

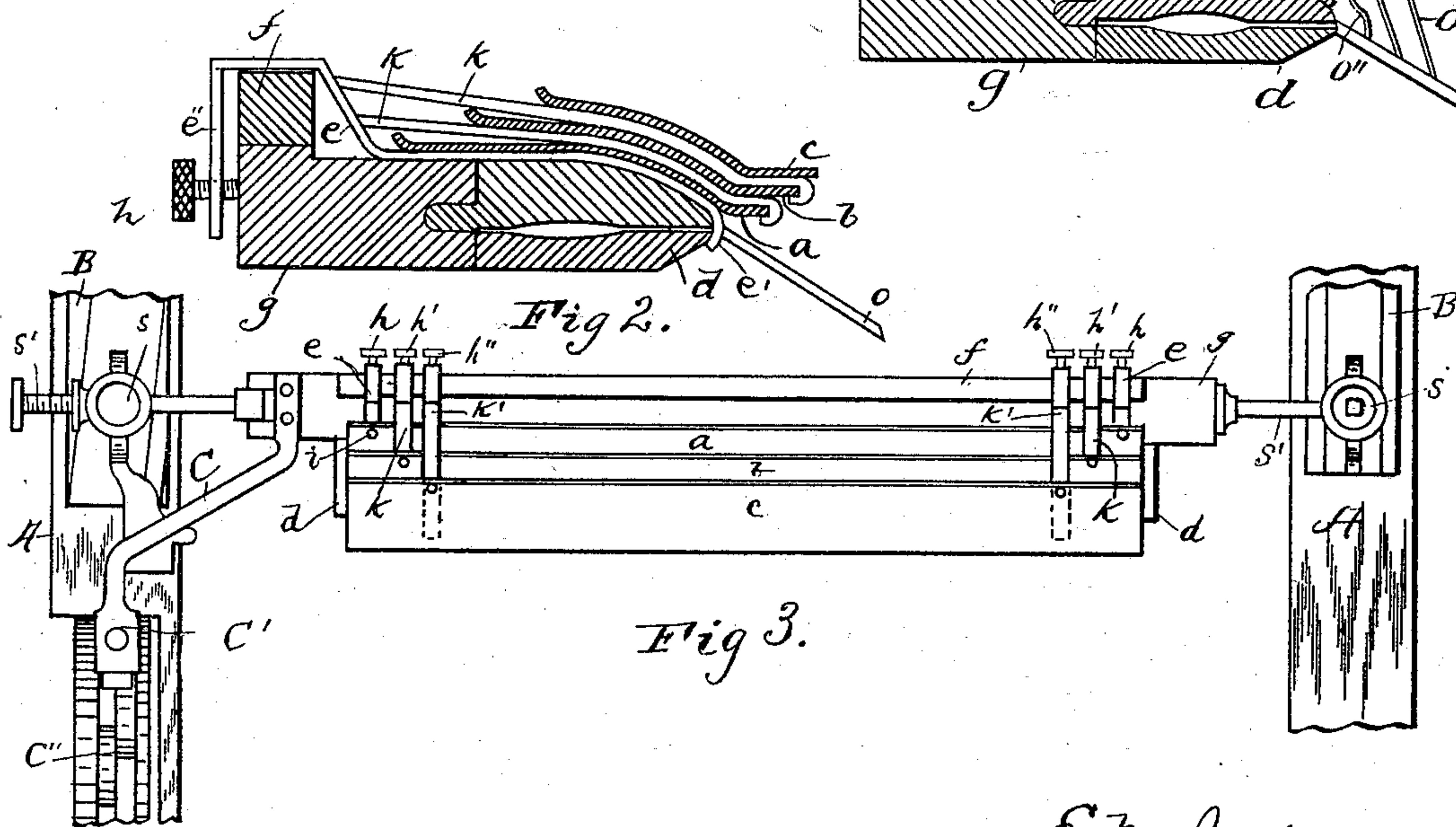
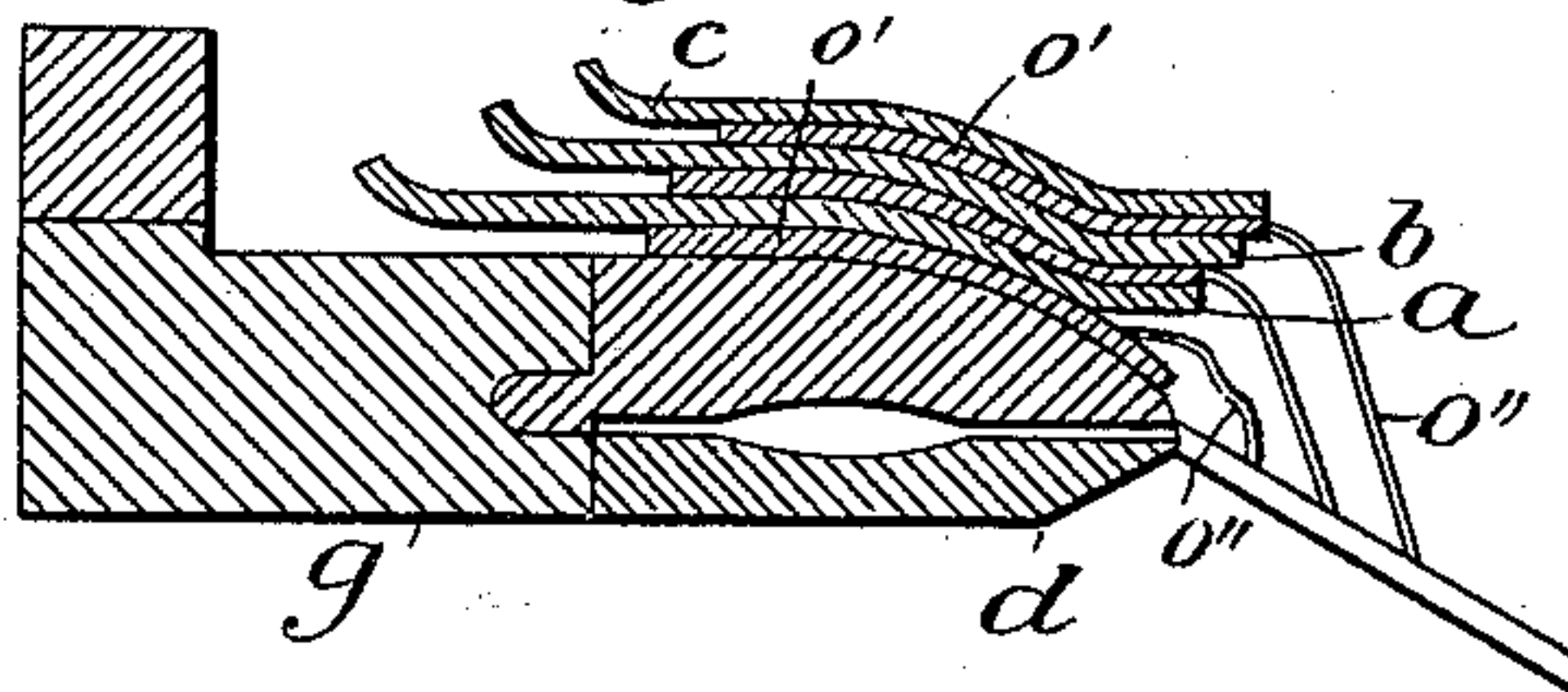
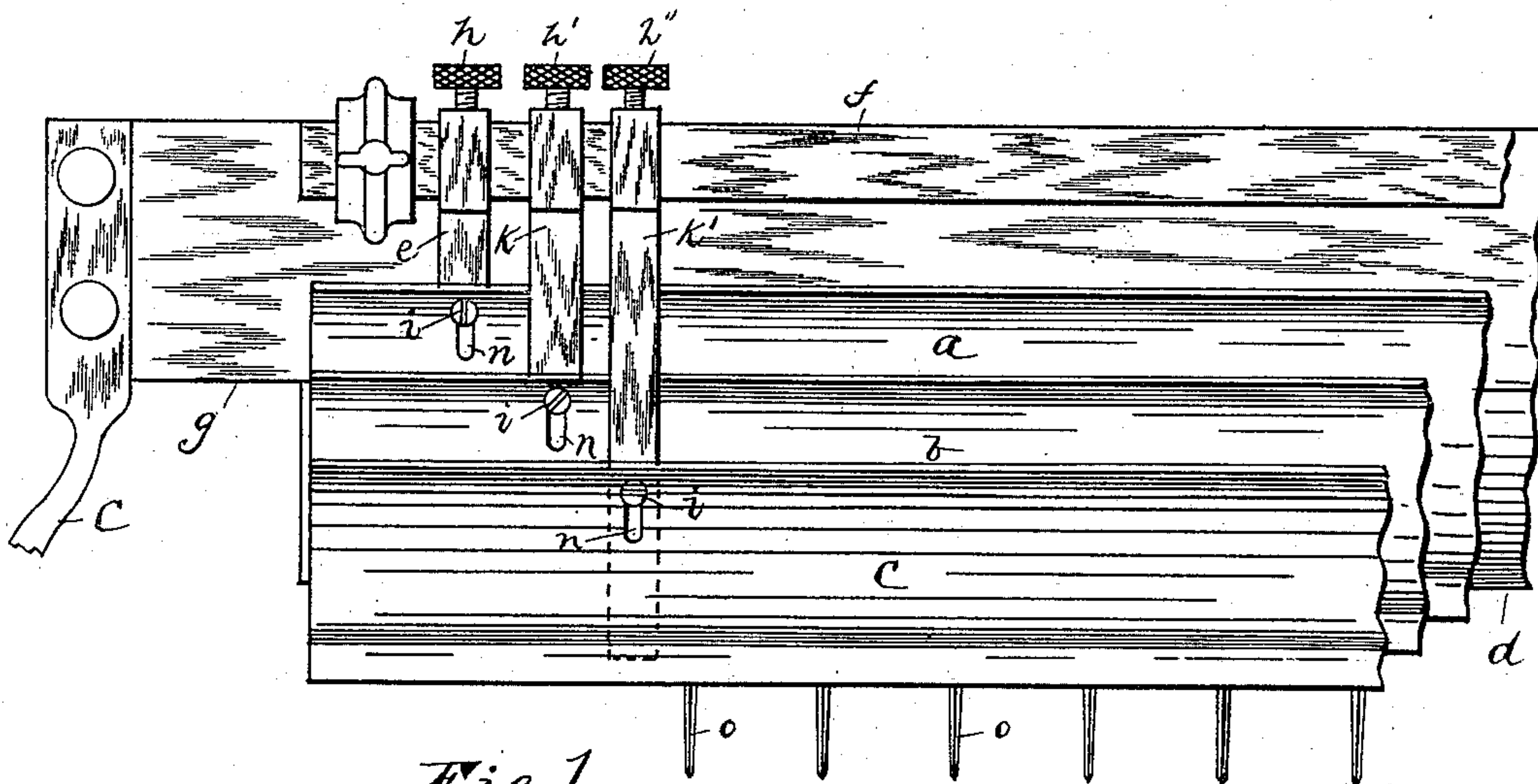
**No. 637,797.**

**Patented Nov. 28, 1899.**

**E. M. JILLSON.**  
**BANKING ZINCS FOR PEN BARS.**

(Application filed Apr. 30, 1898.)

(No Model.)



Witnesses:

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# UNITED STATES PATENT OFFICE.

EDWIN M. JILLSON, OF WEST CARROLLTON, OHIO.

## BANKING-ZINC FOR PEN-BARS.

SPECIFICATION forming part of Letters Patent No. 637,797, dated November 28, 1899.

Application filed April 30, 1898. Serial No. 679,316. (No model.)

*To all whom it may concern:*

Be it known that I, EDWIN M. JILLSON, a citizen of the United States, residing at West Carrollton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Banking-Zincs for Pen-Bars; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in banking-zincs for paper-ruling machines.

The object of the invention is to secure the zincs to the pen-bar in such a manner that when in operation they are prevented from jarring or becoming loose when the pen-bar is tilted, as on a striking-machine.

Heretofore it has been customary to secure the banking-zincs by means of a strip running back and fastened under the pen-grippers, leaving the front edge of said zincs loose. This looseness of said zincs would permit the strips of conducting material, in which the pens are wrapped on the flannels, to become loose and liable to shift their positions, and thereby allow two or more colors to run together. This difficulty is entirely overcome by my invention.

In a detailed description of said invention reference is made to the accompanying drawings, in which—

Figure 1 is a top plan view of a portion of the pen-bar, illustrating my invention. Fig. 2 is a cross-sectional view on line *xx* of Fig. 1. Fig. 3 is a top plan view of the pen-bar, showing it mounted on the side rails of a ruling-machine, portions of said rails being broken away. Fig. 4 is a transverse section of the pen-bar, showing the zincs and flannels in positions.

In carrying out the ideas of my invention I employ a suitable number of banking-zincs *a b c*, the number of said zincs corresponding to the number of colors to be used. The first of said zincs *a* is secured to the pen-bar *d* at both ends by clamps *e*, which have their front ends *e'* curved downwardly to inclose the front edge of said pen-bar, and their rear

ends *e''* reach back over the pen-gripper *f* and inclose the rear side of the pen-beam *g*. The said clamps are secured to the said pen-beam by thumb-screw *h*, which penetrates screw-threaded openings in said clamps, and are tightened against the rear of said pen-beam. When the said screws are tightened in this manner, the front ends *e'* of the clamps are drawn firmly in contact with the front edge of the pen-bar, thus making a firm connection between the clamps and said bar. The banking-zinc *a* is secured to the upper sides of said clamps by screws *i*, that pass through oblong openings *n* in said zinc and into the clamps. By means of said oblong openings the zinc may be adjusted to and from the front edge of the pen-bar. The next banking-zinc *b* is secured in a similar manner and by similar clamps *k*, the lower ends of which inclose the lower edge of zinc *a* and the upper ends of which are secured to the rear side of the pen-beam *g* by thumb-screw *h'*. The third banking-zinc *c* is secured in a similar manner by similar clamps *k'*, the lower ends of which inclose the lower edge of the second zinc *b* and the upper ends of which are secured to the pen-beam *g* by set-screw *h''*. All of said banking-zincs are adjustable by means of the oblong openings *n* and set-screws *i*. The inking-pens *o* are secured in the pen-bar *d* in the usual manner. The flannel *o'*, containing the first color, is laid upon the pen-bar. The conducting material *o''*, that wraps the pens for this color, is then laid upon this flannel, and the first banking-zinc *a* is then secured in the manner hereinbefore described. On this first zinc *a* the next color is similarly applied, and so on until all the colors are placed. This manner of applying the colors is commonly understood by those conversant with the art. When the banking-zincs are thus placed in the positions on the pen-bar, the whole becomes one rigid piece free from liability to vibrate. The pen-beam *g* is secured to the sides *A A* of the ruling-machine by standards *s s* and screws *s' s'*, the latter projecting from the ends of said beam. The standards are mounted on the sides of the machine in slotted bases *B B*, which permit the pen-bar to be adjusted lengthwise of the machine.

*C* is an arm attached to one end of the pen-



beam and to a foot C', which is operated by  
cams on a wheel C''. This manner of mount-  
ing the pen-bar is commonly understood, and  
therefore is not to be considered a part of the  
5 present invention.

Having described my invention, I claim—  
The combination with a pen bar and beam  
of a paper-ruling machine, of two or more  
banking-zincs, clamps secured to said pen-  
10 beam and inclosing the edge of the pen-bar,  
and by means of which each of said banking-

zincs has an independent attachment with  
said pen-bar, and means for adjusting the  
positions of said zincs to and from the edge  
of the pen-bar, substantially as described. 15

In testimony that I claim the foregoing as  
my own I hereto affix my signature in pres-  
ence of two witnesses.

EDWIN M. JILLSON.

Witnesses:

R. J. McCARTY,  
JOHN W. KALBFUS.