

(No Model.)

A. HOGG.
METHOD OF PREPARING GEM SETTINGS.

No. 450,618.

Patented Apr. 21, 1891.

FIG. 1.

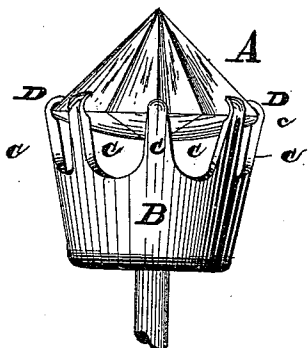


FIG. 2.

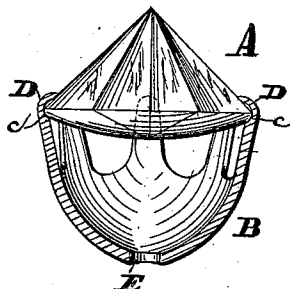


FIG. 3.

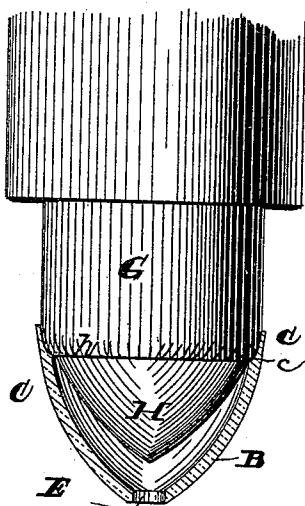
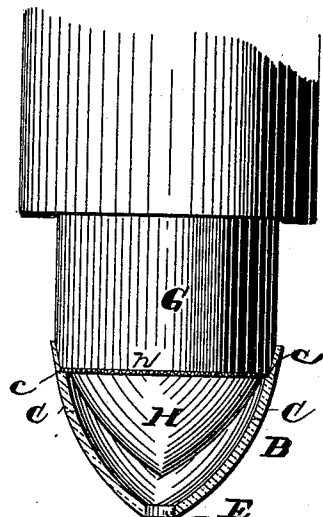


FIG. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

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METHOD OF PREPARING GEM-SETTINGS.

SPECIFICATION forming part of Letters Patent No. 450,618, dated April 21, 1891.

Application filed October 15, 1890. Serial No. 368,163. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR HOGG, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful
5 Improvements in the Method of Preparing Gem-Settings; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear,
10 and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has general reference to improvements in method of preparing settings
15 for receiving gems; and it consists, essentially, in the method and means substantially as hereinafter first fully set forth and described, and then pointed out in the claims.

In the drawings already referred to, Figure
20 1 is an elevation of a gem-setting. Fig. 2 is a transverse sectional elevation of the same. Figs. 3 and 4 are transverse sectional elevations of a setting and the reamer employed for shouldering the same.

25 Like parts are designated by corresponding letters of reference in all the figures.

The object of this invention is to provide an improved method of preparing and shouldering jewelers' gem-settings. These have
30 heretofore been shouldered entirely by hand by means of an engraver's chisel, or by dies and punches, which draw out the fingers at their upper end while the setting is formed from a star-shaped blank. This method is
35 either slow or unsatisfactory, inasmuch as it does not produce exact and reliable work. To overcome these objections I proceed as follows: I first draw the gem-setting B from a suitable blank, so as to produce the fingers
40 or prongs C thereon, which prongs are then shouldered for the gem or stone A to rest upon. This shoulder or offset I produce by means of a milling or reaming tool G, having a point H, which guides the cutting-tool into
45 the setting, said reaming-tool having a cutting-edge *h*, conforming to the contour of the gem to be set, the said cutting rounded, square, or of any other required shape, and the tool itself of proper diameter to correspond to that
50 of the said gem A. By using this tool in a lathe or other suitable machine and feeding the setting to the tool, (or the tool to the setting, if preferred,) a perfectly exact and even

shouldering is produced, so that the fingers C, after being clinched over the jewel A, will
55 retain the same more securely and in better form than has heretofore been possible, and at a considerable saving of time, trouble, and expense over the old method.

I have heretofore mentioned that shoulders
60 for the gem have been formed on the upper end of the fingers by dies in the process of forming the setting from a star-shaped blank—a method which was in practice in France, but which is unsatisfactory, for the reason
65 that to reduce the thickness of the fingers at their upper ends to form this shoulder the metal has to be squeezed and stretched in the dies by a punch larger than the size of the die minus the thickness of the metal. This,
70 however, has the effect of hardening the metal and rendering the points of the fingers extremely brittle, so that in clinching them upon the jewel or gem they cannot be brought into close contact therewith, and they are
75 liable to break, while if they are first annealed they are too soft. By forcing them into a die simply to form the setting from a star-shaped blank without drawing the fingers, the metal is just enough hardened to be most service-
80 able for the purpose. It will therefore be seen that my method of procedure produces a superior setting and a more desirable article. The stem by which the setting is to be
85 affixed to the article of jewelry may be inserted into the setting either before or after the shoulders have been milled on the fingers, at the option of the manufacturer.

Having thus fully described my invention, I claim as new and desire to secure to me by
90 Letters Patent of the United States—

The method of preparing gem-settings, which consists in first punching a blank with the required fingers, then drawing this blank into a cup shape, then inserting a stem into
95 this cup, and finally milling the fingers on their inner side with a milling-tool, substantially as described, to form the shoulder for the gem, as and for the object stated.

In testimony that I claim the foregoing as
100 my invention I have hereto set my hand in the presence of two subscribing witnesses.

ARTHUR HOGG.

Attest:

WM. O. STARK,
MICHAEL J. STARK.