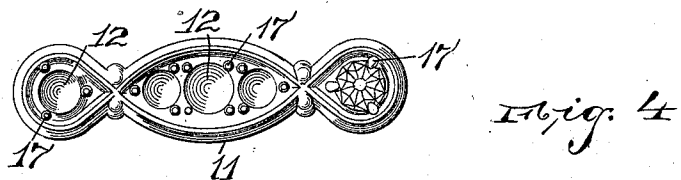
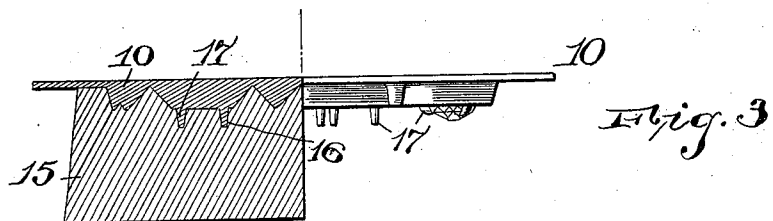
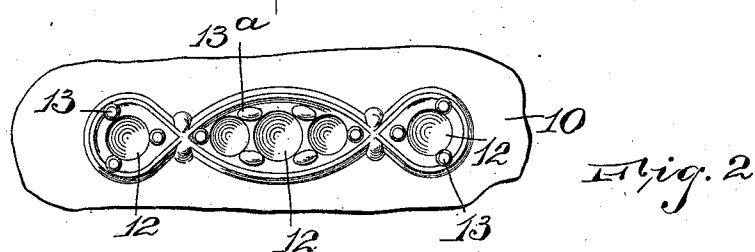
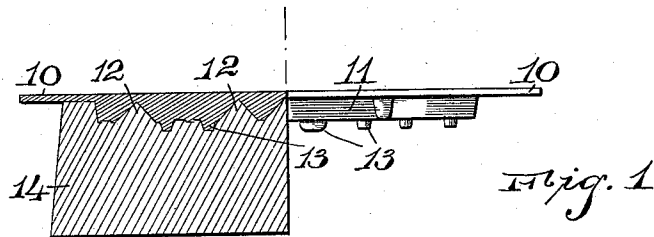


M. J. BONNIOL.
METHOD OF MANUFACTURING JEWELRY.
APPLICATION FILED DEC. 29, 1909.

982,237.

Patented Jan. 24, 1911.



WITNESSES:

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MICHEL J. BONNIOL, OF PROVIDENCE, RHODE ISLAND.

METHOD OF MANUFACTURING JEWELRY.

982,237.

Specification of Letters Patent. Patented Jan. 24, 1911.

Application filed December 29, 1909. Serial No. 535,461.

To all whom it may concern:

Be it known that I, MICHEL J. BONNIOL, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Methods of Manufacturing Jewelry; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as 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 figures of reference marked thereon, which form a part of this specification.

This invention relates to the manufacture of jewelry and particularly to jewelry of the cheaper grades, and is designed to provide a setting for stones, the prongs or points forming the setting being made integral with the body portion of the piece of jewelry.

My invention relates particularly to making a piece of jewelry integral with the points for the settings, these points being high, that is extending above the body portion of the setting a sufficient distance to give a long prong for bending over on the jewels or stones placed in the recesses in the jewelry.

My invention is further designed to form these points and the jewelry itself from hard metal, such as brass and the like, and I have found, through long experimenting, a novel method and, as far as I have been able to determine, the only method of making these points of one piece with the body portion and still have the points extend a considerable distance above the piece of jewelry before the stone is set.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a view showing a piece of jewelry in the first stages of manufacture, one half of the view being in elevation and the other half in section and showing the action of a die to form the product. Fig. 2 is a face view of the piece of jewelry in the first stages of its manufacture. Fig. 3 is a view similar to Fig. 1, showing the second step in the process of making this jewelry, and Fig. 4 is a face view of the finished piece, all the settings but one being shown before a stone is inserted therein.

I have found that in making jewelry of

this kind with the integral points for settings of soft metal, they are easily manufactured, but when made of more durable and hard stuff, such as brass and the like, it has required a great deal of experimenting to secure the proper results.

In my process I take a blank of hard metal and submit it to a step that forms the general outline of the piece of jewelry to be made, this step being either done by the action of a die, as shown in Fig. 1, or the piece can be cast as will be understood, and other processes might be used to make this first step. In the step illustrated I show a strip of material which has been formed up into the body portion 11 of any suitable design, this portion being provided with the recesses 12 to receive suitable stones, and adjacent to these I form the raised portions 13, these constituting practically the first steps of my new process and article. These extra portions 13 may be formed of reserved metal as shown in the section in Fig. 1, being the result of a casting or hammering process, and they may be either reserved or added metal, in the latter case the metal having been added after the form has been given to the piece of jewelry. It is preferably done however by utilizing a suitable die 14 and giving the blank 10 pressure on the back by either striking or pressing by means of suitable power or trip hammers or a hydraulic press. These strips or points of added or reserved metal can be made as at 13 where one point is to be used, or as at 13^a where a raised portion of irregular form can be put where a group of points for setting purposes is to be placed.

In some designs it might be advisable to make a whole ridge, flanking a series of depressions for the stones, of raised or added material, and from this ridge the proper height of points might be struck up from the subsequent steps of the process. After I form the piece of jewelry as shown in Fig. 2, I then submit it to the action of a second die 15, which die has long narrow perforations as at 16, these being placed in register with the raised portions 13 of the first stage of the manufacture, and thus form the long high points 17 which are easily formed by a blow on the back of the piece of jewelry shown in Fig. 3 and thus forcing the material up into the perforations 16. With-

out previously making these raised portions 13 it is impossible to secure points high enough to be practicable, but with my improved process I make the points 17 so as to give plenty of room for turning over, as shown to the right of Fig. 4 where a stone is shown set in the jewelry. The rough edges of the strip 10 are trimmed off by any suitable means, and the piece of jewelry is ready for use when the stones are in place.

This method, by having the pin 17 of hard metal and integral with the body portion, forms a cheaper method of manufacture and at the same time gives better results, since it is more stable and the labor necessary to install the stones in the settings and so forth is unskilled, and the work can be quickly accomplished.

It will be understood that the pressure in these steps can be supplied by a trip hammer, hydraulic press or draw plate or any other kind of power, and it will also be noted that the reserved or added material forming the portions 13 and 13^a can be of any shape or form so long as the desired result is obtained.

Having thus described my invention, what I claim is:—

1. The hereindescribed process of making a piece of jewelry with integral points consisting in the provision of a blank of hard metal, forming the blank with a desired design and recesses for stones, and supplying this design with raised portions adjacent to the depressions, then submitting the design to the action of a die to force the raised portions into long points adjacent to the

settings, these points forming prongs for the setting of jewels.

2. The hereindescribed process of manufacturing jewelry with integral points which consists in forming a design from hard metal, the design having recesses therein for the reception of stones, and having raised portions adjacent to the depressions, then submitting the design to the action of a die having deep perforations in line with the raised portions of the design, whereby the action of the die causes the raised portions to be formed into high points of hard metal integral with the body portion of the jewelry.

3. The improved process of making jewelry consisting in the provision of a blank of hard metal, submitting the blank to the action of a die to form depressions in the design and to form raised portions adjacent to the depressions, these raised portions being slightly above the general surface of the design, then submitting the design to the action of a die, the die having perforations to draw the raised portions of the design into high points of hard metal integral with the body portion of the design, these high points being adjacent to the depressions and adapted to form prongs for the settings.

In testimony, that I claim the foregoing, I have hereunto set my hand this seventeenth day of December, A. D. 1909.

MICHEL J. BONNIOL.

Witnesses:

ALBERIC A. ARCHAMBAULT,
JOSEPH CHAGNON, Jr.