

(No Model.)

J. W. WHITE.
PATTERN AND WORK HOLDING DEVICE.

No. 343,215.

Patented June 8, 1886.

Fig. 1.

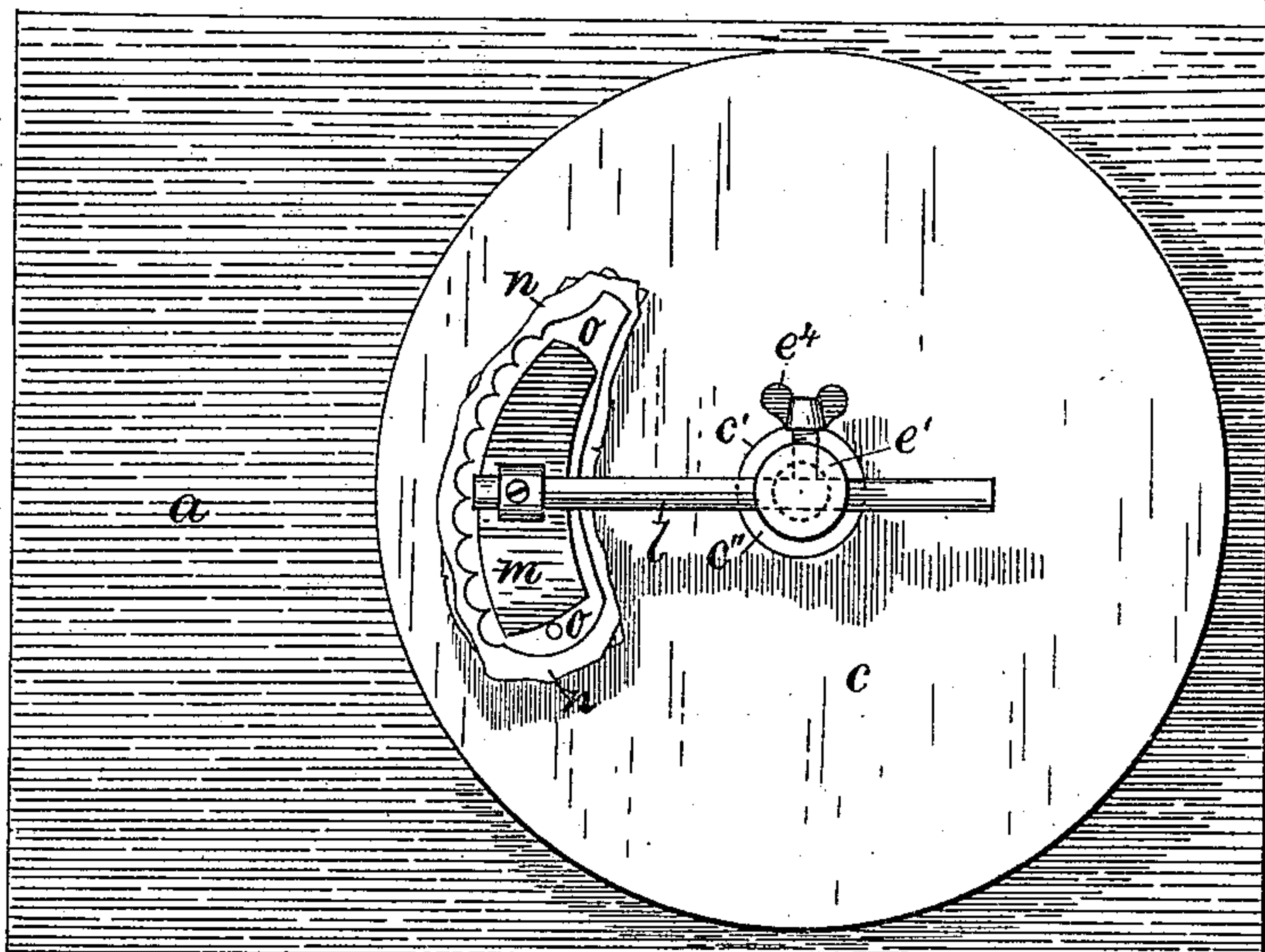


Fig. 3.

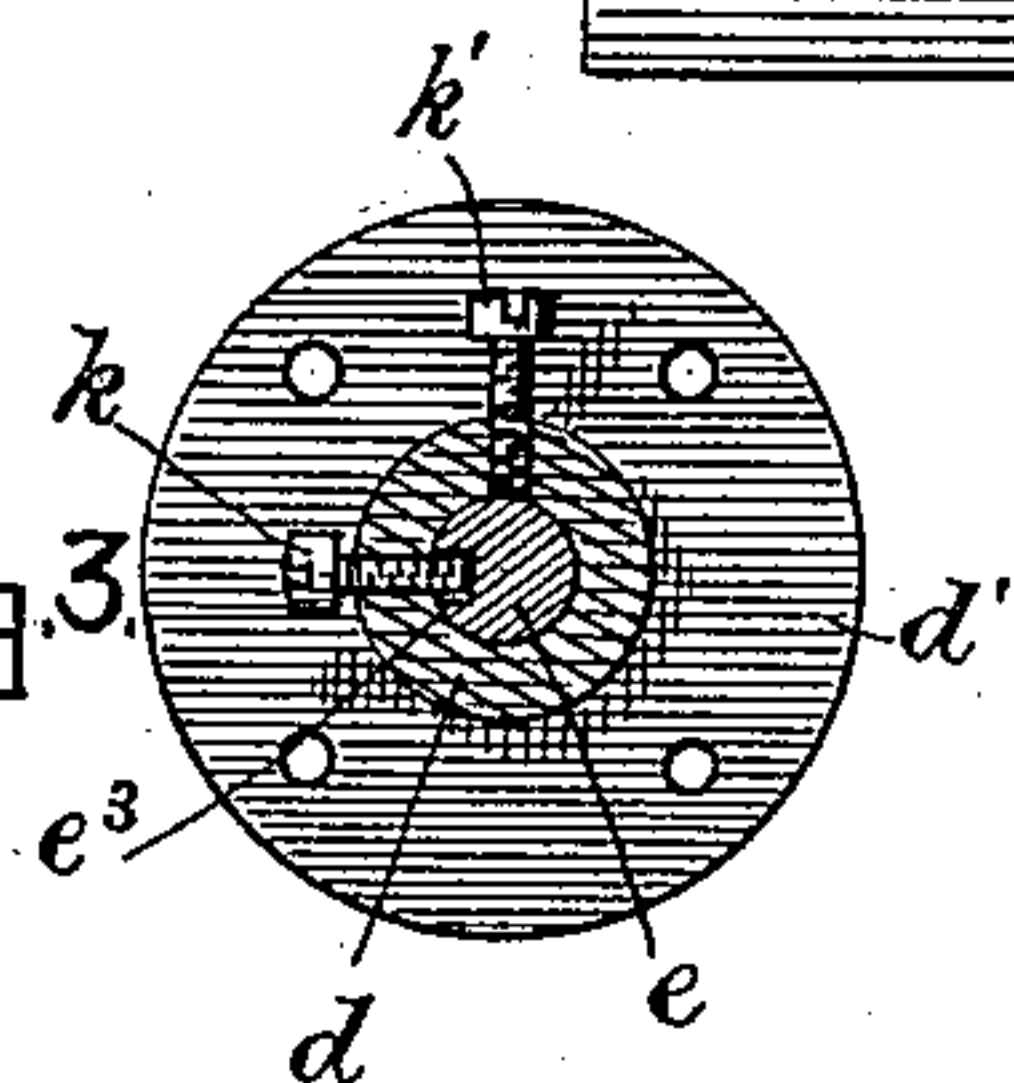
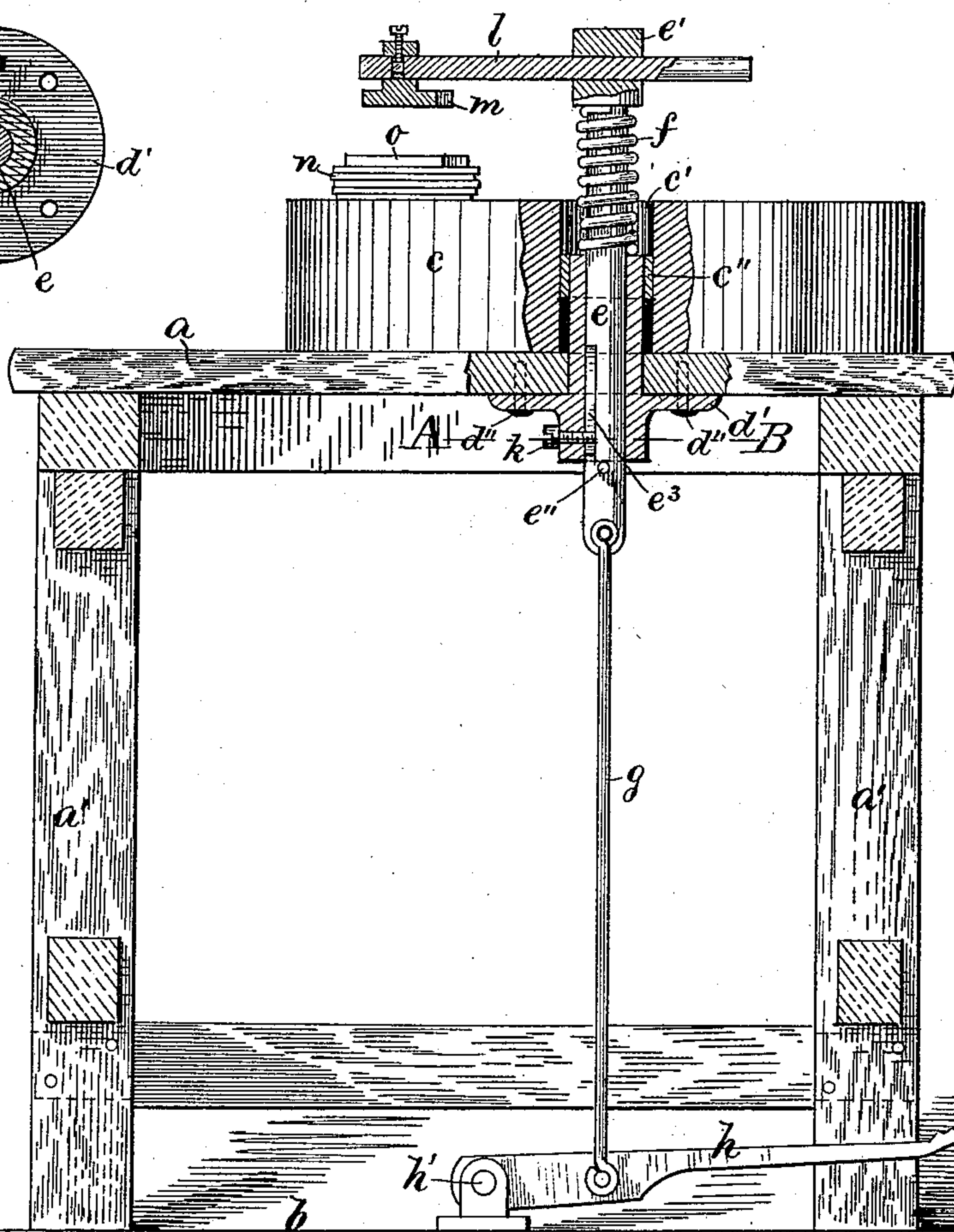


Fig. 2.



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PATTERN AND WORK HOLDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 343,215, dated June 8, 1886.

Application filed February 13, 1886. Serial No. 191,844. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. WHITE, a citizen of the United States, residing at Beverly, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Pattern and Work Holding Devices; and I do hereby declare that the same are fully described in the following specification and illustrated in the accompanying drawings.

This invention relates to improvements in pattern and work holding devices for the purpose of temporarily holding in place on the cutter-block a pattern and the pieces of leather or other materials that are to be cut in conformity with the pattern. The invention is particularly well adapted for use in cutting out scalloped button-pieces for boots and shoes, although it may equally well be used for other similar purposes.

My invention is carried out as follows, reference being had to the accompanying drawings, where Figure 1 represents a plan view, and Fig. 2 represents a central longitudinal section, of the invention. Fig. 3 represents a cross-section on the line A B, shown in Fig. 2.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

a represents a table, as usual resting on legs or supports *a'* *a'*, standing on or secured to the floor *b*, as shown in Figs. 1 and 2.

c is the wooden cutter-block, preferably made of a cylindrical form, and resting loosely on top of the table *a*, as shown. To the under side of table *a* is secured the metal sleeve *d*, that projects upward through a perforation in the table *a* and into the central perforation, *c'*, in block *c*, as shown in Fig. 2.

d' is a flange on sleeve *d*, that is secured to the under side of the table *a* by means of screws *d''* *d''*.

In the perforation *c'* in block *c* is driven or otherwise secured the short bearing-sleeve ring or bushing *c''*, that serves as a bearing for the upper end of the sleeve *d*, to permit the block *c* to be turned around its axis whenever any portion of its upper surface becomes worn or defaced by the die used in cutting.

It will be noticed that the bearing-sleeve *c''* does not extend to the upper and lower ends of block *c*. This is done for the purpose of per-

mitting such ends or faces of said block to be planed or shaved off from time to time as it gets worn or defaced without letting the planing-tool come in contact with the ends of such bushing or bearing-sleeve *c''*, that is preferably made of metal. The sleeve *d* has a central vertical perforation, through which passes loosely the pressure-rod *e*, having a head or enlargement, *e'*, in its upper end, such rod being normally held upward in the position shown in Fig. 2 by the influence of a coiled spring, *f*, preferably located around the rod *e* between the under side of head *e'* and the upper end of sleeve *d*.

e'' is a pin or collar secured to rod *e* below the lower end of sleeve *d*, to serve as a stop against the latter, and thus limit the upward motion of the rod *e*. To the lower end of the rod *e* is jointed the rod, link, or wire *g*, the lower end of which is attached to the treadle-lever *h*, that is hinged at *h'* to the floor *b*, or to a portion of the table, and provided in its forward end with a foot-treadle, *h''*. (Shown in Fig. 2.)

To prevent the rod *e* from turning around its axis within the sleeve *d*, I make a spline or longitudinal groove, *e³*, on one side of said rod *e*, into which projects the inner end of the set-screw *k*, (shown in Figs. 2 and 3,) such set-screw being screwed through the lower end of sleeve *d*.

k' is another set-screw, screwed through sleeve *d* at a right angle to the screw *k*, for a purpose that will hereinafter be stated.

Through the head *e'* is made a horizontal perforation in which is horizontally adjustable the rod *l*, such rod being secured to head *e'* after being adjusted by means of a thumb-screw, *e⁴*, screwed, preferably, through the side of head *e'*, as shown in Fig. 1.

To the outer end of rod *l* is hinged or pivoted the presser-foot *m*, that may be made straight or curved, according to the shape of the article to be cut or died out.

n represents the goods or article to be cut, one or more thicknesses at a time, and *o* represents the pattern or templet, corresponding in size and shape to the desired work to be done.

The operation is as follows: The material, *n*, to be cut is laid on block *c*, and above it is placed the pattern *o*. The operator then de-

presses the foot-treadle h'' , causing the rod e to descend against the influence of spring f , and causing the presser-foot m to be pressed firmly on top of pattern o , thereby holding the materials n firmly in place on top of the block c . The operator now proceeds to die or cut the goods by means of a suitable tool, as usual, and when ready he relieves the foot-pressure on treadle h'' , when the spring f causes the presser-foot m to be automatically lifted and disengaged from the pattern o , and the now finished pieces are removed from the block c and others placed in position thereon and clamped by the presser-foot m , and so on. By having the presser-foot m hinged or pivoted on the rod l , as described, it will automatically adjust itself to inequalities in the thicknesses of the goods to be cut, so as to hold all parts thereof firmly in position on the block c .

In Figs. 1 and 2 the presser-foot m is shown as arranged at the rear upper portion of block c ; but, if so desired, it may be arranged diametrically in an opposite position, simply by sliding the rod l out of the perforation in head e' and reversing its position therein. Should it be desired to have the presser-foot m at a right angle to the position shown in Figs. 1 and 2, it is only necessary to unscrew the set-screw k in the lower end of the sleeve d , so that its inner end is free from the spline or groove in the rod e , when the latter may be turned a quarter of a revolution around its axis, and the screw k' screwed up so that its inner end shall project into the groove on the rod e . While the rod e is in such a new position within its sleeve d the presser-foot rod l and its presser-foot m may be arranged to operate on the right or left side of the block c , as may suit the requirements of the operator.

The rod e is shown as cylindrical in the drawings; but this is not essential, as it may be made square or polygonal, as may be desired, and the vertical perforation in sleeve d made accordingly.

In using the device, if the block c becomes worn in one place, I turn it around its axis a proper distance, so as to obtain a proper surface to operate on, and if the upper side of the block becomes worn, defaced, or uneven

I reverse its position on the table simply by removing the rod l and presser-foot m from the head e' , when the block can be lifted up and reversed, after which the rod l is inserted in place on the perforated head e' and secured in position by the thumb-screw e^t .

What I wish to secure by Letters Patent, and claim, is—

1. In a work-holding device, the table a and cutter-block c , resting thereon, the vertical sleeve d , secured to table a and projecting upward through the perforation e' in block c , in combination with the vertically-adjustable rod e , its spring f , and treadle-lever h , the presser-foot rod l , made horizontally adjustable in the upper end of rod e , and presser-foot m , pivoted to rod l , as and for the purpose set forth.

2. In a work-holding device, the stationary sleeve d and adjustable block c , having central bearing-sleeve, e'' , combined with the vertically and horizontally adjustable presser-foot m , pivoted on the rod l , that is adjustably secured to the upper end of rod e , and adapted to be depressed by the treadle-lever h and its connection to rod e against the influence of spring f , as and for the purpose set forth.

3. In a work-holding device, the horizontally-adjustable rod l and its pivoted presser-foot m , the rod e , guided in the stationary sleeve d and having groove e^3 , combined with the set-screws $k k'$, arranged at a right angle to each other in sleeve d , as and for the purpose set forth.

4. In a work-holding device, the stationary sleeve d , the rod e , movable therein, and held upward by means of spring f and depressed by means of the treadle lever h , in combination with the rod l , horizontally adjustable in the upper end of rod e , and presser-foot m , arranged upon the end of said rod l , substantially in a manner and for the purpose set forth.

In testimony whereof I have affixed my signature in presence of two witnesses.

JAMES W. WHITE.

Witnesses:

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E. J. TORREY.