

N. L. CHAMBERLAIN.
Die for Raising Letters on Type Wheels.

No. 66,562.

Patented July 9, 1867.

Fig: 1.

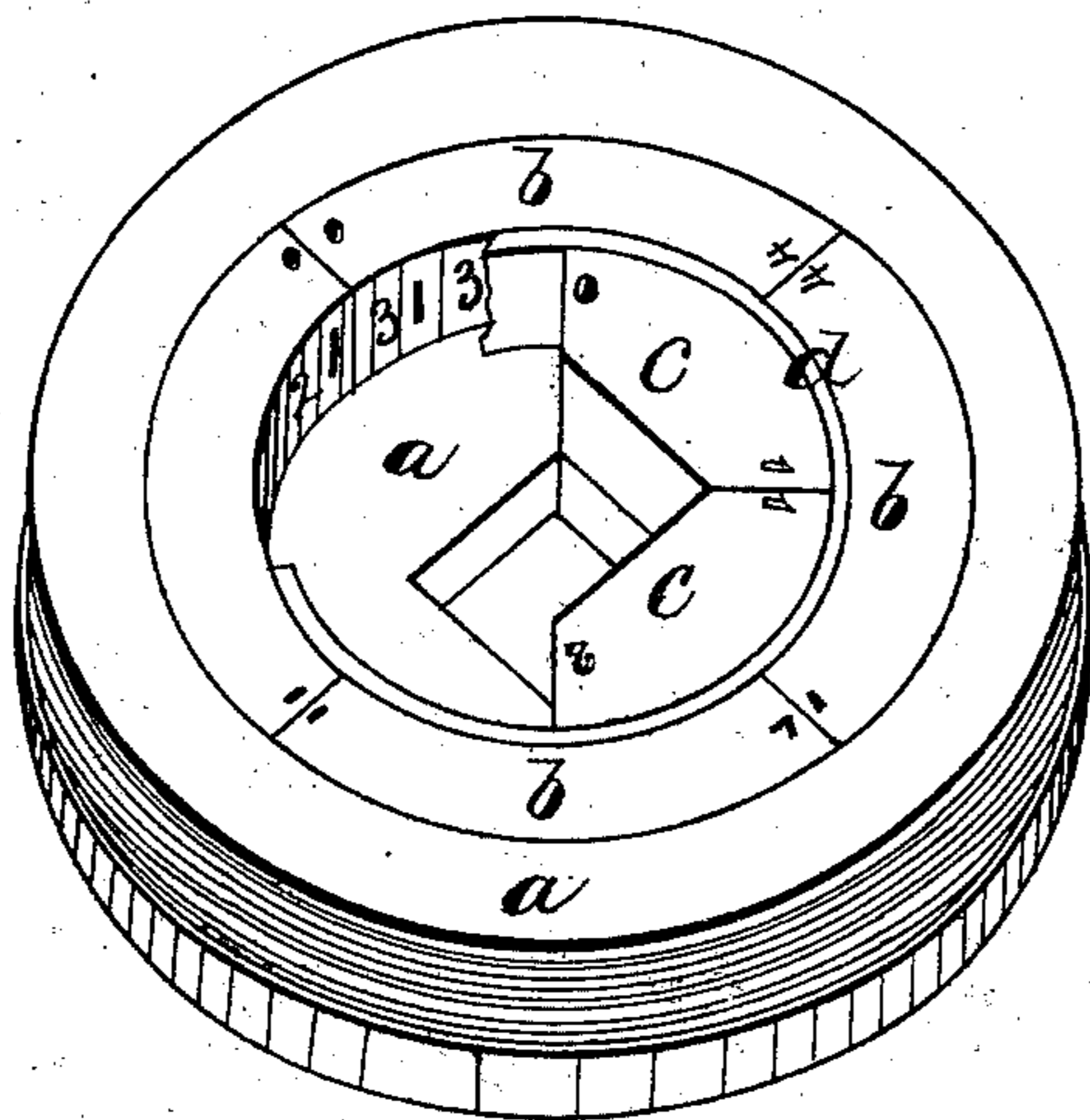


Fig: 4.

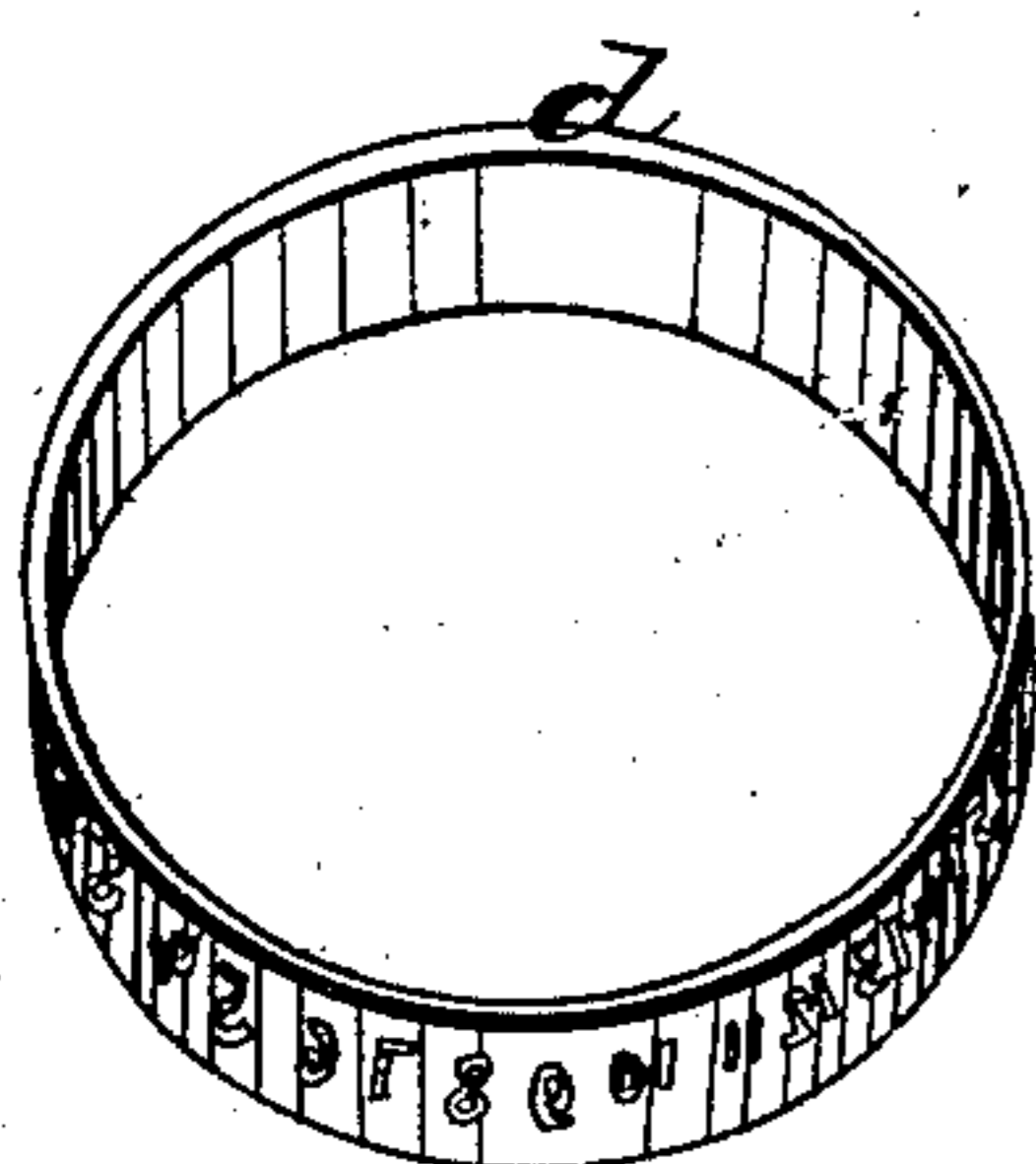


Fig: 2.

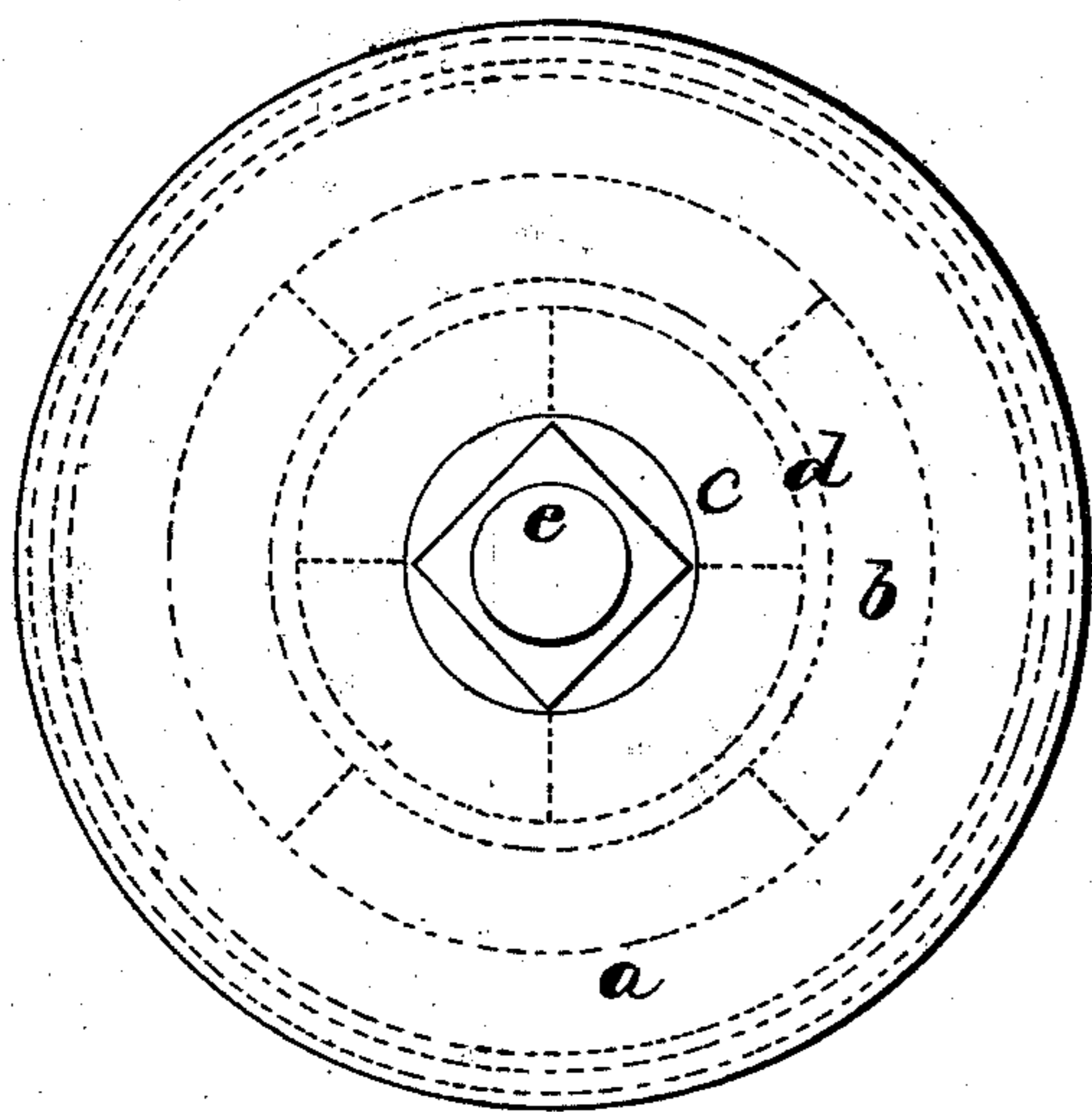
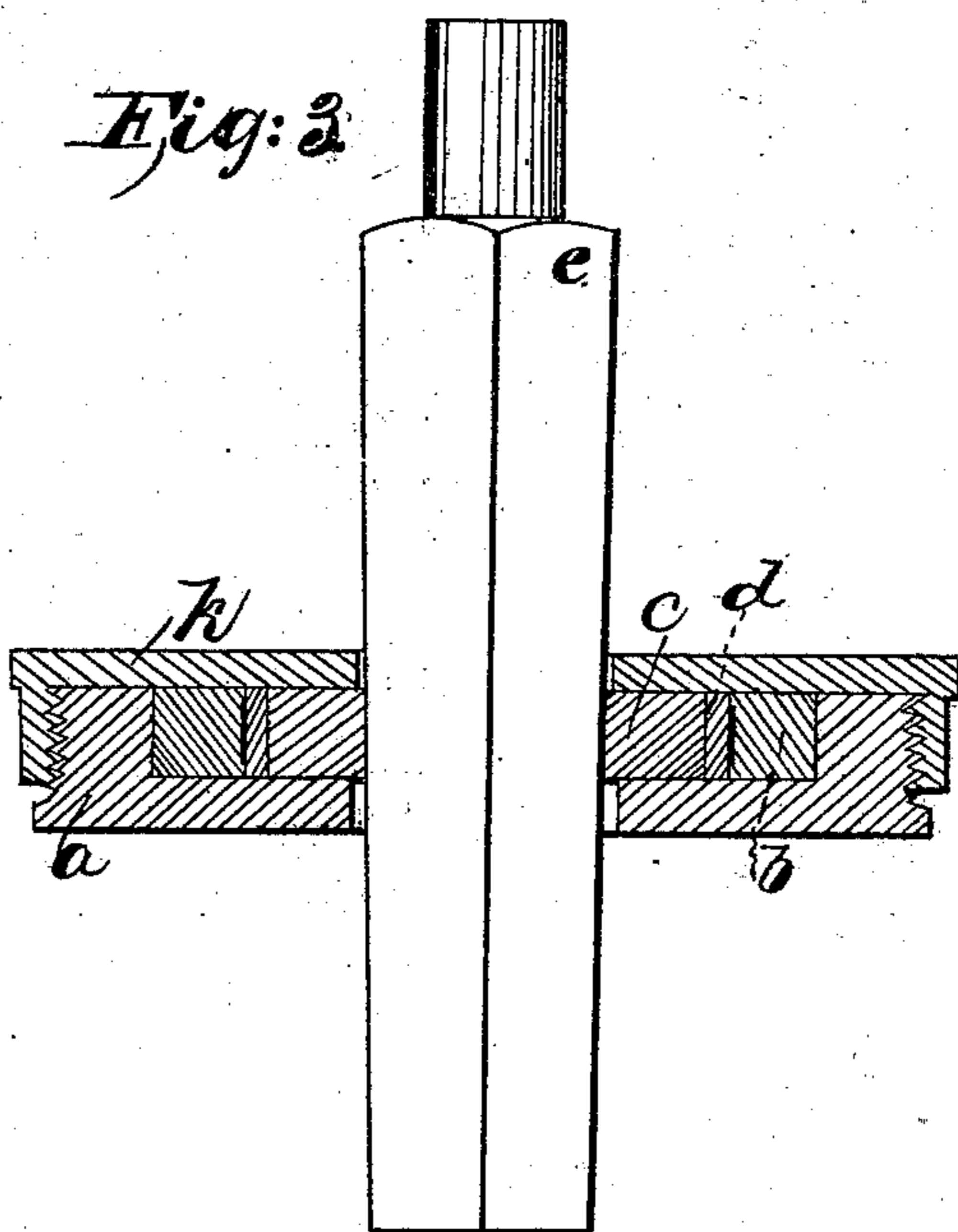


Fig: 3.



Witnesses:

Dexter H. Chamberlain
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Inventor:

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United States Patent Office.

NATHANIEL L. CHAMBERLAIN, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 66,562, dated July 9, 1867.

IMPROVED DIES FOR RAISING LETTERS ON TYPE-WHEELS.

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

Be it known that I, NATHANIEL L. CHAMBERLAIN, of Boston, in the county of Suffolk, and State of Massachusetts, have invented a new and improved Mode of Forming Letters or Figures on the Perimeter of Metallic Rings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a perspective view of a device for carrying out my invention.

Figure 2 is a plan view, with the cover removed.

Figure 3 is a transverse vertical section; and

Figure 4 represents a ring with figures formed on its face.

Similar letters indicate like parts in the several figures.

My invention is designed more particularly for forming figures or letters on the perimeters of numbering or dating-wheels used in a hand-stamp machine, though it may be employed for other purposes.

The object of my invention is to avoid the expense and labor of cutting or casting letters or figures on the perimeters of metal wheels or rings for printing the dates and numbers in hand-stamps. and the invention consists in forming the required letters or figures upon the said perimeters by means of a pressure applied from the centre of the rings or wheels, so as to force the outer surface of the same against or upon a corresponding surface of metal, in which are sunk the letters or figures to be formed upon the wheel.

Referring to the drawings, *a* represents a die-block formed of a solid piece of metal, with a circular space in the interior, and provided with an opening in the centre. *k* is a cover which fits tightly on the die-block, and is provided with a similar opening in its centre. *b b* represent circular segmental pieces or blocks of metal arranged within the die-block, and having sunk on their inner periphery a series of letters or figures. *d* represents a wheel or annulus, which may be made of brass or other suitable metal, upon which the letters or figures are to be formed, its outer face fitting closely in contact with the segmental blocks *b b*. The annulus *d* is designed to be attached to and form a part of the type-wheel used in hand-stamps. Within the wheel or annulus *d* are fitted four segmental blocks or pieces of metal *c c*. The inner faces of the segments *c c* correspond in form with the central opening in the die-block *a*; the opening in the said segments is made somewhat smaller than that of the die-block. *e* represents a plunger of a tapering form, as shown, to be inserted in the opening of the die-block and segments, and through which it is forced. The opening in the die-block and segmental pieces, instead of being square, may be circular, and the plunger be made to correspond with the same; and the ring *d*, instead of being of circular form, may be polygonal, and corresponding faces may be made on the segments *b*. The segments *c c* may be dispensed with, and the plunger *e* may be made sufficiently large to press directly upon the inner face of the ring *d*, the opening in the die-block being correspondingly enlarged.

The operation is as follows: The segments *b b* being properly arranged within the die-block, the ring *d* is fitted in the same, and within the ring are arranged the segments *c c*. The cover being then secured to the die-block, the plunger is inserted within the opening, its sides bearing at a point of its inferior diameter against the faces of the segments *c c*. Force is then applied to the upper end of the plunger, either by a heavy blow or by any gradual pressure, which forces the outer face of the ring *d* against the segments *b b*, and thus imparts to the said ring the forms of the letters or figures which are sunk on the said segments.

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

The combination of a tapering plunger, *e*, with the segmental blocks *b b*, arranged within a die-block, and having letters or figures sunk on their inner faces as described, and with or without the interposition of the inner segments *c c*, whereby, as the plunger is forced through the centre of the die, corresponding letters or figures will be formed on the outer face of a ring, *d*, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

NATH'L L. CHAMBERLAIN.

Witnesses:

DEXTER H. CHAMBERLAIN,

JOS. H. ADAMS.