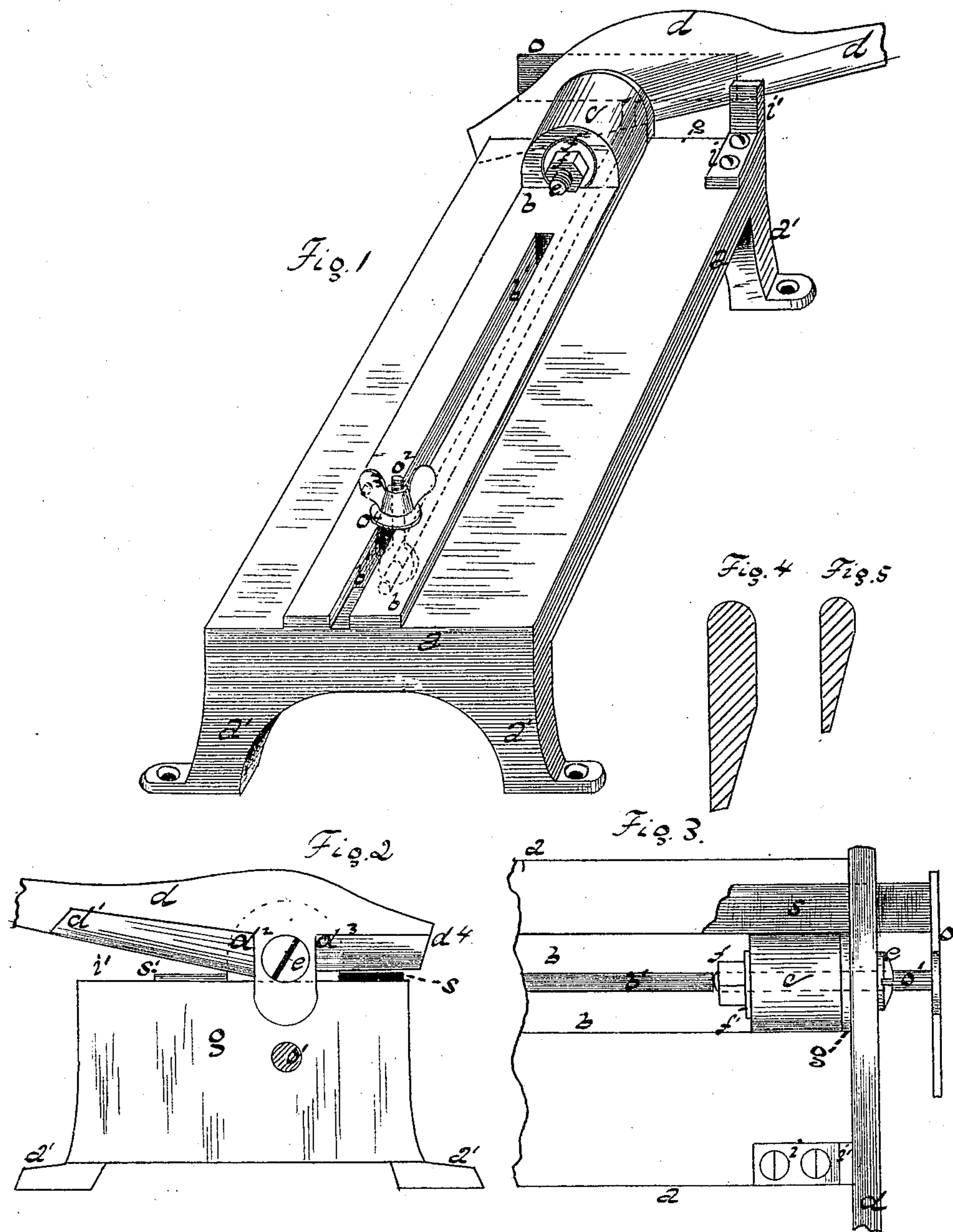


D. H. PERKINS.

Machines for Cutting Printers' Rules.

No. 151,509.

Patented June 2, 1874.



Witnesses

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# UNITED STATES PATENT OFFICE.

DAVID H. PERKINS, OF HARTFORD, CONNECTICUT.

## IMPROVEMENT IN MACHINES FOR CUTTING PRINTERS' RULES.

Specification forming part of Letters Patent No. **151,509**, dated June 2, 1874; application filed April 22, 1874.

*To all whom it may concern:*

Be it known that I, DAVID H. PERKINS, of Hartford, in the county of Hartford and State of Connecticut, have invented a new and useful Machine for Cutting Printers' Rules and Printers' Leads, of which the following is a specification, reference being had to the accompanying drawings, where—

Figure 1 is a perspective view of my said machine. Fig. 2 is an end view of that end of the machine bearing the knife or chisel, the gage-blade omitted. Fig. 3 is a partial top view of said machine, showing that end bearing the knife or chisel. Fig. 4 is an enlarged view of a cross-section of that knife or part of knife for cutting rules, on dotted line *x x*. Fig. 5 is a similar view of a cross-section of that knife, or part of knife, designed for cutting leads, on the line *y y*.

Printers have occasion to make frequent use of thin strips of sheet-brass, commonly called rules, and also of strips of sheet metal, made of type-metal or the like, commonly called leads, and these rules and leads need to be cut of different lengths for different jobs, and it is essential that the ends of these rules and leads be cut off squarely without being bent or burred—that is, left with a rough edge or end.

From the difference in the nature of the metals of which the rules and leads are, respectively, made, it has heretofore been necessary to have two different cutting-machines for cutting rules and leads, the knife, in each case, being fitted and adapted to its peculiar purpose.

My invention is a machine for properly cutting both rules and leads.

The letter *a* indicates the frame or body of the machine, having legs *a'*. The top of the table, frame, or body *a* is planed off flat and level upon both sides of the ridge *b*, the two sides or edges of which are planed vertically, so as to form square shoulders with the surface of the table. At the knife end of the table, the lug *c* rises from the ridge *b*, and to this the double-knifed lever *d* is pivoted by means of the headed bolt *e* running through the

lever and through the lug *c*, having at its rear end the nut *f* and washer *f'*. The lever *d* turns, or rather vibrates, upon the bolt *e*. This lever is flat and vertical upon the side next the table, and this end of the table may well be shod with the steel plate *g*. The knife part of the lever should be of steel; the body and legs of the machine of cast-iron. The lever *d* is beveled upon the outer side from *d<sup>1</sup>* to *d<sup>2</sup>*, so as to form the appropriate and proper shape for cutting rules. The shape of this bevel is indicated in cross-section in Fig. 4. This lever is beveled upon the outer side from *d<sup>3</sup>* to *d<sup>4</sup>*, so as to form the appropriate and proper shape for cutting leads. The shape of this bevel is indicated in cross-section in Fig. 5. There is a right-angled piece of metal, *i i'*, screwed to the end of the top of the table, its upright part *i'* forming a rest, serving to keep the knife-lever from being swerved sidewise from its proper path. The letter *o* indicates the blade of a gage, against which the end of a rule or lead may be set for cutting, as indicated in Fig. 3, hung on the end of the gage-rod *o<sup>1</sup>*, running through a hole in the end of the plate *g*, and under the table attached at its inner end to the vertical piece *o<sup>2</sup>*, which runs up through the slot *b'* in the ridge *b*, and is screw-threaded at its upper end, taking upon it the thumb-nut *o<sup>3</sup>*, underlaid by the washer *o<sup>4</sup>*, which bears upon the edges of the slot, by means of which thumb-nut the gage can be set as desired.

The rules and leads to be cut are laid flat upon the table, each upon its appropriate side of the ridge *b*, and up against the square shoulder formed by the surface of the table and the side or edge of the ridge, as indicated (for a lead) in Fig. 3, the operator holding the rule or lead in place with one hand, while he operates the lever with the other.

I have indicated in Fig. 2 a lead, *s*, in proper position, and also a rule, *s'*.

In Fig. 1, I have shown the cutting-edges of the two knives as projected on the same line; but I prefer that the lead-cutting knife should be adapted, as shown in Fig. 2, to commence the cut across the whole surface of the lead at the same time.

I claim as my invention—

1. The combination of the table *a* with the lever *d* pivoted thereto, and provided with a knife upon either side of the pivot, one of them adapted to cutting rules and the other to cutting leads, substantially as shown and described.

2. The combination of the table *a*, bearing the slotted ridge *b*, the double-knifed lever *d*, the gage *o* *o*<sup>1</sup> *o*<sup>2</sup>, and the thumb-nut *o*<sup>3</sup>, all constructed, arranged, and designed for opera-

tion and use, substantially as shown and described.

3. The combination of the table *a*, the double-knifed lever *d*, and the rust *i*<sup>1</sup>, all constructed, arranged, and designed for operation and use, substantially as shown and described.

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Witnesses:

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