

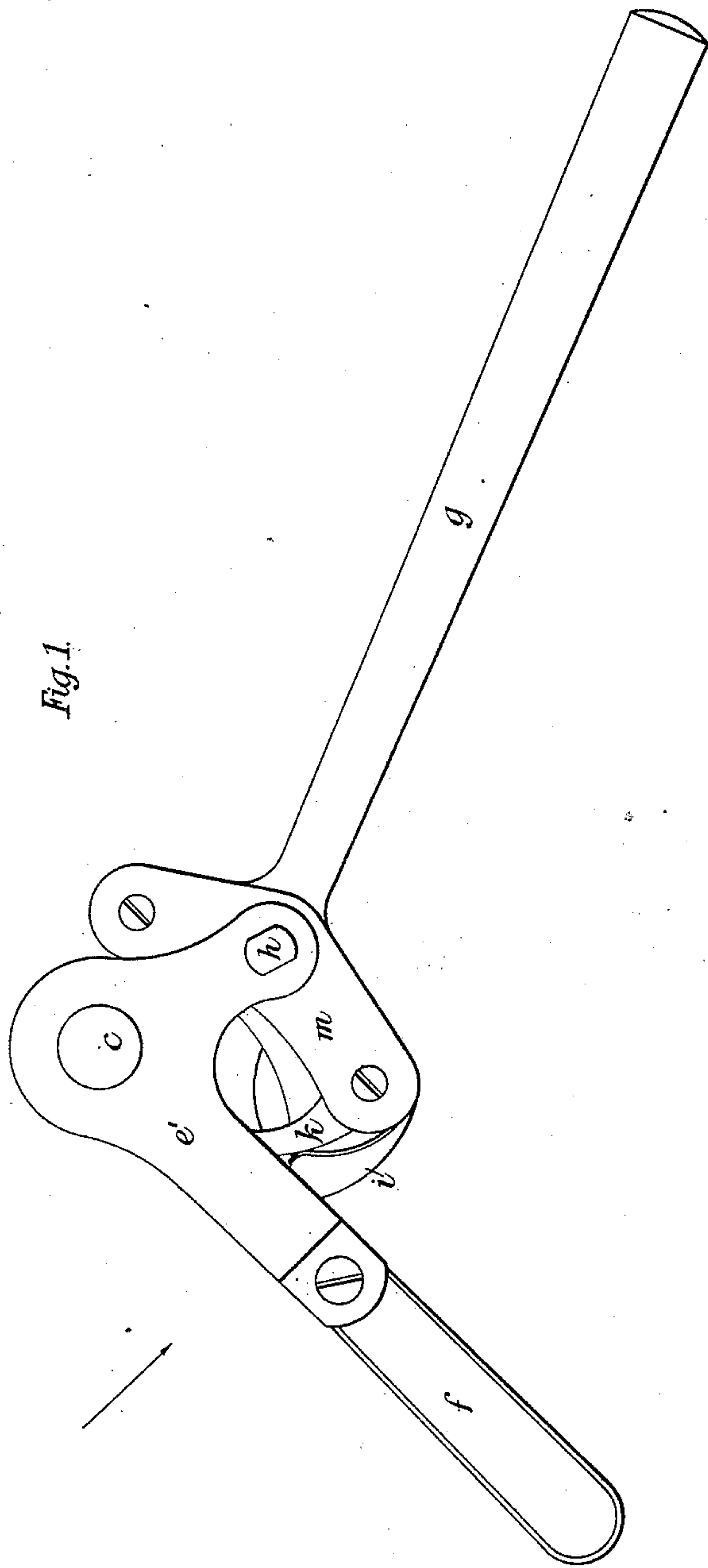
(No Model.)

3 Sheets—Sheet 1.

T. BASS.
RATCHET DRILL.

No. 429,714.

Patented June 10, 1890.



Witnesses

G. H. Hefern
John D. Donofield

Inventor

Thomas Bass

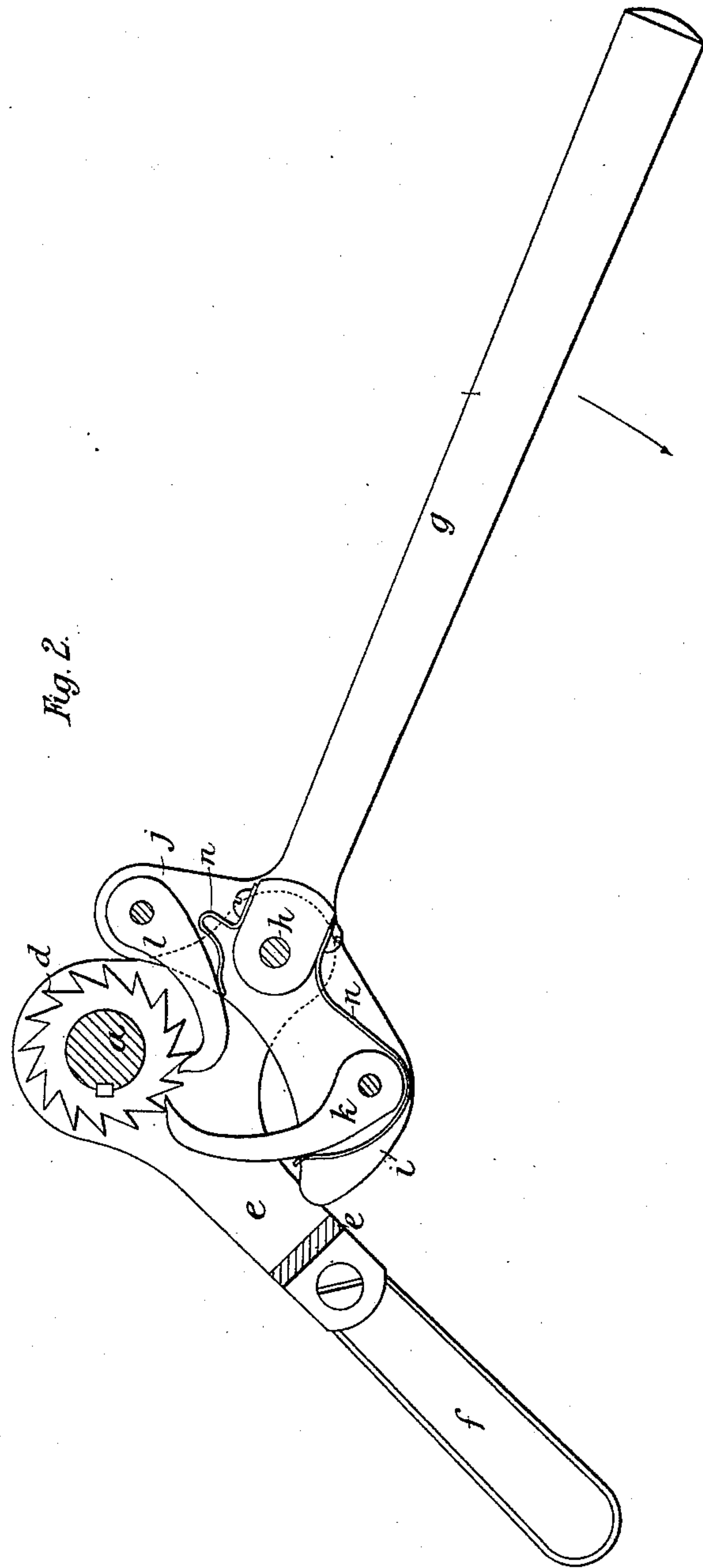
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John E. Dousfield

Inventor:

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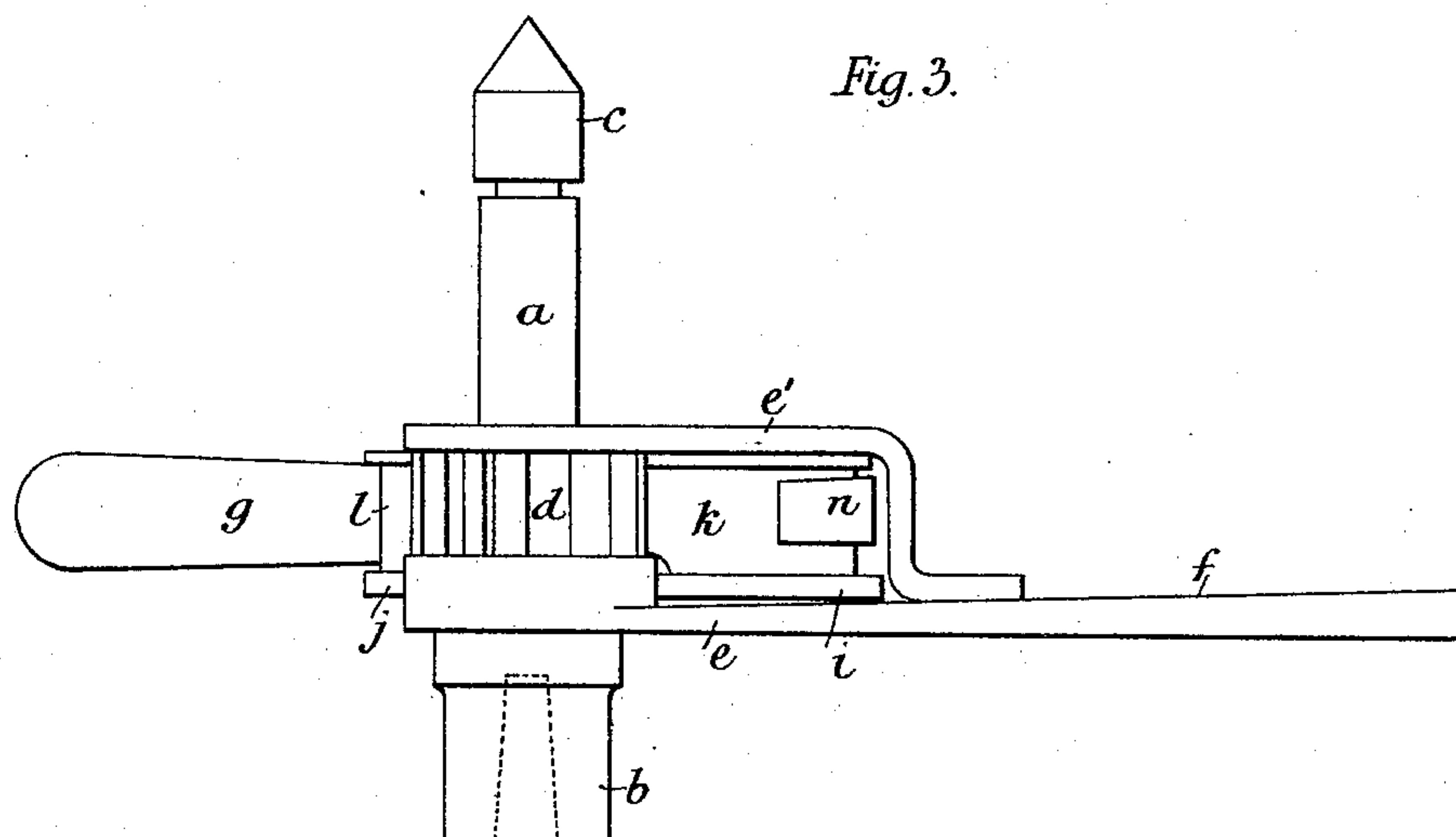
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T. BASS.
RATCHET DRILL.

No. 429,714.

Patented June 10, 1890.



Witnesses:

G. H. Redfern
John E. Dousfield
of the firm of G. H. Redfern & Co.

Inventor:

Thomas. Bass

UNITED STATES PATENT OFFICE.

THOMAS BASS, OF LONDON, ENGLAND,

RATCHET-DRILL.

SPECIFICATION forming part of Letters Patent No. 429,714, dated June 10, 1890.

Application filed February 18, 1890. Serial No. 340,837. (No model.)

To all whom it may concern:

Be it known that I, THOMAS BASS, a subject of the Queen of Great Britain, residing at London, England, have invented new and useful Improvements in Ratchet-Braces, of which the following is a specification.

This invention relates to improvements in ratchet-braces of the kind in which a continuous motion is imparted to the drill.

The novel features of the invention will clearly appear from the following description.

To enable my invention to be fully understood, I will describe the same with reference to the accompany drawings, in which—

Figure 1 is a plan of my improved ratchet-brace, and Fig. 2 a plan partly in section. Fig. 3 is a view looking in the direction of the arrow, Fig. 1.

a is the ratchet-spindle, having at one end a drill-socket *b* and at the other a center-screw *c*.

d is the ratchet-wheel, which is secured to the spindle *a*, and which is located between the two plates *e e'*, which constitute a kind of frame. These plates are secured together, and the plate *e* is provided with an extension *f*, forming a handle for facilitating the manipulation of the apparatus.

g is the operating-lever, which is adapted to work upon a pivot *h*, carried in the plates *e e'*. This lever has at its inner end two arms *i j*, which carry pawls *k l*, respectively.

m is a plate for holding the pivots of the pawls in place, and *n n* are springs for maintaining the pawls in contact with the ratchet-teeth. With this construction it is obvious that when the lever *g* is moved in the direction of the arrow, Fig. 2, the arm *i* will be

moved toward the ratchet-wheel, the pawl *k* causing the partial rotation of the said wheel, and that the arm *j* will be moved in the reverse direction, the pawl *l* sliding over the teeth of the ratchet. When the lever is moved in the reverse direction, the pawl *l* will partially rotate the ratchet-wheel, the pawl *k* sliding over the teeth of the said ratchet.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In combination with a handle supporting the spindle and ratchet and having plates between which the operating-handle is pivoted, a lever *g*, carrying two spring-pawls engaging with the ratchet-teeth and applied to the handle, as set forth.

2. In combination, the part *f*, supporting the spindle *a*, the ratchet-wheel mounted on the spindle, and the operating-lever *g*, having the arms *i j*, provided with spring-pawls *k l*, severally engaging with the ratchet-wheel, the combination being and operating substantially, as set forth.

3. In combination, the handle *f*, its plates *e e'*, and the spindle and ratchet supported in such plates, the lever *g* and its arms *i j*, carried in such plates, the plate *m*, and spring-pawls *k l*, the combination being and operating as set forth.

THOMAS BASS.

Witnesses:

TOM PRUCE,

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