(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 3 315 043 A1

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
02.05.2018 Bulletin 2018/18

(51) Int Cl.:
A44C 17/00 *(2006.01)*

(21) Application number: **17199130.0**

(22) Date of filing: **30.10.2017**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME
Designated Validation States:
MA MD

(30) Priority: **01.11.2016 SG 10201609133U**

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(54) GEMSTONE HAVING HEARTS AND ARROWS PATTERN AND METHOD OF CUTTING THE SAME

(57) The present invention relates to a round gemstone (10) having a hearts and arrows pattern of ten hearts and arrows. The gemstone comprises a girdle (13), a crown (11) and a pavilion (12). The crown (11) comprises a table (14), ten star facets (15) surrounding the table, ten crown main facets (16) with each aligned between two adjacent star facets, twenty crown half facets (20) forming ten pairs of crown half facets, with each pair of the crown half facets aligned between two adjacent crown main facets (16), and ten crown middle half facets (21), with each crown middle half facet (21) aligned between two crown half facets (20). The pavilion (12) is provided with ten pavilion main facets (24), and twenty lower girdle facets (25) forming ten pairs of lower girdle facets, with each pair of the lower girdle facets aligned between two adjacent pavilion main facets (24). The invention also relates to a method of cutting the round gemstone.

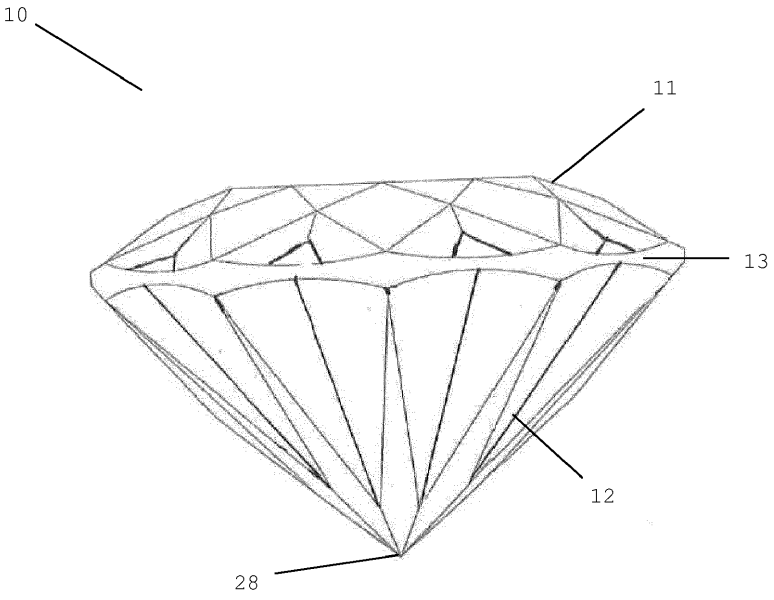

Figure 1

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Description

FIELD OF THE INVENTION

[0001] The present invention relates to a gemstone and more particularly, to a round gemstone having a hearts and arrows pattern of ten Hearts & Arrows and method of cutting the same.

BACKGROUND OF THE INVENTION

[0002] The round brilliant cut is the most popular cut shape for diamonds. Diamonds have various characteristics and three of the main characteristics are brilliance, dispersion and scintillation.

[0003] Brilliance is an essential attribute of a diamond and it generally refers to the amount of light that impinges on the top of the diamond and reflects back. Bright diamonds return lots of light from the surroundings back to an observer.

[0004] Dispersion, which is also known as fire, refers to the prism of light refracted from within a cut diamond and relates to the rainbow colours that are emitted from the gemstone as it is viewed from different angles when a diamond moves relative to an observer.

[0005] Scintillation is the intense sparkles in a diamond as the diamond moves.

[0006] The light performance of a diamond is impacted by, among other things, the number, shape, angles and arrangement of facets on the cut diamond. A slight variation in one factor can alter the brilliance and appearance of the diamond.

[0007] There are a variety of brilliant gemstone cuts available on the market. A conventional round brilliant cut diamond consists of 57 facets, or 58 facets including a culet. However, even with this number of facets, a conventional round brilliant cut diamond does not address a specific need of a particular way of having a gemstone cut that exhibits excellent brilliancy, scintillation and dispersion.

[0008] It is therefore desirable to provide a new gemstone cut and corresponding method for cutting the same that seek to address at least one of problems described hereinabove, or to at least provide the public with an alternative choice.

SUMMARY OF INVENTION

[0009] In accordance with one aspect of the invention, a round gemstone having hearts and arrows pattern is provided. The round gemstone comprises a girdle; a crown extending in a first direction from the girdle; a pavilion extending in a second direction from the girdle, opposite the first direction. The crown comprises a table; ten star facets surrounding the table; ten crown main facets with each aligned between two adjacent star facets; twenty crown half facets forming ten pairs of crown half facets, with each pair of the crown half facets aligned between two adjacent crown main facets; and ten crown middle half facets, with each crown middle half facet aligned between two crown half facets that form the pair of the crown half facets. The pavilion comprises ten pavilion main facets extending concentrically from a point of the pavilion distant from the girdle; twenty lower girdle facets forming ten pairs of lower girdle facets, with each pair of the lower girdle facets aligned between two adjacent pavilion main facets, wherein the pavilion main facets are formed at an angle between 40.7° and 41.2°, the crown facets are formed at an angle between 33.7° and 35.4°, relative to a plane parallel to a horizontal plane of the girdle.

[0010] In accordance with an embodiment of this invention, each pair of the crown half facets is aligned with two adjacent crown main facets and one star facet to form a common point where the pair of crown half facets, the two adjacent crown main facets and the one star facet meets.

[0011] In accordance with an embodiment of this invention, each of the crown middle facets is aligned with the pair of crown half facets to form a common point where the crown middle facet and the pair of crown half facets meets.

[0012] In accordance with an embodiment of this invention, each pair of the lower girdle facets is aligned with two adjacent pavilion main facets to form a common point where the pair of the lower girdle facets and the two adjacent pavilion main facets meets.

[0013] In accordance with an embodiment of this invention, the gemstone has a total of 81 facets.

[0014] In accordance with an embodiment of this invention, the gemstone has a projection of ten heart shapes and ten arrow shapes when the gemstone is exposed to light.

[0015] In accordance with another aspect of the invention, a method of cutting a round gemstone having hearts and arrows pattern comprising a crown including a table, a girdle and a pavilion is provided. The method comprises polishing the gemstone to form a table; forming ten pavilion main facets at the pavilion at an angle between 40.7° and 41.2° relative to a plane parallel to a horizontal plane of the girdle, each pavilion main facet extending concentrically from a point of the pavilion distant from the girdle; forming ten crown main facets at the crown at an angle between 33.7° and 35.4° relative to the plane parallel to the horizontal plane of the girdle; forming twenty lower girdle facets at the pavilion, each of the lower girdle facet is aligned adjacent to, and forming a first common edge E with another lower girdle facet to form a pair of lower girdle facets and aligning each pair of the lower girdle facets between two adjacent pavilion main facets; forming ten star facets at the crown, with each star facet aligned between two adjacent crown main facets; forming twenty crown half facets at the crown, each of the crown half facet is aligned adjacent to, and forming a common edge B with another crown half facet to form a pair of crown half facets and aligning each pair of the crown half

facets between two adjacent crown main facets, opposite the star facet; forming ten crown middle half facets at the crown, each of the crown middle half facets is aligned between two adjacent crown half facets that form the pair of crown half facets, and forming a common edge D with a side of the first crown half facet, and another side of the crown middle facet forming a common edge D' with a side of the second crown half facet; and smoothing the table.

[0016] In accordance with an embodiment of this invention, the method further comprises bruting the gemstone; blocking the pavilion; and blocking the crown main facets at the crown prior to forming the pavilion main facets.

[0017] In accordance with an embodiment of this invention, the method further comprises pre-shaping the gemstone; pre-bruting the gemstone; blocking the pavilion (12); blocking the crown main facets at the crown; subjecting the gemstone to further bruting; and further polishing the table prior to forming the pavilion main facets.

BRIEF DESCRIPTION OF DRAWINGS

[0018] For the purposes of illustrating the invention, there is shown in the drawings a form which is presently preferred. It is being understood however that this invention is not limited to the precise arrangements shown.

Figure 1 is a side elevational view of a gemstone according to the present invention.

Figure 2 is a top view of the gemstone shown in Figure 1.

Figure 3 is a bottom view of the gemstone of Figure 1.

Figure 4 is a plan view showing the arrow shapes pattern in the gemstone in accordance with an embodiment of the present invention.

Figure 5 is a plan view showing heart shapes pattern in the gemstone in accordance with an embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0019] Referring now to the drawings, preferred embodiments of the present invention are described more particularly.

[0020] Figure 1 is a side elevational view of a circular cut gemstone 10 according to one embodiment of the present invention. As shown in Figure 1, the gemstone 10 comprises a top or crown 11, a base or pavilion 12, and a girdle 13 provided on the lateral surface along the boundary of the crown 11 and the pavilion 12.

[0021] Figure 2 is a top view showing the crown 11 of the gemstone 10 of Figure 1. As shown in Figure 2, the crown 11 comprises a table 14 and ten equally-spaced substantially triangular facets known as the star facets 15. The star facets 15 are aligned immediately surrounding and adjacent to the table 14. The ten star facets 15 are substantially identical in size.

[0022] The crown 11 further comprises ten crown main facets 16 extending from the table 14 to the girdle 13. Each of the crown main facets 16 is in the shape of a four-sided kite with two of the sides forming a first portion of the crown main facet 16 and the other two sides forming a second portion opposite the first portion of the crown main facet. One side of the first portion of the crown main facet 16 forms a common edge A with a side of a first star facet 15, and another side of the first portion of the crown main facet 16 forms a common edge A' with a side of a second star facet 15 that is aligned adjacent to the first star facet 15. The ten crown main facets 16 are substantially identical in size.

[0023] The crown 11 further comprises twenty crown half facets 20 provided around the periphery of the crown 11. Each of the crown half facets 20 is substantially quadrilateral in shape.

[0024] The twenty crown half facets 20 form ten pairs of crown half facets. Each pair of the crown half facets comprises a first crown half facet 20' and a second crown half facet 20" aligned adjacent to, and forms a common edge B. Each pair of the crown half facets is provided between two adjacent crown main facets 16 such that one side of the first crown half facet 20' forms a common edge C with one side of the second portion of a first crown main facet 16, and one side of the second crown half facet 20" forms a common edge C' with one side of the second portion of a second crown main facet 16 positioned adjacent to the first crown main facet. Each pair of the crown half facets (20', 20"), together with two adjacent crown main facets 16 and one star facet 15 which is provided between the two adjacent crown main facets, are aligned in a manner such that they form a common point 23 where the five common facets meet.

[0025] The crown 11 further comprises ten crown middle facets 21. Each of the crown middle facets 21 is provided between two adjacent crown half facets 20 that form the pair of crown half facets (20', 20"). Each of the crown middle facets 21 is substantially triangular in shape. One side of the crown middle facet 21 forms a common edge D with a side of a first crown half facet 20', and another side of the crown middle facet 21 forms a common edge D' with a side of a second crown half facet 20" that is aligned adjacent to the first crown half facet 20'. Each of the crown middle facets 21 is aligned with the pair of the crown half facets in a manner such that they form a common point 22 where the three common facets meet.

[0026] Preferably, the crown 11 has an angle between 33.7° and 35.4° relative to the plane parallel to the horizontal plane of the girdle.

[0027] In one embodiment, the crown 11 has a height of 14% to 16%. The crown half-length is in the range of

50% to 60%. The crown middle half height is 50% to 60% of the normal crown half height. The size of the table 14 is 55% to 59%.

[0028] Figure 3 is a bottom view showing the pavilion 12 of the gemstone 10 of Figure 1. As shown in Figure 3, the pavilion 12 comprises ten concentrically substantially equally spaced pavilion main facets 24 extending from a point of the pavilion 12 distant from the girdle, to the girdle 13. Each of the pavilion main facets 24 has four sides, two of which form a first portion of the pavilion main facet 24 and the other two form a second portion of the pavilion main facet 24, opposite the first portion. Each side of the first portion of the pavilion main facet is immediately adjacent to, and forms a common edge G with a side of the first portion of another pavilion main facet 24. In a preferred form, the first portion of each of the pavilion main facets 24 is shorter than the second portion of the same pavilion main facet.

[0029] The pavilion 12 further comprises twenty lower girdle facets 25 provided around the periphery of the pavilion 12. Each of the lower girdle facets 25 is substantially triangular in shape.

[0030] The twenty lower girdle facets 25 form ten pairs of lower girdle facets. Each pair of the lower girdle facets comprises a first lower girdle facet 25' and a second lower girdle facet 25" aligned adjacent to, and forms a common edge E with the first lower girdle facet 25'. Each pair of the lower girdle facets is provided between two adjacent pavilion main facets 24 such that one side of the first lower girdle facet 25' forms a common edge F with one side of the second portion of a first pavilion main facet 24, and one side of the second lower girdle facets 25" forms a common edge F' with one side of the second portion of a second pavilion main facet 24 positioned adjacent to the first pavilion main facet. Each pair of the lower girdle facets, together with two adjacent pavilion main facets 24, are aligned in a manner such that they form a common point 26 where the four common facets meet.

[0031] In one embodiment of the invention, the pavilion main facets 24 and the lower girdle facets 25 are formed at an angle between 40.7° and 41.2° relative to a plane parallel to a horizontal plane of the girdle. Preferably, the pavilion has a half-length in the range of 75% to 78%.

[0032] The point which the pavilion main facets 24 extend from includes a culet 28 (as shown in figure 1). Preferably, the culet is a point culet, but can be a flat culet having a facet.

[0033] The girdle 13 of the gemstone can either be facetted or not facetted. In a preferred embodiment, the girdle 13 is not facetted. In one embodiment, the girdle 13 has a thickness of 2.5% to 4% based on the total thickness of the gemstone 10.

[0034] The gemstone 10 of the present invention is cut symmetrically with a 10-fold symmetry and having a total of 81 facets. The 81 facets consist of 50 facets at the crown, 30 facets at the pavilion and the table facet.

[0035] In one embodiment, the gemstone 10 preferably has a total depth in the range of 59.5% to 62.5%. This is calculated by dividing the height of the gemstone by the diameter of the gemstone. The gemstone can be of any height and diameter depending on the size of the gemstone.

[0036] The present invention uses a unique combination of angles, parameters and faceting to create a gemstone that looks optically bigger as compared to the conventional 57 facets brilliant cut gemstone of the same diameter. This is made possible by the addition of the crown middle half facets at the crown of the gemstone. This unique arrangement of the facets also yields a perfect Hearts and Arrows pattern comprising ten heart shapes and ten arrow shapes when the gemstone is exposed to light, as depicted in Figures 4 and 5.

[0037] Because of an increase in the number of facets at the crown and at the pavilion as compared to a gemstone with only eight main facets at the crown and eight main facets at the pavilion, the parameters of the facets for achieving the Hearts and Arrow pattern are also reduced. It was found that only with these exact parameters of the facets as described herein of the present invention and the correlation between them that the desired Hearts and Arrows pattern can be created.

[0038] By adding additional facets to a gemstone, the level of difficulty and accuracy in cutting/polishing a gemstone will rise exponentially. By adding additional facets to a gemstone, the running direction of a gemstone will change accordingly. In the present invention, the inventors have found a way to overcome this difficulty. With the combination of the use of a greater number of facets at the crown and at the pavilion, together with the adjustment in the parameters of each facet, the different angles of faceting and the perfect symmetry of the gemstone achieved in the present invention, the inventors have created a gemstone that optically looks bigger than a conventional 57-facet round brilliant cut gemstone of the same diameter. The gemstone of the present invention also has enhanced characteristics of scintillation, brilliance and dispersion as compared to a conventional 57-facet round brilliant cut gemstone.

[0039] In one embodiment, the amount of light return of the gemstone of the present invention is in the range of 83.5% to 87%. This amount is slightly greater than the amount of light returned by a conventional round brilliant cut gemstone with eight hearts and arrows pattern and which generally has a light return of about 82.0% to 86.0%. This gives the gemstone of the present invention enhanced brilliance as compared to a conventional round brilliant cut gemstone.

[0040] The gemstone of the present invention can be a precious or a semiprecious stone. In a preferred embodiment, the gemstone is a diamond. The gemstone is substantially circular and can be of any diameter, size, or weight.

[0041] The present invention also contemplates a method of forming the embodiment of the gemstone 10 as described hereinabove.

[0042] According to one embodiment of the invention, a method of cutting a round gemstone having a hearts and arrows pattern comprising a crown including a table, a girdle and a pavilion is provided. The method comprises forming ten pavilion main facets 24 at the pavilion of the gemstone, at an angle between 40.7° and 41.2° relative to a plane parallel to a horizontal plane of the girdle. Each of the pavilion main facets 24 extends concentrically from a point of the pavilion distant from the girdle.

[0043] The method further comprises forming ten crown main facets 16 at the crown of the gemstone, at an angle between 33.7° and 35.4° relative to the plane parallel to the horizontal plane of the girdle.

[0044] The method also comprises forming twenty lower girdle facets 25 at the pavilion of the gemstone. Each of the lower girdle facets 25 is aligned adjacent to, and forming a common edge E with another lower girdle facet to form a pair of lower girdle facets. Each pair of the lower girdle facets is aligned between two adjacent pavilion main facets 24.

[0045] Each pair of the lower girdle facets comprises a first lower girdle facet 25' and a second lower girdle facet 25". Each pair of the lower girdle facets is aligned between two adjacent pavilion main facets 24 such that one side of the first lower girdle facet 25' forms a common edge F with one side of the second portion of a first pavilion main facet 24, and one side of the second lower girdle facets 25" forms a common edge F' with one side of the second portion of a second pavilion main facet 24 positioned adjacent to the first pavilion main facet 24.

[0046] Ten star facets 15 are formed at the crown 11, with each of the star facets 15 aligned between two crown main facets 16.

[0047] The method further comprises forming twenty crown half facets 20 at the crown of the gemstone. Each of the crown half facets 20 is aligned adjacent to, and forming a common edge B with another crown half facet to form a pair of crown half facets. Each pair of the crown half facets is aligned between two adjacent crown main facets 16, opposite the star facets 15.

[0048] Each pair of the crown half facets comprises a first crown half facet 20' and a second crown half facet 20". Each pair of the crown half facets is aligned between two adjacent crown main facets 16 such that one side of the first crown half facet 20' forms a common edge C with one side of the second portion of a first crown main facet 16, and one side of the second crown half facet 20" forms a common edge C' with one side of the second portion of a second crown main facet 16 positioned adjacent to the first crown main facet 16.

[0049] The method further comprising forming ten crown middle half facets 21. Each of the crown middle facets 21 is provided between two adjacent crown half facets 20 that form the pair of crown half facets (20', 20") such that one side of the crown middle facet 21 forms a common edge D with a side of a first crown half facet 20', and another side of the crown middle facet 21 forms a common edge D' with a side of a second crown half facet 20" that is aligned adjacent to the first crown half facet 20'.

[0050] The method of the present invention may comprise further steps to further process the gemstone to the final product. These steps include, but not limited to, pre-bruting the gemstone, blocking the pavilion of the gemstone, blocking the crown main facets at the crown, further bruting, polishing the table and faceting the girdle.

[0051] The term "bruting" as used herein refers to a process that establishes the girdle outline of a gemstone.

[0052] Although not limited as such, the method of the present invention as described hereinabove may be applied to polishing of, for example, a four-point sawable gemstone.

[0053] According to a second embodiment of the invention, the method further comprises polishing the table or subjecting the table to laser, pre-shaping the gemstone, pre-bruting the gemstone, blocking the pavilion main facets, blocking the crown main facets at the crown, further bruting the gemstone, further polishing of the table, further blocking the pavilion main facets, further blocking the crown main facets at the crown and final bruting of the gemstone before forming the facets of the gemstone.

[0054] Although not limited as such, the second embodiment of the method of the present invention as described hereinabove may be applied to polishing of, for example, a two-point or three-point makeable gemstone.

[0055] A "sawable" gemstone is gemstone which can be cut in half in order to create two smaller gemstones.

[0056] A "makeable" gemstone is the name given to gemstones whose shape lends itself to having one large gemstone cut from it.

[0057] It should be noted that for achieving the perfect ten Hearts & ten Arrows pattern in the gemstone, the balance between the Tang, scaive and the polishing machine is very critical. If one of these is out of balance, the entire pattern of the gemstone may be disrupted. Because the gemstone is cut into ten main facets at the crown and ten main facets at the pavilion, the start of the first facet is very crucial in order to keep the graining of the gemstone. If the graining is out, it will be almost impossible to achieve a good smoothing of all the facets.

[0058] The foregoing describes the invention including preferred forms thereof. Alterations and modifications as will be obvious to those skilled in the art are intended to be incorporated within the scope hereof as defined by the accompanying claims.

Claims

1. A round gemstone having a hearts and arrows pattern, comprising:

   a girdle (13);
   a crown (11) extending in a first direction from the girdle (13);
   a pavilion (12) extending in a second direction

from the girdle (13), opposite the first direction; the crown (11) comprising:

a table (14);
ten star facets (15) surrounding the table;
ten crown main facets (16) with each aligned between two adjacent star facets (15);
twenty crown half facets (20) forming ten pairs of crown half facets, with each pair of the crown half facets is aligned between two adjacent crown main facets (16);and
ten crown middle half facets (21), with each crown middle half facet (21) aligned between two crown half facets (20) that form the pair of the crown half facets;

the pavilion (12) comprising:

ten pavilion main facets (24) extending concentrically from a point of the pavilion distant from the girdle (13); and
twenty lower girdle facets (25) forming ten pairs of lower girdle facets, with each pair of the lower girdle facets aligned between two adjacent pavilion main facets (24); and

wherein the pavilion main facets are formed at an angle between 40.7° and 41.2°, the crown facets are formed at an angle between 33.7° and 35.4°, relative to a plane parallel to a horizontal plane of the girdle.

2. The gemstone according to claim 1, wherein each of the crown main facets (16) has four sides, two of the sides forming a first portion of the crown main facet and the other two sides forming a second portion opposite the first portion of the crown main facet.

3. The gemstone according to claim 2, wherein each pair of the crown half facets comprises a first crown half facet (20') and a second crown half facet (20"), the pair of the crown half facets are aligned between two adjacent crown main facets such that one side of the first crown half facet (20') forms a common edge C with one side of the second portion of a first crown main facet, and one side of the second crown half facet (20") forms another common edge C' with one side of the second portion of a second crown main facet positioned adjacent to the first crown main facet.

4. The gemstone according to claim 1, wherein each pair of the crown half facets is aligned with two adjacent crown main facets and one star facet to form a common point (23) where the pair of the crown half facets, the two adjacent crown main facets and the one star facet meet.

5. The gemstone according to claim 3, wherein each of the crown middle facets (21) is substantially triangular having a first side and a second side, wherein the first side of the crown middle facet (21) forming a common edge D with a side of the first crown half facet 20', and the second side of the crown middle facet (21) forming a common edge D' with a side of the second crown half facet (20"); and
wherein each of the crown middle facets (21) is aligned with the pair of crown half facets to form a common point (22) where the crown middle facet and the pair of crown half facets meet.

6. The gemstone according to claim 1, wherein each of the pavilion main facets (24) has four sides, two of the sides forming a first portion of the pavilion main facet and the other two sides forming a second portion opposite the first portion of the pavilion main facet.

7. The gemstone according to claim 6, wherein each pair of the lower girdle facets comprises a first lower girdle facet (25') and a second lower girdle facet (25"), the pair of the lower girdle facets are aligned between two adjacent pavilion main facets such that one side of the first lower girdle facet (25') forms a common edge F with one side of the second portion of a first pavilion main facet, and one side of the second lower girdle facet (25") forms another common edge F' with one side of the second portion of a second pavilion main facet positioned adjacent to the first pavilion main facet; and
wherein each pair of the lower girdle facets (25) is aligned with two adjacent pavilion main facets to form a common point (26) where the pair of the lower girdle facets and the two adjacent pavilion main facets meet.

8. The gemstone according to claim 1, further comprising a culet(28), wherein the culet is a pointed culet.

9. The gemstone according to claim 1, wherein the gemstone has a total of 81 facets.

10. The gemstone according to claim 1, wherein the girdle (13) having a thickness of 2.5% to 4% of the total girdle diameter.

11. The gemstone according to claim 1, wherein the crown (11) having a height of 14% to 16% of the total height of the gemstone.

12. The gemstone according to claim 1, where the crown (11) having a half-length of 50% to 60%.

13. The gemstone according to claim 1, wherein the crown middle half facet (21) having a height of 50% to 60% of the normal crown half height.

14. The gemstone according to claim 1, wherein the table (14) has a size of 55% to 59% based on the total diameter of the gemstone.

15. The gemstone according to claim 1, wherein the gemstone has a projection of ten heart shapes and ten arrow shapes when the gemstone is exposed to light.

16. The gemstone according to claim 1, wherein the gemstone is a diamond.

17. A method of cutting a round gemstone having a hearts and arrows pattern comprising a crown (11) including a table (14), a girdle (13) and a pavilion (12), the method comprising:

polishing the gemstone to form a table (14);
forming ten pavilion main facets (24) at the pavilion at an angle between 40.7° and 41.2° relative to a plane parallel to a horizontal plane of the girdle, each pavilion main facet (24) extending concentrically from a point of the pavilion distant from the girdle;
forming ten crown main facets (16) at the crown (11) at an angle between 33.7° and 35.4° relative to the plane parallel to the horizontal plane of the girdle;
forming twenty lower girdle facets (25) at the pavilion (12), each of the lower girdle facet (25) is aligned adjacent to, and forming a first common edge E with another lower girdle facet (25) to form a pair of lower girdle facets and aligning each pair of the lower girdle facets between two adjacent pavilion main facets (24);
forming ten star facets (15) at the crown (11), with each star facet (15) aligned between two adjacent crown main facets (16);
forming twenty crown half facets (20) at the crown (11), each of the crown half facet (20) is aligned adjacent to, and forming a common edge B with another crown half facet (20) to form a pair of crown half facets (20' , 20'') and aligning each pair of the crown half facets between two adjacent crown main facets (16), opposite the star facet (15) ;
forming ten crown middle half facets (21) at the crown (11), each of the crown middle facets (21) is aligned between two adjacent crown half facets (20) that form the pair of crown half facets (20', 20"), and forming a common edge D with a side of the first crown half facet 20', and another side of the crown middle facet (21) forming a common edge D' with a side of the second crown half facet 20"; and
smoothing the table (14).

18. The method according to claim 17, further comprising:

bruting the gemstone;
blocking the pavilion (12); and
blocking the crown main facets (16) at the crown (11) prior to forming the pavilion main facets (24).

19. The method according to claim 17, further comprising:

pre-shaping the gemstone;
pre-bruting the gemstone;
blocking the pavilion (12);
blocking the crown main facets (16) at the crown (11);
subjecting the gemstone to further bruting; and
further polishing the table (14) prior to forming the pavilion main facets (24).

20. The method according to claim 19, further comprising:

further blocking the pavilion (12);
further blocking the crown main facets (16) at the crown (11);
further bruting the gemstone; and
smoothing the table (14) prior to forming the pavilion main facets (24).

21. The method according to claim 17, wherein the gemstone has a projection of ten heart shapes and ten arrow shapes when the gemstone is exposed to light.

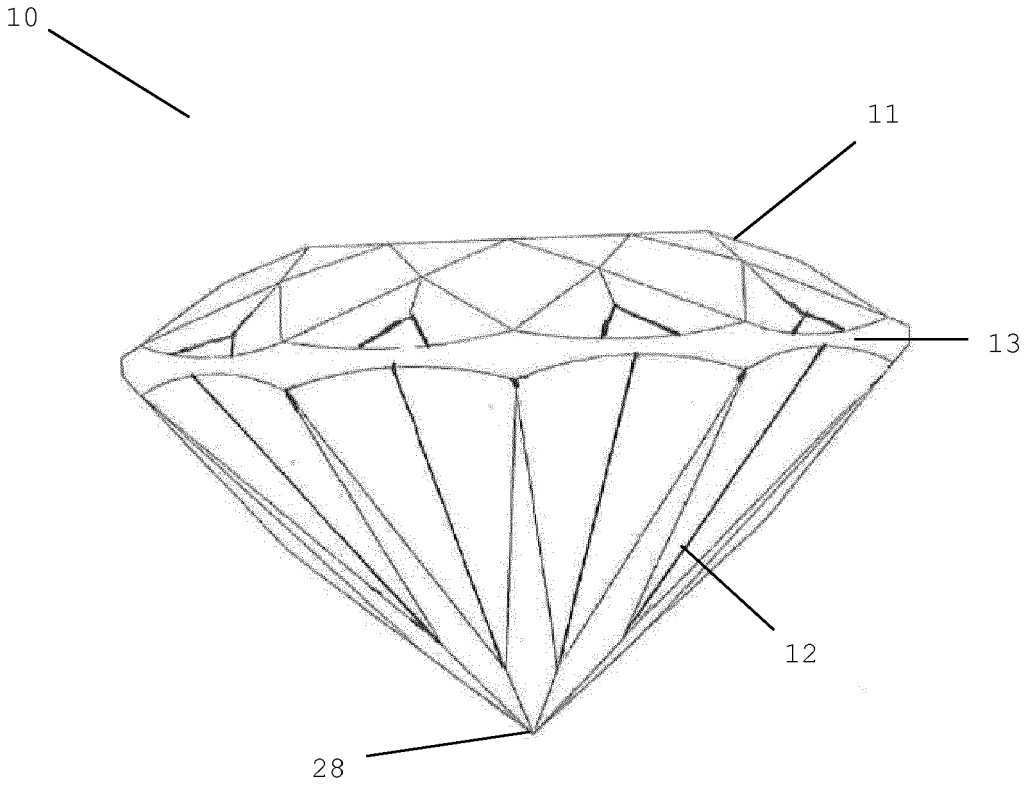

Figure 1

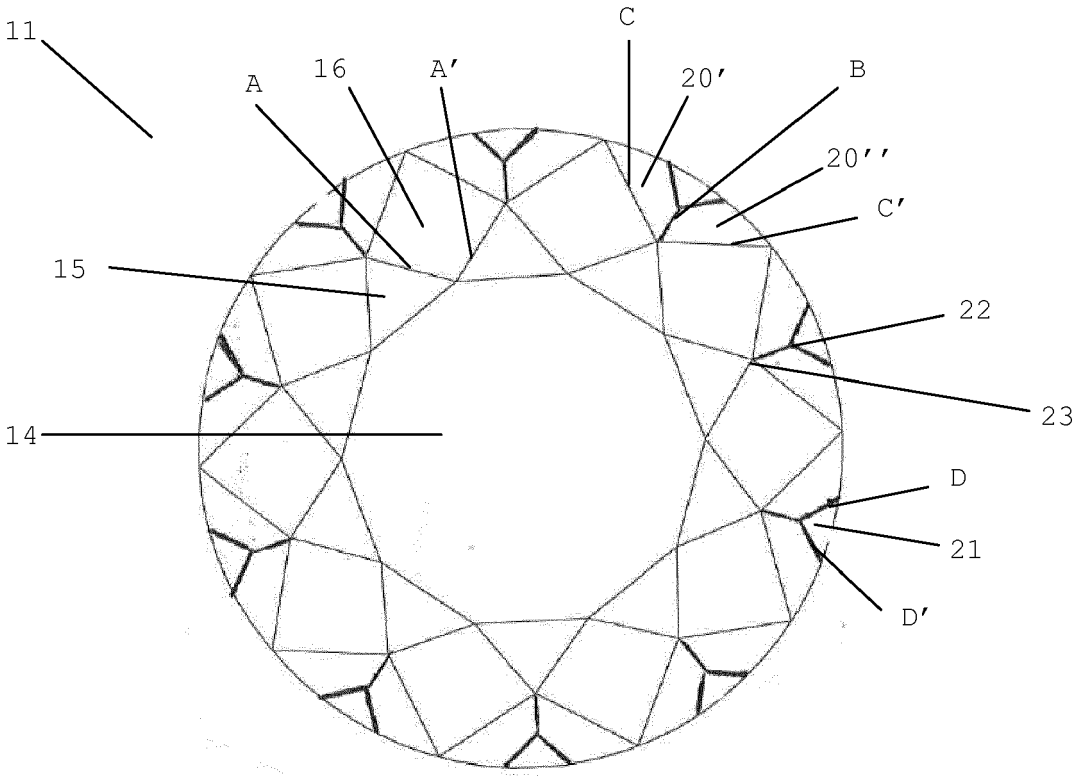

Figure 2

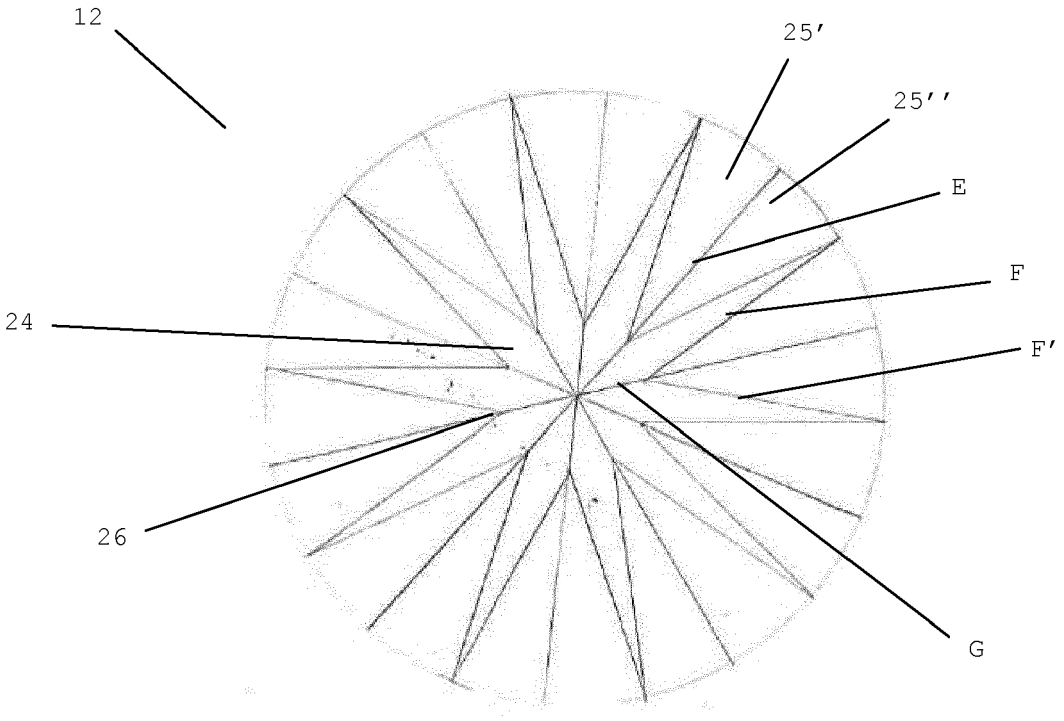

Figure 3

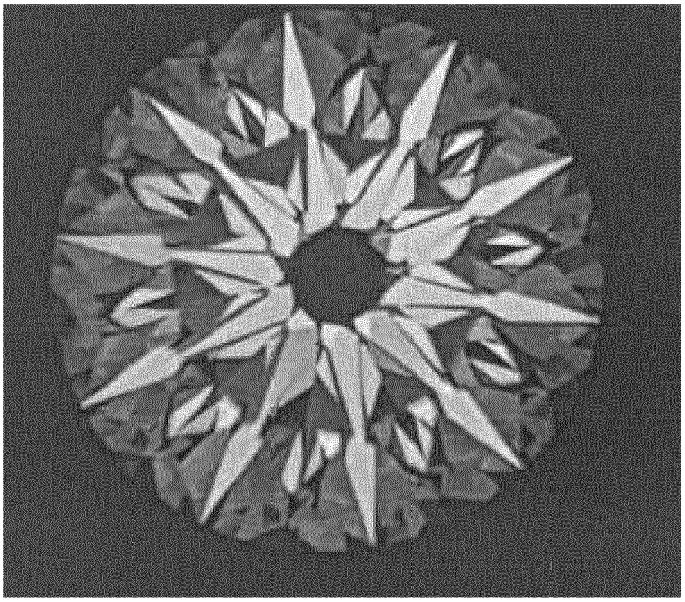

Figure 4

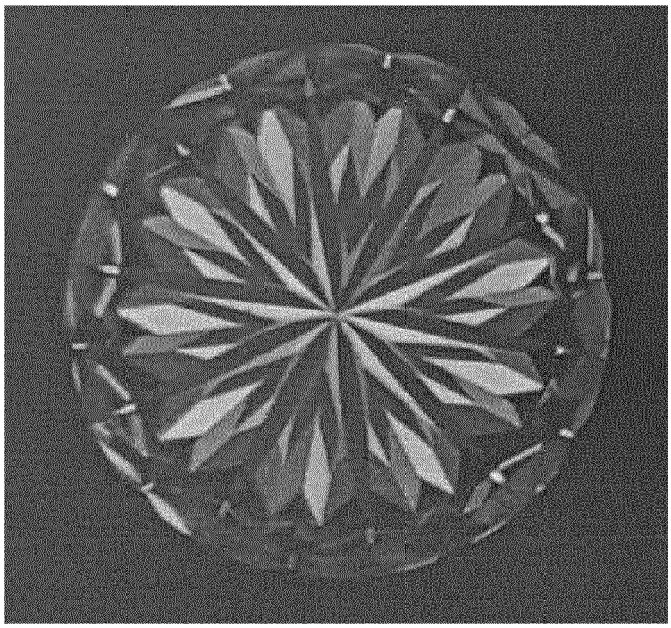

Figure 5

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EUROPEAN SEARCH REPORT

Application Number
EP 17 19 9130

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	9 March 2018	Thielgen, Robert

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