

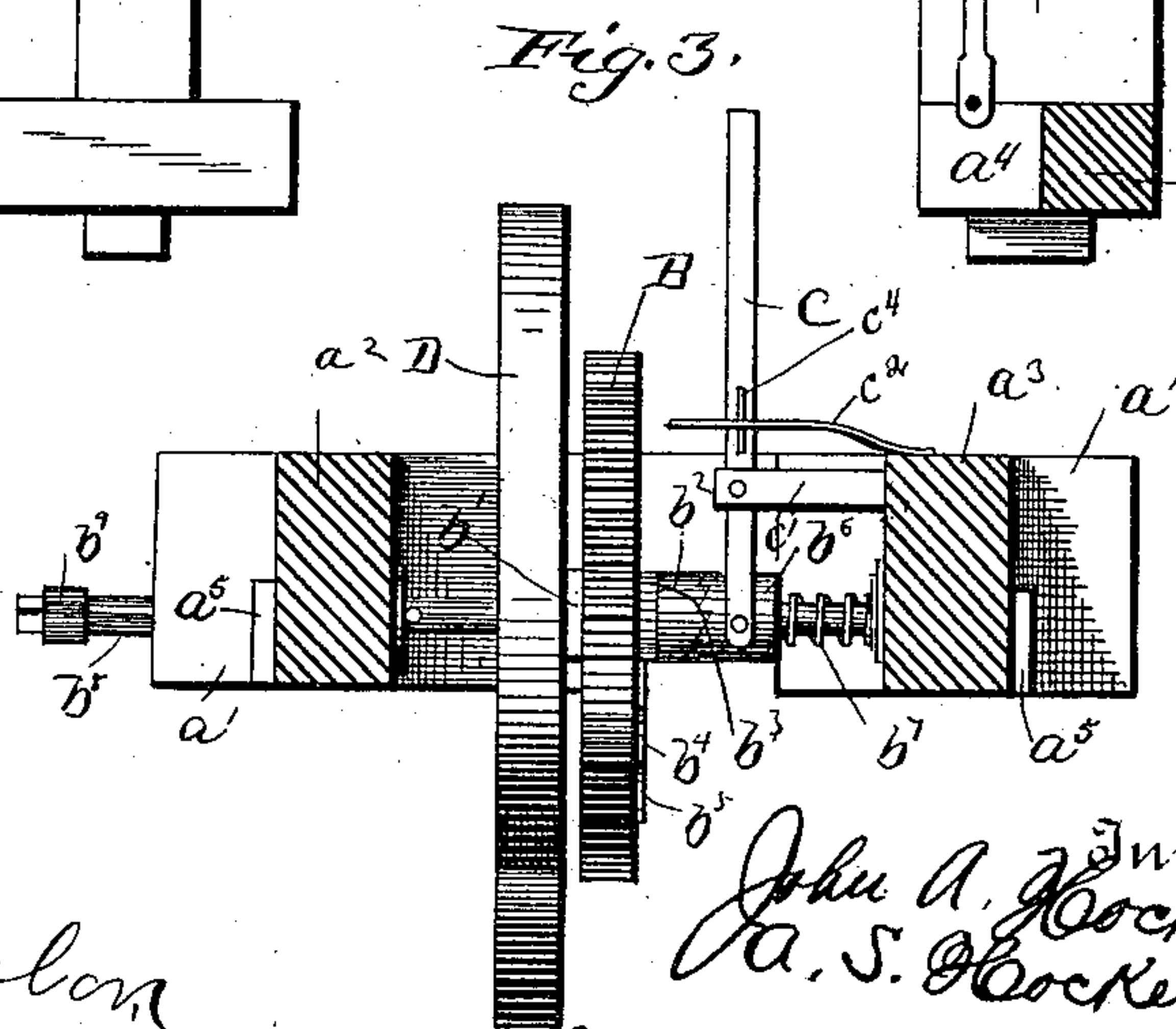
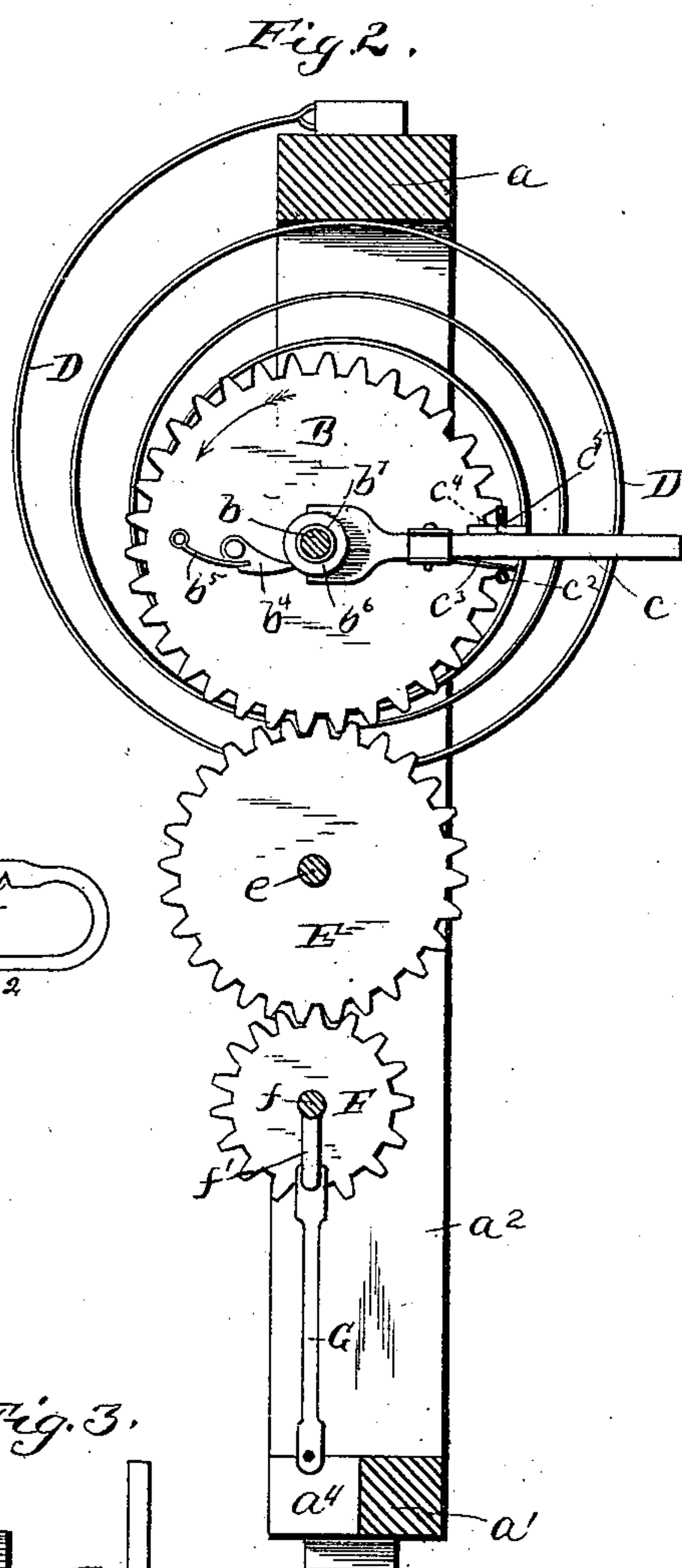
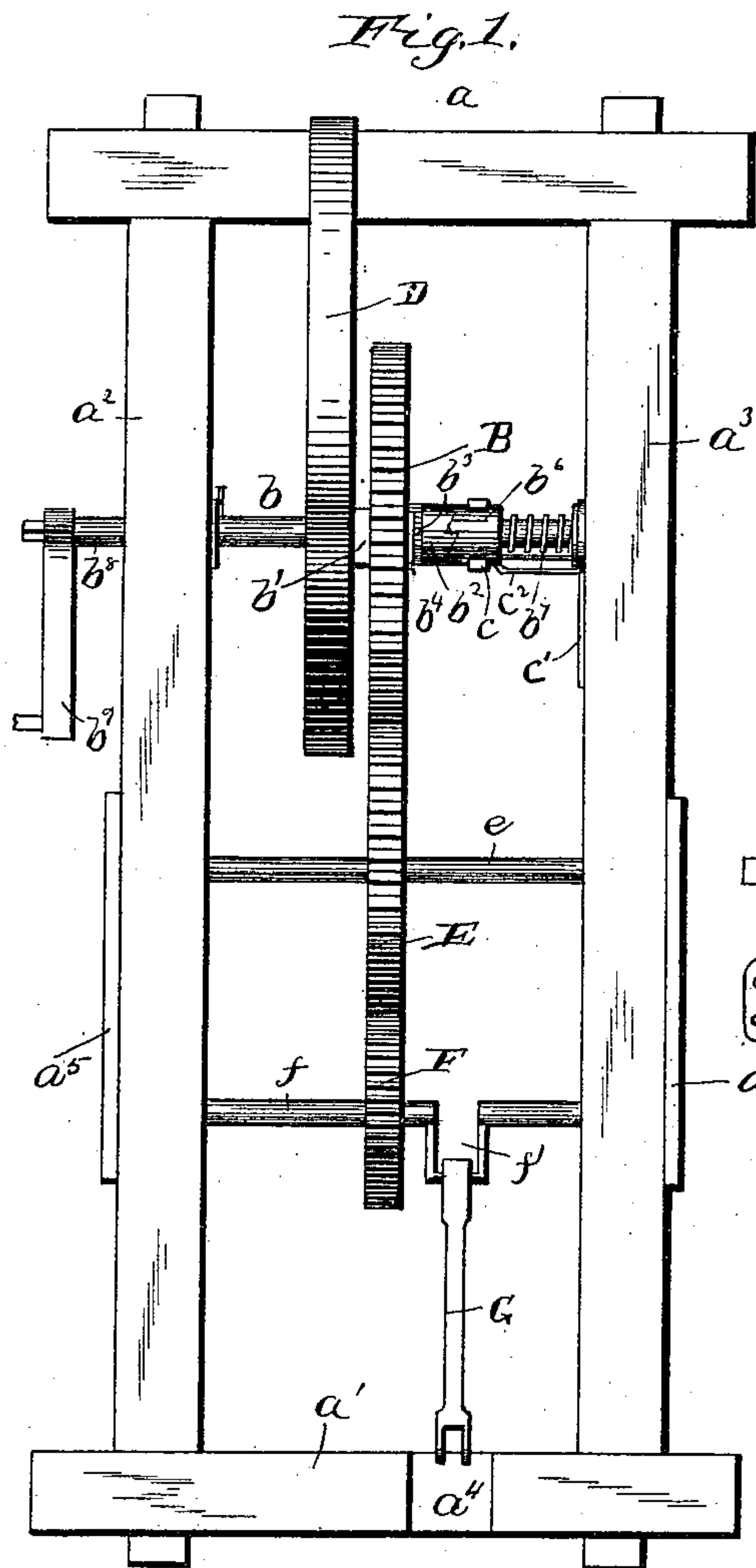
(No Model.)

J. A. & A. S. HOCKENBERRY.

MOTOR FOR PUMPS.

No. 353,063.

Patented Nov. 23, 1886.



Witnesses

Charles Taylor  
Wm. N. Moore

Inventors  
John A. Hockenberry  
A. S. Hockenberry

By their Attorneys

C. A. Snow & Co



# UNITED STATES PATENT OFFICE.

JOHN A. HOCKENBERRY AND ABRAHAM S. HOCKENBERRY, OF OAKWOOD,  
ILLINOIS.

## MOTOR FOR PUMPS.

SPECIFICATION forming part of Letters Patent No. 353,063, dated November 23, 1886.

Application filed August 21, 1886. Serial No. 211,533. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN A. HOCKENBERRY and ABRAHAM S. HOCKENBERRY, citizens of the United States, residing at Oakwood, in the county of Vermillion and State of Illinois, have invented a new and useful Improvement in Motors for Pumps, of which the following is a specification.

The object of our invention is to provide a simple and powerful motor for operating all kinds of house-pumps; and our invention consists in certain peculiar and novel features of construction and arrangement, as hereinafter described and claimed.

In order that our invention may be fully understood, we will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a perspective view of our improved motor. Fig. 2 is a rear elevation of the same. Fig. 3 illustrates certain of the parts of the motor in detached condition.

In the said drawings,  $a$   $a'$  designate, respectively, the horizontal top and bottom pieces, and  $a^2$   $a^3$  the vertical side pieces, of the rectangular frame, which supports the working parts of the motor. In the upper part of this frame is set a horizontal shaft,  $b$ , which is journaled at its ends in the side pieces,  $a^2$   $a^3$ , of said frame. Midway of the length of shaft  $b$  is mounted a gear-wheel, B, which is free to turn upon said shaft excepting for the attachments hereinafter described. The wheel B is prevented from sliding laterally upon the shaft  $b$  by a rigid collar,  $b'$ , on one side, and a rigid clutch-section,  $b^2$ , on the opposite side of said shaft, said collar and clutch-section turning with the shaft. At the end contiguous to wheel B the clutch-section  $b^2$  is formed with peripheral ratchet-teeth  $b^3$ , which are engaged by a pawl,  $b^4$ , pivoted upon the corresponding side of wheel B, and held into engagement with said ratchet-teeth by a spring,  $b^5$ , as shown.

$b^6$  designates a sliding clutch-section, which loosely surrounds the shaft  $b$ , and which is held normally into engagement with the fixed clutch-section  $b^2$  by a coiled spring,  $b^7$ , which is interposed between the outer end of the clutch-section  $b^7$  and the side piece  $a^3$  of the

frame. This sliding clutch-section  $b^7$  is operated by a lever,  $c$ , which is pivoted upon an L-shaped hanger,  $c'$ , secured to the inner side of side piece  $a^3$ , and said lever also works in a loop,  $c^2$ , which extends inwardly from the front side of said side piece  $a^3$ . Upon the under side of the lever  $c$  is secured a spring,  $c^3$ , which presses upon the lower arm of loop  $c^2$  and forces an edged plate,  $c^4$ , upon the upper side of lever  $c$ , into engagement with one of two notches,  $c^5$ , in the under side of the upper arm of loop  $c^2$ .

D designates the spiral power-spring, one end of which is secured to shaft  $b$ , between the collar  $b'$  and the side piece  $a^2$ , and the opposite end of which is secured to the top piece,  $a'$ , of the frame. One end,  $b^8$ , of the shaft is extended through the side piece  $a^2$  and carries a handle,  $b^9$ , by means of which the said shaft is turned to wind up the power-spring.

$e$  designates a shaft journaled in the side pieces,  $a^2$   $a^3$ , of the frame, and below the shaft  $b$ , and carrying a rigid gear-wheel, E, which meshes with the gear-wheel B on shaft  $b$ .

$f$  designates a shaft journaled in the side pieces,  $a^2$   $a^3$ , and below the shaft  $e$ , and carrying a gear-wheel, F, which meshes with the gear-wheel E above referred to. This shaft  $f$  is also formed with a crank-section,  $f'$ , to which is journaled the upper end of a pitman, G, the lower end of which is connected pivotally to the pump-rod, said pitman working in a recess,  $a^4$ , in the lower cross-piece,  $a'$ , of the frame. The ends of shafts  $e$   $f$  are confined in their bearings in side pieces,  $a^2$   $a^3$ , by plates  $a^5$ , as shown.

From the above description it will be seen that by turning the handle  $b^9$  the shaft will be rotated (in the direction indicated by the arrow) and the spring D will be wound up, the wheel B remaining stationary, and the clutch-section  $b^2$  turning under the pawl  $b^4$  and past the clutch-section  $b^6$ . By moving the lever  $c$  to the right the motor is allowed to operate, and by moving said lever to the left the motor is stopped.

The motor-frame is to be set over the pump and the motor operates the pump-rod steadily and for a suitable length of time. The motor

may also be readily applied to a railway-pump without requiring material alterations in its construction.

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

1. The combination, with a suitable supporting-frame, and a shaft, *b*, journaled therein, of a gear-wheel, *B*, mounted loosely upon said shaft and carrying a spring-pawl, *b*<sup>4</sup>, and a power-spring, *D*, secured at one end to the shaft and at its opposite end to the said frame, of a fixed clutch-section set rigidly upon the shaft and having ratchet-teeth for said pawl, a fixed collar confining the said wheel against said ratchet-section, a movable clutch-section, and an operating lever therefor, substantially as described.

2. The combination, with the frame *a a'* *a*<sup>2</sup>, the shafts *e f*, carrying gear-wheels *E F*, and the pitman *G*, journaled in crank-section *f'* of said shaft *f*, of the shaft *b*, carrying gear-wheel *B*, with its pawl *b*<sup>4</sup>, and spring *b*<sup>5</sup>, the collar *b'*, fixed clutch-section *b*<sup>2</sup>, with its ratchet-teeth *b*<sup>3</sup>, the sliding clutch-section *b*<sup>6</sup>, spring *b*<sup>7</sup>, and power-spring *D*, the lever *c*, having spring *c*<sup>3</sup> and plate *c*<sup>4</sup>, the hanger *c'*, and loop *c*<sup>2</sup>, having notches *c*<sup>5</sup>, substantially as set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

JOHN A. HOCKENBERRY.

ABRAHAM S. HOCKENBERRY.

Witnesses:

H. H. CUMMING,

GLENN S. FLEMING.