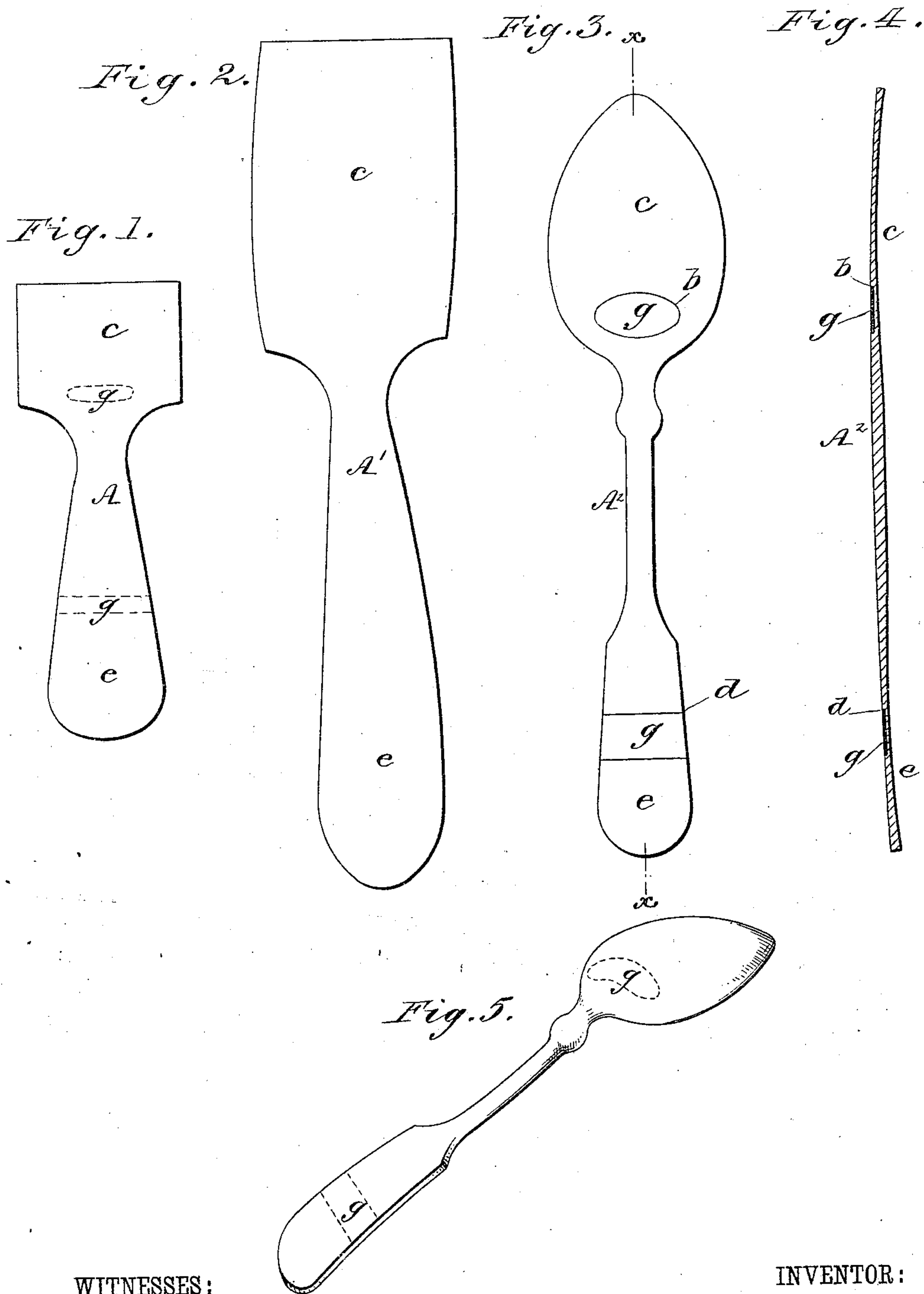


(No Model.)

W. A. WARNER.
MANUFACTURE OF SPOONS.

No. 337,099.

Patented Mar. 2, 1886.



WITNESSES:

John M. Deemer
C. Sedgwick

INVENTOR:

W. A. Warner
BY *Munn & Co*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM A. WARNER, OF SYRACUSE, NEW YORK.

MANUFACTURE OF SPOONS.

SPECIFICATION forming part of Letters Patent No. 337,099, dated March 2, 1886.

Application filed November 23, 1885. Serial No. 184,178. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. WARNER, of Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in the Manufacture of Plated Ware, of which the following is a full, clear, and exact description.

This invention more particularly relates to flat ware—such as spoons, forks, and other like articles, plated with any of the precious metals or alloys, such as silver-plated spoons and forks, &c.—and is designed as an improvement in the manufacture of that description of such articles in which the article is constructed at its point or points of rest or contact with a hole or recess in which is inserted a filling of precious metal or alloy—such as fine or coin silver, for instance—arranged to present a flush exterior with the adjacent surface or surfaces of the article, so that after the whole is plated, abrasion of the part or parts which being the point or points of contact or rest are most liable to wear, while it may remove the plating, will not expose the baser metal or alloy of which the article is mainly composed, but only the precious metal or alloy filling that corresponds with the plating, substantially as described in Letters Patent No. 309,013, issued to me on December 9, 1884.

Heretofore in incorporating the precious metal or alloy filling at the points of contact or rest with the baser metal or alloy of which the piece of flat ware—spoon, fork, &c.—is composed, the same has been done after the article has been struck up or formed into its finished shape. This necessitates considerable labor, especially if the precious-metal filling is secured in the hole or recess made for it by soldering, as the necessary heat takes the temper from the article, which necessitates extra labor of again striking up the article in order to make it regain its proper stiffness or temper. The peculiar shape, too, of some flat ware—such as spoons, forks, &c.—renders such mode of proceeding both difficult and unsatisfactory. Thus, supposing the article to be a spoon, to incorporate the precious metal or alloy within a hole or recess in the bowl at its place of contact or rest requires a special tool to make said hole or recess; also it is necessary to have the precious-metal filling project from the body of the spoon in order to planish it down and

make it flush with the contiguous parts of the article.

My present invention has for its object the avoidance of these and other difficulties or objections, and to this end I make the hole or recess or holes or recesses and insert the precious metal or alloy filling or fillings therein in the flat blank from which the article is afterward struck up or formed, substantially as herein-after described.

Reference is to be had to the accompanying drawings, forming part of this specification, which represents, by way of illustration, my invention as applied to the manufacture of an ordinary spoon, and in which—

Figures 1, 2, and 3 represent views, as seen from their flat sides or surfaces, of certain blanks in the manufacture of the spoon, showing by full lines the invention applied to one of said blanks; Fig. 4, a longitudinal section upon the line *x x* in Fig. 3, and Fig. 5 a view in perspective of the finished spoon.

A, Fig. 1, indicates the first blank, which is cut from the sheet of base metal or common alloy of which the spoon is made. Said blank, in the ordinary process of manufacture, is then annealed and graded by rolling to produce the blank A', Fig. 2, which, by the grading process, is left thinner at what ultimately forms the bowl and handle portions of the spoon. This lengthened, spread, and graded blank is next cut by punch and die into the spoon-shaped flat blank A², Figs. 3 and 4. I then take said blank A² and displace by punching, cutting, or milling an oval or other shaped hole or recess, *b*, preferably a recess extending about half-way through from the back or under side of the portion *c* of what ultimately forms the bowl of the spoon, and similarly form a cross hole or recess, *d*, in or from the under side of the handle end portion, *e*, of the spoon-blank. These holes or recesses are located at what form the points of rest or contact of the spoon when laid on a table or elsewhere. Any projection that may be made in the upper side of the spoon by the forming of these recesses *b d* should be removed by any suitable means to make said portions of the blank smooth or even. I next press into or secure, by soft or silver solder, supposing the spoon is designed to be a silver-plated one, within these recesses *b d* in the flat blank a perfect-fitting piece or

filling, *g*, of fine or coin silver, preferably coin-silver, and preferably using silver solder to secure it in place. I then smooth the whole surface of the spoon-blank by an emery-wheel and polish the same with any suitable powder—such as blue-stone, pumice, &c.—upon a walrus or other leather wheel or brush. The blank A^2 is then ready for shaping and finishing, it being in the same condition as other metal spoon-blanks not having the precious metal or alloy fillings in their bowl and handle portions, and it is suitably bent or struck up in the drop-press and plated and finished, as shown in Fig. 5, the incorporated fillings *g* at the points of rest or contact, as shown by dotted lines in said figures, being under cover of the plating metal.

While it is requisite, in order to carry out this invention, that the precious metal or alloy fillings should be inserted in the base metal blank in its flat condition—that is, before it is bent or struck up into the required shape of the finished spoon or article—it is not absolutely necessary that the same should be done at the stage hereinbefore described—that is, for instance, in the flat base-metal blank A^2 —which, so far as the mere blank itself is concerned, is the same as other cut spoon-blanks; but the precious metal, &c., filling *g*, may be inserted in the first blank, *A*, Fig. 1, and the same afterward be rolled or spread out in common with the base metal of the blank when grading it to make the blank A' , from which the blank A^2 is cut.

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

1. In the manufacture of plated metal spoons, forks, and other like articles fitted with protective precious metal or alloy fillings at their points of rest or contact, as specified, the method herein described of providing said articles with said fillings by first making holes or recesses for reception of said fillings in the flat blanks, from which said articles are made, then inserting and securing the fillings in said holes or recesses, afterward bending or striking up the articles into shape, and subsequently plating and finishing them, substantially as specified.

2. In the manufacture of plated metal spoons, forks, and other like articles, having incorporated precious metal or alloy fillings at their points of rest or contact, first cutting the blanks from which the articles are made, then rolling and grading them, then cutting them into shape, next making the holes or recesses for the incorporated fillings, afterward securing said fillings in the holes or recesses, and subsequently bending or striking up the filled blanks into the required shape of the article to be made, and plating and finishing them, essentially as described.

3. A flat-cut and graded metal blank for spoons and other like articles, having one or more precious metal or alloy fillings at the point or points of wear and contact of the spoon or article made from said blank, substantially as and for the purposes herein set forth.

WILLIAM A. WARNER.

Witnesses:

CHAS. G. WARNER,
JOHN S. LINES.