

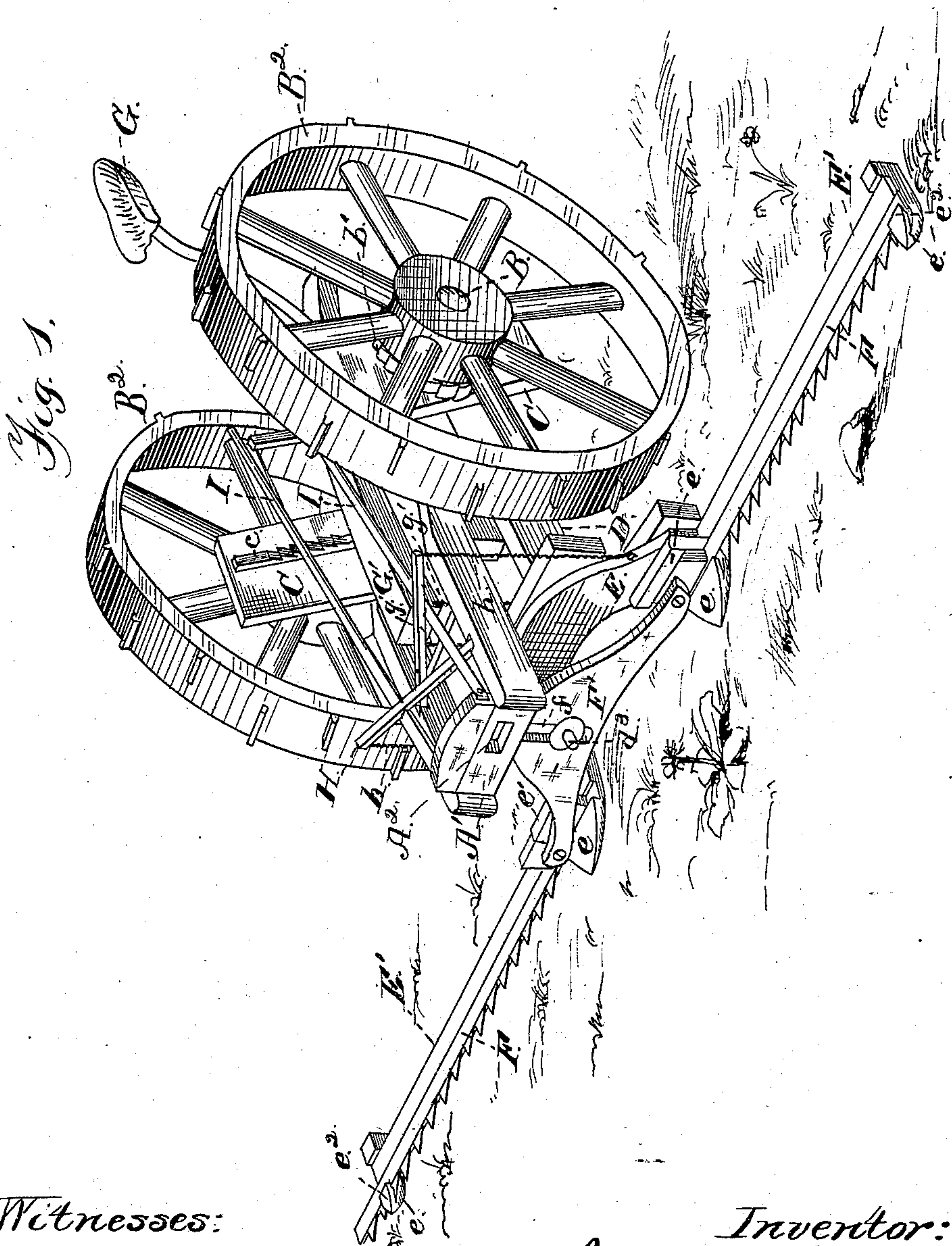
(No Model.)

3 Sheets—Sheet 1.

J. H. JONES.
MOWING MACHINE.

No. 311,006.

Patented Jan. 20, 1885.



Witnesses:

Wm. A. Rosenbaum
Julius Solger

Inventor:
James H. Jones.
Howard A. Snow.
Attorney.

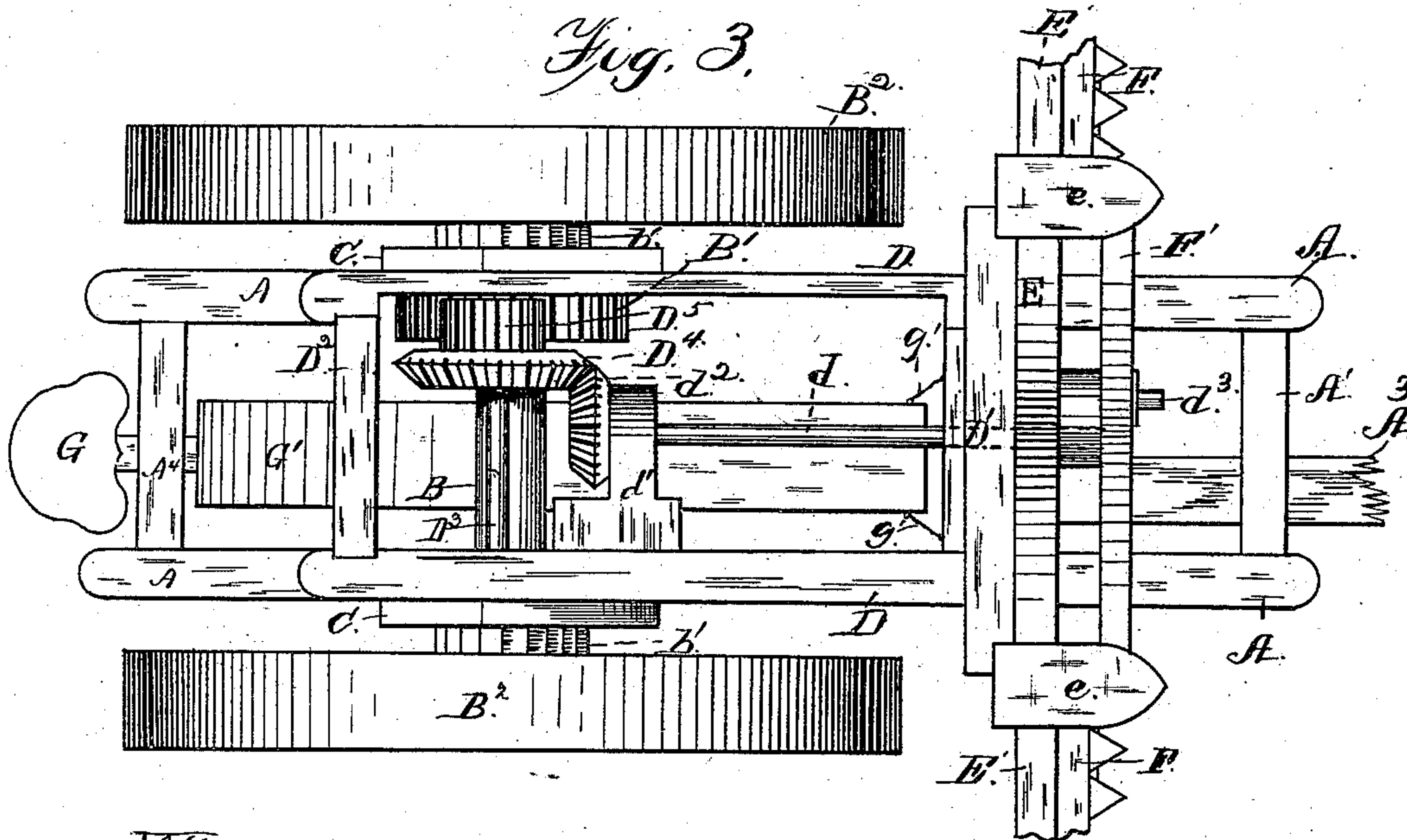
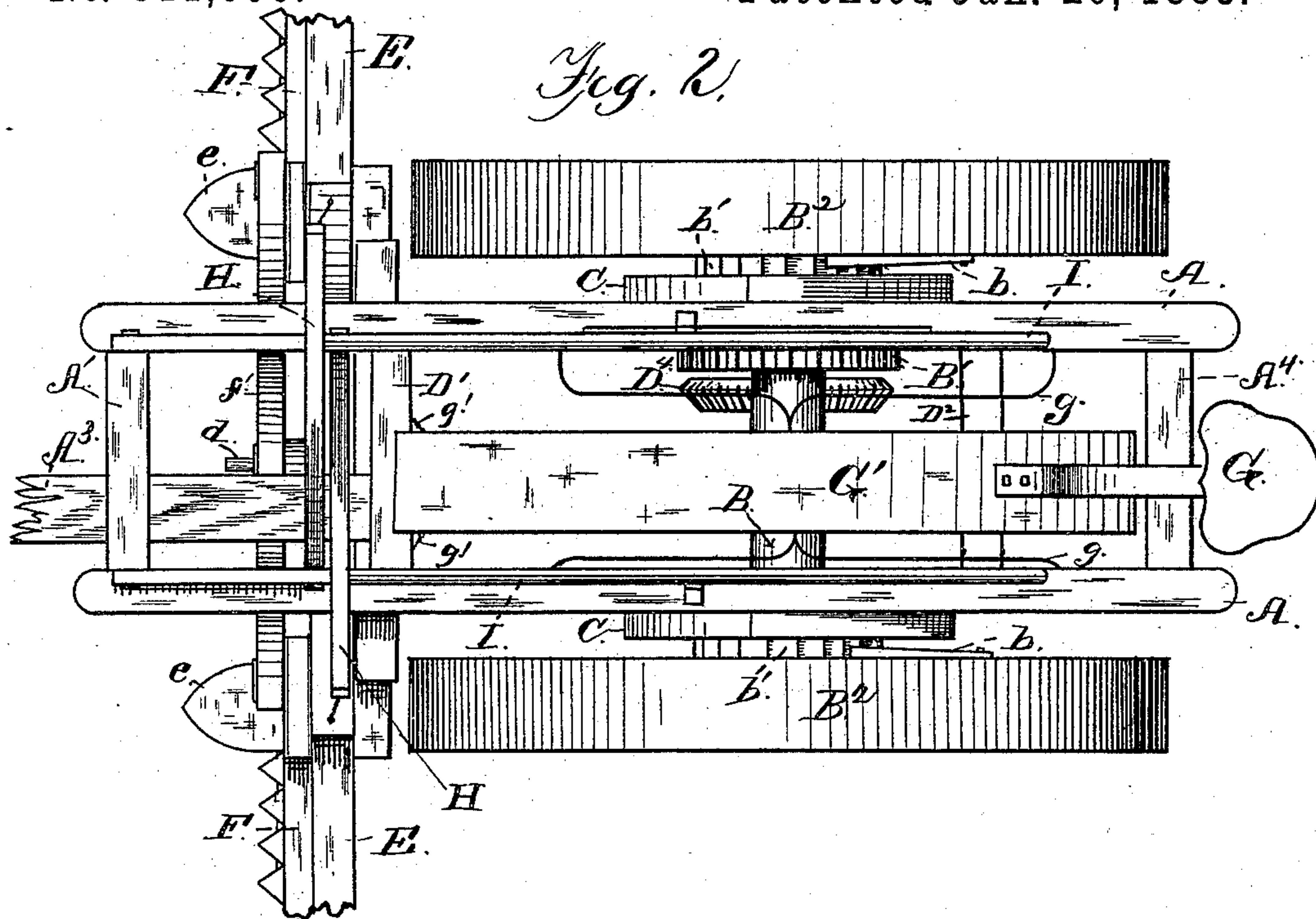
(No Model.)

3 Sheets—Sheet 2.

J. H. JONES.
MOWING MACHINE.

No. 311,006.

Patented Jan. 20, 1885.



Witnesses:

Wm. A. Rosenbaum.
Julius Solger

Inventor:
James H. Jones
Howard A. Brown,
Attorney.

(No Model.)

3 Sheets—Sheet 3.

J. H. JONES.
MOWING MACHINE.

No. 311,006.

Patented Jan. 20, 1885.

Fig. 4.

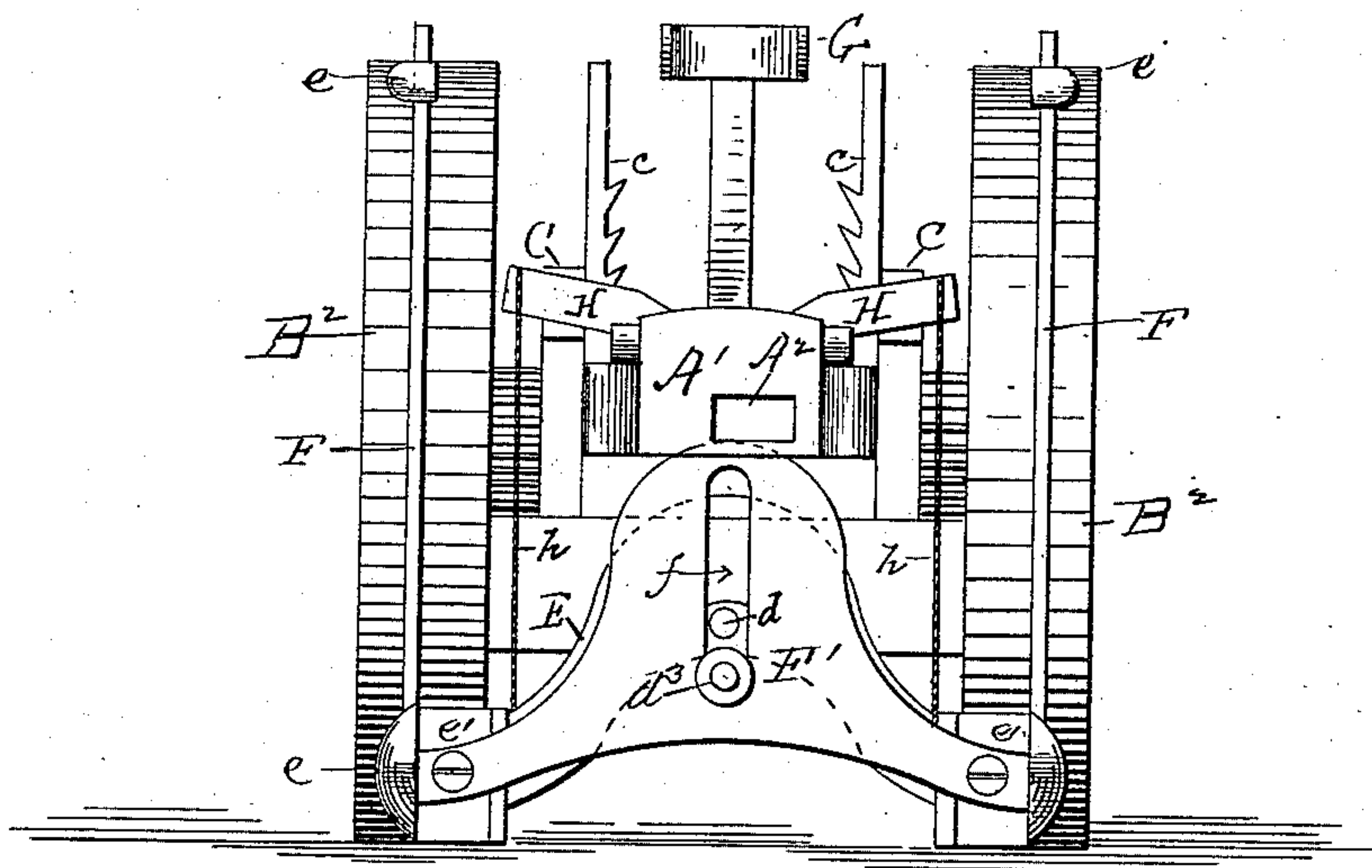
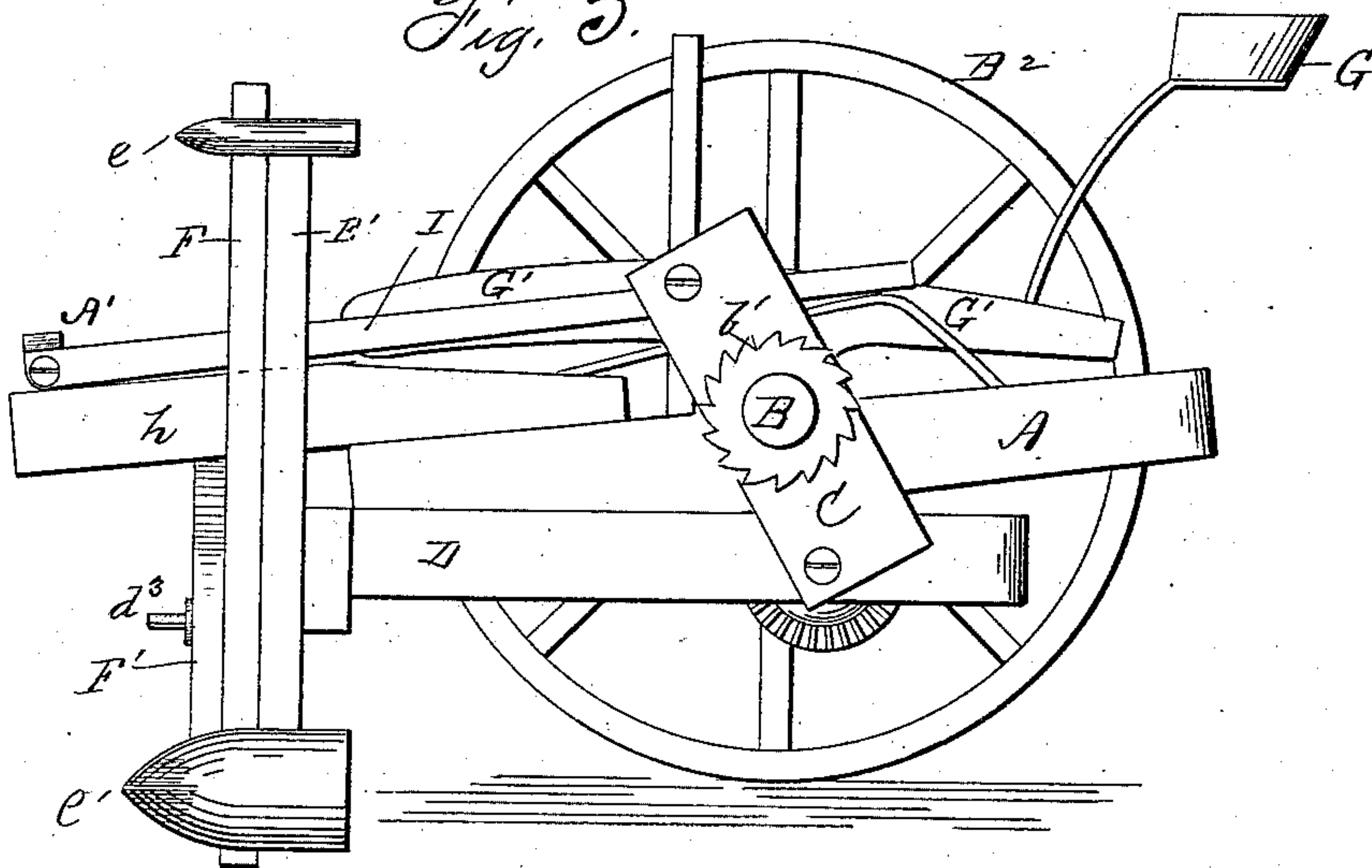


Fig. 5.



Witnesses,
W. L. McKenna
J. N. Kaub

Inventor:
James H. Jones
W. A. Snow
att'y.

UNITED STATES PATENT OFFICE.

JAMES H. JONES, OF SCOTLAND, MISSOURI.

MOWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 311,006, dated January 20, 1885.

Application filed September 8, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. JONES, of Scotland, county of Scotland, and State of Missouri, have invented a new and useful Improvement in Mowing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use it, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to improvements in mowing-machines; and it consists in the construction, combination, and arrangement of the several parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of my machine, and Figs. 2 and 3 are respectively top and bottom plans. Fig. 4 is a front elevation of the machine with sickle-bars elevated. Fig. 5 is a side elevation of the same with a wheel removed.

The main frame of the machine has its side bars, A A, pivoted on the axle B, and its front bar, A', is provided with a suitable opening, A², through which the tongue A³ is passed. The side bars, A A, are joined at their rear ends by a cross-bar, A⁴, as shown. The axle B has bearings in the side bars, A A, and also in beams C C, which are bolted or otherwise made fast to the outer sides of the bars A, and extend above and below the same. The portion of each beam above the bar A is formed or provided on its inner face with a series of rack or ratchet teeth, c, for the purpose presently described.

In addition to the main frame I employ a supplemental frame composed of side bars, D D, and end bars, D' D², arranged as shown most clearly in Fig. 3. This supplemental frame is pivotally secured near its rear end to the lower portion of the beam C, and extends forward under the axle B. I journal a shaft, D³, in the bars D, immediately below the axle B, and this shaft forms the pivot upon which the supplemental frame turns. On this shaft I secure the bevel gear-wheel D⁴ and the pinion D⁵, the latter meshing with the gear B' on the axle B, as shown.

In operation the axle B is revolved by the wheels B², spindled on its opposite ends, the said wheels being provided with pawls b, ar-

ranged to engage the ratchet-wheels b', keyed on the axle, and thus the axle B and wheels B' and D⁵ D⁴ will rotate together, as will be readily understood. The pawls b are pivoted to the wheels. A crank-shaft, d, is journaled at its forward end in the bar D', through which it passes, and near its rear end in the lug d', projected from one of the bars D, and it is provided on its rear end with a bevel-pinion, d², meshed with wheel D⁴, as shown, whereby the crank-shaft d is revolved. A yoke-shaped hanger, E, is pivoted at its upper middle or crown portion on the shaft d, immediately in front of the bar D', and its opposite ends extend down close to the ground and have pivoted to them the inner ends of the knife-supporting finger-bars E'. These finger-bars are provided on their under sides, at each end, with a supporting runner or shoe, e, and are constructed with guides or keepers e' e², which serve as ways for the knife-bars F, which slide therein in their reciprocating action. These knife-bars F are secured in the keepers e' e², and are connected together by the link F', pivotally secured at its opposite ends to the inner or adjacent ends of the knife-bars. This link is provided with a central slot, f, which is elongated vertically, as shown, and in which works the crank or eccentrically-disposed pin d³, secured on the end of shaft d, so that as the said shaft is revolved the crank d³, working in the slot f, will give the link F', and consequently the knife-bars F, a simultaneous reciprocating motion. The seat G is mounted on the beam G', which is supported midway its ends on the springs g, extended from the side bars, A. These springs form practically a pivot-support for the beam, the forward end of which is connected by chains or cords g with the forward end of the supplemental frame, so that the weight of the driver serves as a counterpoise of the cutting apparatus connected to said supplemental frame. For the purpose of raising the cutters, either one at will, I employ the levers H H and I I. The levers H H are pivoted at one end to the inner side of the bars A, and extend therefrom at right angles over the opposite bar A, and are connected at their outer or free ends with the ends of the yoke E by chains h. The levers I are pivoted at their forward ends to the bars A, and extend rear-

ward, each under one of the levers, and at their rear ends are to be held by the ratchet-bars *c* at any suitable elevation. The particular arrangement and operation of these levers will
5 be fully understood from Fig. 1.

By the before-described mechanism, it will be seen, the machine will cut a swath on opposite sides of the machine, and one or both of the cutter-bars may be raised for any desired
10 purpose.

Any of the ordinary well-known provisions for throwing the machine into and out of gear may be employed. Many forms are well-known upon machines for cutting grass or cereals, and I do not deem it necessary to illustrate such.
15

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a mowing-machine, the combination,
20 substantially as set forth, of the knife-bars, the supporting finger-bars, and a yoke or support connected midway its ends to the frame by a pivot-joint, and pivotally secured at its opposite ends to the finger-bars, and the necessary
25 operating mechanism, as set forth.

2. In a mowing-machine, the combination, with the pivoted yoke, of the finger-bars pivoted to the opposite ends of said yoke and provided with guides or keepers, the knife-bars
30 placed in and operating through said keepers, the link connecting said knife-bars and provided with a vertical slot, a shaft provided

with a crank-pin working in said slot, and necessary operating mechanism, as set forth.

3. In a mowing-machine, the combination,
35 with the shaft *d*, geared with the operating mechanism and provided with a crank, *d*³, of the yoke pivoted on the said shaft and having the finger-bars secured to its opposite ends, the knife-bars, the link connecting the same and
40 provided with a vertical slot engaged by said crank *d*³, and means for elevating the yoke at will, substantially as set forth.

4. In a mowing-machine, the combination
45 of the pivoted yoke, the finger-bars secured to its opposite ends, the levers *H H I I*, chains or ropes *h*, and the necessary framing and operating mechanism, as set forth.

5. The combination, in a mowing-machine,
50 of the axle *B*, the ratchet-wheels *b'*, the gear-wheel *B'*, secured thereon, the pawls arranged to engage the ratchet-wheels, the shaft *D*³, provided with gear-wheel *D*⁴ and pinion *D*⁵, the shaft *d*, having pinion *d*² and crank *d*³, the yoke pivoted on the shaft *d*, the cutting appa-
55 ratus secured to the yoke, the link *F'*, having slot *f*, and the necessary framing, as set forth.

In testimony that I claim the foregoing I append my signature.

JAMES H. JONES.

Witnesses:

T. H. WAGNER,
R. WAGNER.