

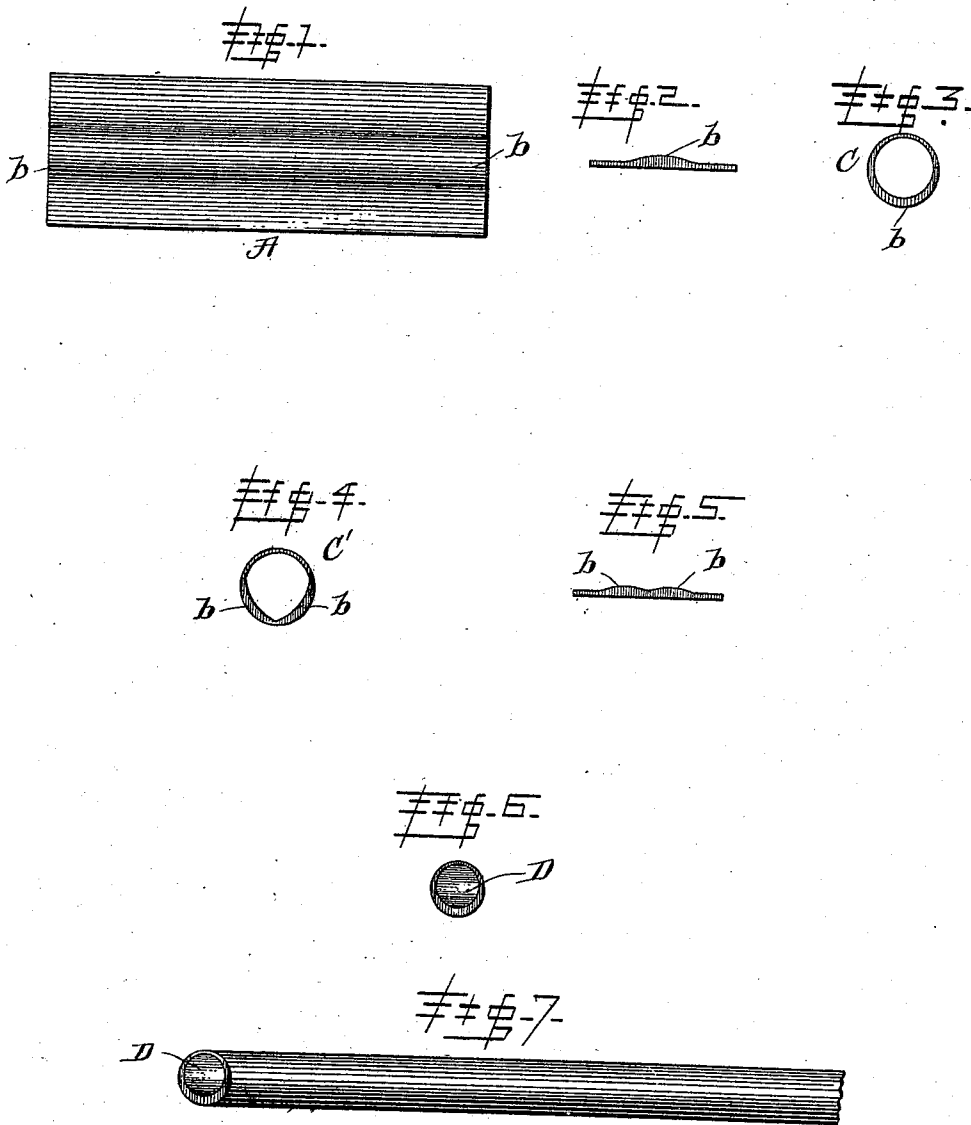
(No Model.)

J. S. PALMER.

PLATED WIRE STOCK FOR JEWELRY AND METHOD OF MAKING SAME.

No. 501,157.

Patented July 11, 1893.



WITNESSES

W. E. Brown
H. P. Finley

INVENTOR

John S. Palmer
John J. Halsted for his Attorneys

UNITED STATES PATENT OFFICE.

JOHN S. PALMER, OF PROVIDENCE, RHODE ISLAND.

PLATED WIRE STOCK FOR JEWELRY AND METHOD OF MAKING SAME.

SPECIFICATION forming part of Letters Patent No. 501,157, dated July 11, 1893.

Application filed March 16, 1891. Serial No. 385,179. (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 a certain new and useful Improved Plated Tube or Shell and Process or Method of Plating with Precious Metal of Varying or Uneven Thickness; 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.

My invention, which relates to plated-wire stock for the manufacture of jewelry, consists in a new and improved plated tube or shell, and method or process of plating with precious metal of unequal thickness upon a rod of base metal.

In my Patent No. 394,603, dated December 18, 1888, the plated wire stock was made from a compound bar, composed of a flat piece or bar of base metal, to which was soldered "or sweated" a piece or bar of precious metal to which was given a surface of varying thickness, such plated stock being afterward cut into strips, rolled down to the desired thickness and then made into tubing: the base metal being thus converted into the core or filling wire.

In my present invention which I will now describe, I first take a plate of precious metal of varying thickness, and form the same into a tube which thus is a tube of unequal thickness, and afterward draw such tube on to a cylindrical rod of baser metal, and then solder "or sweat" such tube on the rod: that is, nearly melt it with heat sufficient to make it adhere to the rod: after which, I draw down the compound wire so made, to any desired shape or size for fabrication into various articles of jewelry, as may be desired.

In the accompanying drawings, which will suffice to illustrate my invention, Figure 1. indicates a plan, and Fig. 2. an end view of a piece of precious metal of varying transverse thickness: prior to being converted into tubing; Fig. 3. an end view of a tube formed from such a piece bent up to tubular form; Fig. 4. an end view of a similar tube, but dif-

fering therefrom only in having two, instead of one portion, thicker than its remainder, Fig. 5. indicating an end view of the piece of precious metal from which such tube was formed; Fig. 6. an end view, and Fig. 7. a plan of the compound rod, after the tube of precious metal has been drawn on to a piece of baser (say copper) rod, and soldered "or sweated" thereto, and then "drawn down" or reduced, the relative variable thickness being preserved, and clearly visible from the end view.

A indicates the primary piece of precious metal, showing at *b*. a portion thicker than the remainder, such thicker portion extending uniformly lengthwise of the strip. In Fig. 4. two thicker portions *b. b.* are illustrated, it being understood that I do not limit myself to the number or character of these thicker portions, so long as the piece *A*. shall have such varying thickness or thicknesses, as the particular ultimate article or articles of jewelry to be fabricated, may require.

C. Fig. 3. indicates the end of a tube formed from a piece like *A* in Fig. 1.; and *C'* Fig. 4. the end of a tube made from a piece having more than one thicker portion.

D. indicates the interior rod of base metal, to which the precious metal tube has been soldered "or sweated" as above stated.

By my process, it will be observed, that I do not use nor need a degree of temperature high enough to melt the body of precious metal, as that would defeat the objects in view, and would destroy wholly or damagingly the predetermined varying thickness which has been so carefully and preliminarily given to the precious metal at the out-set, and as governed by the special character of the intended article to be ultimately made from a given piece. It will also be observed that while the exterior of the fabricated article would not indicate the varying thickness of its precious metal, because the drawing-down or reducing has forced the thicker parts inwardly, yet that such varying thickness would interiorly exist;—so that the parts requiring most wear would contain the greater thickness of gold to meet such wear. It will also be noted, that the varying thickness is imparted to the precious metal before it is drawn over, on, or united to, a base-metal rod, and also before

it is formed into a tubular form, and it may be done by passing it while in a grooved die, between a pair of pressing rollers, or preferably, by passing the piece of precious metal
5 between rollers especially made with the requisite groove or grooves therein; or in short, it may be done in any known or desired way, such as by planing, shaving, or grinding or otherwise removing a portion of the precious
10 metal, or by striking or forging. I prefer to do it by rolling.

The main features are, that my improved tube or shell of the precious metal alone, is first fabricated, and having within itself alone
15 the required variable thickness, and that it is then soldered or sweated upon a base-metal rod for the purpose of making a more durable article, at less cost. The core or rod is previously made and then inserted and united

to the precious-metal tube, as hereinbefore 20 stated.

I claim—

1. The described process of plating precious metal of unequal thickness upon a rod of baser metal,—consisting in first forming a
25 tube of unequal transverse thickness, next drawing such tube upon a rod of baser metal, and then soldering “or sweating” together such tube and rod, all substantially as and
30 for the purpose set forth.

2. A tube or shell of precious metal of variable thickness transversely of such tube or shell, and united to a base-metal rod, substantially as described.

JOHN S. PALMER.

Witnesses:

GILMAN E. JOFF,
CURTIS E. HILL.