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, wherein each pair of the crown half facets comprises a first crown half facet (20′) aligned adjacent to, and forms a common edge B with a second crown half facet (20′′) to form the pair of crown half facets, and wherein 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′, 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; and

wherein each of the crown half facets (20′, 20′′) having a quadrilateral shape; and

wherein the gemstone having a ten hearts and ten arrows pattern when the gemstone is exposed to light.

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 1, wherein each 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′′).

6. The gemstone according to claim 5, 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.

7. 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.

8. The gemstone according to claim 7, 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.

9. The gemstone according to claim 1, 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.

10. The gemstone according to claim 1, further comprising

a culet(28), wherein the culet is a pointed culet.

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

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

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

14. 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.

15. 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.

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) has a quadrilateral shape and 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, wherein each of the crown main facets (16) has four sides, two of the sides forming a first portion of the crown main fact and the other two sides forming a second portion opposite the first portion of the crown main facet.

19. The method according to claim 17, wherein each pair of the crown half facets (20) 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.

20. The method according to claim 17, 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.

21. The method according to claim 20, wherein the pairs of the lower girdle facets (25) are aligned around the periphery of the pavilion (12), each pair of the lower girdle facets comprises a first lower girdle facet (25′) and a second lower girdle facet (25′′) and 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.

22. The method according to claim 21, 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).

23. The method according to claim 21, 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).

24. The method according to claim 23, 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).

25. 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.

26. The method according to claim 17, wherein the gemstone is a diamond.