

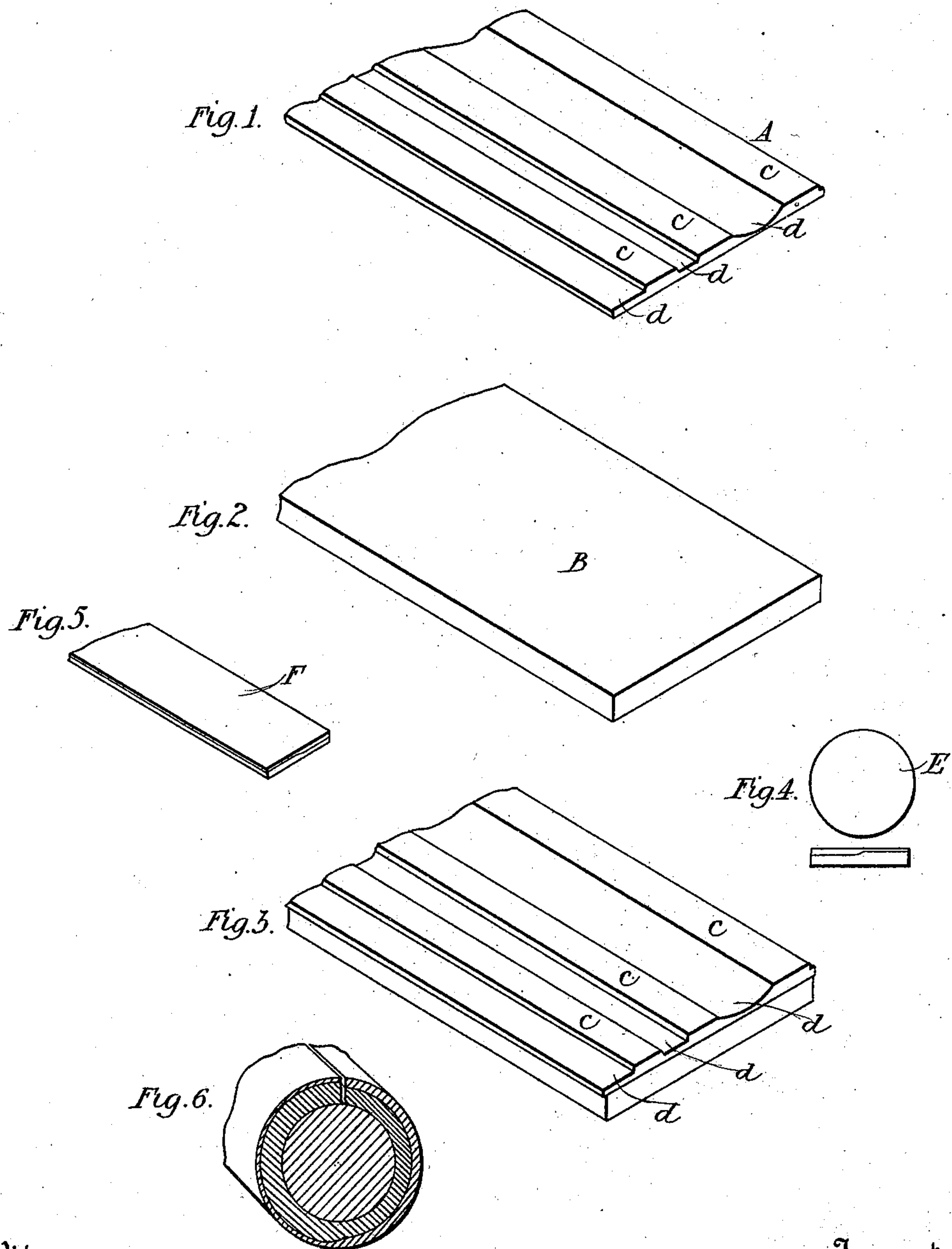
(No Model.)

J. S. PALMER.

PLATED STOCK FOR MANUFACTURE OF JEWELRY.

No. 503,983.

Patented Aug. 29, 1893.



Witnesses

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PLATED STOCK FOR MANUFACTURE OF JEWELRY.

SPECIFICATION forming part of Letters Patent No. 503,983, dated August 29, 1893.

Application filed December 26, 1888. Serial No. 294,630. (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 Plated Stock for the Manufacture of Jewelry; 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 my patent of July 21, 1891, No. 456,314, I describe a method of making ingots, to be afterward rolled and drawn down or reduced, to produce rods, bars, shells, &c., of plated metal, in which the plating of precious metals, such as gold, silver, platinum, &c., should have a predetermined variable thickness, such ingots having ribs and depressions, adapted for the different articles of jewelry to be made therefrom so that such articles when finished should have the gold plate thicker where the wear would be greatest, and thinner where the wear should be least. By "ingots," as distinguished from drawn or rolled "rods," "bars," "shells," &c., I wish to be understood as meaning a stage of the metal at a period earlier than that at which in the present state of the jewelry art, and earlier than as described in any of my former patents, it is drawn down, "bars" of precious metal being known as having been rolled or drawn down from "ingots." The base or foundation metal as received from the mills for my work of plated jewelry, comes in long, flat rails or "bars." In practicing my present invention, I cut these bars of base metal into pieces of say six to ten inches in length, before any shaping of them takes place. They are then ready to receive the gold or precious metal with which they are to be connected.

The present application is therefore not for the process or method of making such compound ingots, but for the ingots themselves, as made with the predetermined ribs and depressions or grooves, and whereby such or kindred processes may be practiced for the production of many or different articles from one and the same ingot. I take a lump or body of gold or other precious metal which (when after-

ward rolled or drawn down and finally reduced) is ultimately to constitute the plating upon the exterior of the body of baser metal of the article or articles of plated jewelry to be fabricated;—and by any appropriate means, such as by casting or molding, or by pressure, or by planing, or grinding or otherwise, impart to one of its surfaces a predetermined ridged character of any desired kind or pattern, the ridges being intended when finally reduced by rolling or drawing down, to become the thicker portion of the plate of the article of plated jewelry, and the depressions between the ribs being intended to become the thinner portion of such plated article. The under side of this body or ingot of precious metal should be flat or a plane, and adapted to be soldered to a thicker piece or ingot of the baser metal; and this uniting of the two pieces together may be done either before or after imparting the ridged character to one surface of the precious metal.

These depressions and ribs may be as many and as variable in a single ingot, as the divers kinds of articles to be fabricated from it may demand; as for instance, a portion of it when the whole ingot shall have been reduced to a desired degree, may be cut off lengthwise, having in it the proper rib and depression or depressions adapted for converting it into a tube, in which a part of the plating on the tube will be thicker than the other part; or, circular pieces or disks may be cut from other portions of the reduced ingot in such a way as that the disk shall have part of its plate thick and another part thin, such a disk being adapted to be converted into a shell, or what is technically called a "thimble," for making finger rings, &c., or into a plated wire for chains, &c.; other parts of the ribbed ingot may, by reason of the predetermined character of the ribs, be adapted for producing other articles of plated jewelry, my invention as will readily be seen, permitting the making of the primal ribs and depressions of the ingot in any desired number, and of any desired form at will, dependent only on the ultimate character of the different articles to be made from a single ingot.

In the drawings—shown on a somewhat reduced scale Figure 1. shows an ingot of precious metal with certain ribs and depressions

on one of its surfaces by way of illustration; Fig. 2. a block or ingot of baser metal, to which this precious metal is to be soldered either before or after the ribs or ridges are formed thereon. Fig. 3. represents these ingots or blocks united into a compound ingot on an enlarged scale; Fig. 4. a circular piece cut from the ribbed ingot after being reduced to the required thickness by rolling; Fig. 5. a strip cut from a compound ribbed ingot after the same has been drawn, and Fig. 6. illustrates on a larger scale such a strip bent into a tubular form, with its edges brought nearly together before uniting such edges preparatory to drawing down the same to make a plated wire.

The precious metal ribbed ingot is shown at A; the baser metal at B; the ribs at c, and the depressions at d, both being shown on the upper face of the part A.

E, indicates a circular piece or disk which by means of cutting dies, or otherwise, may be cut out of the ribbed ingot after it has been rolled down to the desired thickness a portion of it being cut through the ribbed, and a portion through the depressed or non-ribbed part of the ingot; such piece being adapted to be punched into the form of a shell or "thimble" and then drawn down and shaped into plated bars or rods, or into a plated wire for manufacturing divers articles such for instance as finger rings, chains, buckles, &c. F, indicates a strip portion of such ingot which may be cut or split longitudinally from the ingot before being drawn down, or after being partially drawn; the strip being cut either through the thicker or through the thinner part, and then bent to bring its edges together, and these edges then being soldered together thus constitute a tube having its precious plating thicker at one part of its circumference than at its other part, such tube being then ready for such further drawing down as may be necessary, for fabrication into articles for which it may be intended.

It will be seen that instead of making but one style of article only, and but a very few of such style from a plated blank, my novel ingot allows not only of fabricating a variety of different articles of jewelry from the same piece of metal but also a very great number of similar articles of each variety proportionate only to the amount or mass of precious metal in the primal ingot, but also to give to each and every article of jewelry made from this novel ingot, the valuable characteristic of being thicker where the most wear comes.

It will also be observed that by having the ingots prepared as described, I avoid all necessity for shaving, planing, grinding or otherwise reducing to an unequal thickness any plated shells, thimbles, rods, wires, &c., at the later stages in the manufacture of jewelry, because having given the varying thickness by wholesale to the large mass of precious metal when in the ingot state, the shells, thimbles, rods, wires, &c., made from such ingots

already have the required varying thicknesses imparted to them by the very act of drawing down and reducing the ingots.

It will also be observed that a great saving of precious metal may be effected, and large waste of valuable material, and of time, labor and expense prevented because of the precious metal being forged or brought to its ribbed state before being soldered to the baser metal; or if its ribs and depressions be made by planing or grinding off before or after such soldering, then the portion so reduced being all precious, needs no re-melting to separate it from any base metal.

By commencing at the primal or ingot state of the precious metal, instead of at a much later stage, and after the precious metal or the combined metals have been drawn down or materially reduced, it will be seen that a large quantity of the precious metal can have imparted to it the required varying parallel grooves and ridges. Besides all the other advantages already stated as due to this beginning at the "ingot" state of the precious metal, the following important practical one results, namely:—The amount of gold capable of being employed in the primal shaped or fashioned "ingot" being much or many times greater in proportion relatively to the short piece of base metal than is ultimately required for such piece, it will be evident that after drawing these united metals down to a considerable extent, the proportion of gold would in some cases be still too great relatively to the reduced baser foundation, and therefore in any such case I can solder under this reduced base or foundation another one of the pieces of base metal, and then continue the drawing down; and so on, to any needed extent, until the precious metal (whose longitudinal patterns, or ribs and grooves, have by rolling been removed from surface view and embedded in the base) shall have been reduced to the required degree; the final result being the production of a very large amount of plated stock of uniform character of predetermined thickness of the precious metal in the interior or body of all of this compound stock; and sufficient for the fabrication of hundreds of articles of each of the kinds intended—whether for disks for drawn thimbles, or for making plated wire from strips, or for other kinds of work.

I claim—

1. As a new article of manufacture for making plated jewelry, an ingot of precious metal having a surface of pre-determined longitudinal ribs and depressions as set forth.

2. A compound ingot, composed of precious metal having on one of its faces longitudinal parallel ribs and depressions as set forth, and of an ingot or bar of baser metal united to its other face, all substantially as set forth.

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Witnesses:

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