

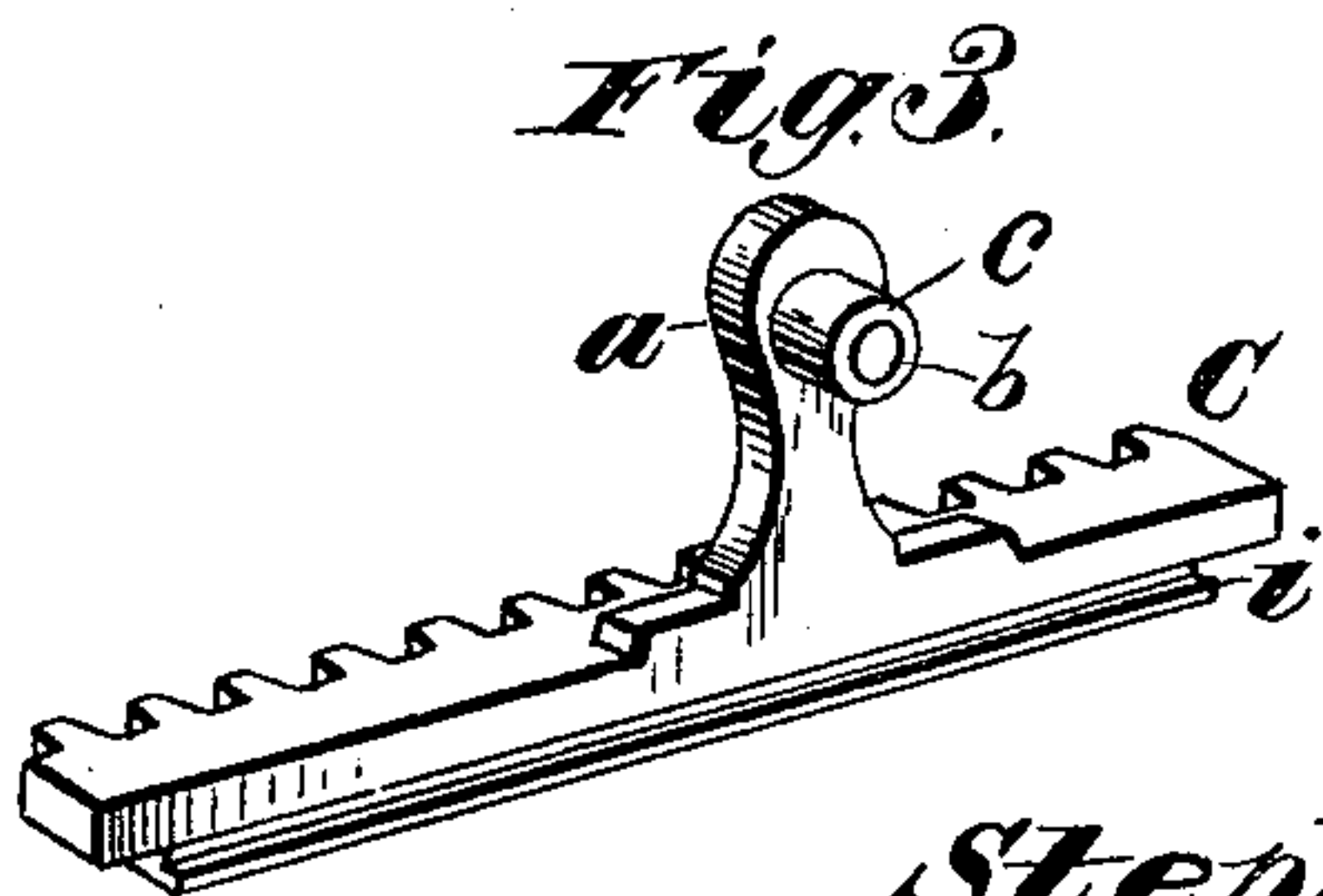
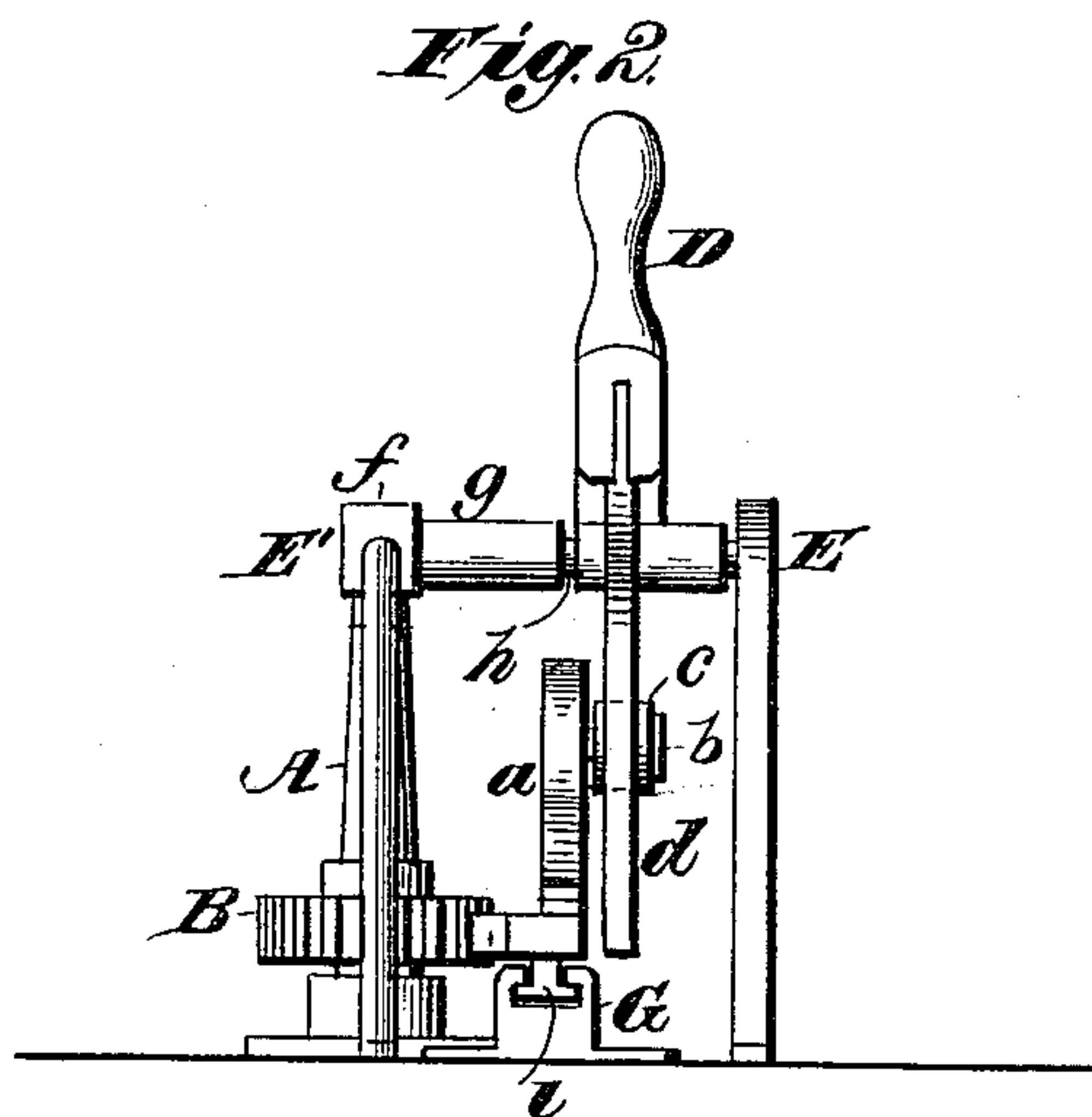
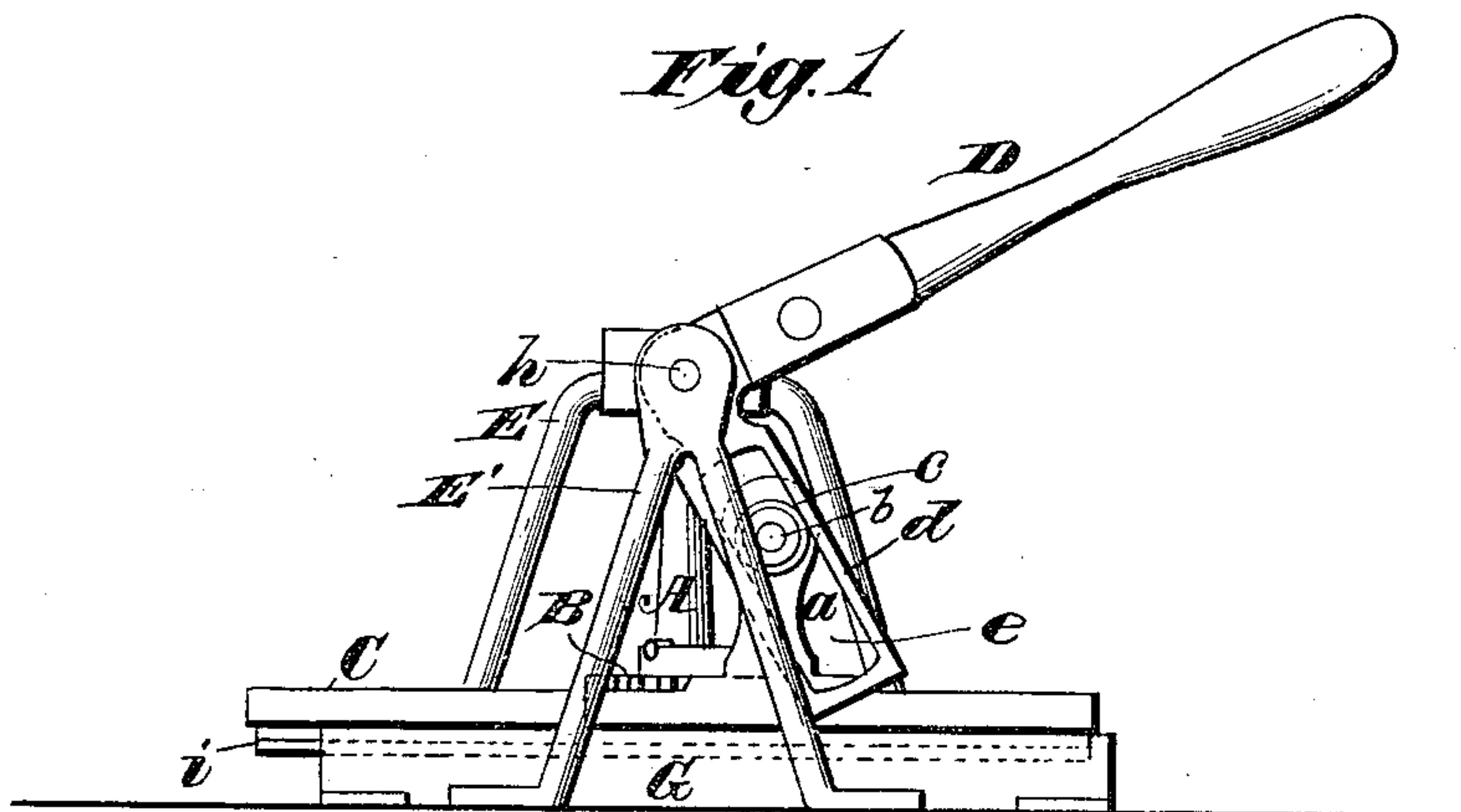
(No Model.)

S. C. MORTIMER.

DEVICE FOR CONVERTING MOTION.

No. 329,761.

Patented Nov. 3, 1885.



Witnesses
Robert Emmett.
Geo W. Rea.

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UNITED STATES PATENT OFFICE.

STEPHEN C. MORTIMER, OF FORT WAYNE, INDIANA.

DEVICE FOR CONVERTING MOTION.

SPECIFICATION forming part of Letters Patent No. 329,761, dated November 3, 1885.

Application filed September 5, 1885. Serial No. 176,260. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN C. MORTIMER, a citizen of the United States, residing at Fort Wayne, in the county of Allen and State of Indiana, have invented new and useful Improvements in Mechanism for Converting Motion, of which the following is a specification.

My invention relates to an improved construction and combination of devices for converting a reciprocating movement into a rotary motion, as hereinafter fully set forth.

In the annexed drawings, illustrating the invention, Figure 1 is a side elevation of my improved mechanism for converting motion. Fig. 2 is an end elevation of the same. Fig. 3 is a detail view of rack-bar with attached bracket and roller.

In carrying my invention into effect a shaft, A, is provided with a pinion, B, by which it is to be rotated. This shaft may be journaled in a vertical, horizontal, or other position, as required. The shaft A is rotated alternately in opposite directions by means of a rack-bar, C, that meshes with the pinion B on said shaft. The rack-bar C is provided toward one end with a lug or bracket, *a*, carrying a laterally-projecting stud, *b*, on which is mounted a friction-roller, *c*. This rack-bar is reciprocated by means of an oscillating lever, D, having at its pivoted end a rectangular projection or extension, *d*, in which is formed a longitudinal slot, *e*, for engaging the roller *c* on the rack-bar. The lever D may be pivoted in any suitable manner in brackets or standards E E', secured to some suitable support, as F, in which support the rotary shaft A can be partly journaled. One end of the shaft A is also journaled in the bracket or standard E.

I prefer to form the bracket or standard E with a broad bearing, *f*, for the end of the shaft A, and on one side of this enlarged portion of said bracket is a tubular bearing, *g*, that projects toward the opposite bracket or standard, E'. I also prefer to provide the lever D with a pivot, *h*, one end of which is journaled in the tubular bearing *g*, while the other end is journaled in the standard E', or upon a stud fixed thereto. The under side of

the rack-bar C is provided with a longitudinal guide-flange, *i*, which moves in a correspondingly-grooved plate or guideway, G, fixed to the support F. It will be seen that by operating the lever D the engagement of its slotted extension *d* with the roller *c* will produce a reciprocating movement of the rack-bar C, which in its turn imparts a rotary movement alternately in opposite directions to the pinion B and its shaft, thereby actuating any special mechanism with which said shaft may be connected.

It is obvious that this mechanism for converting motion can be readily applied in a variety of situations where it is desired to rotate a shaft alternately in opposite directions—such, for instance, as in churns, washing-machines, and other appliances wherein a stirring or a back-and-forth rotary movement is required.

What I claim is—

1. The combination of the brackets E E', the shaft A, journaled at one end in one of said brackets and carrying a pinion, B, the rack-bar C, having a lug, *a*, carrying a roller, *c*, and the lever D, pivotally supported in the brackets E E' and having a slotted extension, *d*, adapted to engage the roller on the rack-bar, substantially as described.

2. The combination, with the shaft A, having pinion B, and the rack-bar C, provided with a lug, *a*, and roller *c*, of the brackets E E' and the lever D, pivotally supported in said brackets and having an extension, *d*, provided with slot *e*, substantially as described.

3. The combination of the shaft A, having pinion B, the rack-bar C, carrying a roller, *c*, the brackets E E', lever D, pivotally supported in said brackets and having a slotted extension, *d*, and the grooved guide-plate G, substantially as described.

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

S. C. MORTIMER.

Witnesses:

F. H. WOLKE,

FRANK W. RAWLES.