No. 734,066. PATENTED JULY 21, 1903.

O. L. HEINTZ.

JEWELRY.

APPLICATION FILED MAY 25, 1903.

NO MODEL.

Fig. 1.

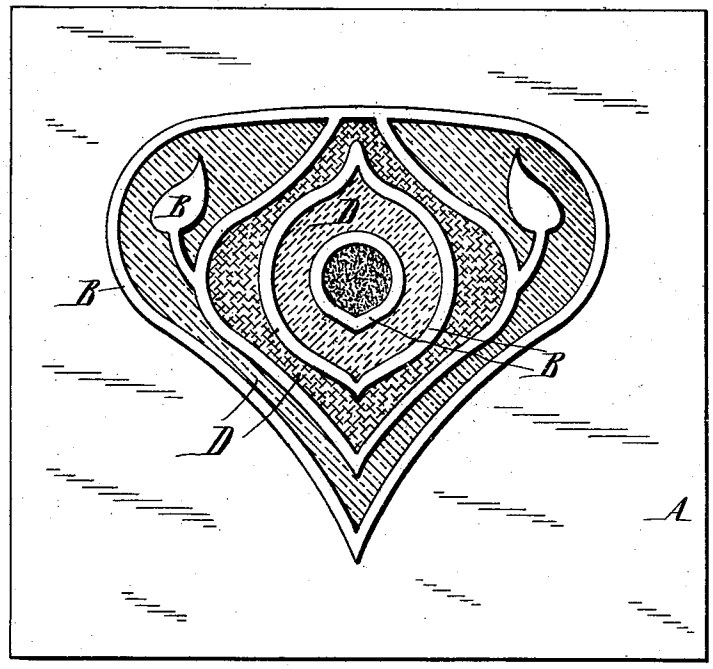


Fig. 2.

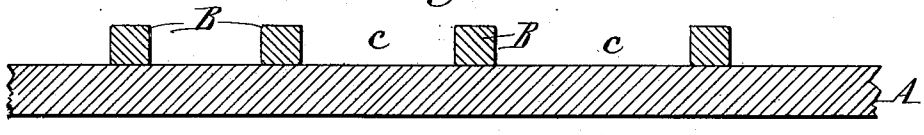


Fig. 3.

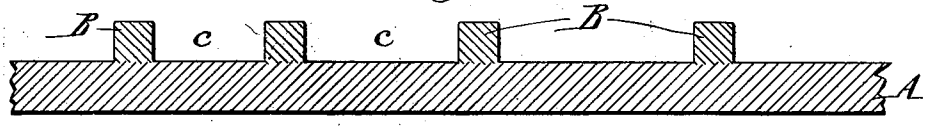
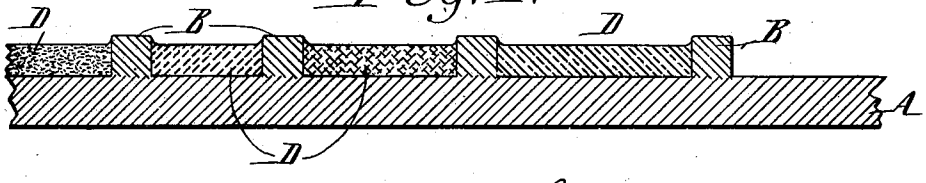


Fig. 4.



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No. 734,066. Patented July 21, 1903.

UNITED STATES PATENT OFFICE.

OTTO L. HEINTZ, OF BUFFALO, NEW YORK.

JEWELRY.

SPECIFICATION forming part of Letters Patent No. 734,066, dated July 21, 1903.

Application filed May 25, 1903. Serial No. 158,611. (No model.)

To all whom it may concern:

Be it known that I, OTTO L. HEINTZ, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Jewelry, of which the following is a specification.

This invention relates to articles of jewelry which have metal and enamel ornamentation. One of the methods heretofore employed for producing such ornamentation consisted in placing the enamel in cavities formed in the base of the article to be decorated, which cavities were separated from each other by intervening webs of metal, which prevented the enamel in adjacent cavities from running together. These webs are particularly necessary when a variety of colored enamels are employed, because the same by this means are kept separate and prevented from blending during the baking and hardening operation. This method is very expensive and requires a comparatively thick base to permit of cutting the cavities therein. Another method in common use for producing this kind of ornamentation on articles of jewelry consists in soldering or cementing webs of metal on a base so as to form separated cavities, which receive the different colored enamels. These webs, however, are liable to become loose or displaced while baking the enamel, thereby impairing the quality of the work.

The object of this invention is to produce an article of jewelry of this kind in such manner that the separating-webs are reliably secured to the base of the article without the use of separate cement or solder and are not liable to become loose by subsequent baking of the enamel in the cavities formed by the webs.

In the accompanying drawings, Figure 1 is a face view of an article of jewelry produced according to my invention. Fig. 2 is a cross-section of the base and separating-webs preparatory to being united. Fig. 3 is a similar view of the same after being united. Fig. 4 is a similar view showing the enamel applied to the base and webs.

Similar letters of reference indicate corresponding parts throughout the several views.

A represents the base of the article of jewelry, which preferably consists of a sheet of copper; but any other metal which is fusible at a comparatively high temperature answers the purpose.

B represents the separating-webs, which are so formed and arranged upon the base that they produce an ornamental effect, if desired. These webs preferably consist of silver, although any other metal fusible at a lower temperature than the base may be employed. The webs may be formed either by means of wire, which is square or of other suitable cross-section, or the webs may be cut wholly out of sheet metal, the latter method being preferable when the ornamentation is to consist of more than narrow division-lines. Within the cavities *c* formed on the base between the webs the ornamental enamel D is placed.

In practicing my invention the webs are first placed in the desired shape on the base, as shown in Fig. 2, and then these parts are heated to a temperature less than the fusing-point of the base, but just high enough to start fusing of the webs. The instant this occurs the webs are welded upon or united with the base, as shown in Fig. 3, so that the same practically form one solid piece, which cannot become dismembered. After the webs and base have been thus united the same are cooled and the enamel, usually in the form of powder, is placed in the several cavities, as shown in Fig. 4. The whole is then heated to a temperature sufficiently high for fusing or melting the enamel, this temperature being lower than that required for fusing the webs and uniting the same with the base. This causes the enamel to become baked and firmly secured in the cavities. When this has been done, the article is cooled and finished.

For the purpose of protecting the surface of the enamel against marring or injury the separating-webs are preferably made of such height or the spaces between the same are filled with enamel to such an extent that the webs project slightly above the surface of the enamel, as shown in Fig. 4.

I claim as my invention—

1. The herein-described method of making an article of jewelry consisting in placing metallic webs on a metallic base which fuses at

a temperature higher than the webs, then heating these parts to the fusing temperature of the webs but less than the fusing temperature of the base, then placing enamel on the base between said webs which is fusible at a lower temperature than the webs, and then heating the parts to the point of fusing the enamel but less than the fusing-point of the base and webs thereby causing the enamel to be baked on the base and webs, substantially as described.

2. An article of jewelry consisting of a metallic base which is fusible at a comparatively high temperature, metallic webs applied to the base and fusible at a lower temperature than the base, and an enamel filling placed on the base between the webs and fusible at a temperature lower than the webs, the base and webs being first united by heating the same to the fusing temperature of the webs and the enamel being then baked on the base and webs by heating the same to a temperature less than the fusing-point of the webs, substantially as described.

3. An article of jewelry consisting of a copper base, silver webs applied to the base and an enamel filling arranged on the base between the webs, said base and webs being first united by heating the same to the fusing-point of the webs and the enamel being then baked on the base and webs by heating the same less than the fusing-point of the webs, substantially as described.

Witness my hand this 22d day of May, 1903.

OTTO L. HEINTZ.

Witnesses:

THEO. L. POPP,

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