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(54) **GEM SETTING AND PIECE OF JEWELRY**
MADE THEREWITH

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(57) **ABSTRACT**

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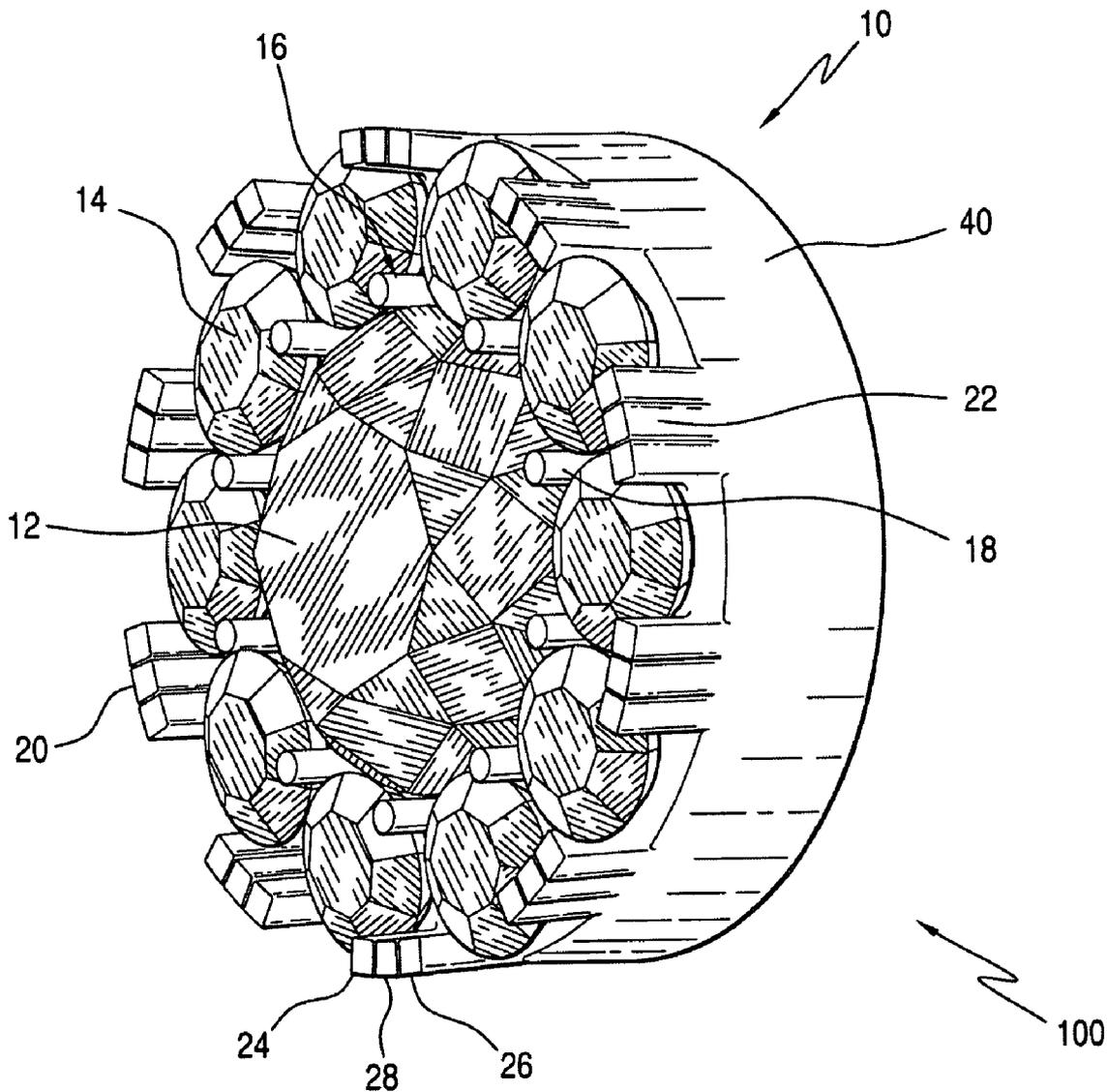
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A gem setting includes a base structure and a first plurality of supporting prongs extending from the base structure. The first plurality of prongs is arranged with a first lateral extent, each of the prongs forming the first plurality of supporting prongs engaging both a central stone and at least two surrounding stones. The gem setting also includes a second plurality of supporting prongs extending from the base structure. The second plurality of prongs is arranged with a second lateral extent beyond the lateral extent of the first plurality of supporting prongs. The second plurality of supporting prongs is composed of tri-prongs each including a first lateral prong, a second lateral prong and a central prong. The first lateral prong and the second lateral prong are oriented to engage the at least two surrounding stones engaged by the prong of the first plurality of supporting prongs.

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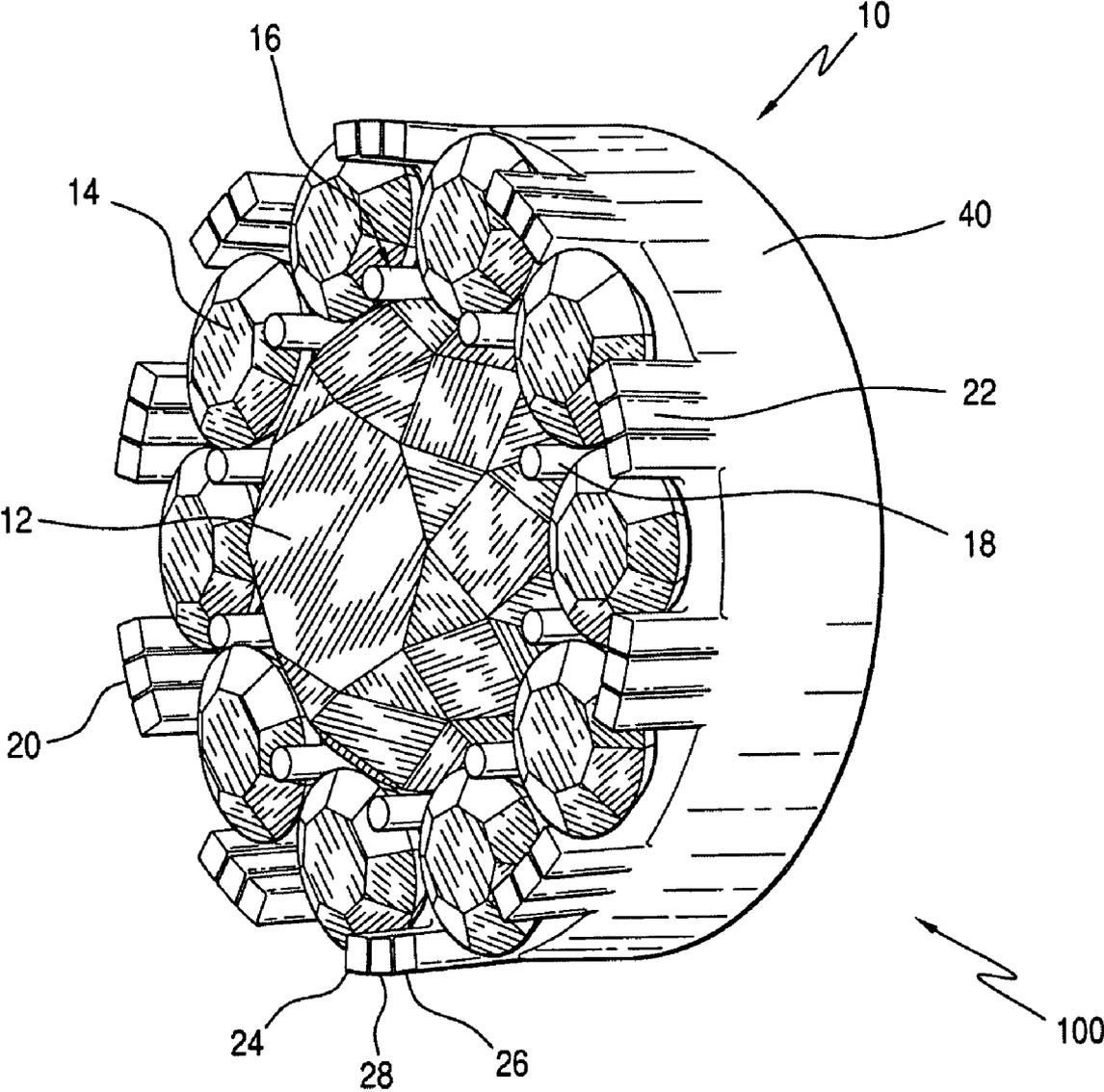


FIG. 1

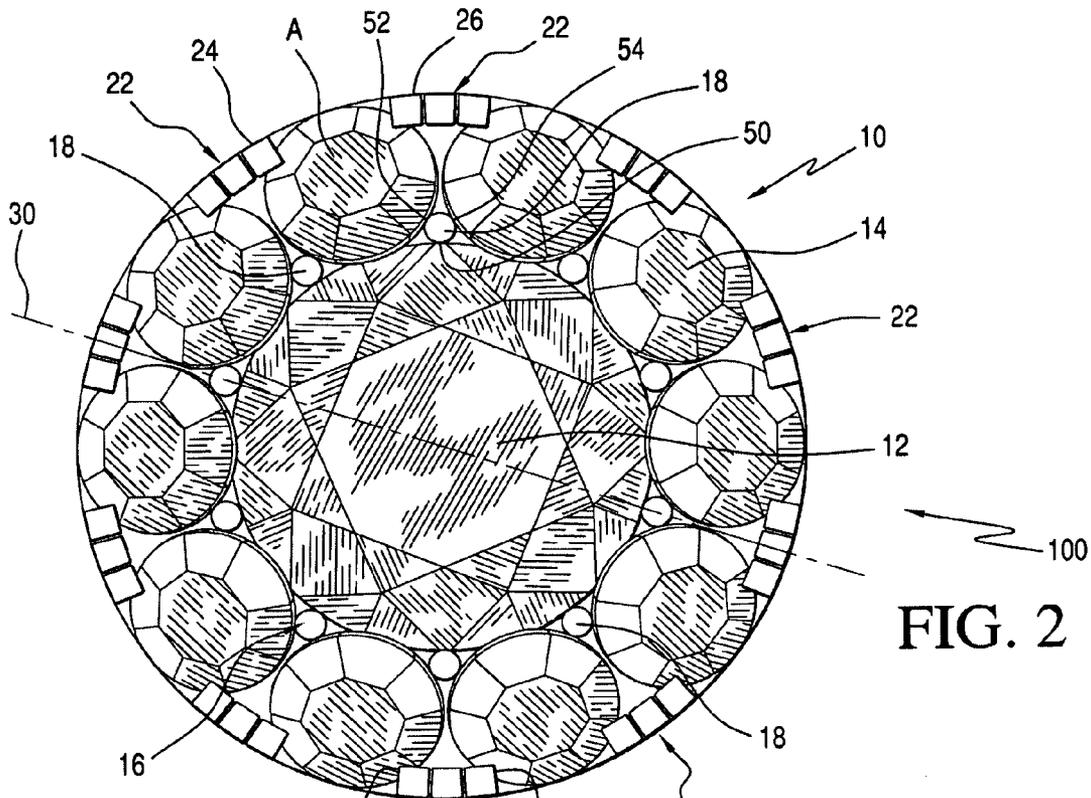


FIG. 2

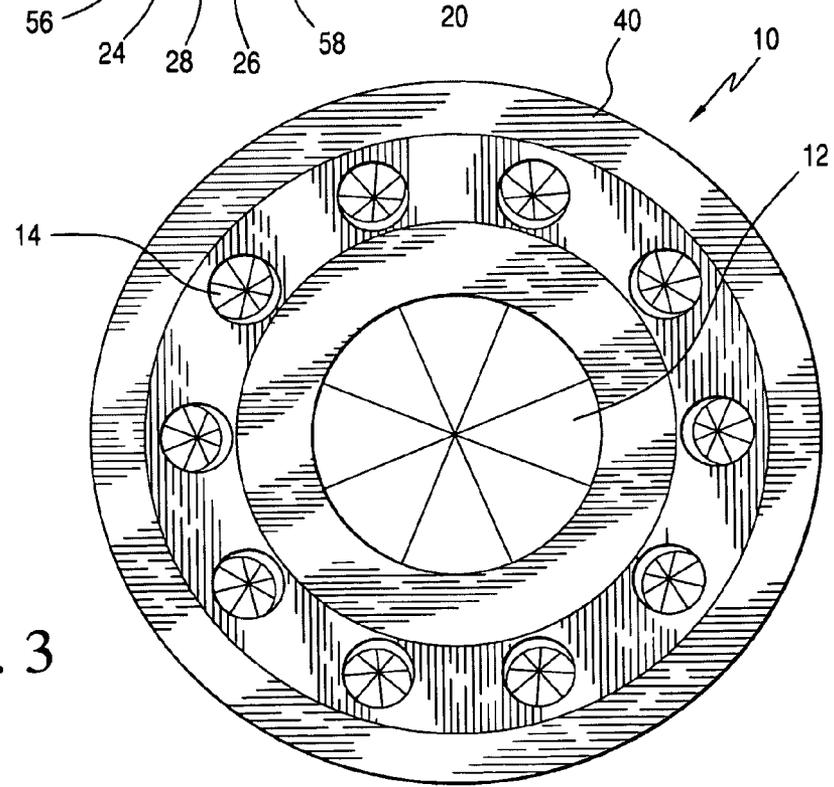


FIG. 3

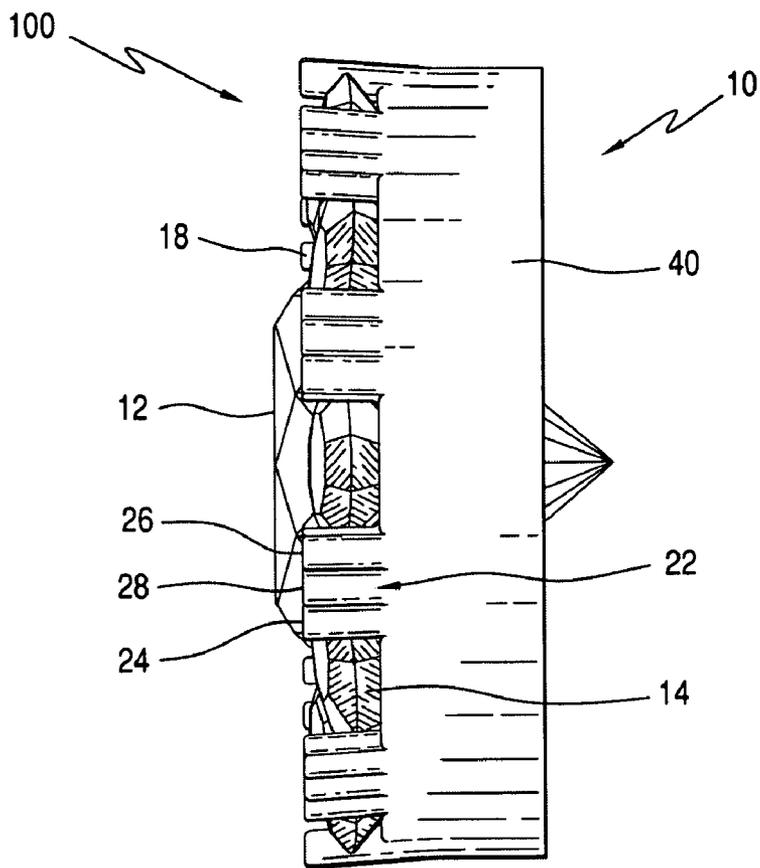


FIG. 4

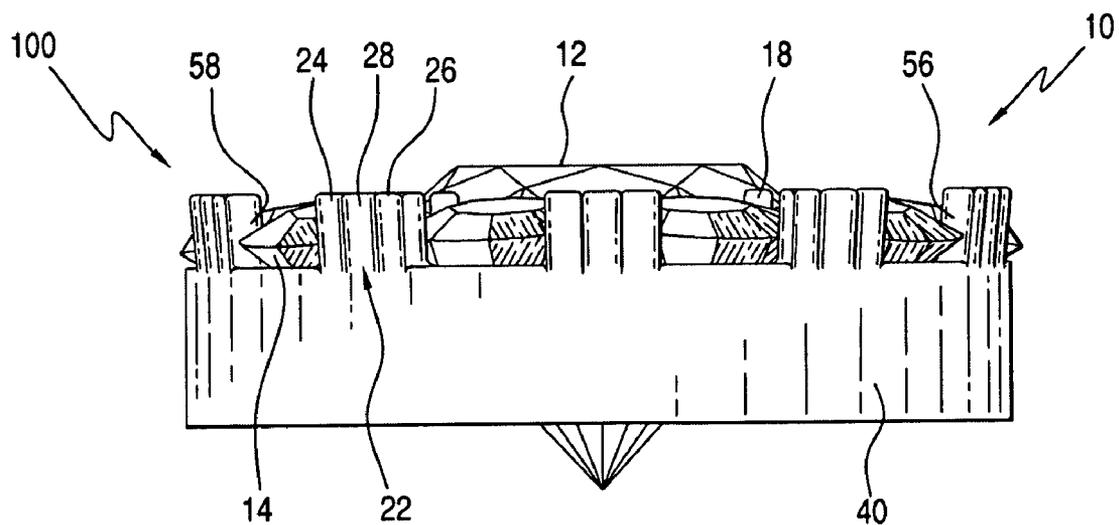


FIG. 5

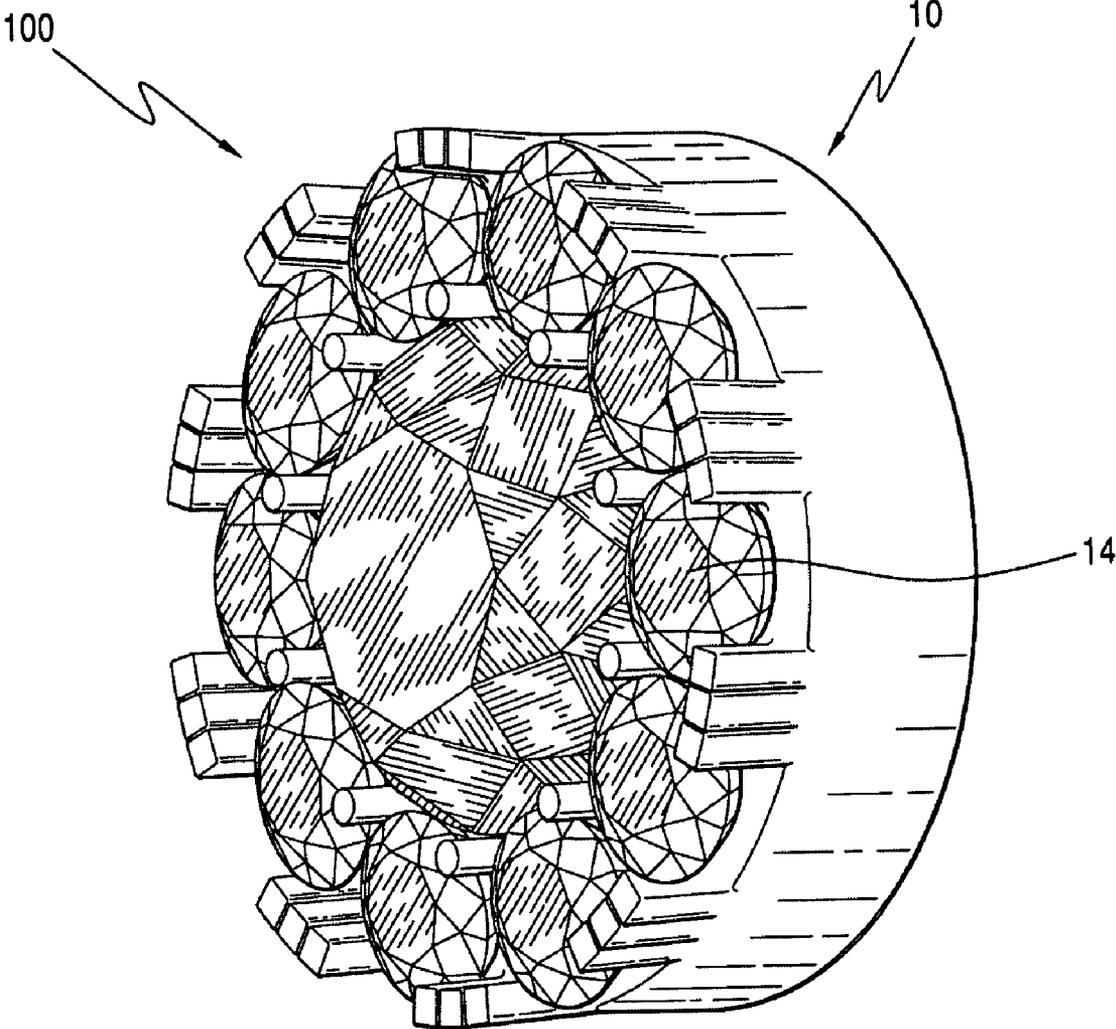
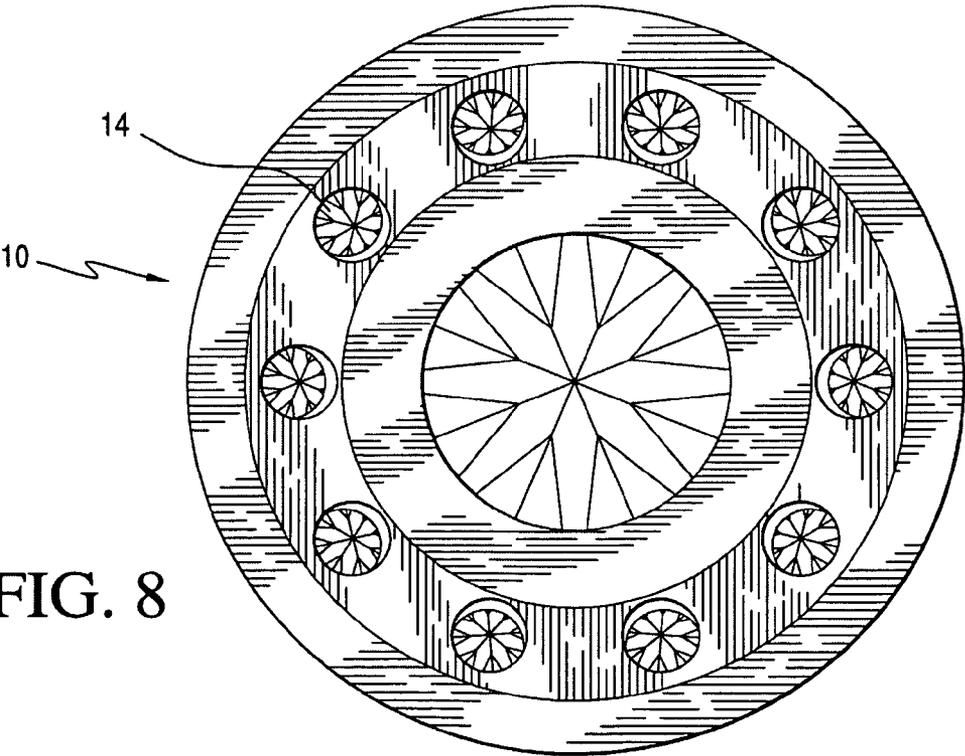
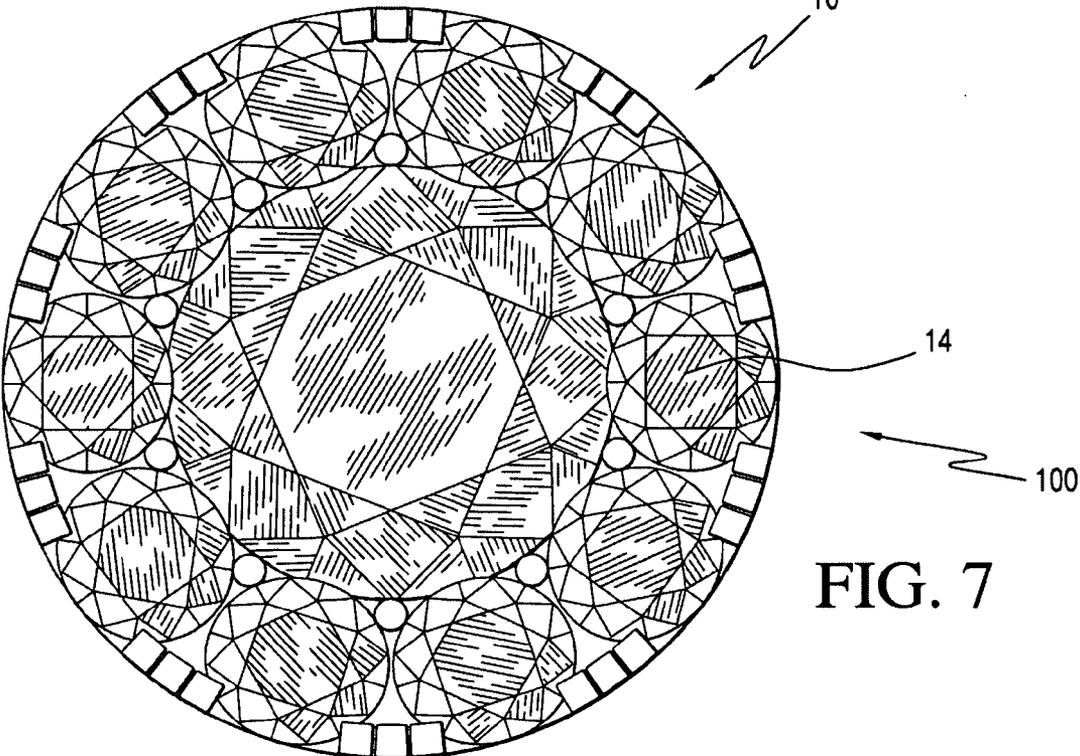


FIG. 6



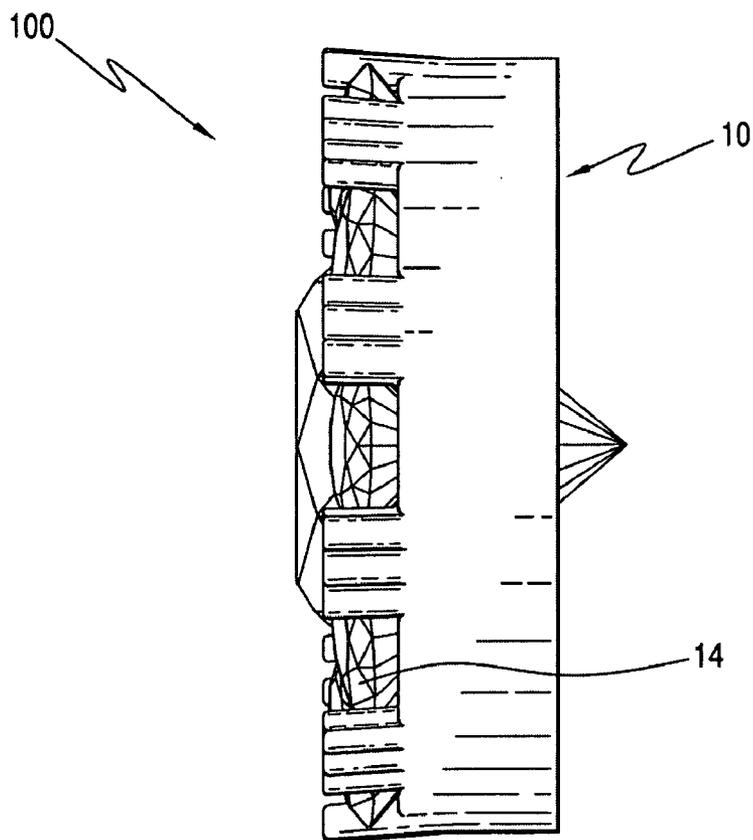


FIG. 9

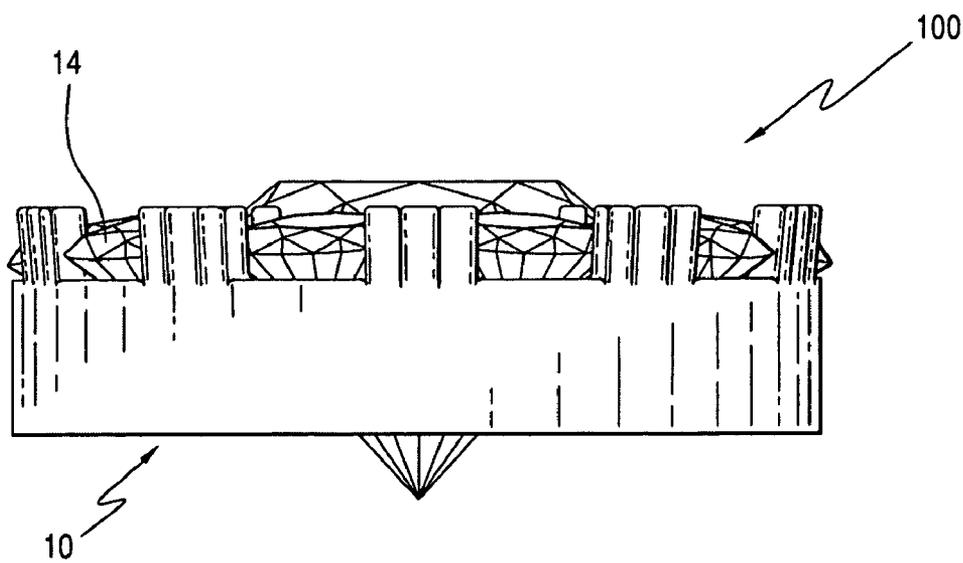


FIG. 10

GEM SETTING AND PIECE OF JEWELRY MADE THEREWITH

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The invention relates to jewelry and, in particular, a gem setting.

[0003] 2. Description of the Related Art

[0004] It is said that "diamonds are a girl's best friend". Consequently, people often spend as much time determining the setting for diamond(s) as they do in picking out the diamond(s) itself.

[0005] It is well appreciated the correct diamond setting will enhance the appearance of the diamond, while a poorly constructed diamond setting will detract from even the best and brightest diamonds. Consequently, the art is replete with diamond settings of various shapes and sizes offering options to suit diamonds of different shapes, sizes and quality. Often, a compromise must be made between the aesthetics of the diamond setting and the strength, stability and symmetry of the diamond setting

[0006] The present invention addresses the limitations of the prior art by providing a diamond setting which is both aesthetically and structurally exceptional.

SUMMARY OF THE INVENTION

[0007] It is, therefore, an object of the present invention to provide a piece of jewelry including a central stone and a plurality of surrounding stones mounted in a setting. The setting includes a first plurality of supporting prongs arranged with a first lateral extent, each of the prongs forming the first plurality of supporting prongs engaging both a central stone and at least two surrounding stones. The setting further includes a second plurality of supporting prongs arranged with a second lateral extent beyond the lateral extent of the first plurality of supporting prongs. The second plurality of supporting prongs is composed of tri-prongs each including a first lateral prong, a second lateral prong and a central prong. The first lateral prong and the second lateral prong are oriented to engage the at least two surrounding stones engaged by the prong of the first plurality of supporting prongs.

[0008] It is also an object of the present invention to provide a piece of jewelry wherein the central stone is a diamond and the surrounding stones are diamonds.

[0009] It is another object of the present invention to provide a piece of jewelry wherein the first plurality of supporting prongs is arranged in a circular arrangement having a first diameter.

[0010] It is a further object of the present invention to provide a piece of jewelry wherein the second plurality of supporting prongs is arranged in a circular arrangement having a second diameter.

[0011] It is also an object of the present invention to provide a piece of jewelry wherein the second diameter is larger than the first diameter.

[0012] It is another object of the present invention to provide a piece of jewelry wherein each tri-prong is aligned with an inner prong along a radial line extending through a center of the setting.

[0013] It is a further object of the present invention to provide a piece of jewelry wherein each tri-prong is aligned with an inner prong.

[0014] It is also an object of the present invention to provide a gem setting including a base structure and a first plurality of supporting prongs extending from the base structure. The first plurality of prongs is arranged with a first lateral extent, each of the prongs forming the first plurality of supporting prongs engaging both a central stone and at least two surrounding stones. The gem setting also includes a second plurality of supporting prongs extending from the base structure. The second plurality of prongs is arranged with a second lateral extent beyond the lateral extent of the first plurality of supporting prongs. The second plurality of supporting prongs is composed of tri-prongs each including a first lateral prong, a second lateral prong and a central prong. The first lateral prong and the second lateral prong are oriented to engage the at least two surrounding stones engaged by the prong of the first plurality of supporting prongs.

[0015] Other objects and advantages of the present invention will become apparent from the following detailed description when viewed in conjunction with the accompanying drawings, which set forth certain embodiments of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] FIG. 1 is a perspective view of a piece of jewelry employing the present gem setting.

[0017] FIG. 2 is a top plan view of the piece of jewelry shown in FIG. 1.

[0018] FIG. 3 is a bottom plan view of the piece of jewelry shown in FIG. 1.

[0019] FIGS. 4 and 5 are left and right side plan views of the piece of jewelry shown in FIG. 1.

[0020] FIGS. 6 to 10 show an alternate piece of jewelry employing the gem setting in accordance with the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0021] The detailed embodiments of the present invention are disclosed herein. It should be understood, however, that the disclosed embodiments are merely exemplary of the invention, which may be embodied in various forms. Therefore, the details disclosed herein are not to be interpreted as limiting, but merely as a basis for teaching one skilled in the art how to make and/or use the invention.

[0022] In accordance with the present invention, and with reference to FIGS. 1 to 5, a gem setting 10 forming part of a piece of jewelry 100 is disclosed. The piece of jewelry 100 may constitute part of an earring, ring, pendant, etc. The gem setting in accordance with the disclosed embodiment is for diamonds, although it is appreciated other stones may be used. Accordingly, and although the term diamond is used in describing the gems in accordance with the disclosed embodiments, it is appreciated other gems may be employed.

[0023] The present diamond setting 10 supports a large central diamond 12 with a plurality of smaller surrounding diamonds 14 circumferentially positioned thereabout to produce a piece of jewelry 100. The diamond setting 10 includes a circular base structure 40 from which a first plurality of supporting prongs 16 extends and a second plurality of supporting prongs 18 extends. As will be appreciated, this base construction may take a variety of forms depending on the aesthetic desires of the jewelry designer.

[0024] The gem setting 10 includes a first plurality of supporting prongs 16 in a circular arrangement having a first diameter (or lateral extent). Each of the inner prongs 18 forming the first plurality of supporting prongs 16 engages the central diamond 12 and at least two surrounding diamonds 14.

[0025] A second plurality of supporting prongs 20 is arranged in a circular arrangement having a second diameter (or lateral extent). The second plurality of prongs 20 includes a second diameter that is larger than the first diameter; that is, the second plurality of supporting prongs 20 is positioned beyond the lateral extent of the first plurality of supporting prongs. The second plurality of prongs 20 is formed in groups of three prongs referred to herein as a tri-prong 22. Each of the tri-prongs 22 is circumferentially aligned with a central prong 18. That is, a radial line 30 extending from the center of the setting will bisect both an inner prong 18 and the tri-prong 22. In this way, pairs of prongs, that is, an inner prong 18 and a tri-prong 22 that are bisected by a radial line 30 extending through the center of the gem setting 10, support adjacent pairs of surrounding diamonds 14.

[0026] Each tri-prong 22 includes a first lateral prong 24, a second lateral prong 26 and a central prong 28. The first lateral prong 24 and the second lateral prong 26 of each tri-prong 22 are oriented to engage the adjacent surrounding diamonds 14 engaged by the inner prong 18 of the first plurality of supporting prongs 16. The arrangement of the first lateral prong 24, the second lateral prong 26 and the central prong 28 maintain symmetry and strength in the gem setting 10.

[0027] In particular, and as will be discussed below in greater detail, the first lateral prong 24 and the second lateral prong 26 engage the surrounding diamonds 14 for the purpose of setting the surrounding diamonds 14 within the gem setting 10. The central prong 28, helps to maintain the symmetrical arrangement of the surrounding diamonds 14 by keeping the surrounding diamonds 14 in a continuous curve. In addition, the positioning of the central prong 28 between the first lateral prong 24 and the second lateral prong 26 adds to the stability of the arrangement by laterally supporting the first and second lateral prongs 24, 26 while also adding strength during the casting process.

[0028] More particularly, and with reference to the central diamond 12, the first plurality of prongs 16 is centrally located in the gem setting 10. The inner prongs 18 making up the first plurality of prongs 16 extend upwardly from the base structure 40 of the gem setting 10. The inner prongs 18 are substantially cylindrical members (that is, the exhibit a circular cross section when viewed from above as shown in FIG. 2) and include inward facing surfaces 50 that are shaped and dimensioned to engage the girdle of the central diamond 12 and outward facing surfaces 52, 54 shaped and dimensioned to engage the outer diamonds 14. As those skilled in the art will appreciate, the girdle is the narrow band around the outer circumference of a diamond. It is appreciated various prong shapes are possible within the spirit of the present in order to ensure the diamonds are securely held in position, and may, therefore be selected to suit the specific situations in which the present gem setting is employed.

[0029] With regard to the surrounding diamonds 14 and the second plurality of supporting prongs 20, each of the surrounding diamonds 14 is circumferentially positioned about the central diamond 12 such that the girdle of the surrounding diamonds 14 slightly overlaps with the girdle of the central

diamond 12. This produces the impression of a larger, continuous diamond and is deemed aesthetically pleasing.

[0030] The outer surrounding diamonds 14 are supported by both the outer edges of the inner prongs 18 making up the first plurality of supporting prongs 16 and opposed first and second lateral prongs 24, 26 of the second plurality of supporting prongs 20. As with the inner prongs 18, the first and second lateral prongs 24, 26 may take a variety of shapes within the spirit of the present in order to ensure the diamonds are securely held in position, and may, therefore be selected to suit the specific situations in which the present gem setting is employed. In accordance with the embodiment shown with reference to FIGS. 1 to 5, the first and second lateral prongs 24, 26, as well as the central prong 28, are substantially square in cross section when viewed from above as shown in FIG. 2). The first and second lateral prongs 24, 26 include facing surfaces 56, 58 that are shaped and dimensioned to engage the girdle of the central diamond 12

[0031] With reference to adjacent prong pairs supporting a surrounding diamond designated as A in FIG. 2, the girdle of the surrounding diamond 14 is supported through engagement with adjacent first and second inner prongs 18 of the first plurality of prongs 16 along an inner edge thereof. The outer edge of the surrounding diamond 14 is supported by a first lateral prong 24 of a first tri-prong 22 grouping and a second lateral prong 26 of an adjacent second tri-prong 22 grouping. In this way, the surrounding diamond 14 is supported in a secure and aesthetically pleasing manner allowing for full viewing of the diamond's brilliance. The various prongs are oriented such that they engage the surrounding diamond at spaced intervals.

[0032] As shown with reference to FIGS. 1 to 5, ten surrounding diamonds are disclosed. Given the prong arrangement, ten surrounding diamonds requires that the first plurality of supporting prongs consists of ten inner prongs while the second plurality of supporting prongs consists of ten tri-prongs, each composed of a first lateral prong, a second lateral prong and a central prong.

[0033] Referring to FIGS. 6 to 10, it is appreciated the present gem setting 10 may be employed with other jewelry arrangement. For example, FIGS. 6 to 10 show the present gem setting 10 employed with full-cut surrounding diamonds 14, while flat-cut surrounding diamonds 14 are shown with reference to FIGS. 1 to 5.

[0034] While the preferred embodiments have been shown and described, it will be understood that there is no intent to limit the invention by such disclosure, but rather, is intended to cover all modifications and alternate constructions falling within the spirit and scope of the invention.

1. A piece of jewelry, comprising:
 - a central stone and a plurality of surrounding stones mounted in a setting, the setting including:
 - a first plurality of supporting prongs arranged with a first lateral extent, each of the prongs forming the first plurality of supporting prongs engaging both a central stone and at least two surrounding stones;
 - a second plurality of supporting prongs arranged with a second lateral extent beyond the lateral extent of the first plurality of supporting prongs, the second plurality of supporting prongs being composed of tri-prongs each including a first lateral prong, a second lateral prong and a central prong, the first lateral prong and the second lateral prong being oriented to engage the at least two

surrounding stones engaged by the prong of the first plurality of supporting prongs.

2. The piece of jewelry according to claim 1, wherein the central stone is a diamond and the surrounding stones are diamonds.

3. The piece of jewelry according to claim 1, wherein the first plurality of supporting prongs is arranged in a circular arrangement having a first diameter.

4. The piece of jewelry according to claim 3, wherein the second plurality of supporting prongs is arranged in a circular arrangement having a second diameter.

5. The piece of jewelry according to claim 4, wherein the second diameter is larger than the first diameter.

6. The piece of jewelry according to claim 5, where each tri-prong is aligned with an inner prong along a radial line extending through a center of the setting.

7. The piece of jewelry according to claim 1, wherein each tri-prong is aligned with an inner prong.

8. A gem setting, comprising:

a base structure;

a first plurality of supporting prongs extending from the base structure, the first plurality of prongs arranged with a first lateral extent, each of the prongs forming the first plurality of supporting prongs engaging both a central stone and at least two surrounding stones;

a second plurality of supporting prongs extending from the base structure, the second plurality of prongs arranged

with a second lateral extent beyond the lateral extent of the first plurality of supporting prongs, the second plurality of supporting prongs being composed of tri-prongs each including a first lateral prong, a second lateral prong and a central prong; and

the first lateral prong and the second lateral prong being oriented to engage the at least two surrounding stones engaged by the prong of the first plurality of supporting prongs.

9. The gem setting according to claim 8, wherein the central stone is a diamond and the surrounding stones are diamonds.

10. The gem setting according to claim 8, wherein the first plurality of supporting prongs is arranged in a circular arrangement having a first diameter.

11. The gem setting according to claim 10, wherein the second plurality of supporting prongs is arranged in a circular arrangement having a second diameter.

12. The gem setting according to claim 11, wherein the second diameter is larger than the first diameter.

13. The gem setting according to claim 12, where each tri-prong is aligned with an inner prong along a radial line extending through a center of the setting.

14. The gem setting according to claim 8, wherein each tri-prong is aligned with an inner prong.

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