

Specification

Polished Gemstone

Field of the Invention

The invention relates to a gemstone with the characteristics in accordance with the preamble of claim 1.

Prior Art

Such a cut of a gemstone is known, for example, from DE-PS 15 57 625, wherein an equal number of facets on the upper part and facets on the lower part determine the appearance and its optical properties.

A comparable cut is known from DE 42 10 995 A1, wherein it is intended that particular angles between the facets on the upper part and facets on the lower part lead to a particularly noticeable appearance, essentially by planar effects which differ in their brightness.

A further development of these types of cuts is shown in DE 32 02 302 A1, wherein outer facets include the girdle plane.

Finally, DE 27 20 267 C2 shows a diamond, which has a very complex structure of cut surfaces, among them also narrow triangular facets which, combined into groups, widen in a fan shape from the area close to the top of the diamond down to circumferential lateral facets. In its optical effects, the interplay of the multitude of different facets also leads to a complex, rather confusing appearance.

Representation of the Invention

It is the object of the invention to apply a cut which offers a novel appearance regarding brilliance and lightness effects while maintaining the basic shape of the diamond crystal.

In accordance with the invention, this object is attained by means of the characterizing portion of claim 1.

When observing the gemstone from the top, the fan-like extending group of additional facets at the lower part leads to a reflection for the observer such that, per facet surface, a ray- or star-shaped light effect occurs on the four pyramid-shaped facets of the upper part, which is in contrast to the so far known rather planar light effects in connection with the types of cuts mentioned at the outset.

The quadruple bundling of the light in this case leads to the appearance of reflections, which penetrate the total surface of the diamond several times.

Advantageous embodiments of the attainment of the object of the invention ensue from the dependent claims.

Brief Description of the Drawings:

A preferred embodiment will be explained in still more detail by means of the drawings. Shown are in:

Fig. 1, a perspective plan view of the cut gemstone obliquely from below,

Fig. 2, a top view of the gemstone in the direction of the arrow A in Fig. 3,

Fig. 3, a lateral view of the gemstone in the direction of the arrow C in Fig. 4, and

Fig. 4, a bottom view of the gemstone in the direction of the arrow B in Fig. 3.

Description of the Exemplary Embodiment:

The upper portion of the gemstone, which consists of four top part facets 20 ... 23 of equal size, which taper to form an upper cap, rises above the square girdle plane. Here the top part facet forms an isosceles triangle.

The lower part of the diamond contains four lower part facets 10 ... 13, which also form an isosceles triangle.

The common base side of the upper part facets and lower part facets is formed by a circumferential facet band 30 perpendicularly in respect to the girdle plane.

Four groups 40 ... 43 of narrow, essentially triangular additional facets extend from the four corners of the girdle plane between the lateral edges of the lower part facets 10 ... 13 in such a way that their narrow sides meet in the connecting lines between the tips of lower parts facets 10 ... 13 with the narrow sides of the additional facets of the respectively neighboring group. Here each group consists of a central additional facet, whose roof-like narrow sides form a pyramid-shaped cap K of the lower part, and which, in the exemplary embodiment represented, are adjoined by respectively four narrow triangular additional facets on both sides. With the exemplary embodiment represented, the central additional facet is also embodied as a narrow triangle, but it is also possible (not represented) to provide the

central additional facet with parallel lateral edges, so that in its effect it approximately corresponds to the circumferential facet band 30. The planes of neighboring additional facets are inclined at a very acute angle in respect to each other, so that in the exemplary embodiment represented, the 36 additional facets close the gemstone at the bottom is the shape of a cupola between the lower part facets 10 ... 13.

Depending on the type of gemstone, the angle α between the upper part facets 20 ... 23 lies between 23° and 30° , the angle β between the lower part facets 10 ... 13, and the girdle plane lies between 34° and 43° .

The appearance of a gemstone cut in this way is essentially determined by the cupola-like arrangement of the additional facets, which, because of the multitude of occurring angles of inclination and diffraction, mirrors a lively optical image on the upper part facets when light enters evenly from below, and is characterized by evenly arranged or distributed star-like light effects, which in their geometry actively reproduce the naturally provided geometry of the gemstone.

Claims

1. A gemstone, on which respectively at least four facets of equal size have been cut in the upper part and the lower part above and below the girdle plane, which have a parallel base edge, wherein the angle (α) between an upper part facet (20 ... 23) and the girdle plane is less than the angle (β) between a lower part facet (10 ... 13) and the girdle plane,

characterized in that between the lateral edges of the lower part facets (10, 11, 12, 13) respectively one group (40 ... 43) of narrow, triangular additional facets, which extend fan-like from a girdle plane, is provided, whose narrow sides meet in the connecting lines between the tips of the lower part facets (10, 11, 12, 13) and the narrow sides of the additional facets of the respectively neighboring group.

2. The gemstone in accordance with claim 1, characterized in that the angle (α) between each one of the upper part facets (20 ... 23) and the girdle plane is 23° to 30° .

3. The gemstone in accordance with claim 1, characterized in that the angle (β) between each one of the lower part facets (10 ... 13) and the girdle plane is 34° to 43° .

4. The gemstone in accordance with claim 1, characterized in that each group (40 ... 43) of additional facets is formed of at least three additional facets, whose longitudinal sides enclose an angle of approximately 5° to 15° .



5. The gemstone in accordance with claim 1, characterized in that the planes of neighboring additional facets are inclined toward each other at an angle of approximately 1° to 3° , so that the total of at least 12 additional facets close off the gemstone in an approximately cupola-shaped manner at the bottom.

6. The gemstone in accordance with claim 1, characterized in that the girdle plane has a circumferential facet band (30).

7. The gemstone in accordance with claim 4, characterized in that a central additional facet is provided in each group (40 ... 43), whose narrow sides form the pyramid-shaped cap (K) of the lower part, and which is adjoined at both sides by respectively at least one additional facet.

8. The gemstone in accordance with claim 1, characterized in that the girdle plane is circular or square.

