

(No Model.)

H. P. FISKE.

METHOD OF FORMING METAL BLANKS FOR CAPPING NAILS.

No. 395,888.

Patented Jan. 8, 1889.

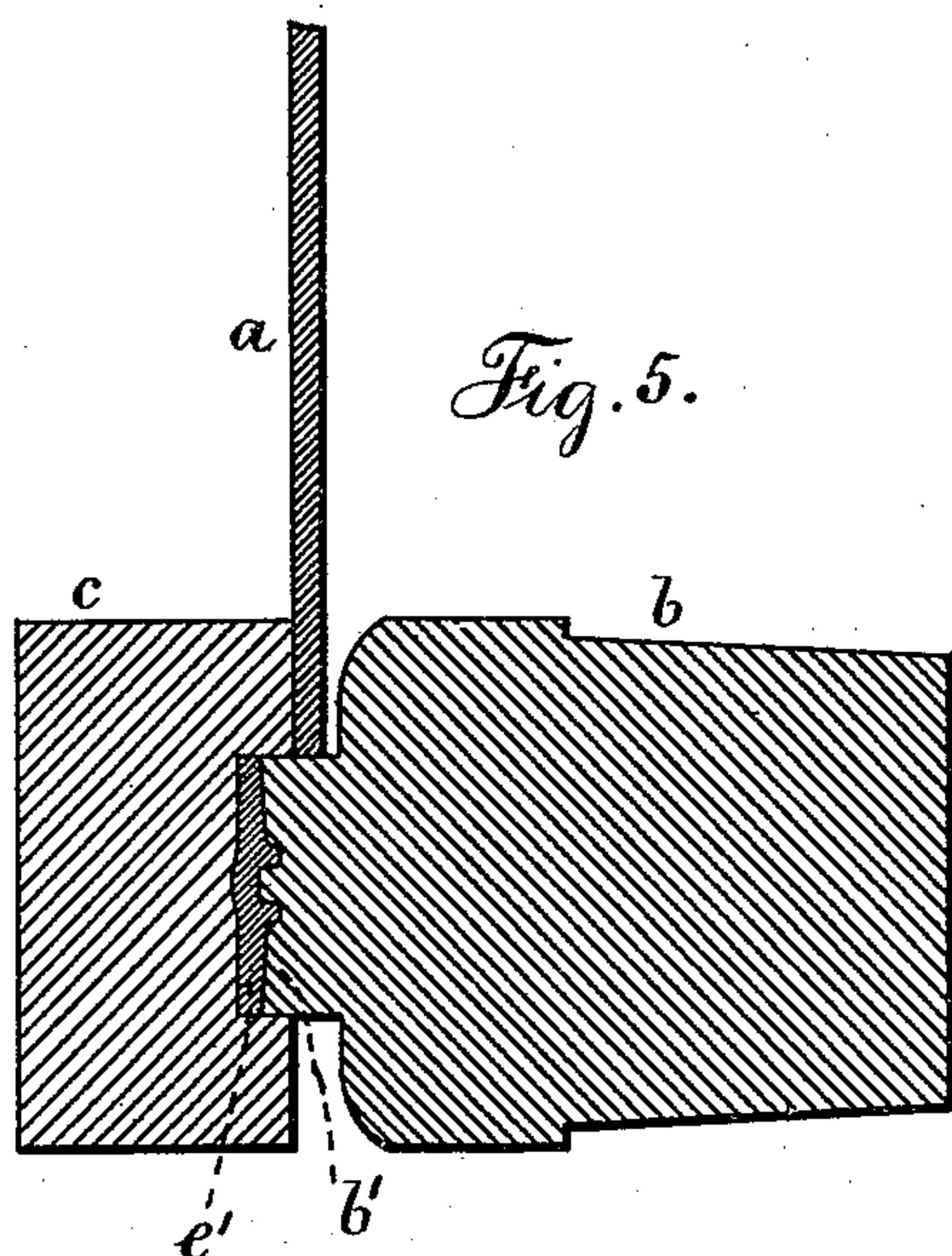


Fig. 5.

Fig. 4.

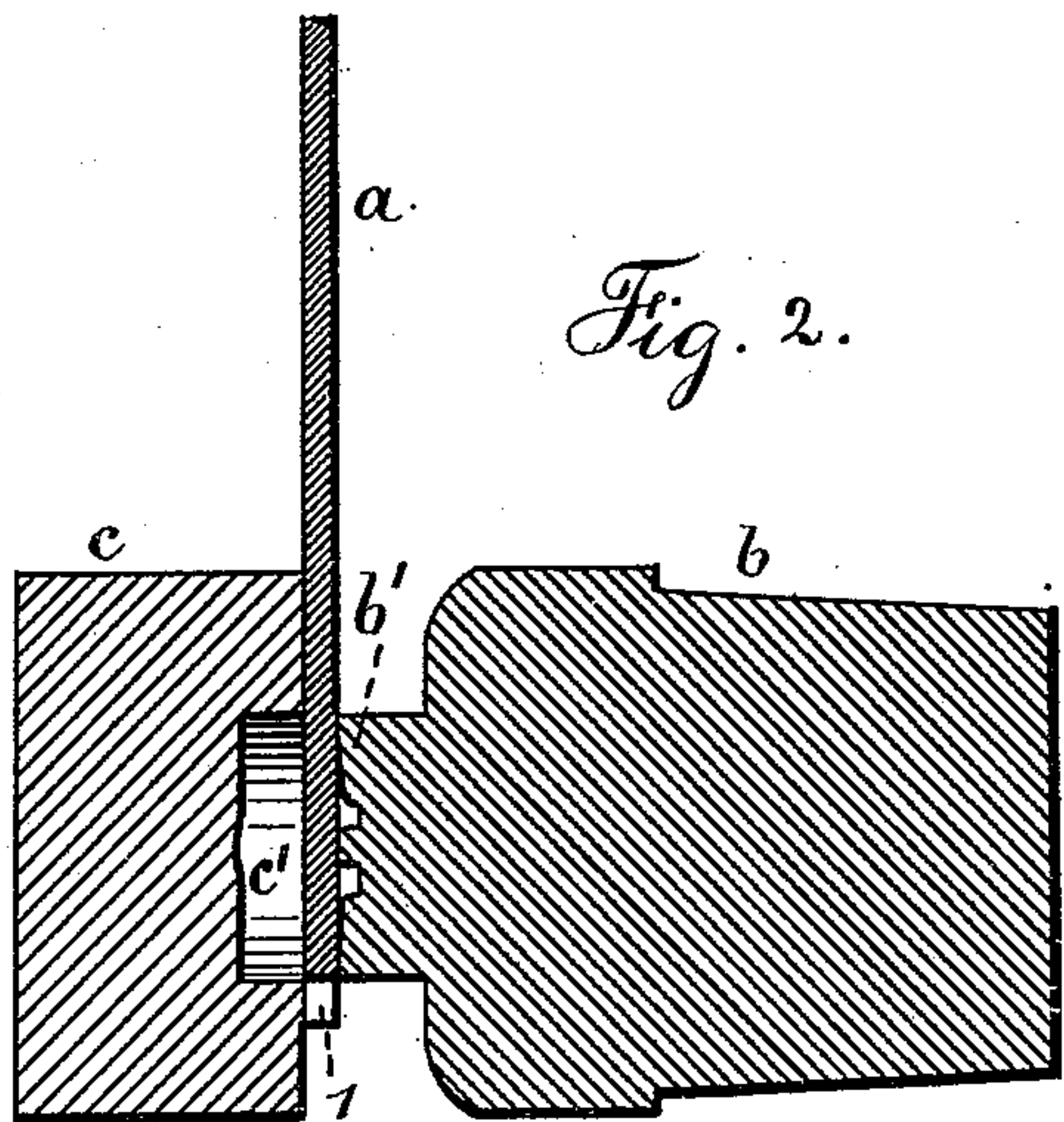
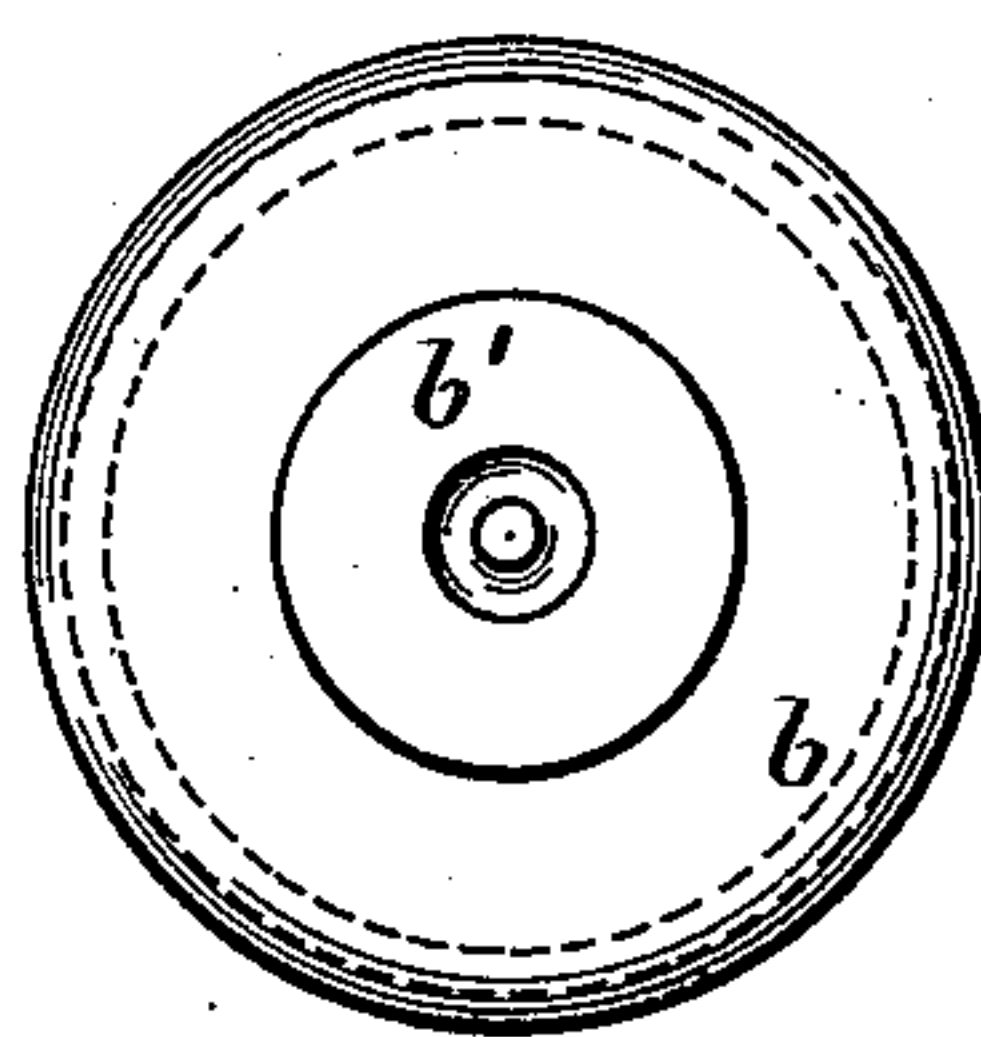


Fig. 2.

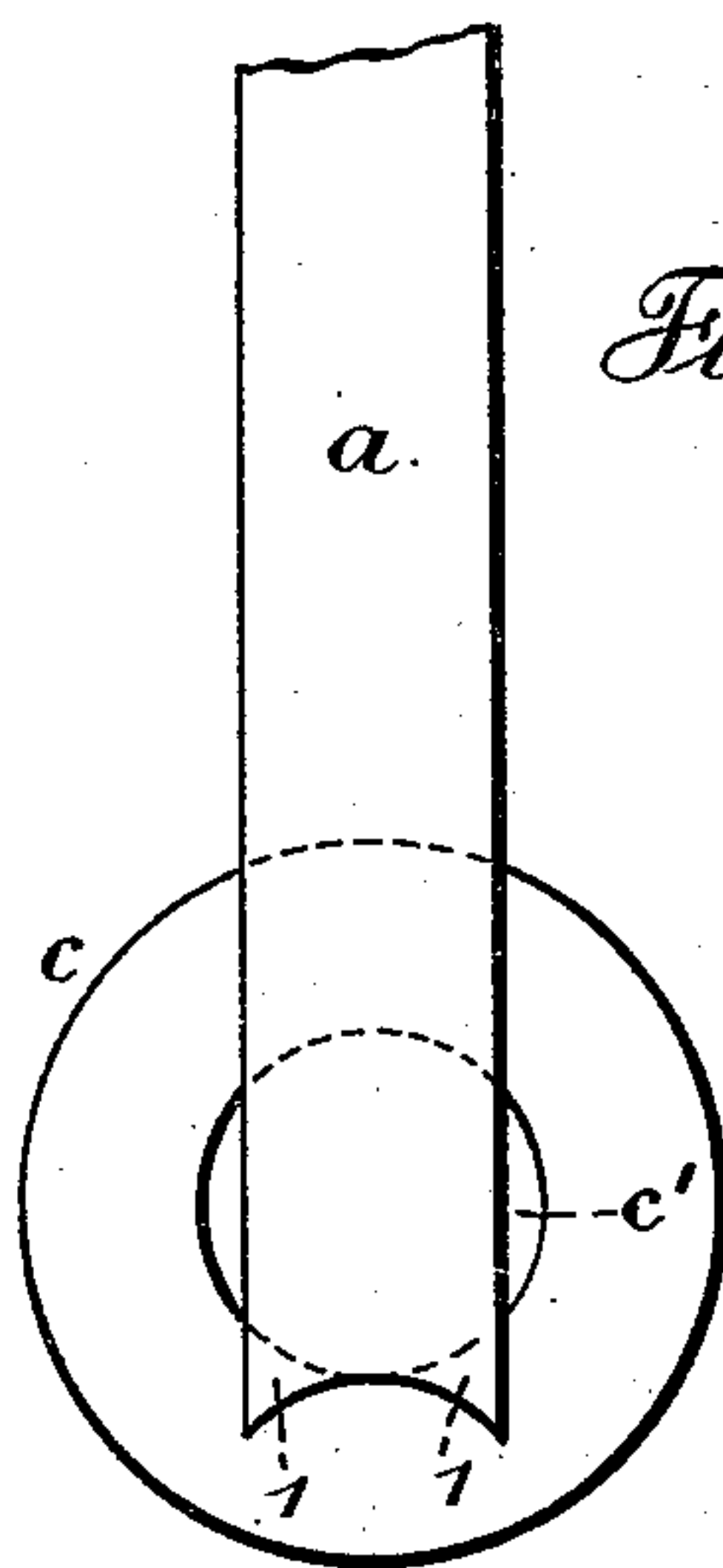


Fig. 1.

Fig. 3.

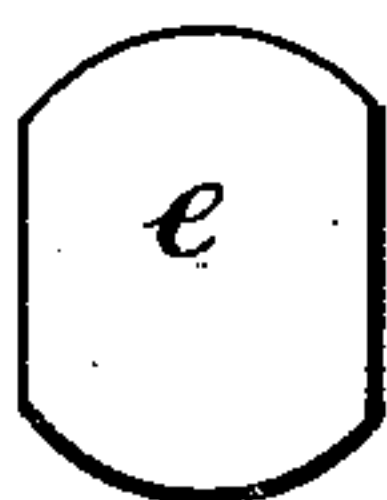
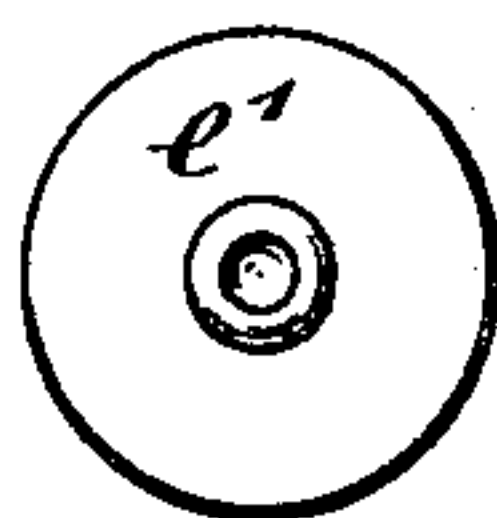


Fig. 6.



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UNITED STATES PATENT OFFICE.

HENRY P. FISKE, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE
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METHOD OF FORMING METAL BLANKS FOR CAPPING NAILS.

SPECIFICATION forming part of Letters Patent No. 395,888, dated January 8, 1889.

Application filed June 25, 1888. Serial No. 278,123. (No model.)

To all whom it may concern:

Be it known that I, HENRY P. FISKE, of Waterbury, in the county of New Haven and State of Connecticut, have invented an Improvement in the Method of Forming Metal Blanks; and the following is declared to be a description of the same.

My present improvement is adapted for use with a machine for making decorative nails, for which I filed an application for patent under date of September 23, 1887, Serial No. 250,472, which application was duly allowed April 13, 1888.

In the method of forming metal blanks before my present invention it was usual to cut said blanks either from a strip of metal which was wider than the blank when cut or to cut said blanks from a sheet of metal, in either of which cases there was a good deal of surplus metal forming scrap which it was necessary to remelt and roll for further use.

The peculiarity of my present improvement in the method of forming metal blanks consists, essentially, in cutting the metal blanks from a strip of metal that is narrower than the diameter of the finished blank, and in the carrying out of my improvement I employ a die and matrix for cutting and forming the blank, the recess in the matrix being about as deep as the thickness of two blanks, the die in entering the matrix cutting the blank, and when the same brings the blank up against the base of the depression said blank is spread to completely fill the opening in the matrix, and is made thinner by the spreading operation, and an annular rib is formed on one face of the finished blank.

My improvement relates especially to blanks from which are formed decorative nails; but blanks for any other purpose may be cut in the same manner.

In the drawings, Figure 1 is a front elevation of the strip of metal and the face of the matrix. Fig. 2 is a longitudinal section of the die, matrix, and strip of metal just before the cutting of the blank. Fig. 3 represents separately the blank cut. Fig. 4 represents the face of the die, and Fig. 5 a longitudinal

section of the die and matrix and strip of metal and the completely-formed blank. Fig. 6 is an elevation of the finished blank.

a represents the strip of metal; *b*, the body portion of the die, and *b'* its cutting-face. *c* represents the matrix, and *c'* the depression in the same. *e* represents the cut blank, and *e'* the finished blank.

By reference to Fig. 1 it will be seen that the width of the strip of metal from which the blank is cut is considerably less than the diameter of the depression in the matrix, and also of the face *b'* of the die. In the operation of the parts I prefer, as shown in the drawings, to feed the strip of metal *a* vertically to the cutting device, which device, in making the cut, as will be seen from Figs. 1 and 2, separates the blank, like the one shown in Fig. 3, from the strip of metal *a*, forcing the same into the depression *c'*, the small triangular points at 1 constituting the waste or scrap. The further movement of the matrix *c* against the die *b* forces the blank *e* to the bottom of the depression *c'*, the movement of the parts being continued to compress the blank and spread the same in the depression *c'* until it completely fits the same into the shape shown in Fig. 6, the finished blank being thus made thinner, and also the metal, by compression, harder. The finished blank may be pushed out of the depression in the matrix in any desired manner preparatory to other blanks being cut and finished.

I have shown in Figs. 2, 4, and 5 the face of the die with an annular depression which serves to form the annular rib on one face of the finished blank; this being adapted to receive the nail-head in forming decorative nails.

It is apparent that in my present improvement there will be very little waste metal or scrap requiring remelting for further use.

I am aware that bars of metal have been cut off to form blanks and carried into a die and spread laterally by pressure to fill the die; also, that in the manufacture of sheet-metal nail-heads dies have been used to cut out a full-sized blank, and then to form a circular rib or cup that receives the head of the nail.

In my present method the two operations are made use of so as to save material and facilitate the manufacture.

I claim as my invention—

- 5 The method herein specified of forming metal blanks, the same consisting in cutting a piece of metal by suitable dies from a strip or sheet of metal which is narrower in width than the finished blank, and then compress-

ing the blank and forming a circular rib upon one surface and simultaneously spreading the metal laterally to fill the die, substantially as specified.

Signed by me this 21st day of June, 1888.
HENRY P. FISKE.

Witnesses:

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