

No. 764,848.

PATENTED JULY 12, 1904.

E. P. HOWARD.  
APPARATUS FOR MAKING SHADES.  
APPLICATION FILED MAY 4, 1903.

NO MODEL.

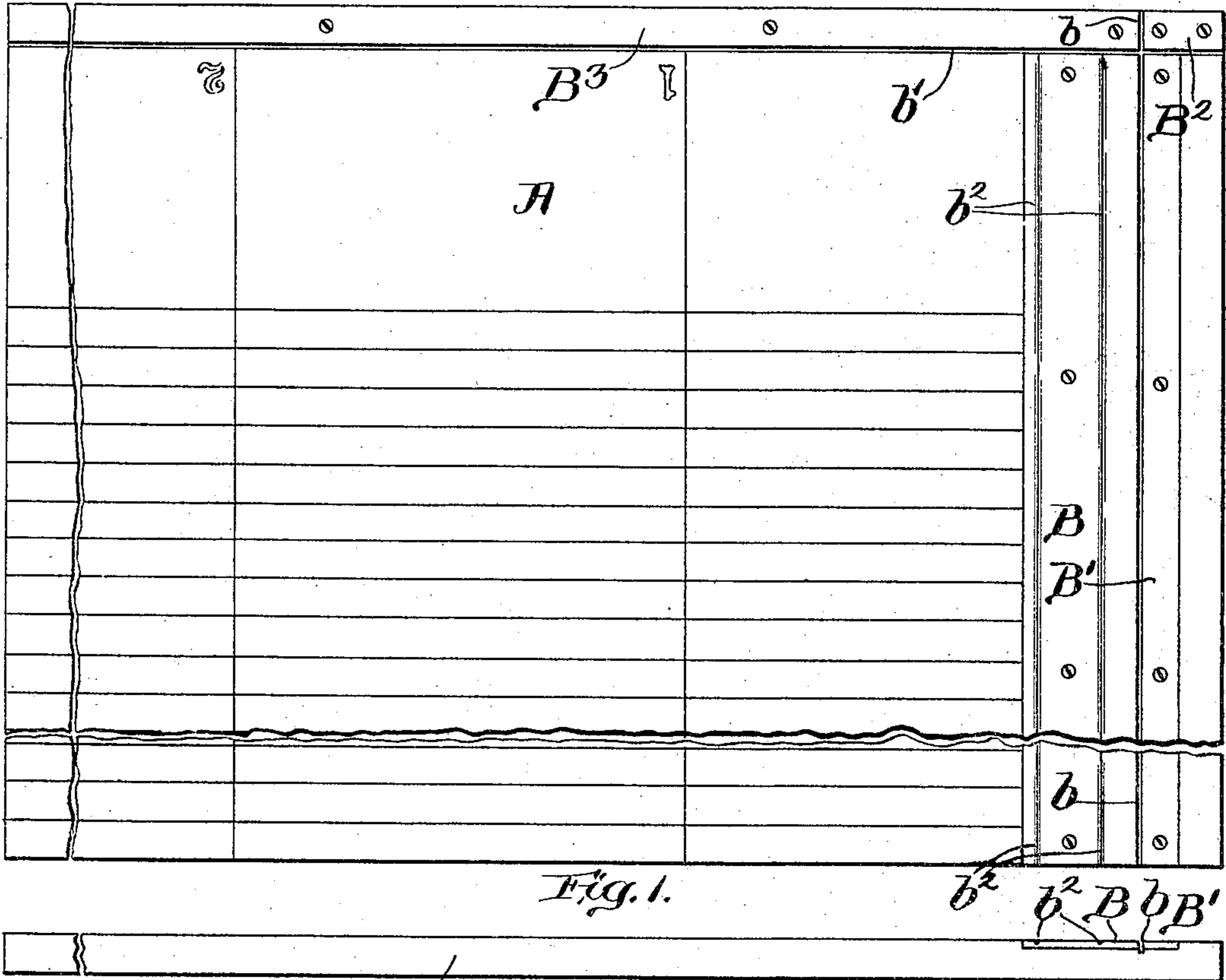


Fig. 1.

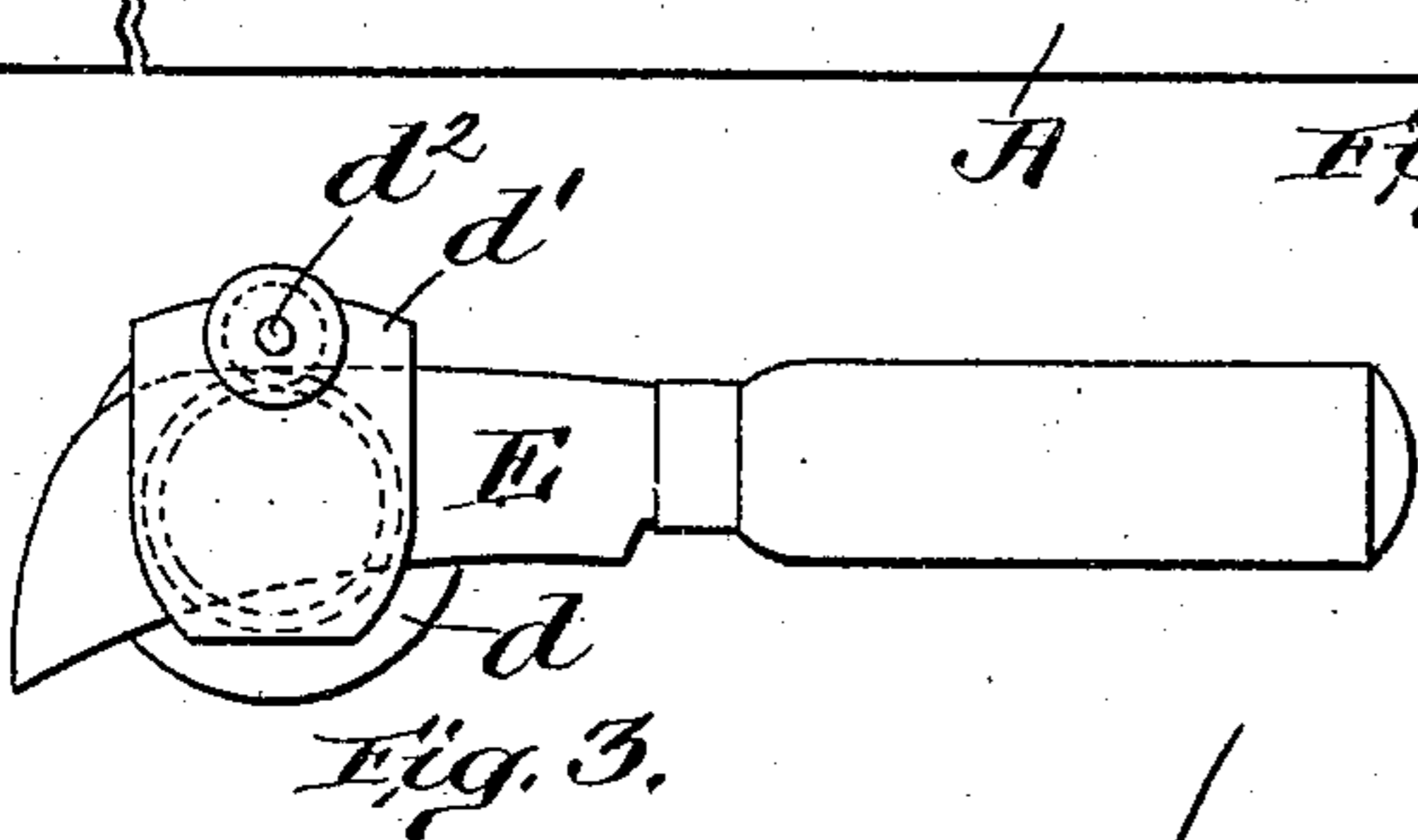


Fig. 3.

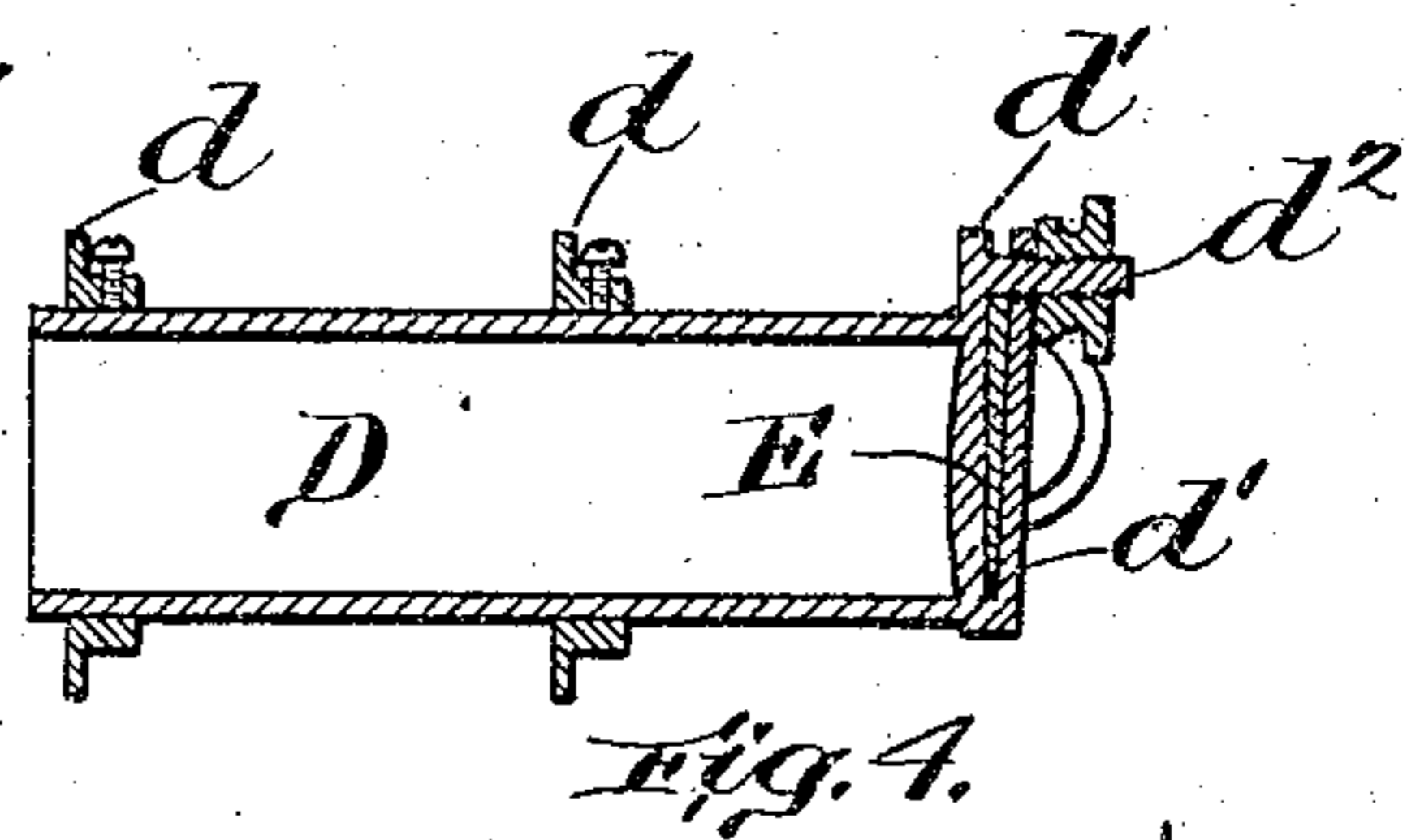


Fig. 4.

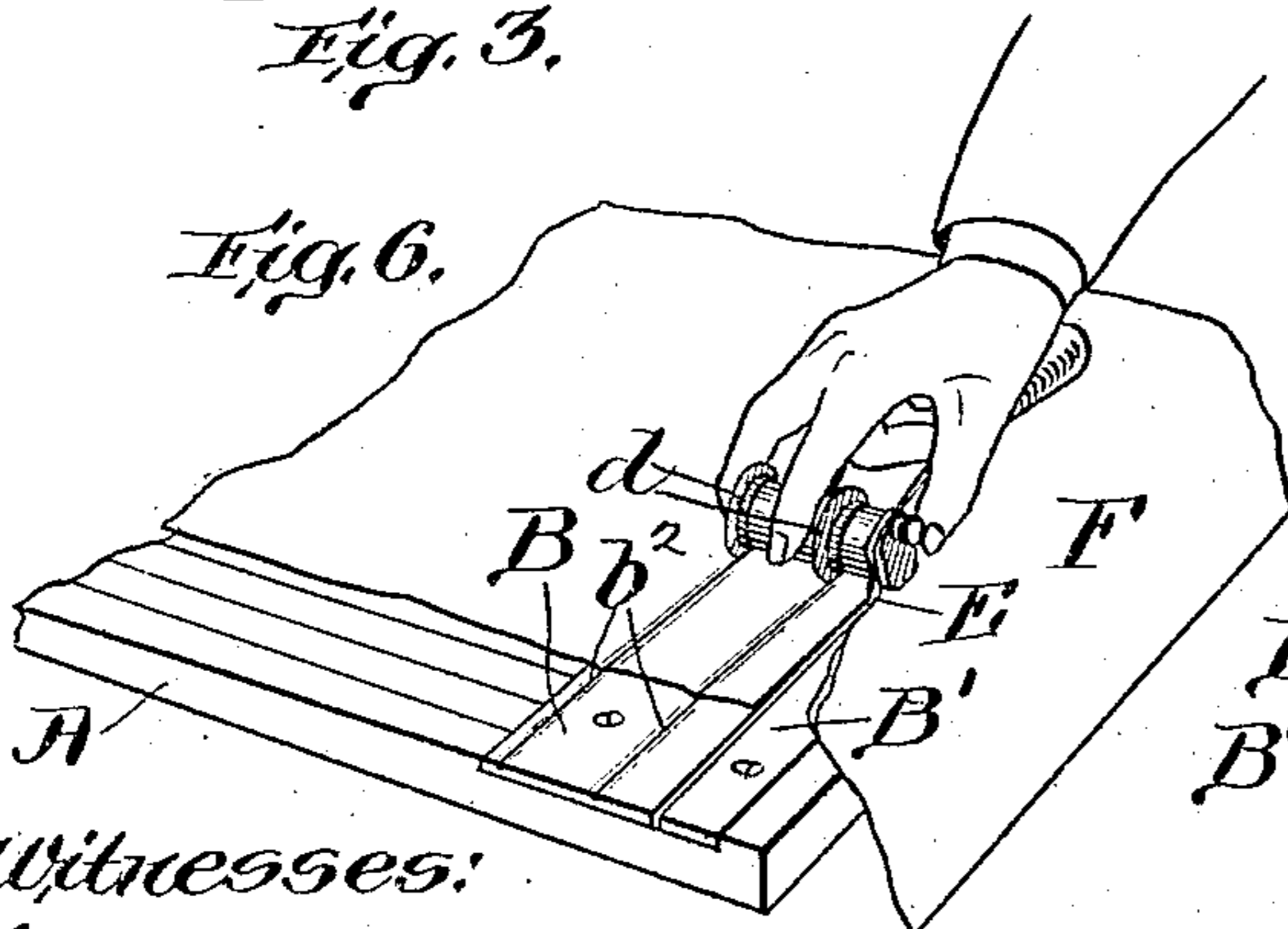


Fig. 6.

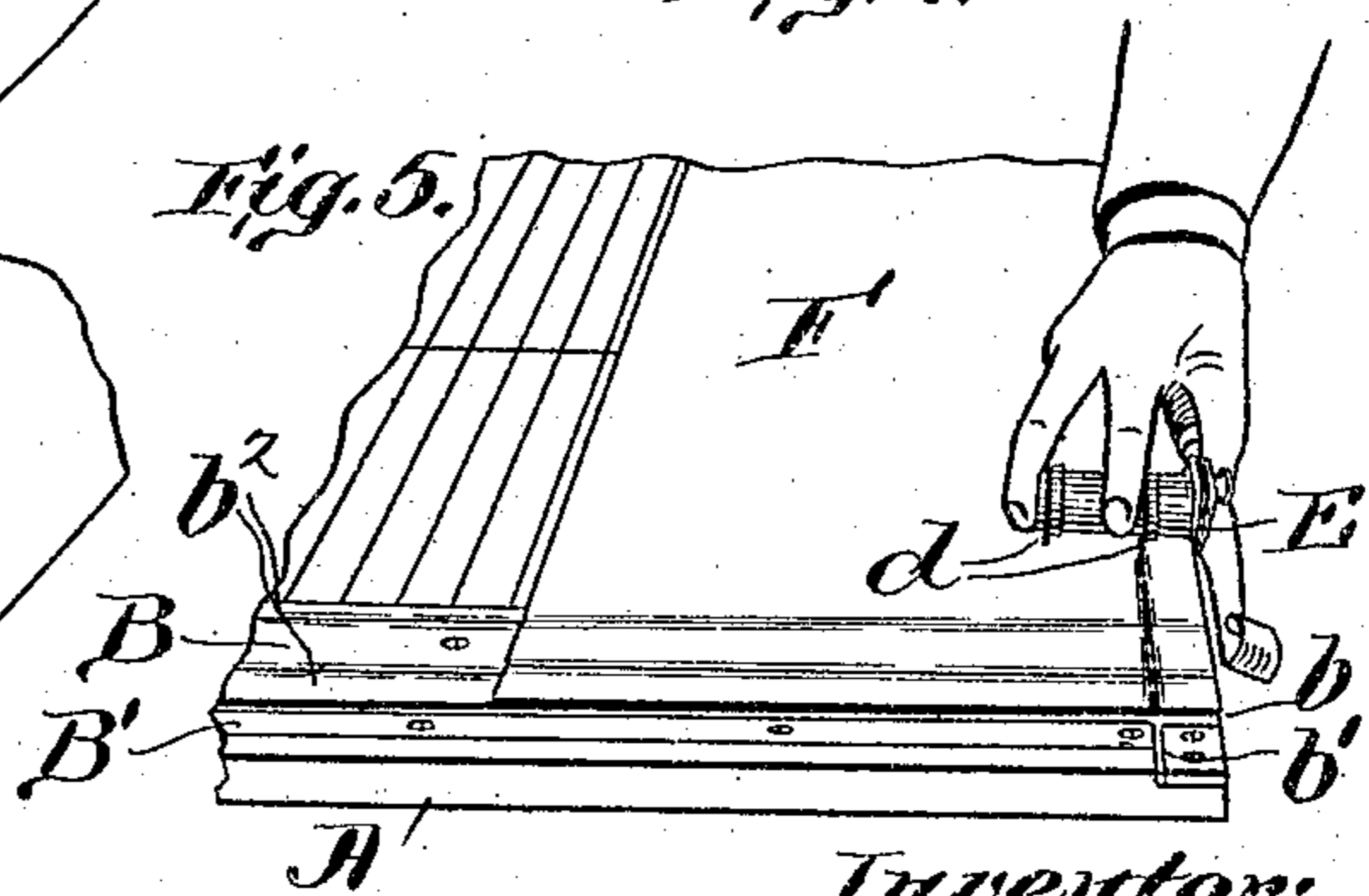


Fig. 5.

Witnesses:  
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# UNITED STATES PATENT OFFICE.

EDGAR P. HOWARD, OF BROCKTON, MASSACHUSETTS.

## APPARATUS FOR MAKING SHADES.

SPECIFICATION forming part of Letters Patent No. 764,848, dated July 12, 1904.

Application filed May 4, 1903. Serial No. 155,607. (No model.)

*To all whom it may concern:*

Be it known that I, EDGAR P. HOWARD, of Brockton, in the county of Plymouth and State of Massachusetts, have invented a new and  
5 useful Apparatus for Making Shades, of which the following is a specification.

The object of my invention is to provide an apparatus for quickly and accurately squaring, trimming, measuring, and creasing the  
10 hems of cloth for window-shades; and my invention is an apparatus comprising a cutting-table, suitably grooved and marked, and a creasing and cutting tool to work with the grooves of the table.

15 In the accompanying drawings, Figure 1 is a plan of a portion of the cutting and creasing table. Fig. 2 is an edge view of the same. Fig. 3 is a side view of the cutting and creasing tool. Fig. 4 is a section of the cutting  
20 and creasing tool. Fig. 5 is a perspective showing one corner of the table in use, and Fig. 6 is a perspective showing another corner of the table in use.

Table A has metal plates B B' B<sup>2</sup> B<sup>3</sup> attached to it, so that the upper surface of the plates are flush with the upper surface of the table. Passage-way *b* is between plates B and  
25 and B' and between plates B<sup>2</sup> and B<sup>3</sup>, and passage-way *b'* is between plates B' and B<sup>2</sup> and between plates B<sup>3</sup> and B. Plate B is grooved at *b<sup>2</sup> b<sup>2</sup>*. Table A has gage-lines parallel with its long sides and other gage-lines parallel with its short sides. Creasing-tool  
30 D has adjustable creasing-rings *d d* suitably attached to it and clamping-jaws *d' d'*, operated by screw *d<sup>2</sup>*, to clamp the blade of knife E.

The metal plates may be dispensed with and the table itself grooved; but I prefer the form shown because it is more durable and  
40 insures better work of the creasing and cutting tool.

In using my apparatus the cloth F to be cut is placed upon the cutting-table, and the creasing-rings *d d* work in the grooves *b<sup>2</sup> b<sup>2</sup>*  
45 while the knife-blade is drawn through passage-way *b*, which is so deep that the edge of the knife does not reach to the bottom of it,

and the knife-blade bears against the edge of plate B, thus guiding the knife-blade and guiding the creasing-rings and insuring accurate work. This operation trims what is to  
50 be the lower end of the shade and makes a crease for each of the lower hems. The tool is then carried along the outer edge of plate B<sup>3</sup> without moving the cloth, the knife-blade bearing against the outer edge of plate B<sup>3</sup> and  
55 one of the creasing-rings working in passage-way *b'*, trimming what is to form the side edge of the shade and making a crease for the side hem. The shade is then reversed and its  
60 width determined by the gage-lines parallel with the long sides of the table and again cut and creased along plate B<sup>3</sup>. The length of the shade is determined by the gage-lines parallel with the short sides of the table.  
65

The great advantages of my apparatus are that the shades are cut in about one-fourth of the time heretofore taken and the product is more neatly and accurately creased and cut  
70 than heretofore, the creasing and cutting tool being held as shown and the knife-blade bearing against the edge of the metal plate, insuring accurate cutting and accurate creasing.

What I claim as my invention is—

1. An apparatus for making shades comprising a tool having a knife-blade and one or more creasing-rings; and a cutting-table having a vertical wall and creasing-grooves parallel with the vertical wall, the side of the  
75 knife-blade bearing against and guided by the vertical wall and guiding the creasing-rings in the grooves of the table while the shades are being cut and creased.  
80

2. A cutting and creasing tool for making shades comprising a barrel; one or more creasing-rings carried by the barrel; a clamp on  
85 the end of the barrel, and a knife whose blade is connected with the barrel and its creasing-rings by that clamp.

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Witnesses:

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