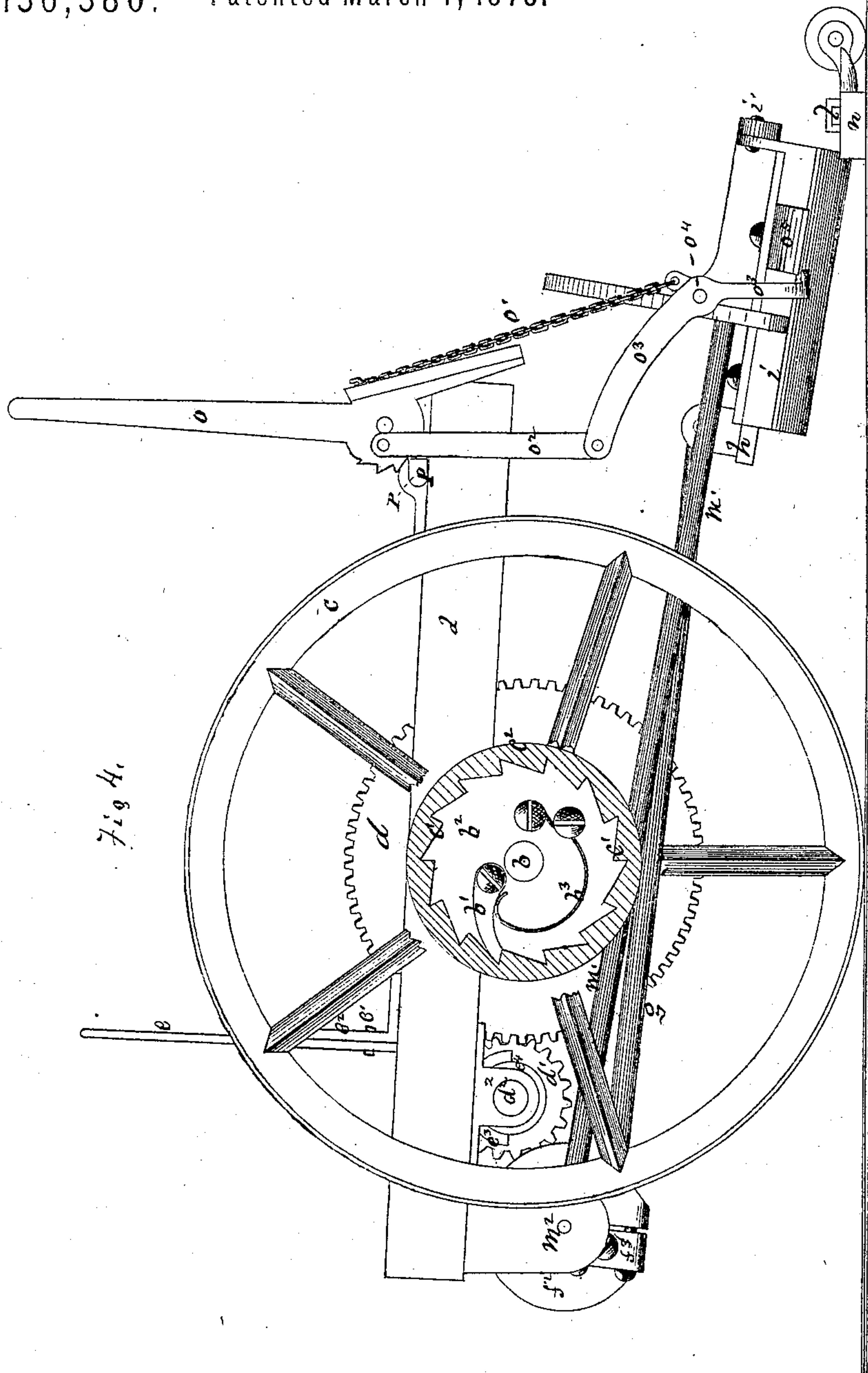
Inventor.

Hippolyte Michaux
by Wm E. Simonds
Solicitor

H. MICHAUX.

Mowing-Machines.

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Witnesses.

E. Höflein

L. F. Barreault

Inventor.

Hippolyte Michaux

by W. E. Simonds

Solicitor

UNITED STATES PATENT OFFICE.

HIPPOLYTE MICHAUX, OF HOCKANUM, CONNECTICUT.

IMPROVEMENT IN MOWING-MACHINES.

Specification forming part of Letters Patent No. 136,380, dated March 4, 1873.

To all whom it may concern:

Be it known that I, HIPPOLYTE MICHAUX, of Hockanum, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Mowing-Machines, of which the following is a specification, reference being had to the accompanying drawing, in which—

Figure 1 is a plan view of the principal parts of a mowing-machine embodying my invention; Fig. 2, a similar view of such parts, the mowing-machine being turned upside down. Fig. 3 is a front elevation of the parts, as shown in Fig. 1. Fig. 4 is a side elevation of the parts, as shown in Fig. 2, with the center part of the wheel which is next the observer broken away to show the pawl and ratchet by which the wheel is attached to the axle.

The letter *a* indicates the platform of the machine attached, by journal-boxes *a' a'*, to the axle *b*, on the ends of which axle are hung the wheels *c*, which are attached to the axle by a pawl-and-ratchet device so arranged that when the machine moves forward the axle *b* is rotated, but when the machine moves backward the axle *b* is not rotated. This pawl-and-ratchet arrangement is shown in Fig. 4. The pawl *b¹* is pivoted on the side of the disk *b²*, which disk is fast on the axle *b*; and this pawl catches into the teeth of the ratchet *c¹* made on the inside of the box *c²*, which is fast to the wheel. The spring *b³* holds the pawl up against the ratchet. On the shaft *b* is fixed fast the gear *d*, meshing into the pinion *d¹*, which is loose on the shaft *d²*, on which last-mentioned shaft is fixed fast the gear *d³*. The pinion *d¹* has some sidewise play on the shaft *d²*, and has upon its side clutch-pins *d⁴*, which strike against similar clutch-pins upon the side of the gear *d³*, when the pinion *d¹* is moved up against the gear *d³*, and thus causes the gear *d³* to revolve with the pinion *d¹*. The pinion *d¹* is unclutched from the gear *d³* by moving the pinion away from it. The clutching and unclutching of this gear and pinion are effected by means of the lever *e*, pivoted, at *e¹*, to the upright *e²*, which has a fork, *e³*, at its lower end, taking hold upon the collar *e⁴*, which is fixed to the side of the pinion. In all the figures of the drawing this pinion and gear are represented as clutched. To unclutch them the lever *e* is thrown over

to the other side of the stop-pin *e⁵*. The gear *d³* meshes into and drives the gear *f* fixed on the shaft *f¹*, on the other end of which shaft is fixed the crank-disk *f²* bearing the crank-pin *f³*, from which motion is communicated, by the pitman *g*, to the cam-block *h*, which slides back and forth in ways in the swing-block *i*. The cam-block *h* has a cam-slot, *h'*, in which travels the lever-pin *s* fixed in the end of the lever *s¹*, pivoted underneath the cam-block, at *s²*, to the swing-block. The opposite end of the lever *s¹* is connected by the link *k* to the cutter-bar *l*. It is readily apparent that the back-and-forth movement of the cam-block *h* will cause the necessary vibration of the cutter-bar. The swing-block *i* is pivoted, at *i' i'*, to the lifting-frame *m*, so that the finger-bar *n* and swing-block can be swung over nearly upside down, as represented by dotted lines in Figs. 2 and 3. The lifting-frame *m* has two rigid rods, *m¹ m¹*, projecting from its rear, hinged or pivoted to the bottom of the platform at *m² m²*, thus allowing the lifting-frame *m* and its attachments to be lifted off the ground, which is effected by means of the lifting-lever *o*, from which the chain *o¹* runs down and connects to the frame *m*. From the lever *o* the rod *o²* connects with the lever *o³*, which is pivoted to the frame *m* at *o⁴*, and its forward end turning a right angle laterally and inward comes under the wing *o⁵*, which projects from the frame *m* and prevents the finger-bar from falling down when the frame *m* is raised.

The pawl *P*, borne against by the spring *P'* and catching in the teeth of the ratchet, which is on the lever *o*, holds the frame *m* up when lifted. A push forward on the pawl releases the lever and allows the frame to fall.

I claim as my invention—

The swinging block to which the finger-bar is rigidly attached, pivoted, as described, to the vibrating frame *m*, in combination with the reciprocating cam-block moving in ways therein, the lever *s¹*, link *k*, and cutter-bar *l*, the whole constructed and operating as described, for the purpose set forth.

HIPPOLYTE MICHAUX.

Witnesses:

W. E. SIMONDS,
GEORGE G. SELL.