


LEGENDS  
OF   
GEMS 

★ OF-GEMS-& GEM-CUTTING ★

MINERALOGY-EMERALD-AND-OTHER-BERYLS-CATALOG

GEMSTONES-OF-NORTH-AMERICA-PROSPECTING-FOR-GEM

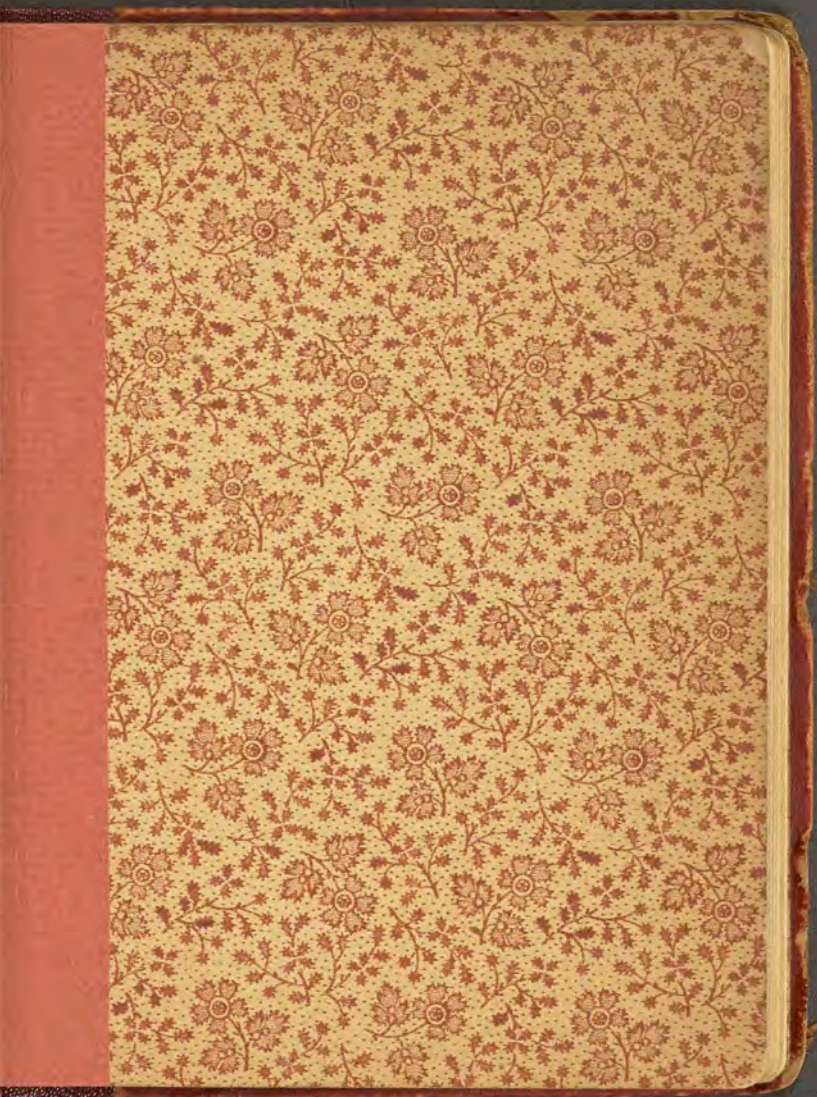


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★ MINERALS AND STONES ★





LEGENDS OF GEMS

Note Bene

If thou art borrowed by a friend  
Right Welcome shall he be  
To read, to study, and to lend  
But to return to me.

~~~~~

Mrs. Cornelia M. Stebb  
with the affectionate regards  
of the Author. Frank Shelley  
Hilght Park.  
Aug 15<sup>th</sup> 1900

## LEGENDS OF GEMS

BY

FRANK SHELLEY



NEW-YORK

R. H. RUSSELL & SON

MDCCCXCV

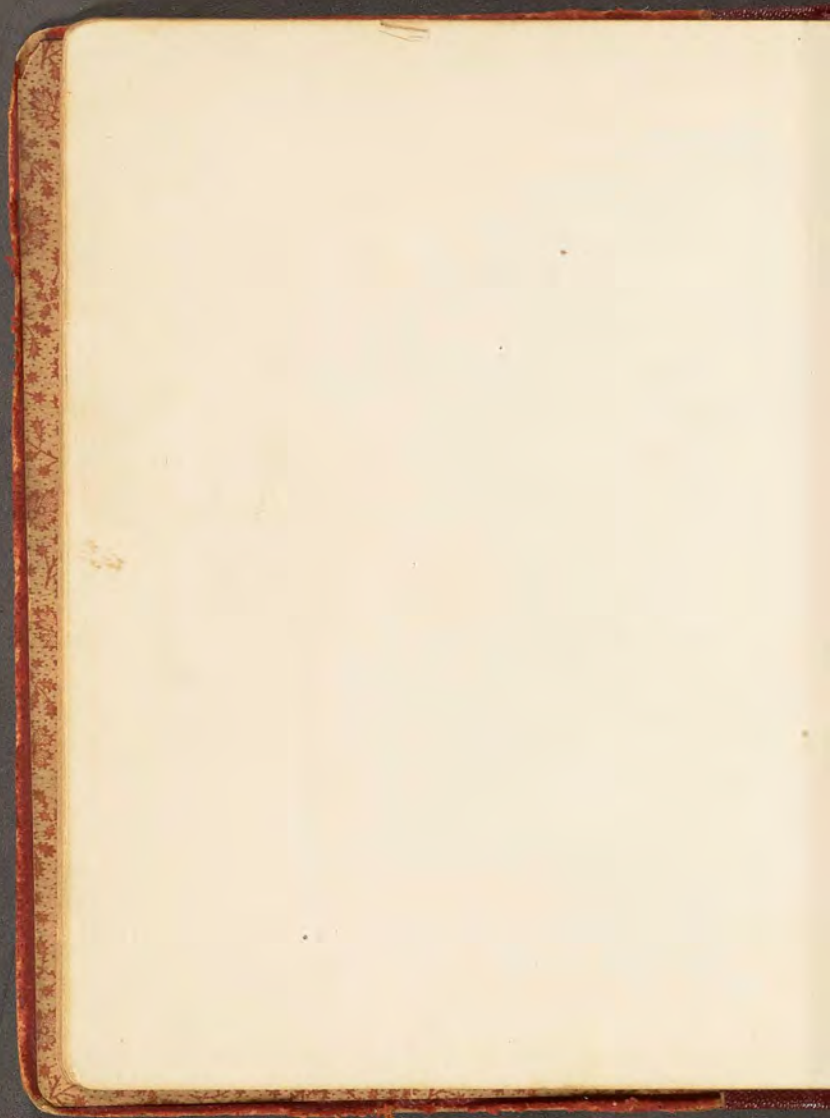
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## Diamonds

**F**OR centuries many of the dormant beauties of the diamond remained unrevealed, the lapidaries' art in regard to the "facetting" of precious stones being, until the fifteenth century, in a rudimentary condition. Most of the royal gems, both in Asia and Europe, up to this time were very imperfectly cut, and it remained for Louis de Berquem, who flourished about 1450, to revolutionize the art with what he called his "perfect cut." Charles the Bold of Burgundy, hearing of his skill, sent three large diamonds to be recut by him, each of which became afterward historical. The great success attending his operations resulted in an unprecedented demand for diamonds cut in the new mode, and we find, half a century later, the courtiers

of France and England vying with each other in the purchase and display of well-cut diamonds. Until de Berquem's time, much of the fire and play of color was lost, the lapidaries fearing to destroy the value of the gem by reducing it in size by over-cutting. There are three distinct operations in the cutting of diamonds — namely, splitting, cutting, and polishing, of which "splitting" is the most important, as it can only be effected along certain definite lines of cleavage, which depend upon the structure of the stone, and an error of judgment upon the part of the workman may destroy what otherwise might have been a gem of the "first water." The diamond which is to be split has a small notch made by means of another diamond with sharp edges (the diamond can only be cut by its fellow, hence the saying "Diamond cut diamond"); into this notch is inserted the blunt edge of a little steel blade, which is then struck a quick sharp blow, and the stone is split, and, as may readily be supposed, it requires years of experience before the workman be-

comes "master of his craft." In the cutting and polishing of gems, diamond-dust is the principal factor, and my readers may wonder that a stone of such hardness can ever be reduced to powder. But the fact is that the idea of the ancients, and also of many moderns, that the diamond could not be broken by the blow of a hammer, has been cruelly dispelled at the cost of the "experimenter," who has found his curiosity rewarded only by the broken fragments of the diamond. To make diamond-dust, a hardened-steel pestle and mortar are used—and fragments and cuttings of diamonds, together with discolored, small, and worthless stones, are employed for this purpose. The Dutch for many years had the monopoly of diamond-cutting, Amsterdam being the great center of the trade. The origin of the diamond is still veiled in obscurity; scientists have destroyed many valuable gems in their experiments to determine the question, and have decided that the diamond is pure carbon, and can be burned and utterly destroyed by the application of the intense



heat of a smelting-furnace. One of the most fascinating experiments in chemistry was performed by the celebrated scientist, M. Morreu, upon a diamond. He took a piece of platinum wire, twisted one end of it into a shape to contain the diamond, and then fixed the upper end of the wire in a cork, which exactly fitted a little bottle filled with oxygen, which stood ready by his side. The diamond to be burned was then placed in its little receptacle, and by means of a blow-pipe the temperature of the wire and the diamond was raised to white heat, and then plunged quickly into the phial of oxygen. The diamond immediately kindled and continued to burn with a steady glow infinitely more vivid than that which could have been obtained from any other variety of carbon.

Diamonds are found of various colors, white, blue, pink, yellow, brown, black, etc., and until the last two hundred years the supplies came almost entirely from India. It is related by the celebrated traveler, Tavernier, who flourished in the seventeenth century, that in his time the mines of

Golconda employed sixty thousand people, and that the Sultan Mahmoud had left at his death, in his treasury, more than four hundred pounds' weight of these precious stones.

It was not until 1727 that diamonds were discovered in Brazil, and from that time large supplies of beautiful stones have been received from that country. It is estimated that since the government first worked the mines on its own account, the Province of Minas-Gerães alone had yielded, up to 1850, no less than six millions of carats, valued at about ten millions of pounds sterling.

But in 1867 the discovery of the Cape, or South African, diamond-fields, with their prodigious yield of all kinds and qualities of diamonds, completely placed in the shade all previous finds. The value of the diamonds exported from the Cape in the first eighteen years of their discovery, is said to have amounted to upward of two hundred and eighty millions of dollars, and to have weighed several tons. Large diamonds are excessively rare, and there are only nine known diamonds whose weight exceeds two hun-

dred carats, and about twenty over a hundred carats (without taking the "Braganza" into account, whose weight is 1680 carats, and is shrewdly suspected of being nothing more than a fine white topaz).

We will briefly allude to a few of these historical gems, most of which were found in India.

The Rajah of Matan, in Borneo, has perhaps the largest diamond in the world. It is pear-shaped and weighs 367 carats (more than two ounces), and is valued at a million dollars, although no price would induce the Rajah to part with it, as the very destinies of his empire are considered to be indissolubly connected with its retention.

One of the most beautiful is the Regent, or Pitt, diamond, which was purchased by Pitt, the grandfather of the Earl of Chatham, when he was governor at Madras, for sixty thousand dollars, and sold by him to the Duke of Orleans, in 1717, for six hundred and forty-eight thousand dollars. This stone played a very important part in the fortunes of the first Napoleon, as by its aid he was

enabled (by pawning it to the Batavian government) to secure the necessary "sinews of war" to prosecute his ambitious designs; he afterward redeemed it and wore it in his sword of state, and Napoleon III in his turn transferred it to the imperial diadem.

The "Sancy" (one of the three stones before mentioned as having been recut) is another lovely gem which has a most romantic history, having belonged to Charles the Bold, who lost it at the battle of Granson. After some years it reappeared in the possession of the King of Portugal, who pledged it to De Sancy, the treasurer of Henry III, King of France. The king being pressed for money, borrowed it of the treasurer in order to raise money from the Swiss government, and sent it to Berne by a trusted servant, who on the journey was waylaid and murdered by robbers. Upon the discovery of the body, it was buried by order of a charitable priest, in the country churchyard. The tale goes on to say that no sooner did the treasurer hear of the death and burial of his servant, than he exclaimed, "My dia-



mond, then, is not lost;—exhume the body and we shall find it, as I charged him, if waylaid, to swallow the stone.” The gem was found in the stomach of the servant, whose fidelity had induced him to swallow it in his dire extremity. This stone is now in Russia, and has been valued at one hundred and eighty-six thousand dollars.

The diamond becomes phosphorescent under the influence of the sun’s rays; and even from the result of friction. This may readily be proved by taking the stone into a darkened room, when, on rubbing, it will be found to emit flashes of light. Tom Moore alludes to this peculiarity in the lines,

Like gems in darkness issuing rays  
They’ve treasured from the sun that’s set,  
Beam all the light of long-lost days.

The history of the Koh-i-noor, or Mountain of Light, can be traced for more than two thousand years. It weighs over 106 carats, and was presented to the Queen of England by the East India Company. The Hindoos believe that this gem is “uncanny,” and say that it has brought misfortune upon

every one of its former owners, and they ascribe the loss of the queen's husband and children to the baleful influence of this malign stone.

The "Orloff" is a superb stone, weighing 193 carats, and is half as large as a pigeon's egg. It once formed one of the eyes of the famous idol of Brahma in the Temple of Sheringham, and was stolen one dark and stormy night by a French soldier who had succeeded in gaining the confidence of the priests by pretending to be a convert to their religion. He escaped to the sea-coast, and sold his prize for ten thousand dollars; it eventually was purchased by Catharine of Russia for an immense sum.

The Austrian crown has the second of the three stones cut by de Berquem for Charles the Bold; this is a very beautiful gem, and weighs 139 carats; it is cut to resemble a star. The third stone is much smaller, and is in the Tiara of the Pope.

The Blue diamond, known as the Hope diamond, weighs  $44\frac{1}{8}$  carats, and is said to be without a rival; it resembles in color the

blue of a perfect sapphire. It was sold for the comparatively small sum of \$83,700, but is considered by good judges to be worth considerably more.

One of the most interesting table-diamonds in history was purchased by George IV when he was regent, and cost one hundred thousand dollars. The prince presented it to Mrs. Fitz-Herbert, who had the diamond split in half, and her miniature on ivory was made into a locket, of which the half diamond formed the glass, and the portrait of the prince was inclosed in a similar one. She then presented her portrait to him and retained his. Some time afterward it was decided by parliament that the sum of many millions of dollars should be given him to pay his debts; the conditions attached were that he should marry Caroline of Brunswick, and break off his relations with Mrs. Fitz-Herbert. It was arranged that the prince should return all presents received from Mrs. Fitz-Herbert, and she was to do the same. But she did not receive the locket containing her portrait with the other

articles, and was too proud to insist upon its return. Years passed, and one day the Duke of Wellington was dining with a few intimate friends, when one of the ladies (a great friend of Mrs. Fitz-Herbert) said: "Your Grace, being the executor of the late king, must know what has become of the missing diamond-locket?" The duke was observed to change color, and upon being pressed, acknowledged that his curiosity had been excited by the request of the king that nothing should be removed from his body, but that he should be buried in the clothes he was wearing, and having noticed that the king wore round his neck a narrow black ribbon, he could not resist, after his death, looking to see what was attached to it, and found the missing diamond-locket, with the portrait of Mrs. Fitz-Herbert, and this was buried with him.

Talking of portraits in connection with diamonds, one of the most remarkable was seen by the writer at the loan collection of miniature portraits held at South Kensington Museum many years ago. It was



the property of the Duke of Northumberland, and consisted of a locket an inch wide, with a portrait of Charles the First made from the king's hair, which had been dipped in his blood on the scaffold. A large table-diamond formed the glass, surrounded by about fifteen exquisitely matched green diamonds, together forming one of the most interesting features of the unique exhibition, comprising as it did a collection contributed by the nobles and gentry of Great Britain, of their ancestral portraits in miniature, from the time of Henry VIII. and Holbein.

## Rubies.

**W**HAT fairy tales of enchanted princesses and legendary lore of the Arabian Nights does not the mere mention of the ruby conjure up to our imagination! No stone has been more intimately connected with poetry and romance, and few gems can compare either in beauty or value with a perfect ruby. When Solomon exclaimed that "a virtuous woman was more valuable than rubies," and Job, that "the price of wisdom is above rubies," they both mentioned what to them was the most valuable thing in existence. And its value and rarity have not decreased since their time. To-day a perfect ruby of five carats will fetch at least five times the value of a diamond of the same size and quality, while rubies without flaw or blemish, and

of the true pigeon-blood variety, weighing as much as ten carats, are so rare and valuable that ten times the value of a perfect diamond would be considered a very low price to pay for so perfect a gem.

One of the most perfect of these pigeon-blood stones is in the Devonshire collection, exquisitely engraved with the figures of Venus and Cupid—and in the French national collection there is a very large one attached to the Order of the Golden Fleece, cut in the form of a dragon with extended wings.

An Oriental ruby of under twenty-four carats in weight, once the property of an Indian prince, was sold some years since in London for \$175,000. The variety of ruby that I have been describing is known as the "Oriental," and has the vivid tint of arterial blood. I have seen in the stained glass of ancient cathedrals in Europe, when the glorious midday sun pours through the windows, an excellent representation of this beautiful shade of color. The next in value to the Oriental is the Spinel ruby, which is

generally of a lovely poppy-red; the other variety is known as the Balas ruby, and may be described in general terms as of a violet-rose color, but there is no absolute rule for their color, as they are found in all shades ranging from violet-white to bluish-gray. These inferior rubies are generally found in the beds of torrents, whereas the Oriental are mostly found in mines.

The ruby ranks with the sapphire in hardness, and was rarely engraved by the ancients for their signet-rings, as, according to Pliny, the seals made of this stone carried away the wax, and thus ruined the impression.

There are, however, one or two beautiful specimens of engraved rubies extant; one is in the Odescalchi Museum, and represents Ceres, the goddess of plenty, with an ear of corn in her hand.

Another engraved ruby, which, like the preceding, is a Spinel, is cut in the shape of a heart, and has the head of some Greek philosopher engraved upon it.

But the finest and largest rubies in the world belong to the King of Burmah, who,



amongst other titles, is called "Lord of the Rubies." He is said to possess a ruby as large as a hen's egg, but it is strongly suspected to be of the inferior sort—that is, either a "Balas" or a "Spinel." The mines in Burmah were rigidly guarded against the approach of any European, and all rubies over a certain size were the property of the king, so that it can be readily imagined what a store the kings of Burmah must have accumulated in the course of ages.

That great traveler, Marco Polo, relates that the King of Ceylon had the finest ruby ever seen. He goes on to say that "it is four inches long, as thick as a man's arm, and without a flaw." Kublai-Khan offered the value of a city for it, but the king answered that he would not part with it if all the treasures of the world were laid at his feet. This was doubtless one of the inferior variety, probably a Balas, or it might have been only a Carbuncle.

Beautiful rubies have been found in parts of Tartary and also on the slopes of the Oxus. The Tartars have a singular super-

stitution that they always occur in pairs, and it is said that when one of the seekers has found a single one he will frequently conceal his find until he has secured its mate.

Perhaps the finest ruby in Europe is the one presented by the Swedish king, Gustavus Adolphus, to Catharine of Russia in 1777, which is the size of a pigeon's egg.

An old author relates a curious story in connection with a ruby, which has been repeated by almost all the modern writers on gems. "A certain widow had tended a young stork, which, having fallen from its nest before it was fully fledged, had broken its leg. The grateful bird, on returning from its annual migration, immediately visited its benefactress (who happened to be sitting at her door) and dropped into her lap a precious stone of surpassing brilliancy. Upon examination this turned out to be a matchless ruby." The tale is worth repeating if only to point the moral. The ruby was a favorite *gage d'amour* in the time of the Crusaders, and one of the most charming of Sir Walter Scott's novels, "The Talisman,"

pivots upon a wonderful "ruby." The Chevalier Bayard was awarded by the "Queen of the Tournament" a ruby ring worth one hundred ducats, and later on we find the Earls of Suffolk and of Essex being presented by Queen Elizabeth with ruby rings.

An exquisite jewel, interesting alike for its workmanship and undoubted authenticity, is now the property of Queen Victoria. It is known as the Lennox or Darnley jewel, and was formerly the property of Horace Walpole. It was made by order of the Lady Margaret Douglas, mother of the ill-fated Lord Darnley, the husband of Mary, Queen of Scots. This jewel is a golden heart measuring two and one-eighth inches in each direction. On the outer face is a crown, surmounted with three white *fleur-de-lis* upon an azure ground, and set with three rubies and an emerald. The jeweled crown opens, and within the lid is this device: Two hearts united by a blue buckle, and a golden true-love knot pierced with two arrows, feathered with white enamel and

barbed with gold, and above them the motto, "What we resolve." This is a masterpiece of the jeweler's art, worthy of the hand of that prince of artificers, Benvenuto Cellini.

The poets are very fond of likening the lips of the fair to rubies. In Herrick's "Hymn to Venus," he exclaims:

Goddess, I do love a girl  
Ruby-lipped, and tooth'd with pearl;

and again,

No deeper rubies than compose thy lips,  
No pearls more precious than inhabit them.

And Spenser in his quaint old English says:

And twixt the pearls and rubies softly brake  
A silver sound, that heavenly musicke seemed to  
make.

One of the most interesting historical rubies is the one given by Dom Pedro of Castile to Edward the Black Prince, and afterward worn by Henry V. at the battle



of Agincourt, A. D. 1415. This stone is in the center of the diamond cross in front of the state crown of Queen Victoria.

Another historical ruby was the coronation ring, engraved with the cross of St. George, and it was customary to send this ring with the messenger who notified to the next in succession his or her accession to the crown. This ring was sent to Elizabeth on the death of Mary, and again to James I. on the death of Elizabeth. James II., while escaping in disguise from England, had this ancestral ring concealed about his person; it narrowly escaped the search of the fishermen of Sheerness, who insisted upon searching both the king and his companions—believing them to be proscribed Jesuits—for any loose gold or valuables they might have about them. This ruby ring was given by Charles I. to Bishop Juxon, and through him was transmitted to Charles II., and came afterward into the hands of George IV., with other relics belonging to Cardinal York, known as the last of the Stuarts, and is now in the collection at Edinburgh Castle.

Rubies are found in India and Ceylon, and in various other places.

The ancients believed that the wearer of a ruby would be warned of some misfortune pending, by the ruby changing color and distinctly darkening.

The Chinese are in the habit of burying small bags of rubies under the foundations of their houses to propitiate evil spirits.

Emerson's lines on the ruby are familiar to all:

They brought me rubies from the mine,  
And held them to the sun;  
I said, "They 're drops of frozen wine,  
From Eden's vats that run!"

The early kings of England, in order to prosecute their wars, were constantly compelled to pawn their jewels; and it is recorded that Henry III. pawned a magnificent ruby ring, once the property of Edward the Confessor, for "a good round sum" to the Abbot of Westminster.

## Emeralds.

**M**ANY curious legends of gigantic emeralds have been handed down to us, principally culled from the narratives of early travelers, who thought every transparent green stone they saw to be an emerald.

The ancients valued the emerald highly, not alone for its beauty, but for its supposed occult properties and its marvelous power of healing all diseases of the eye—they also believed that if the eyes of a serpent met the gleam of the emerald, it immediately became blind. Moore alludes to this superstition in the lines :

Blinded like serpents when they gaze  
Upon the emerald's virgin blaze.

The Emperor Nero, who was short-sighted, had an eye-glass formed of an emer-

ald, through which he gazed and gloated over the cruel sports of the arena.

Pliny is our authority for the following tale, illustrative of the brilliancy and fire of the perfect emerald. "In the island of Cyprus stands the tomb of King Hermias, on which is carved the life-size figure of a lion with large emerald eyes — when the sun shone upon them they were so excessively brilliant that all the fish were frightened away. The fishermen, finding their livelihood threatened, removed the lion, and the fish returned to their accustomed haunts." It has been surmised that the shadow cast by the reflection of the lion upon the water had something to do with this phenomenon. A lion answering to this description is now in the British Museum, and came from Cyprus, although minus the wonderful emerald eyes, so there may, after all, be some foundation for this story.

Flawless emeralds of large size are so extremely rare that the expression, "An emerald without a flaw," has passed into a proverb to denote unattainable perfection.



Among the spoils brought by Cortez from Peru were five magnificent emeralds of remarkable beauty and curious design, which are described as marvels of the lapidary's skill, one having been cut into a rose, another a horn, a third a fish with golden eyes, the fourth a bell with a pearl for a clapper, and the fifth a tiny cup. In consequence of the refusal of Cortez to sell these gems to the empress, he lost favor at court, and the emeralds themselves were shortly afterward lost when their owner was shipwrecked off the Barbary coast.

Before the conquest of Peru the finest emeralds came from Egypt and Burmah, and were comparatively rare in Europe, but the vast accumulations annexed by the Spanish adventurers, both in Mexico and Peru, rendered them much more plentiful; some idea may be formed of the quantities seized, from the report of a traveler of that period, Joseph D'Acosta, who tells us that on the ship in which he returned from America to Spain there were two chests, each containing one hundred pounds' weight of fine

emeralds. It was usual with the Mexicans to propitiate their goddess Esmeralda — who was worshiped under the form of a huge and brilliant emerald the shape and size of a hen's egg— by gifts of emeralds, and thus the Spaniards were enabled, at one fell swoop, to annex the votive offerings of centuries by seizing upon the accumulated emeralds deposited at the shrine of the goddess.

The value of emeralds is principally determined by their color, transparency, and freedom from flaws. The most esteemed are of a very fine dark velvety-green color, and when flawless are worth from two to three hundred dollars a carat, whereas the lightest shade of green would not fetch ten dollars a carat.

The marvelous tales related of gigantic emeralds are principally "travelers' tales," and must be taken *cum grano salis*; for example, Herodotus tells us of the emerald pillars several cubits in height in the temple of Hercules at Tyre— these must have been either green jasper or, more probably, glass.

In the Imperial Treasury at Constantinople

there is a turban, surmounted by a diadem composed of three emeralds of the purest water and of immense value, which originally belonged to the conqueror of Bagdad, Sultan Murad II.; there was an emerald of equal luster, which once adorned the crown of the Virgin in the Cathedral of Toledo, until Marshal Junot took a fancy to it. This amiable gentleman, being at the time in high command in Spain, honored the Cathedral with a visit, and after commenting upon the matchless water and luster of the gem, coolly twisted it off with his finger and thumb, remarking airily to his astonished and terrified auditors, "This belongs to me," and retired bowing and smiling, with the emerald safely ensconced in his waistcoat pocket.

Talking of Napoleonic times, I must not forget to relate an anecdote of the Empress Josephine. The painter Isabey, whilst engaged in painting her portrait, inquired what jewels she would wear. To which she tearfully replied, "I am about to change my state, and have heard it said the custom

in England is that when a true heart is severed from one it loves, the women wear green to denote to their friends that they are forsaken. Paint *me* in emeralds, to represent the undying freshness of my grief; but let them be surrounded with diamonds, to portray the purity of my love." Soon after, Isabey understood the meaning of this, to him, enigmatical language — Napoleon having shortly before informed Josephine of his projected alliance with the Austrian princess, Maria Louisa.

One of the most precious of the many marvelous gems of the Shah of Persia is a small gold box, studded with magnificent emeralds, supposed to have been blessed by Mahomet, and which has the power of rendering its owner invisible, so long as he remains "celibate"; but as the Shah may be said to be very much married, these miraculous qualities can be of little service to him.

The emerald ring of Polycrates of Samos is possibly the most famous jewel of ancient times. His marvelous and uninterrupted



good fortune alarmed his ally, Amasis, King of Egypt, who, fearing that this luck might turn and involve him also in disaster, advised Polycrates to sacrifice his most valued treasure in order to propitiate the gods; the king agreed, and threw his magnificent emerald into the sea. Shortly after a fish was caught, and on being carried to the royal kitchen was found to have the king's ring in its stomach. This was too much for the superstitious Amasis, who at once broke off the alliance, and lived to see his worst forebodings fulfilled, as the Samian king was shortly after taken prisoner and crucified.

The name of "Emerald Isle," as applied to Ireland, is said to have originated in the time of Henry II., when Pope Adrian sent him a magnificent emerald ring as the symbol of his investiture of the dominion of that island.

The emerald ring taken from the tomb of Charlemagne, and used by him as a talisman, was worn by Napoleon on two of his famous battle-fields, those of Austerlitz and

Wagram, and given by him afterward to Queen Hortense.

I have already alluded to the almost fabulous number and value of the precious stones belonging to the Shah of Persia. Some idea may be formed of the abundance of unset gems in the Treasury at Teheran by the Shah having had a globe constructed lately, two feet high, and covered with jewels. The overspreading sea is composed entirely of emeralds, and the kingdoms of the world are distinguished by jewels of various colors.

The emerald was believed by the ancients to reveal the inconstancy of lovers by changing color, and in allusion to this peculiarity Mrs. Maclean wrote a pretty little poem, the opening lines of which are :

It is a gem that hath the power to show  
If plighted lovers keep their troth or no.  
If faithful, it is like the leaves of spring ;  
If faithless, like those leaves when withering.

## Sapphires.

**W**HAT color can compare with the exquisite blue of a perfect sapphire? The name of sapphire was not originally confined to one gem, but was given to all stones of a beautiful blue color; and, strange to relate, it has an almost identical sound in various languages. Thus, in Greek we have *Zappbirus*, in Latin *Sappbirus*, and in Hebrew *Sappbir*.

This stone has been known from the earliest antiquity, and was ever associated with things sacred — possibly from its resemblance to the cerulean hue of a cloudless sky in Oriental countries. It was sacred to Apollo, and was credited with the most marvelous powers over the ills to which flesh is heir. It is the emblem of constancy and truth; Epiphanes states that the first

tables of the law given by God to Moses were made of sapphire. It held a conspicuous place on the breastplate of Aaron, and was the gem of gems amongst the Jews. In old Arabic it was called "Sappeer," which means to scratch, the sapphire being the hardest of all stones, with the exception of the diamond.

Notwithstanding this extreme hardness, there are a number of beautifully engraved specimens in the various gem collections, one of the finest of which, weighing fifty-three carats, is engraved with the representation of a hunting scene, and is the property of the Marchese Rinuccini, and is supposed to be very ancient. In the collection of minerals in the Jardin des Plantes, in Paris, is one of the most beautiful blue sapphires in the world, weighing  $132\frac{1}{8}$  carats, without spot or blemish. This stone was originally found in Bengal by a poor man, a vender of wooden spoons, who sold it for a trifle, and after divers adventures it found its way to France, where it was purchased by Mons. Perrot, the jewel merchant,



for the ridiculously inadequate price of \$24,000. The first sapphires brought to Europe came from Arabia and Persia, but now the finest stones are imported from Burmah and Ceylon.

The value of the sapphire when perfect in color and quality is equal to the diamond, and we have heard of stones of three carats and of unusual brilliancy and luster being more costly even than a diamond of like weight and similar quality. Certain sapphires of a pale color are known as *Asteria* or Star sapphires. The light reflected upon them forms a star of six rays, the effect being extremely curious and beautiful. The inhabitants of the East have a special veneration for these Star sapphires, and it is related that the celebrated African traveler, M. D'Abbadie, invariably secured the protection and respect of the natives by exhibiting to their astonished eyes his "*Asteria*," which they looked upon as a "fetish" of sovereign power. Sapphires, like diamonds, are found of various colors, but the pale blue variety has comparatively

little commercial value. Sapphires are occasionally found quite white, in which event it takes an expert to know the difference between it and a diamond.

A favorite fraud is to manufacture imitation sapphires, generally of perfect color, by means of two pieces of crystal with a rich color between, and these "doublets," as they are technically called, are so well put together, that it is almost impossible to detect the deception without unsetting the stone.

To those born in the month of April, let me advise a sapphire for a talisman; the ancients, wise old fellows in their way, wore it against "fits of the blues," on the homeopathic principle, we suppose, of "like cures like" (*similia, similibus curantur*). Another estimable quality is attributed to the sapphire; it is that of continency, and so strongly is its power in this respect believed in by the pillars of the holy Catholic Church, that it is invariably given (even to this day) to a cardinal upon his investiture, set as a ring.

In the earlier days of the church it was by no means confined to cardinals, bishops and abbots and even priors wearing the sapphire in preference to any other precious stone. The sapphire of that holy king, Edward the Confessor, and which he wore as a ring, is now in the crown of the Queen.

One of the most wonderful specimens of sapphire in existence is in the St. Petersburg Museum. The gem in question is party-colored, varying from whitish to clear blue; the artist has so cunningly availed himself of the peculiarities of the stone as to represent a draped head, the face of which is white, whilst the folds are blue, the effect being simply marvelous.

The more valuable kind of sapphire, known as the Oriental, may readily be distinguished from the other variety, from its faculty of retaining its lovely blue shade by artificial light, whereas the other shows up more like an amethyst in color.

Cardinal Wolsey's sapphire was a magnificent stone, engraved with his crest and coat of arms. A valuable stone was found

in India some time since set in the handle of a Turkish dagger. It was a pale rounded sapphire, nearly an inch in diameter; and upon removing it from its setting a magnificent head of Jupiter was found engraved upon it, evidently of great antiquity, arguing either that the owner was not an admirer of art, or that, having stolen the stone, he hoped to conceal its identity by setting it face downward.

The sapphire derived its ancient name of *Hyacinthus* from the resemblance of its color to the blue *fleur-de-lis*, fabled to have sprung from the blood of Apollo's favorite, Hyacinthus, and was considered sacred to Apollo, and invariably worn when consulting his oracles.



## Pearls.

**T**HIS lovely gem, sweet emblem of purity, is unique among its fellows, being the only jewel that requires no assistance from man to enhance its value, or from art to add one iota to its perfect loveliness. The mystery of its origin has doubtless contributed in no small degree to render it the prime favorite that it has ever been in the eyes of the Orientals. No record exists, or even tradition, as to the discovery of the *first* pearl. From time immemorial the nations of antiquity have used the pearl to decorate their persons and adorn their temples, and we find many curious beliefs existing as to its origin. The one most prevalent in Pliny's time was that pearls were formed from the dews of heaven falling into the open shells at breeding time;

and it was in allusion to this pretty conceit that a certain noble Venetian lady named Corraro had a gold medal struck (bearing the date of 1620), on the reverse of which is an open shell receiving the drops of dew from heaven, which form into pearls as they fall; the motto was "Rore divino" (by the divine dew). In these more practical days the generally accepted theory is that some tiny grain of sand, or other foreign substance, having by accident entered the shell of the oyster, a certain amount of irritation is induced which causes the exudation of a pearly secretion, and this effectually covers up the intruder; and also, that with the growth of the shell, the pearl increases in size. The Chinese have tried many experiments to test this theory by the insertion of foreign bodies into the open shell of the living oyster, and have been rewarded, after a year or two of patience, by finding the article inserted covered with a pearly substance resembling the real thing. In Old Testament history we find many allusions to the beauty and value of pearls, and contemporary na-

tions such as the Medes, Persians, Egyptians, etc., were passionately attached to this gem. A curious custom of the Persian nobility was to wear a single large pearl pendant in their right ear. And centuries later we read of the luxurious youth of Athens following a similar custom, the favorite form of setting being a "bell," of which the pearl formed the clapper—the tinkling of these little bells must have terribly scandalized the wise old pundits of that great city of Minerva. Two little bells, with lovely pearls for clappers, were found in the ruins of Pompeii. The price of pearls depends greatly upon their size, beauty and rarity, and their matching well with others of a similar quality. A *single* pearl brings a much lower price in proportion to a well-matched *pair*. The famous necklaces of Europe have taken years to collect, and are worth immense sums. The necklace presented by the Crown Prince of Prussia to the Princess Royal of England, consisting of thirty-two pearls, was valued at \$100,000.

Pearls are found of various colors. The

lustrous white, with an almost indescribable tinge of blue, is the pearl "par excellence," both in Europe and America; but fine well-matched black pearls are very valuable, as witness the price fetched at the sale of the famous necklace of black pearls belonging to the Empress Eugenie, which was sold for \$25,000.

The Chinese and many other eastern nations prefer the yellow pearl, believing that it preserves both its color and its luster longer than the white. This yellow tint is said to owe its origin to the oysters being allowed to die and putrefy in the air, the shells opening by themselves at the death of the oyster. The history of this custom is that the pearl generally lies close to the edge of the shell, and it is feared that many fine pearls would be irreparably spoiled if the process of opening them with a knife were practised. Many attempts have been made from time to time to form artificial pearls, but as yet none have been produced sufficiently perfect to deceive the jewelers.

In the times of those indefatigable traders,



the Phœnicians, the great centers of the pearl-fisheries were the Persian Gulf, the Indian Ocean, the coast of Coromandel, and Ceylon. The method of the divers in those remote times differs little from that pursued to-day. It has ever been an occupation of great difficulty and danger, the divers long before the season commences train for the coming ordeal by oiling their bodies daily and dieting carefully. Before plunging into the sea, their ears are plugged with cotton wool, and their nostrils compressed by an instrument made of horn; their mouths are then covered with a light bandage containing a sponge soaked in oil, which resists the water for a certain time. The diver is generally under water about a minute at a time, and manages to secure in a net that he carries round his waist eight or ten oysters at each of the forty or fifty trips that he makes in a day. These divers generally share with their employers in the profits of their labors, in preference to receiving their wages in money, and it is reckoned that one out of every five oysters

contains a pearl. Pearls are now found in many other parts of the world besides those places already mentioned, both in salt water and fresh.

The name of "*Margarita*" was given the pearl by the Romans, and the finest pearls from the sea-fisheries still retain that name.

Pink pearls are in great request by the Buddhists, who use them profusely in the adornment of their temples. A curious custom is related of the inhabitants of Chipanga, who find large quantities of pink pearls off their shores; it is said that before cremating their dead they place a pink pearl in the mouth of the defunct.

Pink pearls are found in the rivers of South America and in the Bahama Islands; black pearls, in the Gulf of Panama and in Western Australia. The pearls of California have long been celebrated, and even closer home, in New Jersey, pearls, for years past, have been found in fair paying quantities and of good quality. In many of the pearl-fisheries the diving-bell is now used, which minimizes the danger and doubles the profits

of the diver if on half shares. Some idea of the marvelous quantity of pearls in the treasures of the eastern potentates in the time of the Romans may be formed from the fact that the victorious Pompey brought no less than thirty-three crowns of pearls to Rome, which he had taken from the Asiatic princes whom he had conquered. From this period on, pearl ornaments became the rage, fabulous prices being paid for unusually large and perfect gems. Julius Cæsar presented a magnificent pearl to Servilia, mother of Marcus Brutus, valued at about \$100,000, and the wife of the Emperor Caligula is said to have possessed pearls valued at more than \$2,000,000 of our money.

The well-worn tale of Cleopatra's wager with Antony, that at a single meal she would swallow the value of a province, is too well known to need recapitulation here; but it is said that the twin pearl to the one she dissolved came into the possession of the Roman emperor after her death. We may add that the historian Pliny distinctly states that the practice of dissolving pearls, which

imparted a delicious flavor to the wine, was known and practised by the wealthy, long before the time of Cleopatra. There is, however, a perfectly well authenticated tale to match that of Cleopatra, related of Sir Thomas Gresham, the millionaire merchant of Queen Elizabeth's day, who, in order to shame the Spanish ambassador, who was extolling the riches of his sovereign before Elizabeth, remarked that the queen had subjects who at *one* meal would expend a sum equal to the daily revenues of the King of Spain and all his grandees put together. Soon after this interview, the ambassador was invited to dine with the English knight, when the latter drew from his pocket a pearl for which he had shortly before refused \$75,000, ground it to powder, and drank it in a glass of wine to the health of the queen.

The sparkling teeth of the lovely fair ones have been likened by their flattering admirers to pearls—thus Herrick says:

Some ask how pearls did growe, and where?  
Then spake I to my girle,  
To part her lips, and show me there  
The quarelets of pearl.



And Thomas Carew sings:

Teeth of pearl, the double guard  
To speech, whence music still is heard.

And Lovelace says:

Her lips, like coral gates, kept in  
The perfume and the pearl within.

When the Spaniards conquered Peru, they found immense quantities of pearls amongst the treasures of Montezuma, many of which were of incomparable size and luster. The largest and finest pearl known to-day belongs to the Shah of Persia. It is an inch in diameter, and valued at \$1,000,000. The wealth of the princes of India in pearls is inestimable, and other Oriental sovereigns have collections valued at millions of dollars.

Pearls and tears have for ages been associated, and it is related that Queen Margaret Tudor, consort of James IV. of Scotland, previous to the battle of Flodden Field, had strong presentiments of the disastrous issue of that conflict, owing to a dream she had three nights in succession that her jewels

and sparkling coronets of diamonds were suddenly turned into pearls, which are the emblems of widowhood and tears. Another queen, the wife of Henry IV. of France, had almost precisely the same dream immediately preceding the king's assassination by Ravailac. Shakspeare constantly alludes to pearls and tears in conjunction, but we prefer to quote from Lovelace, as less familiar to the general reader :

Lucasta wept, and still the bright  
Enamor'd god of day,  
With his soft handkerchief of light,  
Kiss'd the wet pearls away.

It is related that Abraham, on approaching Egypt, was fearful that the loveliness of his wife might lead to her being forcibly taken from him, so he locked Sarah in a chest that none might behold her beauty. On arriving at the place for paying custom, he was asked for the dues, which he said he would pay, but that he did not wish to open the box. The collectors finding they could name nothing of value upon which the patriarch

was not willing to pay custom, so long as the contents of the box remained secret, at length said, "Surely it must be pearls that thou takest with thee?" and Abraham answered, "I will pay for pearls." Their curiosity at this became ungovernable, and they insisted upon the box being opened, and were rewarded by a sight of Sarah's unrivaled beauty; although, in Franklin's quaint phraseology, they may be said "to have paid dearly for their whistle," as it is presumed that Sarah's beauty was not a taxable commodity.

## Opals.

**I**N the early days of the world's history this gem was prized above all others, and was looked upon as the embodiment of everything lucky.

A rich Roman named Nonius possessed an opal the size of a hazel nut, unique for its matchless luster and iridescence. Upon his refusal to sell it to Mark Antony for some fabulous price, variously quoted at from one hundred thousand to a million dollars, this second Ahab sent poor Naboth into exile, where he remained until the death of his persecutor. During the Middle Ages the opal was a universal favorite, and later on, in the times of Elizabeth and Charles II., we find this stone held in high esteem. There is a beautiful Eastern



legend to the effect that the opal had the power of making the wearer beloved of God and man, so long as he wore it in faith and confidence.

These lovely but much maligned gems are rapidly recovering their ancient popularity. The Romans and the Greeks ascribed to the opal every virtue, not the least of which was uninterrupted good fortune to its happy possessor. One writer who flourished years before the Christian era, tells us "that the delicate color and tenderness of the opal reminded him of a loving and beautiful child," and another describes this stone as "combining the fiery flame of the carbuncle, the refulgent purple of the amethyst, with the glorious green of the emerald, which were blended so intimately together as to render it the fairest and most pleasing of all jewels."

Queen Victoria has a magnificent collection; the opal having always been a favorite stone with her. The Austrian crown jewels contain the finest opals in the world. There is one in the imperial cabinet at

Vienna that weighs seventeen ounces, and many others of great size and beauty.

The beauty of the opal is owing to a number of minute fissures in its substance, which being filled with air and moisture, reflect all the prismatic colors, and these colors appear isolated at times in certain parts of the stone, at others they cross each other in vivid play with an effect that is magical, and we cannot wonder that among the superstitious ancients they were thought to be the dwelling-places of familiar spirits. The three principal varieties of opal are the Oriental, the fire, and the common opal.

The Oriental opal, called also the harlequin opal, is the most valuable, and is principally found in Hungary; though Mexico and Honduras have furnished beautiful specimens, and recently quite a quantity of fine opals have been found in Australia.

Mexico may be considered the home of the fire opal, many of which are brilliantly lovely, but their beauty is liable to deterioration from atmospheric influence.

The common opal exhibits very little fire;

it is of a milky white, with traces of red and green color, and comparatively valueless.

It is said that within a year of the publishing of "Anne of Geierstein," in which Sir Walter Scott speaks of the loss of beauty in the Mexican opal when exposed to the action of water, and its general uncanny proclivities, that the value of opals in the European market declined no less than fifty per cent. I am, however, delighted to say that with the spread of intelligence this foolish superstition and prejudice against one of the most exquisite gems ever compounded in the laboratory of nature, is rapidly disappearing, and it is now quite a fashionable stone.

Tradition says that the opal should be worn especially by those born in October, as it has the power of making its wearer a general favorite, of sharpening the sight of its possessor, and of acting as a direct preservative from suicidal proclivities.

A pretty legend of the origin of the opal is embodied in these lines by Ella Wheeler Wilcox :

## THE BIRTH OF THE OPAL.

The Sunbeam loved the Moonbeam,  
And followed her low and high,  
But the Moonbeam fled and hid her head,  
She was so shy, so shy.  
The Sunbeam wooed with passion—  
Ah! he was a lover bold,  
And his heart was afire with mad desire  
For the Moonbeam pale and cold.  
She fled like a dream before him,  
Her hair was a shining sheen;  
And oh, that fate would annihilate  
The space that lay between!  
Just as the day lay panting  
In the arms of the twilight dim,  
The Sunbeam caught the one he sought,  
And drew her close to him.  
And out of his warm arms startled,  
And stirred by love's first shock,  
She sprang afraid, like a trembling maid,  
And hid in a niche of rock.  
And the Sunbeam followed and found her,  
And led her to love's own feast;  
And they were wed, on that rocky bed,  
And the dying day was their priest.  
And lo! the beautiful opal,  
That rare and wondrous gem,  
Where the Moon and Sun blend into one,  
Is the child that was born to them.



## The Topaz.

**T**HE Oriental topaz is of a lovely golden yellow, and is found in crystals, in Pegu, Ceylon, and various other parts of India; and although it is of far less value than the ruby, diamond, or emerald, it was held in high esteem amongst the ancients for its supposed occult qualities. It is constantly alluded to in the Bible, and formed one of the twelve precious stones in the breastplate of the Mosaic high priest. It was also known by the name of chrysolite, signifying "golden stone."

There is a Rabbinical legend to the effect that Moses engraved the twelve stones each with the name of one of the tribes of Israel, by means of the blood of the worm Samir, a liquid of such wonderful potency as to act

upon the hardest substances. This legend was founded on the fact that the antique gem-engravers used *smir* or *smiris*—that is, emery powder—and the rabbis, having lost the secret since the time of Moses, invented this legend to cover their ignorance; doubtless many of the tales still current have no better foundation.

The Brazilian topaz is of a rich deep yellow, and is next in value to the Oriental. One peculiarity of the topaz is that under the influence of great heat it will change to a distinct pink shade, and become highly electric, which effect does not pass off for many hours. It was possibly owing to this electricity that it was given to women suffering from the pangs of childbirth to hold, and we read that the large topaz presented by King Ethelred to the Abbey of St. Albans was not fastened to the shrine, as in case of dangerous childbirth it was loaned to the suffering woman, and was said to have been the means of saving many lives.

The most famous historical topaz was the one presented by Lady Hildegarde, the pious

wife of Theodoric, Count of Holland, to a monastery in her native town, which at night emitted so brilliant a light that in the chapel where it was kept prayers were read without the aid of a lamp—possibly owing to the fact that the priests knew them by heart. This famous stone was stolen by a monk and lost at sea.

In the church of old St. Paul's was a famous topaz, given by Richard de Preston, citizen and grocer, for the cure of infirmities of the eyes.

In allusion to Queen Elizabeth's assumed power of healing scrofulous persons by the royal touch, Dr. Vaughan, Bishop of Chester, asserted that the virtue resided in a magnificent topaz for centuries the property of the crown.

The topaz is said to confer cheerfulness upon its wearer, and to be symbolical of fruitfulness and faithfulness. Hubert de Burgh, in the reign of Henry III., was accused of having stolen from the jewel-house a large topaz, which he gave to the king's enemy, Llewellyn, the virtue of

which was to betray the presence of poison by sweating.

The Brazilian topaz has often been mistaken for a diamond. Some years since a gentleman purchased a large stone as a diamond for £2000, and discovered when too late that his prize was only a topaz.

In Scott's "Lord of the Isles," he thus alludes to the Brooch of Loon :

Whence the brooch of burning gold  
That clasps the chieftain's mantle fold,  
Wrought and chased with rare device,  
Studded fair with gems of price;

doubtless alluding to the topaz, or cairngorm, as they are called in Scotland, where they are found in large quantities.

Intaglios in topaz are comparatively rare; there is, however, in the French collection, a fine portrait of Philip II., and also of Don Carlos. The topaz is a comparatively plentiful and a handsome stone. It can be procured from any lapidary at the cost of a few dollars.



## Cat's-Eyes.

THESE curious gems are second only to the diamond in the estimation of the Hindoos, as they devoutly believe that each stone is inhabited by some good spirit or familiar demon, and that the possession of a fine specimen confers upon the owner exemption from the "chill of poverty." It is, moreover, credited with being the guardian of its owner's wealth, which is constantly on the increase so long as he retains possession of the stone; but should he be induced to sell or barter it away, a malignant fate will pursue him ever after. Nor can we feel surprised that a people so imaginative and superstitious as the Hindoos should regard this peculiar stone, from its shifting light and mysterious gleaming, with a mixture of wonder and awe. The Moors and

the inhabitants of Malabar, from the remotest times, have held this stone in the highest veneration, and in common with most eastern nations have worn it as an amulet sure to secure riches to the fortunate possessor.

The finest are found in Ceylon,—the Singhalese, out of their veneration for the monkey, often carving these stones to resemble a monkey's face, taking advantage of the varying lights and colors of the stone to secure a grotesque likeness to the original. This stone is also found in the Hartz Mountains, in Bavaria, and in parts of the United States, and is supposed by some to be a species of silicified wood. The cat's-eye is sometimes confounded by amateurs with certain beautiful iridized agates which come from Arabia and Persia and strongly resemble it; but the colors of the agates are generally brighter, and will bear no comparison, on close inspection, with the "real thing," either in regard to beauty or value.

The cat's-eye is of various colors, ranging from light yellow through all shades of brown, and from an apple-green to the

deepest olive. Occasionally they are found nearly black.

The value of this stone is determined according to the brilliancy of the line, which should run evenly across the middle of the stone, narrow but sharply defined, the price ranging from fifty to five hundred dollars. There are, however, large and exceptionally fine specimens that have brought as much as five thousand dollars. These valuable cat's-eyes are known amongst lapidaries as chrysoberyls, to distinguish them from an inferior quartz variety that can be purchased readily for a few dollars. This stone is always cut in a convex form, and of a long oval, which enhances not only its beauty, by confining the opalescent streak of light to the center, but adds materially to its resemblance to the living eye of the cat, from which it derives its name. This gem is rarely found in pieces larger than a hazel nut, although in the Marlborough collection there is a superb specimen, one and a half inches high, carved into the form of a lion's head, the artist having skilfully availed him-

self of the varied shades of light and color, alternating with every movement imparted by the holder, and giving to it an appearance of life and reality which has a most weird effect upon the spectator. Another magnificent specimen is in the South Kensington Museum, and was once the property of the King of Ceylon. This is said to be the largest known. The cat's-eye is a great favorite amongst the English Upper Ten, and is generally worn surrounded by small brilliants, either as a ring, stud, or scarf-pin.



## The Turquoise.

**F**EW precious stones have obtained a greater reputation for talismanic power over evil influences than the turquoise, and the origin of much of the legendary lore connected with it is the well-authenticated fact that the color of the stone changes under certain climatic influences, giving rise to the superstition, most firmly believed in by many, even to the present day, that as its owner sickened it grew pale, lost its color entirely at his death, but recovered its beauty if placed again on the finger of a new and healthy proprietor. The many cases in which this peculiarity has been observed in connection with the wearers of turquoise have established such a belief in its infallibility, that it is beyond the power of the skeptic to disturb the faith of

the possessor of a turquoise in "the virtue of his amulet."

There are two kinds of turquoise—the Oriental or Eastern, and the Occidental or Western. The former is far the more valuable, and is principally found in Persia, the Shah having the finest collection of cut and uncut gems in the world. It was through the spoils brought home by the Macedonian soldiers from their Persian campaigns that the Greeks became aware of the existence of this beautiful stone; the dishes and goblets of gold and even the armor being perfectly studded with these gems. Amongst the Mohammedans it is highly prized as an amulet, it being very readily engraved. They have a secret process of inlaying these engravings with gold, which much enhances their beauty—the sacred name of "Allah" being their favorite inscription, or some short verse from the Koran. The Western turquoise is found in Siberia and France, and is composed of the petrified bones and teeth of antediluvian animals tinged by copper oxide which supplies it with its cerulean

hue. The osseous structure of this species can be readily detected through the microscope.

We all remember poor Shylock's despair and indignation upon learning that his turquoise ring had been exchanged by the gay young Jessica for a chattering monkey, when he tells us that he would not have parted with the ring for "a wilderness of monkeys," it having been given him by her mother when he was a bachelor—showing the antiquity of the turquoise as a love-pledge.

In Germany it is valued more than any other stone as an engagement ring, the lovers believing that any deviation from the true path of constancy will be immediately reflected in the diminished luster of the fickle one's *gage d'amour*.

Actresses and prima donnas have ever taken kindly to this gem. The turquoise brooch presented by the Emperor of Russia to Madame Titiens was so highly prized by her that she was never without it on the stage; and in the event of her costume being

inharmonious, rather than not wear it, she would attach it to some undergarment, so persuaded was she of the good fortune she enjoyed from its possession. Patti wears a \$30,000 baldric composed of turquoise, in "La Traviata."

Madame Rudersdorff had the same superstition, but in a more marked degree, as she wore a bracelet that never left her arm, day or night.

In the Middle Ages there was a curious superstition connected with the turquoise, which was that it took upon itself the consequences of any fall that might happen to its owner, and, in illustration of this, it is related that a certain Spaniard possessed a very large turquoise of magnificent color, which he wore as a ring. After his death his effects were sold at auction, and this ring was put up for sale, but it was so lusterless and faded that no one believed it to be the same stone, and it was sold for some trifling sum to a gentleman, who presented it to his son, saying: "The tradition runs, that for a turquoise to exhibit its power it



must be presented by the owner in his own house—so I give it to you." The son seeing it so lusterless, yet admiring the "setting," took it to a lapidary and ordered his coat-of-arms to be engraved upon it. Shortly after this was done, everybody noticed the gradual improvement of color, until at last it regained its pristine luster; but more wonderful still, he goes on to say that he was twice thrown from his horse, and miraculously escaped broken bones, although on each occasion the turquoise was broken, necessitating the stone being recut and the setting altered.

The Orientals have a proverb, "That a turquoise given by a loving hand carries with it happiness and good-fortune"; and another, "That the turquoise pales when the well-being of the giver is in danger."

Who, then, would not be the possessor of a lucky turquoise?

## Beryls.

**T**HIS may be considered the family name of the emerald, aquamarine, and a variety of stones invariably found in crystals, and which assume the form of six-sided prisms. The most familiar is the beryl-aquamarine, which, as its name denotes, is of a sea-green color. One of the finest aquamarines was in the Hope collection at the South Kensington Museum, and was worn by that gallant but somewhat foppish warrior Murat, in the handle of his sword; it weighs three and a half ounces, and is about five inches long. There is another beryl-aquamarine more than two inches in length, that was worn in the tiara of Pope Julius II. early in the sixteenth century, and which fell into the hands of the French, who retained it for nearly three centuries, until, on the occasion of the visit

of Pius VII. to Paris, Napoleon restored this gem to the successor of St. Peter. Another superb specimen of this stone, engraved with the portrait of Julia, the daughter of the Emperor Titus, was presented (set in a gold reliquary) to the Abbey of St. Denis by Charlemagne, and is to be seen in the National Library of Paris.

One of the most interesting aquamarines in the world, long thought to be an emerald, is the "Sacred Cup" belonging to the cathedral of Genoa, and which is claimed to have originally belonged to King Herod, and to have been used by our Saviour at the Feast of the Lord's Supper. This cup was brought by some crusading knights from the Holy Land and pledged—or rather sold—to the Genoese for a good round sum; the transaction was recorded in the city archives early in the twelfth century.

A great historic sell was the "Table of Solomon," which was supposed to be a gigantic beryl-aquamarine, or even an emerald. This table was discovered by the Arabs in the Gothic treasury of Toledo, and had been taken by Vespasian from the Temple

of Jerusalem and deposited in the Temple of Concord at Rome; but when the Goths, under Alaric, plundered the city, they found that it was nothing but a very fine imitation.

Mr. Streeter, the London gem-expert, tells us that the aquamarine is highly prized by English ladies, and that one reason for their partiality is owing to the quality it possesses of retaining its brilliancy by candle-light.


A magnificent blue beryl surmounts the globe in the royal crown of England, and in the Vaux collection in Philadelphia there is a rich green beryl nine inches in length and six in circumference; but, curious to relate, a portion only of this gem is transparent—the remainder is only translucent. This stone was found in Ireland. Mr. Clay, of the same city, has a Siberian beryl measuring two inches in diameter and which is a rich blue externally but of a decided green in the interior.

The ancients were very partial to the beryl, and obtained them with six facets.

Cut with six facets shines the beryl bright,  
Else a pale dullness clouds its native light.



## Jet, Lapis Lazuli, and Porphyry.

TRANGE as it may appear, the somber jet and brilliant amber are near relatives; and although the old proverb, "That relations are best apart," may suggest itself, we find amber and jet in very loving proximity in the vast amber caves of Prussia. They share, also, in their electrical proclivities, both being highly sensitive to friction.

In very remote times jet was used as an ornament for women, and of this we have full proof in the exquisite articles of female adornment found at Cologne in 1841, consisting of buckles, armlets, rings, necklets, hairpins, etc., together with human remains, inclosed in a stone coffin of about the fifth

century. Many jet ornaments have been found on opening up the tumuli in Great Britain, dating from early Saxon times. Amongst the Romans it was known as "gagat," or black amber, and its name has gradually been shortened and corrupted until we arrive at jet.

The Greeks considered it a specific, when powdered and mixed with wine, against toothache, and a sovereign remedy for tumors when applied with bees-wax. It was also considered a marvelous discoverer of unfaithfulness.

When examined under the microscope it gives undeniable evidence of its woody structural origin. It is found in England, France, and Spain in large quantities, and affords lucrative employment to quite an army of artisans. It is readily cut and carved and susceptible of a very high polish; but of late years the demand has appreciably declined, and the town of Whitby, in Yorkshire, made famous by its jet, has suffered greatly from this decline in popular favor.

Lapis-Lazuli.—The name of this beautiful

gem is derived from the Arabic word "azul," which signifies heaven, and refers to its color. The Romans called it sapphirus, which the moderns apply only to the transparent and lovely sapphire.

Lapis-lazuli is found in many parts of the world, but the finest comes from Persia and China. The kind most esteemed is of a rich deep blue, free from the specks or spots of gold which generally distinguish this mineral. Like most other precious stones, it was highly esteemed for its medicinal qualities by the Orientals, who pulverized and mixed it with milk and used it as a dressing for all kinds of boils and ulcerations to which Eastern nations were peculiarly liable; hence the very strict laws of hygiene and diet prescribed for the guidance of the Hebrews in the books of the Pentateuch.

Amongst the early inhabitants of Greece lapis-lazuli held the first place as an ornament until their commerce with the East enlarged their knowledge as to the beauty and variety of other gems.

We find this stone in constant use amongst

the Egyptians, who used it plentifully in their jewelry, as we see from the numerous remains that have been preserved to us from remote antiquity.

The most remarkable work in lapis-lazuli extant is in the cabinet of the celebrated virtuoso S. Fould, and is in the semblance of an owl, cut out of the solid block, more than eight inches in height and perfect in vigor of execution and fidelity to nature. In the Louvre there is a vase, carved in the form of a boat, which has been valued at forty thousand dollars.

Recently great quantities of this mineral have been excavated in California, but the color, which from blue tends to green sprinkled with gray spots, renders it comparatively valueless.

In the French treasury there is a beautiful collection of cups, knife-handles, and ornaments in this stone, and the palace built for Orloff, in St. Petersburg, by Catharine II., is profusely decorated with it.

It is a favorite material with the Chinese, who make statuettes and idols of it. We



must not forget, however, that the color which we call ultramarine is made from lapis-lazuli, and is principally manufactured in Rome, where it readily fetches in the open market fifty dollars an ounce.

Porphyry.—This stone was known to the ancients as porphyrites, or purple stone, and was highly valued by the artists of that day, as it enabled them to execute the busts of the emperors clothed in imperial purple, by making the head of marble and the lower part of porphyry—the purple of that era being of a different shade to ours, and signifying a deep crimson.


In the Vatican there is a magnificent sarcophagus of the Empress Helena, elaborately carved with a representation of a military procession; the busts of Constantine and Helena stand out in high relief above as medallions. This is cut out of a single block of porphyry, thirteen feet by eight.

Some idea of the hardness of this material may be formed from the fact that it took two years to prepare and hollow out the sarcophagus which contains the remains of the

Duke of Wellington, and which rests under the cupola of St. Paul's Cathedral. This block of porphyry had stood from time immemorial upon a Cornish moor, until seized upon and utilized as the most appropriate material (from its own hardness) to form the receptacle for the remains of the redoubtable "Iron Duke."

The magnificent sarcophagus of his great rival, Napoleon, was quarried near St. Petersburg. The lid alone weighs thirty-two tons, and forms one of the most imposing and ever-to-be-remembered reminiscences of that great city of wonders — Paris.

## Agate, Carnelian, and Sard.

 UPON these three members of the great quartz family have been engraved nine tenths of all the famous intagli to be seen in the public and private collections in the various cities of the world. These engravings are not only valuable in themselves as works of art, but, from the indestructible nature of the material upon which they have been made, have served for at least thirty centuries to hand down to us the form of the ancient warrior, as well as his arms and accouterments, besides illustrating historical events and religious rites and ceremonies, combined with portraits of distinguished persons.

So indestructible are precious stones that it has been surmised that the gems forming the breastplate of the Jewish high priest,

engraved with the names of the twelve tribes, and of immense value, and which formed part of the spoil at the destruction of Jerusalem, will some day be discovered amongst the chaotic mass of priceless gems in the treasury of the Shah of Persia.

Engraved gems have been discovered amongst the ruins of Babylon and Nineveh as well as in old Mexico.

The agate derives its name from the river Achates, on whose shores it was found, and was used by the Romans and Greeks for signets as well as for amulets. Among the virtues ascribed to it was that its possession enabled the wearer to obtain the love of women and to heal the sick, besides being a certain antidote for poisons.

Archbishop Parker presented Queen Elizabeth with a large oval agate, engraved with an intaglio of Vulcan at his forge, with Venus looking on, set as a pendant, and with it was a long list of its marvelous attributes.

Sometimes most curious natural effects are found in Indian agates, and in the British Museum there is an agate with an exact



resemblance to the portrait of Chaucer; another resembles the figure of a bishop with his miter on; and it is related that the famous agate of King Pyrrhus had a natural picture of Apollo holding his lyre, attended by the nine Muses.

A certain Florentine surgeon discovered a means of petrifying human remains into real agate, and in the hospital of St. Spirito, at Florence, may be seen a table-top made up of hearts, lungs, livers, etc., thus agatized into one huge slab; but the secret of how this was done died with him.

The agate, like the onyx, was supposed to confer the gift of oratory upon its wearer.

Now regal shapes, now gods its face adorn,  
Such the famed agate by King Pyrrhus worn;  
It gifts the pleader with persuasive art  
To move the court and touch the hearer's heart.

The most prized carnelian is of a blood-red, and was greatly valued by the ancients; it was very generally employed for engraving. There is a portrait of Sextus Pompeius in the Berlin collection, one of Helen in

Vienna, and the British Museum has several very beautiful specimens of this material.

The sard was the great favorite with the ancients, and in the splendid Blacas collection in the British Museum we find portraits of most of the Roman emperors in sard, besides numerous classical subjects, such as Ulysses on entering his house being recognized by his dog, and Apollo reposing after his victory over Marsyas. Amongst the French regalia was an immense sard, seven inches in diameter, engraved with the head of Medusa and valued at five thousand dollars, and in the Marlboro collection is a magnificent intaglio of Venus Victri.

The most beautiful intaglio known on sard is in the Orleans collection. It is a group of nine figures representing Mars and Venus surrounded by the gods, and attributed to Vincenzo Belli of Vincenza.

The agate was considered sufficiently valuable to be included in the stones of the Mosaic breastplate, and was engraved with the name of the tribe of Naphtali.

## Onyx and Sardonyx.

**S**OME of the most glorious master-pieces of ancient art, incomparably superior to anything of the kind to be met with in the present day, possibly owing to the very large sum paid to the artist enabling him to devote time, labor, and love to perfect his work, have been cut on the onyx and sardonyx.

Three layers at least were required to constitute a true sardonyx; with only two it remained an onyx. The poet thus prettily defines the distinction :

The sard and onyx in one name unite,  
And from their union spring three colors bright;  
The name of onyx, as grammarians teach,  
Comes from the usage of the Grecian speech.

The historical ring upon which the fate of the unfortunate Earl of Essex rested, was

a sardonyx upon which the portrait of Elizabeth was cut. The story runs that the Queen in a moment of tenderness swore (as she could do right royally) that if the Earl should ever be in disgrace with her, no matter how deeply, and should send her this ring, she would forgive him. While Essex was lying under sentence of death in the Tower, he bethought himself of the ring, and sent it to his cousin, Lady Scroop, to deliver to Elizabeth. The messenger inadvertently gave it to Lady Scroop's sister, the Countess of Nottingham, who, being an enemy of the Earl's, did not deliver it. The Queen, irritated at the supposed pride of the Earl in not making an appeal to her tenderness, signed the warrant for his execution. 'Tis said that the Countess on her deathbed confessed her crime to Elizabeth, who was so infuriated that she shook the dying Countess in her bed, exclaiming, "That God might forgive her, but she could not."

In Juvenal's days the sardonyx was extremely fashionable and much affected by

the lawyers, as it was supposed to confer the gift of eloquence upon the wearer; Pliny tells us that an impecunious lawyer, named Paulus, hired a sardonyx ring with which to defend the cause of a certain fair widow who was immensely wealthy, and succeeded in winning both his cause and the widow at the same time.

The Romans made small vases of onyx. The most famous extant is known as the Cup of the Ptolemies, a two-handled cup, holding about a pint and covered with Bacchic emblems executed in relief. It was presented in the ninth century by Charles III. of France to the Abbey of St. Denys, and was used to hold the consecrated wine at the coronation of the King of France. Some idea of the value set upon this cup may be gleaned from the fact that Henry II. pawned it with the Jews of Metz for a quarter of a million dollars. This was early in the sixteenth century.

In the mausoleum of the Emperor Hadrian was discovered a flat onyx bowl known as the Farnese Tazza. It is elaborately carved



with an allegory illustrating the fruitfulness of the Nile.

The Brunswick vase is really a perfume-jar; the relief upon it refers to the Eleusinian mysteries. There is another in the Russian collection, exquisitely carved, with Apollo seated, Cupid and Psyche bound, and the Loves chasing butterflies.

The largest sardonyx known is in the Vatican, and is sixteen inches long by twelve deep, the subject being the "Triumph of Bacchus and Ceres." This is admirably executed on a stone of five layers. The next in size, and far more famous, known as "Le grand Cameo de France," was brought from Constantinople by Baldwin II., and sold to Saint Louis. It represents the triumph of Germanicus; but the pious king thought it was the triumph of Joseph in Egypt.

The finest work in relief extant is the Gemma Augusta of Vienna, and represents the reception of Drusus by Augustus after his victory over the Rhaeti and Vendelici.

There is a very beautiful variety of onyx,

much prized by the Hindoos, called the eye-onyx from its resemblance to the human eye. The Assyrians valued it so highly that they consecrated it to their favorite god "Bel." A very fine specimen of this gem is in the South Kensington Museum.

Some idea of the time occupied by the ancient engravers in the production of a masterpiece, may be formed from the fact that Guay was two whole years employed upon his cameo portrait of Louis XV.

## Rock Crystal.

**T**HIS lovely stone is found in many parts of the world, but principally in India, where it is often discovered in pieces many pounds in weight. It derives its name of "crystal" from the Greeks, who, in common with other ancient nations, believe it to be ice hardened into stone by the action of intense frost. What rather heightened this belief was that pieces were occasionally found with a cavity in their substance containing a few drops of water, which moved about as the stone was turned; this was regarded by the ancients as a miracle of nature, and a certain proof of the correctness of the theory of its derivation from hardened or solidified ice. The

poet Claudian embodies the idea in a very pretty conceit :

See how the boy, pleased with its polish clear,  
With gentle finger twirls the icy sphere.  
He marks the drops, pent in its stony hold,  
Spared by the rigor of the wintry cold.  
With thirsty lips the unmoistened ball he tries,  
And the loved draught with fruitless kisses plies.

These pretty *lucæ naturæ* are, however, somewhat dangerous, as a lady found to her cost. She had placed the stone on a small table in front of the window, and the sun shone for some time full upon it; suddenly she heard a loud report, like a rifle-shot, and upon investigation the crystal was found in fragments on the floor.

The Romans highly valued ornaments made of this substance, and it is related by Seneca of a certain patrician who enjoyed the personal friendship of Emperor Augustus, and was joint possessor of great wealth and a violent temper, that being infuriated at the carelessness of a slave who had broken a crystal vase, he ordered the unfortunate man

to be bound and thrown into the lake as food for his lampreys. By good fortune the Emperor called to see his friend just as this inhuman mandate was about to be carried out, and was so incensed at it, that as a punishment he ordered every article of crystal in the house to be broken and all the slaves to be freed.

The Roman ladies had a singular custom, which is still observed by their sisters in Japan, that of carrying crystal globes in their hands in extremely hot weather for the sake of their refreshing coolness. Globes of crystal have been found amongst the ruins of Nineveh, one of which was in the possession of the notorious wizard Dr. Dee, who declared it to be endowed with marvelous powers, as by its aid he was enabled to conjure up a picture of the future, for any credulous inquirer willing to pay for the information.

Pliny tells us that the surgeons of his day used these crystals to concentrate the rays of the sun for the purpose of cauterizing their patients, and that the priests used them



as burning-lenses to light the sacrificial fires, the flame thus kindled being called the fire of Vesta, which insured the favor of the gods. The same authority tells us that rock crystal was so highly prized by the Romans for the purpose of making drinking-cups, that a thousand dollars was considered a small price for even a plain one.

Engraving on crystal was carried to great perfection by the Venetians, and the celebrated Valerio of Venice received from Clement VII. the commission to engrave the crystal plaques used to adorn the rich casket presented by the Pope to Francis I. on the occasion of the marriage of the Dauphin to Catherine de Medici, the subject being the "History of our Lord's Passion," and paid him for his work the sum of two thousand gold scudi. Small intagli of this date are found with the engraved side set face downward, upon a gold or blue foil. The figures appear to be cut in relief,—upon a topaz if the crystal is on the gold foil, or upon a sapphire if upon the blue,—and one really has to handle them to detect the


illusion. The finest example of this extant was for centuries the property of the Abbots of Vezor sur Meuse. This is a circular plaque, six inches in diameter, and represents the story of "Susannah and the Elders." The effect is greatly heightened by the convexity of the reverse, which is highly polished and magnifies enormously the figures underneath. This is now in the British Museum. Some idea of the value of crystal may be formed from an inventory taken in 1789, of the collection belonging to the crown of France, composed of vases, statuettes, candlesticks, etc., and which was valued at one million of francs. It is said that the old Venetian mirrors owed much of their luster to the amount of powdered crystal used in their manufacture.

While excavating for the foundation of St. Peter's, Rome, about the middle of the sixteenth century, the working-men came upon a sarcophagus containing the body of the youthful Maria, the betrothed bride of the Emperor Honorius, and in a silver casket by her side were no less than thirty

articles in crystal, exquisitely engraved with the most beautiful figures in intaglio, amongst which were two elaborately carved drinking-cups.

The Hindoos had, centuries ago, discovered the art of imitating all the colored gems by staining crystal, and Pliny states that treatises were current in his time, giving minute directions how to stain crystal so as to pass it for the emerald or other precious stones. They do not, however, seem to have known how to make our modern "doublet," which has for a facing a thin layer of the real gem, then a layer of coloring matter, the whole backed with crystal. This is so cunningly cemented and cut that it is almost impossible — even for a jeweler — to tell it from the real thing, unless the stone is unset.

## Toad-Stones.

UR ancestors were devout believers in amulets and charms, and, in the Middle Ages, the toad-stone was esteemed one of the most potent of talismans. Shakspeare illustrates this in his well-known lines from "As You Like It":

Sweet are the uses of adversity,  
Which, like the toad, ugly and venomous,  
Wears yet a precious jewel in his head.

A celebrated contemporary of Shakspeare, De Boot, tells us that the only way in which to procure this curious talisman, was to induce the reptile, by careful nursing, to become attached to your person; and after having placed it under a species of hypnotism, to carefully put it upon a scarlet cloth. If the circumstances were favorable, it would

disgorge this wonderful stone. This is pure fable; but that there were a large number of so-called toad-stones, whose marvelous efficacy against poison and evil spirits was thoroughly believed in, even by the most learned in the Middle Ages, there is no doubt. We have the authority of the great Erasmus, who visited England in the time of Henry VIII., and who graphically describes one he saw at Walsingham in Kent, in these words:

At the feet of the Virgin is placed a gem, to which no name has been given by the Greeks and Romans, but the French have named it after the toad, inasmuch as it represents the figure of a toad so exactly that no art of man could do it so well. And the wonder is so much the greater that the stone is so small, and that the figure of the toad does not project from the surface, but shines through, as if inclosed in the gem itself.

Our medieval scholar must have mistaken the gem in question for some large insect, or even a tiny toad, which had in primeval times been entrapped and thus preserved in



amber. But be this as it may, the toad-stone was a reality, as hundreds of examples handed down from the Middle Ages testify, generally set in silver rings, this metal being preferred to gold for anything in the shape of an amulet.

Many of these toad-stones which are of great antiquity, resembling in color and shape an ordinary half filbert, somewhat flattened, have been obtained from the green-sand formation.

A series of those stones was discovered in the jaws of an antediluvian reptile, which had served instead of teeth to crush the food of the ancient fossil. These in earlier times had become detached, and, being water-worn, had presented to the eyes of the imaginative, already prepared for the resemblance, the embodiment of the toad, pure and simple.

The *bons vivants* in the time of the Borgias were in constant dread of being poisoned, especially if they were sufficiently wealthy to excite the cupidity of the reigning power; and the toad-stone, being con-

sidered a specific against all kinds of poison, was swallowed whole, being supposed to drive all noxious matter through the bowels. It was also powdered and taken as a species of after-dinner pill, to counteract any poison that might have been given at the friendly banquet—illustrating the somewhat unsatisfactory condition of gastronomy in Italy in those days.

## Carbuncles.

**N**O precious stone has more romantic and poetical associations than the carbuncle. From the earliest times Indian travelers have had some wonderful stories to tell of the extraordinary size and unnatural brilliancy of the carbuncles at the courts of the Indian kings; one king of Ceylon owning a carbuncle bowl as big as the palm of one's hand, and another as big as a hen's egg, which sparkled with such surprising luster as to illumine the room with lightning-like flashes.

The Emperor of China has a carbuncle fitted as a ball to his cap of state which was purchased from the King of Ceylon for one hundred thousand strings of cash. This carbuncle was so effulgent that it was designated the "Red Palace Illuminator."

It is related that Almamon, the renowned Caliph of Babylon, while exploring the pyramid of Cheops, found a chamber near the top in which was a stone sarcophagus elaborately carved. On raising the lid he was almost blinded by the sudden light of an immense carbuncle which was placed at the head of the body, as if it were a guardian spirit. This stone is described as being as large as an egg and shining like the light of day. The body was adorned with a rich breastplate of gold, studded with costly gems. Doubtless it was the remains of some great high priest of Serapis. Be this as it may, it is certain that many precious stones have the power of retaining their luster when secluded from the light.

We read in the Talmud that the only light that Noah had in the ark was furnished by carbuncles and other precious stones, which no doubt helped to make his somewhat dismal surroundings a trifle "rosier."

This general belief in the extraordinary luminosity of the carbuncle is constantly

alluded to by the poets. Ovid says, in his description of the Palace of the Sun :

The princely Palace of the Sun stood gorgeous  
to behold,  
On stately pillars builded high of yellow bur-  
nished gold ;  
Beset with sparkling *carbuncles* that like to fire  
doth shine,  
The roof was framed most curiously with carv-  
ings rare and fine.

Milton describes the brightness of the cobra's eyes, with "his head crested aloof and *carbuncle* his eyes," and Churchill, describing the cell of the witch Orandra, mentions the door as

Interwove with ivy's flattering twines,  
Through which the *carbuncle* and diamond shines;  
Not set by art, but there by nature sown  
At the world's birth, so star-like bright they  
shone,  
They served instead of tapers to give light  
To the dark entry.

Marco Polo, a famous traveler of the early part of the fourteenth century, and the first



European to penetrate the Celestial Empire, from which he traveled over India and the Great Indian Archipelago, regions until then unexplored and concealed in the deep shadows of ignorance, superstition, and fable, tells us some wonderful tales of the immense carbuncles that he saw at the courts of the various Indian kings, some hollowed out into drinking-cups and other costly appurtenances of kingly luxury.

There is an amusing tale connected with Marco and some precious carbuncles presented to him by the Grand Khan and other Indian potentates. After years of travel and absence from his native land, he, in company with two of his kinsmen (the companions of his wanderings), arrived at Venice, but so changed in appearance and dress that their own relations did not recognize them. After bathing and donning raiment more befitting their rank and quality, they entered the banquet-chamber and spent the night in recounting their marvelous adventures by sea and land; the next day they spent in bed. Rising in the evening, about

dinner-time, Marco asked his wife what she had done with the old coat that he had worn home. She replied, "It was so dirty and old that I gave it away to a poor stranger who called for alms." Instead of lamenting, Polo instantly conceived the following plan to recover his lost treasure. He went to the Rialto with a wheel which he kept constantly turning without any apparent purpose, as if he were a madman, and to all inquiries he simply answered, "He will come if God pleases." The result may be imagined. The report of his extraordinary antics soon spread through Venice, and amongst the curious came the man he was wishing for, and, in exchange for a few ducats, Marco quickly regained his old coat. That night he gave a magnificent feast to all his friends, and after the banquet was over he produced the "old coat," and, taking his dagger, he cut and slashed it in every direction, loosening the stitches with which he had secured the priceless carbuncles against the perils and dangers incidental to his wanderings; and there is little doubt but that

his friends were persuaded that "there was method in his madness."

From the earliest times jewels have been considered grateful offerings to the gods, and we read that the temple of the Goddess Astarte of Hierapolis, in Syria, abounded in all kinds of precious gems, the most valuable of which was a monster carbuncle set in the forehead of the Goddess. The famous necklace of Mary, Queen of Scots, had a very lustrous carbuncle as a pendant. The ancients applied the term "carbunculus" indiscriminately to all red and fiery stones, the word signifying a glowing, fiery coal.

Our carbuncle is first cousin to the garnet, and belongs to the family known as "pyrope" by the mineralogists.

This stone is of little commercial value, a very handsome stone being purchasable for a few dollars; it makes, however, a very effective ornament, especially when set in conjunction with diamonds, either as a pendant, necklace, or bracelet.

## Amethyſts.

**T**HIS lovely gem, ſo little regarded nowadays, was once highly prized, not only for its intrinsic worth, but for its beauty and the many charming attributes aſcribed to it, not the leaſt of which was its power of preſerving its wearer from the effects of looking upon the wine when it is red. It was probably from this cauſe that in mediæval times it was much affected by the prieſts who were notoriously fond of good living.

The Greeks inveſted this gem with the virtue of being an antidote to the effects of wine, and one of their prettiest conceits is the following by "Antipater," the ſubject being an exquisite engraving of a "bacchante," ſuppoſed to have belonged to that

Egyptian sorceress, the far-famed Cleopatra.  
It runs thus:

A Bacchante wild, on amethyst I stand,  
The engraving truly of a skilful hand ;  
The subjects, foreign to the sober stone,  
But Cleopatra doth the jewel own ;  
And on her royal hand, all must agree,  
The drunken goddess needs must sober be !

Like most other precious stones, the finest come from India, although they are found in Siberia, Ceylon, Persia, Brazil, and, in fact, the common amethyst is to be found in all parts of the world, and their value has decreased enormously. As an illustration of this depreciation the necklace of Queen Charlotte, which was formed of the most perfect stones, matching admirably, and which cost over two thousand guineas, would not bring a tenth part of this sum to-day. From the earliest times the amethyst has been a favorite stone with the engraver, and some of the finest intaglios extant are engraved upon the pale variety, possibly owing to its superior transparency



which shows every detail of the artist's work.

Probably the grandest portrait in existence is that of the head of Mithridates, cut in a large amethyst of the deepest violet color, which was discovered some centuries ago in India. There is another magnificent gem in the Uzielli collection, of the head of Pan; but the largest work of this kind was the bust of Trajan, formerly the property of the Prussian Court, which mysteriously disappeared when Berlin was occupied by the French in the Napoleonic times—the generals of that era being omnivorous collectors of “unconsidered trifles.” Since then all trace of this priceless masterpiece has been lost. One of the oldest and finest engravings is to be found in the Pulsky collection, upon a large pale amethyst, of the head of a Syrian king. This is signed with the artist's name. Amethysts are found in large quantities in the neighborhood of Wicklow in Ireland. These stones, although of a rich deep hue, have very little brilliancy; but those from the East Indies, although

light-colored, are extremely lustrous. Aristotle gives a somewhat poetical origin, to the amethyst, to this effect: A beautiful nymph, beloved by Bacchus, invoked the aid of Diana, the Goddess of Chastity, who answered her appeal by metamorphosing her votary into a precious gem. The baffled god, in remembrance of his love, gave to the stone the color of the purple wine, of which he had taught mortals the taste, and also endowed the amethyst with the faculty of preserving its wearer from the inebriating effects of the grape.

The wealthy patricians amongst the Romans had cups made of amethyst, as they not only believed in its efficacy in preventing intoxication, but also that the toper was secured from the effects of any poison the cup might contain.

St. Valentine is said to have worn an amethyst ring, engraved with an exquisite little cupid; and as February is the month dedicated to this gem, the fable may have foundation.

Longfellow's favorite gem was the royal

amethyst, with its deep flashing purple turning to ruby by artificial light. In conclusion, let all those would-be *bons vivants*, born with great hearts, weak stomachs, and treacherous heads, wear upon their index-finger a royal amethyst, and thus the "tubby" little god will be propitiated, and many a Caudle lecture will "waste its sweetness on the desert air."

## Jade.

**J**ADE, so highly esteemed by the Chinese and Japanese, and also by the ancient Mexicans, is comparatively little thought of by Europeans, although we have in this material some of the earliest specimens of primitive art. It is excessively hard and difficult to work, notwithstanding which the Mexicans discovered some process—to us unknown—of cutting it into various elaborate patterns. The mantle of Montezuma, at his first interview with that robber Cortez, was richly decorated with jade and pearls. It was additionally valuable to the Aztecs, owing to green being the color appropriated to royalty in ancient Mexico. But without going back to the time of the Aztecs, we find the New Zealanders using jade as the

ornament *par excellence* of sovereignty, generally formed in the shape of a hook, which was thrust through the lobe of the ear and highly polished; this species was of a semi-transparent green. There was, however, a coarser kind, which they made with incredible labor (owing to the hardness of the material) into weapons of war; and what may appear singular is, that the primitive dwellers of Switzerland must have learned the art of grinding down this obdurate material, as jade ax-heads have been found along with their other stone implements.

The Chinese value jade above all other precious stones, and the emperor's particular necklace is formed of beads as large as cherries and of a clear, green color, intermixed with coral, and has as a pendant a monster ruby.

But it is not only in personal adornment that jade is used; the royal cups and vases and idols are made out of this precious material, and when a piece of unusual size has been discovered, it is customary for the emperor to summon the most celebrated




artificers to deliberate upon the shape into which it can be carved to the best advantage, and his suggestion must take the practical form of a submitted sketch. The model being accepted, the lucky engraver receives a handsome salary upon one — somewhat trying — condition ; that is, at the completion of his work a jury of experts are summoned, and should they condemn it as in-artistic, the wretched artist loses his head ; but, seeing that owing to the hardness of the material anything like an elaborate design would cost the labor of years, any Mongolian would take the chances of a certain ten or fifteen years' living in clover, at the expense of the emperor, against the remote contingency of losing his head from incompetence — the Chinese being born gamblers.

In the British Museum is the most perfect specimen of carved jade in the world. It is in the shape of an immense tortoise, which was found on the banks of the Jumma, in India ; of a fine olive-green, and so perfectly delineated that it might readily be mistaken

for that emblem of "slow and sure"—the tortoise itself. In the Middle Ages it was believed that amulets in jade possessed the virtue of warding off kidney complaints, and from this came the name of *bijada*, which signifies "kidneys," in Spanish. The Hindoos make handles for their daggers and scimitars of jade, which command an immense price.

## Amber.

MBER, the most ancient of all gems for the purpose of adornment, and known to the Greeks from its attractive qualities by the name of *electron* (hence electricity), is without doubt a fossil gum, or the juice of a now extinct tree of the primeval period, belonging to the pine genus. It is stated that the Phenicians sailed to the Baltic for the sole purpose of procuring amber, and that they must have obtained enormous quantities is proved by the vases, cups, spindles, and other articles of unknown use, found in every necropolis of the very ancient Pelasgic cities of Italy, by Castellani and other explorers. From the earliest times it has been used as an amulet, and was also taken internally as a panacea against asthma, dropsy, toothache, and a

multitude of other diseases. That a necklace of amber beads has frequently relieved a sore throat seemed to be established beyond question, possibly owing to its electrical qualities. The Shah of Persia wears round his neck a cube of amber, reported to have fallen from heaven in the time of Mohammed, and which has the power of rendering any one invulnerable.

The Persians to this day grind up amber with honey and rose-oil as a specific against deafness; their children wear it as an amulet, and adults as a potent charm against insanity.

Amber appears to be a product of the islands of the Northern Ocean, and from the numerous insects that have been found embedded, some of the species being now extinct, it must have issued from the tree in a liquid form and gradually hardened by the action of cold or heat and afterward of that of the sea. Ants, gnats, and even small lizards have been found embedded in amber, to which they must have adhered when it was in a liquid state.

The amber most valued by the ancients was known as the Falerian, from its resemblance to the color of Falerian wine. It is perfectly transparent. Other kinds are valued for their mellowed tints, like the color of boiled honey. It was much prized by the ancient Etruscans, being frequently set with other precious gems, and they also carved it into scarabæi.

Homer mentions a necklace adorned with pieces of amber presented to Penelope by one of her suitors.

Amber was in high favor with the Romans in the time of Nero, and was largely used by them for ornamental and decorative purposes. Pliny tells us that all the weapons and articles used during the games of the amphitheater, in his time, were decorated with amber. The largest piece seen in Rome weighed thirteen pounds, but there is a piece to be seen in Berlin that weighs eighteen pounds.

The amiable Nero, in some verses composed by himself in honor of his wife, describes her as having amber-colored hair,—



which carries a suspicion of red,—and Pliny adds that this color became all the rage at the imperial court, and numerous were the devices to secure the fashionable color.

Amber is found also in France, England, and Sicily; and in parts of the United States, but not in large quantities.

Mr. King mentions as the most precious example of antique carving in this material a group representing a mythological bearded figure, half man and half serpent, embracing a draped female figure.

An amber cup, exquisitely carved, was discovered near Brighton, England, in a tumulus at least 1500 years old.

As an ornament it is liable to the fluctuations of fashion. Its intrinsic value is comparatively small, a necklace of well-cut beads being readily purchased for a few dollars.

## Coral.

**F**ROM our earliest infancy the coral and bells has been associated with the cutting of teeth, and so amongst gems it has the charm of early association to endear it to us. This peculiar form of plaything originated in the superstition of our ancestors, who looked upon coral as a preservative against witchcraft, and the bells were used to scare away evil spirits.

The Gauls used coral profusely in the decoration of their armor, the color most prized being of a dark red. To-day the lightest pink shade, resembling an opening rose, is the only color valued, and in Europe is considered worthy of being set in the company of diamonds. The natural pink coral is extremely rare, but it can be arti-

ficially obtained by baking the red variety, although the product thus produced lacks the luster of the other.

In 1865, at the Dublin Exhibition, a *parure* of pink coral was valued at five thousand dollars. In China and Japan the caps of the Mandarins are decorated with a coral ball; and this, when over an ounce in weight and spherical, commands a very large price. The ancients held coral in high regard for its supposed talismanic properties as well as devoutly believing in its efficacy as a remedy against colic. The compound was not appetizing, as it consisted of calcined and pulverized coral, together with the remains of a dried toad. This delicate mixture was also considered as a certain antidote against poison.

Ferdinand I. of Spain wore a small branch of coral suspended round his neck, which he pointed against any person whose malignant influence he suspected—coral being potent against the influence of the "evil eye."

The physicians used it as an ingredient

for their salves, as its astringent properties were useful in cases of obstinate ulcers.

The Hindoos have from the earliest times highly valued coral, and amongst the Brahmins necklaces of coral beads were generally worn. The Romans exchanged coral for pearls; and to-day they use it extensively to decorate their pipes, arms, etc.

Coral is equally becoming to the blonde and the brunette, and the Empress Eugénie had a superb necklace of coral and diamonds, which showed off the beauty of her perfect neck.

Coral abounds in the Mediterranean and in the Pacific, and the ceaseless labors of these little zoöphytes have added many an island, now clothed with luxuriant vegetation, to the earth's surface, which relieves the eye of the weary mariner from the everlasting monotony of water everywhere.

An early writer tells us that coral worn by a healthy man retains its color; but should he be sick or in danger of death, the coral loses color and becomes pale and livid.

The Romans consecrated it to Jupiter and

Phœbus, as it preserved the wearer from thunderbolts and lightning.

In the sixteenth century coral was much employed in the adornment of the sacred vessels ; and some very beautiful statuettes of the Renaissance period are in the Vatican collection, the artist having skilfully availed himself of the natural disposition of the stem and its branches, to form the body and limbs in the attitudes required by the design.



## Pastes.

THE word "pastes" is derived from the Italian *pasta*, or, more properly, *pastus* (food), really alluding to the dough from which we get our old English word *pasty* (somewhat obsolete in America) and the French *pâté*. Pastes are imitations of the precious gems, engraved cameos and intagli, transparent and opaque, and the material is simply glass, which, when molten, is as readily dealt with as dough; hence its name. Powdered crystal was largely used in the manufacture of imitation gems, the result being that thousands of spurious gems accurately imitating the sapphire and the ruby were passed by the Roman jeweler upon the uninitiated; and to this day some of the antiques which form the *chef d'œuvres* of

modern collections have not been subjected to a rigorous analysis by their owners — for conscience' sake.

One of the most exquisite productions ascribed to the early part of the fourth century is in the possession of Baron Lionel Rothschild. This vase is elaborately decorated by figures, vines, etc., in bold relief, illustrating Bacchus and his followers.

In the crowns of the Gothic nobles, discovered at Guernazar, false emeralds and opals may be detected amongst the real stones; and that masterpiece of Celtic bijouterie, the "Tara brooch," has four female heads all made of paste.

A royal prince and patron of the fine arts — to wit, the Regent Orleans — in 1715 engaged the services of the celebrated chemist Homberg, and assisted him, with his own august hands, in duplicating all the priceless antique gems that the Regent had himself collected, so as to furnish duplicates to lovers of the antique in other countries. So perfect has the imitation of colored stones, and even of the diamond itself, be-

come of late years, that it is related of a certain well-known countess, somewhat given to cards and the turf, that, being pressed to pay her debts of honor, she called upon a lapidary, *facile princeps* on imitation stones, and begged that he would make her a set to match her own, and give her the balance in cash; to which he replied, "Madame, your husband disposed of the real stones to me last year; these are the imitation!"

## The Significance of Gems

SEVERAL of the Eastern nations have a fanciful belief that each month of the year is under the influence of a precious stone or gem, which influence has a corresponding effect on the destiny of a person born during the respective month. This has given rise to the pleasant custom of sending gifts to friends ornamented with the gems of their birth month. The proper gems for each month and their significance are here given:

JANUARY, GARNET. Power, Grace and Victory.

FEBRUARY, AMETHYST. Sincerity, Peacefulness.

MARCH, BLOODSTONE. Courage and Wisdom.

APRIL, DIAMOND. Innocence and Purity.

MAY, EMERALD. Happiness and Immortality.

JUNE, AGATE. Health and Wealth.

JULY, RUBY. Charity and Dignity.

AUGUST, SARDONYX. Conjugal Felicity.

SEPTEMBER, SAPPHIRE. Constancy, Truth and  
Virtue.

OCTOBER, OPAL. Hope and Courage.

NOVEMBER, TOPAZ. Friendship and Fidelity.

DECEMBER, TURQUOISE. Success and Prosperity.

## Influence of Gems on Certain Days

*"The lucky have whole days which still they choose."*—DRYDEN.

THE Hermetic Brethren had certain rules which they observed in relation to the power of precious stones to bring good fortune through the planetary affinities of certain days, because they imagined that the various gems, as well as precious metals, were produced through the chemical operations of the planets working secretly within the body of the earth. The stones to be worn for good luck on the different days of the week are as follows:

SUNDAY.—All yellow stones and gold.

MONDAY.—Pearls, and all white stones except diamonds.

TUESDAY.—Rubies.

WEDNESDAY.—Sapphires, turquoise, and all blue stones.

THURSDAY.—Garnets, and all red stones.

FRIDAY.—Emeralds, and all green stones.

SATURDAY.—Diamonds.



