A stone for suspending from an article of jewelry, the stone having a crown, a pavilion, a table, a girdle, and a culet. The improvement includes a throughbore extending from the crown to the pavilion of the stone allowing the stone to have improved structural integrity and to have improved luster by virtue of reducing refraction, reflection, and dispersion errors, and when suspended by the throughbore from the article of jewelry, by virtue of eliminating visually obstructive conventional settings, has improved scintillation, improved visibility, and gives an impression that it is floating in air or dancing relative to the article of jewelry.
Fig. 1
(Prior Art)
PROVIDE THE STONE (30) WITH THE CROWN (12), THE PAVILION (14), THE TABLE (16), THE GIRDLE (18), AND THE CULET (20), SO AS TO FORM A CUT STONE.

STEP 1

Fig. 6-A
LASER-DRILL THE THROUGH BORE (34) THROUGH THE CUT STONE 10, FROM THE CROWN (12) TO THE PAVILION (14), SO AS TO FORM A LASER-DRILLED STONE 30 HAVING IMPROVED STRUCTURAL INTEGRITY AND IMPROVED LUSTER BY VIRTUE OF MINIMIZING REFRACTION, REFLECTION, AND DISPERSION ERRORS, AND WHEN SUSPENDED BY THE THROUGH BORE (34) FROM THE JEWELRY OBJECT (32), BY VIRTUE OF ELIMINATING CONVENTIONAL VISUALLY OBSTRUCTIVE SETTINGS, HAS IMPROVED SCINTILLATION, IMPROVED VISIBILITY, AND GIVES AN IMPRESSION THAT IT IS FLOATING IN AIR RELATIVE TO THE JEWELRY OBJECT

STEP 2

SUBJECT THE LASER-DRILLED STONE TO AN ACID BATH FOR APPROXIMATELY FORTY TO FORTY EIGHT HOURS TO ELIMINATE A RESIDUE FORMED IN THE THROUGH BORE (34) FROM THE LASER-DRILL STEP SO AS TO FORM A RESIDUE-ELIMINATED STONE

STEP 3

Fig. 6-B
STEP 4

DETERMINE IF THE RESIDUE HAS BEEN ELIMINATED IN ITS ENTIRETY

STEP 5

BOIL THE RESIDUE-ELIMINATED STONE IN THE ACID BATH FOR APPROXIMATELY TWO TO THREE HOURS.
<table>
<thead>
<tr>
<th>WEIGHT OF STONE (CARATS)</th>
<th>APPROXIMATE WIDTH OF THROUGH BORE (MM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>From To</td>
<td>From To</td>
</tr>
<tr>
<td>up to 0.199</td>
<td>0.30 0.40</td>
</tr>
<tr>
<td>0.20 0.499</td>
<td>0.40 0.50</td>
</tr>
<tr>
<td>at least 0.50</td>
<td>0.50</td>
</tr>
</tbody>
</table>

**Fig. 7**
DANCING STONE FOR SUSPENDING FROM AN ARTICLE OF JEWELRY

BACKGROUND OF THE INVENTION

[0001] 1. Technical Field of the Invention

[0002] The present invention generally relates to a stone for suspending from an article of jewelry. More particularly, the present invention is directed to a stone for suspending from an article of jewelry and having improved structural integrity and having improved luster by virtue of reducing refraction, reflection, and dispersion errors, and when suspended from the article of jewelry, by virtue of eliminating visually obstructive conventional settings, has improved scintillation, improved visibility, and gives an impression that it is floating in air or dancing relative to the article of jewelry.

[0003] 2. Description of the Prior Art

[0004] Stones, such as gemstones (including diamonds) and synthetic stones (including cubic zirconium or CZ), are available in a variety of shapes, including the princess cut, round or brilliant, marquise, pear shape, heart shape, and others. These stones share similar characteristics as will be described with reference to FIG. 1. FIG. 1 is a diagrammatic side elevational view of a prior art round or brilliant stone 10. The stone 10 has five basic sections that include a crown 12, a pavilion 14, a table 16, a girdle 18, and a culet 20. Each of the crown 12, the pavilion 14, and the table 16 includes at least one facet. The crown 12 is said to represent the top of the stone 10, and the pavilion 14 is said to represent the bottom of the stone 10. Conventionally, the stone 10 is set with the crown 12 thereof facing out, which in the jewelry trade is referred to as “facing up.”

[0005] Currently, jewelry settings are available in many different types and styles. Among the different settings available are prong, bead, bezel, channel, pave, and invisible settings. These can be used alone or in combination with each other. There are certain disadvantages to each of the foregoing settings.

[0006] The prong setting involves securing a stone between two to six wire prongs that extend up from a base that is usually the shape of the stone and oriented on the same axis as the girdle plane of the stone. The prongs are notched to follow the same profile as the stone so that when the prongs are closed onto the stone, the notched profile forms around the girdle of the stone. The notches are usually anywhere from one-third to one-half of the diameter of the prong. The strength of the prong depends on the type of metal, how the metal was heated, how the prong was formed, how the metal was attached to the design, and how much of a notch was cut. The disadvantages to this type of setting are numerous. First, the notches weaken the prong and make it more likely to break. Second, the most common repair on a prong setting is re-tipping whereby metal or solder is added to the top of a worn down prong. This process only works on heat resistant stones, such as diamonds, rubies, or sapphires, which are of sufficient quality so as not to be susceptible to heat expansion stress. If re-tipping does not work, there is a tendency for the prong to snag on clothing, and if one or two prongs break or pull away from the stone, the stone will fall out of the setting.

[0007] The bead setting involves setting a stone into a piece of metal just below the surface by drilling a hole into the metal with a specialized burr that will allow the stone to sit on a seat so that the table of the stone can be positioned just below the surface. The stone is then secured to the metal by raising a small bead of metal, with a steel graver or similar tool, immediately next to the stone, until the bead contacts the stone and holds it in the seat. The pave setting uses the same process, except that the stones are set in a broader area, as opposed to traditional bead settings that usually follow a straight line or involve just a single stone. Both bead and pave settings often involve stones of 2.5 mm or less. This setting is very secure. The beads, however, still do wear down and can sometimes snag clothing. Also, the stone is essentially buried into the metal, causing 50%-60% of the stone to be hidden.

[0008] The bezel setting is virtually the same as a prong setting, except that the entire perimeter of the stone is covered with a thin ribbon of metal. The bezel is usually a tapered or straight solid tube of an appropriate diameter so as to be able to have a seat burled into it so that the stone will sit on it with enough left to be pushed, hammered, or otherwise lowered onto the stone to hold it in the bezel. Bezel settings have a smooth edge all around the stone that will not snag, and are very secure. This setting technique, however, covers approximately two-thirds of the stone and the metal will wear down over time.

[0009] A channel setting involves setting a stone in a channel between opposing channel walls. A small seat is cut in each channel wall so that the corresponding size stone will sit between the walls, suspended above the base of the channel. The walls are then hammered onto the edge of the stone until the stone is secure. This type of setting most often involves stones of 2.5 mm or less. When larger stones are channel set, they are most often set alone. These stones are at more risk than smaller stones because the channel must be larger and will be more susceptible to expansion. As with other types of settings, the metal will wear down over time.

[0010] An invisible setting is a technique used to set a number of stones together in rows or patterns so that there is no perceptible means of support. The stones have a very small groove, just under the girdle, on the pavilion. The groove is small enough so as not to be visible from the top, but large enough to accept a thin piece of metal. The stones are grouped together into the particular pattern on top of a lattice form that will accommodate each stone. The metal is then pushed into the grooves of each stone from the back of the lattice, securing the stones to the lattice form. A variation of this technique requires the stones to be notched, much the same way as a tongue and groove arrangement. The perimeter stones are set with metal, while the interior stones of the design are set tongue in groove. This style of setting tends to use smaller stones, usually no larger than 3 mm. Pieces that are invisibly set are more fragile because there is not much metal used to hold the stones in place. In the case of tongue in groove set stones, when one stone falls out or is broken, the rest of the stones in that grouping will come loose and fall out.

[0011] The shape or cut of the stone will determine, in part, how it is to be set. Most shapes can be set in prong or bezel settings, while only round and square stones can be channel set, only round stones can be bead or pave set, and only square stones can be invisibly set. These setting methods are generally used for faceted stones as described above.
Typically, beads and pearls are set using different setting methods than those described above. They usually have a hole drilled into or through them, and are glued to a post, or threaded onto a string or wire. Some stones can also be set this way. For instance, a briolette is a stone that is usually drop shaped. It is usually tapered and conical and is fully covered with triangular facets. These stones are set in one of three ways. The first way is similar to setting a bead or pearl. A small hole is cut partially into the small end of the stone. A metal post is then coated with an adhesive and inserted into the briolette. The other end of the post can be fashioned into a loop to be suspended from a jewelry design or attached to a base. Another setting method is to drill a hole through the stone and pass a wire or cord through the hole, twisting the ends of the wire together, and attaching the resulting loop of wire to a jewelry piece. A third method used to set these types of stones is to make a cap that covers one end of the briolette and then attach the cap to a base using an adhesive. A disadvantage of all these types of settings is that adhesives tend to become brittle over time. This will affect the quality of the setting and the stone could fall off.

Generally then, jewelry setting techniques tend to rely on trapping a stone in a metal finding or adhesively connecting a stone to a finding or mounting device. If the stone moves or is loose in the setting, or if the adhesive connection weakens, it is generally considered unsafe. These techniques either end up obscuring a portion of the stone resulting in a loss of observed scintillation when the stone is moved or more precisely when the setting moves the stone, make the stone immovable relative to the setting, create a situation where a part of the setting wears out and needs repairs, or have parts that can easily snap on things and break.

For example, U.S. Pat. No. 6,412,304 to Adelman teaches a method of making jewelry including providing an item to be mounted, creating a throughbore in the item, threading an elongated member through the item, providing a finding, providing a laser, and attaching the elongated member through the item, providing the item is suspended adjacent to the finding. More specifically, Adelman teaches positioning the throughbore anywhere through the item, without a need for specific surfaces, only that preferably the throughbore should be approximately 1 mm from the edge of the item. Although Adelman teaches putting a throughbore in an item, it is silent as to the specific surfaces of the item through which the throughbore extends. Thus, Adelman teaches a non-surface specific throughbore.

However, by not knowing specifically which surfaces of the item the throughbore extends through, one cannot say that the positioning of the throughbore improves the luster of the item by reducing refraction, reflection, and dispersion errors. Further, by virtue of the item being set in a Adelman's particular finding having a plurality of metal parts, the item is obscured by the finding and only one degree of freedom of movement is afforded the item relative to the finding in which it is set, and therefore, one cannot say that the item set this finding, by virtue of eliminating a visually obstructive setting, has improved scintillation, visibility, and gives an impression that the item is floating in air or dancing relative to the finding.

As another example, U.S. Pat. No. 6,681,599 to Meguro teaches a jewelry pendant that includes a flat anchor portion provided on the back surface of a pedestal that includes a chain connecting portion formed in an upper part thereof. A suspension portion is formed in a projecting manner on the front surface of the pedestal at substantially the center position thereof and a suspension hole is formed at the tip of the suspension portion. A decorative piece is swingably suspended through the suspension hole. More specifically, Meguro teaches encircling the girdle of a stone with a ring. By surrounding the girdle portion of the jewel with a ring, one cannot say that the jewel, by virtue of eliminating a visually obstructive setting, has improved scintillation, visibility, and gives an impression that the jewel is floating in air or dancing relative to the pedestal.

Even though the foregoing prior art references may be suitable for the specific individual purposes which they address, they would not be suitable for the purposes of the present invention, namely, a stone for suspending from an article of jewelry and having improved structural integrity and luster by virtue of reducing refraction, reflection, and dispersion errors, and when suspended from the article of jewelry, by virtue of eliminating visually obstructive conventional settings, has improved scintillation, visibility, and gives an impression that it is floating in air or dancing relative to the article of jewelry as heretofore described.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the present invention to provide a stone for suspending from an article of jewelry that avoids the disadvantages of the prior art.

It is another object of the present invention to provide a stone for suspending from an article of jewelry that is simple to use.

It is still another object of the present invention to provide a stone for suspending from an article of jewelry that has improved luster.

It is yet another object of the present invention to provide a stone for suspending from an article of jewelry that has improved structural integrity.

It is still yet another object of the present invention to provide a stone for suspending from an article of jewelry that has improved scintillation when suspended from the article of jewelry by virtue of eliminating visually obstructive conventional settings.

It is yet still another object of the present invention to provide a stone for suspending from an article of jewelry that has improved visibility when suspended from the article of jewelry object by virtue of eliminating visually obstructive conventional settings.

It is still yet another object of the present invention to provide a stone for suspending from an article of jewelry object that gives an impression it is floating in air or dancing relative to the article of jewelry when suspended by virtue of eliminating visually obstructive conventional settings.

Briefly stated, it is yet still another object of the present invention to provide an improved stone for suspending from an article of jewelry object and being of the type having a crown, a pavilion, a table, a girdle, and a culet. The improvement includes a throughbore extending from the crown of the stone to the pavilion of the stone allowing the stone to have improved structural integrity and to have
improved luster by virtue of reducing refraction, reflection, and dispersion errors, and when suspended by the throughbore from the article of jewelry, by virtue of eliminating visually obstructive conventional settings, has improved scintillation, improved visibility, and gives an impression that it is floating in air or dancing relative to the article of jewelry.

[0026] The novel features which are considered characteristic of the present invention are set forth in the appended claims. The invention itself, however, both as to its construction and its method of operation, together with additional objects and advantages thereof, will be best understood from the following description of the invention when read in connection with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0027] The figures of the drawings are briefly described as follows:

[0028] FIG. 1 depicts a diagrammatic elevational side view of a prior art round or brilliant stone;

[0029] FIGS. 2A-2C depict exemplary top, side and bottom views, respectively, of a round or brilliant cut stone having a throughbore in accordance with the present invention;

[0030] FIG. 3 depicts an exemplary side view, in partial section, of the stone depicted in FIGS. 2A-2C with a setting device setting the stone via the throughbore;

[0031] FIG. 4 depicts an exemplary side view of an article of jewelry suspending therefrom the stone depicted in FIGS. 2A-2C set with the setting device depicted in FIG. 3;

[0032] FIG. 5 depicts a perspective view of an article of jewelry of FIG. 4 further suspended from another article of jewelry;

[0033] FIG. 6A-6C depict an exemplary flowchart method for preparing the stone depicted in FIGS. 2A-2C for suspending from the article of jewelry;

[0034] FIG. 7 is a table depicting approximate widths of the for various weights of the stone in accordance with the present invention.

LIST OF REFERENCE NUMERALS UTILIZED IN THE DRAWING

Prior Art

| 10 | stone         |
| 12 | crown of stone 10 |
| 14 | pavilion of stone 10 |
| 16 | table of stone 10 |
| 18 | girdle of stone 10 |
| 20 | culet of stone 10 |

Present Invention

| 30 | stone of present invention for suspending from article of jewelry 32 |
| 32 | article of jewelry |
| 34 | throughbore extending from crown 12 of stone 30 to pavilion 14 of stone 30 |
| 36 | loop for suspending from article of jewelry 32 so as to suspend stone 30 from article of jewelry 32 |
| 38 | loop 36 suspending diamond 30 from article of jewelry 32 |
| 40 | an article of jewelry having loop 36 suspending diamond 30 |
| 42 | necklace |

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS OF THE INVENTION

[0037] FIGS. 2A-2C are exemplary top, side and bottom views, respectively, of a round or brilliant cut stone in accordance with the present invention. As in the background, the stone 30 includes a crown 12, the pavilion 12, the table 16, the girdle 18, and the culet 20. The stone 30 may be a gemstone, such as a diamond, whether natural, synthetic, or treated by high pressure high temperature (HPHT), radiation, or color coating, or synthetic, such as cubic zirconium, and may be a variety of shapes, such as round princess, radiant, marquise, pear, hear and others. The stone further includes a throughbore 34. The throughbore extends from the crown 12 to the pavilion 14 of the stone 30. Applicant has discovered that when the throughbore 34 extends from the crown 12 to the pavilion 14 of the stone 30, the structural integrity of the stone 30 is improved and the luster of the stone 30 is improved by virtue of reducing refraction, reflection, and dispersion errors, and when the stone 30 is suspended by the throughbore 34 from an article of jewelry 32 (depicted in and described with reference to FIGS. 4 and 5), by virtue of eliminating visually obstructive conventional settings, the scintillation of the stone 30 is improved, the visibility of the stone 30 is improved, and the stone 30 gives an impression that it is floating in air or dancing relative to the article of jewelry.

[0038] Further with reference to FIGS. 2A-2C, the throughbore 34 has a width and the stone 30 has a weight. The width of the throughbore 34 varies with the weight of the stone 30. For convenience, the widths of the throughbore 34 in the stone 30 for the various weights of the stone 30 are depicted in the table of FIG. 7. As depicted in FIG. 7, the throughbore 34 has a width preferably in a range of approximately 0.30 mm to approximately 0.40 mm when the weight of the stone 30 is no greater than 0.199 carats, a width preferably in a range of approximately 0.40 mm to approximately 0.50 mm when the weight of the stone 30 is in a range of 0.20 carats to 0.499 carats, and a width preferably of 0.50 mm when the weight of the stone 30 is at least 0.50 carats. Although the previous widths of the throughbore 34 are preferred, the widths of throughbore 34 are not thereby limited and may vary depending on the shape and size of the stone.

[0039] FIG. 3 is an exemplary side view, partial section, of the stone depicted in FIGS. 2A-2C with a setting device
setting the stone via the throughbore. The setting device 36 is preferably a loop. The loop is preferably an endless wire and is preferably made of a precious metal, such as gold or platinum, a semi-precious metal, such as silver, or another metal. Alternatively, the loop may be made of translucent soft plastic. The setting device 36 passes freely through the throughbore 34, suspending the stone 30 therefrom and allowing the stone movement. The cooperation of the setting device 36 and the throughbore 34 enable the stone 30 to swing freely in various degrees of freedom, i.e., left to right, as well as front to back.

[0040] FIG. 4 depicts an exemplary side view of an article of jewelry suspending therefrom the stone depicted in FIGS. 2A-2C, set with the setting device depicted in FIG. 3. The stone 30 and the setting device 36 are shown by dotted curve 38. The cooperation of the setting device 36 and the throughbore 34 enable the stone 30 to hang vertically and further enhance the ability of the stone 30 to swing freely relative to the article of jewelry 32, i.e., stone’s freedom of movement relative to the article of jewelry. The setting device 36 suspends from the article of jewelry 32 so as to suspend the stone 30 from the article of jewelry 32. By virtue of eliminating visually obstructive conventional settings, the setting device 36 and the throughbore 34 enable the stone 30 to have improved scintillation, improved visibility, and gives an impression that it is floating in air or dancing relative to an article of jewelry 32.

[0041] FIG. 5 is an exemplary perspective view of an article of jewelry of FIG. 4 further suspended from another article of jewelry. More specifically, the article of jewelry 32 suspending therefrom the stone 30 via the setting device 36 cooperating with throughbore 34 are shown by the dotted curve 40. The article of jewelry 32, suspending therefrom the stone 30, may further be suspended from a necklace adorning a person 44. Furthermore, this article of jewelry 32 may be suspended from earrings, pendants and other articles of jewelry.

[0042] FIGS. 6A-6C depict an exemplary flowchart method for preparing the stone depicted in FIGS. 2A-2C for suspending from the article of jewelry 32. The method of preparing the stone 30 for suspending from the article of jewelry 32 comprises the following steps:

STEP 1: Providing a stone with the crown 12, the pavilion 14, the table 16, the girdle 18, and the culet 20, so as to form a cut stone 30 shown in FIG. 1.

STEP 2: Laser drilling the throughbore 34 through the cut stone 30 from the crown 12 of to the pavilion 14, so as to form a laser-drilled stone 30 having improved structural integrity and having improved luster by virtue of reducing refraction, reflection, and dispersion errors, and when suspended by the throughbore 34 from the article of jewelry 32, by virtue of eliminating visually obstructive conventional settings, has improved scintillation, improved visibility, and gives an impression that it is floating in air or dancing relative to the article of jewelry 32.

STEP 3: Subjecting the laser-drilled stone 30 to an acid bath for approximately forty to forty-eight hours to eliminate residue formed in the throughbore 34 from the laser-drilling step so as to form a residue-eliminated stone. The acid bath is a diluted one-to-one solution of sulphuric acid (H₂SO₄) and nitric acid (HNO₃).

STEP 4: Determining if the residue formed in STEP 3 has been eliminated in its entirety.

STEP 5: Boiling the residue-eliminated stone in the acid bath for approximately two to three hours, if it has been determined that there is remaining residue in STEP 4.

[0043] It will be understood that each of the elements described above, or two or more together, may also find a useful application in other types of construction differing from the type described above.

[0044] While the invention has been illustrated and described in a stone for suspending from an article of jewelry, it is not limited to the details shown, since it will be understood that various omissions, modifications, substitutions, and changes in the forms and details of the device illustrated and its operation can be made by those skilled in the art without departing in any way from the spirit of the present invention.

[0045] Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can by applying current knowledge readily adapt it for various applications without omitting features that from the standpoint of prior art fairly constitute characteristics of the aspects of the invention.

Having thus described my invention, what I claim is:
1. A stone for suspending from an article of jewelry, the stone having a crown, a pavilion, a table, a girdle, and a culet, wherein the improvement comprises:
   a throughbore extending from the crown to the pavilion allowing the stone to have improved structural integrity and to have improved luster by virtue of reducing refraction, reflection, and dispersion errors, and when suspended by the throughbore from the article of jewelry, by virtue of eliminating visually obstructive conventional settings, has improved scintillation, improved visibility, and gives an impression that it is floating in air relative to the article of jewelry.

2. The stone according to claim 1, wherein the improvement further comprises the stone being a diamond or a cubic zirconium.

3. The stone according to claim 1, wherein the improvement further comprises the stone having a shape; and

   wherein the improvement further comprises the shape of the stone being selected from the group consisting of round, princess, radiant, marquise, pear, and heart.

4. The stone according to claim 1, wherein the improvement further comprises the throughbore having a width;

   wherein the improvement further comprises the stone having a weight; and
wherein the improvement further comprises the width of the throughbore being in a range of approximately 0.30 mm to approximately 0.40 mm when the weight of the stone is no greater than 0.199 carats.

5. The stone according to claim 1, wherein the improvement further comprises the throughbore having a width;

wherein the improvement further comprises the stone having a weight; and

wherein the improvement further comprises the width of the throughbore being in a range of approximately 0.40 mm to approximately 0.50 mm when the weight of the stone is in a range of 0.20 carats to 0.499 carats.

6. The stone according to claim 1, wherein the improvement further comprises the throughbore having a width;

wherein the improvement further comprises the stone having a weight; and

wherein the improvement further comprises the width of the throughbore being 0.50 mm when the weight of the stone is at least 0.50 carats.

7. The stone according to claim 1, wherein the improvement further comprises a loop;

wherein the improvement further comprises the loop passing freely through the throughbore and suspending the stone from it; and

wherein the improvement further comprises the loop being for suspending from the article of jewelry so as to suspend the stone from the article of jewelry.

8. The stone according to claim 7, wherein the improvement further comprises the loop, and the throughbore cooperating therewith, enabling the stone to hang vertically and swing freely relative to the article of jewelry.

9. The stone according to claim 7, wherein the improvement further comprises the loop being made from a material selected from the group consisting of a precious metal, a semi-precious metal, a metal other than that of precious and semi-precious, and a translucent soft plastic.

10. A stone for suspending from an article of jewelry, comprising:

a plurality of faces;

wherein a pair of faces have a throughbore extending therethrough; and

wherein said throughbore is disposed so as to allow the stone to have improved structural integrity and to have improved luster by virtue of reducing refraction, reflection, and dispersion errors, and when suspended by the throughbore from the article of jewelry, by virtue of eliminating visually obstructive conventional settings, has improved scintillation, improved visibility, and gives an impression that it is floating in air relative to the article of jewelry.

11. The stone according to claim 10,

wherein said stone has a crown;

wherein said stone has a pavilion;

wherein said stone has a table;

wherein said stone has a girdle;

wherein said stone has a culet; and

wherein said pair of faces are said crown of said stone and said pavilion of said stone so as to allow said throughbore to extend from said crown of said stone to said pavilion of said stone.

12. The stone according to claim 10, wherein said stone is a diamond.

13. The stone according to claim 10,

wherein said stone has a shape; and

wherein said shape of said stone is selected from the group consisting of round, princess, radiant, marquise, pear, and heart.

14. The stone according to claim 10,

wherein said throughbore has a width;

wherein said stone has a weight; and

wherein said width of said throughbore is in a range of approximately 0.30 mm to approximately 0.40 mm when said weight of said stone is no greater than 0.199 carats.

15. The stone according to claim 10,

wherein said throughbore has a width;

wherein said stone has a weight; and

wherein said width of said throughbore is in a range of approximately 0.40 mm to approximately 0.50 mm when said weight of said stone is in a range of 0.20 carats to 0.499 carats.

16. The stone according to claim 10,

wherein said throughbore has a width;

wherein said stone has a weight; and

wherein said width of said throughbore is 0.50 mm when said weight of said stone is at least 0.50 carats.

17. The stone according to claim 10, further comprising a loop,

wherein said loop passes freely through said throughbore and suspends said stone therefrom; and

wherein said loop is for suspending from the article of jewelry so as to suspend said stone from the article of jewelry.

18. The stone according to claim 17,

wherein said loop, and said throughbore cooperating therewith, enable said stone to hang vertically and swing freely relative to the article of jewelry.

19. The stone according to claim 17, wherein said loop is made from a material selected from the group consisting of a precious metal, a semi-precious metal, a metal other than that of precious and semi-precious, and a translucent soft plastic.

20. A stone for suspending from an article of jewelry, comprising:

a crown;

a pavilion;

a table;

a girdle; and

a culet;
wherein said crown has a throughbore extending therefrom to said pavilion allowing said stone to have improved structural integrity and to have improved luster by virtue of reducing refraction, reflection, and dispersion errors, and when suspended by said throughbore from the article of jewelry, by virtue of eliminating visually obstructive conventional settings, has improved scintillation, improved visibility, and gives an impression that it is floating in air relative to the article of jewelry.

21. The stone according to claim 20, wherein said stone is a diamond.

22. The stone according to claim 20, wherein said stone has a shape; and

wherein said shape of said stone is selected from the group consisting of round, princess, radiant, marquise, pear, and heart.

23. The stone according to claim 20, wherein said throughbore has a width;

wherein said stone has a weight; and

wherein said width of said throughbore is in a range of approximately 0.30 mm to approximately 0.40 mm when said weight of said stone is no greater than 0.199 carats.

24. The stone according to claim 20, wherein said throughbore has a width;

wherein said stone has a weight; and

wherein said width of said throughbore is in a range of approximately 0.40 mm to approximately 0.50 mm when said weight of said stone is in a range of 0.20 carats to 0.499 carats.

25. The stone according to claim 20, wherein said throughbore has a width;

wherein said stone has a weight; and

wherein said width of said throughbore is 0.50 mm when said weight of said stone is at least 0.50 carats.

26. The stone according to claim 20, further comprising a loop;

wherein said loop passes freely through said throughbore and suspends said stone therefrom; and

wherein said loop is for suspending from the article of jewelry so as to suspend said stone from the article of jewelry.

27. The stone according to claim 20, wherein said loop, and said throughbore cooperating therewith, enable said stone to hang vertically and swing freely relative to the article of jewelry.

28. The stone according to claim 26, wherein said loop is made from a material selected from the group consisting of a precious metal, a semi-precious metal, a metal other than that of precious and semi-precious, and a translucent soft plastic.

29. A method of preparing a stone for suspending from an article of jewelry, comprising the steps of:

a) providing the stone with a crown, a pavilion, a table, a girdle, and a culet so as to form a cut stone; and

b) providing a throughbore through the cut stone, from the crown of the cut stone to the pavilion of the cut stone, so as to form a throughbore-provided stone having improved structural integrity and improved luster by virtue of reducing refraction, reflection, and dispersion errors, and when suspended by the throughbore from the article of jewelry, by virtue of eliminating visually obstructive conventional settings, has improved scintillation, improved visibility, and gives an impression that it is floating in air relative to the article of jewelry.

30. The method according to claim 29, further comprising the step of subjecting the throughbore-provided stone to a bath to eliminate a residue formed in the throughbore from said second providing step so as to form a residue-eliminated stone.

31. The method according to claim 30, further comprising the step of determining if the residue has been eliminated in its entirety.

32. The method according to claim 31, further comprising the step of boiling the residue-eliminated stone in the bath, if it has been determined that residue has not been eliminated in its entirety.

33. The method according to claim 29, wherein said second providing step includes laser-drilling the throughbore through the cut stone, from the crown of the cut stone to the pavilion of the cut stone.

34. The method according to claim 30, wherein said subjecting step includes subjecting the throughbore-provided stone to an acid bath.

35. The method according to claim 34, wherein said step of subjecting the throughbore-provided stone to an acid bath includes subjecting the throughbore-provided stone to an acid bath for approximately forty to forty eight hours.

36. The method according to claim 34, wherein said step of subjecting the throughbore-provided stone to an acid bath includes subjecting the throughbore-provided stone to an acid bath of a diluted one-to-one solution of sulphuric acid and nitric acid.

37. The method according to claim 32, wherein said boiling step includes boiling the residue-eliminated stone in the acid bath for approximately two to three hours.

38. A stone comprising:

a crown, a pavilion, a table, a girdle and a culet,

a throughbore from the crown to the pavilion, wherein the stone is enabled to be set in an article of jewelry using the throughbore.

39. The stone according to claim 38, wherein each of the crown, the pavilion, the table and the culet has at least one facet.

40. The stone according to claim 38, wherein the stone is one selected from the group consisting of a diamond and cubic zirconium.

41. The stone according to claim 38, wherein a width of the throughbore is from about 0.30 mm to about 0.50 mm.

42. The stone according to claim 38, wherein a width of the throughbore is from about 0.30 mm to about 0.40 mm for a stone up to about 0.199 carats.

43. The stone according to claim 38, wherein a width of the throughbore is from about 0.40 mm to about 0.50 mm for a stone from about 0.20 carats to about 0.499 carats.

44. The stone according to claim 38, wherein a width of the throughbore is 0.50 mm for a stone at least 0.50 carats.
45. An article of jewelry comprising:
a stone having a crown, a pavilion, a table, a girdle and a culet, the stone including a throughbore from the crown to the pavilion; and
a setting device which is passed through the throughbore to set the stone, enabling the stone to have freedom of movement in relation to the article of jewelry.
46. The article of jewelry according to claim 45, wherein the setting device is a loop.
47. The article jewelry according to claim 45, wherein the stone is one selected from the group consisting of a diamond and cubic zirconium.
48. A method for making a stone with a throughbore, the stone having a crown, a pavilion, a table, a girdle and a culet, the method comprising:
laser-drilling the throughbore in the stone from the crown to the pavilion.
49. The method for making a stone with a throughbore according to claim 48, the method further comprising bathing the stone in an acid solution from about forty to about forty-eight hours.
50. The method for making a stone with a throughbore according to claim 48, the method further comprising boiling the stone in the acid solution from about two to about three hours.
51. A method for setting a stone having a crown, a pavilion, a table, a girdle and a culet, the method comprising:
passing a loop through a throughbore in the stone, the throughbore being from the crown to the pavilion, to set the stone.
52. The method for setting a stone according to claim 51, the method further comprising securing the loop to an article of jewelry.
53. A stone comprising:
a crown, a pavilion, a table, a girdle and a culet; and
a throughbore from the crown to the pavilion to improve freedom of movement and scintillation, and minimize obstruction, when the stone is set in an article of jewelry.
54. The stone according to claim 53, wherein the stone is one selected from the group consisting of a diamond and a cubic zirconium.