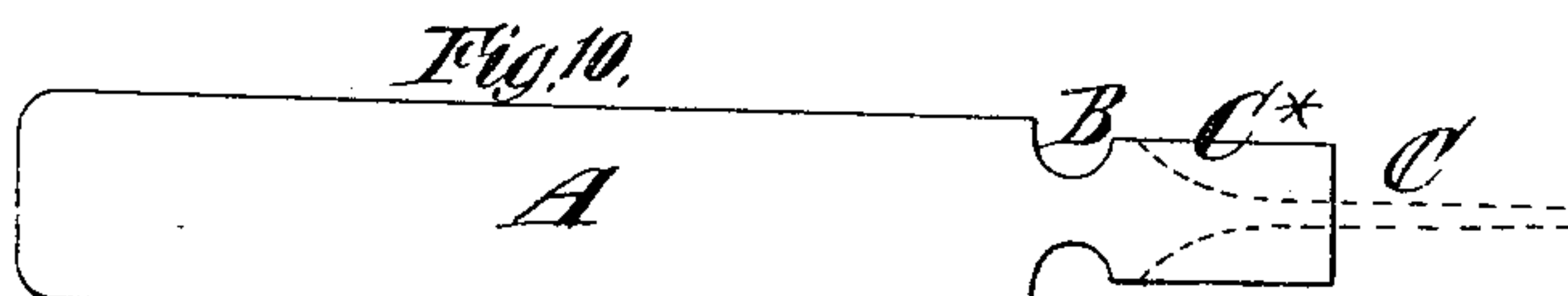
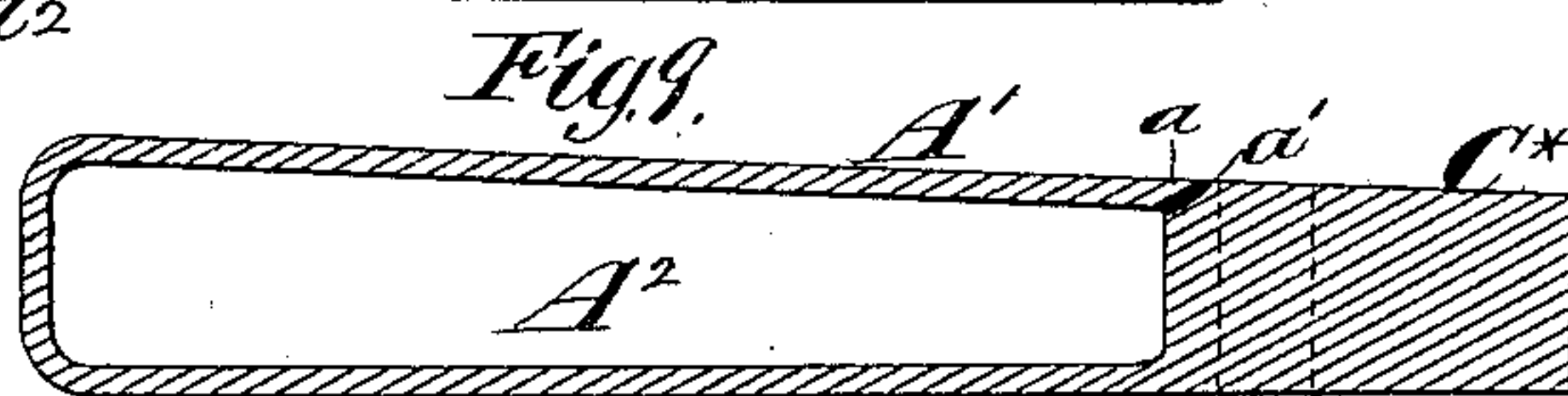
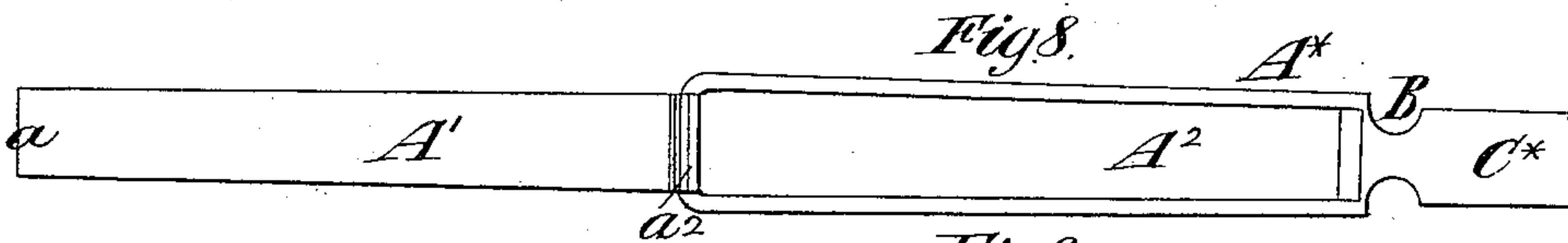
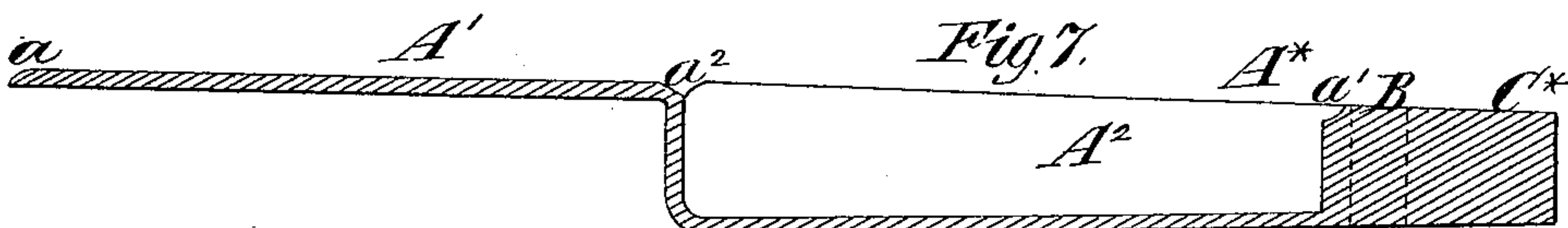
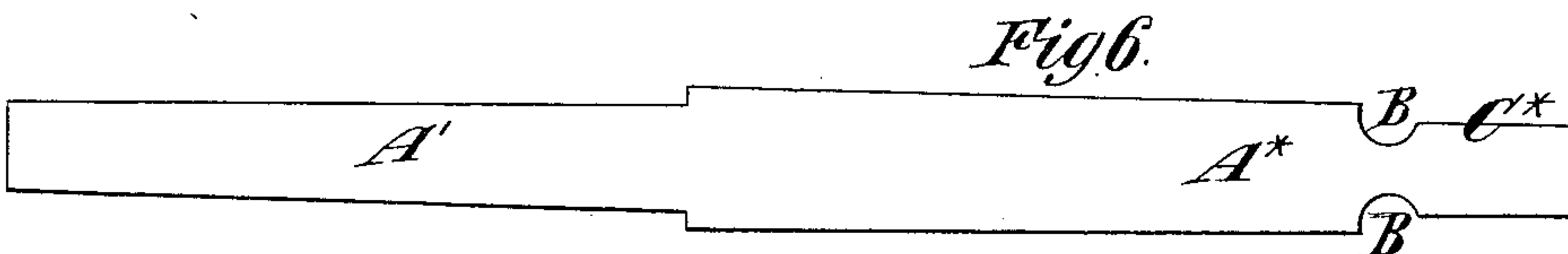
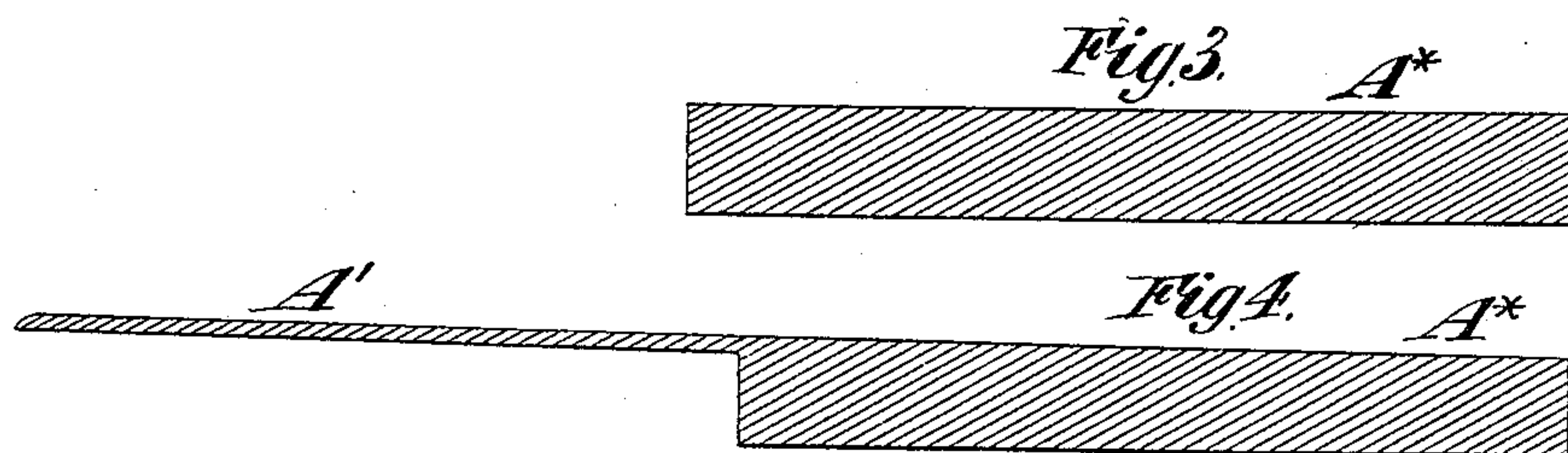
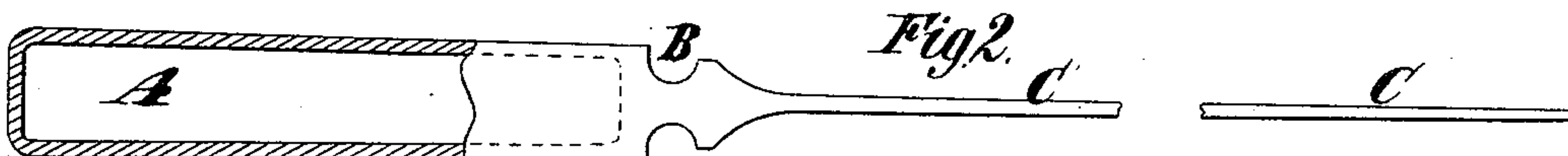
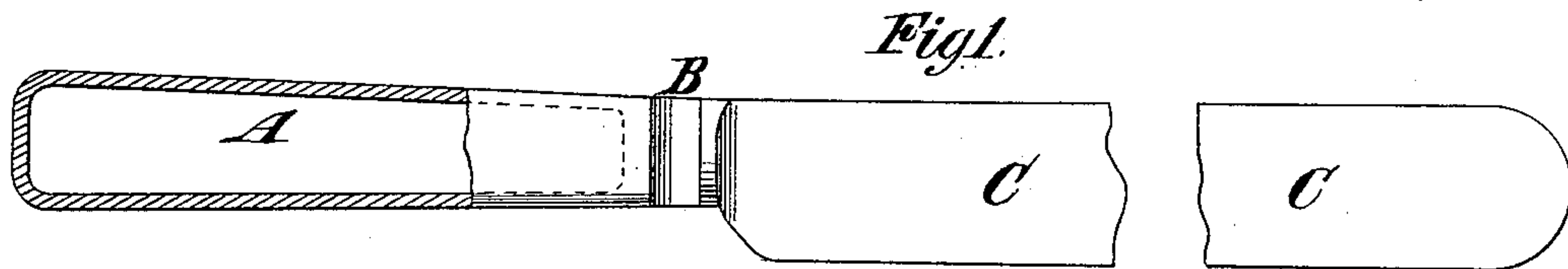


(No Model.)

C. O. APPLEBY.
MODE OF MAKING CUTLERY.

No. 336,198.

Patented Feb. 16, 1886.



Witnesses:
O. Sundgren
Emil Hexter

Inventor: Chas O. Appleby
by his atty
Brown & Hall

UNITED STATES PATENT OFFICE.

CHARLES O. APPELBY, OF NEW HAVEN, CONNECTICUT.

MODE OF MAKING CUTLERY.

SPECIFICATION forming part of Letters Patent No. 336,198, dated February 16, 1886.

Application filed November 17, 1885. Serial No. 183,077. (No model.)

To all whom it may concern:

Be it known that I, CHARLES O. APPELBY, of the city of New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in the Method of Producing Table-Knives and Handles for Table-Cutlery, of which the following is a specification.

My invention relates more particularly to the method of producing table-knives, but may also be employed in producing handles for knives and other articles of table-cutlery.

An important object of the invention is to provide a table-knife in which a hollow forged handle and blade are formed integral with each other from a single piece of metal, and in which the blade cannot become loosened from the handle, as is possible where the blade is inserted and secured by soldering or brazing in the open end of the handle.

In producing a hollow forged handle for a knife or other article of table-cutlery by my improved method, I first produce, by forging, a blank which is recessed or concaved on one side, and which has a portion or stem extending from one end of the open side of the blank, and I then fold over and weld the said portion or stem upon the open side of the blank, to form the hollow closed handle. If the handle be intended for a knife, I then, by means of a trip-hammer or other forging operation, draw out a blade from the opposite end of the blank to that on which was the aforesaid projecting portion or stem.

In the accompanying drawings, Figures 1 and 2 are respectively a side view and edge view of a knife made according to my invention, a portion of the handle being shown in section. Fig. 3 represents a bar or piece of metal from which the handle and blade may be produced. Fig. 4 represents a sectional view, and Fig. 5 a plan, of such a piece or bar in the first stages of its manufacture. Fig. 6 represents a plan of the piece or bar after it has been forged so as to produce the bolster of a knife and the projection from which the blade may be afterward drawn out. Figs. 7 and 8 are respectively a sectional view and a plan of the blank at a later stage of the manufacture. Fig. 9 is a sectional view of the blank at a still later stage; and Fig. 10 represents the handle as complete, it only being necessary,

to complete the knife, to draw out the blade from the projection at the end of the handle.

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

Referring first to Figs. 1 and 2, A designates the handle, which, as shown, is hollow nearly to the bolster B, and C designates the blade, all of which are formed integral by forging from one piece of metal.

In making this knife I first take a short bar or piece, A*, of steel or metal, which may be rectangular, and about the length shown in Fig. 3, and I then forge and draw out from one end thereof a long portion or stem, A', as shown in Figs. 4 and 5. I afterward forge and draw out the opposite end of the piece or blank A*, so as to form therefrom the bolster B of the knife and the projection C*, from which the blade may be formed, as hereinafter described. I then take the blank and subject it to drop-forging in suitable dies, so as to form in the upper side thereof, from which the tongue portion A' extends, a cavity or deep depression, A², which is nearly as long as the handle, and leaves a thin wall of metal only around its bottom and sides of about the same thickness as the tongue A'. The extremity of the portion or stem A' may be slightly rounded or inclined on its upperside, as shown at a in Figs. 4 and 7, and the opposite end of the cavity A² in the blank may have a corresponding rounded or inclined seat, a', as shown in Figs. 7, 8, and 9. I afterward take the blank shown in Figs. 7 and 8 and bend over the portion or stem at the point a², so that it will lie parallel with the remaining portion of the handle and close up the side of the cavity or depression therein, as shown in Fig. 9, the rounded or inclined end a of the portion or stem lapping onto the rounded or inclined seat a' in the handle. This having been done, the handle is subjected to a sufficient heat, and is then welded by dies, so as to form a solid union between the portion or stem A' and the body of the handle along its longitudinal edges and end, and I thus produce a handle which is very strong and light. I afterward subject the blank to a further forging operation, in order to draw down the projection C* at the end of the handle to form the blade C, as is indicated by dotted lines in Fig. 10.

I thus produce a knife in which the handle,

blade, and bolster are all forged entire from metal in one integral piece, and therefore the blade can never become detached from or loosened in the handle.

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

1. The improvement in the method of producing a hollow forged handle for a knife or other article of table-cutlery, consisting in first
10 producing, by forging, a blank recessed or concaved upon one side and having a portion or stem projecting from one end at the open side of the blank, and in then folding over and welding the said portion or stem upon the
15 open side of the blank to form the closed hollow handle, substantially as herein described.

2. The improvement in the method of producing a knife having a hollow handle, consisting in first drawing out from one end of a
20 blank or bar a portion or stem which is folded

over upon the blank and welded to form a closed hollow handle, and in then drawing out the other end of the blank to form a blade, substantially as herein described.

3. The improvement in the method of producing a table-knife having a hollow forged
25 handle and blade formed integral therewith, consisting in first producing a blank recessed or concaved upon one side and having a portion or stem projecting from one end at the
30 open side of the blank, in then folding over and welding the said portion or stem upon the open side of the blank, and in then forging or drawing out a bolster and blade from
35 the opposite end of the blank, substantially as herein described.

CHARLES O. APPLEBY.

Witnesses:

JOS. H. KEEFE,

CHARLES L. ULLMAN.