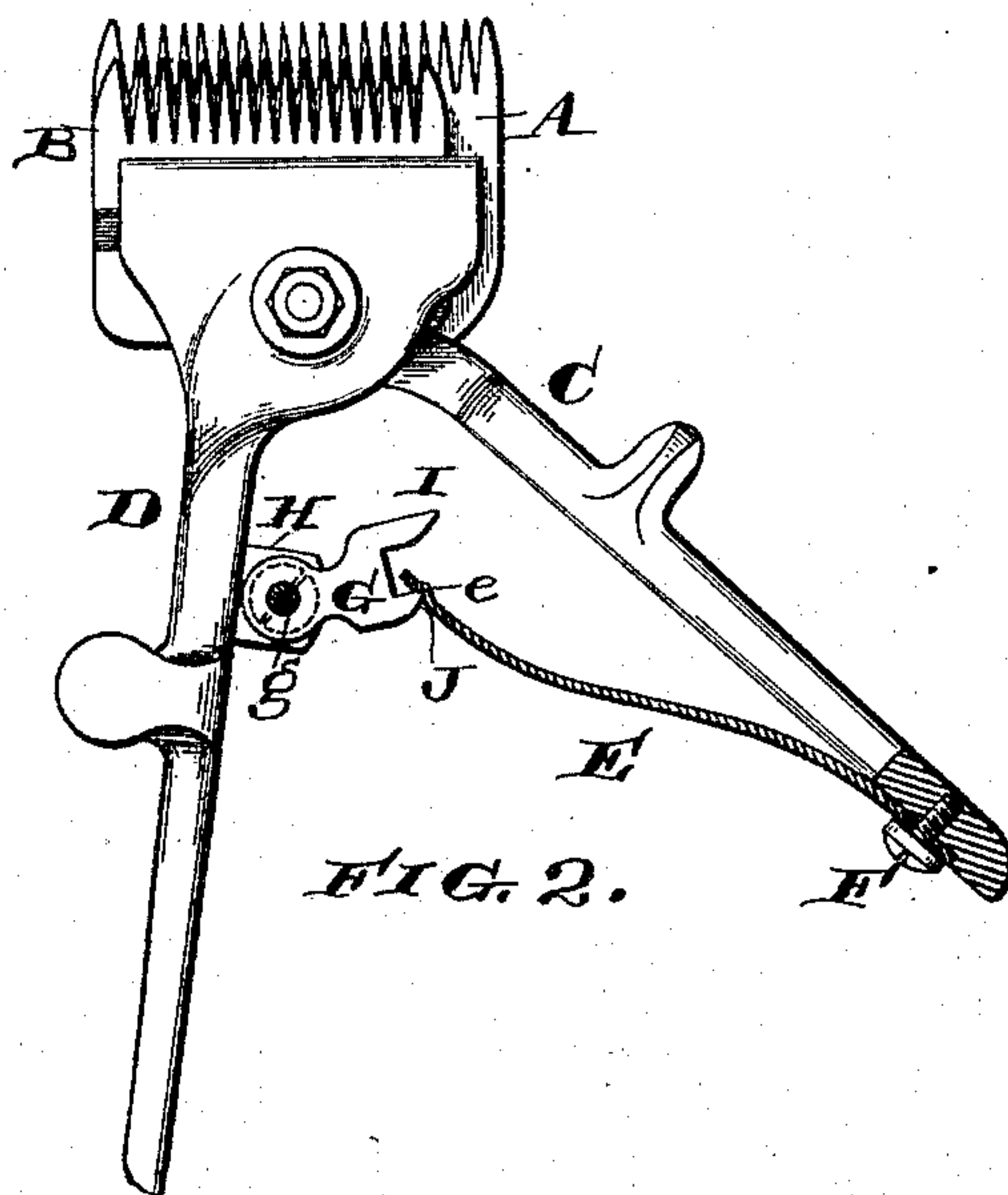
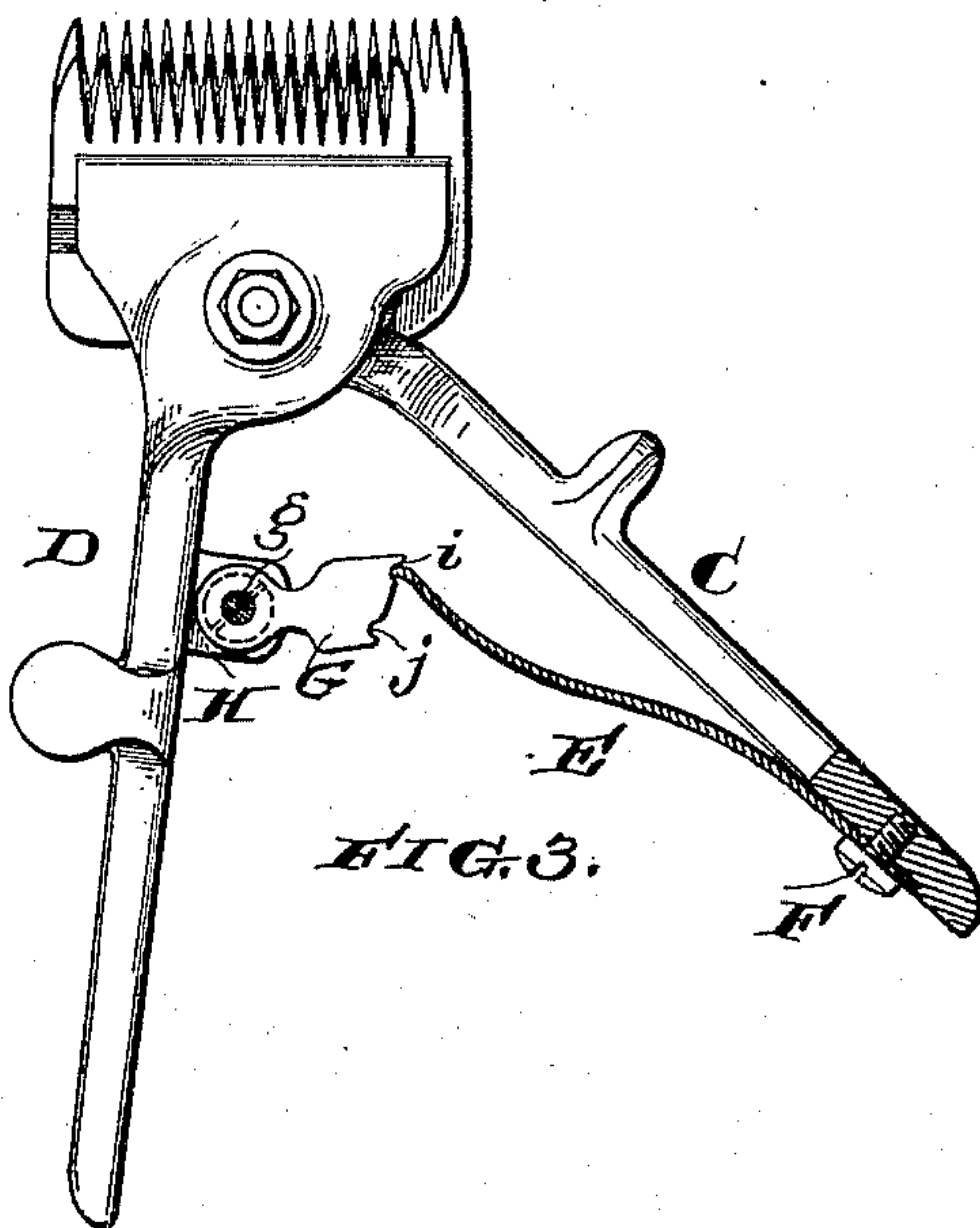
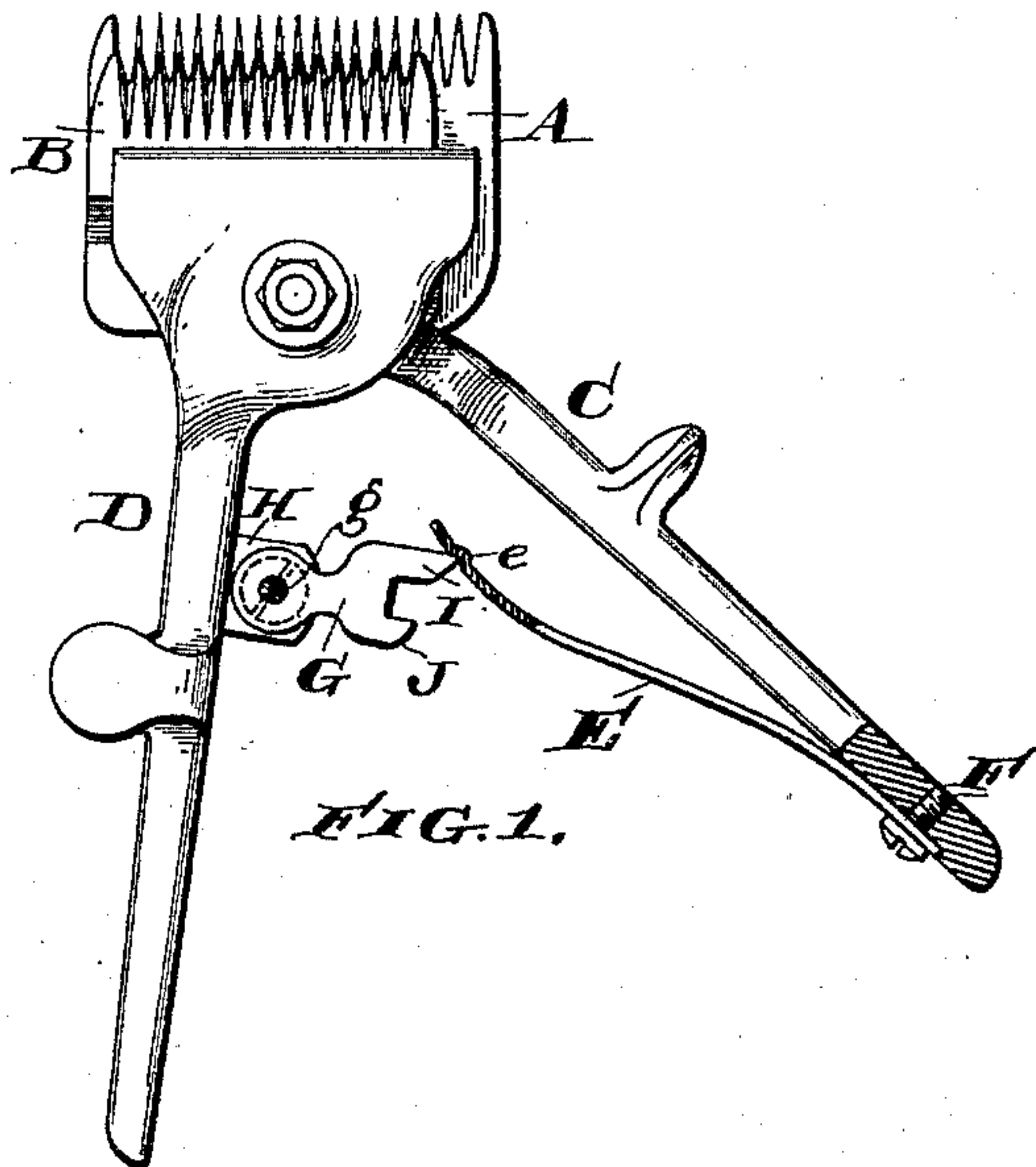


(No Model.)

W. H. BURMAN.
HAIR CLIPPER.

No. 433,513.

Patented Aug. 5, 1890.



WITNESSES:

Henry Dury
George F. Dury.

INVENTOR:

Wm Hawkes Burman
By his atty.

Wm. A. Burrows

UNITED STATES PATENT OFFICE.

WILLIAM H. BURMAN, OF BIRMINGHAM, ENGLAND, ASSIGNOR TO LEWIS S. LEE, OF PHILADELPHIA, PENNSYLVANIA.

HAIR-CLIPPER.

SPECIFICATION forming part of Letters Patent No. 433,513, dated August 5, 1890.

Application filed April 18, 1890. Serial No. 348,449. (No model.) Patented in England October 5, 1889, No. 13,797.

To all whom it may concern:

Be it known that I, WILLIAM HAWKES BURMAN, of Birmingham, in the county of Warwick, England, have invented an Improvement in Hair-Clippers, (for which I have been granted Letters Patent in England, dated October 5, 1889, No. 13,797,) of which the following is a specification.

My invention relates to hair-clippers; and it consists of certain improvements, which are fully set forth in the following specification, and shown in the accompanying drawings, which form a part thereof.

More particularly my invention relates to that class of clippers known as "toilet clippers," and relates more especially to devices for controlling the tension of the spring which automatically opens the levers or handles after each cutting operation. This spring is arranged between the two levers or handles, and is adapted normally to separate them or force them open.

The object of the present invention is to provide the clippers with convenient devices for adjusting the tension of the springs, so that it may be increased or decreased, as desired.

In the drawings, Figure 1 is a front elevation of a clipper embodying the principles of my invention. Fig. 2 is a similar view of the same, showing the tension of the spring decreased; and Fig. 3 is a similar view illustrating modifications of my invention.

A is the bottom or fixed cutter-plate, and B the upper reciprocating cutter.

C is the lever or handle for operating the reciprocating cutter, and D is the other lever or handle connected to the plate A.

E is a flat spring connected at one end by means of a screw F or otherwise to the end of the lever or handle C, and having its other or free end adapted to press against the lever D or an extension carried thereby.

In Figs. 1 and 2 the free end of the spring E is provided with a notch *e*, and rests against a rocking arm G, pivoted at *g* to a bracket or lug H of the arm D. This rocking arm G is provided with two or more prongs or projections I J of different lengths from the fulcrum *g*. The notch *e* rests against either of

these projections or prongs, according to the amount of tension which it is desired the spring E shall exert between the two handles D and C. It is apparent that this tension will be greater when the end of the spring rests against the longer projection I, as shown in Fig. 1, and less when it rests against the end of the shorter projection J, as shown in Fig. 2. Instead of using only two projections I and J upon the rocking arm G, it is apparent that the number may be increased, as desired, to allow a variety of adjustments of the tension of the spring E.

In Fig. 3 is shown a slight modification, in which, instead of employing the projections I and J upon the rocking arm G, the latter is made with notches or indentations *i j* at different distances from the fulcrum *g*, and into these notches or indentations the end of the spring E is adapted to rest, being slightly curved, if desired, for that purpose.

While I prefer the details of construction which are here shown, I do not limit my invention to them, as it is apparent that they may be modified in many ways without departing from the principles of my invention.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination, with the handles of a pair of clippers, of a spring carried by one of said handles, and a pivoted piece carried by the other of said handles, against which the free end of the spring rests, one of said parts being provided with two or more supports for the other, whereby the tension of the spring may be varied by changing the point of support between the ends of said parts.

In testimony of which invention I have hereunto set my hand.

WILLIAM H. BURMAN.

Witnesses:

ALFRED FANNING,
Solicitor, 7 Temple Row, West Birmingham, England.

FRANK W. DOWNING,
7 Temple Row, West Birmingham, England, his clerk.