

(No Model.)

2 Sheets—Sheet 1.

C. CHABOT.

MECHANISM FOR FORMING BEVELED RIMS ON WATCH CASES.

No. 321,686.

Patented July 7, 1885.

FIG. 1

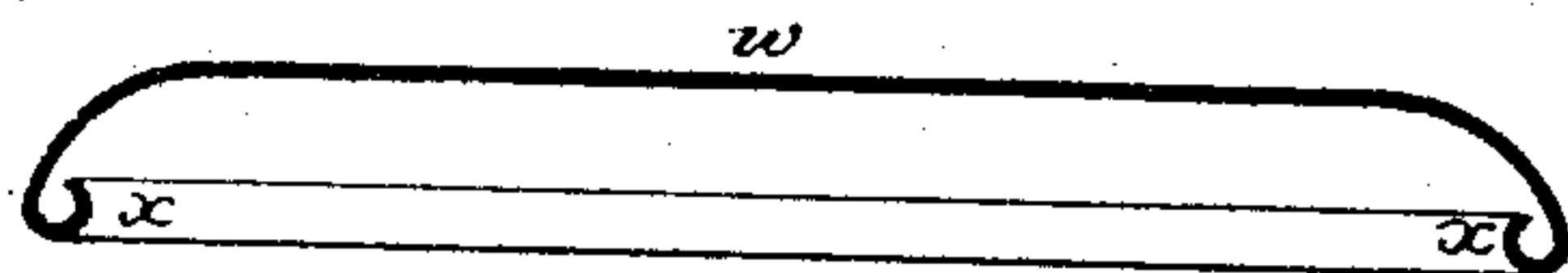


FIG. 2

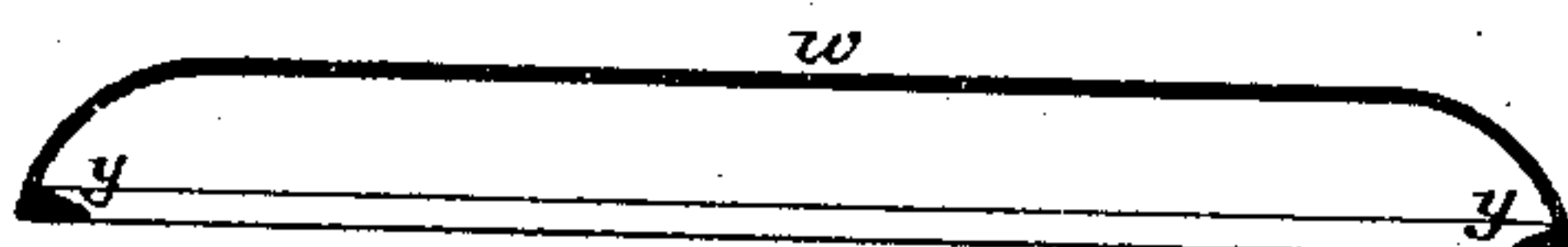
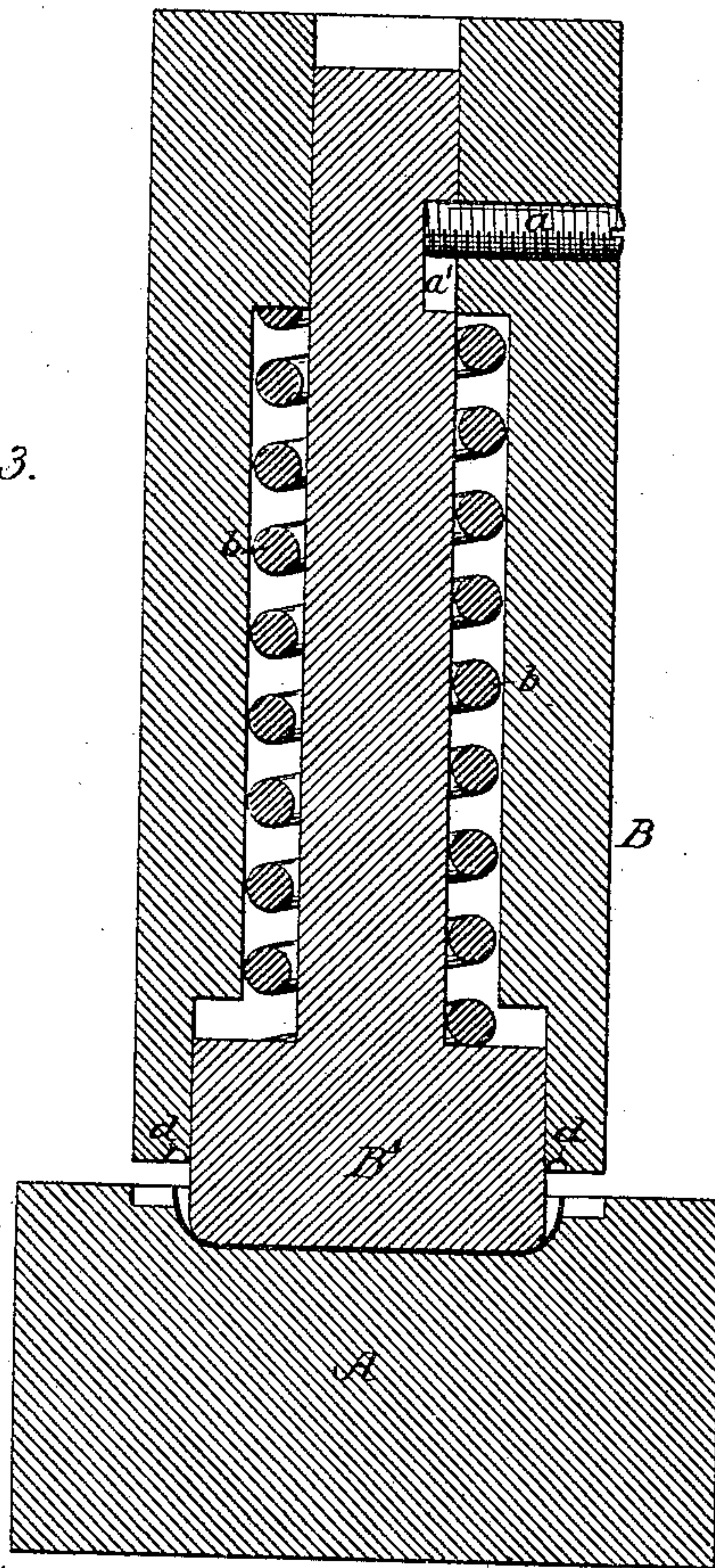


FIG. 3.

FIG. 3.



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(No Model.)

2 Sheets—Sheet 2.

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FIG. 5.

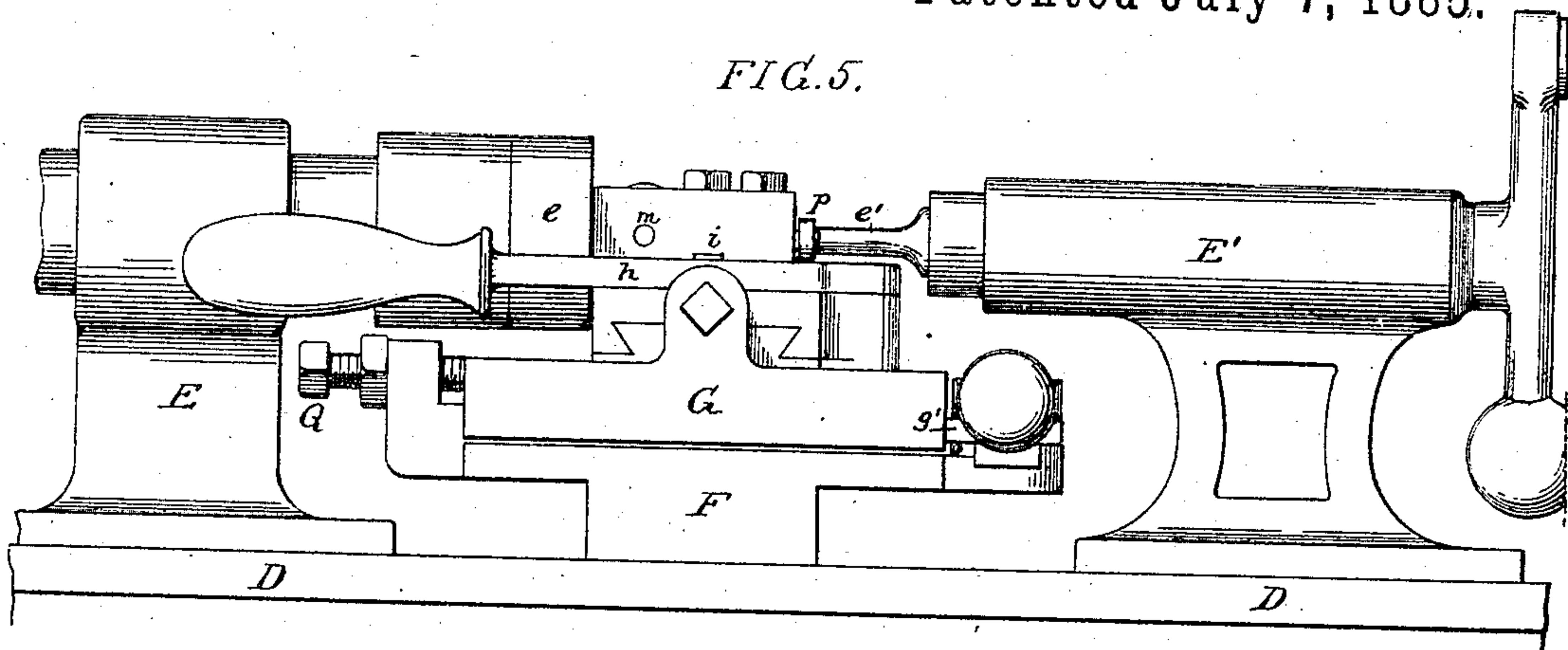


FIG. 4.

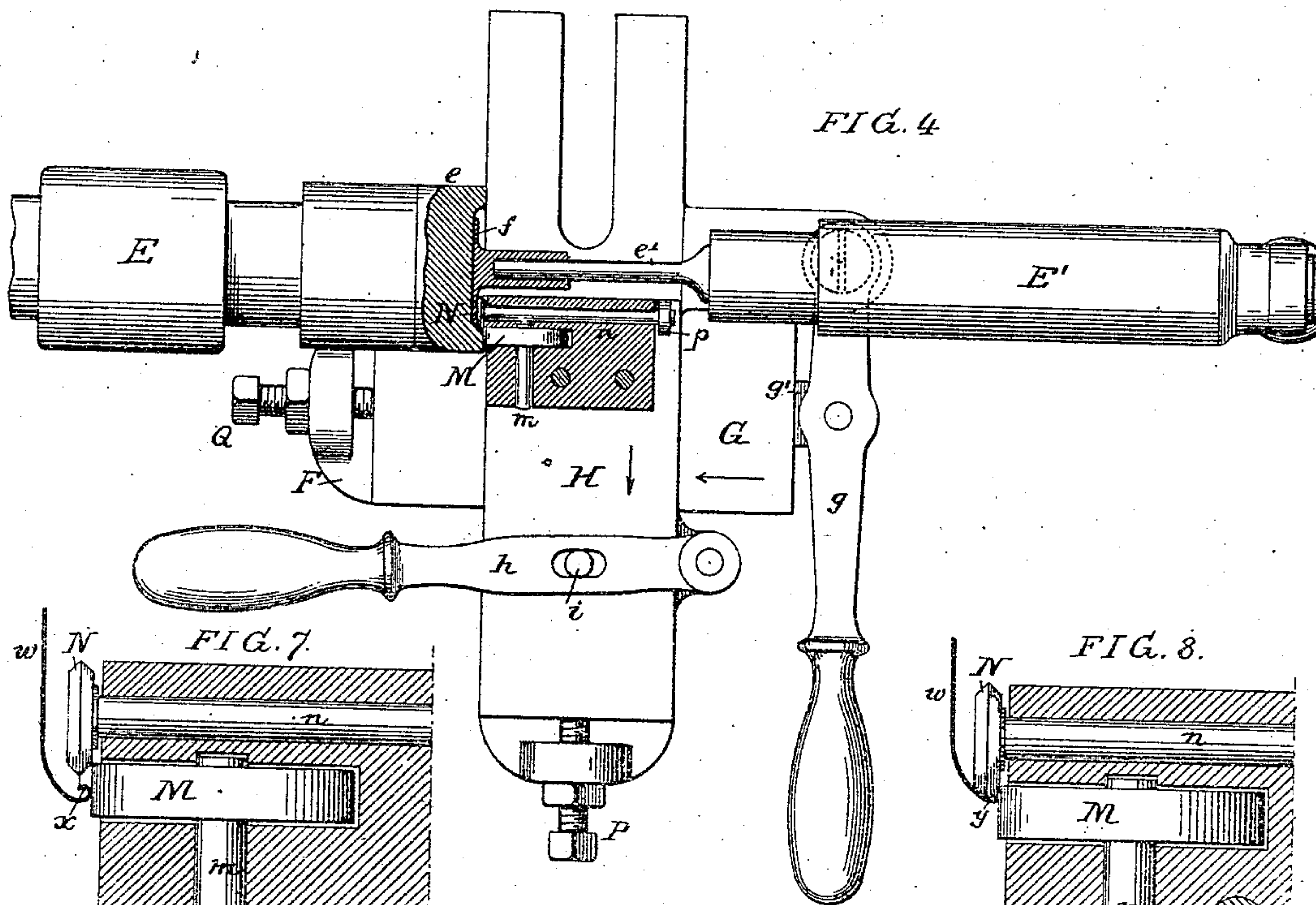


FIG. 7.

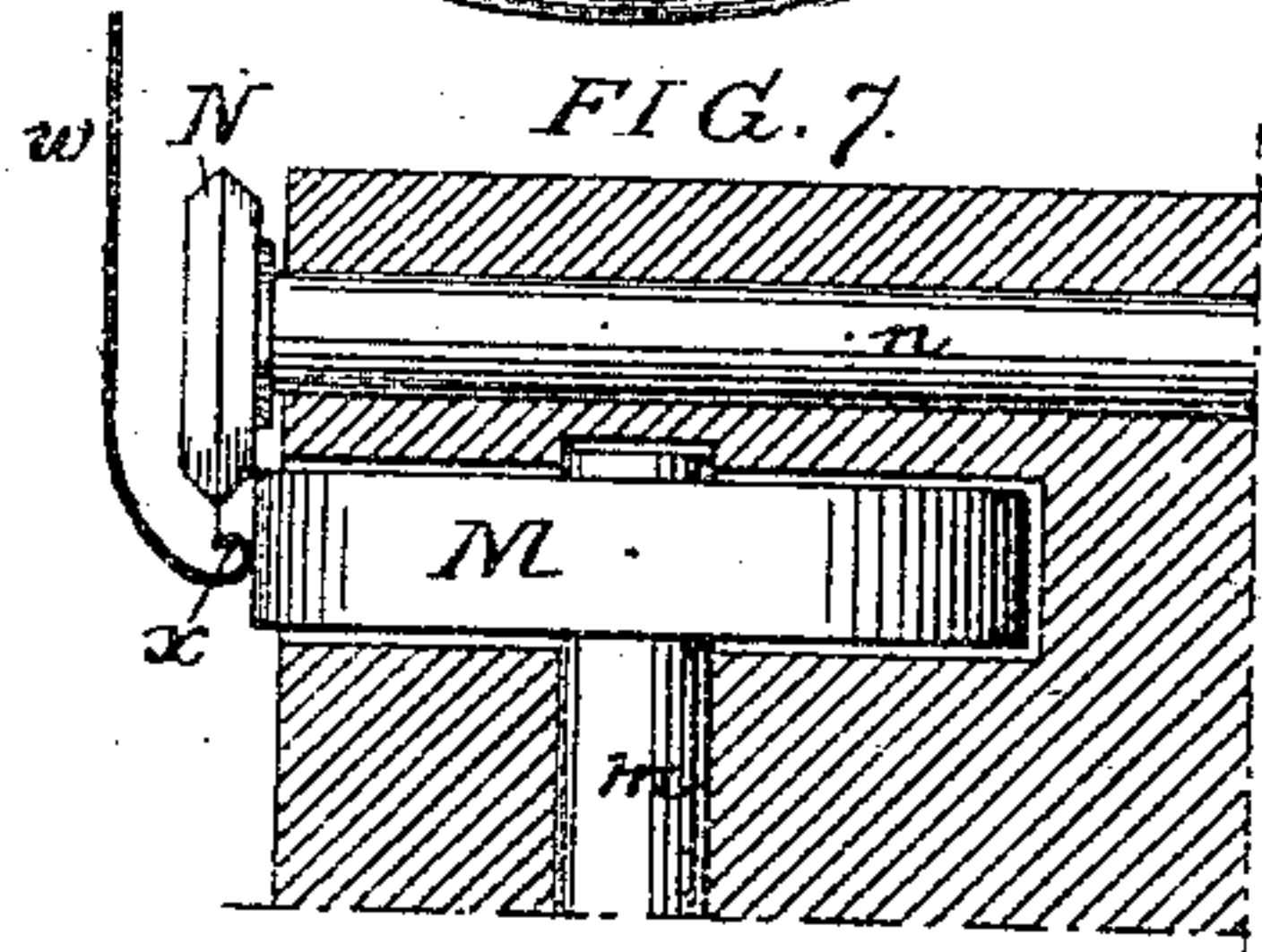


FIG. 8.

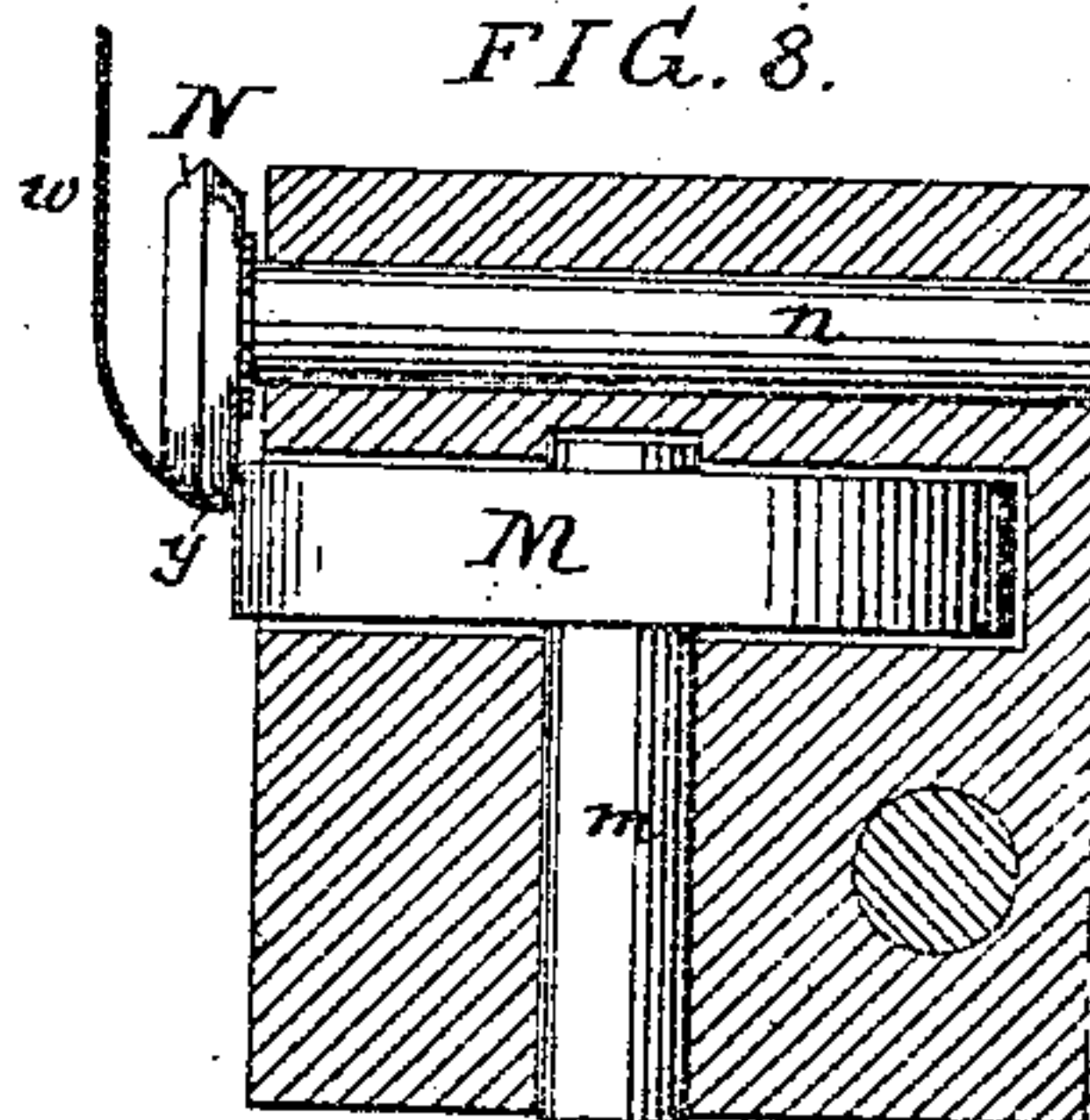
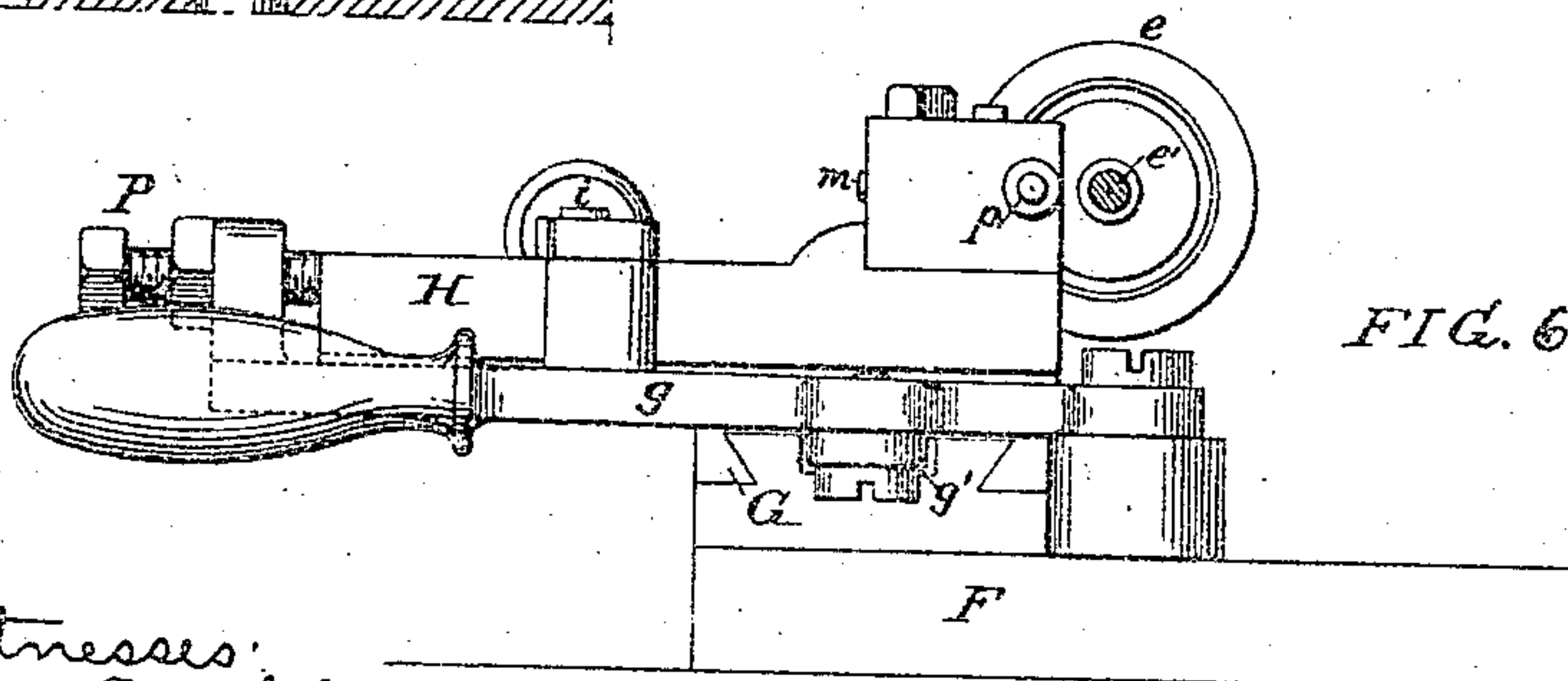


FIG. 6.



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# UNITED STATES PATENT OFFICE.

CYPRIEN CHABOT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE PHILADELPHIA MACHINERY COMPANY, OF SAME PLACE.

## MECHANISM FOR FORMING BEVELED RIMS ON WATCH-CASES.

SPECIFICATION forming part of Letters Patent No. 321,686, dated July 7, 1885.

Application filed July 21, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, CYPRIEN CHABOT, a citizen of the United States, residing at Philadelphia, Pennsylvania, have invented certain  
5 Improvements in Forming Beveled Rims on Watch-Cases and other Sheet-Metal Articles, of which the following is a specification.

The object of my invention is to provide simple and efficient mechanism especially de-  
10 signed for rapidly forming on the edges of watch-case backs the usual flat-faced and internally-beveled rim or "clip," but also applicable for edging other sheet-metal plates; and this object I attain in the manner herein-  
15 after set forth, reference being had to the accompanying drawings, in which—

Figures 1 and 2 are sections of a watch-case back, showing the method of forming the rim in accordance with my invention; Fig. 3, a  
20 sectional view of a press for the preliminary preparation of the case by forming thereon a beaded edge; Fig. 4, a plan view, partly in section, of the device for completing the formation of the rim; Fig. 5, a front view of the  
25 same; Fig. 6, an end view, looking in the direction of the arrow, Fig. 4, with the spindle of clamping-disk in section; and Figs. 7 and 8, diagrams, on an enlarged scale, illustrating the operation of the device.

30 In carrying out my invention I first form on the struck-up edge of the sheet-metal case *w* an internal bead, *x*, as shown in Fig. 1, and then compress this bead *x* externally and internally, in order to reduce it to the condition  
35 of an internal beveled rim, *y*, with flat outer face, as shown in Fig. 2.

To form the internally-beaded edge *x*, I use the press shown in Fig. 3, in which A represents the recessed lower die and B the upper  
40 die, the latter being tubular and having an internal plunger, B', which is free to slide in the die to an extent limited by a stop-pin, *a*, and groove *a'*, and is acted upon by a spring, *b*, which tends to depress or force it out of the  
45 die, the latter having in its lower edge an annular recess, *d*. The watch-case, struck up into dished form in a separate press, is placed in the recess of the lower die, and the upper die is forced downward, the first effect of this

movement being to bring the projecting plun- 50  
ger B' into contact with the case, which is thereby firmly clamped to the bed, the plunger yielding as the upper die continues to move downward, and the upturned and projecting  
edge of the case being finally acted upon by 55  
the groove *d* of the die, whereby said edge is bent inward and downward to form the bead *x*. The machine for compressing this beaded  
edge to form the internally-beveled rim is shown in Figs. 4, 5, and 6, on reference to 60  
which D represents the bed of a lathe, of which E is the head-stock and E' the tail-stock, the head-stock having a recessed chuck, *e*, and the tail-stock a projecting stem, *e'*, on the end of  
which is fitted, so as to revolve freely, the 65  
tubular stem of a disk, *f*. To the bed of the lathe is bolted a plate, F, and longitudinally guided on the latter is a slide, G, which can be reciprocated by means of a lever, *g*, and link  
*g'*, and transversely guided on this slide G is a 70  
second slide, H, which is reciprocated by means of a lever, *h*, hung to a stud on the slide G, and having a slot for the reception of a pin, *i*,  
on the slide H. The front end of the slide H carries two spindles, *m* and *n*, at right angles 75  
to each other, the spindle *m* having a disk, M, with flat periphery, and the spindle *n* a disk, N, the periphery of which is beveled. The  
spindles may turn in the slide H, or the disks may turn on the spindles, as may be most con- 80  
venient. The spindle *n* is at liberty to move in the slide H to an extent limited in one direction by the disk N, and in the opposite direction by a collar, *p*, on the spindle.

The operation of this device is as follows: 85  
The case, with its beaded edge, is applied to the recessed chuck and clamped therein by the disk *f*, the slide H is advanced, and the slide G is retracted, so as to bring the disks M and N  
into the relation shown in Fig. 7 in respect to 90  
the beaded edge of the case. The chuck being caused to revolve, the slides are moved in the direction of the arrows in Fig. 4, movement of  
the slide G bringing the flat periphery of the disk M into contact with the face of the outer 95  
bead *x*, thereby flattening the same, while the movement of the slide H causes the beveled edge of the disk N to act on the inner edge of



the bead, thus compressing and shaping the same into the beveled rim *y*. (Shown in Figs. 2 and 8.) A set-screw, Q, on the plate F acts as a stop for the slide G, and a set-screw, P, on this slide serves to stop the slide H, so that undue pressure cannot be brought to bear upon the beaded edge of the case in the formation of the beveled rim. The disk N is, however, free to yield slightly in the direction of the length of its spindle to accommodate inequalities in the thickness of the metal or size of the bead presented for its action. The outward pressure of the disk N against the rim *y* is effected, preferably, by contact of the inner beveled edge of said disk with the inside of the watch-case, as in Fig. 8.

My present application is limited to the mechanism whereby the internal bead on the case is flattened and compressed to form the internally-projecting beveled rim, the process of forming said rim on the case forming the subject of a separate application filed by me on the 9th day of March, 1885, Serial No. 158,190.

I claim as my invention—

1. The combination of the case - holding chuck with a carrier movable in respect thereto, and having a presser, M, with flat face, and a presser, N, with beveled face, as set forth. 25
2. The combination of a case-holding chuck with a flat-faced disk, M, and beveled disk N, and with a carrier whereby said disks are held at right angles, as specified. 30
3. The combination of the case - holding chuck, the disks M and N, the slide H, carrying the same, and the slide G, carrying the slide H, as set forth. 35
4. The combination of the case - holding chuck, the facing-disk M, the beveled pressing-disk N, and a carrier in which said disk N is free to yield, as set forth. 40

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CYPRIEN CHABOT.

Witnesses:

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