

UNITED STATES PATENT OFFICE.

WILLIAM WICKERSHAM, OF WORCESTER, MASSACHUSETTS.

PRINTER'S QUOIN.

SPECIFICATION forming part of Letters Patent No. 451,990, dated May 12, 1891.

Application filed July 16, 1889. Serial No. 317,740. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WICKERSHAM, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented new and useful Improvements in Printers' Quoins, fully set forth in the following specification and drawings.

My quoin is of the kind having two plates or blocks with cavities in their adjacent sides adapted to receive a disk with one or more cams on its edge, which disk is adapted to operate in said cavities and to expand the quoin when turned by a key, all of which will be made more clear by reference to the drawings, in which--

Figure 1 is a horizontal section showing the two blocks and the disk with two cams on its edge in the position it is in when the quoin is closed. Fig. 2 shows the same when it is expanded to its full extent. Fig. 3 is a horizontal section of the block which has the projections at the ends, with grooves in their interior sides, with the points at their summits to fold over the said grooves to lock the other block to it, showing also the shape of the cavity in which the disk works. Fig. 4 shows the other block with spaces in the two ends, and it also shows the small projections which pass outward or inward in said grooves as the quoin is expanded or contracted. Fig. 5 is a cross vertical section through the middle of the quoin, on a larger scale, showing also a cross-section of said disk, and also showing the form of the two cavities in their cross-section, giving a view of the V-shaped form of those parts of said cavities on which said disk acts in expanding the quoin and holding it in position. This section in Fig. 5 is taken on the dotted line A, Fig. 1. Fig. 6 shows the key and the adjacent sides of the two blocks a and b . Fig. 7 is a side elevation giving an end view of the projections a' , showing the points a^2 after they have been bent inward, as shown in Fig. 1. Fig. 8 is a perspective view of the quoin as finished. Fig. 9 at f shows the disk with one cam.

Similar letters refer to similar parts.

a is the block having two projections a' a' , which are adapted to fit into the spaces b' b' in the block b , a horizontal section of which is

shown at b^2 , Fig. 4, and when so fitted in they will appear as represented in the horizontal section in Fig. 1, in which the quoin is closed, and also as in the horizontal section in Fig. 2, in which the quoin is expanded. A vertical section of one of these projections a' is seen at a^3 , Fig. 3. On the inner sides of these projections a' are grooves d d . These blocks b are cast with small projections e e , which are shown in Fig. 4, and when the two blocks a and b are fitted together, as shown at e e e , Figs. 1 and 2, they are bent outward to fit and move in the two grooves d d and slide in them as the quoin expands, and when the quoin is fitted up for use and finished, including one of the disks f , the two points a^2 a^2 are bent toward each other so far as to cover over the upper ends of the grooves d d , so that the projections e e in moving outward as the quoin expands will be stopped when the quoin is fully expanded by striking against the points a^2 a^2 , as is shown in Fig. 2, thereby securing the three parts (the two blocks a and b and the disk f) together, requiring only one picking up when in use, and in this way saving time in locking up the form. These projections a' a' have another function as they are fitted into their spaces b' b' in the ends of the block b , as they prevent any lateral movement of either of the blocks without the other, insuring a square movement of the block b against the form as it is locked without any tendency to skew the type or give a lateral movement to the form.

There is another point of novelty which I regard as valuable, which is the V-shaped form of the cavities c c' in their cross-section, giving an inclined surface for the two sides of the edges of the disk f to press against as it expands the quoin, as shown at a^4 a^4 and b^3 b^3 , Fig. 5, and the inclined form of the edges of the disk f adapting it to the V-shaped form of the cavities c c' . It will also be seen by inspecting Fig. 5 that the middle part of the edge of the disk f is not in contact with said cavities, the inclined parts of the edges of the disk extending about half-way from the sides toward the middle of said disk. This is to secure a continued bearing of the edges of said disk and inclined surfaces in said cavities after the quoin has been in use

(No Model.)

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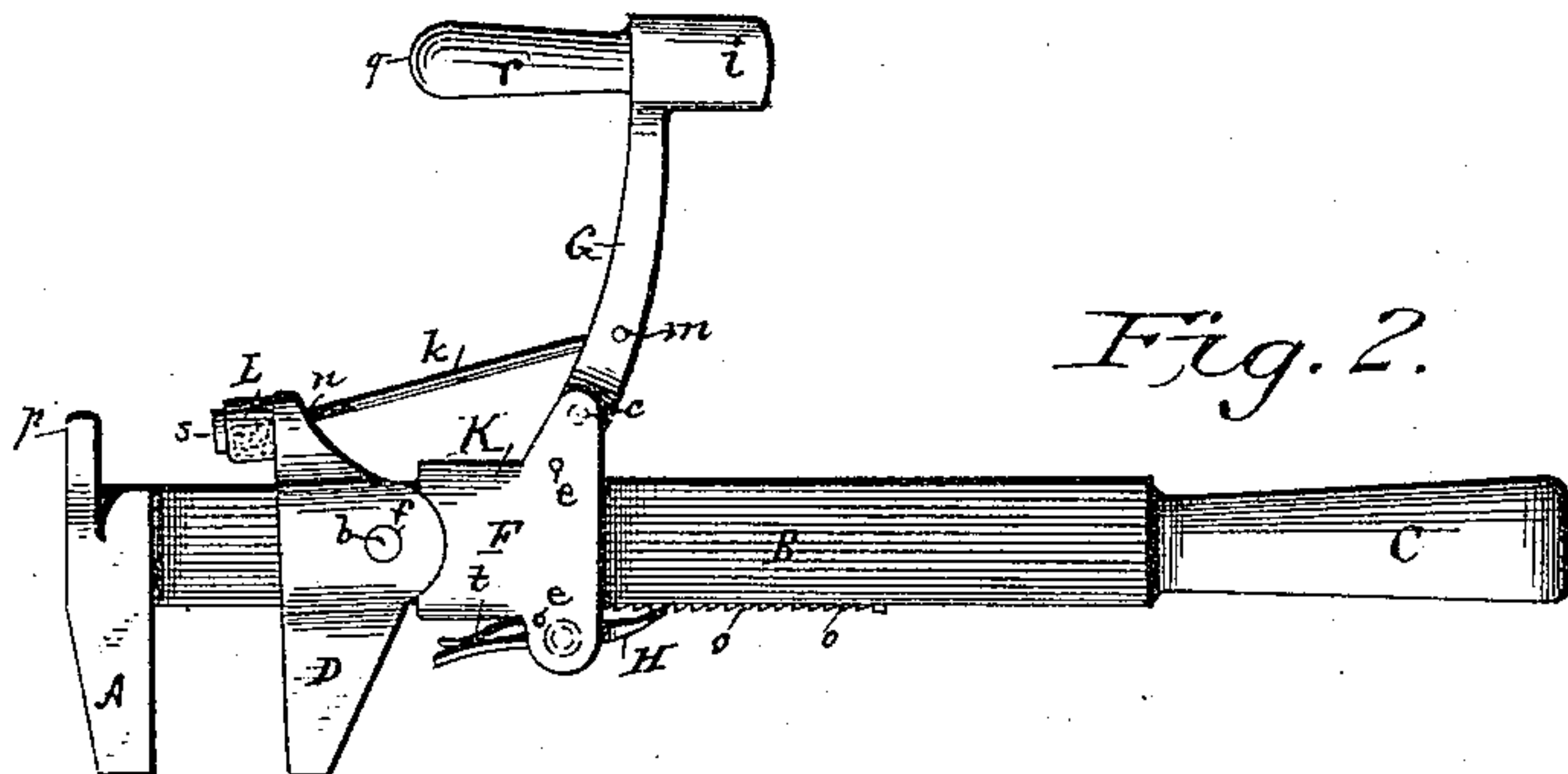


Fig. 2.

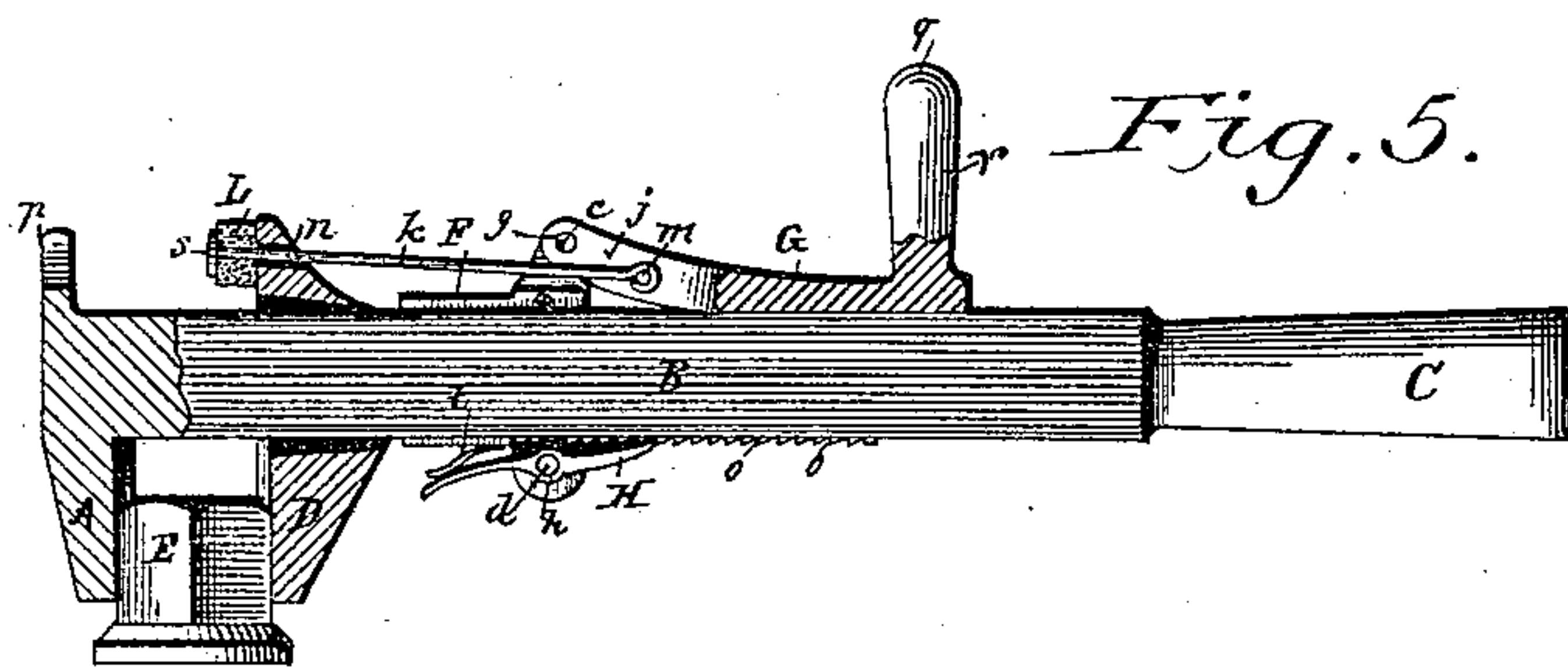


Fig. 5.

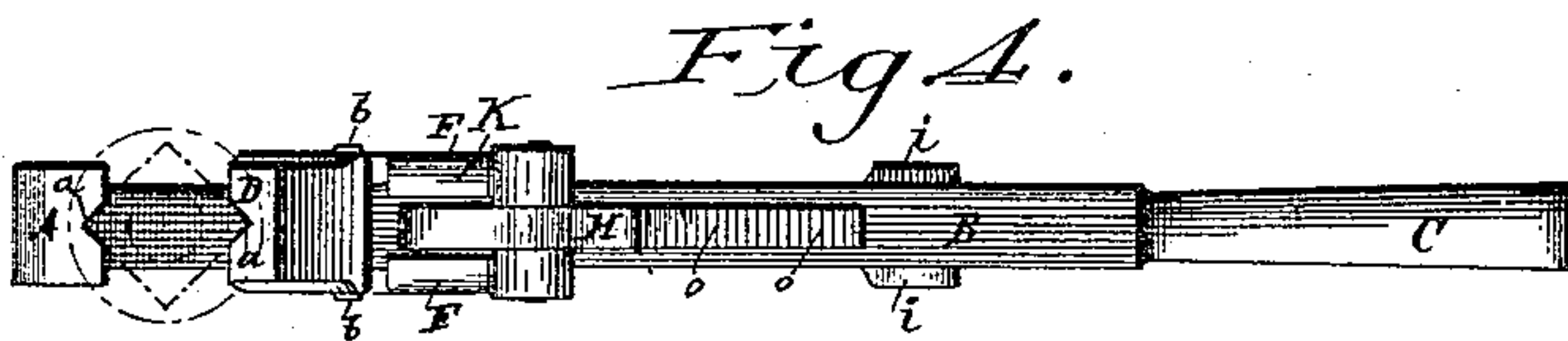


Fig. 4.

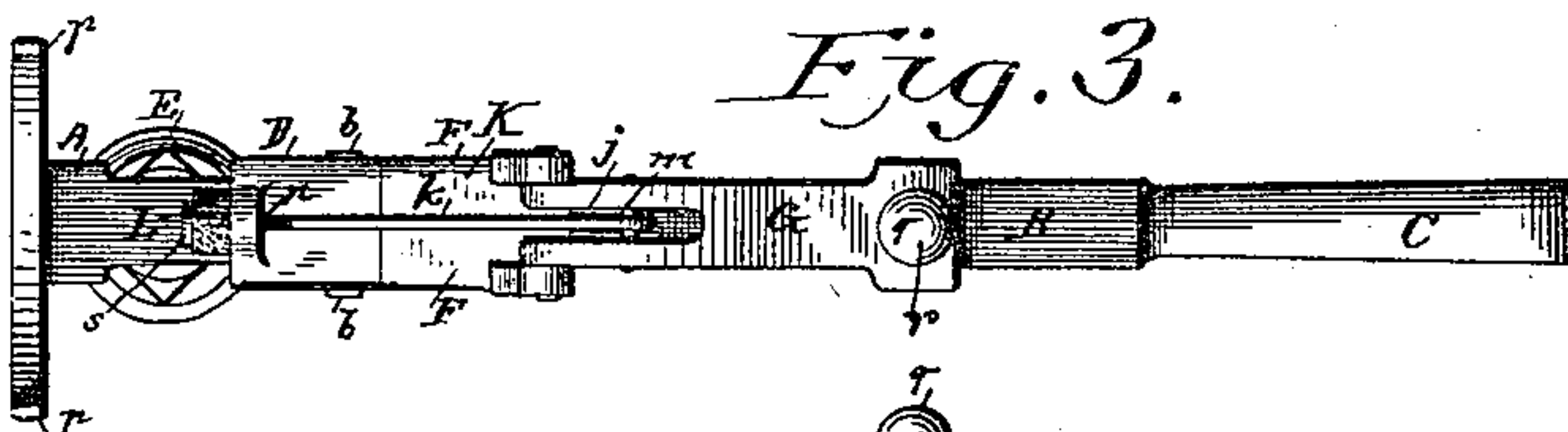


Fig. 3.

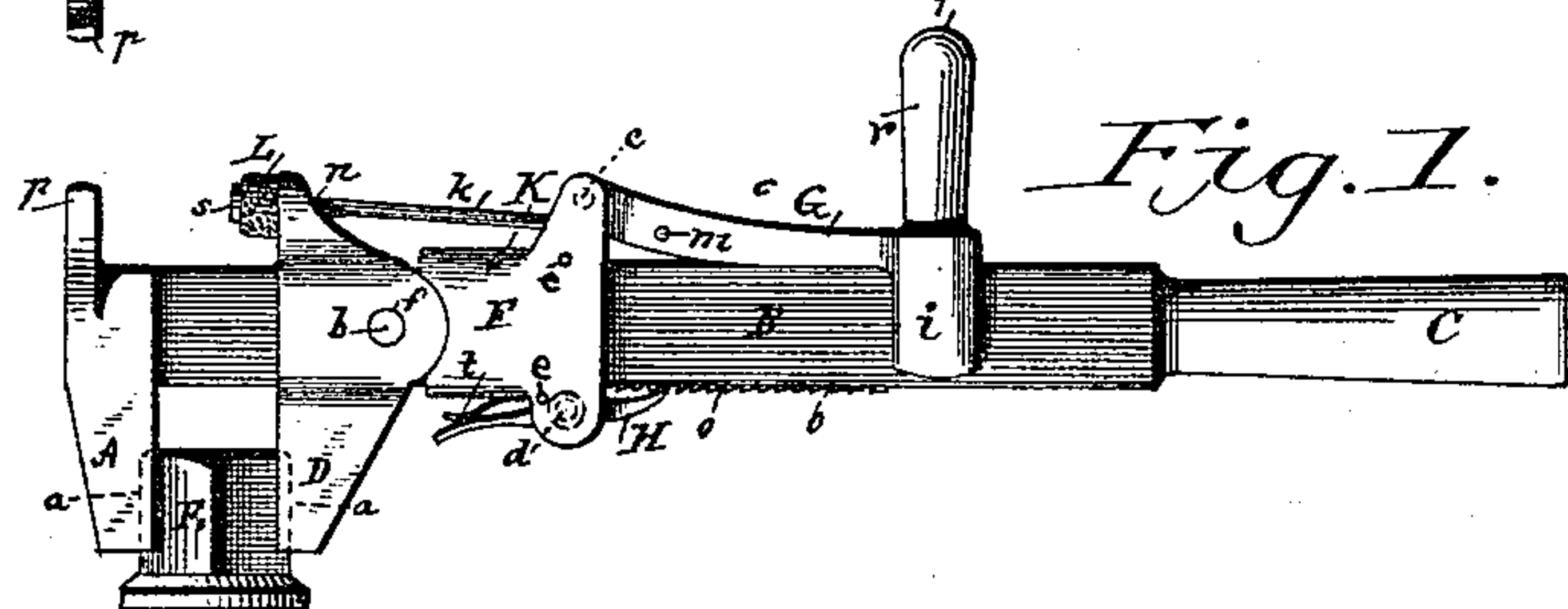


Fig. 1.

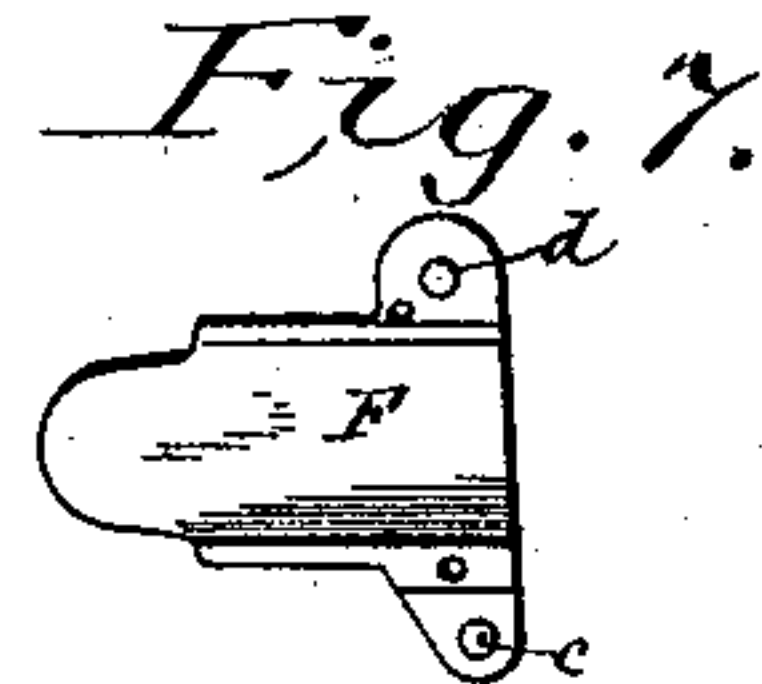


Fig. 7.

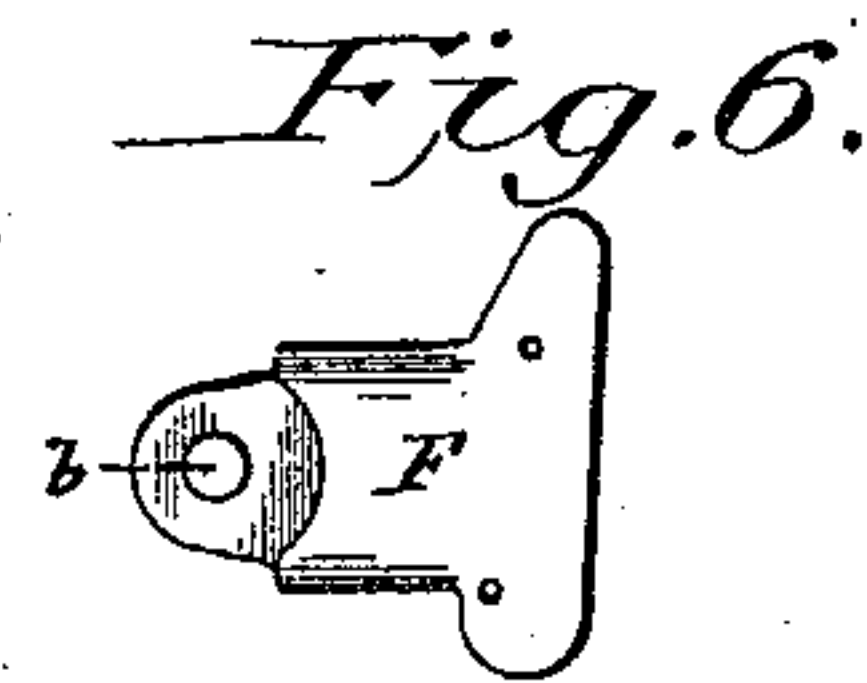


Fig. 6.

Witnesses
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