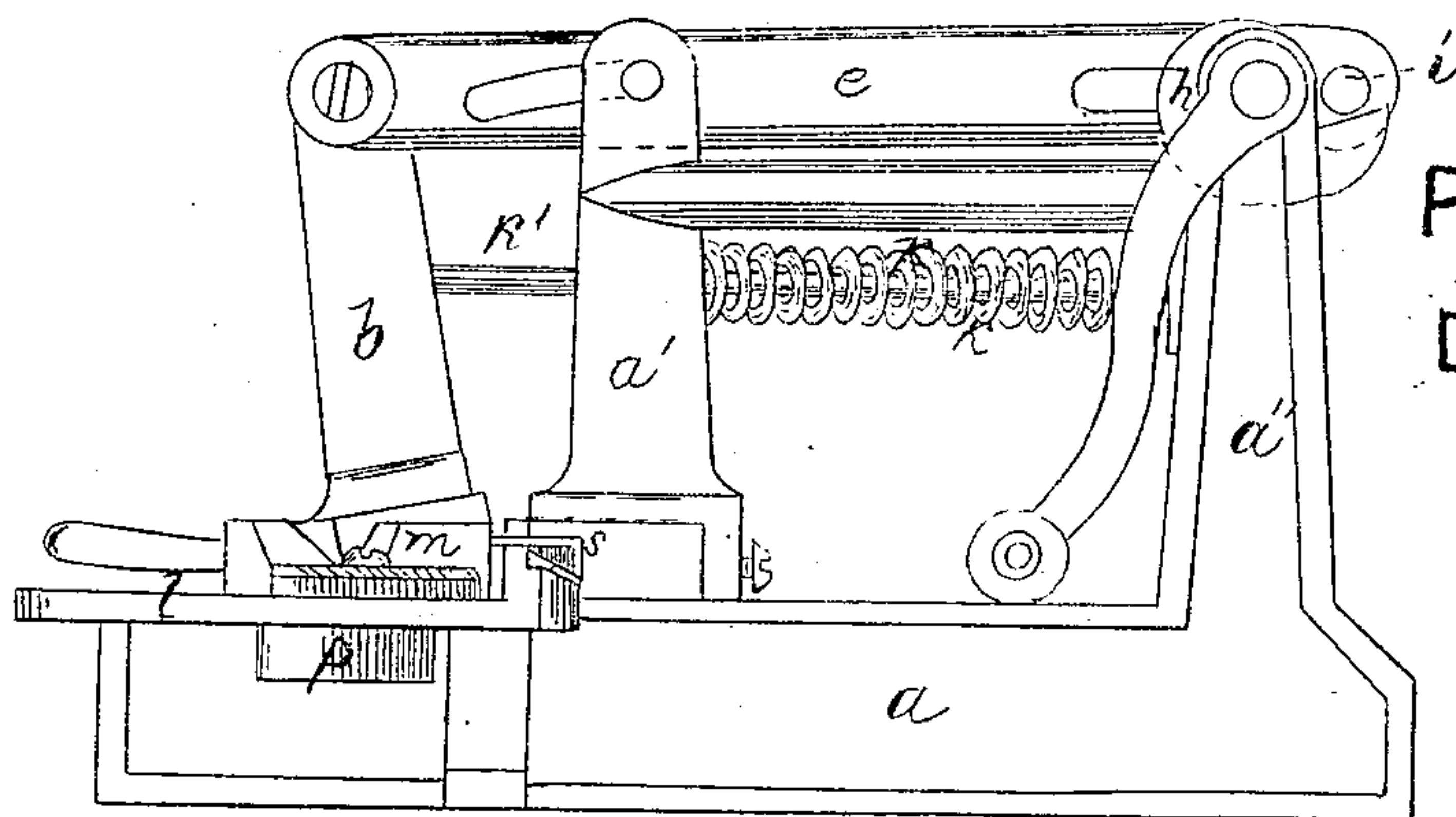


Richard Walker.  
Machine for Cutting off and  
Mitreing Printers Rules.

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Fig. 1.



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Fig. 2.

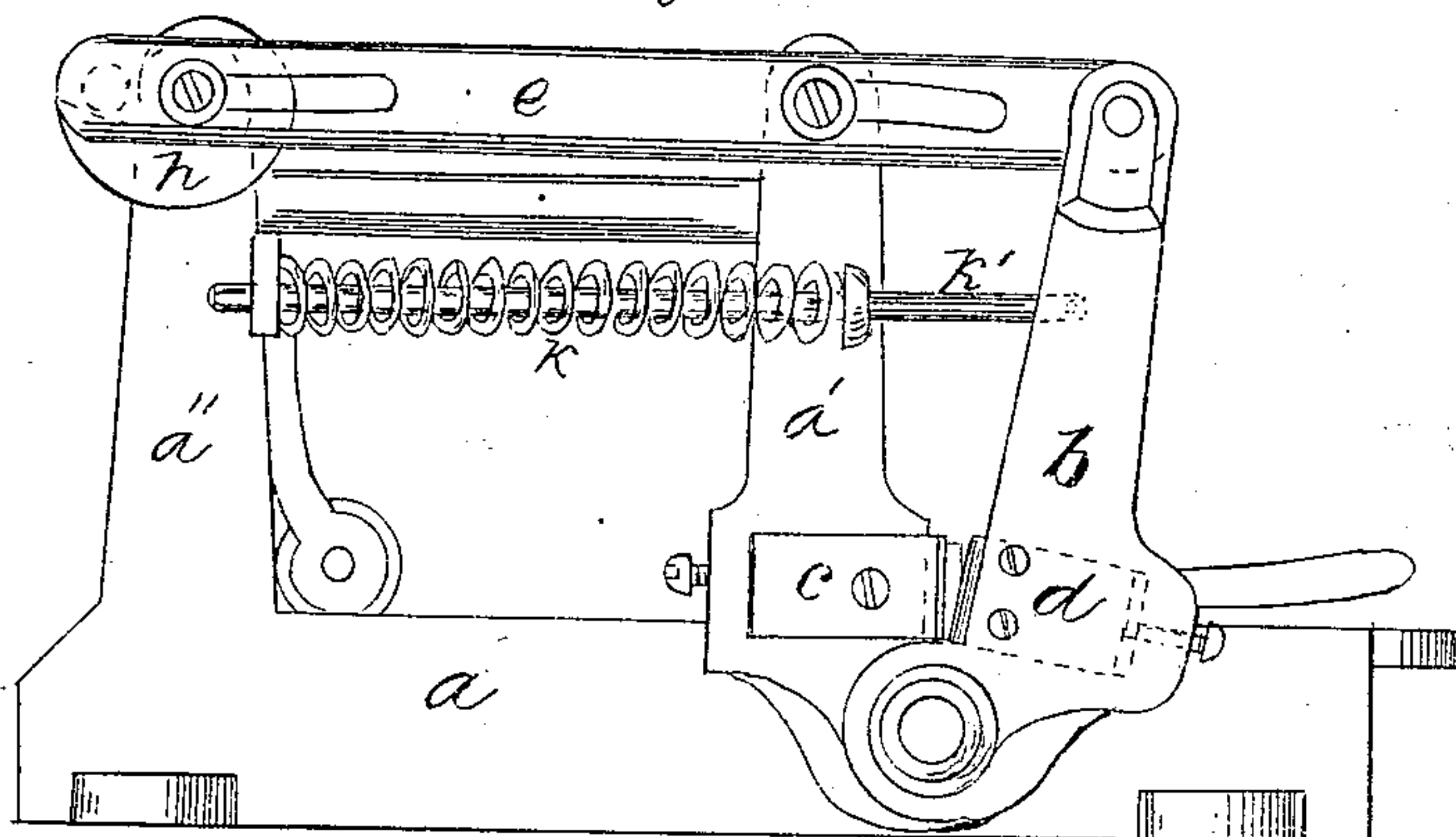
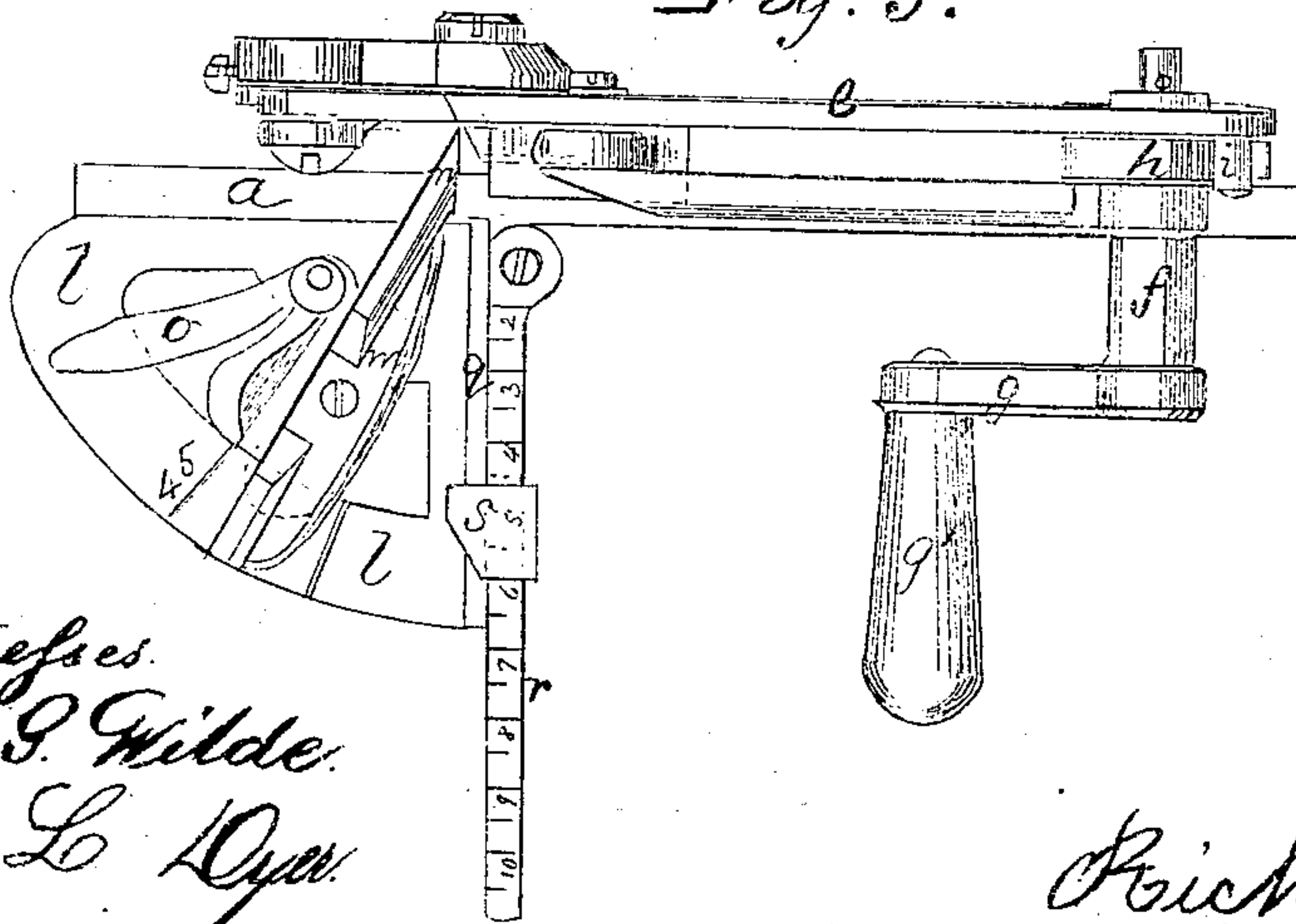


Fig. 3.



Witnesses.  
M. S. G. Wilde.  
Edwin L. Dyer.

Richard Walker



RICHARD WALKER, OF MILFORD, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND JOSEPH B. BANCROFT, OF SAME PLACE.

Letters Patent No. 71,668, dated December 3, 1867.

IMPROVED MACHINE FOR CUTTING AND MITRING PRINTERS' RULES.

The Schedule referred to in these Letters Patent and making part of the same.

Be it known that I, RICHARD WALKER, of Milford, in the county of Worcester, and State of Massachusetts, have invented a new and useful "Machine for Cutting Off and Mitring Printers' Rules," of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a front elevation of my machine.

Figure 2 is a rear elevation, and

Figure 3 is a plan view.

The object of my invention is to provide a machine which will cut off and mitre printers' rules at any required angle, and also cut off printers' leads in an expeditious and effective manner; and the invention consists in the employment of two cutters, with their edges placed opposite to each other, one of which is stationary, and the other attached to an arm or lever operated by a cam and connecting-rod, so that the lead or rule may be pushed forward between the cutters, and be expeditiously operated upon.

The invention also consists of a cutter attached to an adjustable head or support upon a segmental table, which latter is graduated on its outer or curved surface, so that the cutter-support may be set to allow the edge of the cutter at one side to form any required angle with the stationary cutter, and thus cut the rule to any required mitre.

Similar letters indicate like parts in the several figures.

Referring to the drawings,  $a$   $a'$   $a''$  represent the frame of the machine,  $a'$   $a''$  being two uprights supporting at their upper ends a slotted connecting-bar,  $e$ , which is connected at one end to a bar or arm,  $b$ . The arm  $b$  is hinged to the base of the frame  $a$ , and has attached to it a cutter,  $d$ , as shown in fig. 2. To the upright  $a'$  is also attached a cutter,  $c$ , of similar form to  $d$ , the cutting-edges being opposite to and at an angle with each other when separated, so as to impart a shear cut in coming together. The cutters  $c$   $d$  are so arranged as to be adjusted in position when necessary. The upper end of the arm  $b$  is attached to one end of the bar  $e$ ; and the other end of the said bar is slotted, and supported on one end of a shaft,  $f$ , to which the crank  $g$   $g'$  is attached. On the shaft  $f$  is secured a cam,  $h$ , which bears against a pin,  $i$ , projecting from the end of the bar  $e$  at one side in such a manner that, as the cam is moved by the crank, the bar will be forced forward to operate arm  $b$ , that carries the cutter  $d$ . When the end of the cam has passed the pin, the arm  $b$  will be retracted by means of a spring and rod,  $k$   $k'$ , attached to the arm  $b$  and the upright  $a''$ , so as to bring the cutter  $d$  to the position for another cut. At the front portion of one end of the frame is a segmental platform or support,  $l$ , made open at its centre; and on this platform is fitted a cutter-head,  $m$ , carrying a cutter,  $n$ , the edge of which latter coincides with that of the stationary cutter  $c$ , as shown in fig. 3, and so as to form an angle with the edge of the movable cutter  $d$ . The head  $m$  is secured in position on the support  $l$  by means of a screw attached to a button,  $p$ , on the under side of the platform  $l$ , in such a manner that the head  $m$  and cutter  $n$  can be adjusted in any required position, or be easily removed when not required for use. The lead to be mitred is placed at the side of the head, with its end between the cutters  $d$  and  $n$ , and is firmly held in position while being cut by means of a cam-lever,  $o$ , or other equivalent retaining-device, as seen in fig. 3. The outer surface of the support  $l$  is graduated, so that the head  $m$  may be easily set to give the cutter the proper position for cutting the rules at any desired angle or mitre.

When the lead is to be cut simply, the head  $m$ , with its cutter  $n$ , is removed, and the lead is placed alongside the raised edge  $g$  of the platform  $l$ , with its end between the cutters  $c$  and  $d$ , and at right angles to the same, when the cutter  $d$  will be operated as before described.  $r$  represents a graduated bar, hinged or pivoted to one side of the support  $l$ , and provided with a sliding gauge,  $s$ , so as to enable the leads to be cut at any desired and uniform length. When not required for use, the bar  $r$  is folded against the side of the frame  $a$ .

What I claim as my invention, and desire to secure by Letters Patent, is—

1. I claim the cutter  $n$ , attached to the adjustable head  $m$ , in combination with the cutter  $d$ , as described.
2. I claim the combination of the segmental platform  $l$  with the cutter  $n$ , cam-lever  $o$ , and head  $m$ , as set forth.
3. I claim the combination of the cutter-holding arm  $b$ , the connecting-bar  $e$ , the cam  $h$ , and the spring-rod  $k$   $k'$ , substantially as and for the purpose described.
4. I claim the graduated bar  $r$  and gauge  $s$ , in combination with the platform  $l$ , as and for the purpose described.

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

RICHARD WALKER.

Witnesses:

J. H. ADAMS,

M. S. G. WILDE.