

F. HOLTHAUSEN,
Process of Making Partly Transparent Letters.

No. 220,904.

Patented Oct. 21, 1879.

Fig: 1

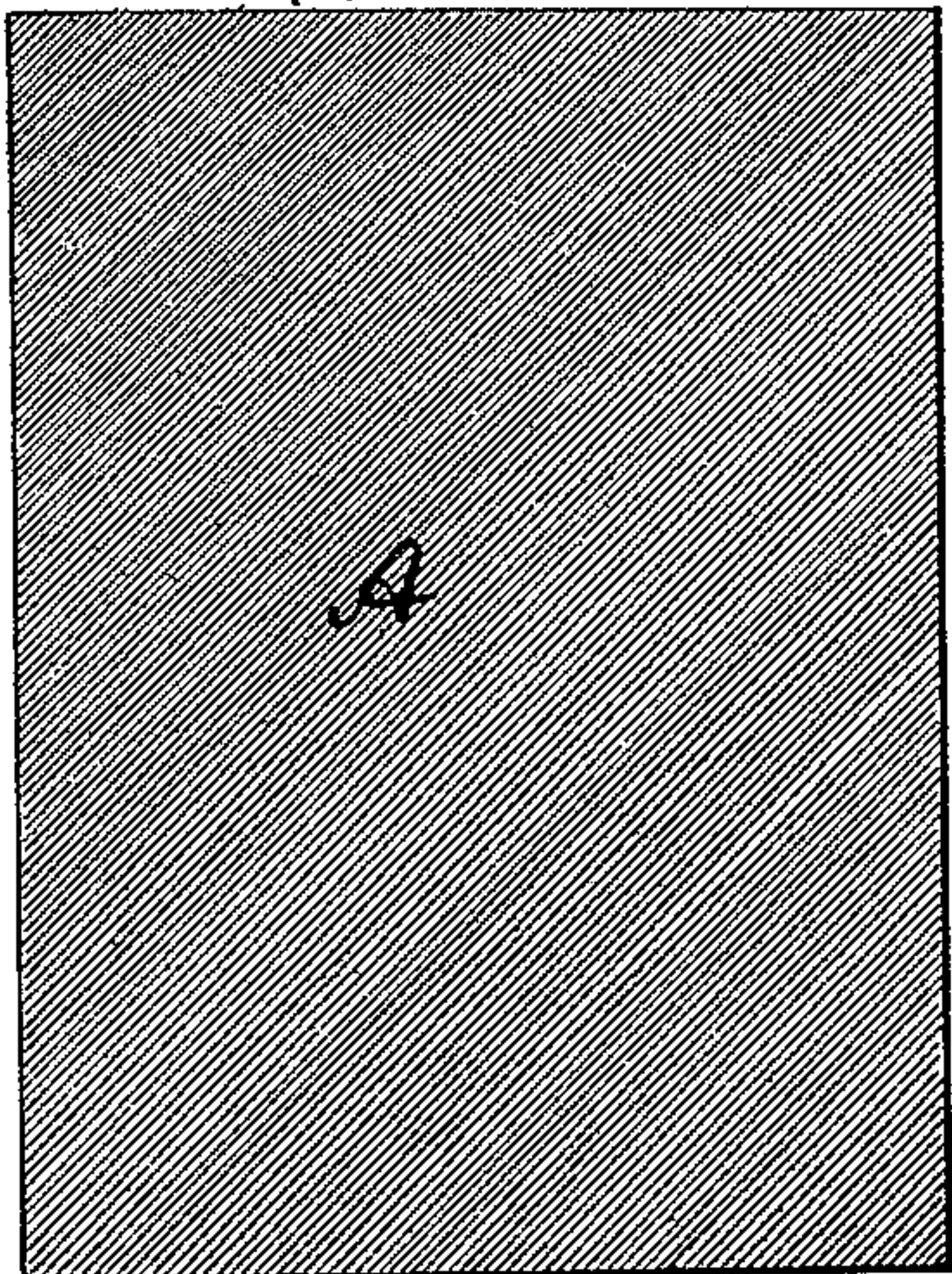


Fig: 2

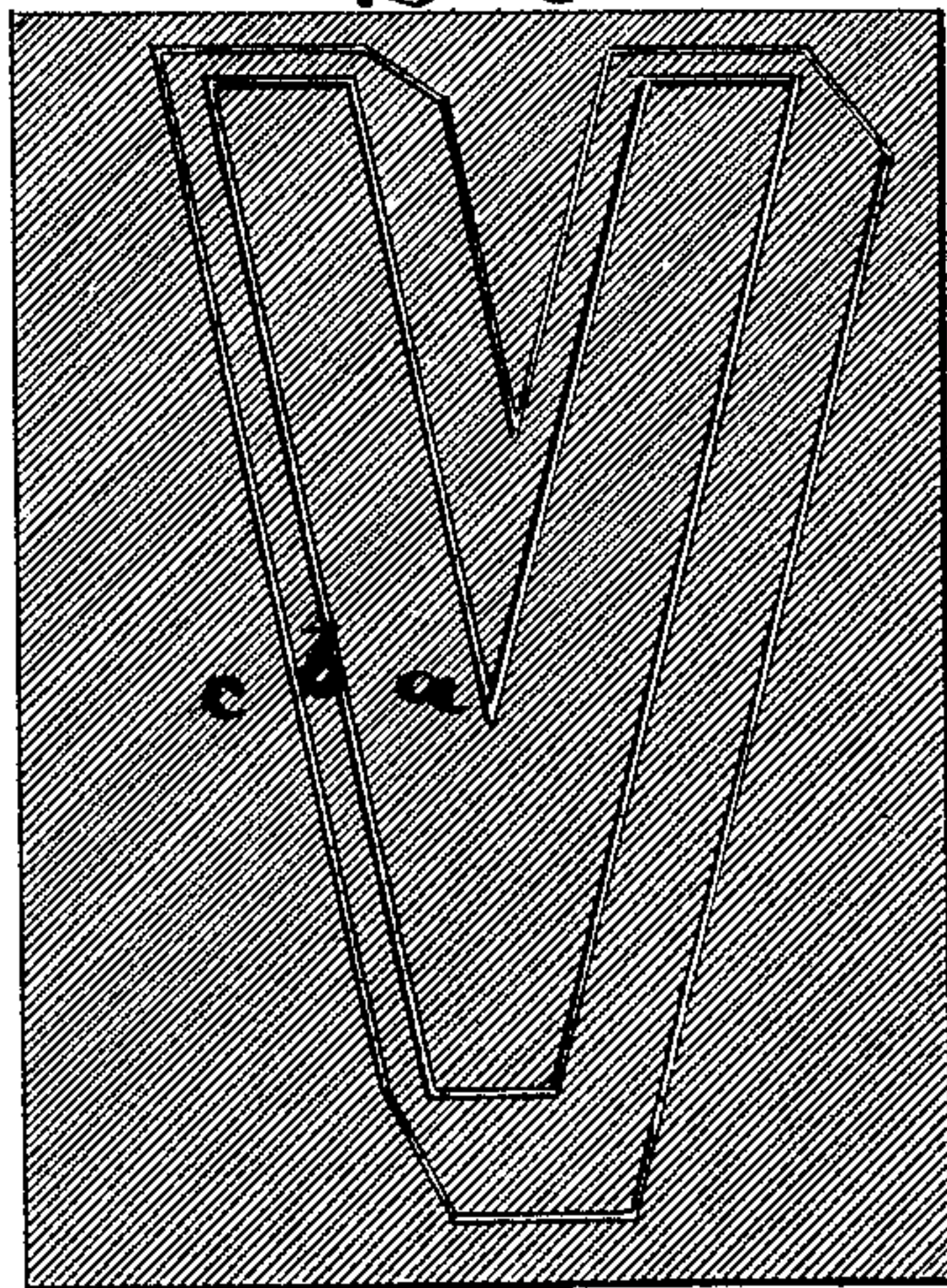


Fig: 3

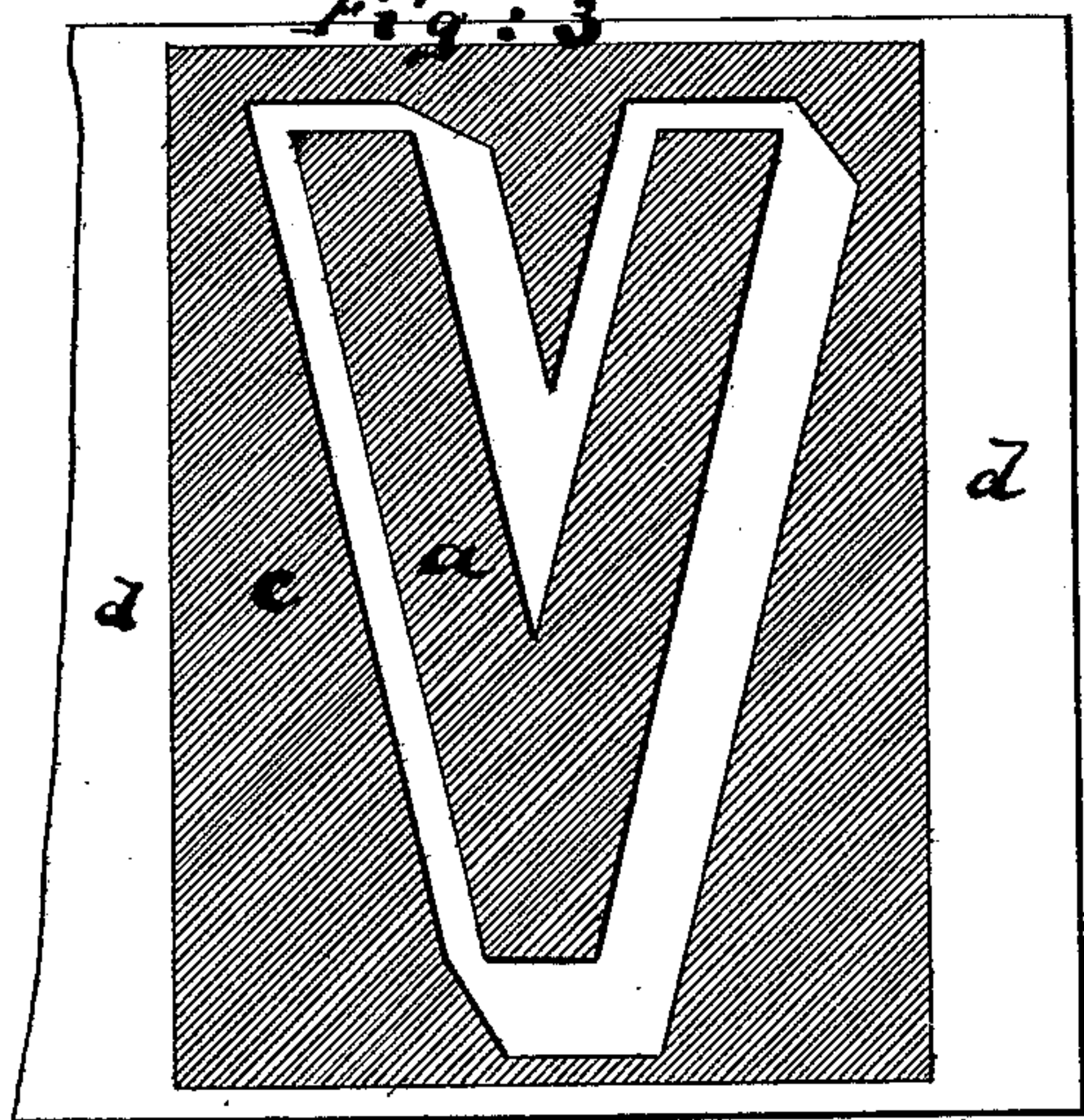


Fig: 4

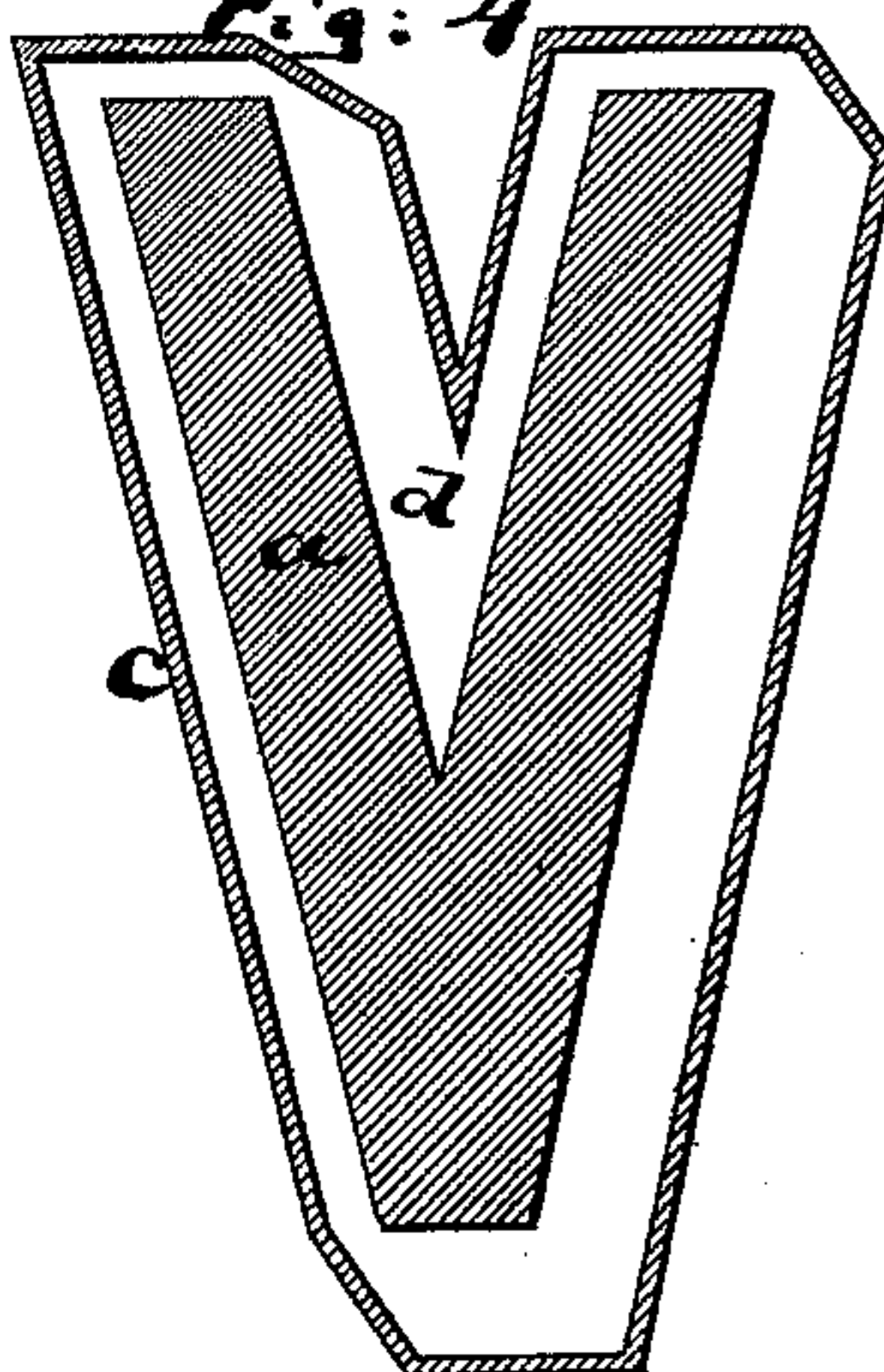


Fig: 6

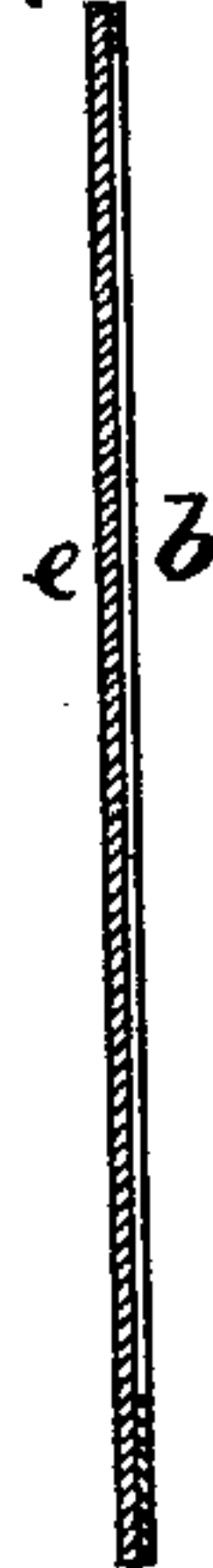
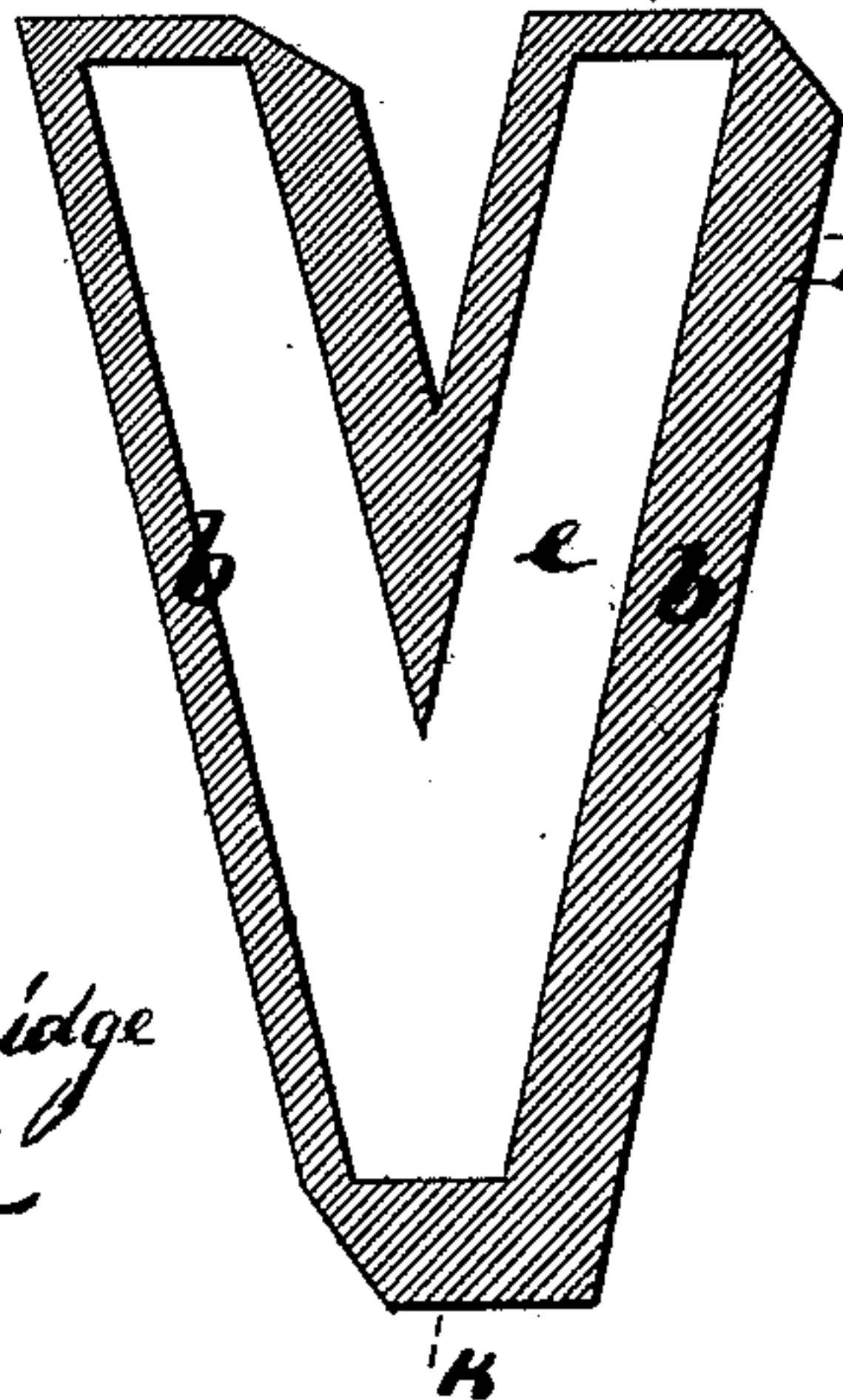


Fig: 5



Witnesses:

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UNITED STATES PATENT OFFICE.

FREDERIC HOLTHAUSEN, OF NEW YORK, N. Y.

IMPROVEMENT IN PROCESSES OF MAKING PARTLY-TRANSPARENT LETTERS.

Specification forming part of Letters Patent No. **220,904**, dated October 21, 1879; application filed June 16, 1879.

To all whom it may concern:

Be it known that I, FREDERIC HOLTHAUSEN, of New York, in the county and State of New York, have invented a new and Improved Process of Making Partly-Transparent Letters, of which the following is a specification.

This invention has for its object to economize labor and material in the manufacture of shaded transparent letters and characters to be applied to windows and other places.

The invention consists in cutting, from a piece of gold-paper or other material, by two simultaneous incisions and at one operation, the outline of the body, and also the outline of the border or shaded portion, of a letter, and in applying the two pieces thus obtained to two different sheets of mica or other material, in such manner that in one sheet the mica forms the body of the letter and the gold-paper the shaded part thereof, while in the other piece the gold-paper will constitute the body and the mica the shaded part of the letter, as will be hereinafter more fully described.

In the accompanying drawings, Figure 1 represents a face view of a piece of gold-paper or other material from which the letter is to be cut. Fig. 2 is a similar view, showing the two incisions in the gold-paper. Fig. 3 shows the gold-paper and the body of the letter applied to a piece of mica. Fig. 4 is a similar view, showing said piece of mica cut to the requisite shape. Fig. 5 is a face view of the letter formed by placing the shade portion of the gold letter on a piece of mica; and Fig. 6 is a longitudinal transverse section on the line *k k*, Fig. 5.

Similar letters of reference indicate corresponding parts in all the figures.

The letter A represents a sheet of gold-paper or other material from which a letter or character is to be cut. It is of suitable form and size. Into this piece A, I make two incisions of the shape of the letter or character desired, and of its shaded part. In the drawings I have shown the letter V to be thus formed; but it is evident that any other letter or character may be made in equal manner. By the two incisions I obtain three

pieces, *a*, *b*, and *c*. The piece *a* forms the body of the letter. *b* is the shaded part of a letter shaped like the body *a*, and *c* the remaining ground-piece. I now take two pieces of mica or equivalent substance, *d* and *e*. Upon the face of one piece, *d*, I gum first the ground-piece *c* of the gold-paper, and within the opening of such ground-piece I affix upon the mica the body portion *a*, cut out as heretofore specified. Between the inner edge of the piece *c* and the body *a* a space is left, (corresponding in size to the piece *b*,) which is formed of the mica *d*. I now cut the piece *c* and the mica down to the outline of the letter desired, as shown in Fig. 4.

It will be seen that the letter thus formed is made of gold-paper, while the shading is of mica, which may be suitably tinted.

Upon the other sheet, *e*, of mica I gum the shade portion *b*, cut out as above described, and then I cut the sheet of mica down to the exact size of the piece *b*. A letter will now be formed whose body is formed of mica, while its shaded portion is formed of gold-paper.

The two letters, made as above described, are readily manufactured, and require but a small quantity of material.

It will be perceived that by my invention I produce two letters, of which one may be termed "positive," being formed by the body *a* of the gold-paper, and the other "negative," its form being suggested by the inner edge of the piece *b*.

The two letters do not require more material for their production, as regards the gold-paper, than one alone would require.

I claim —

The process herein described of making the body and shaded portions of letters, which consists in first cutting the pieces *a*, *b*, and *c* from a piece of gold-paper or other material by two simultaneous incisions, and then using the pieces *a* and *c* for one letter and the piece *b* for another letter, substantially as specified.

FR. HOLTHAUSEN.

Witnesses:

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