

T. S. Hudson,

Die for Forming Letters on Edges of Type Blocks.

N^o 76,460.

Patented Apr. 7. 1868.

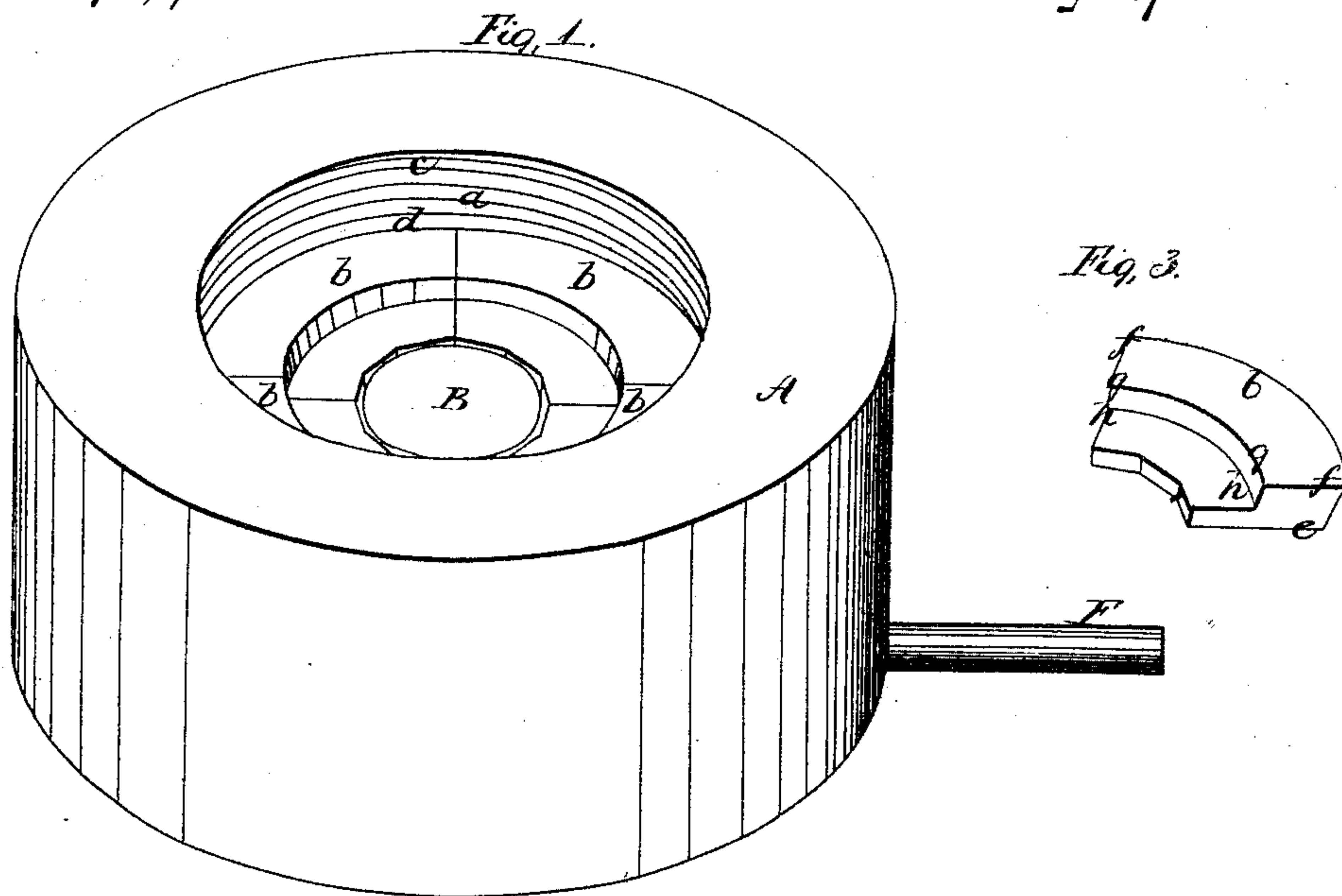


Fig. 3.

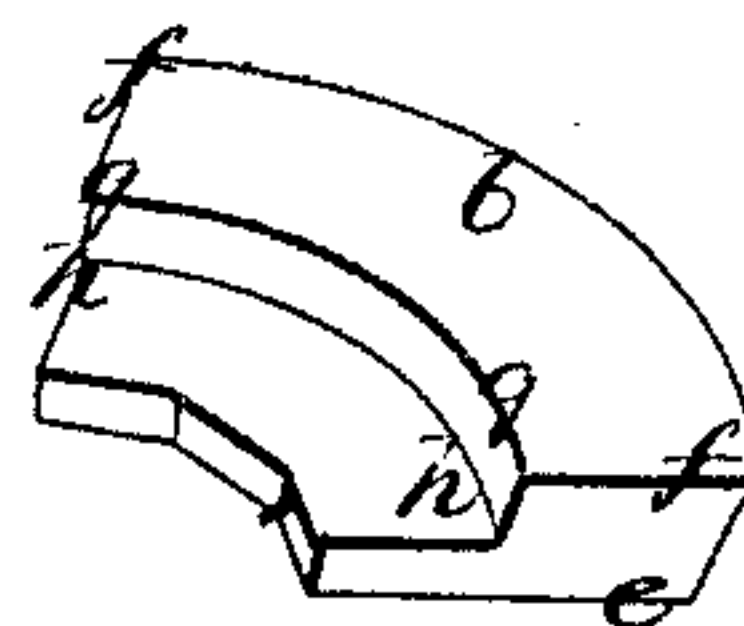


Fig. 2.

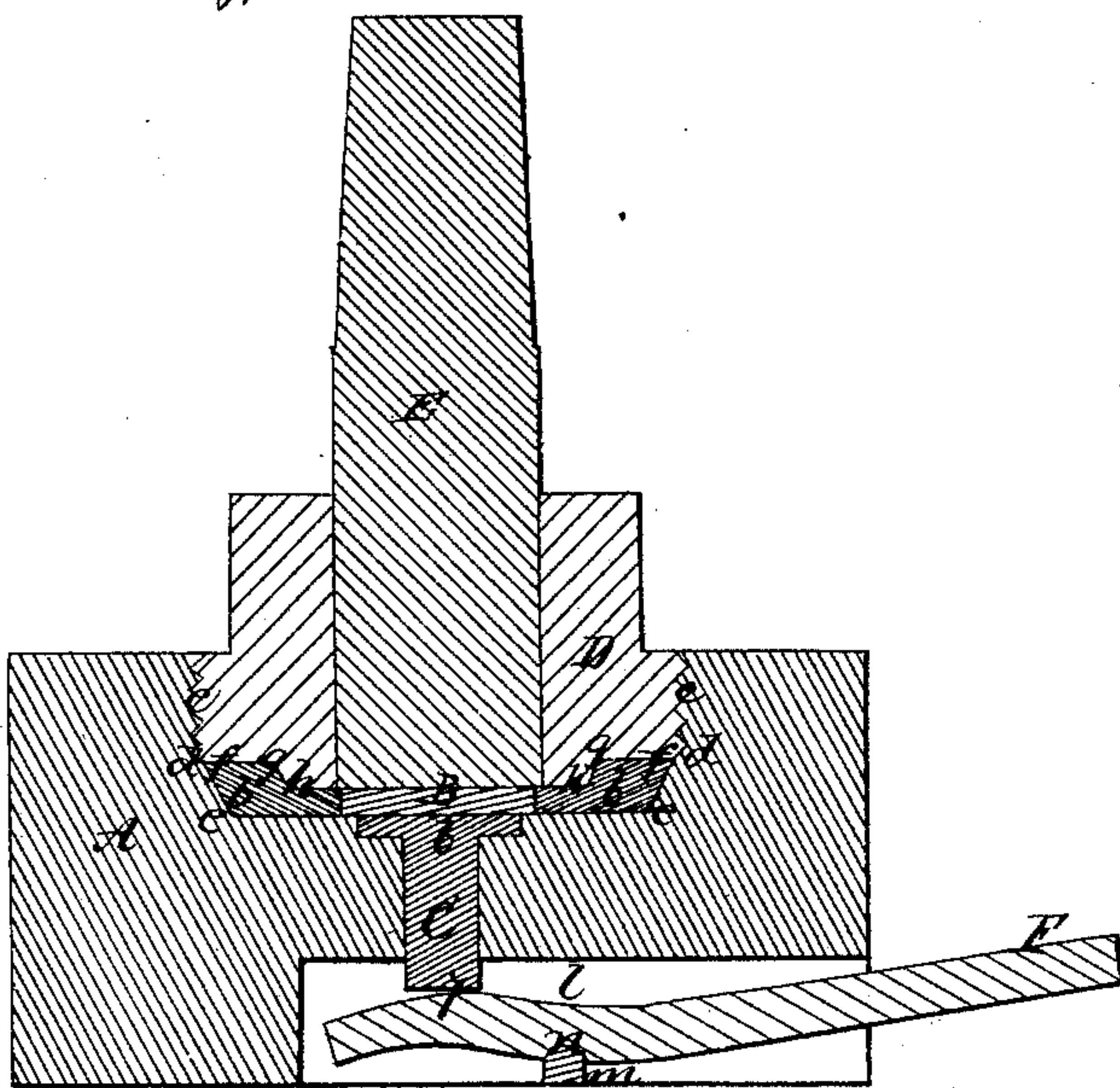
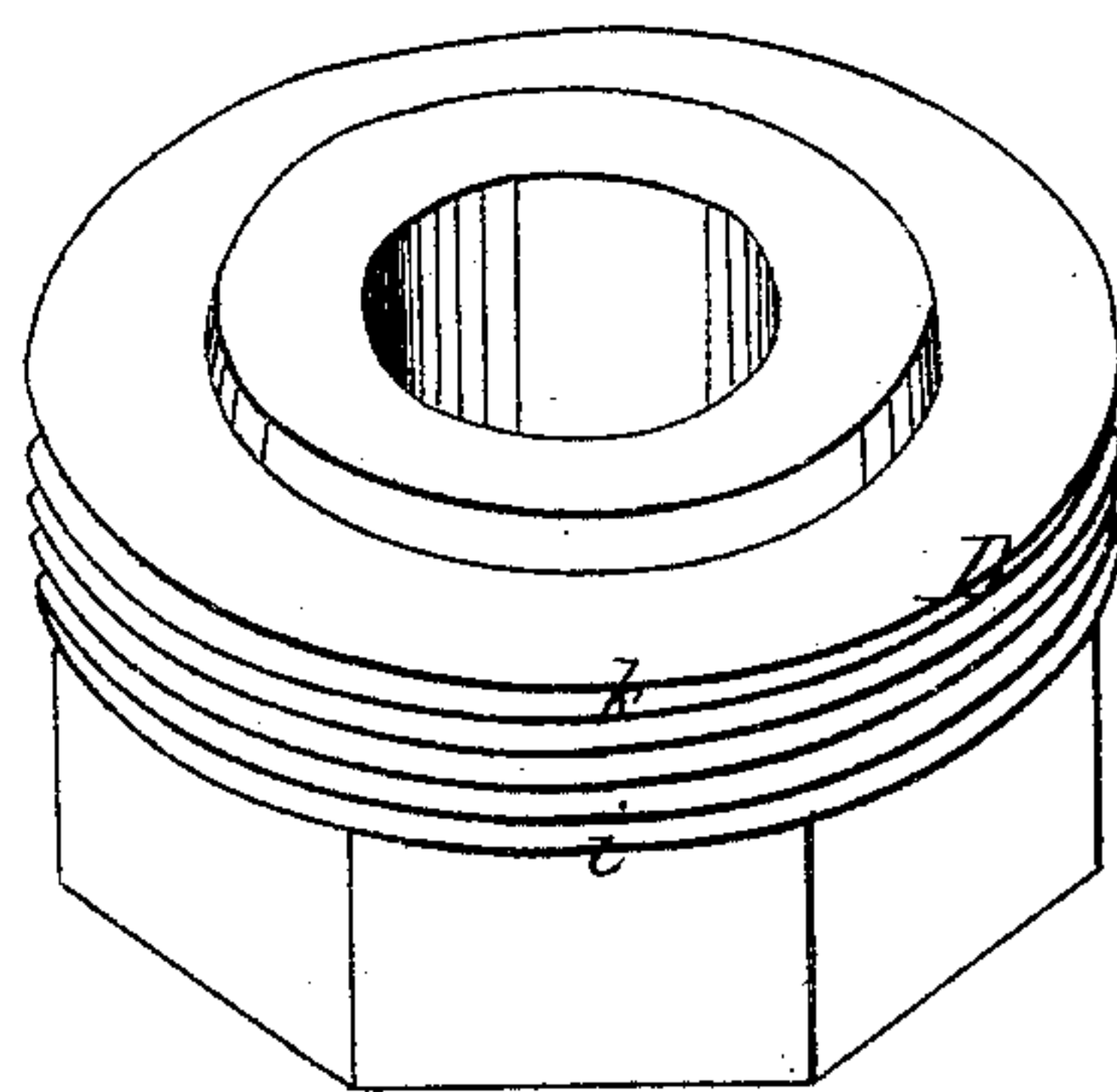


Fig. 4.



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THOMAS S. HUDSON, OF EAST CAMBRIDGE, MASSACHUSETTS.

Letters Patent No. 76,460, dated April 7, 1868.

IMPROVEMENT IN DIES FOR FORMING LETTERS AND FIGURES ON THE EDGES OF 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, THOMAS S. HUDSON, of East Cambridge, in the county of Middlesex, and State of Massachusetts, have invented certain Improvements in Dies for Forming Letters, Figures, &c., on the Edges of Type-Blocks and other pieces of metal, 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 for containing the sectional dies, into which the edge of the type-block is to be pressed to receive the desired characters thereon.

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

Figure 3 is a perspective view of one of the sectional dies detached.

Figure 4 is a perspective view of the type-block, with its characters raised thereon.

My invention relates to that class of apparatus by which letters, figures, and other characters are produced on the edges of type-blocks by blow or pressure, the metal block being expanded or forced out laterally into a series of sectional dies surrounding it. My invention consists in a series of sectional dies, of peculiar construction, with the block for supporting them, in combination with a hollow screw-nut and a piston or compressor; and also, in connection with the above, my invention consists in a device for loosening and raising the type-block (after receiving its impression) from the sectional dies, to facilitate its removal.

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

In the said drawings, A is a metal block, secured immovably by screws or otherwise to a solid bed-piece. Within the interior of the upper portion of this block is formed a recess or opening, *a*, (fig. 1,) for the reception of sectional dies *b b b b*, the inner edges of which bear the design of the letters, figures, or other characters, to be impressed on the metal type-block B. This type-block rests upon the cylindrical head 6, of a spindle or rod C, which extends down centrally through an opening in the lower portion of the metal block A, the head, 6, of the spindle being carefully made to fit snugly therein, so that their surfaces may be flush with each other. A screw-thread, *c*, extends from the upper surface of the block to a point, *d*, in its opening *a*, which then inclines inward down to a point, *e*, in the horizontal plane forming the surface at the bottom of the opening, upon which the lower sides of the sectional dies bear, the side of each die corresponding to the inclination of the opening from *d* to *e*, so that when the dies are in place they are brought closely together, and form a continuous circular band.

The upper surface of each die is horizontal from *f* to *g*, at which point it inclines slightly inward and down to the point *h*, the remainder of its upper surface from this point (*h*) being horizontal, as shown in fig. 2. D is a hollow screw-nut, its thread from *i* to *k* fitting into the thread *c* to *d*, extending around the inside of the upper portion of the block A, while the lower portion of this nut is of the exact conformation as the upper surface of the dies when fitted together in place, the nut being turned by a wrench or otherwise, so as to force its lower surface snugly and truly down upon the upper surface of the dies and that of the block, to securely hold them in place while the piston or compressor E (passing through the hollow screw-nut) is brought down upon the upper side of the type-block to flatten it out laterally into the sectional dies to receive the desired impression. The under side of the block A is cut away from its outer edge to a point a little beyond its centre, forming a slot, *l*, to allow a lever, F, to be vibrated slightly in a vertical direction therein. Across the slot extends a bar, *m*, which serves as a fulcrum upon which the lever turns, the under side of which is cut away at *n* to fit the upper surface of the bar, and thus be kept upon its fulcrum when operated. The upper end, 7, of the lever F rests against the bottom of the spindle, on which the cylindrical head is formed. After the impression has been struck, the screw-nut C is turned out of the block A, and the lever E being pressed down by the hand of the operator, the circular head, 6, of the spindle is pressed upward, thereby loosening and raising the type-block from its surrounding dies.

Claim.

What I claim as my invention, and desire to secure by Letters Patent, is—
The combination of the sectional dies *b b b b* and block A, spindle *c*, screw-nut D, and compressor or piston E, and lever L, the whole constructed and arranged substantially as and for the purpose set forth.

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