JEWELLERY.

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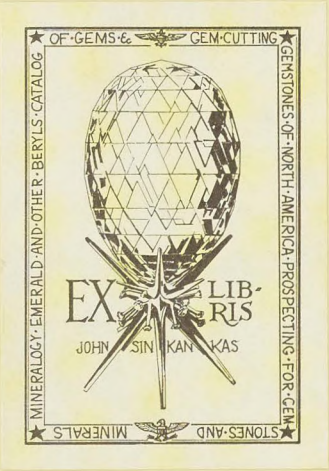

THE

HISTORY AND OBJECT

OF

JEWELLERY.

BY

JOHN JONES.

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THE HISTORY AND OBJECT OF JEWELLERY.

JEWELLERY derives its name from the Hindoostanee "jouhur," a gem, and is of oriental origin. Jewels are the insignia of rank, the types of all the good sentiments that agitate human nature, the embodiment of every form of beauty that adorns the visible creation. Their use is as ancient a custom as any on record. The greatest of the earth have employed them, the wisest found pleasure in them, and the savage shows, in his admiration of them, a lingering connection with a former civilization, proving how deep a hold they have on human feelings. According to the character of the people is the purpose for which jewellery is used.

In the early era of the world distinction of rank chiefly occupied attention.—Wealth is generally the reward of superior moral

or intellectual endowments; to its possessor is therefore transferred the respect which such qualities naturally command.

Wealth thus forms one of the steps to exalted rank, with its envied privileges and powers. Jewellery has always been the symbol of wealth, conferring on its wearer general homage. The costliness of its materials was one cause of its selection, and the earlier nations were content with such influence as the rudest fashioning could convey. Some knowledge of metallurgy and mechanical skill must have been required in its simplest application, by which the value must have been increased greatly when such attainments were rare. Bracelets of ten shekels weight, and a nose jewel, or earring, as our translation has it, of half a shekel, or nearly half an ounce, is the description given of Jacob's present to Rachel. The mention of the weight implies that in the value of the materials consisted the chief value of the gift. The improving ability of the artist introduced his labors into a new field of demand. Among a people whose literature was embodied in hieroglyphics, in which the prevailing cha-

racters of animals were made the symbols of corresponding ideas, it is not surprising that the symbol quickly usurped the reverence due to the idea, when it is known that the operations of nature were ill understood, and the mixed results of unchanging laws were attributed to the caprice of particular divinities. The forms of birds, beasts, fishes, and insects, became objects of devotion, and their presence on the person of the worshipper, even when laid in the tomb, was considered essential to his safety and comfort in this world and the next; obedient to this religious demand the jeweller became a student of nature's forms, thus laying the foundations of that beautiful structure of art in its various departments, in which a source of pleasure is provided more healthful than the indulgence of the senses, such in short as befits the temple of the imagination. The precepts of wisdom were accounted worthy of perpetual meditation, and the most enduring substances were used on which to inscribe mottos, to be worn as the amulets of life.

In the Egyptian room of the British Museum are mummies with scarabæi, or

beetles, cut in stone, sewn on their coverings. The cases also contain ornaments in gold and blue earthenware, to be worn as necklaces, representing birds, fishes, and plants; the human eye or ear, hand or foot; emblems of spiritual principles, or charms against evils.

The strict rules which the Egyptian priesthood enforced on all who practised the imitative art repressed the growth of improvement. Plato records that no artist was allowed to invent a new subject; a resolve which was fortunately delayed till considerable eminence had been attained, else the grandeur of Thebes had never astonished the world. Mr. Wilkinson, in his *Egypt*, has suggested that the priests were the sole artists; if so, we can better explain the objection to innovation, since among them reverence for antiquity and enforcement of religious ideas was likely to prevail over the fascinations of form. The jewels of Egypt, though primarily used as symbols of spiritual ideas, possess considerable precision of form. Blue earthenware, probably worn by the common people was, as has been said, formed

into necklaces, rings, and bracelets. The richer classes used gold, sometimes struck up into small figures, with an economy of material rivalling the skill of Birmingham, sometimes inlaid with turquoise, lapis lazuli, coral, or such like soft products; the outlines of the design being formed by the gold collets inclosing the stones, these being, according to their color, tastefully disposed, giving the first idea of mosaic work. Massive ornaments of gold were probably in vogue, for the Israelites must have possessed a large supply when they cast the golden calf, and the gold overlaying the ark has been computed at £156,118 value, probably obtained from no other source than the spoil of the Egyptians; but the intrinsic value of this manufacture generally hinders it from becoming the object of the antiquary's devotion. The drawings of Ramesis 2nd, from Beit-oually in Nubia, represent him wearing bracelets and armlets formed of plates of gold, about three inches long and one inch wide, strung on a blue web. To omit mention of their works in stone would be to neglect their chief excellence. Flowers of

the lotus, sphinxes, birds, &c., cut in cornelian, amethyst, sard, and jasper, strung as necklaces, with globular or cylindrical beads intervening, as in Roman Catholic rosaries, attest a very high excellence in the lapidary's art. The sphinx, being the compound of human intelligence and the lion's strength, was the emblem of royalty, it is presumed that its use was limited to the royal jewels. Lions' heads were objects of honor, for the flood of the Nile was at the full when the sun was in Leo. In the use of lions' heads as water-spouts, we retain the Egyptian custom, however little of the idea remains. The signs of the zodiac, referring to the agricultural events of the year, formed a collection of popular symbols. A star would suggest astronomical movements, and is the leading idea in the formation of almost all flowers: Cowley calls them "stars of the earth:" precious stones were generally disposed into stars. If ornamental form, for its own sake, were at all admired, it was chiefly in geometric figures, a taste cultivated by the physical necessities of the country; yet, even here, the symbolic association

was not forgotten; the square for strength, the circle for eternity, and so forth.

The mystic repose of Egypt awed without subduing the livelier characters of their pupils, and in some respects their colonists, the Greeks. Unsettled by the successes of King David, some of the inhabitants of Sidon, headed by Cadmus, migrated to Greece, carrying with them the knowledge of letters and the artistic skill for which they were famous. As early as Job the rotary motion of the earth is likened to the process of taking a cast from the ancient cylindrical seal. There are specimens in the Museum of some found in the ruins of Babylon, by which we may judge of the state of art among the early Arabians. Homer refers the manufacture of a prize cup of incomparable elegance to the Sidonians. The traffic existing between Phœnicia and Egypt, prompted Orpheus to visit Greece, and transplant there those refinements of civilization then flourishing at Thebes. To such sources may we trace the majestic current of Greek art. Athenian vanity, indeed, revolted against transmitted favors, and denied that "its

blood was kindred with the nations of the earth." The ladies of Athens wore golden grasshoppers in their hair, to denote their being, as those insects were fabled to be, born from the ground, while their monuments and the roots of their language showed their intimate connection with eastern nations. A fine climate and the infusion of adventurous spirits gave energy to the people. Aristotle pronounces imitation of nature to be the essence of the kindred arts of poetry, painting, and sculpture; and with no less than a perfect imitation was their active temperament satisfied till the divinity of form reached their apprehension and numbered them as its devoted idolaters. Men of genius made known the laws by which beauty exists, and the studios of Greece revelled in their power over human emotions.

Their statuary in the museums and their numerous engravings on gems in the public and private cabinets of Europe, give some idea of the industry of a nation of whom it was said that their images outnumbered their people. With a religion that embodied in human forms the attributes of Deity, the ex-

pression of passion in the human face was a devotional study, and the public eye became trained to a quick perception of the character told in each feature. The ignorant excesses by which the Egyptians and Arabians disfigured their faces were avoided. Arvieux, sent by Louis 14th to gain information about the customs of the Arabs, relates that it is a piece of gallantry among the natives to kiss their wives through the rings hanging from their nostrils, which are sometimes large enough to admit the whole mouth. We can easily imagine with what disgust such unnatural distention of the nostril would affect us in this country. The ladies of modern times have happily abated the corresponding barbarism of piercing their ears. By confining jewels within their proper limits, the objections of those who judge rather from the abuse than use would be removed, and a more healthful demand encouraged. Every feature of the face was felt by the Greeks to possess a peculiar grace: the forehead, eyebrows, eyes, nose, cheek, lips and ears were blended together into a divine presence, which it were profanation to disturb by any foreign addi-

tion. Chaplets of flowers around the head are frequently mentioned by Anacreon, as accessories, but the pearly necklace in his most lavish encomiums is alone permitted even to approach the sanctuary of beauty. Tutored by such models, simplicity and fitness were more esteemed than dazzling confusion of ornament.

The undulation of water, which has given its name to the line of beauty termed cyma, the architectural ogee; the spiral, which, from its frequency among shells, may be regarded as an elementary form of nature; the honeysuckle and the ivy, were their most frequent decorative forms, all distinguished by simplicity. The pomp of the acanthus was a foreign importation, and has been pronounced on respectable authority, viz., Evelyn's, to have been borrowed from Solomon's temple: though applied with exquisite refinement, it does not seem to agree with the severe judgment of the people so well as the simpler forms. Jewellery was with them a microscopic sculpture; their setting of gems was not successful, because little used, but their deities in miniature,

modelled in gold, surprise as well as please by their excellence. The buckles and clasps of which Homer speaks, were probably ornamented with mythological subjects: specimens are unfortunately rare. The scarcity of the general objects of jewellery of which we complain, seems recompensed by the numbers of their engraved rings which have escaped loss. The engraver's art enjoys comparatively little favor in this country; painting gives freer scope for force of expression and fulness of composition, and deservedly receives more conspicuous help; yet while exulting in the magical powers of Apelles, the Greeks were not forgetful of the more enduring nature of the works of Pyrgoteles. Eager for the fame of posterity, Alexander the Great forbad by an edict any other artist than the latter to engrave his likeness on precious stone. One of these gems became the property of the Roman Emperor Augustus, and may have been suggestive of, or auxiliary to, that patronage of art for which his era was illustrious. It is through an engraving on an emerald that we have the likeness of the founder of our reli-

gion; it was taken by command of Tiberius Cæsar, and became deposited in the treasury of Constantinople, whence it was given by the Emperor of the Turks to Pope Innocent 8th, as a ransom for his brother, then a prisoner to the Christians. Steel-plate copies of the gem are numerous. Not only have gem engravings been useful in determining facts of history or biography, but they have formed the school in which modern genius has been trained. Raphael is known to have been indebted to them for many graces of figure and expression which animate his productions. If posthumous fame be the just reward of great men, surely no more appropriate testimonials of esteem can be offered them than the execution of their likenesses on these imperishable substances. The oval form, as being that which bounds the range of vision, was used as the field on which their engravings were cut; and the principle by which their subjects were selected was the opportunity for showing some grace of person.

Under the voluptuous reign of Rome the primary uses of jewellery reappear, height-

ened by an application in which royalty still delights, as one of its privileges. This conquering people gave civil laws to the whole known world, yet reflected in their domestic habits the characters of the nations they subdued; their legions traversed the shores of the Persian gulf and brought away the barbaric splendor of the orientals as the trophies of their victories. The pearls of Persia, the rubies of Ava, the emeralds of Egypt, hung in unweildy magnificence around the necks of Roman matrons, forcibly denoting the geography of the Roman dominions. The skill of the general seems to have been measured, if we may judge from the emphasis of their historians, by the natural resources of the conquered country in some of the esteemed luxuries of the age. Cæsar dedicated a shield of British pearls to the temple of Venus, and Pompey returning from the subjugation of Mithridates, presented the jewel casket of the Persian king to the capital, and paraded a bust of himself covered with pearls in his triumphal procession. Nor had the vain pomp of wealth reached its meridian till a queen had out-

raged the uses of nature by swallowing a pearl of £5,000 value in a contest of extravagance with a Roman noble. Bangles jingled at the ankles of the ladies to give notice of their approach, that their servants might assume the attitude of respect; and in the words of Pliny the revenues of a lordship were absorbed in the simplest article of jewellery. No compromise of convenience for show disfigured the finger rings of the Greeks, but an ounce weight of gold was the customary quantity in a single ring among the inhabitants of the imperial city; when many rings were worn, the burden must have been great, and well justified their habitual changes of size and weight to the changes of temperature. Their satirist Martial condemns the effeminacy of the custom, without noticing the offence against the modesty of good taste involved in the practice. The subjugation of every nation worthy of their ambition had left them no other object of pursuit than the gratification of their self-esteem. To such low service was jewellery subject, its once inspiriting uses were forgotten or neglected.

Their early sovereign, Tarquinius Priscus, had used it as the reward of valor, giving to his son, but sixteen years of age, a gold pendant to be worn round his neck, as a token of his courage in having killed a man in single fight. To this example we may trace the origin of those orders of knighthood which military men receive from their sovereigns as honorary tokens, and the possession of which is even now the boast of a modern noble. The custom has spread beyond the bounds of Christendom. A gold ring on the finger was the dignity reserved for the highest class of victors. The golden crown might be decreed while the ring was denied. The patricians of Rome traced their lineage to the foundation of the city, and possessing riches and high spirit, threw a wide chasm between themselves and the plebeians; being insulted at the honors given to Flavius, a man of parts though of lowly parentage, in the 448th year of the city, they laid aside their gold rings; thus resigning that conventional honor which they felt had been violated, trusting themselves to their intrinsic worth for their position in

society. With the republic this jealousy of honor died, and though the law forbidding a plebeian to wear a gold ring remained till the reforming times of Justinian, its spirit had long since gone; wealth had become omnipotent.

The philosophy and poetry of Greece were the models of Roman learning, and her great men, notwithstanding their love of country, gave due honor to their instructress. Such remains of that people as betoken an appreciation of art, may be referred to their connection with the Greek colonies along the coast of Italy, which they successively subdued and engrafted on the empire. The name of the artist employed by Augustus to engrave a ring to be used as the imperial seal was Dioscorides, a name evidently Greek. Emblematical figures of the subjugated countries were their favorite devices on their jewels. Pompey had a ring representing three parts of the world, in which he had conquered. The plentiful use of the acanthus in their ornaments shows splendor to have been their prevailing passion; the idea of fitness was lost in fondness

for display. It is usual for historians to point to a love of luxury as the cause of a nation's fall, whereas it is from its deficiency that the dissolution of society arises. In the lower stages of progress personal decorations present attractions for the exercise of industry and present self-denial. The luxuries of one age are the necessaries of the next. For the maintenance of social health new objects of desire should be found, without omitting such as have become familiar. Where indolence or tyranny have quenched invention among the people, the term of the state's existence is measured. Jewels, in their due places, are valuable stimulants, and deserve encouragement as means of civilization, rather than contempt as signs of frivolity.

A new dynasty overran the shores of the Mediterranean, and the growth of oriental grandeur received further encouragement. That firm apprehension of beauty of outline and proportion, which the study of the human form promotes, was denied to a people whose religion forbad the representation of animals. The human face especially has a determinate

character: a hair's breadth divides similitude from caricature; a shadow distinguishes grief from joy; the portraiture of such differences must brace the powers of perception and execution. An abstract conception of human beauty was the deity which the Greeks worshipped. The confused crowd of their divinities were the models for exciting their delight; the artist outstripped the priest, and altars were raised to "unknown gods."

The Mahomedans, banded together on the truth of God's unity, overthrew polytheism and offered their adorations in mosques and palaces adorned with a bewildering complication of geometric figures and foliage; the vegetable kingdom supplied them with their decorations. Elegance of outline does indeed belong to flowers, but perfume and color are their chief properties. The Saracens extended their conquests from Arabia along the north of Africa to Spain, where their caliphs became the principal patrons of art and learning for some centuries.

The colleges of Cordova and Madrid were the schools of Europe, and the gorgeous palace of the Alhambra became the model

of a new style of architecture for Christendom, and has remained to this day the treasury of that class of ornaments named arabesques. In the elaborate tracery to be seen sculptured over the doorway of the cathedral at Rouen and other such buildings through the continent, the climax of this style of embellishment seems to be reached. The entanglement of intermingling lines baffles the attempt to grasp the principle of the composition, yet both in detail and as a whole a pleasing impression is produced. The tombs of Cairo exhibit every form of combination of which right-lined figures are capable. The Saracens converted the right lines into curves, adding gracefulness to mathematical precision. The principle of Saracenic architecture was the construction in durable materials of an edifice similar to the Arab tent; a pole supported the centre, and richly worked shawls formed the curtains around it. Every line in its structure therefore was graceful as the folds of drapery: occasionally the Persian lattice-work appears in the ground-work of the walls, giving variety to the composition.

There is a constant agreement between architectural and personal ornament. The knowledge of the idea embodied in the former assists to determine the meaning of the constituents of the latter;—and no style of ornament abounds more in modern jewellery than some form or other of the arabesque. A still more important service to jewellery accrued from the Mahomedan era. Mahomet was versed in the traditions of the east, and availed himself of every principle they contained to make his religion acceptable. In all ancient religions colors were symbolical; they fix the attention and influence the feelings. The extraordinary power of many of the senses of savages shows that a judgment, as to the influence of colors, drawn from our own experience, might be incorrect. It is probable that a more vigorous service of the senses existed among early nations, nor is it unlikely that better modes of education would greatly increase their power among us. The control of nature over the soul was therefore proportionably strong; even in modern times the condition of the senses, as dependent on external nature, decides the

customs of the country. In December's gloom Christmas festivities are held; the unkindness of the weather being the measure of social conviviality. In summer flowery fields invite to solitude and meditation; "sermons are found in stones, books in the running brooks;" the affections find objects in external nature, and in the general aspect of happiness man's spirit communes with the spirit of love. The brighter colors of flowers, the gayer plumage of birds, and the more marked character of the firmament and its orbs, must have more intensely affected the feelings of the native of an oriental climate. Colors thus became a science, with as definite laws as music, and by high authority were appointed to be the channels and incentives of those emotions which religion excites. Their significations were the same through all nations: light and darkness were the appropriate symbols of good and evil. The three primitive elements of light blue, yellow, and red, conveyed the ideas of truth, goodness, and love to the fathers of the human race. In the sky and sun they were the constant records of divine

agency. The redness of the rising and setting sun was the promise of goodness, the appropriate emblem of love—"and blushed celestial rosy red, love's proper hue," says Milton. The yellow of its meridian power was associated with its productiveness, and typified good. The unchanging blue of the firm vault of heaven signified constancy and truth. This however is but a collateral support, the true basis of the system is the agreement between our emotions and their influences. The triple bow, as Milton calls it, must have had a significance beyond what it now possesses: to the family of Noah it must have been a chromatic sonnet of celestial care. Adam, red, is the name given to the father of the human race. Except for some significance in color, man's name would be an exception to those of animals—the description of their natures. The meaning of secondary colors was determined by the combinations of the primary, but did not convey equally noble sentiments; accordingly, in early Pharaonic tombs and palaces, none but primary colors are traceable. In the Alhambra, where the motto, "Glory to

God," interspersed through the decorations, shows the purpose of the builder, the same selection is observed. A visit to the Egyptian rooms of the British Museum will show the application of colors to the portraiture of their deities. According to the colors of the planets, the Persians assigned to them good or evil influences. The Chinese Exhibition proves that colors are the tokens of rank in China. On the breast of each Mandarin is an animal worked on the outer garment, and enriched with a handsome border of scroll work, having the appearance of a breast-plate; the colors of the animals betoken the rank, probably the animal may do the same; the button and tassel on the cap is regulated in its color by the same law. The three primitive colors prevail. Blue is an especial favorite, and the same signification is attached to them, as has been already explained. Red was the imperial color at Rome, and death was the penalty for wearing it illegally, for it was regarded as overt treason. No people however, remote from the birth-place of civilization, was ignorant of these principles of nature. In the remote

isle of Mona, the sun-worshipping Druids held their esoteric mysteries, and thence spread through Wales, England, and Ireland, their imposing ceremonies.

The golden stone was the stone of sacrifice. Gold is yellow, and represents the splendor of the sun, or divine goodness. The diocese of Clogher, or the golden stone, so called from a Druidical temple once having stood there, perpetuates the sanctity of gold as a religious symbol. These Druidical temples, it may be mentioned, were built circular, with a trench around them, giving rise to the fables of the enchanted rings; at the cardinal points were pillars, the entrance was through a colonnade of nineteen stones, representing some astronomical epochs. In the Arab poem by Job, gold is more than once synonymous with the sun's radiance.

"Within thy days hast thou ordained the dawn,
And appointed the day-spring his post;
That they should lay gold on the skirts of the earth,
And evil doers be terrified away from it."

Dr. Mason Good's Translation.

Dr. Good confesses that he does not understand the meaning of the two last lines,

and the commentator Reiske on the same passage concludes, "*Fateor me non capere.*" Regarding gold as the symbol of God's goodness, the difficulty vanishes. To the different grades of the Druidical priesthood were assigned colors indicative of rank. The Druids wore white,—"The proud white garment which separates the elders from the youth," as Taliesin has it. The high-souled bards are described as wearers of long blue robes, and Taliesin again, speaking of the third class, the ovates, makes one of them say, "With my bright green robe possessing a place in the assembly." The coat of many colors is still regarded in the east as a charm against evil.

But in the gorgeous ceremonial of the Jews, the most perfect exposition of the principle is found. For glory and beauty is the reason added to the directions for the splendor of the service: glory referring to the ideas embodied, beauty to the senses. The minuteness of detail with which we are detained in reading the sacred writings belongs to the importance of the symbols. "Gems," says Bacon, borrowing from Al-

bertus Magnus, "are the gums of the earth, wherein appeareth the majesty of nature brought into a narrow room." They are the incarnations of color, and hold therefore a conspicuous place in the priestly vestments. The fathers of the church were read in ancient literature, their testimony is therefore valuable: St. Epiphanius, a native of Palestine, in the third century, wrote a dissertation on the twelve stones in the breast plate, assigning the opaque stones to the sons of the bondwoman, the transparent to the free, and further distributing each by color to the corresponding tribe, concluding that the urim and thummin was a diamond which best answered the description of light and perfection; the whiteness of the diamond comprehending in unity all colors, thus being the type of universal intelligence.

Pope Innocent's letter to King John of England explains the meaning he attached to the four rings which he sent as a present to the King: "Gold," said he, "signifies wisdom; the green of the emerald, faith; the blue of the sapphire, hope; the red of the ruby, charity; the yellow of the topaz,

good works." The painted windows of our churches and cathedrals are rich with this symbolic lore. St. John is dressed in green; green is the combination of blue and yellow, it typifies generation, and is thus illustrative of good works. The Virgin is dressed in blue, representing her spiritual life. If the wind blowing where it listeth be the fit image of the spirit,—blue, the color of the atmosphere, represents the spirit that leads into all truth. In the Anglo Saxon missals, the hair and beard are sometimes painted blue, and female locks are frequently colored green and orange. Mr. Planche, in his work on costume, attributes this to error; the more likely explanation is its symbolism. Even now the Bedouin Arabs daub their faces with blue as a charm against evils. (For a fuller explanation of the science of colors, the reader is referred to *Mons. Portal sur les couleurs symboliques.*)

It may perhaps gratify the curious in archæology to reproduce a poem on the foundation stones of the New Jerusalem as described in the Apocalypse. It is printed in a work by Marbodæus, *On the Stones of*

the Breast Plate, published about the year 1500; the metre is interesting from the chant in which it flows, and as a specimen of the monkish style of rhythmical composition; it gives also an insight into that melancholy and its cure, which monastic seclusion and services foster,—and in such studies as these we find the fountains of those "inward refreshings" by which life and its attractions were held mean, when principle demanded allegiance.

Cives cælestis patriæ, regi regum concinnite,
Qui est supernus opifex civitatis Uranicæ,
In cujus ædificio talis extat fundatio.

DE JASPIDE.

Jaspis colore viridi præfert colorem fidei,
Quæ in perfectis hominibus nunquam marcessit penitus,
Cujus forti præsidio resistitur diabolo.

DE SAPPHIRO.

Sapphirus habet speciem cœlesti throno similem,
Designat cor simplicium spe certa præstolantium;
Quorum vita operibus delectatur et moribus.

DE CHALCEDONIO.

Chalcedonius pallidam ignis habet effigiem,
Subrutilat in publico fulgorem dat in nubilo;
Virtutem fert fidelium occulto famulantium.

DE SMARAGDO.

Smaragdus virens nimium dat lumen oleaginum,
Est fides integerrima ad omne bonum facula,
Quæ nunquam scit deficere a pietatis opere.

DE SARDONYCHE.

Sardonyx, constans tricolor homo fertur interior,
Quem denigrat humilitas in quo albescit castitas,
Ad honestatis cumulum rubet quoque martyrium.

DE SARDIO.

Sardius est puniceus cujus color sanguineus,
Ostentat et martyrium rite agonyzantium,
Sextus est in catalogo crucis hæret mysterio.

DE CHRYSOLITHO.

Auricolor crysolithus scintillat velut clibanus,
Prætendit mores hominum perfecte sapientium,
Qui septiformis gratiæ sacro splendescunt jubare.

DE BERYLLO.

Beryllus est lymphaticus ut sol in aqua limpidus,
Figurat vota mentium ingenio sagacium,
Quis magis libet sumere quietis otium pulchræ.

DE TOPAZIO.

Topazius quo rarior est tanto pretiosior
Nitore rubet roseo et aspectu æthereo ;
Contemplativæ solidum vitæ monstrat officium.

DE CHRYSOPRASSO.

Chrysoprassus purpureus auricolor et flammeus,
Cujus splendor in tenebris flammas evibrat oculis,
Hic est perfecta charitas quam nulla sternit feritas.

DE HYACINTHO.

Hyacinthus est cæruleus more medioxinus,
Cujus acuta facies mutatur ut remperies,
Vitam sumit angelicam discretione præditam.

DE AMETHYSTO.

Amethystus præcipuus colore violaticus,
Flammas emittit roseas, et violas purpureas,
Prætendit cor humilium chaste commorientium.

Quid significent ii lapides pretiosissimi?
Hi pretiosi lapides carnales signant homines,
Colorem est varietas, virtutum multiplicitas.
Quicunque his floruerit, congruus esse poterit;
Hierusalem! pacifica hæc tibi sunt fundamina;
Felix et Deo proxima quæ te meretur anima,
Custos tuarum turrium non dormit in perpetuum.
Concede nobis, αγιε, rex civitatis cælicæ,
Post cursum vitæ labilis consedere cum superis.

The subjoined translation, though not professedly literal, gives, it is hoped, a sufficiently correct report of the author's meaning to suit the use of the general reader, and may perhaps obviate the necessity, in some instances, of disturbing the accumulated dust resting on Ainsworth :—

Ye freemen of heaven, in unison sing
The praise of your founder, the all-ruling King,
While the stones of your city their radiance fling.

OF THE JASPER.

In jasper's green see faith's array
Unfading through the wintry day,
Though Satan rave, unmoved her stay.

OF THE SAPPHIRE.

Blue sapphire, like the heavenly throne,
Shows suppliants girt with hope's firm zone,
Joying in noble deeds alone.

OF THE CHALCEDONY.

Chalcedony, whose pallid flame
In silence gleams, but shrinks from fame,
Shows secret virtue's lofty aim.

OF THE EMERALD.

The emerald, of the olive green,
Is ripened faith's illuming sheen,
Which lights to duty's rugged scene.

OF THE SARDONYX.

Sardonyx, in thy triple hue,
The lowly pure and brave we view,
E'en in the martyr's trials true.

OF THE SARD.

The punic sard of bloody die
Shows martyrs in their agony,—
The crucifixion's mystery.

OF THE CHRYSOLITE.

The chrysolite, of golden blaze,
Betokens wisdom's sunny ways,
Where friends exchange the grateful gaze.

OF THE BERYL.

The beryl, like the sparkling tide,
Denotes how genius loves to glide
Where self-created fancies guide.

OF THE TOPAZ.

The costly topaz, hard to seek,
Like rosy blush on angel's cheek,
Doth contemplation's calm bespeak.

OF THE CHRYSOPRASE.

The chrysoprase, with yellow light,
Still kindling most in blackest night,
Tells charity's unwearied might.

OF THE HYACINTH.

Blue mixed with green the jacinth holds;
In changing hue the eye beholds
Angelic love in wisdom's folds.

OF THE AMETHYST.

The purple amethyst displays
In rosy flames and violet rays,
The heart that Christ for succour prays.

What mean these stones that priceless shine?
Their varied tints form virtue's crest.
Right is his heart where all combine.
Salem! on these thy temples rest;
Happy the soul who wins thy gate,
Sleepless is he that guards thy towers;
Grant us, O King, complete life's date,
To rest with thee in heavenly bowers.

It is necessary to observe, that, from the want of the analytic knowledge of the elements of minerals, much confusion exists among the ancients in the names given to stones; different shades of color of the same gem being called by different names. This and such errors as have arisen from ignorance even of this system, have created a large field of controversy among biblical commentators. It is not particularly interesting to revive the discussion in this place; a suggestion however as to the false nomenclature of one or two of the above may perhaps facilitate the exposition of his meaning, of whom it may be hoped that he is now realizing the splendor of his vision.

The beryl is probably the aquamarine; the hyacinth most likely refers to the tourmaline, whose optical properties are so interesting a phenomenon.

Colors being the characteristic of gems, we see the propriety of pearls being used as parallels of Christ. St. Augustine explains the parable of the merchant selling all his pearls wherewith to buy one, as the Jews resigning the prophets for the superior claims

of Christ, and in spite of an admitted objection to allegorizing, there is throughout the fathers a continual acknowledgment of this symbolic meaning of pearls; no doubt can therefore exist but that colors held a significance which they have now lost; but, if further proof were wanting, it might be found in the universal belief, in the power of precious stones over bodily and spiritual ills, which the Arab dynasty introduced into Europe. Evax, king of the Arabs, wrote to the Emperor Nero a treatise on the habitat, quality, and virtues of precious stones; and so widely had the conviction of their power spread, that Boyle judged it must have foundation in truth; he accordingly made many experiments to determine the mode of their formation and composition: he described gems as being formed by filtration through the rock, of their respective constituents in a state of solution, into some cavity of the matrix rock, where crystallization took place. As to their curative powers, he concluded that, as we did not fully know the nature of the human frame, it was not contrary to sound reason to accept universal

testimony, though inexplicable. His book on the virtues of precious stones made much noise in the world, and passed through three editions, in a Latin translation, on the Continent. The constant tendency of symbols to be exalted into causes, supplies an easier solution of the wide-spread superstition. The following are some of the virtues attributed to stones, as borrowed from a Persian manuscript, translated by Raja Kalikishen, in the *East Indian Magazine,* in which the similarity between the virtues of the stones, and the ideas which they originally represented, will even now be traced.

Diamond preserves from lightning, cures madness and vain fears.

Ruby purifies the blood, quenches thirst, dispels melancholy, insures honor and competence.

The Emerald averts bad dreams, gives courage, cures palsy.

The Turquoise, in its Persian name, "Aber Is'hagi," "Father of Isaac," contains reference to a mental principle, particularly valuable, since at Nishapur, in

Khorasan, is the only known turquoise mine in the world. It brightens the eyes, and is a remedy for the bites of venomous animals.

And in other traditions it is maintained, that

Pearls refresh the spirits and obviate passions.

Sapphire preserves from enchantments.

Chrysoprase will make one out of love with gold.

Agates preserve from tempests.

Amethyst prevents inebriation.

Corals change color with the mind of the wearer.

One general condition belongs to all, viz., that by good men only can the beneficial influences be received.

The virtues of plants were attributed to the operation of nature, but a special divinity was thought to emanate from stones.

Though the revival of such belief seems inconsistent with the advance in learning, which closer observation of natural laws has effected, yet it is not beneath the notice of

philosophy to trace an error to its roots, and explain its existence.

The language of flowers is familiar to all. In the harems of the Mahomedans it was brought to perfection. The secret correspondence of the captives was through the medium of colors.

> In Eastern lands they talk in flowers,
> And tell in a garland their loves and cares;
> Each blossom that blooms in their garden bowers,
> On its leaves a mystic language bears.

Heraldry employs colors to signify character.

For the revival of this higher principle in the use of jewellery, Europe is indebted chiefly to the Mahomedan conquerors of Spain.

The merchant princes of Venice maintained an intimate commerce with the East and Spain, and indulged their ambition with all the magnificence colors could supply. Glass was substituted for gems, and enamel for many centuries was introduced into all jewellery; Venetian enamel is still the most esteemed, for an art of producing color is

there known, which other countries cannot equal. In the Geological Museum is an interesting specimen of early enamel, representing St. Paul, date about 1000. The blending of different colors in successive firings was not then known. During this symbolism the arts of design languished; King Alfred and Charlemagne endeavored to revive them, but with the loss of their patronage they again drooped. The former sent to every cathedral a stylus in enamel, of the value of £20, together with a translation of St. Gregory's Pastoral. He hung bracelets of gold in the highway, as a proof of the strict scrutiny of the law and the good discipline of the people. His amulet in the Ashmolean Museum, Oxford, contains a figure of the Virgin in an enamelled border, enriched with scrolls in a formal, yet not inelegant style of work. Charlemagne encouraged the use of jewels both by money, example, and design. He wore a crown of his own design. On state occasions he was dressed in a tunic interwoven with gold, and a mantle fastened by a gold brooch; his shoes were adorned with gems, his belt was of

gold, and the hilt of his sword composed of gold and precious stones.

The early British race had ornaments of gold, which they might have found in Wales or Ireland, where even now it is procured; but it is more probable that their eastern origin still caused a communication with the regions where it abounds in more plenty. Torques, or collars for the neck, are occasionally found in the earth; in the museum of the Dublin University are two of about the value of £100, of a horse-shoe form, with conchoidal termini. The substance of the gold is cylindrical; they were found deep in the earth in that country, but lest the law of "tresure trouve" should balk the finder of his prize, the place where is not known. They are ornamented with small circles covering the whole surface, neatly engraved. Twisted wires were also formed into bracelets and collars; the usual surface ornament was an imitation of rays of the sun, as in Persian decorations. The gold is always nearly fine; if alloyed, the yellow color is lost. The Indians, even in the midst of general depression, still keep their gold

but little alloyed, probably for the same reason. The copper-colored gold lately in use in England, would have excited their contempt.

Roman civilization introduced goblets of gold, and a more extensive application of jewellery to the purposes of dress. The thorn from the hedge, which to this day the Welsh use for a pin, was supplanted by the fibula and brooch. Vortigern is described as drinking to Rowena in a gold cup.

> The king said as the knight gan ken,
> "Drink hail!" smiling on Rowenen.

History records that Augustine brought artificers in gold as members of his suite on his mission to this country, and presented gold vessels to the churches he established. The Saxon clergy must have travelled to Rome for education and directions; and of course would not neglect such prominent necessaries as the sacramental utensils. St. Dunstan was a goldsmith, and was at his furnace melting when the fracas occurred which the legend commemorates. A gold ring was found at Carnarvon, date 816,

weighing an ounce, supposed to have belonged to a bishop in that district: the pattern is a lozenge and circle alternately, in the lozenge is the dragon of Wessex; it is covered with enamel of fine quality, and the workmanship is true and square.

Offa, king of Mercia, placed a diadem on the skull of St. Alban when discovered, in 796. Edward the Confessor's tomb being opened in the reign of James the 2nd, was found to contain a crucifix of pure gold, richly enamelled, suspended to a chain 24 inches long, fastened by a locket of massy gold, with four red stones in it, and a diadem round his head, one inch in width. Such instances shew that at least among the kings and clergy the Anglo-Saxon period held some acquaintance with jewels. From the time of the invasion of the Normans, for some centuries, Paris became our guide in fashions for jewellery. In the old assay statute of the Goldsmith's Company, Edward I., 1300, reference is made to the Paris standard, denominated the touch of Paris, alluding to their practice of determining the value of gold by its touch of

hardness or softness on their stone. The Indians to this day use this method for testing fineness. Needles of different alloys are kept by them as standards, and by practice they can arrive at a judgment within five shillings per ounce. Gold work of Paris was also the phrase for superior execution. Among the people jewellery became associated with religious thoughts. The struggle of a saint over temptation was illustrated by St. George destroying the dragon, and rescuing the king's daughter, the church; his military accoutrements figured the panoply of faith.

St. Christopher, of a giant stature, staff in hand, wading through a stream, with Christ on his shoulders, was the emblem of the firmness and energy of the mind charged with Christian hope. The monagram of the holy name was also among the ornaments which the allegories of the church supplied. Chaucer's yeoman had,

> "A Christofre on his breast of silver shone."

The nun wore,

> "A broche of gold ful shene
> On which was first y written a crowned *A*
> And after, *Amor vincit omnia.*"

The monk,

"He had of gold y wrought a curious pinne,
A love knot in the greater end there was."

On the tombstone of Madoc, Prince of Wales, in Myfod church, date about 1100, are lovers' knots, forming an ornamental border round a crucifix.

The fanciful temperament of the Norman nobility was not content with such ornaments alone; jewels and gold in every device that Saracenic invention could furnish, adorned their garments and their tombs.

In the Geological Museum is a model illustrative of the truly gorgeous spectacle which the tomb of William de Valence, senior Earl of Pembroke, half brother to Henry 3rd, who died in 1304, presented. Tombs and altar-pieces are the connecting links between architectural and personal decorations. Enamel and gold, with gems interspersed, tell the pomp with which the feudal nobleman moved. The effigy of William de Colchester, Abbot of Westminister, in the abbey, will show the intense splendor which was cultivated at this time. Gold bracelets with two rows of pearls as the borders and

stones between set in the form of crosses are on the two arms, and his mitre is wholly covered with pearls of large size; the frame work being gold, with alternate crosses and stars formed of precious gems. In the livery which domestic servants wear at this day we have the remains of their grandeur; it is no longer the sign of relationship and friendship. The party-colored dress has lost its token of clanship and is but at present the badge of mercenary servitude. The infection of splendor reached the cities and their guilds were

> "Y clothed in a livery
> Of a great and solemn fraternity."

Black is still the emblematical livery of death; other colors have lost their significance. The Puseyite controversy turned on the black or white gown in the pulpit; the latter being the priestly vestment, therefore authoritative; the former academic, therefore human.

In the year 1453, Constantinople was taken by the Turks, and the inhabitants of Morea took refuge in the free cities of northern Italy, bringing with them what yet re-

mained among them of Greek art. Fortunately there ruled at Venice men who could appreciate this accession to their country's wealth, and with means equal to their desires.

The Medici family have found in their patronage of art and homage to genius more fame than their princely revenues alone could have brought them.

Lorenzo formed an academy of letters and a museum of antiquities. The study of figure, which mysticism had supplanted, again revived; classical fables were the subjects of the modeller's skill, and the pages of Homer or Virgil supplied the stories with which the sacred vessels of the Roman church were beautified. Bishops of Spain disputed with the merchants of Florence as to the services of distinguished artists, and the pope granted an easy pardon for murder or the worst offences as the bribe for priority of attention from the most accomplished goldsmith. Commercial wealth had reached its zenith, the clergy had lost their esteem for their own occupation, and both found a new and satisfactory excitement in that outbreak of genius which ushered in the fifteenth cen-

tury. Among those whose names have obtained an European celebrity is Benvenuto Cellini, a goldsmith of Florence; his life, written by himself, explains how much he was indebted to the antique gems for his success. Laborers from Lombardy came down to the southern parts of Italy to work in the vineyards, and frequently found in the soil exquisite engravings. While working at Rome, Cellini bought many of them and took them as his models in form; so great was his celebrity that Francis 1st of France sent to engage him, but his offer of payment was so low that it was refused with somewhat of contempt. Francia, whose pictures are in the National Gallery, was another eminent goldsmith. The style of mounting of an emerald brooch in the painting of Pietro Perugino, has suggested to modern jewellers the pattern of mounting called the coronet: he preceded Cellini, and had not the advantage of association with the great artists, Raphael and Michael Angelo, whose ideas doubtless assisted Cellini to reach his exquisite grace. A freer style is now discernible; mastery over the difficulties of execution

gave scope for the excursions of fancy. All cities rise in their level; deep excavations in London occasionally expose ancient tesselated pavements; the public baths and halls of ancient Rome are as the vaults beneath the modern city. Energy in pursuit of new designs explored their decorations, and restored the combinations of human and animal form and foliage with which they were embellished. The grotto or cavern style thus gave name to the grotesque.

Foliage of chicory leaves, with flowers of echites, prevailed at Florence; the work of Lombardy was enriched with foliage of ivy, and Rome encouraged the more sumptuous decorations of the acanthus. Scarcely a portrait can be seen of the 15th century without rings on the fingers, and the gem engravings of that date rival the antique. To give the best effect to a brilliant or other gem in its setting was the study of men of the first abilities. Symbolism was worn out, sensualism revelled in its perfection.

The tide of taste which rose in Italy rolled through the continent, and passing through Holland reached England, tinged with the

heavy character of the people from whom we derived it. The squareness which the solid character of the Dutch favored was blended with the lines of beauty which delighted the more imaginative southerns. Accoutrements of leather substituted the silken drapery of Italy and thus was formed that style which we term Elizabethan. Never were jewels more gorgeously displayed than on the person of the virgin queen, nor did they fail in creating political results. If Spain paraded her imposing spectacles, if Holland boasted of her treasures, if Venice plumed herself on her oriental grandeur, England need feel neither shame nor jealousy, for Elizabeth outshone them in magnificence. Pearls beamed in triple row around her neck; emeralds, sapphires and rubies shone in her head dress; diamond stalactites glittered from her ears, and her stomacher blazed with a well-judged combination of the most perfect colors arranged in those tasteful forms that Holbein had designed or suggested. The British Museum contains a series of designs for articles of jewellery which that eminent painter produced for the wives of Henry 8th. They

are such as even now would be accounted fashionable. Charles 1st was a patron of art and an admirer of jewels: in 1638, says the Fœdera, he gave his bond to Sir Paul Pindar, the eminent merchant of London, for a pendant diamond cut faucitwise, weighing 21 carats, for the sum of £8,000, which that famous merchant had paid for it: eight per cent. was to be paid for the capital and the money was to be returned in four years: the alum duty was assigned for its liquidation. It may not be out of place to mention that the fatal ship money was raised for completing the ornamental works of the ship called the "Royal Sovereign." The expense had exhausted the royal treasury, and still the work was incomplete: gilding and sculpture of allegorical figures enriched the upper works as became the ruler of the seas. The object was more noble than the means for its attainment.

Civil dissension disturbed the progress of art in this country. The ascendancy of the puritans and the still remaining influence of their habits and principles, checked the desire for symbolic ornaments and those that de-

light the fancy. An edict at the reformation attached the penalty of death to any that might be convicted a second time of carrying an image. The promotion of decorations in France, consequent on the example of Italy, reached its zenith under the auspices of Louis XIV.: no difficulties of execution hindered the artists of that period from the expression of their ideas; every element in nature became contributory to their designs. Flames of fire, wreathings of smoke, billows of the seas, shells, foliage, animals, cascades, drapery, suggested forms which entered into their combinations.

Better acquaintance with India furnished Europe with filagree jewellery. The want of mechanical skill among the Indian workmen which prevented them from forming such patterns as they wished in solid metal, prompted the invention of gold thread as the means of effecting their purpose, by coiling it into the required pattern and soldering the coils together. This style, however, commends itself not only for facility of production, but for the elaborateness of beauty which it discloses. An infinitude of

graceful lines, the more prominent of which may be marked by small globules of gold soldered on the surface or separating the sections of the pattern, give the ornament the appearance of having been worked rather by the hand of nature than man.

The most noble and costly of all ornaments is the crown, adorning the most conspicuous part of the person and the most exalted person in the state. From the east we received the scale of social classification, and with it the distinctive badge of authority. Imperial crowns in Persia and neighboring countries are circles of gold enriched with rays as of light, representing the sun; the less despotic relation of our early Saxon kings to their subjects was sufficiently expressed at first by the circle of gold only; increased ornament resulted from increased wealth; leaves were added as in triumphal crowns of old, and the flower of the lily or *fleur de lis*, a flower sacred to the virgin, distinguished the king of France from his dukes. King Egbert added the rays to the crown, King Edward Ironside tipped them with pearls, William the Conqueror, as Duke

of Normandy, introduced leaves and crosses (the tokens of religion) among the points, Edward III., for distinction between himself and nobles, substituted the royal bearing of France, of which country he claimed sovereignty, viz. *fleur de lis* for the leaves, and the royal crown of England has since then been enriched with crosses and *fleur de lis*. The ray-like coronet was handed down to viscounts, earls, and barons. Henry VIII. had two arches intersecting in the form of a cross added to the crown, and a mound or orb, expressing universal rule, was placed on them surmounted by a cross. The mound in our crown was one stone, an aquamarine; in one of the crosses is a ruby, value £10,000, presented to the Black Prince by King John of Portugal. Since this time no alteration has been made in the form: successive sovereigns have had the stones remounted to fit their heads.

Rings are also favorite types of royal consecration. Their form is the emblem of eternity. In the antient pictures of Prometheus, says Pliny, he is always represented with an iron ring. If fate willed that the throne and

crown must be left behind, yet the coronation ring was entombed with its wearer. Richard II. directed that a ring set with precious stones, value 20 marks, should be buried with him according to royal custom. On opening the tomb of Matilda, wife of William the Conqueror, a sapphire ring was found buried within, and in that of Childeric, King of the Franks, was found his coronation ring; facts sufficiently explaining the term of the edict *more regio*. Reference has already been made to the jealousy with which the use of gold rings was guarded in ancient Rome. Even the bridegroom might only send an iron ring to the bride, as the token of espousals. The use of a ring in our marriage ceremony conveys the idea of eternity in the contract. Hannibal illustrated the slaughter of the Roman knights by causing their rings to be collected; they filled three measures, being in number 5,000, and were sent to Carthage as his trophy. Some interesting passages in history turn on the use of the ring as the pledge of friendship.

Elizabeth's vow of constant favor to Essex

was embodied in a ring; with what ill consequences to the latter is well known. Shakespeare's description of the alarm among the nobles on Cranmer's showing the king's ring, will enhance the honors of a ring and confirm the practice of the gift of a ring as the best testimony of regard.

In the east rings are even now used in mercantile transactions. Each merchant has his signet, and his seal is the equivalent to our signature. In our own day, a legal instrument under seal is a higher legal security than one signed or under hand only: the former is called a specialty, the latter a parol or simple contract. As a protection against the dangers of a counterfeit seal, engravers in the East are forbidden to copy a seal, and all that they execute are registered: if the seal be lost, notice is given to all correspondents that in future the writer's seal will be of a specified character.

An attachment to heraldic distinctions, a laudable instinct of our nature, corrective of much ill, creates a large demand for signet rings in this country. The early Saxon triangular shield, the Spanish square but

rounded at the bottom, the lozenge and antique oval, or the more ornately bordered shields of Henry VIII.'s time, afford variety to the jeweller in the manufacture of rings, as shields for engraving, and meet the varied tastes of wearers. Rings are also worn as memorials of deceased friends. In 1487 Sir Edward Shaw, alderman and goldsmith, of London, directed that sixteen mourning rings should be made with the well of mercy, the well of pity, the well of everlasting life, portrayed thereon; doubtless referring to the wounds of Christ. Rings were also worn as amulets. On an ancient ring, found about twenty years ago, (and for this and many other facts throughout this paper I am indebted to the Archæologia,) is an engraving of our Saviour on the cross, with the emblems of his passion, wounds in his sides and limbs, with this motto around it, "*vulnera quinque dei sunt medicina mei.*" Marcellus, a physician in the time of Marcus Aurelius, recommended a gold ring to be worn for a pain in the side; Trallian, another physician of the fourth century, advises their use; even Galen re-

commends a ring with the figure of a man, engraved on jasper, for some malady. Rings of gold cured St. Anthony's fire. In the Earl of Aberdeen's museum is a ring with a Runic inscription referring to this belief. The Latin motto runs thus: "*Febriculus vel leprosus lætus in morbo.*" In a crusader's ring, found in the palace of Eltham, in Kent, is the following inscription,

"Qui me portera exploitera,
Et a grand joye reviendra."

"Who wears me shall perform exploits,
And with great joy return."

The charm of rings against danger is still a portion of a sailor's faith; nor let the reader start with wonder at the credulity, for perhaps he will find a galvanic ring on his own finger.

Cameos and mosaics are materials for brooches. A paper read before the Society of Arts, and shortly to appear in their transactions, gave a statement interesting, both for novelty and commercially, of the manufacture of cameos in Paris from West Indian shells. This trade has been raised within the last forty years, and thousands are now

employed in the production of artistic beauty through the medium of brooches made of these ornaments.

The plan on which Roman mosaic pavements are constructed, obtains on a smaller scale in the composition of mosaics, for which Rome is noted; beautiful miniature paintings, tinted with extreme delicacy, are formed by small blocks of colored enamel, connected together with invisible joints. These and cameos in gold borders of scroll or other patterns, form the most prevalent fashion for brooches.

Gold chains are also tokens of authority. From the investiture of Joseph in the days of Pharaoh, to the installation of the Lord Mayor on the last 9th November, their honorary character has been acknowledged. The splendor of effect which is now produced on the surface of gold, by polishing it on a metallic plate, renders chains both honorable as the insignia of rank, and pleasing for their beauty.

The diamond is the chief of stones, the hardest and most luminous, even phosphoric in the dark. Among the ancients the perfect

crystals were alone valued. They were not aware of that property which enables modern diamond workers to produce such brilliancy, viz., the use of its own powder as the cutting agent; many stones which, with our skill, are of enormous value, would have been rejected by them. Though said by Pliny to be so hard as to indent the hammer that strikes rather than break; in the direction of its axis of crystallization, it fractures readily. This quality is used in the first stage of manufacture. It was in the year 1476, that Louis de Berghem, of Bruges, first discovered the property of powdered diamonds and the mode of application. Roses and table diamonds were the only kinds that he produced. The most perfect shape for reflexion and refraction of light is that which is called the brilliant, being two truncated pyramids united at their bases. The upper bearing to the lower in height above the girdle or line of junction the proportion of five to ten, leaving the plane of truncation, or the culet of the lower pyramid, one fifth the superficies of the upper, or as for distinction it is termed the table. The sides of

the upper pyramid are covered with triangular facets; those which have their base on the base of the pyramid are called skill-facets; those radiating from the table are called star-facets. These in a well cut stone meet half way down the sides. The lower pyramid is similarly treated; the skill-facets being to the culet facets as three to two in length. This is the best form for bringing out the brilliancy of the diamond; if the sides are too perpendicular, the light is radiated from the eye of the spectator; if too horizontal, a flatness of lustre arises, for the light passes more easily through the crystal in the direction of its poles than transversely through its laminæ; it is therefore in a thin brilliant less reflected. Experience has found that the discovery of larger diamonds bear a fixed proportion to that of smaller, so that the price is regulated accordingly. The rule of calculation being that as the square of the weights so must be the value. So jealous are the Indians of the size of their diamonds, that when they work them they make the facets follow the form in which the stone is found, be it a perfect or

imperfect crystal; but rather than this small loss, they frequently are content with them unwrought. Stones of extraordinary size are claimed as the property of the Prince, and transmitted as heir looms through generations; a small dot being made in some part of the stone by each possessor. The finest collection of gems in the world is in the possession of the Shah of Persia, obtained by the plunder of Delhi about two centuries ago. Cardinal Mazarin, in the reign of Louis XIV., was the first who wore a brilliant. This truly scientific arrangement is therefore but of modern invention. Extraordinary value attaches to some diamonds. The largest diamond in the world is in the possession of the Great Mogul, in form and size equal to half a hen's egg, weighing about 700 carats, supposing it to be worked and fine, giving £8 as the value of a single carat stone, and applying the rule of geometrical progression the result is enormous. The next in size is the Brazilian diamond, in the possession of the king of Portugal, weighing 215 carats. The third is an oriental diamond, bought by Catherine,

Empress of Russia, for £90,000, and an annuity of £4000. The fourth is the Pitt or Regent diamond, bought by the Duke of Orleans for £100,000, now in the crown of France. To those of merely material conceptions such values may be indications of folly; but to those who regard gems as symbols of ideas, as without doubt they have been, and even now are held, money seems but a poor parallel. The supplies of Europe are chiefly drawn from Brazil. The famed mines of Golconda are no longer worked, and but a limited quantity, in value about £100,000 per year, is still sent from Allahabad in Hindoostan. The great influx of diamonds which followed their discovery in South America alarmed the holders about the year 1735, lest diamonds should become as plentiful as pebble stones. They fell greatly in value, but have since regained their worth, and have for years maintained a value rather increasing than diminishing with the growing wealth of the world.

The preamble of an Act of the 6th, George 2nd, states, England being the market for diamonds and precious stones, whence most

countries were supplied, and great numbers of rough diamonds being sent from abroad to be cut and polished here, which is a great advantage to the nation, and there being reason to believe that the trade would increase if the importation were free, be it therefore enacted that the duty be removed. The decline in prices had probably begun to be felt, and help was sought in legislation, though fruitlessly, for Holland has taken the whole trade; her water power giving her advantages which we have not, though the old English stones were cut with far better judgment than is shown in the modern Dutch ones.

As the diamond is the noblest of minerals, gold is the noblest of metals. The mixture of muriatic and nitric acids, by which alone it is dissolved, is called aqua regia, from its honorable service. Its distinguishing property is the extreme subdivision to which its atoms can be carried. To speak of its ductility would be but to repeat a well-known wonder, in a word its divisibility is best shown by its being used as a transparent varnish over the daguerreotype pictures. As com-

pared with other products, its tendency like diamonds is to rise in value. The supplies from Russia, which has but lately known its treasure, prevents the difference in value from being clearly felt. In the "Encyclopædia of France" by Diderot, is a statement of the various modes in which gold can be colored by alloys to imitate natural objects. The processes of artificial coloring to which gold is subject in ordinary manufacture are there explained.

The further detail of the materials of jewellery would draw out this paper beyond its assigned limits. The reader is referred to a promised work by the eminent mineralogist, Mr. Tennant, on minerals, as applicable to the jeweller's use. An enumeration of some of the leading stones, with such parallelism as in modern days is frequent, has been selected from Dr. Croly's "Catiline."

"You shall have all that ever sparkled yet,
And of the rarest: not an Afric king
Shall wear one that you love. The Persian's brow,
And the swart emperor's by the Indian stream
Shall wane beside you. You shall be a blaze
Of rubies, your lips, rivals; topazes
Like solid sunbeams; moony opals;

> Pearls, fit to be ocean's lamps ; brown hyacinths,
> Lost only in your tresses ; chrysolites,
> Transparent gold ; diamonds, like new-shot stars,
> Or brighter, like those eyes. You shall have all
> That ever lurked in eastern mine, or paved
> With light the treasure chambers of the sea.

The jewellery of modern days is distinguished for an exquisiteness of finish which no former time has produced. From every style which the particular character of preceding nations has created, we are at liberty to borrow. The symbolism of Egypt, the elegance of Greece, the pomp of Rome, the mazy beauty of Arabia, the airy grace of Italy and France, are pressed into our service ; and though it must be confessed that the more imaginative Parisians excel in variety of pattern, yet even their patterns receive improvement at the hands of the English workman. The Goldsmiths' Company exercises a small authority over the trade, but their surveillance is limited to the quality of the gold. Their noble resources would scarcely be diminished by the formation of a museum of ancient jewellery, valuable as a school for the apprentices of the trade and instructive generally in the history of art ;

for jewellery is the mirror of the public feeling. In the late plethora of wealth connected with railways, gold chains of extremely massive make came into fashion, and with the reaction have lost their dimensions. In the institution of a museum they would but follow the example of some of the more noble of our aristocracy, with whom the trusteeship of property is so clear a principle that their mansions, replete with those works of art which wealth alone can obtain, are, under due regulations, open to public inspection.

No one in this country has done more to enhance the importance of this manufacture than the late firm of Messrs. Rundell and Bridge. Their capital and judgment was employed in bringing the raw materials from the mines abroad, and by their liberal employment of the highest taste, jewellery was produced of such magnificence as had never before been seen in the trade.

Such is a cursory exposition of the materials, forms and ideas contained in this comparatively unnoticed manufacture, jewellery. If modern rationalism object to some

of the principles here exhibited, let it remember that it shuts out so many sources of pleasure, so many impulses to good; and if the appeal to antiquity be considered overstrained, why, we ask, may not a science of colors be now for the first time constructed? While public buildings are being decorated, through means of colors, it would surely be a wise extension of the system to make them the vehicles of ideas. The love of nature has formed the theme of many in prose and verse, commended always for its purifying influences: similar in result is the fondness for jewellery, judiciously selected; for the jewel casket presents perennial recollections of objects and ideas which pass away with the times and seasons. Titles of honor are regarded as ennobling their owners by urging them to be equal to their pretensions. Jewels, rightly judged, will operate similarly; for with the principles here brought to light, the tiara of diamonds becomes the symbol of and incentive to virtue, and the use of artificial gems a still grosser hypocrisy. The slow elaboration of nature by which, from the rude mountain mass through the lapse of

ages, the perfect gem is crystalled, becomes invested with a more than scientific interest,

"Parturiunt montes nascitur '*gemma refulgens.*'"

And the jeweller again rises to be an auxiliar in that service by which man's nature is most truly ennobled.

As in our lofty cathedrals the display of splendor excites respect, and the profusion of beauty delights the imagination, preparing the mind better for that service for which the building was reared; so the vanity to which jewels might minister, from their value or beauty, will be lost in the elevating influence of those higher principles which are their true intent.

FINIS.