THE SAPPHIRE.

The sapphire is a variety of corundum and much therefore that was said under the head of ruby will apply to the sapphire. The desired color is the velvety "Cornflower" blue; but while this is the typical color of the sapphire, it should be explained that the word "Sapphire" is extended by mineralogists and jewellers to corundums of other colors. Thus we have green sapphires, various shades of yellow, and grey, while others may be entirely destitute of color. The principal sapphire yielding localities are : Siam, Burmah, Cashmere and Ceylon, and of these the Siam stones are at present the finest in the market. Many sapphires are found in Montana, but the stones are mostly of green and other fancy tints, and not deep blue. The value of the sapphires like the diamond depends on its purity, color and size. A perfect Oriental sapphire, being worth from a third to a half of a diamond of like weight. The imperfections which appear at times in the sapphire, and which lessen its value are clouds, milky, half-opaque spots, white glassy stripes, etc. Doublets are made of the sapphire as well as the ruby and other gems; these consist of thin layers of true stone cemented to a backing of colored glass. They may be distinguished from the genuine stone partly by their color, but more especially by a careful examination of the girdle where the join, may usually be readily detected.

Composition : Alumina. Specific gravity : 4. Hardness : 9.

THE EMERALD.

The emerald varies in color from what is called emerald green to grass green, and greenish white, the value depending upon its color and freedom from flaws; but a very fine dark velvety colored stone, free from flaws, is almost never met with. The rise in the price of emeralds within the last year or two, has been most remarkable, a really fine stone being now worth as much as a pigeon's blood ruby. The rise has been caused by the great demand for all green stones, and by the very limited output of the emerald mines. Emeralds are found in the Republic of Columbia, the Ural Mountains and in the mountains of Sahara.

Composition : Silica, Alumina and Glucina. Specific gravity : 2.7.



THE PEARLS.

These products of nature stand pre-eminent in the ranks of precious gems; so rarely are they found of perfect quality and symmetry however, that they are rapidly increasing in value. The steady demand coupled with the recent closing of some important fisheries, by the Indian government, has resulted in most astonishing advances. For really fine gems, quite twice as much will now be paid, as would have been two years ago, and even when this great increase is paid, they are much more difficult to procure. The characteristics of a fine pearl are: perfection of shape, skin and lustre or brilliancy. The chief localities for pearls are : North Borneo, West Australia, Torres Strait, Gulf of Panama, Ceylon and the Persian Gulf.

THE OPAL.

Several kinds of opals are known to the mineralogist, but of these the common opal, semi-opal, and Mexican or fire opal, are of little or no value. The precious or noble opal was formerly obtained almost exclusively from Hungary, but of late years large quantities have been found in Queensland and New South Wales, and as the Hungarian mines have been largely worked out, Australia is now the chief source of supply. There are innumerable supperstitions attached to the opal. By the Ancients it was thought to bestow every possible good; in the Middle Ages the same belief held, but by a strange freak of fashion for which Sir Walter Scott's "Anne of Ghererstein" was largely answerable, it was for a long time considered unlucky. The pendulum however, is now swinging the other way, and the opal is again looked upon as a lucky stone.

Composition : Silica.

Specific gravity : 2 to 2 2.

OTTAWA STORE.

<text>

SPOON MAKING.

Hardness: 7.5.



Hardness : 5.5 to 6.