CLAIMS

What is claimed is :

1. A diamond with eighty-one facets having a ten hearts and ten arrows inner structure, characterized in that: it comprises ten main crown facets (3) and ten main pavilion facets (1); the diamond further has one table facet (4); crown star facets (7) are disposed at the junction of the main crown facets (3) with the table facet (4), the number of the crown star facets is ten; crown small facets (10) are disposed at the junction of main crown facet edges (6) with the crown star facets (7), the number of the crown small facets is ten; small sectors (13) are disposed at the junction of the main crown facets (3) with the crown small facets (10), the number of said small sectors is twenty; main pavilion facet auxiliary surfaces (2) are disposed at the junction of the main pavilion facets (1), the number of the main pavilion facet auxiliary surfaces is twenty, wherein the crown star facets (7) are isosceles trapezoids, upper bases of the crown star facets (7) are lower bases of the crown small facets (10), lateral sides of the crown star facets (7) are inner bases of the main crown facets (3), the crown small facets (10) are bilaterally symmetrical pentagons, the main crown facets (3) are bilaterally symmetrical hexagons, the crown small facets (10) and the main crown facets (3) share common lateral sides, two sides of the small sectors (13) respectively are external bases of the main crown facets (3) and the crown small facets (10).

2. The diamond with eighty-one facets having the ten hearts and ten arrows inner structure according to claim 1, characterized in that: the length of said crown star facet girdle (5) is 50% of the length of the main crown facet edge (6), and the angle between the crown star facets (7) with the table facet (4) is 15.5-18.5°.

3. The diamond with eighty-one facets having the ten hearts and ten arrows inner structure according to claim 1, characterized in that: the angle between the short edge of said crown small facets (8) with the edge (12) is 110°, and the height of the crown small facets is 75% of the height of the main crown facet edge (6).