

UNITED STATES PATENT OFFICE.

SAMUEL GROSSIORD, OF LES MOUSSIÈRES, FRANCE.

ART OF PREPARING PRECIOUS AND IMITATION PRECIOUS STONES.

SPECIFICATION forming part of Letters Patent No. 290,040, dated December 11, 1883.

Application filed August 9, 1883. (No specimens.) Patented in France October 25, 1882, No. 151,732.

To all whom it may concern:

Be it known that I, SAMUEL GROSSIORD, a citizen of the French Republic, residing at Les Moussières, in the French Republic, have
5 invented certain new and useful Improvements in Art of Preparing Precious and Imitation Precious Stones, (for which I have obtained Letters Patent in France, No. 151,732, under
10 date of October 25, 1882;) and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in
15 the art of preparing precious stones for cutting and mounting, whereby a greater brilliancy is imparted to the stones, whatever may be the nature or color of the latter.

The invention further relates to the preparation of artificial precious stones, technically
20 termed "diamondines," or ruby, sapphire, &c., diamondines, according to their color.

It is well known that certain precious stones—such as rubies, sapphires, &c.—do not
25 acquire greater brilliancy by silvering (*i. e.*, coating with silver) a portion of their surface. This is also the case with most of the transparent enamels used in the manufacture of artificial precious stones and rock-crystal.
30 Although colorless, the brilliancy of the latter is but slightly, if at all, increased by the usual process of silver-coating. I have found, however, that the brilliancy of such precious stones or enamels or rock-crystal is materially
35 increased by interposing colorless strass between these substances and the reflecting medium. Garnet is the only precious stone that can be united with another by means of fusion, and this, as well as all the enamel
40 usually employed in the manufacture of artificial precious stones, may therefore be cemented to the strass by fusion. In all other cases cold cementing is to be resorted to.

In the preparation of the stones—artificial
45 or otherwise—more or less strass may be employed, and, if desired, the enamel for diamondines may be interposed between two sections or layers of strass. The cementing may be effected prior or subsequent to the cutting
50 of the stone or imitation stone and the strass.

Very good effects are produced in imitation precious stones by cementing the stone between two layers of strass. By silvering the backing of strass, not only is the brilliancy of the stone greatly enhanced, but the strass is
55 rendered more durable, since its exposed surface is entirely or almost entirely protected by the metal coating.

Other reflecting mediums than silver may be employed, if desired. 60

In the specification forming part of Letters Patent granted to me under date of July 3, 1883, No. 280,467, I have described and claimed the use of strass in the manufacture of diamondines, and I do not desire to claim, broadly, in this application the use of strass in the manufacture of imitation precious stones; but

What I do claim is—

1. The method of increasing the brilliancy of precious as well as imitation precious
70 stones by means of a light-reflecting substance, which consists in interposing colorless strass between the reflector and the stone, as described.

2. The method of preparing precious stones—
75 such as garnets, rubies, sapphires, &c.—which consists in cementing them to colorless strass, as described, for the purpose specified.

3. The method of preparing precious and imitation precious stones and increasing their
80 brilliancy, which consists in cementing the precious or imitation precious stone to colorless strass previous or subsequent to cutting the same, and coating the under side of the strass with a light-reflecting substance, as described. 85

4. A precious stone having a backing of colorless strass, as described.

5. A precious or imitation precious stone having a backing of strass coated with a reflecting medium, substantially as and for the
90 purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 21st day of July, 1883.

SAMUEL GROSSIORD.

Witnesses:

LOUIS COUSSAINT,
FREDERIC MATRAY.