

S. BRUHL.
Doublet-Stones.

No. 138,314.

Patented April 29, 1873.

Fig. 1.

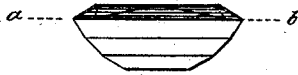


Fig. 2.

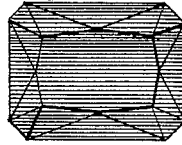


Fig. 7.



Fig. 3.



Fig. 4.

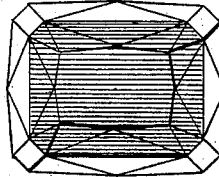
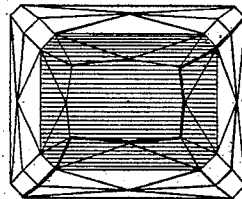


Fig. 5.



Fig. 6.



Witnesses:

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN DOUBLET STONES.

Specification forming part of Letters Patent No. **138,314**, dated April 29, 1873; application filed January 25, 1873.

To all whom it may concern:

Be it known that I, SIMON BRUHL, of the city, county, and State of New York, have invented a new and useful Improvement in Doublet Stones, of which the following is a specification:

Figures 1 and 2 show an enlarged vertical and plan view of a doublet stone as at present manufactured. Figs. 3, 4, 5, and 6, respectively, are enlarged side and plan views of a doublet stone manufactured according to my invention; and Fig. 7 is a side view of a plain pyramidal stone of my manufacture.

The object of my invention is to furnish to jewelers and the trade in general a doublet stone which not only avoids some of the disadvantages of the former doublets, consisting in a lack of brilliancy and an easy injuring of the edges, but combines advantages which have hitherto not been produced, and by which the application of "doublets" to jewelry can be greatly extended, the brilliancy and transparency of the stones increased, and such jewelry manufactured at cheaper rates. I accomplish this object by adding to the form of doublet stones now in use, and shown in Figs. 1 and 2, one or more steps or rows of facets to the upper part or "front" of the stones, and by making the uppermost part or step only of genuine stone, the rest of paste.

The present method of imitating precious stones by a combination of genuine stone and paste, either by gluing or by cementing them under a high degree of heat, is well known, and the stones so obtained are commonly designated in commerce, respectively, as "doublets" or "fire doublets." All precious stones have been imitated by this process, and their edges were joined on the plane of connection, being the plane of largest horizontal extent. It is obvious that in this way comparatively small stones only could be produced, as the size of the same was limited by the upper surface or "bevel and table" of the doublet, which would become too expensive as soon as a certain size was overstepped. Doublets of large size were, therefore, not manufactured, and the ap-

plication confined to narrow limits. At the same time it remained a desirable object to supply the different branches of the jewelry industry with a doublet stone of larger size. This I have accomplished by introducing one or more steps or rows of facets above the former plane of connection, and making the uppermost step of genuine stone, the lower part being composed of paste, as in Figs. 3 and 5. The plane of connection is thereby changed from the plane of largest horizontal size, known as the girdle, and represented at *a b* in the drawing, to one parallel to it, but removed vertically one or more steps. As these are cut in the form of one or more frustums of a pyramid, Figs. 5 and 7, it will be readily perceived that the upper step is of small extent, not overstepping the limits of that application of precious stones for doublets which I have tried to show in the foregoing.

By the introduction of several steps, any required size of doublet may be obtained, thereby expanding that manufacture to an extent not known heretofore, and permitting a large number of applications in the different branches of jewel manufacture which were hitherto unavailable by the insufficient size of the doublets used in the trade.

I intend to use the gluing and fire process for joining, and propose to manufacture doublets of large size, principally amethysts, topazes, smaragds, rubies, garnets, sapphires, &c.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

As an improved article of manufacture, a doublet stone, consisting of a base of artificial or inferior material, provided with one or more steps of facets above the girdle *a b*, and the cap piece or table of genuine precious stone, said parts being combined and arranged substantially as described and shown, for the purpose set forth.

Witnesses:

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