July 16, 1940. A. H. G. MONNIER 2,207,869

PRECIOUS STONES AND JEWELRY

Filed July 23, 1939

Fig. 1

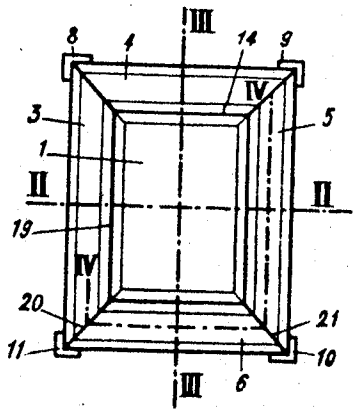


Fig. 3

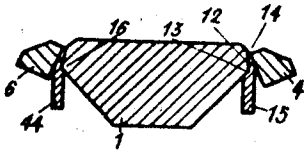


Fig. 2

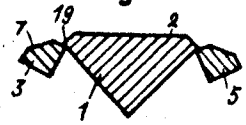


Fig. 4

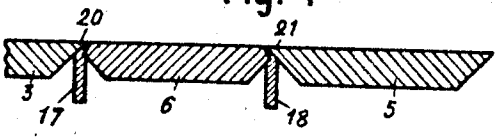


Fig. 5

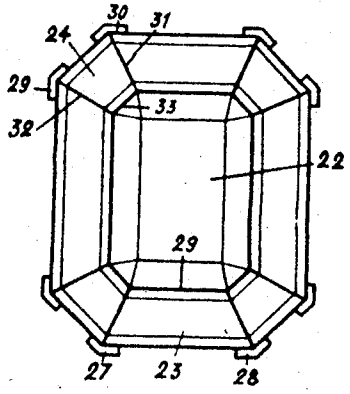


Fig. 6

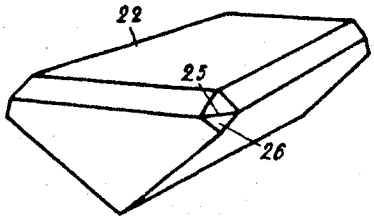
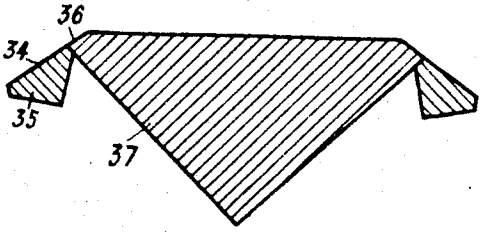


Fig. 7



INVENTOR

A. H. G. Monnier.

By E. F. Windsor

ATTORNEY

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PRECIOUS STONES AND JEWELRY

André Henri Georges Monnier, Paris, France

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5 Claims. (Cl. 63—32)

This invention relates to precious stones and the like as well as to mountings for jewelry and to jewelry itself.

To enable the finest effects to be obtained from a stone, said stone is cut to show a table, a plurality of facets surrounding said table, a girdle or edge around the facets, and beneath said girdle a culet or back which is generally of pyramidal shape. The table and the facets are the visible or exposed faces.

As small stones are much less valuable than large ones, attempts have been made for a long time to simulate a large stone by juxtaposing a certain number of smaller stones with no visible mounting between these stones. To this end, the small stones have been grouped in such a way that the composite stone has everywhere the external appearance of a single stone of known cut having its table, its facets and its culet. But in a composite stone made in this manner, the effect of the light is such that the desired effect is not obtained.

In accordance with the invention, a composite stone is made up of small stones, each of which having its own culet and touching the others so that the setting is hidden; said small stones are fastened so that the visible faces of the composite stone are formed by the visible faces of the small stones and so that their culets project separately on the back of the composite stone. Thus, the composite stone comprises a certain number of culets having their usual function and giving effects which are comparable with or even better than those of one large stone.

It must be pointed out that a composite stone so obtained cannot deceive the customers because it is easy to see in looking at its back that there is not a single large stone but a plurality of culets corresponding to a plurality of small stones.

Generally, there will be a centre stone which corresponds to the table of the composite stone and, all round it, side stones of appropriate shape which correspond to the facets of the composite stone.

Preferably, the centre stone is provided with supplementary facets beneath the visible girdle and converging towards the upper side of the stone by means of which it is gripped. It is advantageous to provide these facets on the small sides of rectangular stones and on the quoins of step-cut stones. On the sides of the centre stone where no supplementary facets have been provided, the side stones can be fixed by inserting their girdles slightly beneath that of the centre stone which, for this purpose, may be cut in.

The side stones and particularly those which correspond to the supplementary facets of the centre stone can be fixed by being gripped at their two ends. Good results are obtained with long stones by mounting every other one of these stones in this way and by providing intermediate truncated long stones or trapezoidal long stones, the ends of which touch the table of the neighbouring long stones and conceal the mounting effected as described above.

The fixing of the side stones can be completed by claws provided at the peripheral angles of the composite stone or by means of a bend. Generally, grooves or crevices are formed between the stones which one will generally attempt to make as narrow as possible.

One good expedient is to arrange the side stones in such a way that their tables are in the same planes as the facets of the centre stone; crevices are thus avoided.

In one embodiment, a composite rectangular stone is obtained by means of a rectangular centre stone surrounded by four trapezoidal long stones.

In another embodiment, a step-cut stone has been obtained with a centre stone having cut corners, surrounded by eight trapezoidal long stones.

It is to be understood that the methods, the stones, the mountings and the jewelry having one or more of the above features, as well as those described later on or shown here, are to be considered as being protected by these presents.

By way of example and for the purpose of making the description more clear, there have been diagramatically shown on the attached drawing:

Figure 1, a front view of a composite rectangular stone in accordance with the invention.

Figure 2, a section on the line II—II in Figure 1.

Figure 3, a section on the line III—III in Figure 1.

Figure 4, a developed section on the line IV—IV in Figure 1.

Figure 5, a front view of a step-cut stone.

Figure 6, a perspective view of the centre stone of Figure 5.

Figure 7, a section taken along the axis of a rectangular stone in another embodiment.

The composite stone shown in Figure 1 comprises a centre stone 1, the table 2 (Figures 2 and 3) which constitutes the table of the composite stone, and four trapezoidal long stones

3, 4, 5, 6, the tables such as 7 of which simulate the facets of the composite stone. Each one of these stones comprises a table, facets, and its own culet; the visible faces (tables and facets) of the various stones form the visible faces of the composite stone; the latter does not have a single culet but has on its rear face the five culets of the five stones.

The manner in which the stones are fixed will now be described. First of all, four claws 8, 9, 10, 11 are provided at the corners as if it were a question of an ordinary large stone. The centre stone 1 is gripped along its two small sides; for this purpose, supplementary facets such as 12 (Figure 3) which determine an auxiliary girdle 13 beneath the real girdle 14 and situated further from the axis of the stone 1 than the latter girdle, are provided along the small sides. The ends of the walls 44, 15 of the metallic mounting are tightened on to the two auxiliary girdles 13, 16 so as to form an invisible setting which holds the centre stone 1 strongly.

The small trapezoidal long stones 4, 6 are held by claws such as 10, 11 and by walls such as 17, 18 (Figure 4) which grip their small sides.

The large trapezoidal long stones 3, 5, are fixed by means of claws such as 8, 11 and by the fact that their edge opposite to these claws is inserted slightly beneath the edge 19 of the centre stone 1 as seen in Figure 2; for this purpose the stone beneath the girdle 19 can be cut in. Furthermore, it will be seen from Figure 4 that these large trapezia 3, 5 are truncated at the end in order that their ends 20, 21 should touch the small trapezia such as 6 and conceal the mounting of the latter. Consequently, the various trapezia only have one table and two facets which are visible.

Figure 5 shows a composite step-cut stone formed of small stones mounted and fixed in accordance with the same principles. It comprises a centre stone 22, four trapezia such as 23 and four quoin stones or "calves heads" such as 24.

The centre stone 22 is step-cut. A supplementary facet 26 analogous to the facet 12 of the preceding example and made for the same purpose is provided on each of its quoins beneath the girdle 25 (Figure 6). To this end the facet 26 is inclined in such a way that its plane intersects the axis of the stone 22 at a point situated above this stone. Four claws which have not been shown but which have the same purpose as the walls 14, 15 of Figure 3 grip these four extra facets 26. The centre stone is thus strongly held at its four corners.

The four trapezia such as 23 are each maintained by claws 27, 28 and by the engagement of their inner edge beneath the edge 29 of the centre stone 22. They are therefore analogous to the stones 3, 5 of Figures 1, 2, 4 and like the latter stones they are truncated at their ends for the same purpose.

Finally, the quoin-stone 24 as well as the three other symmetrical stones is analogous to the trapezia 4, 6 of Figures 1, 3 and 4. Like the latter, it is maintained by claws 29, 30 and by having its lateral sides 31, 32 gripped; the said gripping devices are hidden by the truncated ends of the neighbouring trapezia as in Figure 4. On the other hand, its inner edge 33 hides the claw which grips the supplementary facet 26 of the central stone.

The embodiment shown in Figure 7 is slightly different in this sense that the table 34 of a long stone 35 forms an extension of the facet 36 of the centre stone 37. The crevice between the two stones 34, 37 which is seen in the two earlier examples is thus eliminated.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, I declare that what I claim is:

1. A composite stone comprising a center stone including a girdle and a table, a plurality of side stones arranged around said center stone, each of said center and side stones being provided with a culet projecting rearwardly thereof, each of said side stones comprising edges which diverge from said center stone, each alternate side stone being provided with setting means along its said divergent edges, and each of the remaining side stones having an edge thereof disposed beneath the girdle of said center stone and being provided with setting means at its edge remote from said center stone.

2. A composite stone as defined in claim 1, and setting means gripping said center stone along its edges adjacent said alternate side stones.

3. A composite stone as defined in claim 1, said center stone comprising suplementary facets diverging downwardly from said girdle, and setting means gripping said center stone at said supplemental facets.

4. A composite stone as defined in claim 1, each of said alternate side stones being provided along said divergent edges with a downwardly extending facet, said facets diverging downwardly from the table of said center stone, said first named setting means bearing on said facets rearwardly of said table, and the divergent edges of said remaining stones being in close proximity to the border of said table, thereby concealing said facets and the setting means bearing thereon.

5. A method of making a composite stone from a cut center stone having a substantially polygonal table, a girdle and a culet, and from a plurality of cut side stones, each of which side stones has a substantially trapezoidal table and a culet, which comprises gripping said center stone on alternate sides thereof, arranging said side stones around said center stone so that each has its culet projecting rearwardly of the composite stone and so that adjacent divergent edges of successive side stones are in juxtaposition to each other, fastening along their divergent edges those side stones which are adjacent the gripped sides of said center stone, and fastening every remaining side stone by inserting one of its edges beneath the girdle of the center stone and by setting its edge remote from said center stone.

ANDRÉ HENRI GEORGES MONNIER.