

D. A. Draper
Forming Letters on Type Blocks.
Nº 64410. Patented May 7. 1867.

Fig. 1.

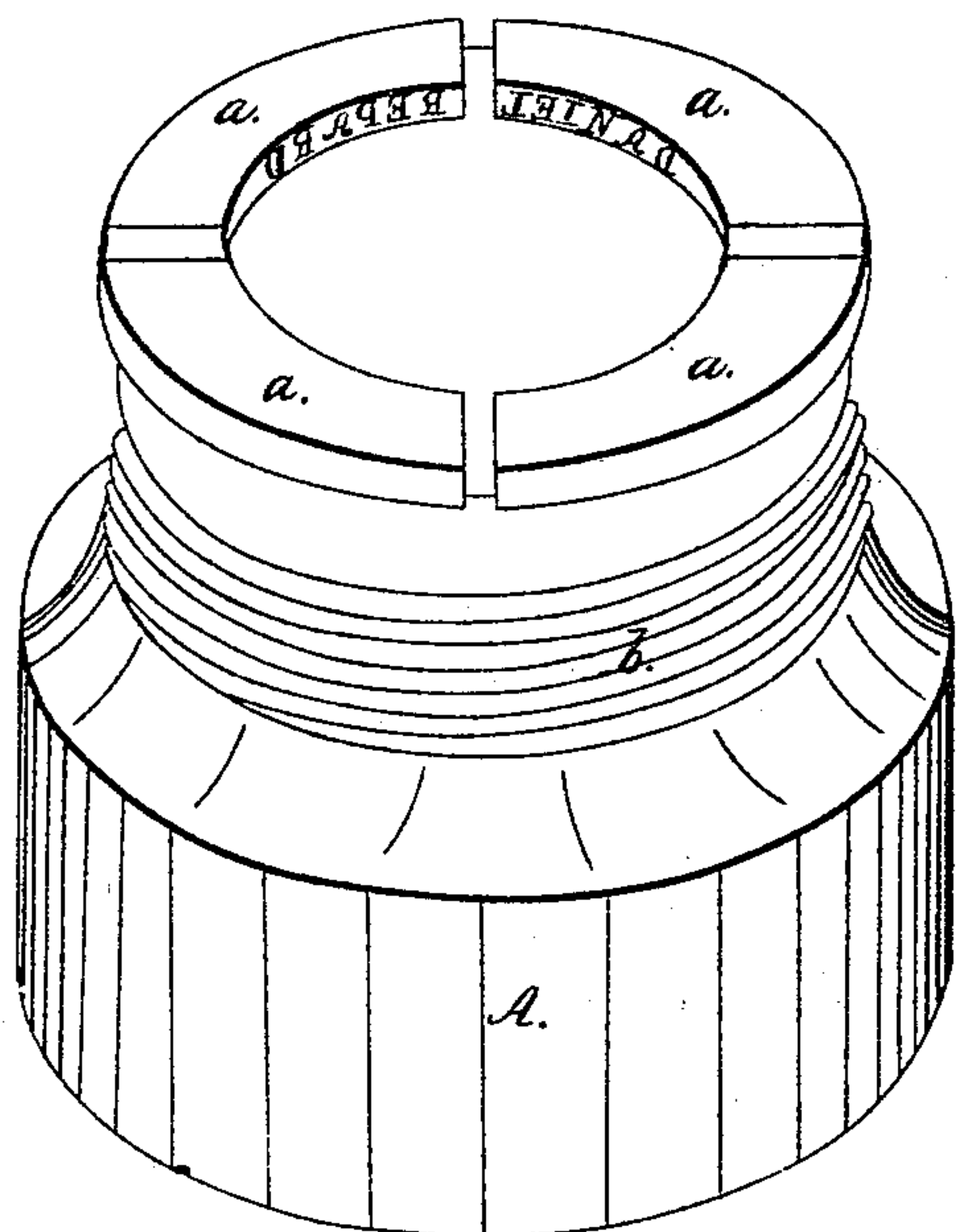


Fig. 2.

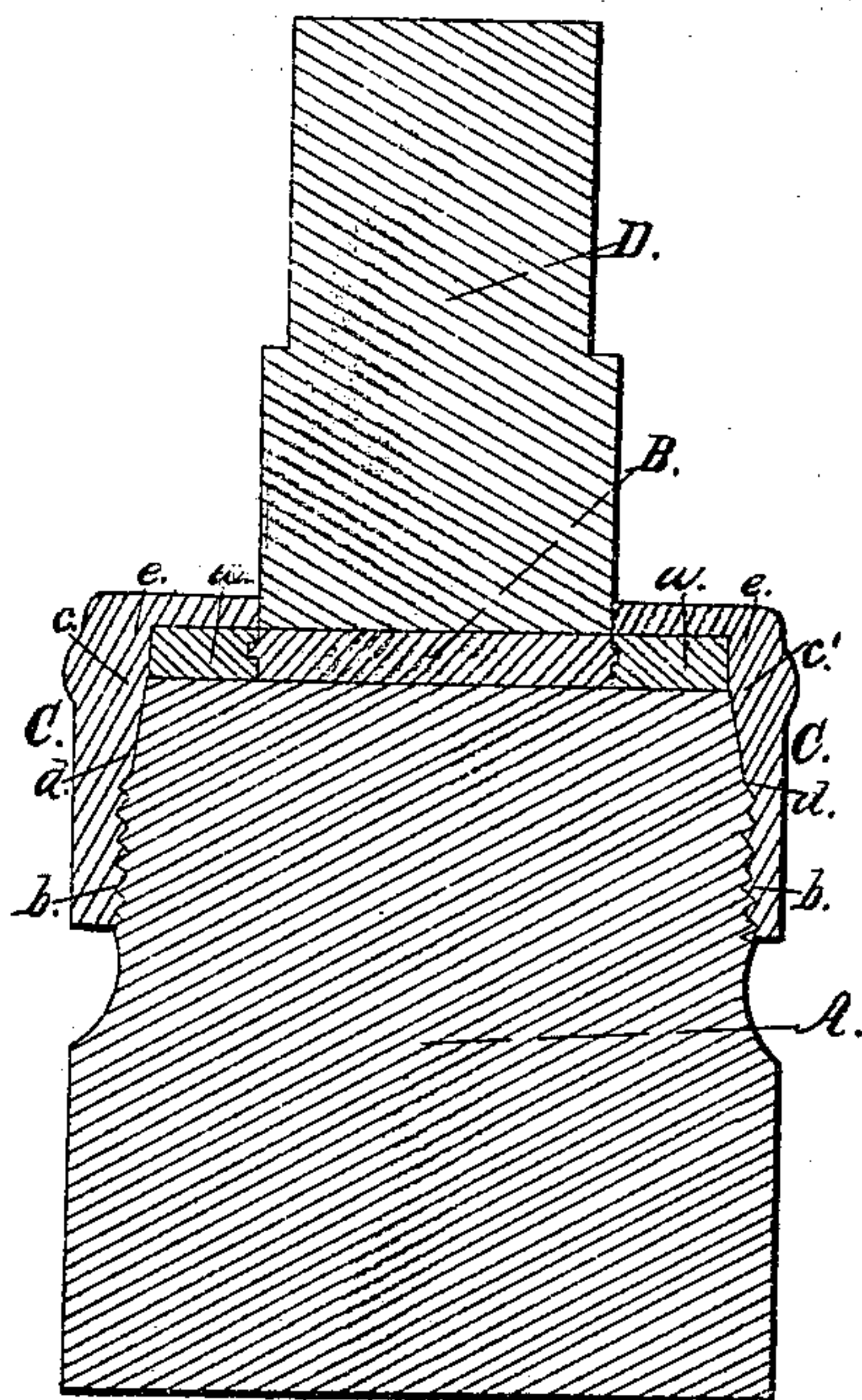


Fig. 3.

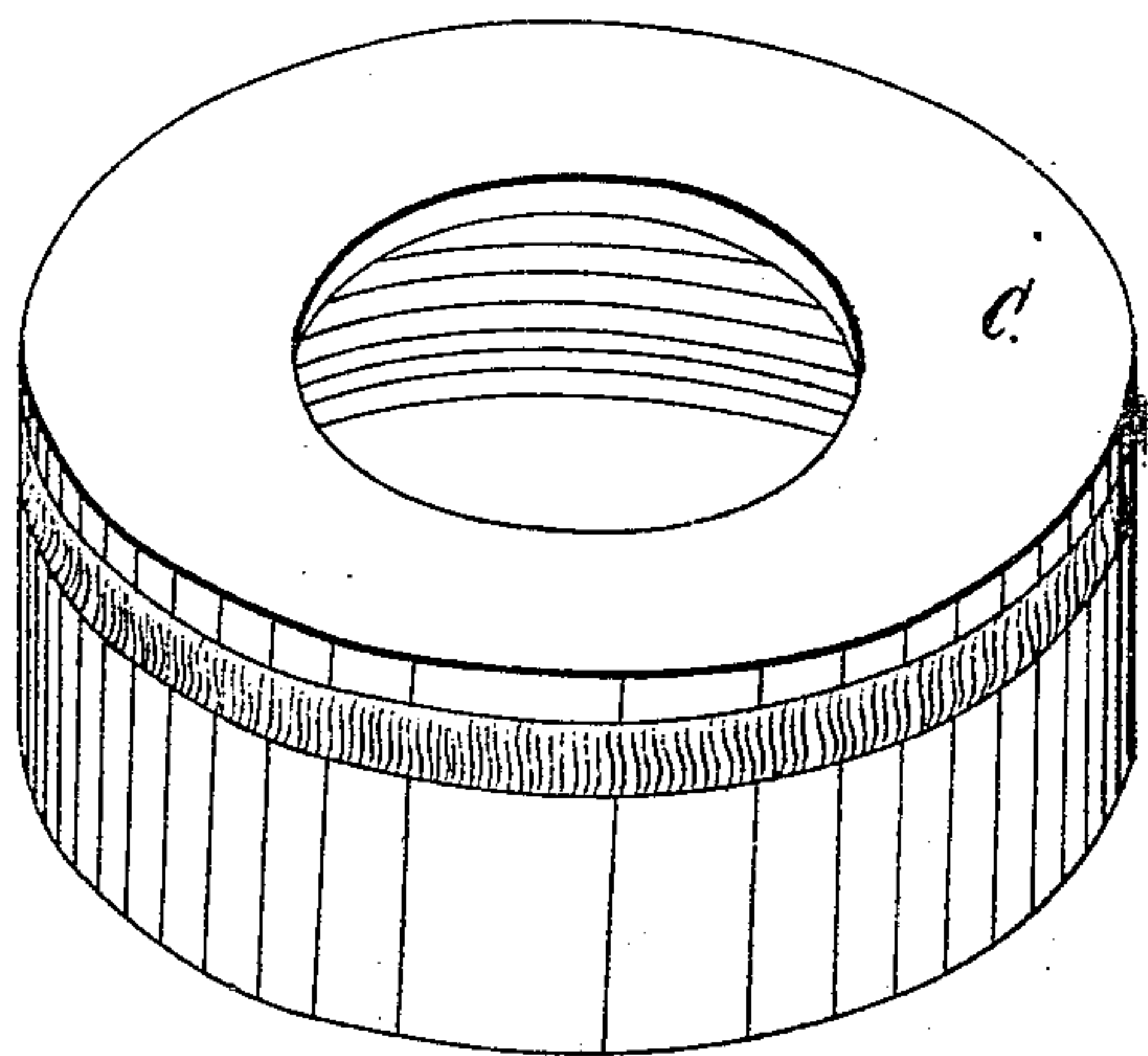


Fig. 4.

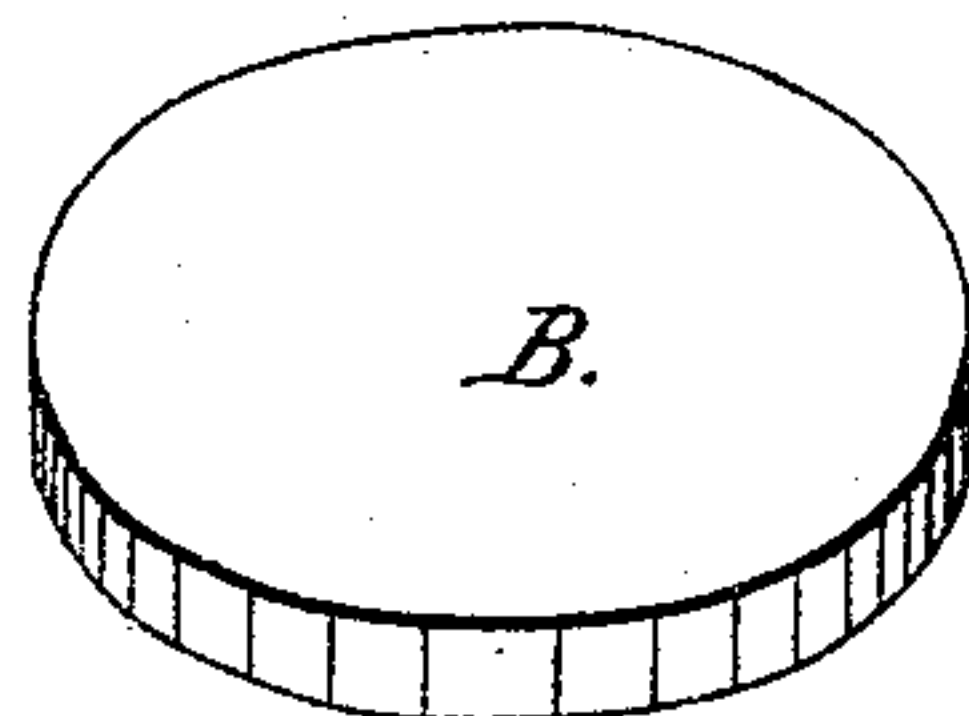
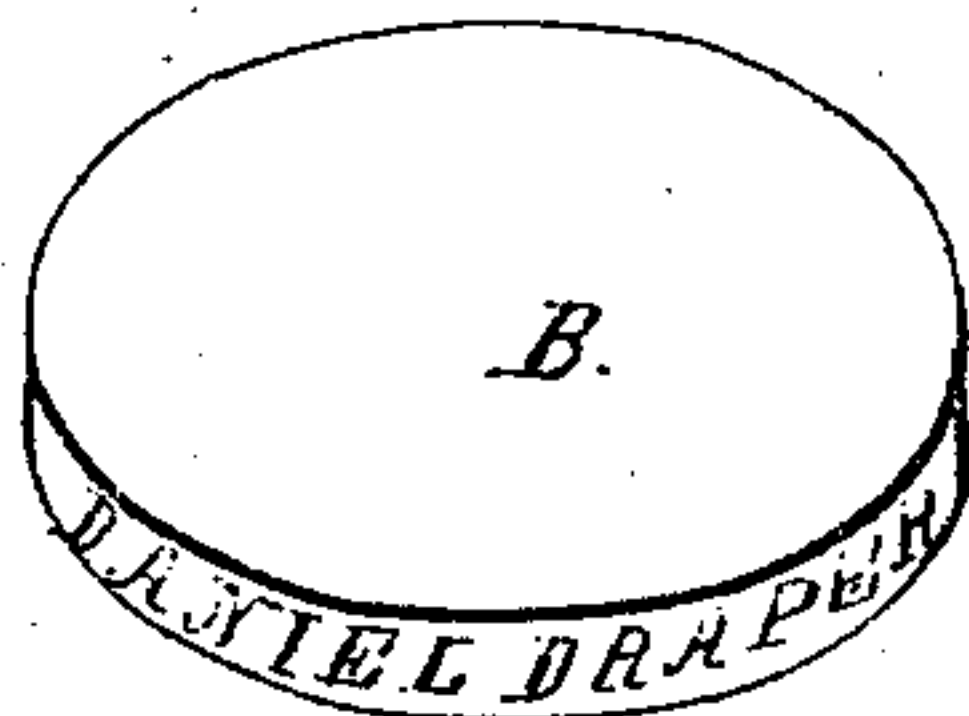


Fig. 5.



Witnesses,

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DANIEL A. DRAPER, OF CAMBRIDGE, MASSACHUSETTS.

Letters Patent No. 64,410, dated May 7, 1867.

IMPROVED DEVICE FOR FORMING LETTERS ON TYPE-BLOCKS.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, DANIEL A. DRAPER, of Cambridge, in the county of Middlesex, and State of Massachusetts, have invented an Improved Method of Producing Letters, Figures, etc., on the Edges of Type-Blocks for hand-stamps and for other purposes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of the block upon which are placed the sectional dies into which the edge of the type-block is pressed in order to produce the desired characters thereon.

Figure 2 is a central vertical section, representing the type-block in place, and the mechanism which I employ for imparting pressure thereto in a position ready for use.

Figure 3 is a perspective view of the clamping-nut for holding the sectional dies in place.

Figure 4 is a perspective view of the type-block before being submitted to pressure to form the characters upon its edge.

Figure 5 is a perspective view of the type-block with the required characters raised thereon.

Various means have been employed for producing letters, figures, etc., on the edges of type-blocks, among which may be enumerated the following, viz: They have been struck up on a strip of metal and then soldered into recesses provided for their reception in the type-block, and the characters have been cast in soft metal and electroplated, but when made in either of these ways they failed to possess the degree of durability or hardness required. A method styled "milling" has been employed, in which the wheel bearing the dies has been rolled over the edge of the type-block. By this method, however, the characters were very imperfectly formed. They have also been produced by a tool which acted upon the interior of a metal ring which was forced thereby into the die bearing the required impression, after which the ring was sprung over or soldered upon the central or solid portion of the block; and the characters have been engraved upon the block itself. But both of these methods consumed considerable time and were consequently very expensive.

To overcome the objections above mentioned is the purpose of my invention, which consists in forming the required letters, figures, etc., upon the edge of the type-block by pressure (applied in any direction and by any suitable means) to the sides or flat surfaces of the block, whether the metal be in a hot or cold state, it being forced or squeezed into the dies or cavities formed in sectional metal plates, which are securely held in place during the application of the pressure to the block, and, when the impression is made, may be readily separated to admit of its removal.

To enable others skilled in the art to understand and use my invention, I will now proceed to describe the manner in which I have carried it out.

In the said drawings A is a metal block secured immovably in place by screws or otherwise to a solid bed-piece. Upon the upper surface of the block A are placed the curved sectional pieces *a*, the inner edges of which bear the design of the letters, figures, or other characters to be formed on the metal type-block B, which is placed inside the space enclosed by the sectional pieces *a*, which serve as dies into which the edge of the type-block in a hot or cold state is forced to receive the impression. Near the upper end of the block A is formed a screw-thread, *b*, over which fits a corresponding thread cut on the inner surface of a nut, C, which is made slightly conical or tapering inward from the point *c* to the point *d*, in order that when the nut is screwed down upon the block A this conical portion *c d* will be brought in contact with the outside of the sectional pieces *a*, and wedge or forcibly bind them around the type-block B, and thus securely clamp them in place so as to effectually resist any tendency to spread or separate them when pressure is being applied by the piston or plunger D upon the flat or side surface of the type-block. The diameter and height of the interior from *e* to *e* of the clamping-nut C is made to conform exactly to the outer diameter of the sectional dies *a* when closed around the block B, that they may be prevented from yielding laterally or vertically when the pressure is being applied. When the impression is formed the clamping-nut C is unscrewed, thereby allowing the sectional dies to be separated from the type-block B to admit of its removal. A drop-press, hammer, screw, or hydraulic pressure may be employed to force the metal into the dies, and the pressure may be applied from below, or in any other desired direction, the position of the flat surface of the type-block being always at right angles thereto.

In the foregoing description I have spoken of producing characters upon the edges of metal blocks for hand-

stamps, but it is evident that the method above described may be applied for producing types on blocks for various other purposes without departing from the spirit of my invention.

Claim.

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

The combination of the within-described devices for producing letters, figures, etc., upon the edges of type-blocks for hand-stamps and other purposes, substantially as set forth.

DANIEL A. DRAPER.

Witnesses:

P. E. TESCHEMACHER,
N. W. STEARNS.