

No. 755,654.

PATENTED MAR. 29, 1904.

L. GUILD.
JEWEL SETTING.
APPLICATION FILED JUNE 5, 1903.

NO MODEL.

FIG. 1.

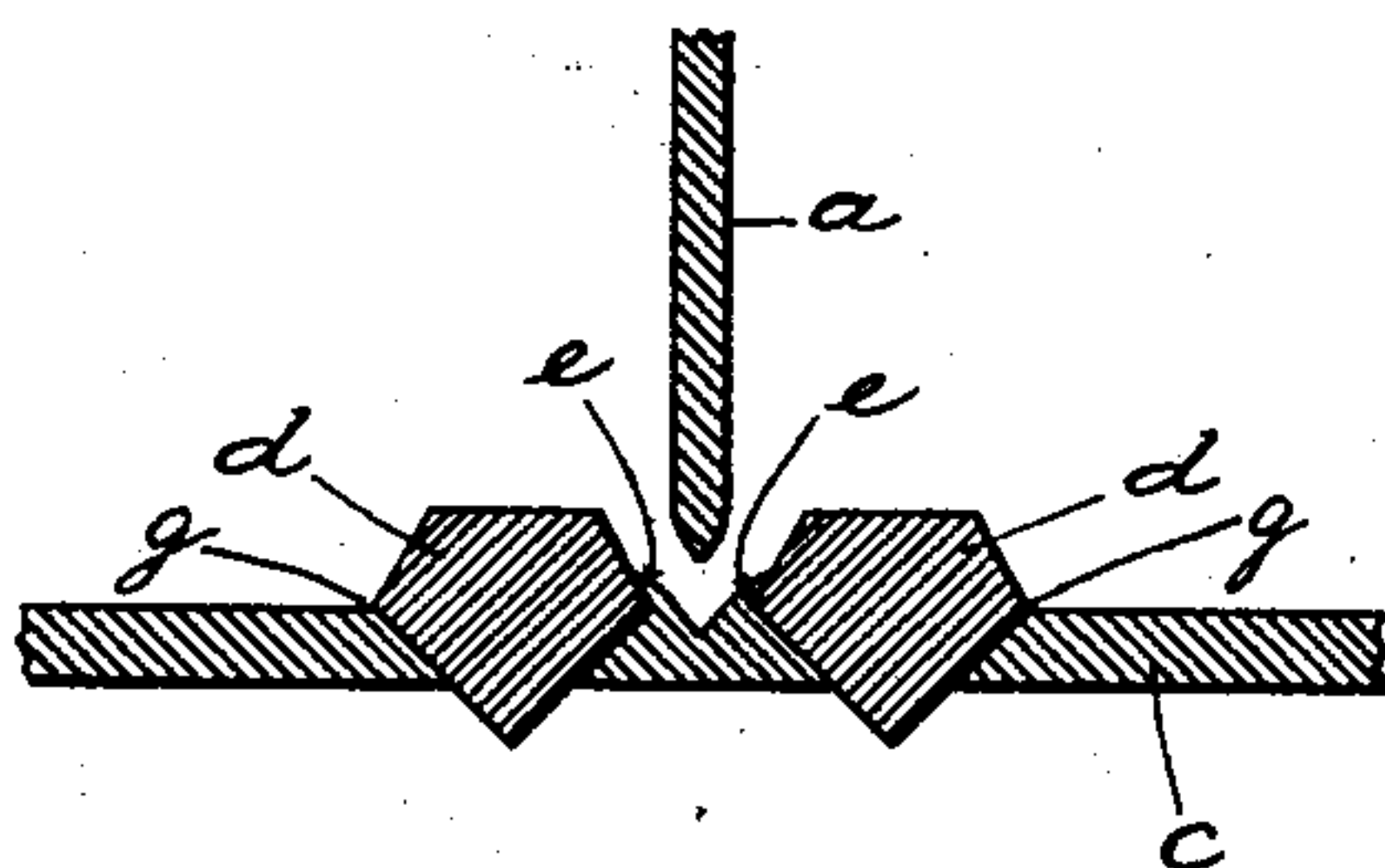


FIG. 2.

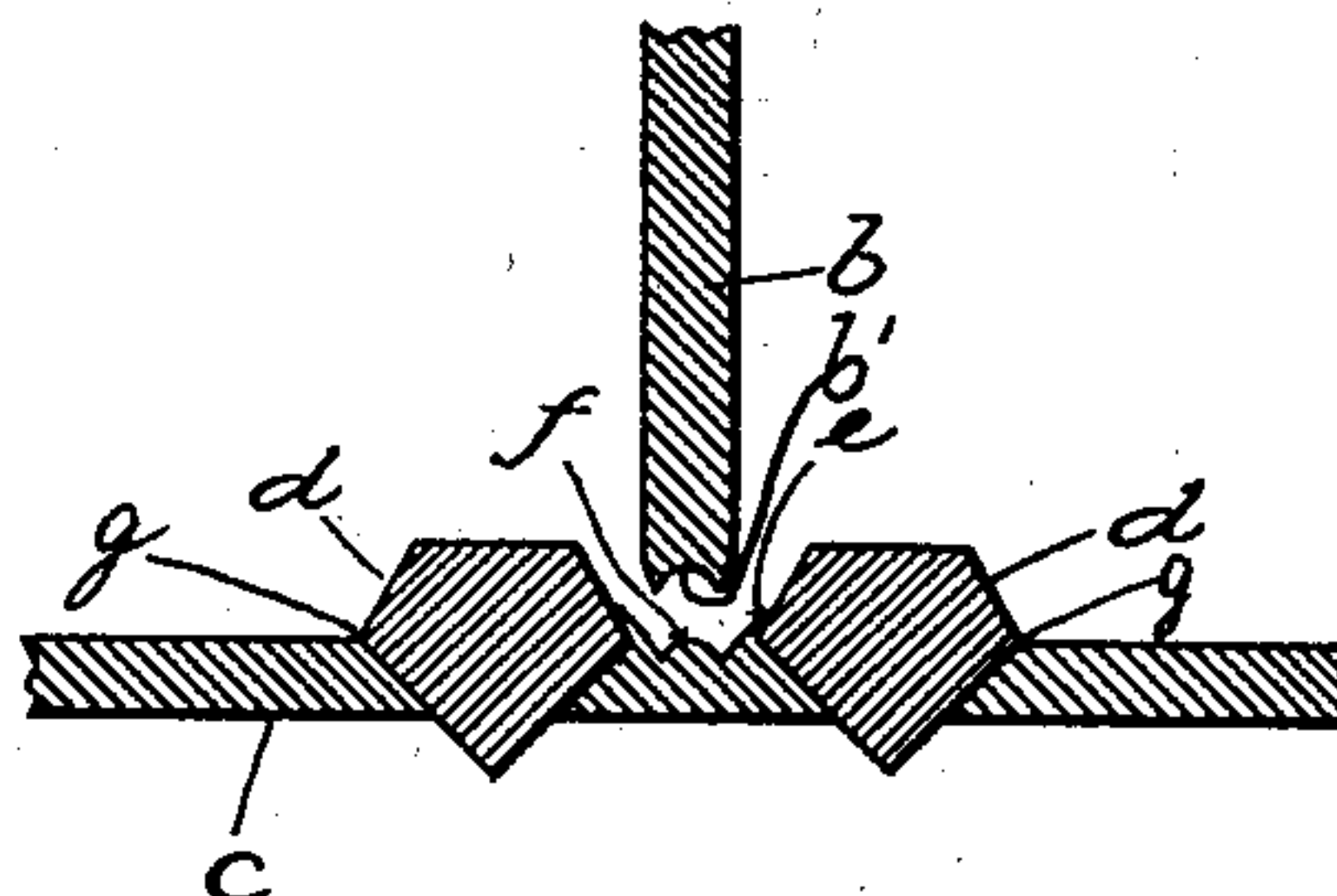


FIG. 3.

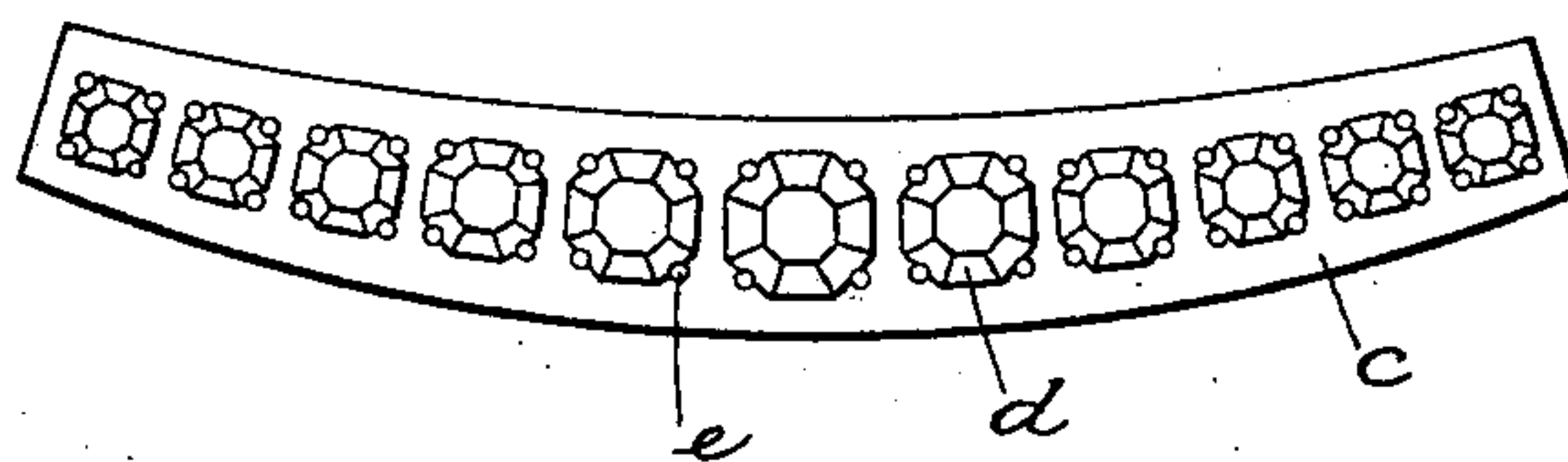
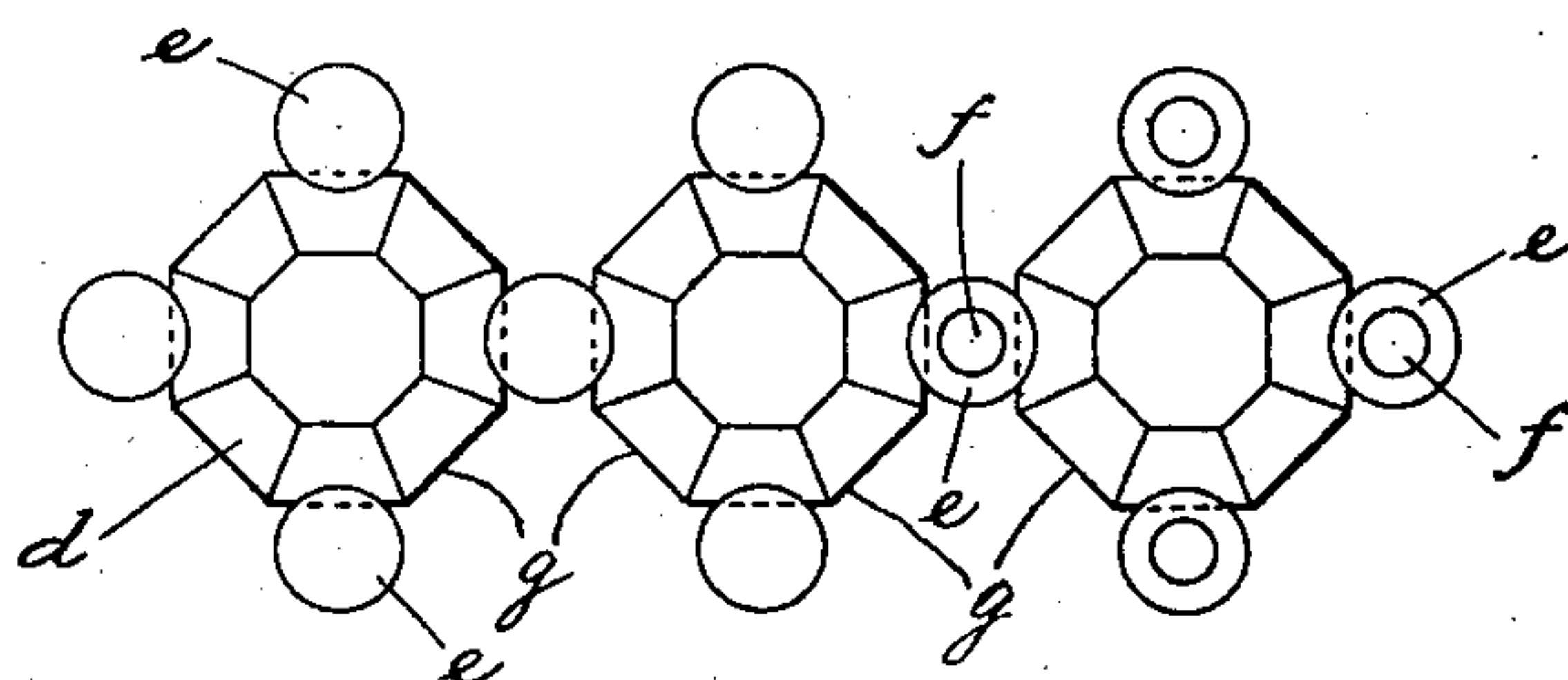


FIG. 4.



Witnesses
Adrian Moss.
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Leo Guild,
Inventor,

By his Attorney, Cha. H. Davids.

UNITED STATES PATENT OFFICE.

LEO GUILD, OF NEW YORK, N. Y.

JEWEL-SETTING.

SPECIFICATION forming part of Letters Patent No. 755,654, dated March 29, 1904.

Application filed June 5, 1903. Serial No. 160,158. (No model.)

To all whom it may concern:

Be it known that I, LEO GUILD, a citizen of the United States, residing in the borough of Manhattan, in the county of New York and State of New York, have invented a new and useful Improvement in Jewel - Settings, of which the following is a specification.

My present invention pertains to a process by which jewels may be set in suitable plastic material and to the jewel-settings produced by said process. While my invention is applicable to a wide range of articles of greater or less value, it is designed more particularly for use in combination with devices which are comparatively inexpensive and which are commonly used for the adornment of the person. Such articles, for instance, include combs, tiaras, &c., which are intended to be worn on the head of the user, and buckles, clasps, &c., which are intended to be attached to articles of dress.

Many articles such as those referred to are set with jewels, either real or imitation, and it has been deemed necessary hitherto to provide a metallic setting for each jewel. Such settings detract in some instances from the beauty and elegance of the jewelry, and where they are made of base metal they become tarnished and unsightly. Metallic settings also collect dust and other foreign matter and frequently become entangled in the hair or dress of the wearers of the jewelry of which the settings form a part.

An object of my invention is to obviate the use of metallic settings, more especially where the jewelry is made of plastic material—such, for instance, as tortoise-shell, celluloid, or horn—which may be softened by heat. By my invention the jewels are set in direct contact with the stock material of the jewelry and are retained in position thereby without the aid of other material. The jewelry thus made is neater in appearance than where metallic settings are used, and my invention obviates all the objections which, as before related, are connected with the use of the former.

Another object of my invention is to effect at one operation the retention of the jewels in position in the stock material of the jew-

elry and also to add an additional ornamentation to the latter, as will be hereinafter more fully related.

In the drawings, Figures 1 and 2 are cross-sectional views of jewelry and of implements used in my invention. Fig. 3 is a front elevation of a piece of jewelry in which the jewels are set according to my invention; and Fig. 4 is a diagrammatical illustration, on a larger scale, of jewels and settings.

Referring to the drawings, *c* designates jewelry stock material which is solid at ordinary atmospheric temperatures, but which becomes more or less softened and plastic when heated. Into the material *c* jewels *d d* are set sufficiently far to bring their girdles *g g* onto a plane with a surface of the material *c*. A tool, which is preferably circular in cross-section, at least at the end portion thereof, is then pressed into the material *c* to a sufficient distance to cause a bur *e* to be forced outwardly of the surface of said material, a rotating, rocking, or other supplemental movement being combined with an axial movement of the tool when necessary to assist the pressure in accomplishing the operation. When the tool is being impressed into the material *c*, the latter may, if necessary, be heated to a temperature which will soften it and make it sufficiently plastic for the purposes of the operation. The heating may be done in any desired manner; but I prefer to accomplish this object by heating the tool before impressing it into the material *c*, as by this plan the latter will be heated only at the exact point of operation.

The tool may be of any form suitable for the purpose described. I have shown two forms thereof, one form, *a*, having a conical point which when impressed into the material *c* forces a bur *e* out of the latter and against an adjacent jewel *d* and curves the bur over the girdle *g* of the jewel, thus retaining the latter in position. The other form of tool shown and herein referred to as *b* accomplishes the same purpose as the tool *a* and also, by reason of a suitably-shaped depression *b'* in the end thereof, forms an ornamental design, which may be of any desired form and which is herein shown as a bead *f* in the ma-

terial *c*, thus by means of the beads *f f* or other ornamental design enhancing the beauty and finish of the article which is operated upon and by the operation which forms said
 5 ornamental design also forming a bur which will serve to retain a jewel *d* in position in its setting. Any plurality of burs *e* will serve to retain a jewel *d* in position in its setting; but I prefer to form three or more for the pur-
 10 pose mentioned.

The tools *a b*, of whatever form may be used in the process, may be provided with handles or be fixed in a machine for use for the purposes described; but as the handles or
 15 machine do not form a part of my invention I have neither illustrated nor described them herein.

My invention is specifically intended to be used in setting jewels in materials such as cel-
 20 luloid, tortoise-shell, or horn, which are more or less hard or brittle at ordinary temperatures, but which may be softened either in mass or topically by the application of heat. Such materials when formed into combs,
 25 tiaras, or other articles in which it may be desirable to set jewels might become deformed and more or less shapeless if heated in mass and if they while so heated, and therefore plastic, were operated upon by a tool *a* or a
 30 tool *b*; but if the tool be first heated, as before mentioned, it will topically heat the article which is to be operated upon, leaving the remainder of said article hard and sufficiently rigid to withstand the pressure which must be
 35 applied by the tool *a* or the tool *b*.

I claim as new and as my invention—

1. In the manufacture of jewelry from materials which are hard or brittle at ordinary temperatures but which may be softened either
 in mass or topically by the application of heat, 40
 a process of setting jewels; said process consisting of first setting the jewels in the stock material sufficiently far to bring the girdles of the jewels onto the plane of the surface of
 the stock material, and then impressing a suit- 45
 able heated tool into the stock material and by means of said tool raising a bur which is so formed as to contact the jewel above its girdle.

2. In the manufacture of jewels from ma- 50
 terials which are hard or brittle at ordinary temperatures but which may be softened either in mass or topically by the application of heat, a process of setting jewels; said process con-
 sisting of first setting the jewels in the stock 55
 material sufficiently far to bring the girdles of the jewels onto the plane of the surface of the stock material, and then impressing a suit-
 able heated tool into the stock material, and by one operation of said tool, impressing an 60
 ornamental design and raising a bur on the stock material; the bur being so formed as to contact the jewel above its girdle.

In testimony whereof I have signed my name to this application in the presence of two sub- 65
 scribing witnesses.

LEO GUILD.

Witnesses:

CHAS. H. DAVIDS,
 ETELKA DERCKS.