

No. 628,908.

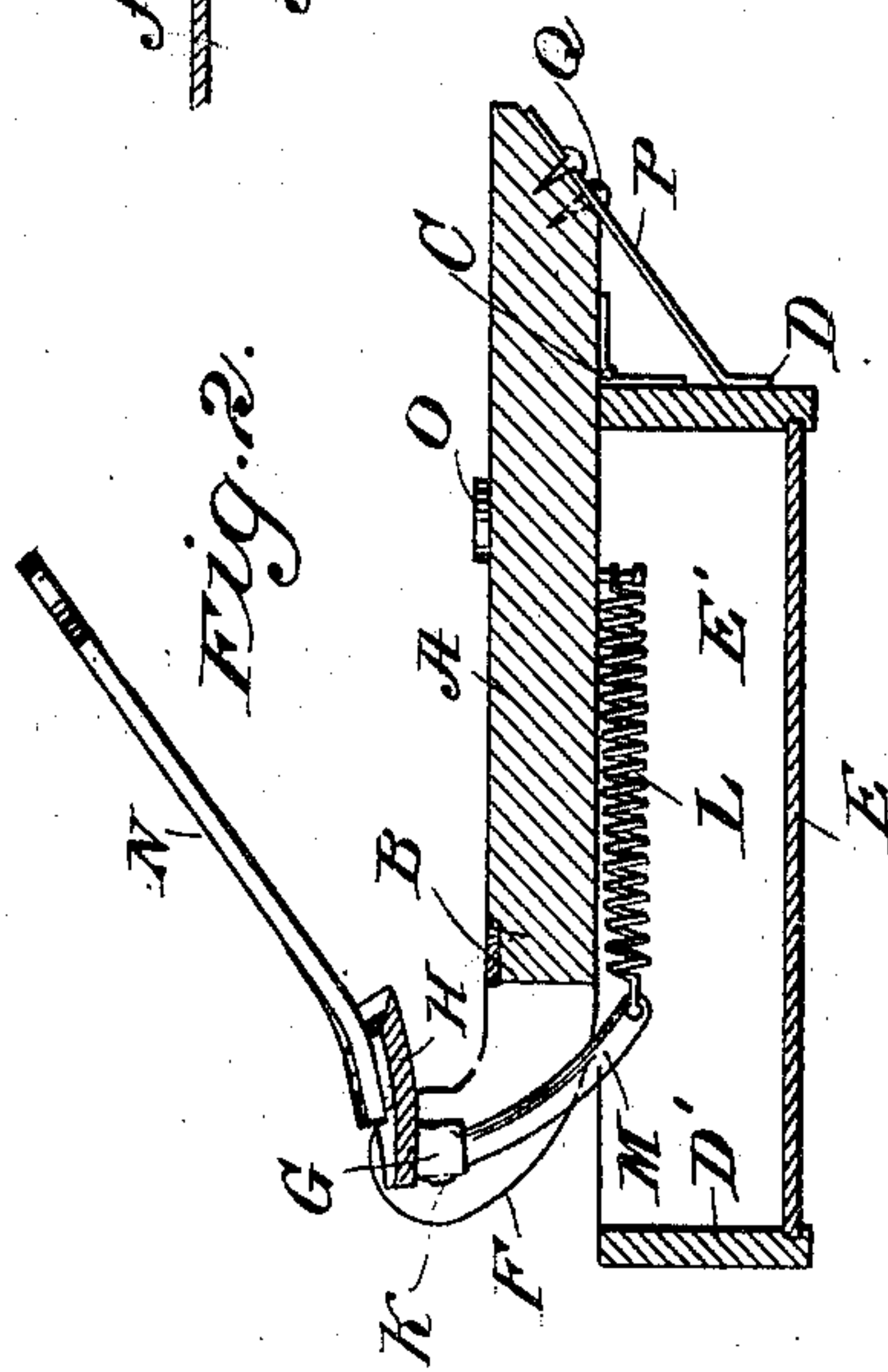
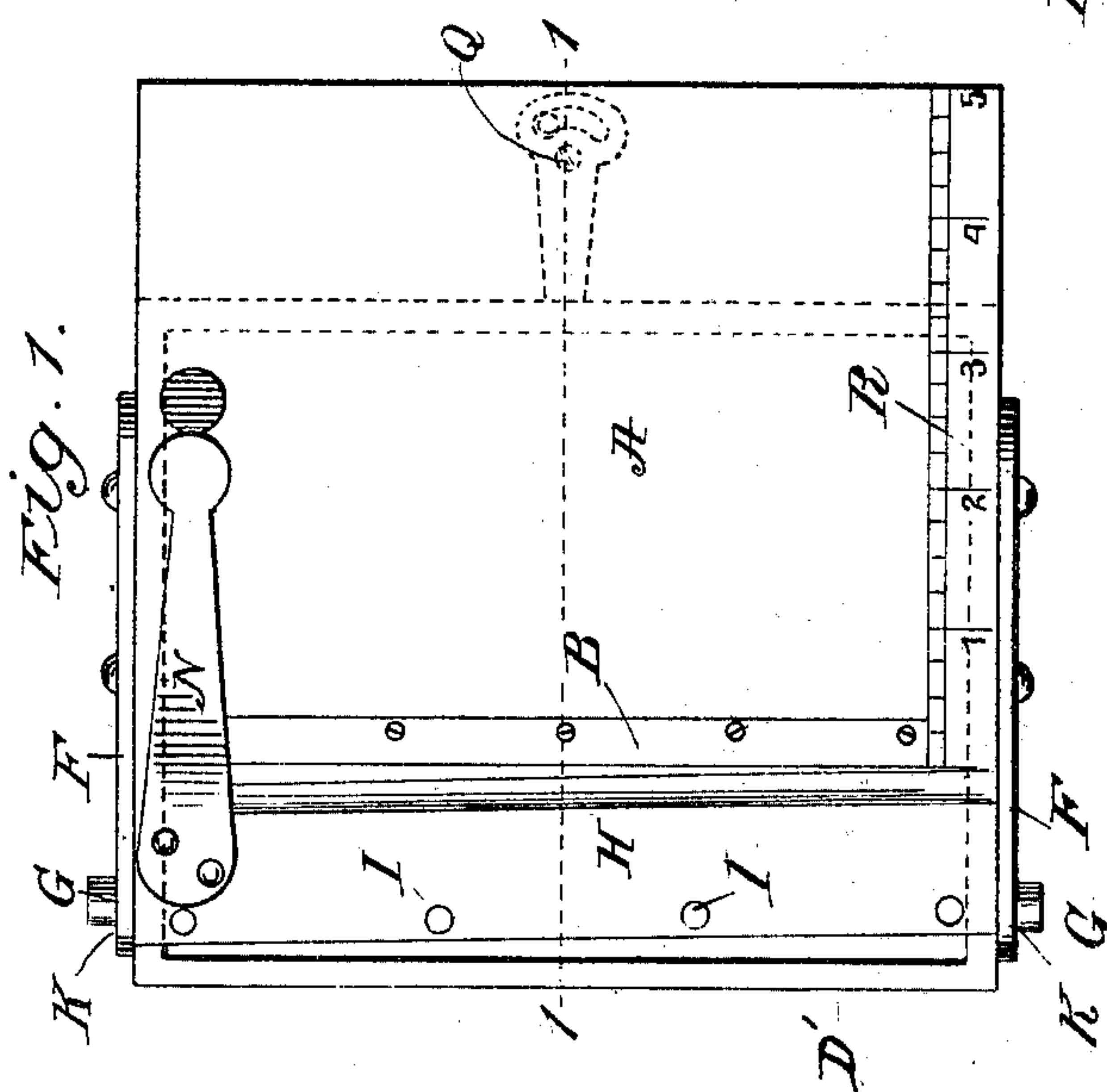
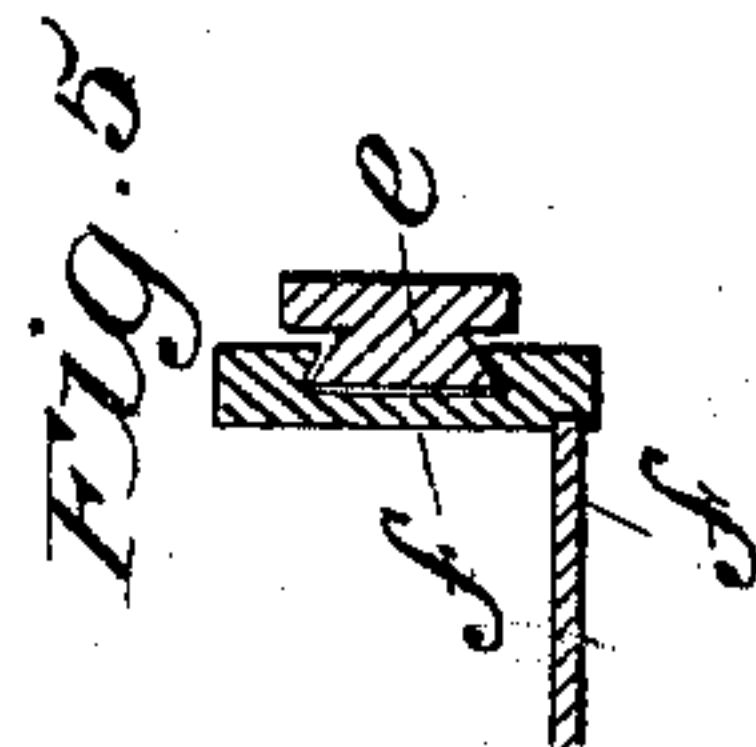
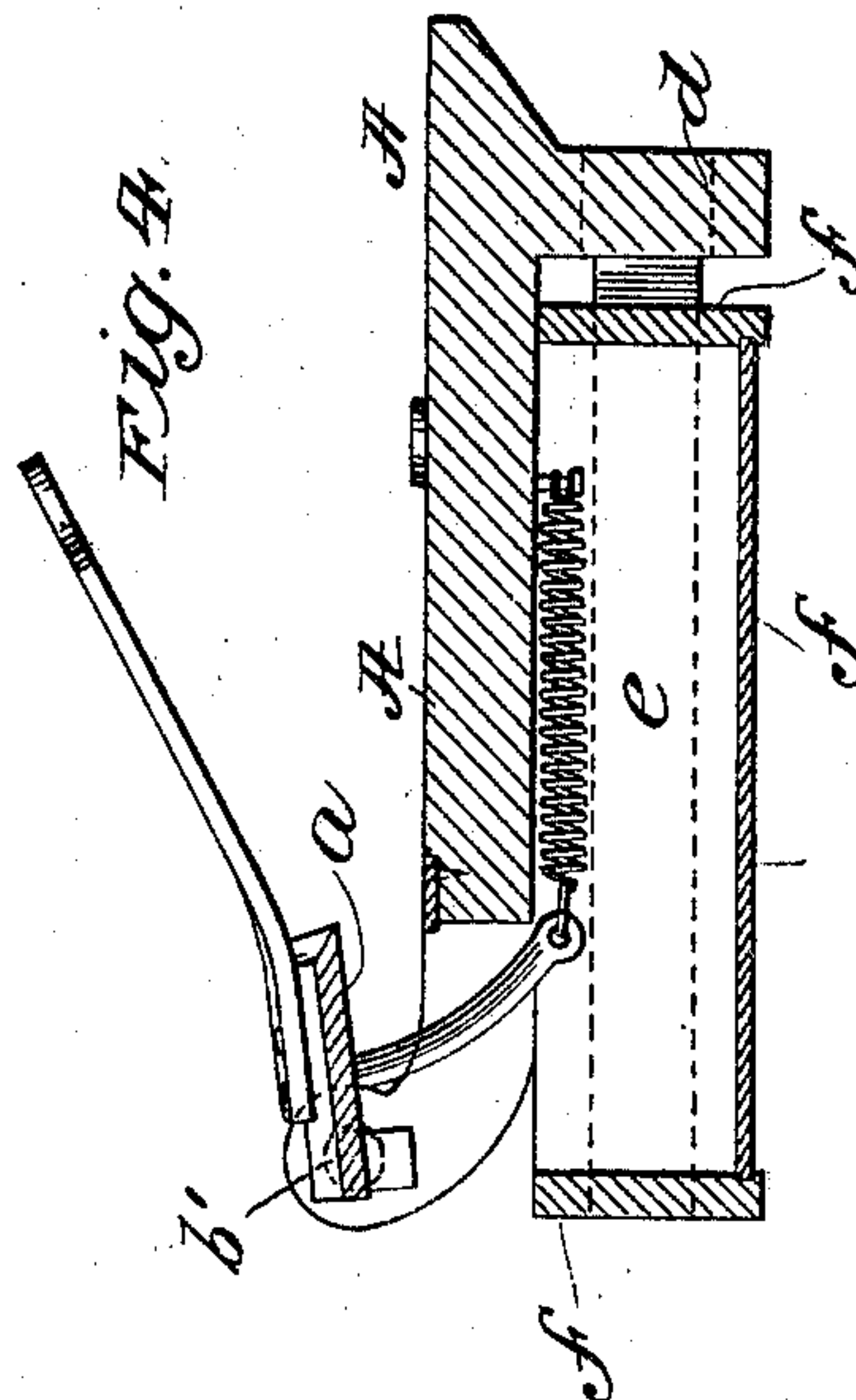
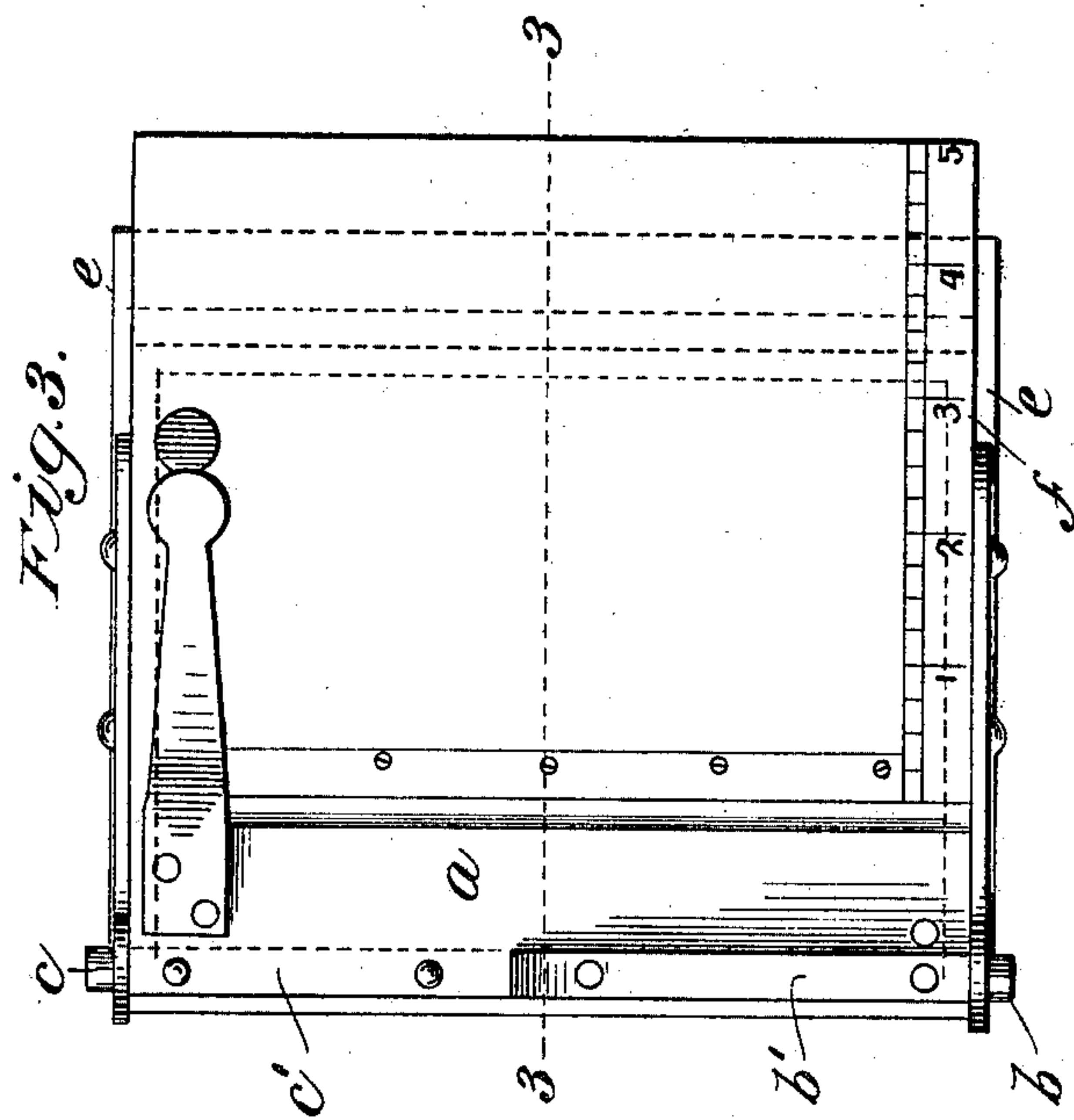
Patented July 11, 1899.

W. H. LEWIS.  
PAPER CUTTER.

Application filed Mar. 18, 1899.

(No Model.)

2 Sheets—Sheet 1.



Witnesses  
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Inventor  
William H. Lewis  
By his Attorney  
Phillips Abbott

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**2 Sheets—Sheet 2.**

*Fig. 6.*

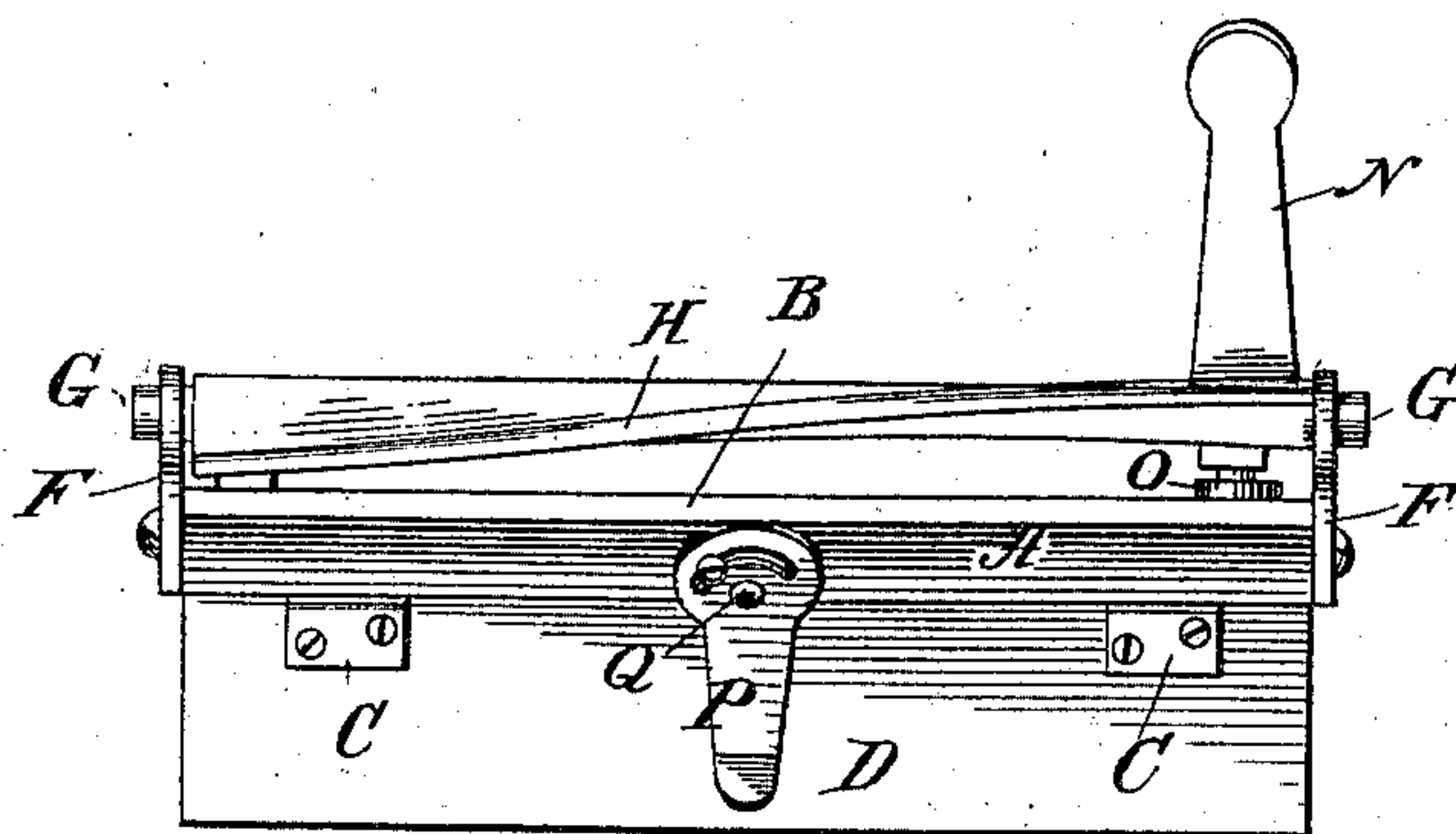
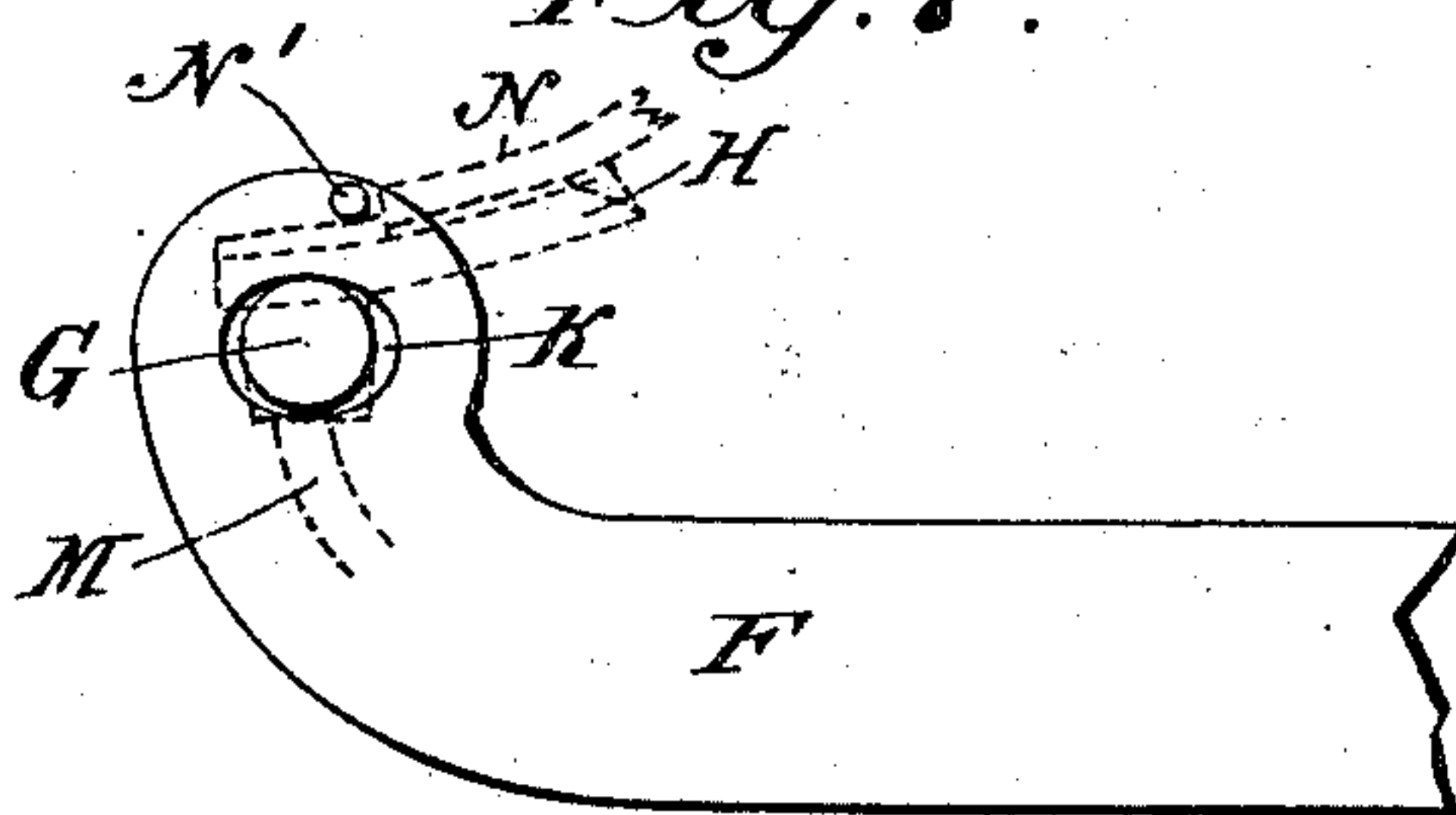
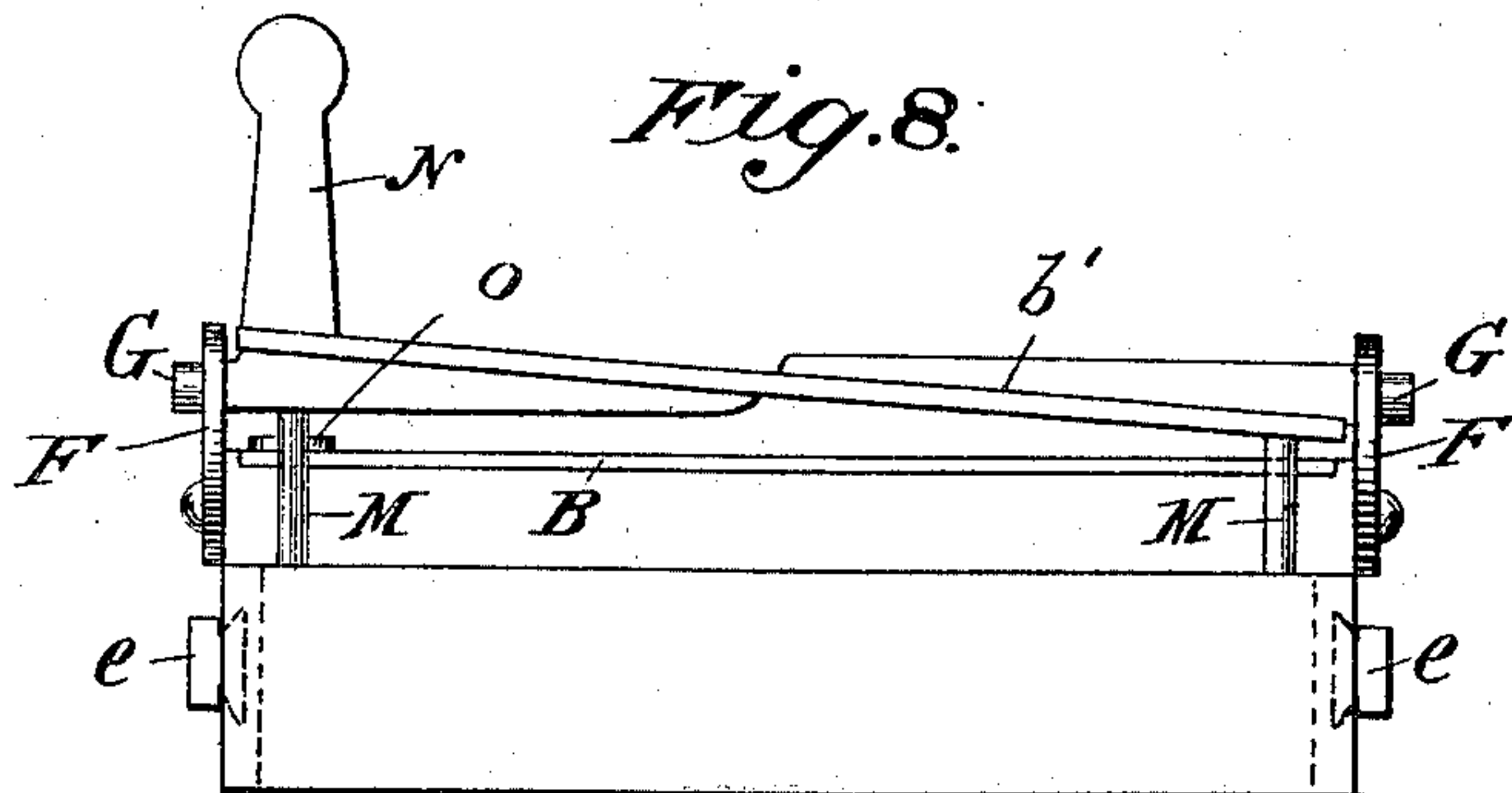


Fig. 7.



*Fig. 8.*



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# UNITED STATES PATENT OFFICE.

WILLIAM H. LEWIS, OF HUNTINGTON, NEW YORK, ASSIGNOR OF ONE-HALF  
TO THE E. & H. T. ANTHONY & COMPANY, OF NEW YORK, N. Y.

## PAPER-CUTTER.

SPECIFICATION forming part of Letters Patent No. 628,908, dated July 11, 1899.

Application filed March 18, 1899. Serial No. 709,628. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. LEWIS, a citizen of the United States, and a resident of Huntington, in the county of Suffolk and State of New York, have invented a new and Improved Paper-Cutter, especially intended by me for cutting photographic paper or films, but adapted also to cutting webs of various material and for various purposes, of which the following is a specification.

The special features of this invention are the arrangement of the parts in such manner that a shearing cut is secured; also, there is no upward lifting by the hand of the operator of the lever which actuates the cutter, which is a very annoying feature in the use of ordinary paper-cutters for photographic purposes, since it tends to lift the apparatus as a whole from the table or other support upon which it rests, making it necessary in many instances to hold the same down firmly by screws, nails, or other devices; also, the construction is such that the two blades of the cutter are drawn into contact with each other by spring action in such manner that no adjustment after the first adjustment is necessary, since the parts wear continually into proper adjustment, and also they are self-sharpening in action, and the proper tension or pressure of the blades against each other—no more or no less—is maintained by the springs at all times.

In the drawings hereof, Figure 1 illustrates a plan view of one form of my invention. Fig. 2 illustrates a vertical sectional view on the line 1 1 of Fig. 1. Fig. 3 illustrates a plan view of a modified construction. Fig. 4 illustrates a vertical sectional view of that which is shown in Fig. 3, taken on the line 3 3 of that figure. Fig. 5 illustrates a detail. Fig. 6 illustrates an end elevation looking toward the left of Fig. 1. Fig. 7 illustrates a detail showing the stop which limits the opening movement of the cutter-blade. Fig. 8 illustrates an end elevation looking toward the right in Fig. 3.

A illustrates a board or plate (usually of metal) upon which the fixed blade B of the cutter is arranged. The board A is hinged at C to a leg or stanchion D, there being another stanchion D' at the front end of the ap-

paratus, supported upon laterally-extending parts of the frame, and between them there is a bottom board E inserted, (there being side boards E' likewise provided,) so that a box or like receptacle is formed beneath the cutter, into which the small clippings which are severed from the edges or ends of the material cut may drop and be held instead of becoming scattered about.

F F are two upwardly-curved arms, which are attached to each side of the board A, as shown, and G G are the ends of a cross-shaft, to which the swinging cutter-blade H is attached by screws I or otherwise, as preferred, and this blade H is curved longitudinally, as usual in such structures, so as to give a shearing cut—in other words, so that it does not engage with the stationary blade B at more than one place. The trunnions G G enter journals K K in the arms F F, the journals or holes therein being made considerably larger than the trunnions G—that is to say, they are larger longitudinally of the arms F F, but not materially larger laterally. In other words, these journals or holes are somewhat elliptical in shape, so that the swinging blade can move toward and from the fixed blade, and this movement is effected by means of springs L L, which are attached to arms M M, which are connected with the shaft G G or with the swinging blade itself, as preferred.

N is a lever or handle whereby the swinging blade H is depressed, it being suitably attached to the most elevated end thereof by rivets, as shown.

O is a stop (preferably a rubber button) on the plate A, against which the handle N strikes when at the limit of its downward movement.

P is a brace, which is preferably attached by a single screw Q to the beveled rear edge of the board A, so that it may be swung away when it is desired to tip up the board to empty the clippings from the box beneath.

R is a scale arranged down one side of the board A, whereby the desired measurements of the paper to be cut off may be made.

The operation of the apparatus as thus far described is as follows: A suitable stop N' (see Fig. 7) is provided at some appropriate



point to prevent the swinging blade from tipping too far upwardly, the adjustment being such that the extreme left-hand end of the swinging blade will rest against the front edge of the stationary blade B. It will be noted that the springs L L when the parts are in this position will pull the swinging blade into contact with the stationary blade and that this action continues during the entire time that pressure is applied to the lever N, whereby the blade is rocked upon its trunnions G and is caused to sweep across the edge of the stationary blade by a proper shearing action, and that the moment pressure upon the lever N is removed the springs automatically return the swinging blade to its initial position; and it will be especially observed that inasmuch as the springs are permanent in their action there will continue to be a grinding effect exerted by one blade upon the other, whereby it has been found that they rather increase in sharpness than otherwise, and that there will never arise an occasion when the contact between the two blades is not sufficiently intimate to properly sever the web or strip of material between them. It will also be noted that since the swinging blade H is automatically returned to its initial position there is no lifting action required upon the lever N, and therefore no necessity for providing means for holding the devices immovable upon the table or other support.

In Figs. 3 and 4 I show a construction which is in many respects identical with that just described, and the operation is likewise practically identical. I do not letter the parts excepting those wherein a difference appears. In this construction the swinging blade *a* instead of being curved to effect the shearing action is made perfectly straight, the shearing action being secured by locating the trunnions one on one side and the other on the other side of the blade, so that it is supported diagonally across the edge of the stationary blade. In this way the same shearing action is attained. One of the trunnions (shown at *b*) consists of the end of a steel or equivalent bar *b'*, which is fastened by rivets or otherwise to the upper side of the blade *a*, and *c*, the opposite trunnion, is the projecting end of a similar bar *c'*, attached by rivets to the under side of this same blade, so that the plane of the two trunnions is separated by a distance equal to the thick-

ness of the blade. In this form also I embody a modification relative to the box or drawer for containing the clippings. It is as follows: *d* is a stationary leg or support projecting downwardly from the rear end of the superposed board, which I mark A, the same as before. *e* is a horizontally-extending bar projecting forwardly from the brace *d*, there being one on each side of the apparatus. *f f f* represent a drawer adapted to be pulled forwardly, sliding upon the side bars *e e*, there being a dovetail or similar connection between the sides of the drawer and the bars *e*, as shown in Fig. 5. This is sometimes convenient, because then all the parts of the paper or other web which project forwardly through the blades will be caught in the drawer and prevented from displacement when severed. The operation of this modified construction is the same as that just described, and no further remark need be made.

It will be obvious to those who are familiar with this art that certain modifications may be made in the construction of the parts composing my invention. I therefore do not limit myself to the details, excepting as they may be hereinafter claimed.

Having described my invention, I claim—

1. In a cutting device the combination of a fixed blade, a swinging blade pivoted in elongated bearings, and springs to maintain the engagement between the two blades, for the purposes set forth.

2. In a cutting device, the combination of a fixed blade, a swinging blade pivoted in elongated bearings, depending arms connected with the swinging blade and springs connected with said arms to maintain the engagement between the two blades, for the purposes set forth.

3. In a cutting device the combination of a fixed blade, a swinging blade pivoted in elongated bearings, the trunnions for the swinging blade being located on opposite sides of it, and springs to maintain the engagement between the two blades, for the purposes set forth.

Signed at New York, in the county of New York and State of New York, this 16th day of March, 1899.

WILLIAM H. LEWIS.

Witnesses:

PHILLIPS ABBOTT,  
D. S. RITTERBAND.