

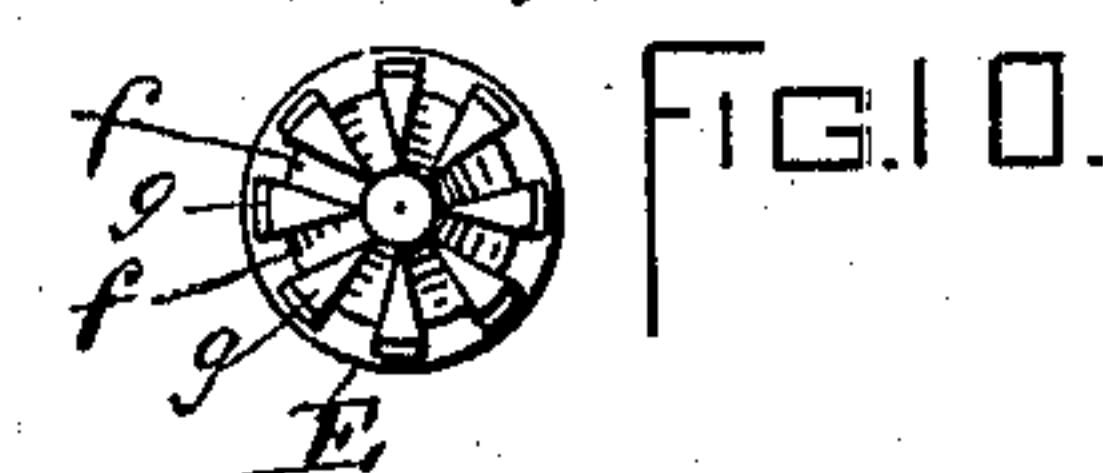
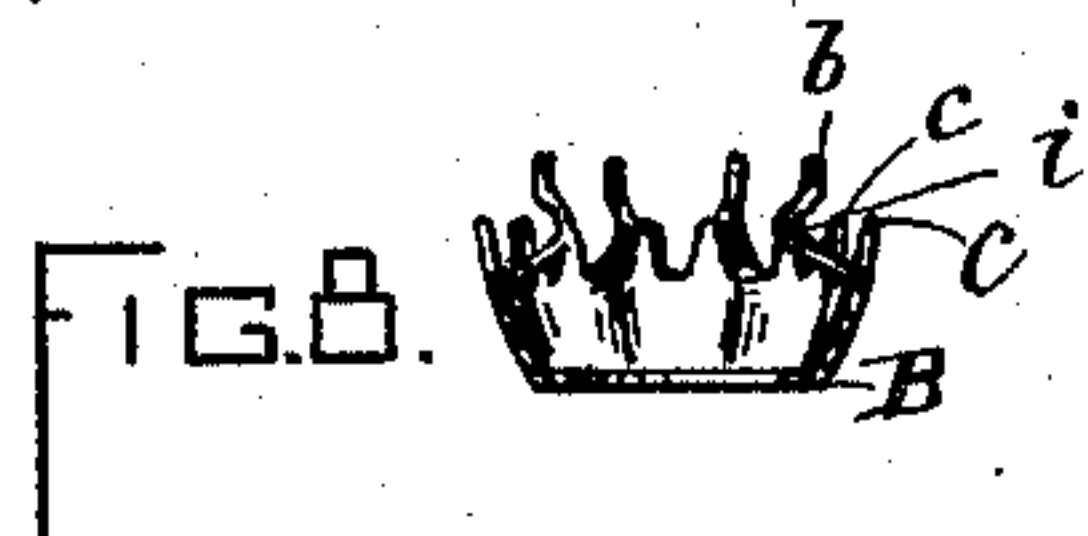
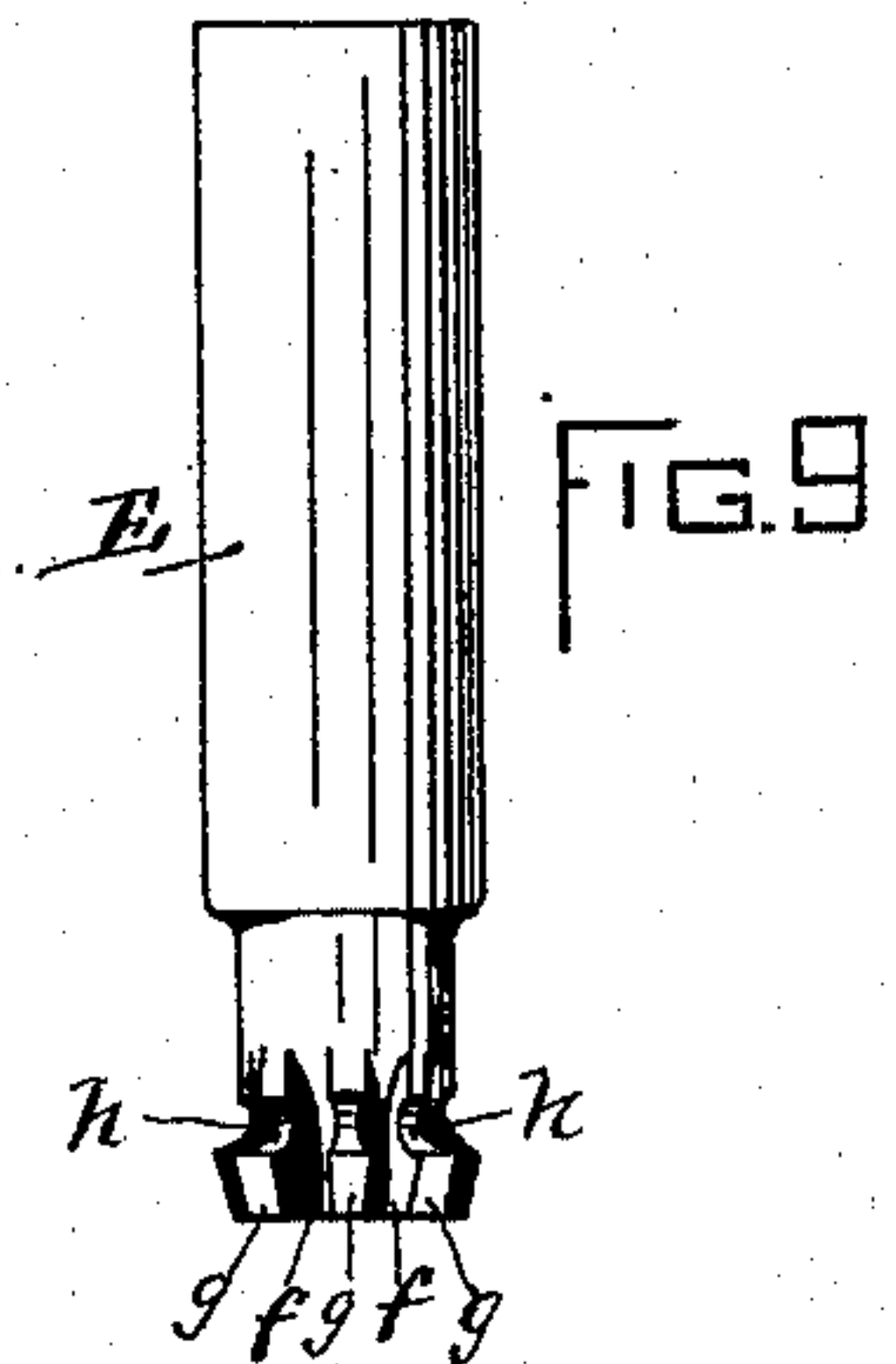
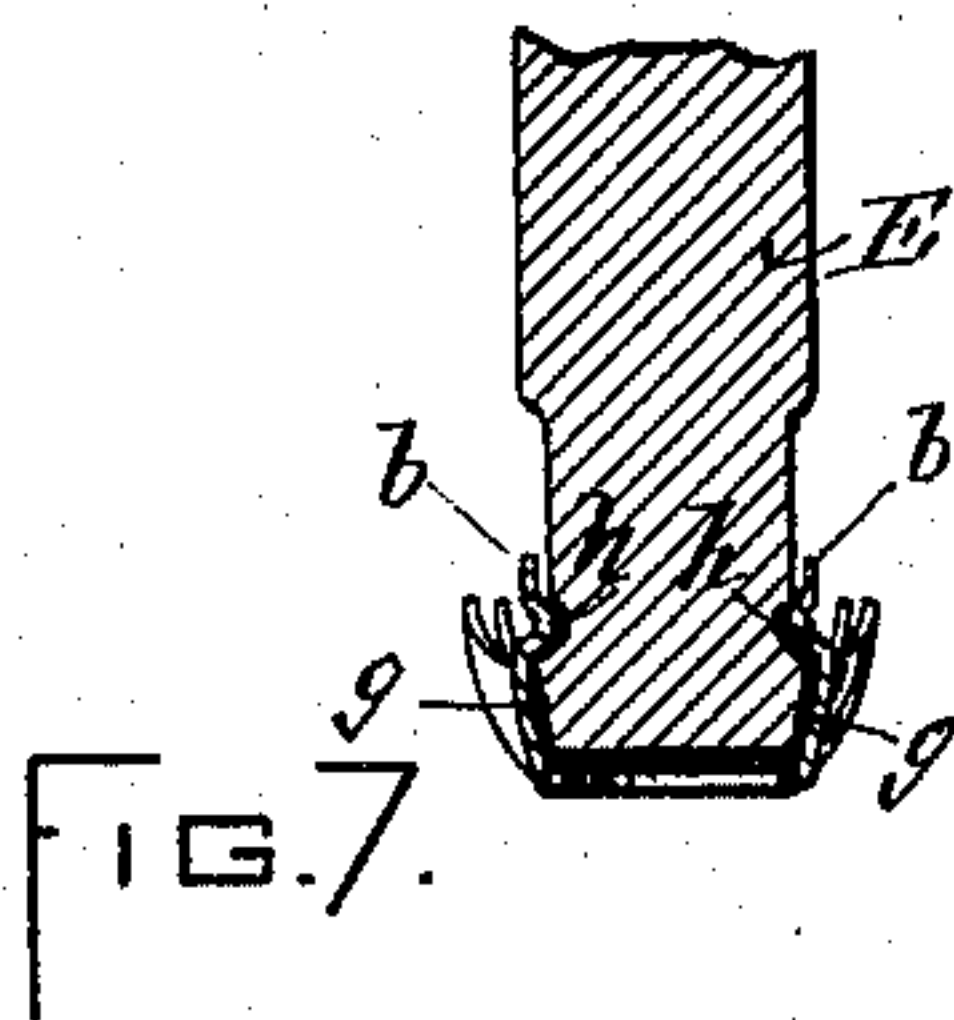
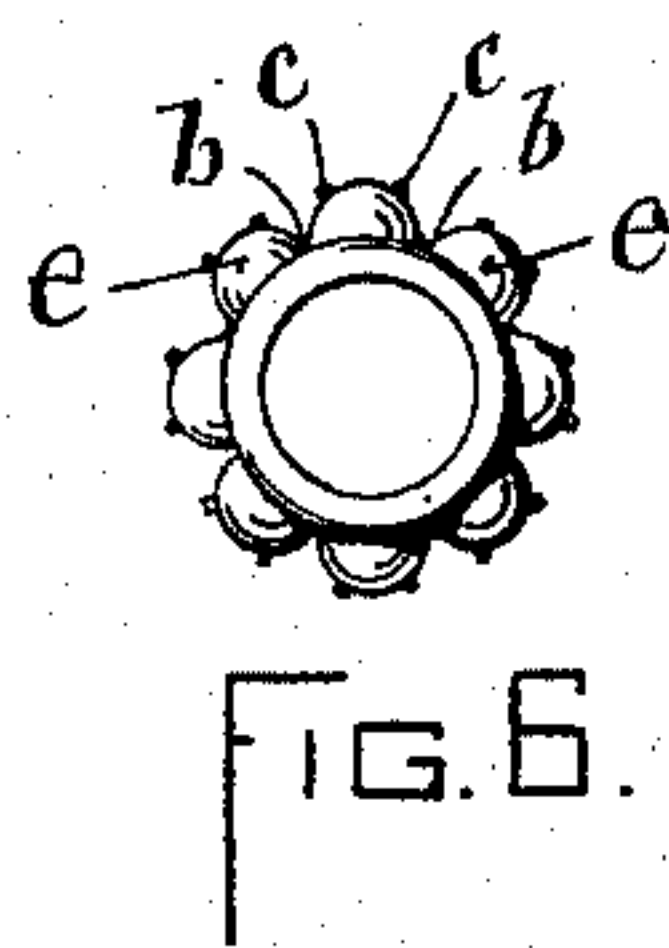
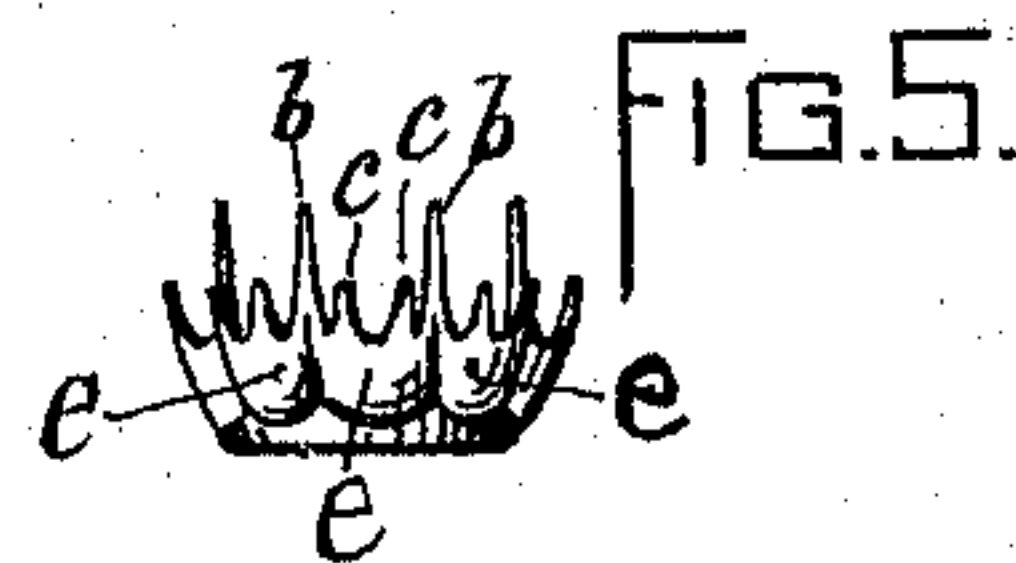
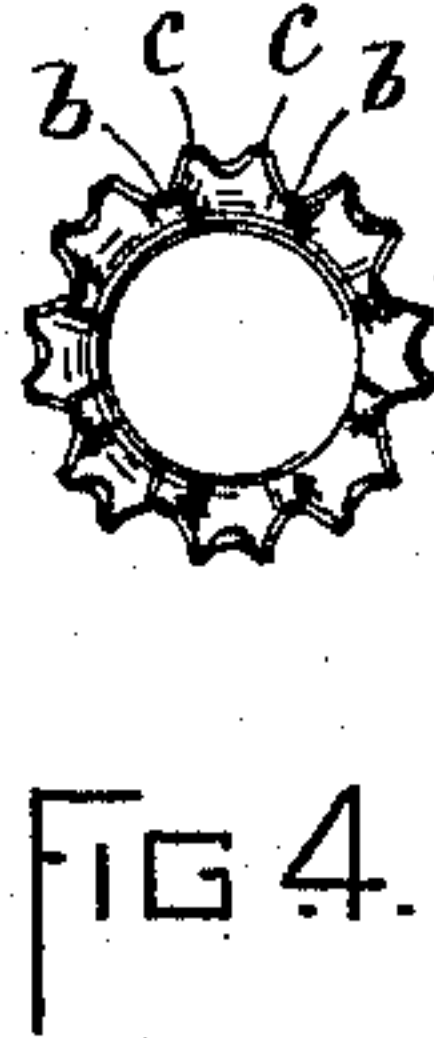
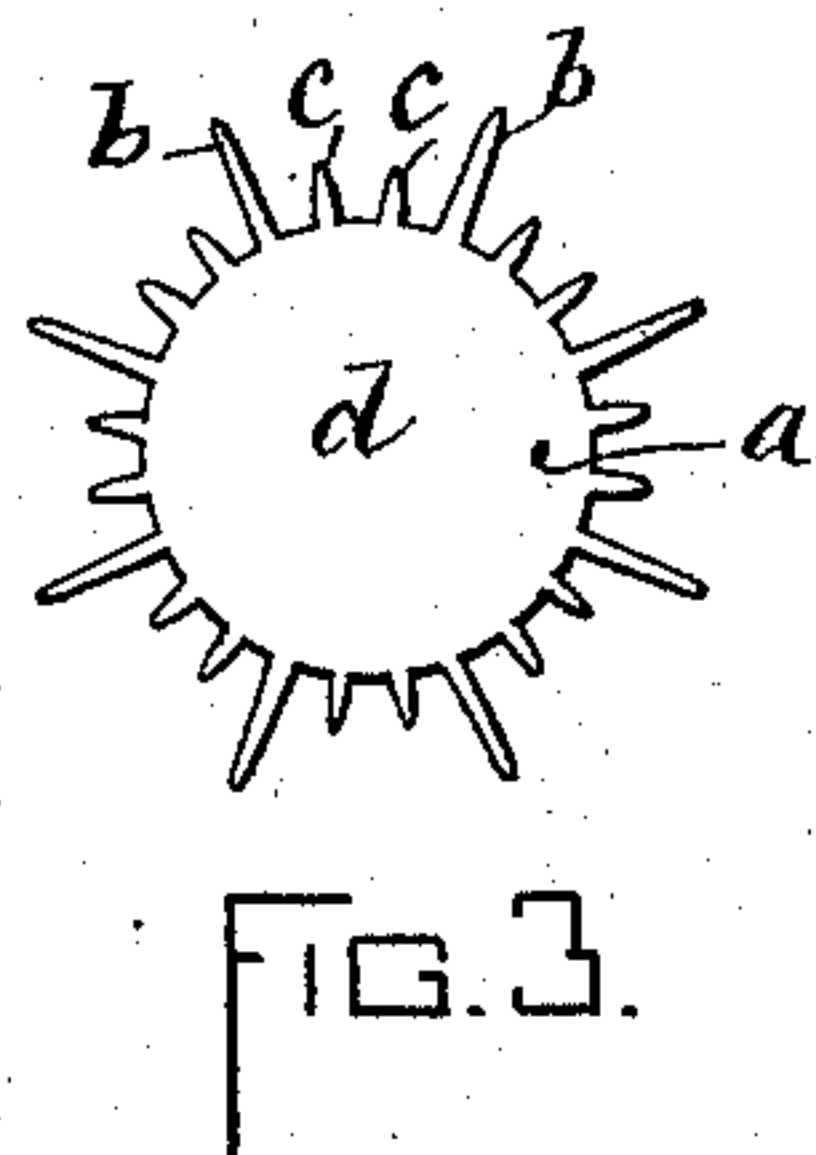
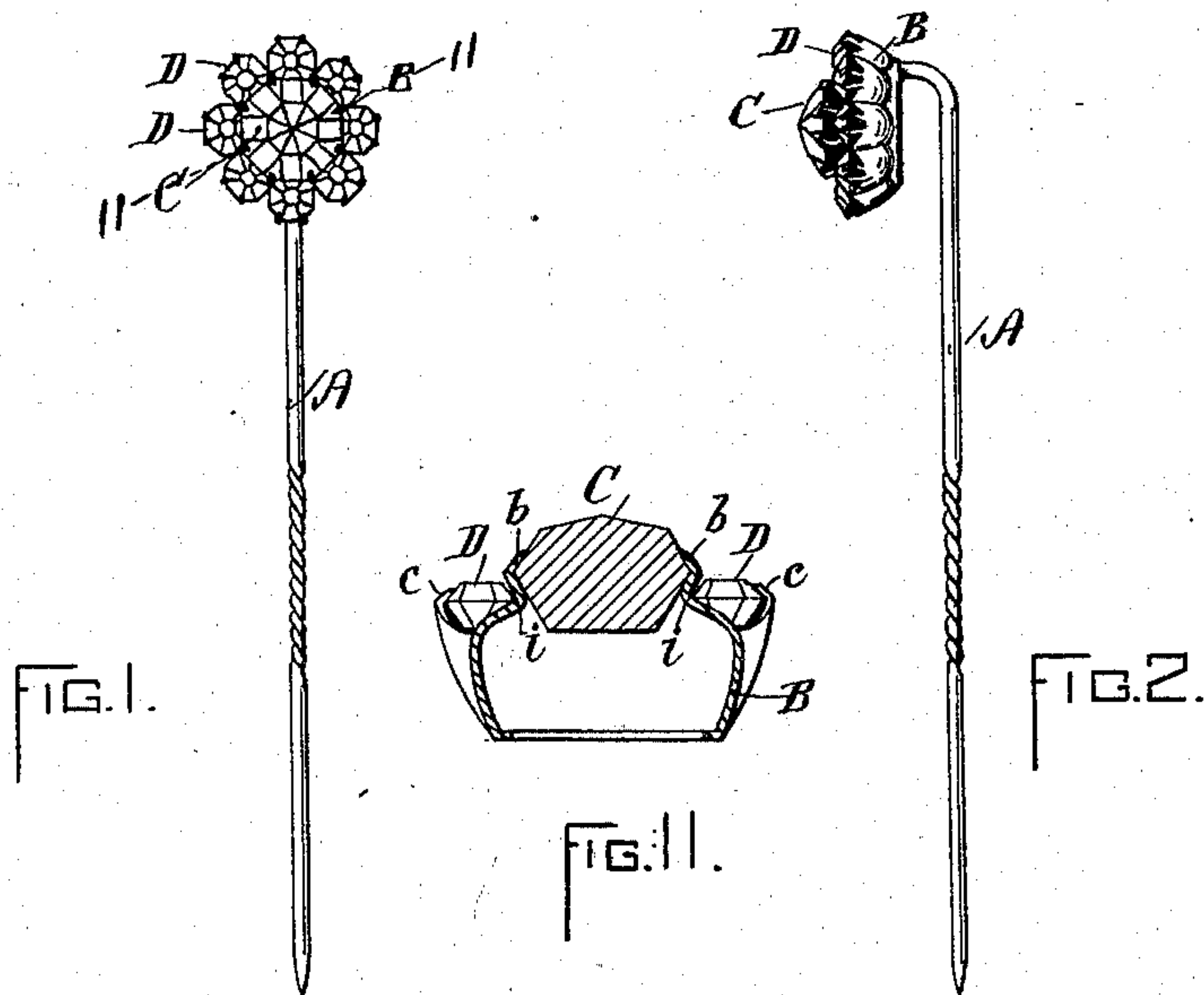
(No Model.)

J. G. W. SHEPARD.

CLUSTER SETTING FOR JEWELRY AND TOOL FOR FORMING SAME.

No. 567,554.

Patented Sept. 8, 1896.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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CLUSTER-SETTING FOR JEWELRY AND TOOL FOR FORMING SAME.

SPECIFICATION forming part of Letters Patent No. 567,554, dated September 8, 1896.

Application filed June 1, 1896. Serial No. 593,903. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES G. W. SHEPARD, a citizen of the United States, residing at Edgewood, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Cluster-Settings for Jewelry and Tools for Forming the Same, of which the following is a specification.

The nature of my invention consists in the improved construction of a cluster-setting from a single piece of stock without the employment of solder, and in the improved construction of the tool for bending the points which serve to hold both the central and outer stones of the cluster.

In the accompanying drawings, Figure 1 represents a face view of a scarf-pin provided with my improved cluster-setting. Fig. 2 represents an edge view of the same. Fig. 3 represents a face view of the planchet from which the setting is formed. Fig. 4 represents the face view, and Fig. 5 an edge view, of the setting as first struck up in cup form by the dies. Fig. 6 represents a back view of the cup-formed setting shown in Figs. 4 and 5 with the bottom removed. Fig. 7 represents an axial section of the tool for bending the longer points of the setting, and a corresponding section of the setting when bent to conform to the notched form of the tool. Fig. 8 represents a section of the finished setting when removed from the tool. Fig. 9 represents a side view, and Fig. 10 an end view, of the tool. Fig. 11 represents an enlarged section of the setting taken in the line 11 11 of Fig. 1.

In the drawings, A represents the pin, B the setting, C the central stone, and D the outer stones of the cluster; and in forming my improved cluster-setting, I first cut out a planchet *a* from a sheet of stock, the said planchet being provided with the longer points *b b* and the shorter intermediate points *c c*, which extend radially from the periphery of the disk *d*. I then strike up the planchet *a* in cup form, as shown in Figs. 4 and 5, by means of suitable dies, the swells *e e* being imparted to the edge of the cup at the base of the points *c c*, as shown in Figs. 5 and 6. I then remove the bottom of the cup, as shown in Fig. 6, and thereafter bend

the longer points *b b* by means of a tool E, as shown in Figs. 7 and 8, the said tool being provided with the grooves *f f* between the radial ribs *g g*, the said ribs being provided with the notches *h*, into which the points *b* are to be bent, as shown in Fig. 7, the finished setting being adapted for removal from the tool by being first turned thereon until the points *b* are caused to enter the spaces of the grooves *f*, when the setting can be readily removed downward from the tool. In the finished setting, as shown in section in Fig. 8, the points *b* will be provided with a recess *i* for holding the inner edge of the outer stone D, while the ends of the said points are turned over the peripheral edge of the central stone C, as shown in Fig. 11, the outer edges of the stones D being held by the inwardly-turned points *c c*.

It is evident that any desired number of stones may be arranged to form the outer portion of the cluster, a cluster having eight outer stones being shown in the drawings.

I claim as my invention—

1. A cluster-setting formed in one piece with peripheral swells, and having shorter points extending upward from the swells to embrace the outer edges of the outer stones, with longer points intermediate of the swells, the said longer points being bent inwardly, and adapted to hold the edge of the central stone, and the inner edges of the outer stones, substantially as described.

2. A cluster-setting, formed in one piece, with longer and shorter points, the longer points being adapted to hold the peripheral edge of the central stone and the inner edge of the outer stones, in conjunction with the shorter points of the setting, substantially as described.

3. The tool for bending the longer points of the setting, provided with the grooves adapted for the removal of the finished setting from the tool, and the notches adapted for imparting the proper inward bend to the points, substantially as described.

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