

No. 632,988.

Patented Sept. 12, 1899.

C. W. COOK.

METHOD OF PRODUCING TABLEWARE FROM SHEET METAL BLANKS.

(Application filed June 26, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1

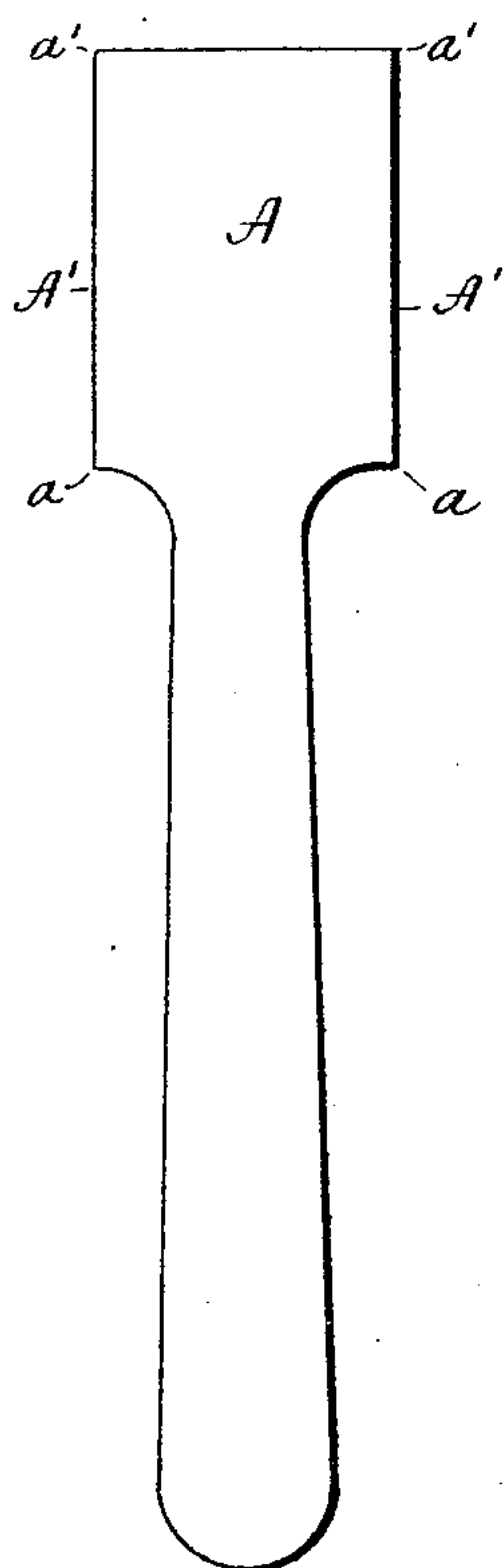


Fig. 2

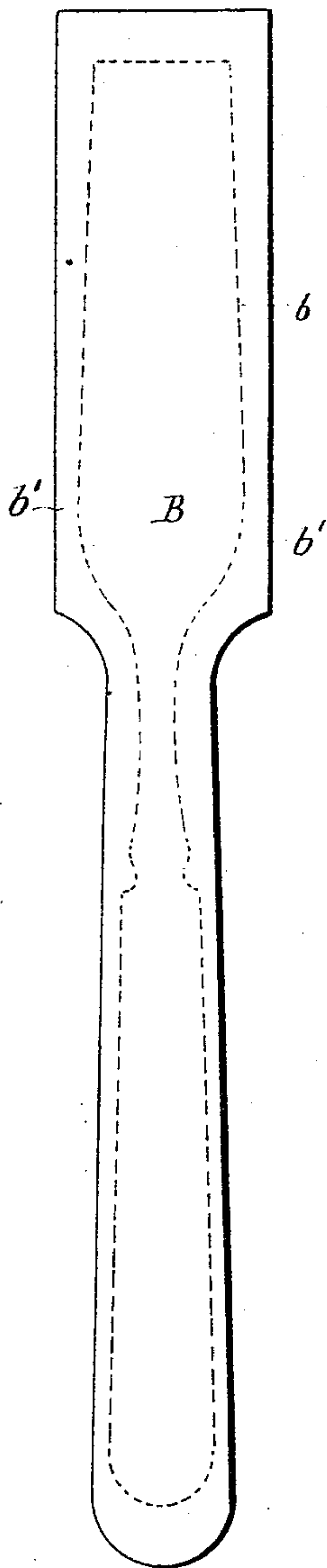


Fig. 3

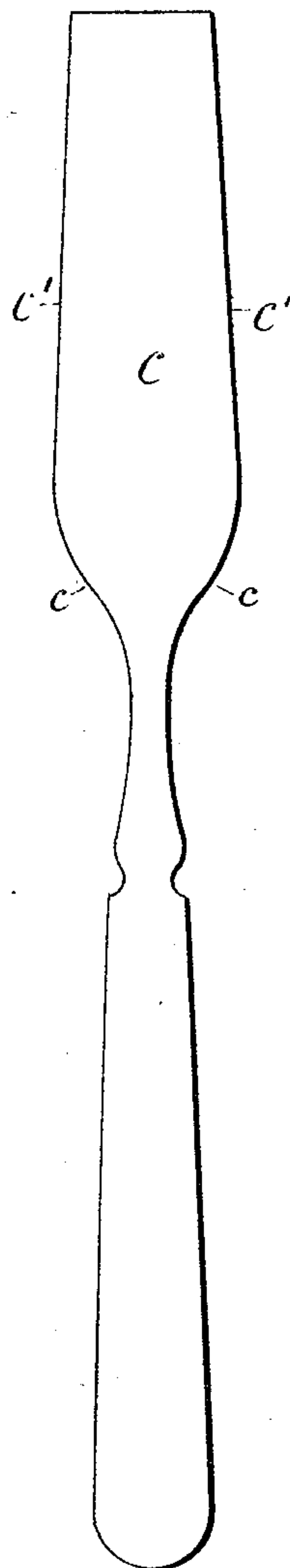


Fig. 4

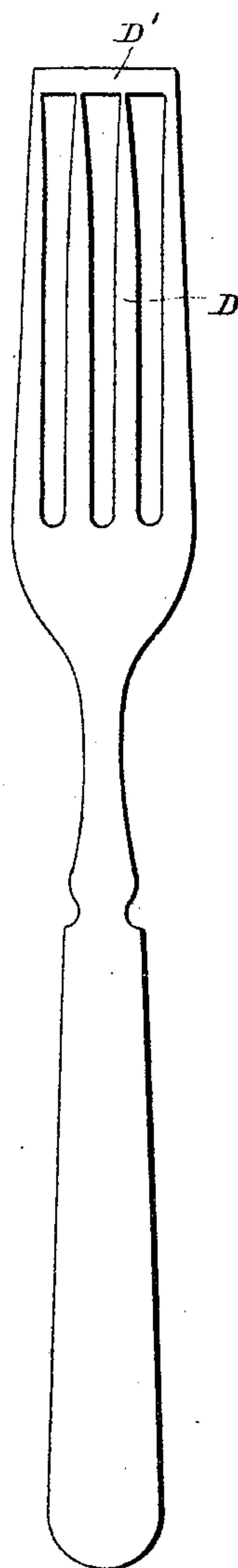
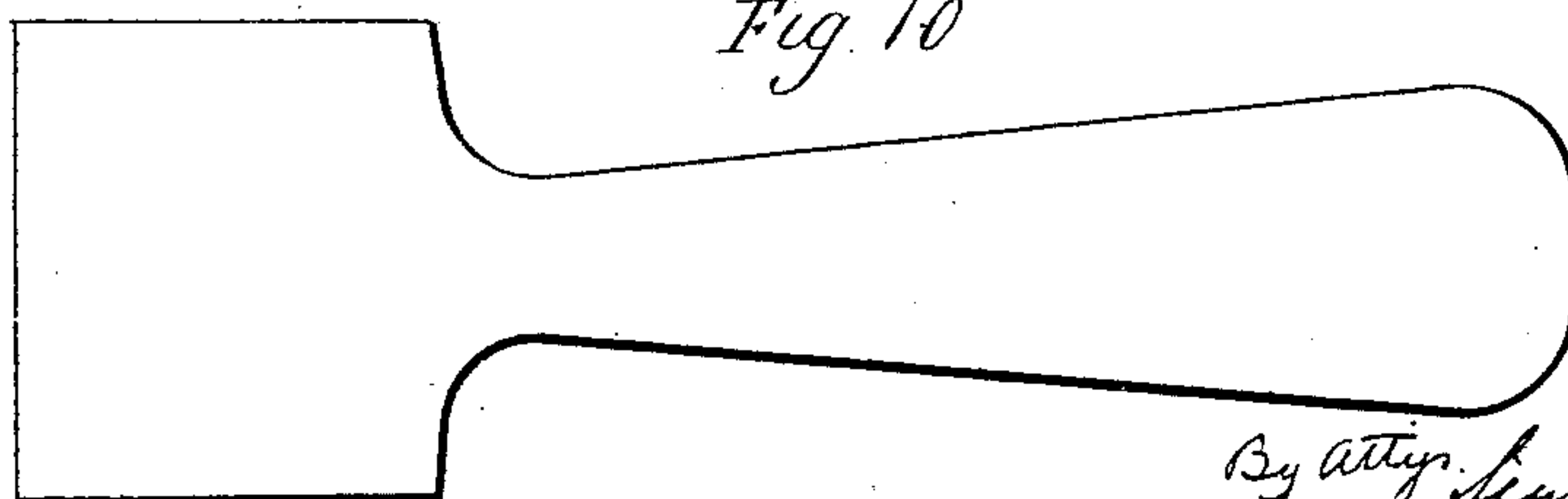


Fig. 10



Witnesses.  
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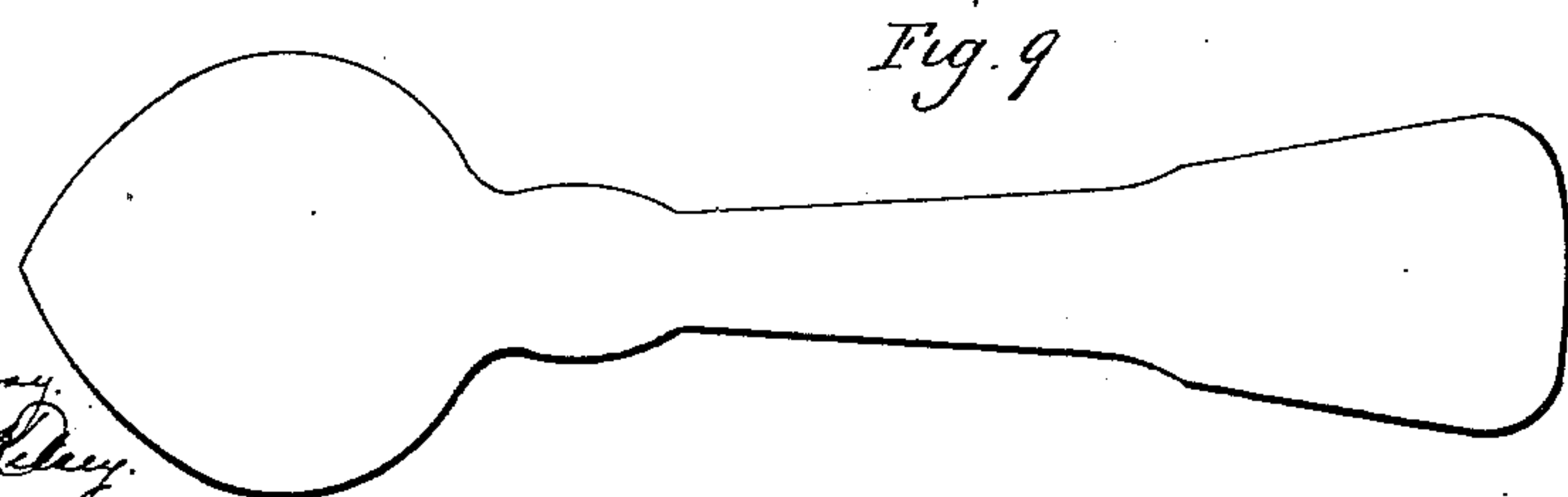
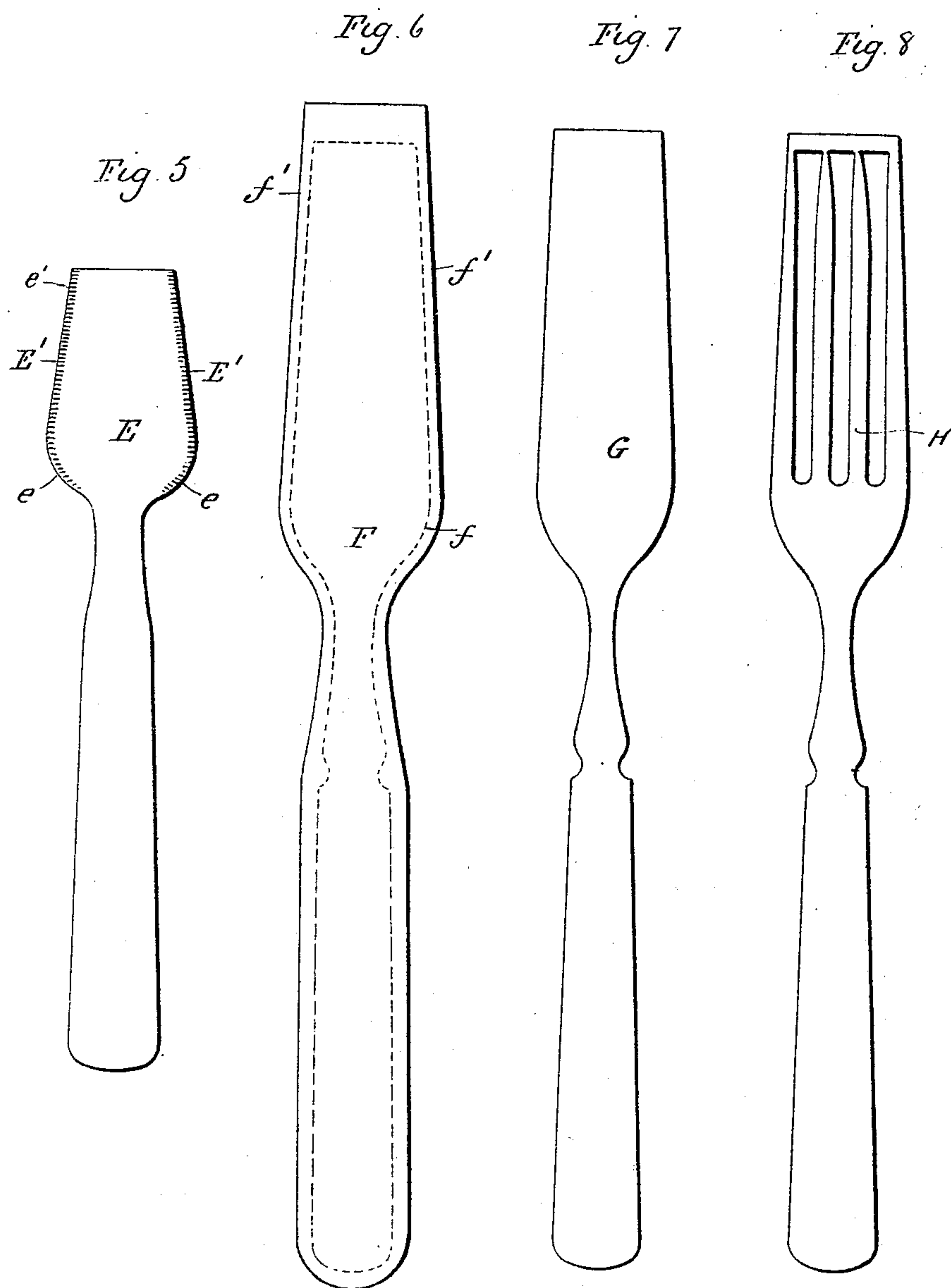
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METHOD OF PRODUCING TABLEWARE FROM SHEET METAL BLANKS.

(Application filed June 26, 1899.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses

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Lillian D. Kelley.

Charles W. Cook,  
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By Atty. Seymour T. Carr.



# UNITED STATES PATENT OFFICE.

CHARLES W. COOK, OF WALLINGFORD, CONNECTICUT, ASSIGNOR TO  
GEORGE M. HALLENBECK, OF SAME PLACE.

## METHOD OF PRODUCING TABLEWARE FROM SHEET-METAL BLANKS.

SPECIFICATION forming part of Letters Patent No. 632,988, dated September 12, 1899.

Application filed June 26, 1899. Serial No. 721,834. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES W. COOK, of Wallingford, in the county of New Haven and State of Connecticut, have invented a new  
5 Improvement in Methods of Producing Tableware from Sheet-Metal Blanks; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon,  
10 to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and in which—

Figures 1 to 4 show the production of a fork in the ordinary way from the ordinary fork-  
15 blank which in its outline does not conform to the true form of a fork. Figs. 5 to 8, inclusive, show the production of a fork in accordance with my invention from an initial blank which in its outline conforms to the  
20 true outline of a fork; Fig. 9, a view of the initial form of a spoon-blank containing my invention, and Fig. 10 a corresponding view of a spoon-blank of the prior art.

My invention relates to an improved method  
25 of producing tableware, such as spoons and forks, from sheet-metal blanks, the object being to secure not only an economy in the manufacture of such articles, but also to produce articles of superior quality.

30 With these ends in view my invention consists in the improved method hereinafter described and claimed.

For the better illustration of my invention I have shown in Figs. 1 to 4, inclusive, the  
35 making of a fork, in accordance with the method now generally practiced, from an ordinary blank A, which may be accepted as the type of the fork-blanks now in use, the tine end of which has straight sides A' A' and square corners a a' a'. These straight  
40 sides and corners have no counterparts, of course, in the finished fork and represent metal which must be cut away in the form of scrap. Starting with such a blank it is rolled  
45 out to its fully developed form B, (shown in Fig. 2,) which retains all of the characteristics of its initial form A. The continuous broken line b in this figure shows the line on which the final fork-blank C is cut out. The continuous ribbon b', so to speak, lying outside  
50 of this broken line, represents the scrap pro-

duced in cutting out the fork-blank C. This blank, which is shown by Fig. 3, does not conform in its lines to the lines of the developed blank B, the tine end of the blank  
55 having tapering edges C' C' and rounded corners c c instead of square corners. This fork-blank is again subjected to further cutting, which develops the tines D, in producing which the extreme end D' of the tine end  
60 of the blank is cut off.

Figs. 5 to 8, inclusive, show the production of a fork by my improved method from one of my improved fork-blanks E, shown by  
65 Fig. 5 to conform in general outline to the true outline of a fork and to have its tine end formed with tapering sides E' E' and rounded corners e e. This initial blank E is rolled out and developed to produce the form F, (shown by Fig. 6,) which still retains the characteristic  
70 form of the blank E, and therefore conforms in general shape to the true form of a fork. The continuous broken line f in this figure shows the line on which the final fork-blank G (shown by Fig. 7) is cut out. So much of  
75 the blank F as lies outside of this broken line f represents the continuous ribbon f' of scrap metal produced at this time. It will be observed by comparing Fig. 6 with Fig. 2  
80 that the ribbon f' is very considerably narrower than the ribbon b', the difference in the width of the ribbons shown by these two figures roughly expressing the saving secured by my invention. The fork-blank G is sub-  
85 jected to a further operation to produce the tines H, as shown in Fig. 8. Figs. 3 and 4 and 7 and 8 of course correspond, my present invention being illustrated by a comparison of Figs. 5 and 6 with Figs. 1 and 2, respec-  
90 tively.

The spoon-blank shown by Fig. 9 conforms in general outline to the outline of a finished spoon and may be accepted as the type of my improved spoon-blanks. It is to be compared  
95 with the spoon-blank I, shown by Fig. 10 as standing for the spoon-blanks of the prior art and constituting a type of the spoon-blanks now in use.

A comparison of Figs. 1 and 5 will show that my initial fork-blank E contains much  
100 less metal than the initial fork-blank A of the prior art, and therefore requires appre-



ciably less power for rolling it out into its developed form F than is required for rolling the blank A out into the developed form B. This reduction in the amount of power required for rolling the blanks is one of the advantages derived by my invention. Then when the fork-blank G is cut out from the developed blank F markedly less scrap metal is produced than when the fork-blank C is cut out from the developed blank B. This saving in the scrap is another factor of economy resulting from my invention. It is true that the production of the initial blanks E may be attended with a little more waste than the production of the initial blanks A; but that waste is much more than compensated for by the saving resulting from the fact that less power is required to roll my improved blank and less scrap is produced in cutting the fork-blank from it after it is rolled out into its developed form F. Moreover, in cutting my initial blanks E from the sheet metal they are cut out at a single stroke, so that their edges are continuously and uniformly hardened. This hardening of the edges of the blank I have represented by a shaded line *e'* in Fig. 5. This hardened edge in the initial blank is of course transmitted to the developed blank F, which may be said to have a continuously-hardened edge or rim, which facilitates a cutting of the true fork-blank from it very close to its edge, and therefore with the production of the minimum of scrap. On the other hand, blanks of the prior art, like the blank A, are not cut at one operation, nor is the entire blank cut in the same way, a portion of the edge being produced by a die and another portion by a cutter, whereby the edge lacks homogeneity of texture, being

harder in one place than in another. This want of homogeneity in texture is of course transmitted to the finally-developed blank B, which is apt to exhibit cracks in its edge and which is less liable to produce a perfect fork-blank C than the blank F produced under my invention.

Blanks containing my invention may of course be produced for all kinds of spoons and forks and other articles of tableware which are correspondingly produced.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

An improved method for the production of tableware such as spoons and forks, from sheet-metal blanks, consisting in producing a blank shaped to conform to the outline of the article to be produced from it, by cutting it out at a single stroke from a suitable piece of stock so that its edge will be continuously and uniformly hardened, then rolling the blank so produced until developed into a blank slightly larger than the article to be produced, but still conforming in general outline to the shape of the initial blank and to the shape of the article to be produced, then subjecting the said developed blank to the action of dies, whereby the final blank is produced, and then shaping and finishing the final blank.

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

CHARLES W. COOK.

Witnesses:

DANIEL W. BURKE,  
WILLIAM McDONALD.