

No. 675,270.

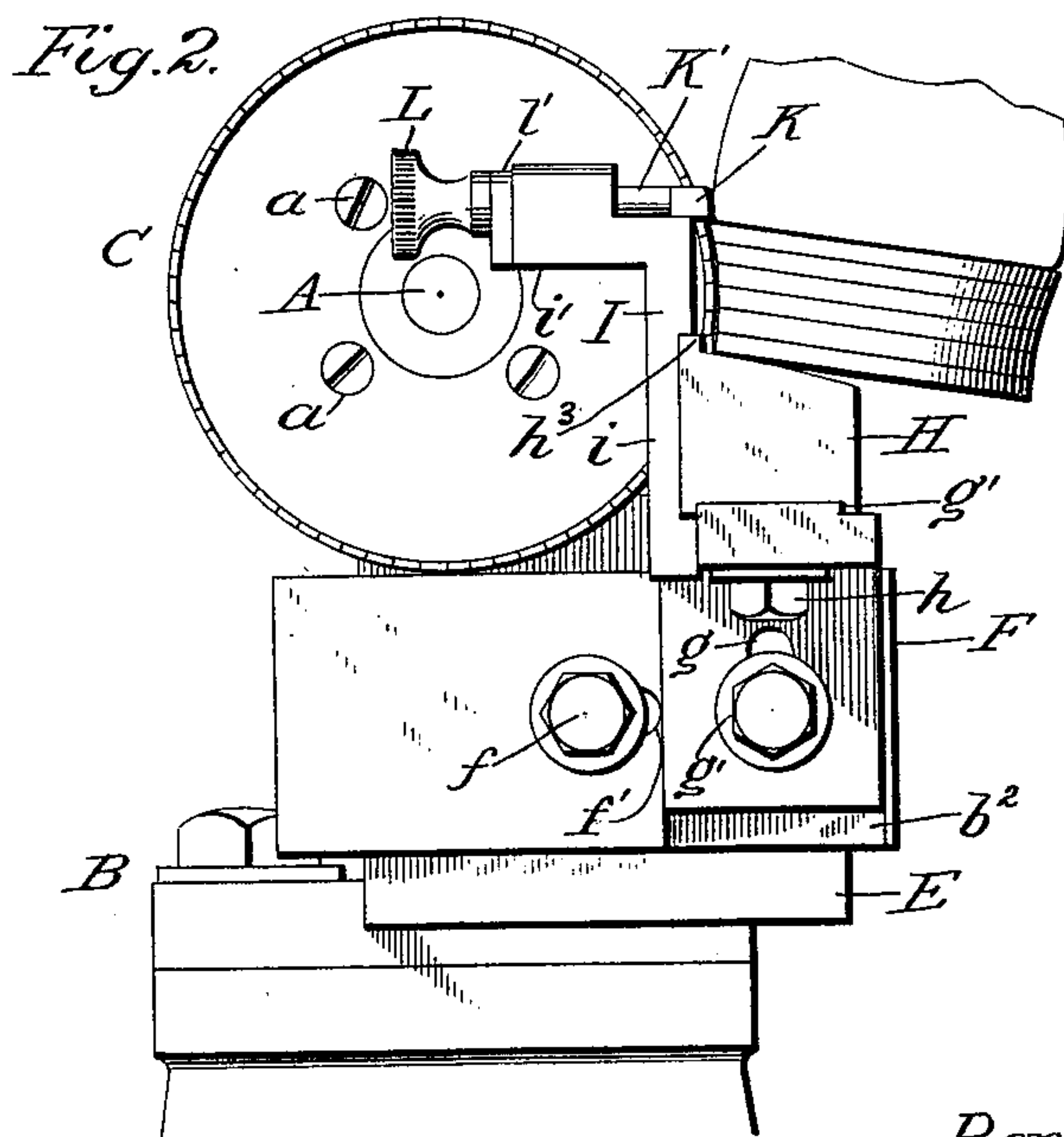
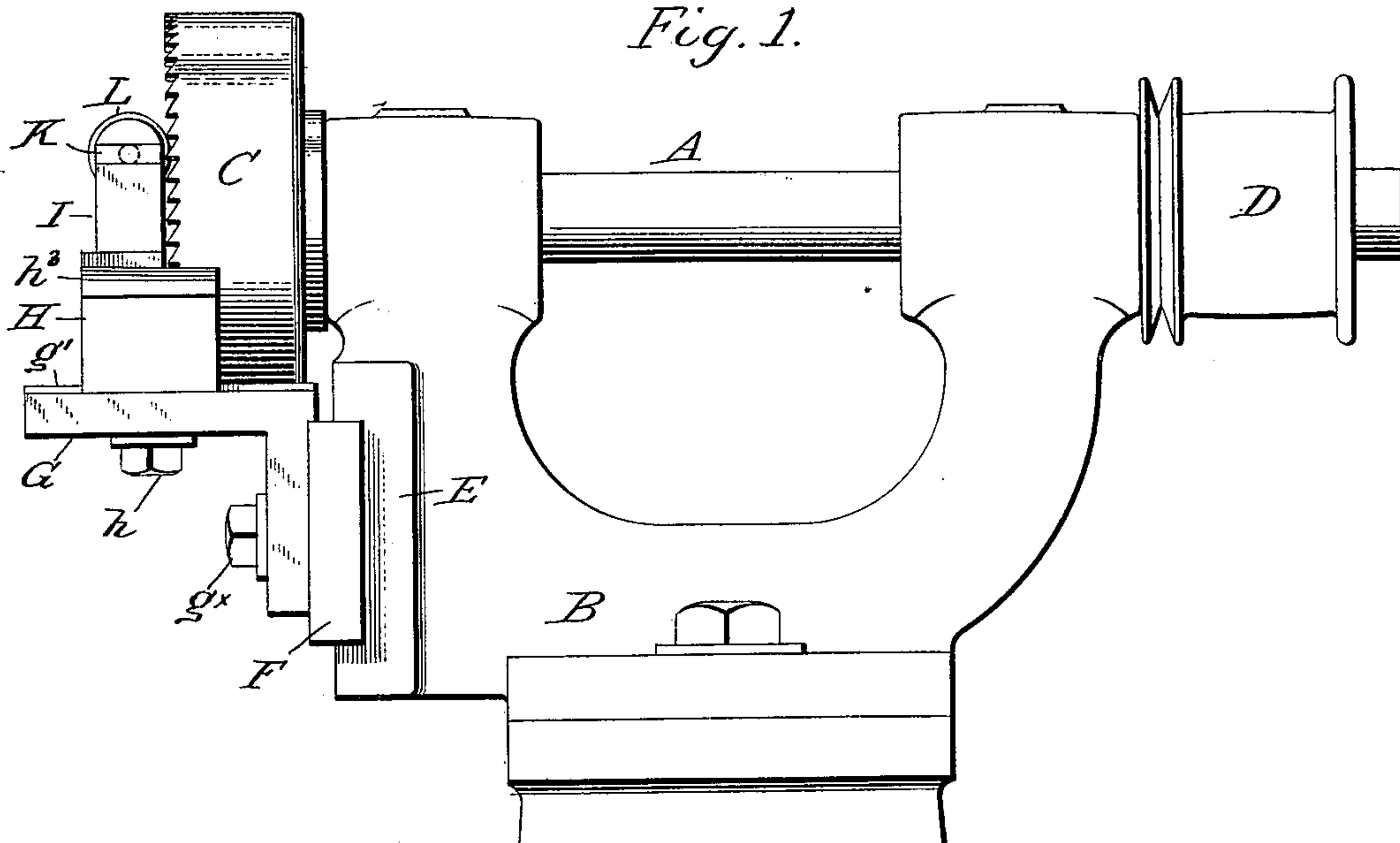
Patented May 28, 1901.

B. FISCHER.  
HEEL TRIMMING MACHINE.

(Application filed Sept. 22, 1899. Renewed Apr. 23, 1901.)

(No Model.)

3 Sheets—Sheet 1.



WITNESSES:

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**No. 675,270.**

**Patented May 28, 1901.**

**B. FISCHER.**

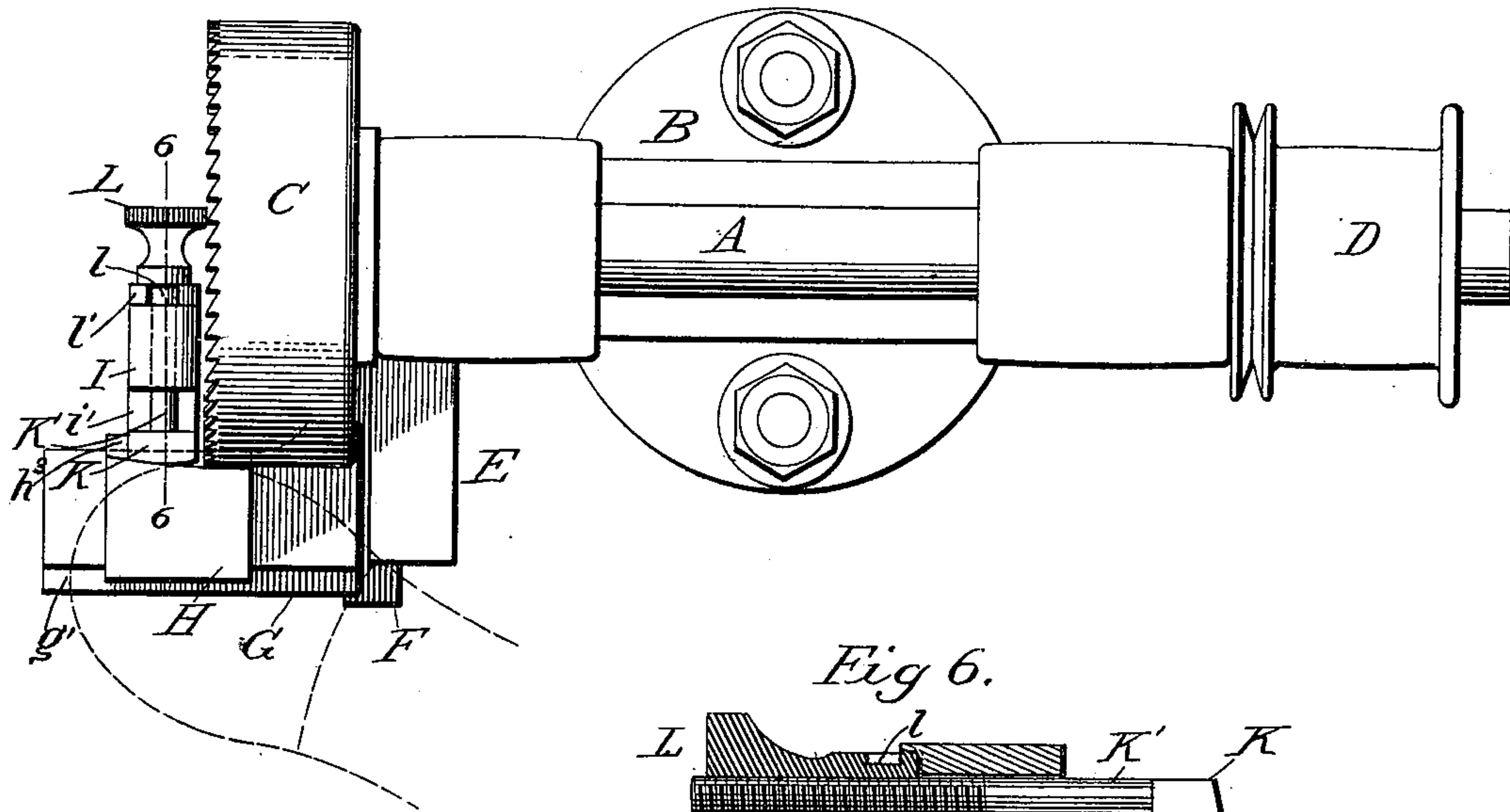
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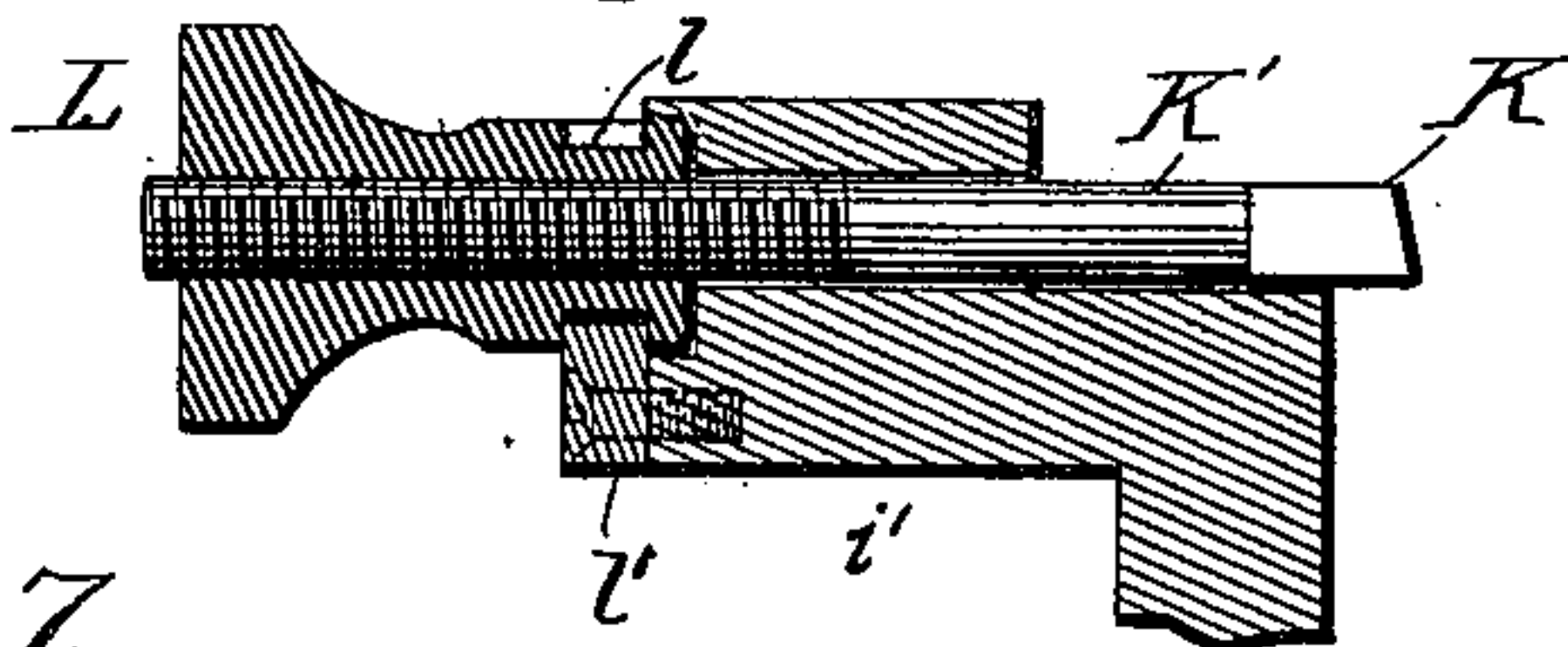
(No Model.)

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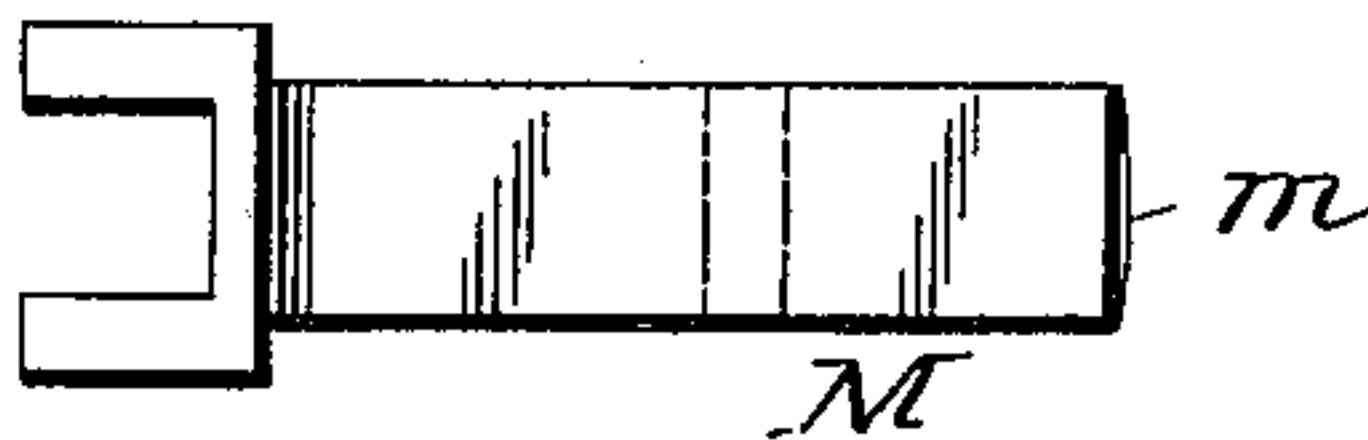
*Fig.3.*



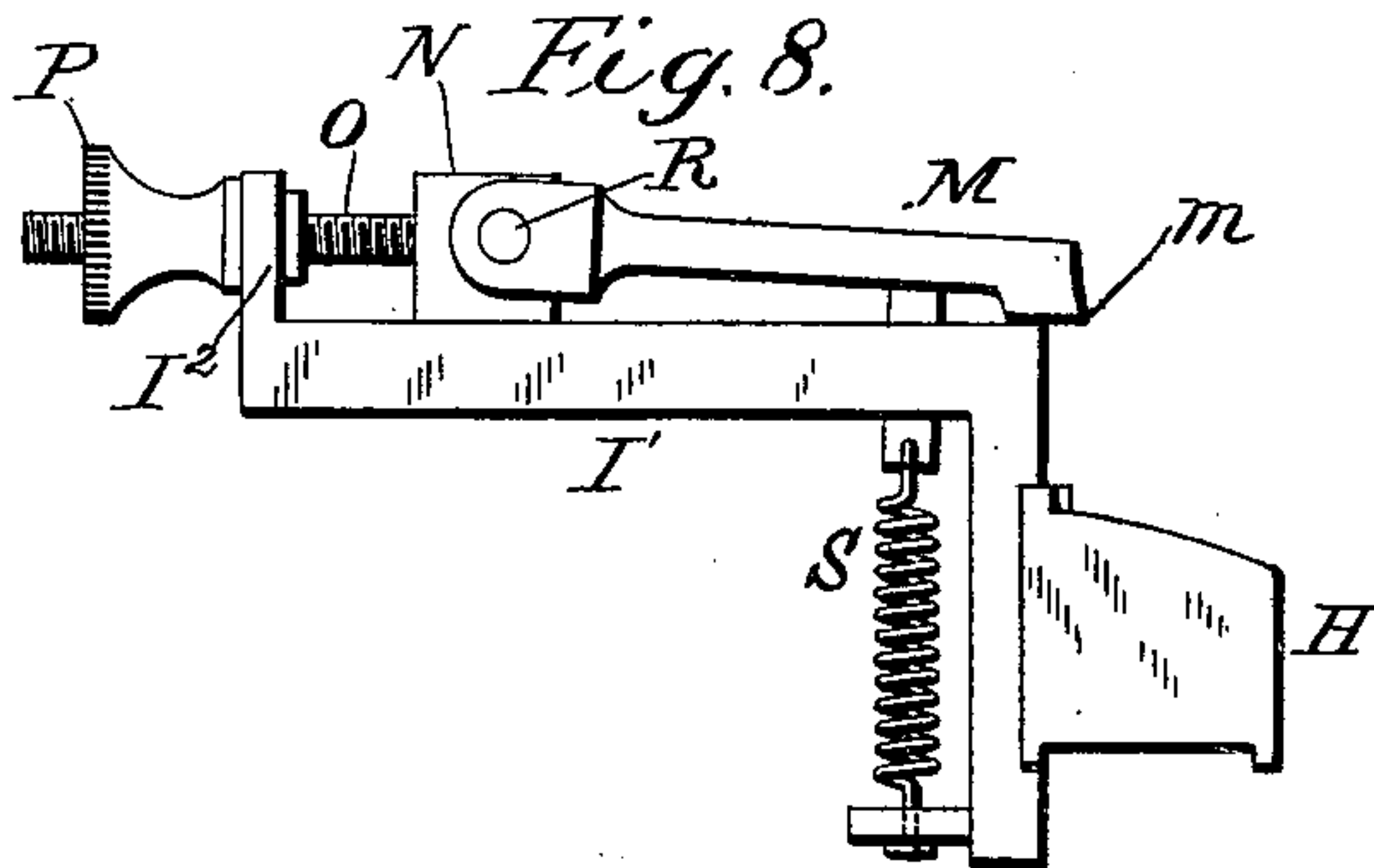
*Fig 6.*



*Fig. 7.*



*Fig. 8.*



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**No. 675,270.**

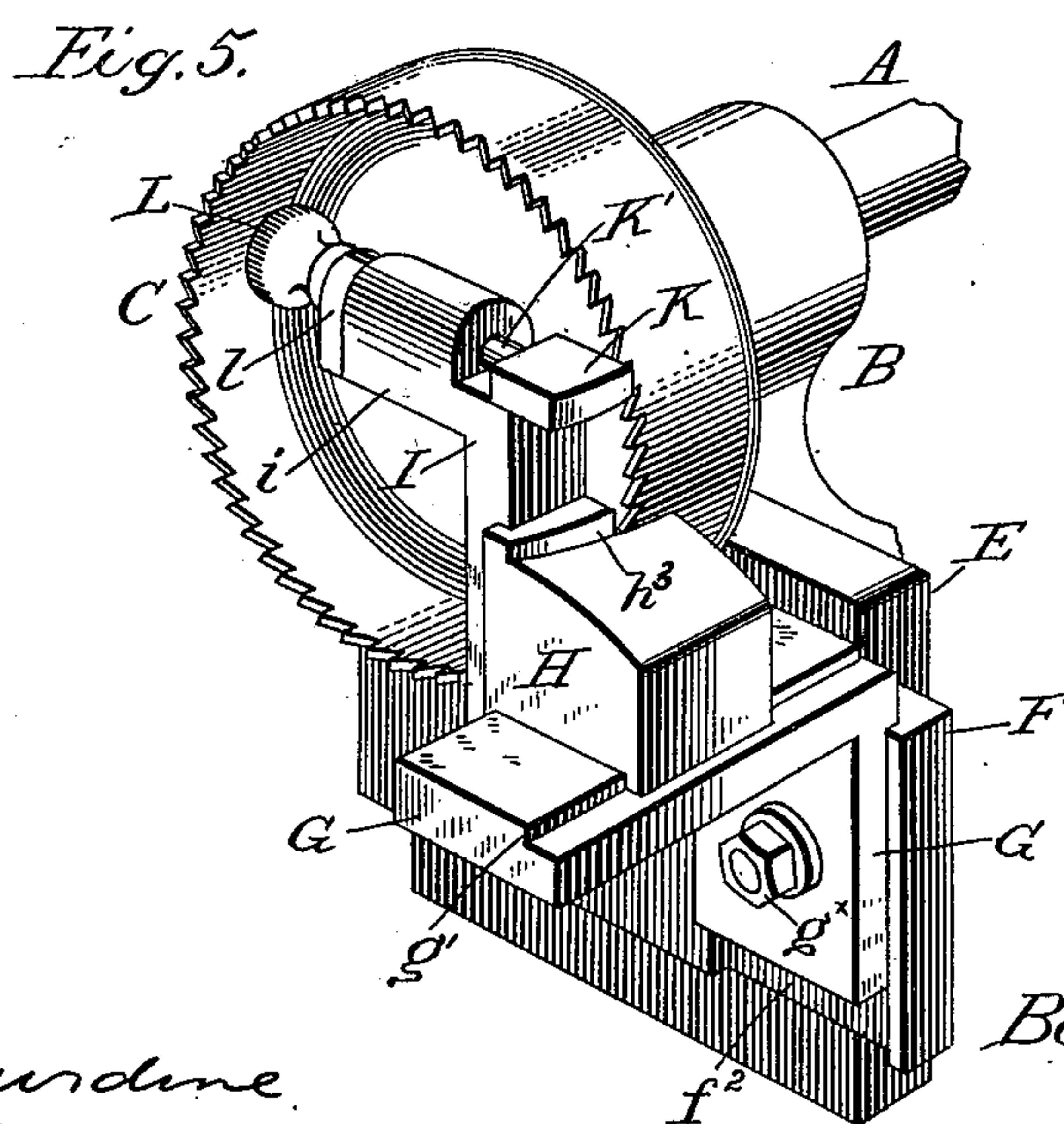
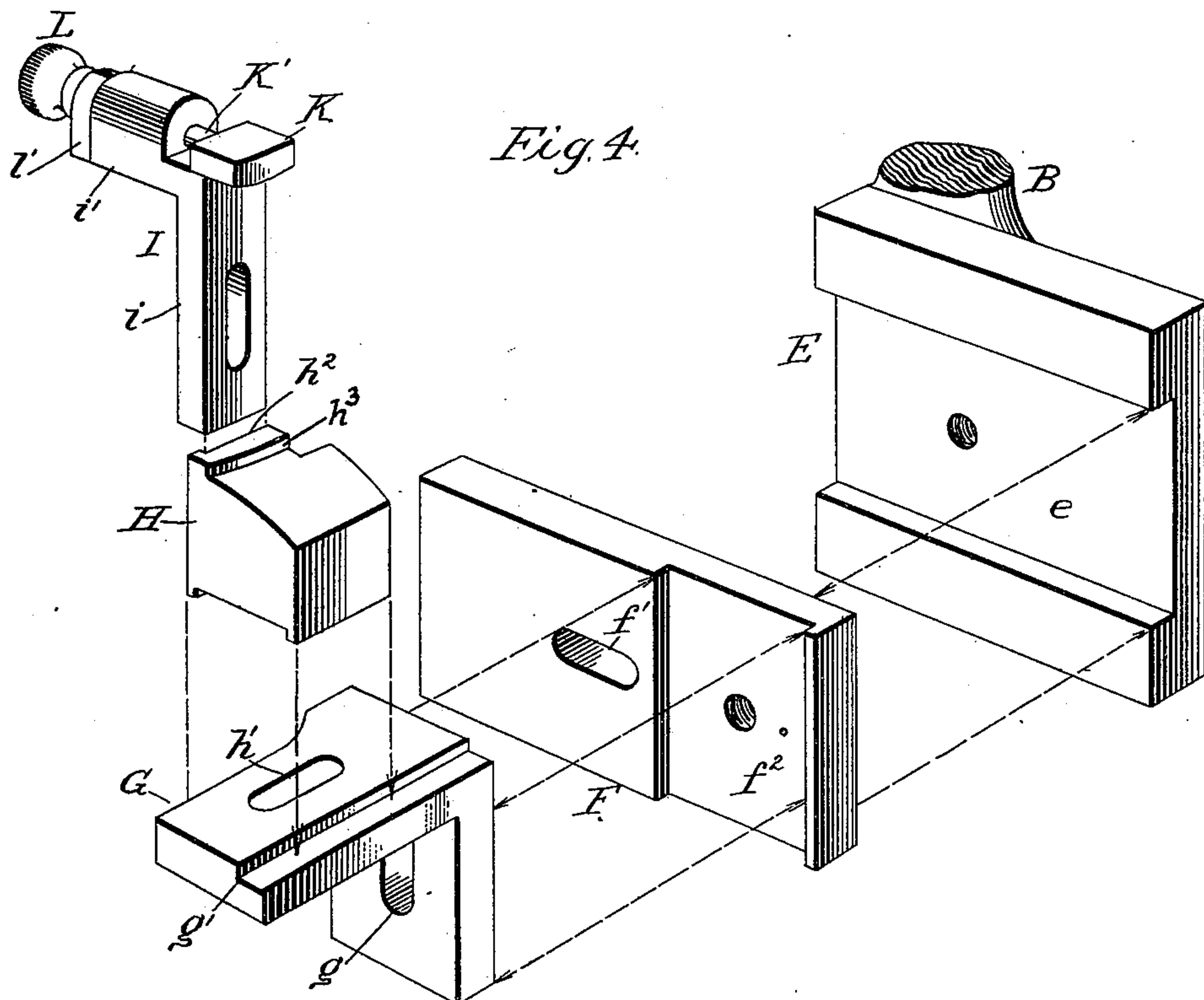
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**HEEL TRIMMING MACHINE.**

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(No Model.)

**3 Sheets—Sheet 3.**



**WITNESSES:**

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# UNITED STATES PATENT OFFICE.

BENNO FISCHER, OF CANNSTADT, GERMANY.

## HEEL-TRIMMING MACHINE.

SPECIFICATION forming part of Letters Patent No. 675,270, dated May 28, 1901.

Application filed September 22, 1899. Renewed April 23, 1901. Serial No. 57,156. (No model.)

*To all whom it may concern:*

Be it known that I, BENNO FISCHER, a subject of the King of Württemberg, residing at Cannstadt, in the Kingdom of Württemberg and Empire of Germany, have invented certain new and useful Improvements in Machines for Trimming the Heels of Boots and Shoes, of which the following is a specification.

Heretofore difficulty was experienced in making the hollowed-out surface of the heel, which is different in almost every kind of shoe.

The object of the present invention is to obviate this difficulty; and to this end the invention consists of certain features of construction and combinations of parts to be hereinafter described and then claimed.

In the accompanying drawings, Figure 1 is a side elevation of the machine. Fig. 2 is a front elevation. Fig. 3 is a plan view. Fig. 4 is a detail perspective view showing the main parts separated from each other, but in their relative positions. Fig. 5 is a perspective view of the main portion of the machine. Fig. 6 is a section on line 6-6, Fig. 3; and Figs. 7 and 8 are detail views of a separate attachment, being a modified form of a portion of the machine.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A is a shaft which is journaled in bearings of a suitable frame B, said shaft carrying a cylindrical saw C and being rotated by means of a suitable power transmission applied to the pulley D. The saw is of crown cylindrical form, provided at one edge with saw-teeth, which act as cutters. Cast preferably in one with the frame B, under the saw C, is a guide-block E, having a transverse guideway *e* for a slide F, which is held longitudinally adjustable thereon by a bolt *f*, which passes through a longitudinal slot *f'* in slide F. Said slide F has a guideway *f''*, perpendicular to the guiding edges of the block E, in which is adjustably arranged an angular bracket G, that is provided with a slot *g*, through which passes the adjusting-screw *g'*. The horizontal arm of this bracket is narrower than its other arm and is provided with a longitudinal guideway *g'*, on

which is guided an adjustable rest-block H, which is held thereon by a bolt *h*, that passes through a longitudinal slot *h'* in said horizontal arm. In a guideway *h''* at one side of the rest-block H, at right angles to the guideway of the bracket G, the leg of a second angular bracket I is vertically guided.

The projecting horizontal leg *i'* of the angular bracket I is constructed to form a slide-bearing for a stem *K'* of a presser-plate K, which is so arranged that it may be pressed against the leather of the boot or shoe. Said stem *K'* is exteriorly threaded, as shown in detail in Fig. 6, and receives a thumb-nut L, which has a groove *l*, in which is fitted the end of an interlocking piece *l'*, which is fastened by screws or any other suitable manner to the outer end of the horizontal leg *i'* and whereby the plate K is adjustable in or out in the well-known manner as the nut L is turned.

There is a raised ledge *h''* on the block H, against which the edge of the bottom lift, which lift has been previously cut out, is placed, while the heel rests on the block H, as shown in Figs. 2 and 3. The presser-plate K is then pushed forward until its forward smooth edge bears against the leather of the shoe just over the rand. The distance between the under edge of the plate K and the block H is then approximately equal to the height of the heel, which can consequently be suitably altered by adjusting the angle-bracket I, so as to raise or lower the presser-plate K. The upper surface of rest-block H is inclined, so as to permit of a slight inclination or freedom of movement of the heel.

The greater or less concavity of the heel is attained by cutting out the heel by means of the crown or cylindrical saw C, against which the operator holding the shoe presses the heel, which is turned around as the trimming proceeds. To this end the heel is adjusted to proper position by means of the slide F and angle-bracket G. It is evident that when the heel is trimmed in a horizontal plane approximately that of the shaft A, as shown in Fig. 2, the curve will be at the minimum, while when it is trimmed in different planes above the same will vary more or less. For heels of different thicknesses the block H is ad-



justed on the angle-bracket G. By means of the various adjustments boots and shoes of all kinds can be operated on by the machine.

When fastening the heel-lifts, there is formed at the place where the heel and shoe upper or leather join an overlapping edge, which must be cut off. In order to be able to do this at the same time as the making of the shoe, there is used instead of the presser-plate K a cutting-lever M, (shown in plan in Fig. 7,) which has a pivot-pin R, turning in a box N, which can be adjusted on an angle-bracket I' (displacing angle-bracket I) by means of a screw-stem O and nut P, which latter turns in a bearing-lug I<sup>2</sup> on the bracket I'. (See Fig. 8.) The free end of this lever M either has a sharp edge *m* or a cutter is screwed onto it, by means of which the overlapping edge is cut off at the same time as the heel is cut out. The cutting-lever M is drawn down by means of a spring S, so that the cutter is firmly set on the rand of the heel and has a hold in between the shoe and heel. The angle-bracket I' is in this instance also vertical and can be moved toward the saw, together with the block H.

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

30 1. In a machine for trimming the heels of boots and shoes, the combination of a crown or cylindrical saw, means for turning the same, a suitably-supported guide-block, an angular

bracket supported near the saw, an adjustable presser-plate on the horizontal arm of the bracket, adjusting devices between the bracket and said guide-block, and a rest for the heel of the boot or shoe, substantially as set forth. 35

2. In a machine for trimming the heels of boots and shoes, the combination of a crown or cylindrical saw, means for revolving the same, a suitably-supported guide-block, a slide guided on said block, an angular bracket adjustable on said slide, a rest-block, guided on the horizontal arm of said bracket, a second angular bracket guided on the said rest-block, and a presser-plate adjustable on the horizontal arm of said second bracket, substantially as set forth. 40 45 50

3. In a machine for trimming the heels of boots and shoes, the combination of a rest-block for the bottom of the heel, a bracket suitably guided on said block, a longitudinally-adjustable plate on said bracket for acting on the heel, and means for adjusting the said plate so as to project it more or less relatively over the heel-supporting surface of said block, substantially as set forth. 55

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses. 60

BENNO FISCHER.

Witnesses:

KONRAD ZEISIG,  
HERMANN WAGNER.