

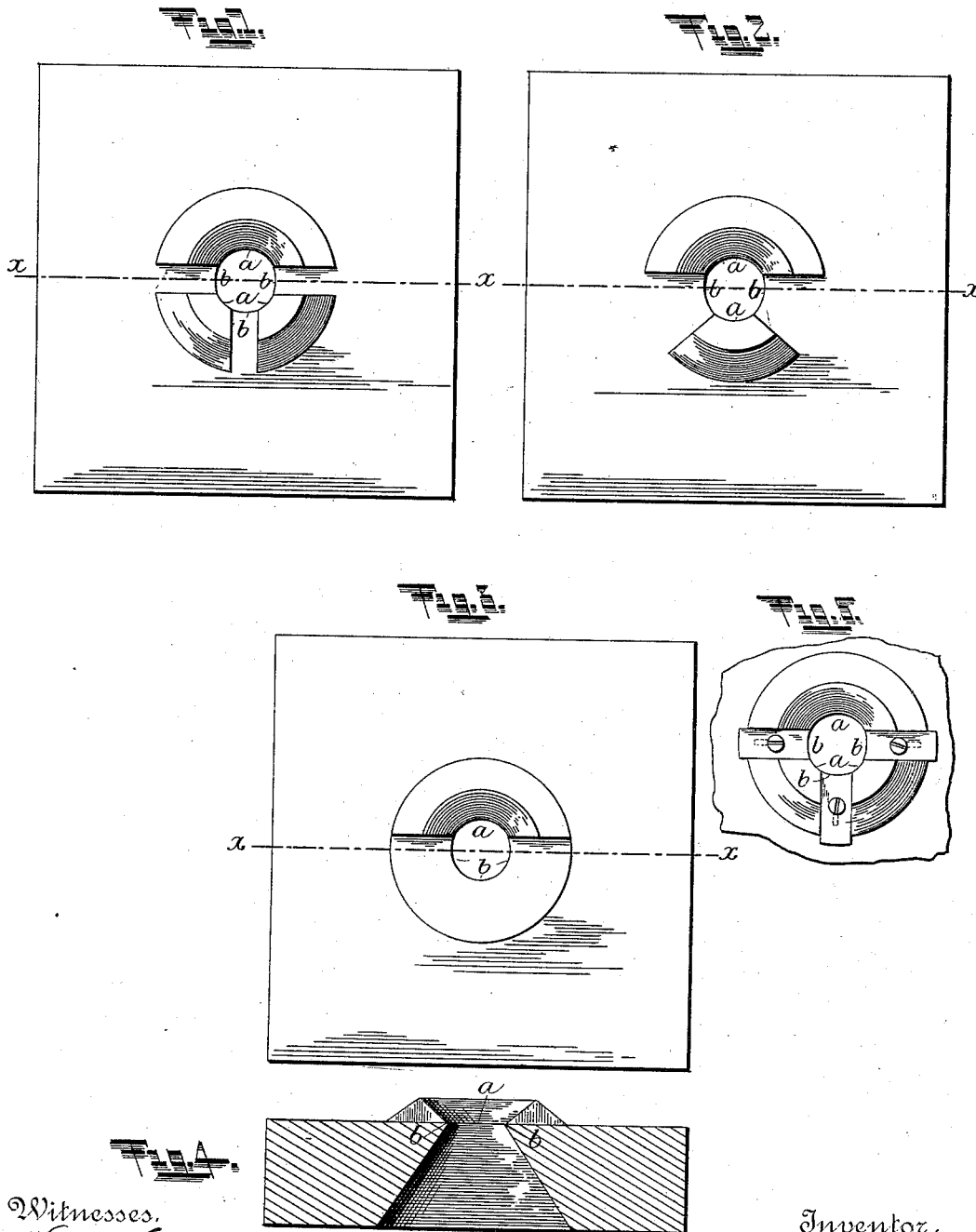
(No Model.)

J. S. PALMER.

PLATE FOR SHAVING GOLD PLATED SHELLS, &c.

No. 383,239.

Patented May 22, 1888.



Witnesses.  
*Will Norton*  
*Geo. H. Penney*

By his

Attorneys.

Inventor,  
*John S. Palmer*  
*John J. Halsted* & Son.

# UNITED STATES PATENT OFFICE.

JOHN S. PALMER, OF PROVIDENCE, RHODE ISLAND.

## PLATE FOR SHAVING GOLD-PLATED SHELLS, &c.

SPECIFICATION forming part of Letters Patent No. 383,239, dated May 22, 1888.

Application filed January 27, 1888. Serial No. 262,146. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN S. PALMER, of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Cutting-Plates for Shaving Gold-Plated Shells or Thimbles; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

In the existing prior state of the art of "drawing" plated shells or thimbles for making articles of plated jewelry, and as shown sufficiently in my former Patents Nos. 211,342, 215,536, and 342,840, the exterior precious metal of the shell during each and all of the successive drawings is necessarily reduced to substantially a uniform or equal thickness throughout. Now many and most articles of jewelry—say, for instance, finger-rings—when in use have very unequal wear, some parts wearing out, while other parts are hardly worn at all. The outer part of a ring, for instance, will soon wear through if the plate be thin, thus rendering the ring useless, while that part of the plate which is inside or comes next to the finger will have little or no wear.

It is the object of my invention so to make the cutting-plate that in the act of drawing those parts of the shells, and consequently of the articles to be fabricated from them, shall have the plate thick where it is needed to be thick and be reduced by shaving or cutting away to any desired degree of thinness at other portions, and so that a much more durable and valuable piece of jewelry may be made, approaching more nearly to one of solid gold, and yet not necessarily using any more gold than to make an inferior article by the existing or old methods.

To illustrate my invention I show in the accompanying drawings a set of cutting-plates adapted for making plated shells having the gold plate reduced to unequal thickness.

Figure 1 shows a cutting-plate adapted for the first or partial cutting, planing, or scraping away of some of the gold plate to about the requisite depth; Fig. 2, a draw-plate for a second cutting, planing, or scraping away to the

same depth of the ridges left by the first cutting, and still leaving the remainder of the shell not at all cut away; Fig. 3, a plate for smoothing or finishing by cutting, planing, or scraping off any surface irregularities left by the preceding two plates on that part of the shell sought to be cut away, and still leaving the remainder of the shell not at all cut away. Fig. 4 is a vertical section in the line *xx* of Figs. 1, 2, and 3; and Fig. 5 shows a plate in which the cutters are adjustable instead of being permanently fixed or integral with the plate.

I prefer to have each plate separate from the others.

Referring now to Fig. 1, I make the plate, as shown, with raised, rounded, or guiding edges *a*, which are not adapted for cutting, but only for guiding, and also with cutting-edges *b b*, which are specially designed for cutting, shaving, or scraping off certain predetermined channels or portions of the gold plate of the shell in the act of punching the shell in or through the hole in the plate. The edges *a* serve as guides to regulate the depth to which the edges *b b* shall cut, and of course the number and relative sizes of these several edges may in different places vary to accord with the character of the shells required, which shells must, of course, be made with reference to the particular articles of jewelry to be made from them.

I prefer not to cut away at a single cut all the breadth of the desired portion of gold to be removed, for although this would in some cases be possible, yet it would not be always satisfactory or useful, because to cut all at one cut would be to attempt too much at one strain, and would tend to tear out the bottom of the shell or thimble, and such tearing out would defeat the object to be attained. I find, therefore, by experience that the best results are attained by having a series of plates to be used one after the other, one of which, as shown, shall first shave off in parallel lines of channels or grooves a portion of the gold to be cut away, and another of which shall next shave off to substantially the same depth the ridges left by such first cut, this second cutting reducing the gold plate at the desired part to about the thinness required, and then a plate, substantially as shown in Fig. 3, is used, not

to cut grooves, but merely to smooth off any irregularities which may remain on the surface of that part of the shell thus previously thinned down by the channeling dies or plates.

5 The gold chips which are shaved off from the shells by these successive plates are saved and are of great value in the aggregate, amounting to about one hundred and forty-five dollars in value in the making of, say, six hundred finger-rings, while the rings manufactured from

10 shells made by these improved cutting-plates are of far greater durability and value, though costing practically no more than others of ordinary make having in them the same quantity of gold. In short, given a certain quantity of gold in an article of plated jewelry, my improved cutting-plate permits the apportioning of the drawn gold, so that it may be as thick as desired at the required part and proportionately thinner at the other part, thus

20 rendering it very much more enduring before the plate metal can wear through than those made by existing plates or methods, and this advantage I attain without using any more gold in the fabrication of the article. When the shells have been shaved down, as above stated, to the desired condition in the act of shaving down by punching, they are ready to be rolled out according to my process, as set

30 forth in my Patent No. 217,398, of July 8, 1879, and may of course be rolled to any desired

shape in cross-section, dependent on the articles to be made from them; and it must therefore be distinctly understood that I do not limit myself to the precise shape or contour of the opening in the plate, so long as it embodies in it the essential features of allowing the shell while being punched or forced through it to be cut, planed, removed, or shaved off at such portions only as need to be made thinner than the remainder. 35 40

The cutting-edges, instead of being fixed, may in some cases be adjustable on the plate, as shown in Fig. 5.

In some cases a cutter-plate like that shown in Fig. 3, or a series of them, will be all that will be needed to remove the requisite amount of the gold. 45

I claim—

A plate for cutting gold-plated shells or 50 thimbles for the manufacture of plated jewelry, having a portion of the guiding-edge raised and rounded off for guiding without cutting away or removing any of the gold, and having the remaining portion left sharp and adapted to plane, cut away, or remove a desired part of the gold, all substantially as set forth. 55

JOHN S. PALMER.

Witnesses:

GILMAN E. JOPP,

EBEN W. WATERHOUSE.